SHSI Series V

Accounting Systems

Professional Invoicing

Version 1.0

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1   Welcome to Series 5 Professional Invoicing

The Series 5 Professional Invoicing system is one segment of a fully integrated set of Financial Applications. It provides for entry and control of Project oriented Invoicing needs. It handles employee chargeable or non-chargeable time that can be entered as timesheets, or it provides for the interface of external data from other systems that generate billable charges. A variety of different invoices may be generated either as printed forms, or in a number of different EDI formats. Project revenue and/or costs may be tracked by Project or Department.

The Professional Invoicing system runs in conjunction with the Series 5 Accounts Receivable system, and optionally with Accounts Payable, WEB Access Management and General Ledger systems.

This help is designed both as a course in using the Series 5 Professional Invoicing and as an ongoing reference while you are working with the program.

Getting started – new users

- Study the Introduction 12 and Quick Start Tutorials 112 sections to familiarize yourself with the basics of the application.

- Check out all the links in the **Help** tab – plenty of help is available!

Getting started – users upgrading from prior revisions

- See the History of Enhancements 18 for a quick summary of the major changes and where to find the functions you are looking for.

- Even if you are an experienced Professional Invoicing user, please run through the Introduction 12 and Quick Start Tutorials 112 sections quickly to get up to speed with what has changed in the latest version of the program.

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Part II
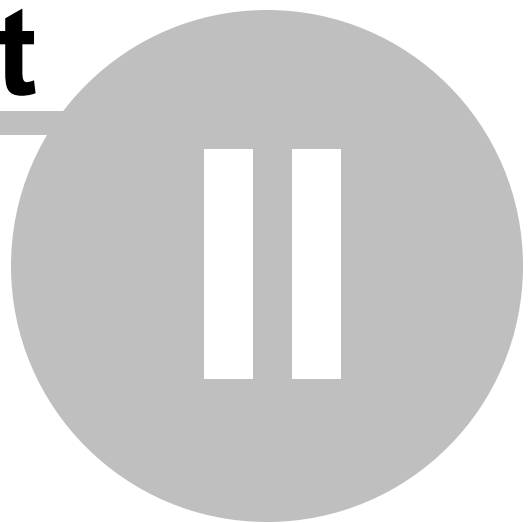
2   Introduction

The topics in this section provide some basic information about the Professional Invoicing system, what it is for and what you can do with it.

2.1   Product Overview

The Professional Invoicing system basically records any activity and disbursements performed by your company's professional staff as a service to your customers.   Data may be entered from employees' timesheets, or interfaced directly from user supplied sequential data files, or from Excel spreadsheets. The system will automatically determine rates based on the given Project, Employee and/or Task performed. Invoices are generated and posted to the Accounts Receivable system. To summarize, the following functions are performed:

- ?   **Captures Data from Employee Timesheets or Interfaced from data files**
- ?   **Automatically assign Unit Rates and G/L Revenue Accounts based on a variety of User Configurable Rules**
- ?   **Captures any Disbursement Charges that might be incurred**
- ?   **Track Revenue either by Project or Department**
- ?   **Generates Invoices in different formats for different Customers**
- ?   **Generates EDI Invoices, cXML Invoices or batched Paymentech Visa charge requests**
- ?   **Generates instant On-Demand Invoices, when requested from Service Agents**
- ?   **Provides assorted Invoice and Work-In-Progress Inquiry functions**
- ?   **Automatically computes Tax**
- ?   **Invoices may be De-Generated, or Re-Printed as the case may be**
- ?   **Interface Invoices to the Accounts Receivable system**
- ?   **Provides for Cost Analysis of Professional Services**

The Professional Invoicing system handles Project Costing for a single company. If you have more than one company, then you need only to set up additional Series 5 company systems, one for each.   Each P/I company may be interfaced into it's own G/L, or into a corporate G/L system.

The Professional Invoicing system system must be used with the Series 5 Accounts Receivable system.

2.2 Professional Invoicing Features

A brief summary of some of the major features of the Series 5 Professional Invoicing system!

Projects, Tasks and Employees

The basic codes used in the P/I system that are used to track revenues from professional activity would be the Projects that are worked on, the Employees performing the work, and what Tasks were performed that are charged to the customers. Once these codes are set up, chargeable, or non-chargeable, activity may be recorded. Note that an Employee might also be a machine or an internet service that is used to accumulate charges.

For any given employee, the Projects that they have access to may be assigned. Also, specific Tasks that are associated to that Project for the Employee may also be assigned.

Charge-Out and Cost Rates

The system is designed to provide for the entry of employee Work-In-Progress, (WIP), activity, comprised of chargeable or non-chargeable time sheet information, with little or no knowledge of charge-out rates. To accomplish this feat, an algorithm is employed to examine possible Standard Rates associated with Projects, Customers, or Tasks, and to search for any Special Rates that might have been defined. When the time sheet information is entered, the system determines both the Chargeable and/or Non-Chargeable rates, and the internal Cost rate for each item.

Project to Customer Relationship

A Project Code is used to define a collection of Work-In-Progress activity and Disbursements associated to a project. A Project belongs to a Customer for which chargeable activity is being performed. You may define multiple Projects for a given customer. Projects can be long term, that is, they might span a time frame of several years. A given job performed by your company that will be charged to a customer, should be entered under a defined Project. A simple way of categorizing the definition of a project is that one or more Invoices are generated for each Project.

Special Rates and the Rate Class

The Professional Invoicing system provides for the definition of Special Rates used for unit Costs or Billing rates which differ from that of the Standard Rates. There are five Special Billing Rate types and two Special Cost Rate types, that can be defined:

Special Billing Rates	Special Cost Rates
• by Employee	• by Employee

- by Employee Group
- by Task Group
- by Employee/Task
- by Task Adjusted by a given %
- by Task

Special rates are allocated to a Rate Class. When Projects are defined to the system, they can be associated to a Rate Class. A Rate Class might be considered as a column of rates found in matrix if all the Special Rates are represented by rows in a matrix. You may then define a class of rates that a given Project, or set of Projects, are going to use.

Revenue Allocation

The Professional Invoicing system provides for the option of having revenue determined at the point that Time Sheets and/or data is interfaced, or at the time that Invoices are generated and printed. (On some systems, this difference could effect the P&L statement significantly). Revenue is accumulated by assigning a G/L Revenue Account for either a Project, a Department, Groups of Tasks, or Groups of Invoice Sections. For special cases, a Revenue Account can be defined for specific Tasks when used on specific Projects. At all times during the billing cycle, an accurate account for both time and revenue charges is available to the General Ledger system utilizing WIP, assorted Revenue, Unearned Revenue and Deferred Revenue accounts.

Project Deposits

The P/I system provides for a Project Deposit to be recorded, prior to any activity or billing. A special WIP record will record the amount of the deposit. When an invoice is eventually generated, any deposit found on file will be applied, and the appropriate Balance Due Total will be computed and printed.

Project Budgeting

The P/I system provides for a number of different ways to set up and maintain Project Budgets. Budget versus Actual figures are kept for WIP # of Units, WIP Costs and Revenues, and Disbursement Costs and Revenues for user defined periods of time. Budgets can be set up as follows:

- by Project so one record holds all amounts for WIP, Disbursements and Cost Plus amounts
- by Project for just WIP # of Units, WIP Revenue, Cost-Plus and/or Disbursements for all activity associated to the Project. (So these types of activities may be budgeted for independent of one another)
- by Project for just WIP # of Units, WIP Revenue and/or Disbursements for specific Budget Groups assigned to Tasks and/or Employees
- by Budget Groups associated to Tasks, regardless of the Project, so

> budgets can be established for a single or group of different types of activity.
> - by Budget Groups associated to Employees, regardless of the Project, so budgets can be established for a specific employee or groupd of employees.
> - by user defined Budget Groups that create categories of budgets that can include groups of employees, tasks or disbursements. Using Groups, a separate Budget can be kept for specific Tasks or Employees

The Budgets may be set up for a specified period of time, which may be broken down by week, month, quarter, year, (for up to 26 periods), or for just the life of the project.

The system maintains and accumulates Actual Figures for each Budget that is created. You may have multiple types of budgets for a single Project depending on what activity is to be tracked.

Cost Plus Charges

For companies dealing with government contracts, or when revenue needs to be determined based on fixed fee percentages, the P/I system offers the capability to automatically computed Cost Plus Charges. As a part of the billing procedure, after all Work-In-Progress and Disbursement items have been selected for billing, the Cost Plus Generation option is selected to be executed. Based on Selected and Un-selected items, Cost Plus Factors are applied to compute predefined Cost Plus charges. These Cost Plus charges are recorded as special WIP items and will be printed on the invoice, and available for the assorted analysis reports. The percentages used in the calculations are pre-determined, by Project, and the formulas customized per site. Up to six different Cost Plus factors may be defined. Budgets are available for Cost Plus revenue.

Project Billing

Work-In-Progress items may be selected for billing using two different methods. First, a Generalized Billing process is available which automatically selects all eligible WIP and Disbursements within a specified date range. Alternatively, a Selective Billing and Adjustments option may be used to individually select WIP items for billing.

When using Selective Billing, a scrolling screen of up to 14 WIP items are displayed. Individual items can be selected using the mouse. Once an item is selected, it's invoice amount can be Marked Up or Marked Down, it can be Partially Billed, Deferred, or even Written Off. If the WIP item selected has Budgets defined, the Budget Actual, Committed and Remaining amounts are displayed.

When WIP items are billed, both the Original Rate and Amount and the Invoiced Rate and Amount figures are kept with the item. These amounts are available for inquiry or reporting purposes. Also, when invoiced, each WIP and Disbursement charge retains the Invoice Number and Invoice Date for future reference.

3rd Party Billing and Multi-Client Billing

Invoices are normally generated for a given Project that is associated to a particular Customer. As an additional feature, the P/I system supports 3rd Party Billing, on behalf of the customer associated to the Project. Charges accumulated to the Project, as one of their properties, has a Bill-Code. The Billing Code is used to identify which items belong to which 3rd Party Customer. Two variations exist.

First, for 3rd Party Billing, a given invoice is sent both to the primary customer and to the 3rd party customer. However, the receivable is only registered for the primary customer associated to the Project. This approach may typically be used by large legal firms.

In the second variation, invoices are only sent to the 3rd Party Customer and the receivable is registered to that customer. This approach may be used where charges are recorded by a head office on behalf of a number of branch offices.

Invoice Printing

The P/I system provides for a number of different types of Invoices to be printed. That is, for a given project, WIP and/or Disbursement items may be grouped in various was to produce one or more invoices. An Invoice Layout Maintenance application allows you to configure a number of different types of Invoices by selecting from the following characteristics.

- WIP grouped by Project, Employee, Department, Task Group, Reference, (or Job), or Date
- WIP detail with Task description, Employee name, or WIP Description

You can specify which Layout is used by Project. As well, by project, you may specify Detail, Task Group Summary, or Invoice Section Summary, each providing different levels of sub-totalling. If detail is selected, you may choose whether to group items by Employee, or by Task. Tax, where applicable, is calculated using the Tax Codes defined for the Customer.

EDI Invoices

Projects may be set up to produce electronic Invoice data files, as well as a printed Invoice. Different types of EDI invoices may be generated at the same time, for different Projects. The following types of invoice may be generated:

- Ariba cXML Invoices
- Traditional ANSI X12 4010-810 EDI
- Excel Workbook Invoices, (with a summary worksheet, and a detail worksheet)
- LEDES 2000S and LEDES 98B for legal firms
- as VISA Credit Card charges submitted to Paymentech in 120-Byte Batch Files or Orbital XML Files

- For a variety of different user defined Invoice Interface files for customers' A/P systems

On-Demand Invoicing

With On-Demand Invoicing, billable activity is generated immediately after a customer's interaction with a web-site or telephone sales agent. These charges are then grouped as a packet of information in a file, and delivered to an accounting server to be deposited to a pre-designated directory. The system's On-Demand Servicing function detects the presence of this file, reads the data, generates the invoice, delivers it back to the requesting agent or system, and posts it into the Accounts Receivable system.

Invoicing Wizard

A wizard program is one that handles a number of standard repetitive functions. There is a wizard that handles the loading of user third party chargeable data, the billing process, the printing of Invoices, and the posting to Accounts Receivables. It examines specific folders for the presence of specific files, and process them accordingly. Invoices may be generated and printed, or created as separate PDF documents and automatically emailed to the customers.

User Defined G/L Account #   ie., 9999-99-9999999 - 999

The G/L Account number is divided into two parts. The Main Account #, and the Profit Center. The Main Account can have up to 18 digits and can be segmented into up to four segments. The Profit Center may be 3, 4 or 5 digits in size. You get to define the size as required.

Extensive Export to Spreadsheet capabilities

The Series 5 provides for the loading or dumping of data from or to your favorite spreadsheet. Data can be read or written directly to Microsoft's Excel, or tab-delimited text files.

Data Import/Export is offered for the following transactions, master records or analysis:

> Project Master Properties

> Task Master Properties

> Cost Center Credit Card Numbers

> Invoice Group Master Codes

> WIP Period Analysis Totals

Using the Series 5 Professional Invoicing can be fun

Don't believe it? Give it a try.

2.3   History of Enhancements

Over the lifespan of the Professional Invoicing system a number of major enhancements and minor fixes have been applied. Following is a brief summary.

New and Different – Enhancements and Fixes in P/I

For 2014

Work-in-Progress Revenue Analysis Inquiry/Report/Export

This new analysis function produces totals of PI WIP activity recorded to each of the G/ L Revenue Accounts. Sub-Totals may also be generated for the following combinations:

- Revenue Accounts
- by Customer for each Account
- by Project for each Account
- by Task for each Account

- by Employee for each Account
- by Task/Invoice Group for each Account
- by EDI Control Codes for each Account
- by Invoice Layout for each Account

The totals may be displayed to an inquiry grid screen, output to a report, or exported to spreadsheets, tab-delimited, or CSV data files. The following totals are presented:

- # WIP Items
- Chargeable WIP Units
- Non-Chargeable WIP Units
- Chargeable WIP $ value
- Non-Chargeable WIP $ value

- Overhead $ Amount
- Invoiced $ Amount
- Mark-Up Invoice $ Amount
- Discounted Invoice $ Amount
- WIP $ Amount Written-Off
- Unbilled WIP $ Amount

The WIP detail that contribute to each data-set may also be exported to spreadsheet. The analysis may be run for a calendar year, calendar month, or user specified date range. *(Oct 21-2014)*

Remote Timesheet Entry using Emails

Two new functions has been introduced into the PI system to manage the process of entering timesheet information from employee emails.

First, there is a new operation that for each employee will generate an Excel spreadsheet that contains the potential activity that employee would need to record as

WIP activity. These spreadsheets are automatically emailed, by the system, to each employee to be filled in. The spreadsheet would be edited, and emailed back.

The second new operation will read a designated Outlook inbox for those emails from employees sending back their completed timesheet spreadsheets as attachments. The emails are processed and the spreadsheets read to record their timesheets into the PI system. *(May 10-2014)*

New Invoice E-Billing File Generation

A new function has been introduced into the P/I system.   The E-Billing Wizard is a program that will generated EDI Invoicing files from Invoices that were generated from other software packages.   The invoice information is provided as a text CSV file that contains the detail that was used to generated the invoice. The detail is loaded into the PI system, an invoice history record is written, and the appropriate EDI file is created ready to be transmitted to the customers' BtoB services.   *(April 15-2014)*

The following EDI Invoice format types are supported:

- Ariba cXML
- Ariba CSV
- Ariba EDI
- Ledes 98B
- Ledes 2000S XML

- Traditional EDI
- Paymentech CrCard - ASCII
- Paymentech CrCard - XML
- JP Morgan Non-PO
- Riemer Law

Project Inquiry Dashboard

A Project Dashboard has been introduced to the P/I system. Utilizing a Windows tree display, projects may be listed by Code, Description, or grouped by Customer, Project Manager, Project Leader, Location or Invoice Layout. When a given Project is selected, assorted related information may be displayed in the following tabbed-sub-screens:

- Project Properties
- Assigned Employees
- Budgets
- Employee WIP Totals
- Task WIP Totals

- Disbursement Totals
- Sub-Contractor Totals
- Purchased Items
- Inventory Issued
- Invoice History

For the totaling screens a date range filter may be specified *(March-10-2014)*

➡ For 2013

Proforma Invoices

Once P/I invoices are generated, they are presented in the Invoice processing grid. When selecting a specific invoice, and right-clicking to have the pop-up menu presented, new functions are available. You may now have a "Proforma" copy of the invoice printed, and optionally emailed. Once printed, it's status is set as "Proforma",

and it will remain until the "Approve Proforma Invoice" pop-up menu function is executed. *(Apr-12-2013)*

➡ For 2012

⊟ On-Demand Re-Invoicing

The P/I system now provides support for the generation of "On-Demand" Correction of Invoices. With On-Demand Invoicing, billable activity is generated immediately after a customer's interaction with a web-site or telephone sales agent. These charges are then grouped as a packet of information in a file, and delivered to an accounting server to be deposited to a pre-designated directory. If after either a system generated Invoice, or an On-Demand Invoice has been produced, it is discovered that a change needs to be made, the On-Demand Service routine will now be able to handle a request to Re-Generate an Invoice. In this case, the Invoice Number of the original Invoice is passed in the file name. For the original Invoice, a Credit is generated reversing all it's charges and G/L distributions; and the new revised information is used generate a totally new Invoice. *(Nov-15-2012)*

⊟ EDI Invoice Generation

When generating EDI Invoices for a Project having different charges with different bill codes, the system will create a separate Invoice for each bill code. For EDI Invoices, if the WIP item value is ZERO, then it is automatically written off, and not invoiced. In the case where all the charges with the same bill code have ZERO value, the associated invoice is not generated. In this instance, any subsequent WIP items not yet invoiced, were not being invoiced at all. The problem has been identified and fixed. *(Nov-02-2012)*

⊟ Invoice Degenerate Function

The function used to degenerate Invoices has been revised to provide an enhanced message to the operator to verify that De-Generation is supposed to be executed. *(Oct-08-2012)*

⊟ Task Codes Codes Spreadsheet Export

The Date-Last-Used field associated to the Task will now be output when Exporting Task information. *(Sept-28-2012)*

⊟ Project Master Codes Spreadsheet Import

The Invoice Layout associated to the Project will now be input when Importing Project information. *(Sept-28-2012)*

⊟ Recap Record - "Search Court Information" field

A new field has been introduced to the Recap Charges record. The "Court Information" field is used to hold information relating to charges associated to customers that are legal firms. This new field is dealt with in the User Interface functions, the General WIP Transactions Entry (and related spreadsheet interface), and Invoice generation. **When loading charges from spreadsheet as General WIP transactions, this new field must be available in column AK. Please ensure your applicable spreadsheets**

are revised accordingly. *(Sept-21-2012)*

☐ **Apply Credits to Posted Invoices**

From the Historic Invoices Inquiry function, the function to apply credits to posted invoices has been enhanced as follows:

- When an invoice is selected from the grid to be displayed, a new **Apply Credits** push button is offered at the bottom of the screen, thus letting you browse through the invoices and then being able to launch the function to apply the credits.
- You may now apply credit amounts to specific WIP items, without 1st computing the total amount of the credits. A new push-button labeled **Adjust CR Total to Amts Applied** when clicked will use the total amounts marked for Credit as the Total
- Once credit amounts have been applied to specific WIP items, and the **Enter the Credit** push-button is clicked, then both the original WIP records and Recap records are replicated with the negative amounts of the credits assigned; a Credit Invoice is generated and printed, and it will be recorded as an entry in the Invoice Processing grid, waiting to be posted to A/R

Once Invoices are posted to an A/R Sales Batch, all applicable reversing G/L Distributions are generated for the Credit. *(Sept-21-2012)*

☐ **Automated Invoicing Wizard**

A new function has been introduced available within the "Invoice Processing" drop-down menu. "Launch Auto-Invoicing Wizard" is a routine that when executed, will start up a process in a new window that will be used to automatically execute the Invoicing Wizard. You may specify that it is to execute every 1/2 hour, hourly, or every 2 or 4 hours. A status sub-screen is displayed showing when the next and previous executions have occurred. The option also exists to have the process automatically hibernate overnight.

In order to use this new function, you MUST first add a new User Logon Profile named **AUTOWIZARD**, (using the System Maintenance's "User Logon Profile" maintenance function). You must also, add a new variable to the runtime Configuration file named **AUTO_WIZARD_AUDITLOG_PATH** which specifies the full path to the directory/ folder that an audit log file, for the process, is to be written. *(Sept-21-2012)*

☐ **Customer Service Reps**

The Professional Invoicing system has been enhanced to provide the ability to identify and record the "Customer Service Reps", (CSR), that are associated to work-in-progress charges. You may specify 2 different CSRs; one for the Customer and one for the individual WIP item. (The one for the Customer is assumed to be the "Team Leader". These CSR are set up in the Accounts Receivable system using one of the user defined Demographic Codes. The CSRs are specified as new fields in each of the applicable interface functions, and may be entered using the General Work-In-Progress or Timesheet Entry applications. When invoices are printed, the description associated to the Client CSR, (assumed to be name and phone #), will be printed in the footer of client's invoices. *(July 28-2012)*

Upgrade instructions

When the software with this enhancement is installed, you **MUST** execute the PI Upgrade utility to have all applicable records rebuilt. Please contact Sentinel Hill Software for further information.

⊟ **Invoice Reprints**

From the Historic Invoice Inquiry function, when a given invoice is selected to be reprinted, if that invoice is associated to a 3rd party billed client, both the client's invoice is printed, and the 3rd party invoice is printed too. *(July 19-2012)*

⊟ **Paymentech XML Invoices**

A new EDI Invoice type has been introduced. Invoices may now be generated as Visa Credit Card charges using the Chase Paymentech Orbital Gateway Batch XML Interface. The appropriate batch file is produced to be submitted. Also, the Paymentech "Response" file is processed to identify rejected requests. *(July-16-2012)*

⊟ **PDF and MS Word Invoices are now generated with Assorted Formatting Options**

Invoices will now be generated and output with assorted formatting features. These include, and limited to, the following:

- Text is output in user defined fonts such as variable pitch Trebuchet MS
- Columns of information may now be aligned using left, right and center tab sets
- Segments of the invoicing page may be defined in a different font and font size
- Specific fields may be output as bold, italic, reverse and/or highlighted; and as a different font and font size
- Graphic lines may now be inserted as segment delimiters or underlines for totals

(June-20-2012)

⊟ **Invoicing Wizard**

The Invoicing Wizard routine calls the "General WIP Interface", to validate and load charges that are to be interfaced into the system. The Wizard routine has been revised to abandon the interface if the "General WIP Interface" detected an attempt to re-load a given set of files. The appropriate message is displayed to the status screen, and is output to the exception report. *(May-28-2012)*

⊟ **General WIP Interface**

When user WIP data is interfaced as "General WIP Transactions", a log file will now be kept to record information associated to the file being interfaced. If the operator attempts to repeat the interface on a particular file, the log file will be examined to see if it had already been loaded or not. A message will be displayed, and the operator will have the option to re-load it. (When the interface is called from the Invoicing Wizard, if a file has already been loaded, then an error will be returned to the Invoicing Wizard, and the file will not be loaded). *(May-28-2012)*

⊟ **Recap Export Spreadsheet**

The Recap Export has been revised to now allow for over 65,000 charges to be

exported. If output to Office 2003 Excel workbooks, a 2nd worksheet will be created. As well, The Rate, # of Units and Fee columns of the spreadsheet will be correctly formatted as $ amounts, or not. *(May-28-2012)*

▱ **Invoice Layout Type "O" for On-Demand Invoices**

A new Invoice Layout Type "O" has been introduced. This layout is similar to the Type "L" layouts, except all charges reported on a single invoice are for the same Recap Order Number. As well, up to 20 characters of each of the 8 possible Recap Reference fields will be printed in the header of the invoice; and any taxes that are computed will be listed with each charge. The Invoice Layout Maintenance function has been revised accordingly.   This Invoice Layout will be used for all On-Demand Invoice requests. *(May-18-2012)*

▱ **Invoice Layout Types for Invoices Generated as Separate Documents**

The Invoice Layout Maintenance function has been revised to provide a new property for those layouts that have the property set to Generate a Separate Document for each Invoice. This new property named MS Word Template Override, is used to specify the name of the MS Word template that is to be applied when the invoice is printed as an MS Word or PDF document. *(May-15-2012)*

▱ **Invoice Layouts "L" and "F" for Daily Legal Invoices**

Invoices produced for Projects defined with Type "L" Invoice Layouts have been totally revised. As well, a new Invoice Layout "F" has been defined. These invoices have been revised to take advantage of the new formatting capabilities when outputting them as MS Word, or PDF documents. Type "F" invoices, (for Financial Institutions), group charges by Bill-Code, and then again by the WIP Reference, (for the Debtor name). Bill Code totals, and Debtor sub-totals are printed. Type "L" invoices are similar to Type "F" invoices, except all charges for a given Bill Code are generated on a separate invoice.

For both these types of invoices, the MS Word documents are now output with a variety of formatting options. These include the following:

- Variable pitch font, (Trebuchet MS in 8, 9 and 10 point)
- Line and section tab settings utilizing left, right, center and decimal-place tabs
- The drawing of graphic lines for separation of sub-sections and underlining
- Sub-string formatting for bold, italic, reverse-video, text highlighting, and alternate font sizes

Note that, these invoice require the use of a new MS Word Template which must be available to each user who generates invoices. *(May 15-2012)*

▱ **Invoice Layout Types "F" and "R" for DFS Invoices**

The definitions of, and invoice layouts for these types of invoices have been removed from the system. The Invoicing routines have also been revised accordingly. *If any layout records defined for these types are still on file, they should be deleted.* *(May-02-2012)*

▱ **Option to "Cancel" specific Operations in P/I**

A number of functions, once initiated, may now be cancelled, prior to completion. This

is accomplished by clicking on the "Cancel" button presented on the progress bar screen. The following functions may be cancelled:

- Archiving of Historical Invoice Data
- General WIP Transactions Entry "Import" Function
- General WIP Transactions Entry "Revalidate WIP" function
- General WIP Transaction Entry "Delete ALL Transactions" function
- After Hours Emailing of EDI-PDF Invoices

In each case, the process will stop processing once a given function for a given transaction is completely finished. *(April-04-2012)*

⊟ **"After Hours" Emailing of EDI PDF Invoices with Recap Reports**

For those invoices generated as EDI PDF type invoices with Recap Reports that are to be subsequent emailing to respective customers using "After Hours" function, new functionality has been introduced. You will now be able to have these invoices re-emailed. When the "**Email EDI Gen'ed PDF Invoices**" function is selected, a screen will now be presented on which you may set the option to Repeat the email process for a range of Invoice number. *For a given invoice to be re-emailed with it's recap report, it must have already been generated in the past, and reside as a PDF in the directory folder associated to the EDI/XML Specifications Code.* *(April-04-2012)*

⊟ **Invoice Posting to A/R**

The Invoice Posting function typically should be executed when no other users are executing a function that opens, or has access to, the active Invoice file. Previously, when Invoices were posted, the Invoice file was opened exclusively, and all other users were locked out from any function that attempted to open it. Now, a software controlled locking mechanism has been introduced. A record in the A/R Passing file is now used to monitor how many users are executing any functions that open the Invoice file. That record also has a flag that gets set to indicate that the Invoice file is open by the Invoice Posting function. Now when the Invoice Posting function is selected, if any other users have the Invoice file open, a message will be displayed to the operator, and they may choose to proceed with the posting, or not. Also, if while the Posting function is executing, if any of the other functions that open the Invoice file is selected, that operator will be informed and have the option to continue or not.

Abandoning the system's file exclusive locking mechanism was necessary in order to allow for "On-Demand" Invoicing to continue during the times when normal daily Wizard Invoicing and "Month-End" Invoicing was executing. *(March-07-2012)*

⊟ **Print/Outputting EDI Invoices**

When EDI Invoices are output, the system is now able to handle up to 12 different EDI Invoice Control Types at a time. Previously, only 10 different sets could be output when Invoices were printed.

Also, previously when EDI invoices were generated to be automatically emailed, the system assumed that recipient email addressed were always available. (Typically from the Customer master record's profile). The system has been enhanced so that if no email address is provided, or is blank, then the invoice will be skipped from being

processed. If this is the case, a message will be displayed accordingly. *(March-02-2012)*

☐ **Reprinting Historical and/or Overdue Invoices**

The function to have Invoices reprinted has been enhanced to offer the option to print ONLY those Invoices that are considered "Overdue".   When selecting to print overdue invoices, the operator may choose to select only those invoices for customers with a specified Terms Code. As well, a filter is offered allowing selection of only those invoices that are 15, 30, 45, 60, 90 or 120 days overdue, based on either the Invoice Date or the Due Date. An new additional option to have the invoices automatically emailed to those customers with email addresses has also been introduced.

The body of the email message is loaded from a file named **OverDue_Invoice_EmailMessage.TXT** that must be located in the directory named **Email-Templates** located in each Company System's designated reports directory. This text file may be either a plain ASCII text, or an HTML file and contain up to 8192 characters. *(Feb-12-2012)*

☐ **P/I Projects Codes Maintenance**

When adding a new Project, if the associated invoices were to be generated as one of the defined EDI layouts, it was necessary to finish the add process first, and then select to Modify the Project to enter the EDI properties. Now, the EDI properties may be entered when the Project is added. *(Feb-15-2012)*

☐ **P/I Data Files "Archiving" Function**

The "Archive" function has been enhanced to now read through the Historic Invoices file using the new Invoice History Date key. As a result, only those invoices that are to be archived are processed. Previously, all record in the Invoice History file were being read. *(Feb-14-2012)*

☐ **P/I Invoice Inquiry**

From the Historic Invoices Inquiry function grid screen, you may now select to have invoices displayed sorted by Invoice Date. *(Feb-14-2012)*

☐ **EDI Control Properties - "Suppress ZERO value WIP"**

A new control property has been introduced to the EDI Specifications Maintenance screen. Labeled as **"Automatically Suppress and Write-off ZERO value WIP items"**, is a check-box that when set will not include any WIP items that have a ZERO value in those EDI formats listing detail charges. As well, when these ZERO value items are encountered, they will automatically be flagged as "Written-Off" WIP items. *(Feb-09-2012)*

☐ **Custom Character Delimited ASCII EDI Invoice Formats**

A new type of EDI Invoice format has been introduced. Custom "Character-Delimited" Text EDI invoices are now supported. These are ASCII text files that contain invoicing information in fields that are separated by different characters. (Including, <,>, <~> and the <|> characters.) The different formats available are customized for specific customer's requirements. *(Feb-08-2012)*

☐ **LEDES 98B Invoices**

The system now supports a number of variations to the standard LEDES 98B Format of invoices. The existing LEDES 98B EDI Control Properties has been revised with a new field to indicate the given company to which the unique settings and values are to be applied to. The invoicing routines have been revised as required. *(Feb-06-2012)*

Paymentech Orbital Gateway Batch XML Invoices

The system now supports the generation of Orbital Gateway Batch XML Credit Card charges for submission to Paymentech for invoices generated from PI. A new EDI Control Type with applicable properties screen has been introduced to the EDI Control Settings Maintenance routine. The invoicing routines, and the Paymentech Response Reconciliation routine, have both been revised as required. *(Jan-27-2012)*

LEDES 2000 XML Invoices

The system now supports the generation of LEDES2000 XML invoices. A new EDI Control Type with applicable properties screen has been introduced to the EDI Control Settings Maintenance routine. The invoicing routines have been revised as required. *(Jan-18-2012)*

EDI PDF Invoices with Recap Reports

The generation of the EDI PDF type invoices with Recap Reports, and subsequent emailing to respective customers, has been enhanced. As an option associated to the EDI Specifications, you may now have the production of these invoices broken into two steps. If two-steps is selected, as the 1st step, when these invoices are "Printed" only the PDF Invoice document is built. The 2nd step, launched by a Invoice Processing sub-menu item, will have each invoice's corresponding Recap Report generated, and both the Invoice and the Recap Report is emailed to the customer. Using this two-step method, or which has ***The Generation of Recap Reports and subsequent emailing "Performed as a Separate After Hours" Operation***, will significantly reduce the time required to generate invoices at the end of the month. *(Jan-16-2012)*

For 2011

Enhancements to the Invoicing Wizard

The P/I system for the past few years has provided an Invoicing Wizard application that automatically inputs user interface data and automatically generates and prints invoices; and posts them to the Accounts Receivable system. The invoices were generated as a set that was printed. The process has been enhanced to now provide the option to select the type of invoice to be generated. Invoices may still be generated as a set and printed, but as well, they may now be generated as individual MS Word or PDF documents, and automatically emailed to each customer. New fields associated to the options for generating invoices have been introduced to the Invoice Wizard Codes Maintenance function screen. *(Dec-09-2011)*

On-Demand Invoicing

The P/I system now provides support for the generation of "On-Demand" Invoices. With On-Demand Invoicing, billable activity is generated immediately after a customer's interaction with a web-site or telephone sales agent. These charges are then grouped as a packet of information in a file, and delivered to an accounting server

to be deposited to a pre-designated directory. The Series 5 Professional Invoicing system's On-Demand Servicing function detects the presence of this file, reads the data, generates the invoice, delivers it back to the requesting agent or system, and posts it into the Accounts Receivable system. The process is accomplished typically all in a time-frame of less than 10 seconds.

On Demand Control Sets are used to define the options associated to these invoicing related operations. Each On Demand Control Set could be established to represent a unique set of options perhaps representing charges accumulated for different branch offices, geographic regions, or sales agents. Invoices associated to each Control Set is then dealt with separately, having their accumulated activity loaded, billed, invoices generated, and moved to A/R. *(Dec-09-2011)*

☐ **Recap Report/Spreadsheet Export**

The export function has been revised. A new column, "F", has been introduced that contains a flag indicating that the charge is either a "Service" or a "Disbursement". All columns to the right have been shifted accordingly. *(Dec-06-2011)*

☐ **Revised PI Menu Menu-Bar**

In the PI menu-bar, the **Operations** drop-down menu set has been divided into two drop-down menus. All the menu items relating to the generation and processing of invoices has been moved to a new menu-bar set titled **Invoice Processing**. As a result user access rights to each of the menu items that previously were associated to the Operations drop-down menu will have to be reset for each user having access to PI. *(Nov-04-2011)*

☐ **New WIP Field – Working Location of WIP Activity**

A new field has been introduced to the P/I system Work-In-Progress record. It is used to record where the WIP activity was performed. A number of different pre-defined locations are provided to be selected. *(Nov-02-2011)*

☐ **150 Character Customer Company Names**

The P/I system has been enhanced to support the 150 character Customer Company Names that are provided by the Accounts Receivable system. Where applicable, the full 150 character name is now displayed. *(Nov-02-2011)*

☐ **8 Digit Invoice Numbers**

The P/I system has been enhanced to now provide 8 digit Invoice Numbers. *(Nov-02-2011)*

☐ **General WIP Entry Inteface from Spreadsheet**

Several new fields have been added to the WIP, (Work-in-Progress), record definition. As a result, the layout of fields used for the "Interface from Spreadsheet" has been revised. For users that load WIP charges you must re-configure the layout of your input spreadsheets. Briefly, the following columns have been inserted or shifted:

- Column K is a new field used to indicate whether the WIP activity is Service or Disbursement oriented
- Column L now holds the Invoice Consolidation field that used to be in Column T

- Column M is a new field used to provide a code indicating where the WIP activity was performed
- Column Q is a new field that provides the option to override the P/I Task's Description that is printed on specific Invoice Layouts

Refer to the documentation below for the General WIP Entry 297 operation for specific layout information. *(Nov-02-2011)*

Email Addresses

With the P/I system, specific types of Invoices may be emailed. The email address fields have been increased in size from 40 to 120 characters. The email addresses are obtained either from the Customer's Properties record, from the Multiple Client Project Bill-To record, or as passed within On-Demand Billing parameters. All P/I applications providing the option to have reports or invoices emailed will be revised accordingly. - or from Task Code has been increased in size from 8 to 10 characters. The Task Code Description field has been increased from 40 to 100 characters. All routines that require entry or display of the Task Code have been revised accordingly. *(Oct-28-2011)*

Task Codes and Associated Descriptions

The P/I Task Code has been increased in size from 8 to 10 characters. The Task Code Description field has been increased from 40 to 100 characters. All routines that require entry or display of the Task Code have been revised accordingly. The Time Sheet Entry and General WIP Charges Entry functions have been revised to display the 100 character description. *(Oct-28-2011)*

Invoice Group Codes

The P/I Invoice Group and Invoice Section Code fields have been increased in size from 6 to 10 characters in size. All routines that require entry or display of these codes have been revised accordingly. *(Oct-28-2011)*

Upgrade instructions

When the software with this enhancement is installed, you **MUST** execute the PI Upgrade utility to have all applicable records rebuilt. Please contact Sentinel Hill Software for further information.

LaSalle Excel Invoices

For the EDI controlled LaSalle Excel Invoices, they will now be emailed using the new interface to MS Office Outlook. These email messages will be sent as "Plain Text" invoices. The body of the email message is now loaded from a file named **LaSalle_Invoice_EmailMessage.TXT** that must be located in the same directory that the Excel invoices are generated in. (As determined by a property in the EDI Control maintenance function). It now means that users may edit the message that is emailed. *(Oct-05-2011)*

Wilmington Trust Excel Invoices

For the EDI controlled Wilmington Trust Excel Invoices, they will now be emailed using the new interface to MS Office Outlook. These email messages will be sent as "Plain

Text" invoices. The body of the email message is now loaded from a file named **WTrust_Invoice_EmailMessage.TXT** that must be located in the same directory that the Excel invoices are generated in. (As determined by a property in the EDI Control maintenance function). It now means that users may edit the message that is emailed.   *(Oct-05-2011)*

☐ **Generic Excel Invoices**

For the EDI controlled Excel Invoices, they will now be emailed using the new interface to MS Office Outlook. These email messages will be sent as "Plain Text" invoices. The body of the email message is now loaded from a file named **Excel_Invoice_EmailMessage.TXT** that must be located in the same directory that the Excel invoices are generated in. (As determined by a property in the EDI Control maintenance function). It now means that users may edit the message that is emailed.   *(Oct-05-2011)*

☐ **Emailing of PDF Invoices**

For the EDI controlled PDF Invoices, they will now be emailed using the new interface to MS Office Outlook. These email messages will be sent as "Plain Text" invoices. *(Sept-21-2011)*

☐ **Employee Daily/Period Activity Report Enhancements**

The Employee Daily Activity Report has been enhanced as follows:

- It has now been renamed to the "Employee Period Activity Report" since you may now defined periods as Daily, Weekly, Monthly or Yearly
- The following Analysis, where totals are accumulated, may be generated:
  - ✓ For each Employee, which Projects was WIP activity recorded for
  - ✓ For each Employee, which Tasks was WIP activity recorded for
  - ✓ For each Task, which Employees recorded WIP activity for
  - ✓ For each Project, which Employees recorded WIP activity for
- The report can be generated with or without detail WIP activity being listed
- Summary totals may, as an option be exported to spreadsheet
- For a given date range, sub-totals are accumulated and reported, by Day, Week, Month or Year

 As well, the generic P/I WIP and P/I Projects and A/R Customer Selection Filters screens are presented to allow for the entry of additional filters.   *(Aug-10-2011)*

☐ **Enhancements to Project Budgets**

The Budgeting process has been partially overhauled. It is now possible to define multiple types of budgets for a given Project. You may now also budget for Employee WIP activity or Task WIP activity, independent of the Projects being recorded to. Some of the new features to note:

- A single budget may be set up for the Project, or multiple budgets, each for WIP # of Units, WIP revenue, Cost-Plus charges and Disbursements Revenue
- Budgets may be set up for a specific Task, or for sets of Tasks based on user defined Budget Groups, that is kept regardless of the Project recorded for
- Budgets may be set up for a specific Employee, or for sets of Employees based

on user defined Budget Groups, that is kept regardless of the Project recorded for

- Each Budget is assigned for a period of time which the system will break down into periods of weeks, months, quarters or years for up to 26 periods
- For each combination of budget defined, figures may be recorded and actuals accumulated for WIP # of Units, WIP Revenue, WIP Costs, Disbursements Revenues and Disbursement Costs
- For each combination of budget defined, an inquiry function presents a display of budgeted amount and actual amount along with variance amount and % by each period. As well, Accumulated Totals-To-Date are displayed for each period.

Budgets may be entered manually and imported or exported from/to a spreadsheet. *(July-25-2011)*

☐ **Time Sheet Exception Report Enhancements**

The Time Sheet Exception Report has been enhanced as follows:

- A date Range may be specified as a filter rather than just a cut-off date
- You may now select to list those employees that have weekly total hours either over and/or under specified thresholds
- Total time-sheet hours recorded will be accumulated and reported for each week that falls within the date range entered
- Employees will be listed either by their Employee Code, or by Name
- Employees may be grouped either by Department, Location, Job Classification, or by their Supervisor
- Entry function has been enhanced to provide support for Employee assigned Projects.

As well, the generic P/I WIP and P/I Projects and A/R Customer Selection Filters screens are presented to allow for the entry of additional filters. *(July-14-2011)*

☐ **Time Sheet Entry Enhanced for Support for Assigned Projects and Tasks**

The Time Sheet Entry function has been enhanced to provide support for Employee assigned Projects. When entering a time sheet for a particular Employee, if Projects have been assigned to that employee, then a drop-down list will be presented with ONLY those projects that have been assigned. Once the Project is chosen, if Tasks have been assigned too, a drop-down list will be presented with those tasks that have been assigned. *(July-12-2011)*

☐ **New Feature to Assign Projects and Tasks to Employees**

The ability to assign Projects to an Employee has been introduced. A new Codes Maintenance function offers the ability to assign Projects to Employees. When a Project is assigned, then in the time sheet entry operation, only those Projects may be recorded. In addition to assigning Projects, Tasks can also be assigned to those Projects that are assigned to a given Employee. Both an Import and an Export function are provided for loading and outputting valid combinations or Employees/Projects and Tasks to spreadsheet. *(July-10-2011)*

☐ **Invoice Generation and De-Generation functions**

The Invoice Processing Grid screen routines have been revised so that the A/R Distribution file is opened only during the Invoice Generation and the Invoice De-Generation functions. The A/R Distribution file in various A/R related applications is opened Exclusively. Now, in the P/I Invoicing system, it is only opened when actually being used. *(July-04-2011)*

Invoice "Archiver" function

A problem has been discovered associated to the function that archives Invoice History records to their applicable Archive file. When a PI Invoice or Credit is archived, the given record, along with it's Invoice Line Items records and any Recap Detail records, are copied to the archive files. For a Credit, there is no associated Recap records. A situation arose where Recap records that actually belonged to a valid Invoice were archived because a Credit document was on file with the same document # as that Invoice. When that Credit was archived, the invoice's Recap records were archived. The problem has been fixed. The system will no longer attempt to archive Recap records when a Credit is being archived. *(June-30-2011)*

Invoice De-Generation Function

When Invoices are de-Generated, the option exists to have a Credit document automatically created. (In the case where the Invoices had already been interfaced to Accounts Receivable). When creating Credit Notes, the document # that is assigned is determined from the A/R Control preferences. The function has been enhanced that when Credits are generated, a test is performed to make sure the Credit document # would not exceed 999999. If the number of invoices to be de-generated is greater than difference between 999999 and the Next # to Assign, then the De-Generation function is aborted and a message is displayed. *(June-30-2011)*

Employee Cross Utilization Analysis

This report has been totally revised. The analysis is generated showing total WIP activity that was recorded by employees for work performed on projects associated to other Locations or Departments. Totals are now tallied for all combinations of Employee, Location, Department and Project. Output is displayed to a Series 5 grid screen, from which different variations of combinations of Employee, Location Department and Project may be displayed. Also, totals may either be output to a report, or to a spreadsheet. *(June-03-2011)*

Disbursement Expense - Interface from Accounts Payable

With the new option to record Disbursements directly into P/I, you still have the possibility, desire and need, to enter the associated supplier Invoices into the A/P system. The A/P transaction entry function has been enhanced to now allow the operator to view any Disbursements, for the given Vendor, that had been previously entered into the P/I system. If selected, the particulars about the Voucher being added will be recorded into the P/I's Disbursement. Alternatively, Disbursements not already found in the P/I system may still be loaded. *(May-11-2011)*

Disbursement Expense Entry

Up to this point, disbursements to be charged to a Project were loaded into the P/I system when supplier Invoices were entered into the Accounts Payable system. When expenses were distributed to their applicable G/L distributions, a P/I Project could also be specified. When the Invoice was posted to Payables, the Disbursements were

recorded to the specified Project.

A new function has been introduced that provides for the entry of Disbursements directly into the P/I system. Also, you may now enter three types of disbursements; These include Regular Purchases, Sub-Contracted Services and Inventory Items. The Project Inquiry and Billing Selection functions have been enhanced to support these new types. Disbursement expenses may be entered directly, or imported from Excel worksheets, CSV or tab-delimited files. *(May-06-2011)*

☐ **General WIP and Time Sheet Entry Posting functions**

The operation of posting General WIP charges and/r Time Sheets may improve dramatically depending on the type of operating system that it is being executed on. When the Work-in-Progress records are written, the Time-of-Day is used as part of the key to make sure those transactions having the same Project, Date, Employee and Task codes have a unique key. In any operating systems that can only report the Time-of-Day to the the nearest second, or 1/10th of second, that would mean that only 1 or 10 such WIP records could be written per second. A change was made that now would allow up to 1,000 such WIP records to be written per second, (if the network and machine could go that fast). *(Apr-21-2011)*

☐ **Weekly Employee Time Sheet Entry**

The Time Sheet Entry functions have been enhanced to provide for the entry of employee time for a particular Project and Task, daily over the period of a week. When creating a new Time Entry Batch, you may choose to create a batch that has it's time sheet activity entered either as Individual WIP Items, or as Daily Items for a Week by Project/Task.   The new option, entering charges by the week, presents an entry screen to enter the Project, the Task, and Hours for the 7 days of the week starting from a Monday. *(Apr-21-2011)*

☐ **New Feature to Attach Supporting Documents to Projects**

You may now attach a variety of different documents to Master Project records. Up to 15 separate documents may be selected, and attached and viewed from the Project Codes Maintenance functions. The different types of documents support are as follows:

• PDF	• MS Word 2003 documents
• Bitmap (*.BMP files)	• MS Word 2007 documents
• JPEG	• MS Excel 2003 documents
• TIFF	• MS Excel 2007 documents
• ASCII Text (*.TXT files)	• ASCII Text (*.txt files)

(Apr-14-2011)

☐ **Ariba CSV Invoice Generation**

A new EDI invoicing format has been introduced to the P/I system. Invoice may now be generated as CSV text files that are ready to be sent to Ariba for processing. A new EDI specification type has been introduced called ARIBA CSV Text Invoices.   If using this method, an empty CSV Invoice file must be created in the designated output folder that contains the contractual and format information for Ariba. *(Apr-10-2011)*

□ **Projects Maintenance**

From the Project Maintenance routine, the existing function to Import Project data from spreadsheet has been enhanced. When loading data, there were two Processing Directives, **%RADD%** and **%DELE%**, which would either Re-Add Projects, or just Delete those Project Codes that followed. A new directive has been introduced, **% UPDT%**, that provides for the option to Update a particular field in existing Project records. The field to be updated is identified by the code provided in column 2 of the row the **%UPDT%** directive is in.   In column 2, enter **PARTNER**, **LEADER**, **INV-LAYOUT**, **KEYWORD-1**, **KEYWORD-2**, **KEYWORD-3** or **KEYWORD-4** to indicate which field is to be updated. In the rows that follow, in column 1 specify the Project Code, and in column 2, the new value of the indicated field to be replaced. *(Feb-01-2011)*

□ **cXML Invoice Generation**

The program the generates traditional cXML Invoices has been enhanced. Now any text string that represents a Customer Name, a Search Name or any other text string will be examined to ensure that it does not contain any of the cXML data record or field terminator characters. These include [/], ['], ["], [%], [<] and [>] characters which will be converted to [|], [^], [^], [p], [{] and [}] respectively.   *(Jan-27-2011)*

□ **Ariba EDI Invoice Generation**

The program the generates traditional EDI Invoices has been enhanced. Now any text string that represents a Customer Name, a Search Name or any other text string will be examined to ensure that it does not contain any of the EDI data record or field terminator characters. These include [*], [~], [<] and [>] characters which will be converted to [+], [^], [-] and [-] respectively.   *(Jan-27-2011)*

□ **EDI Invoice Generation**

The program the generates traditional EDI Invoices has been enhanced. Now any text string that represents a Customer Name, a Search Name or any other text string will be examined to ensure that it does not contain any of the EDI data record or field terminator characters. These include [~], [|], [<] and [>] characters which will be converted to [^], [/], [-] and [-] respectively.   *(Jan-27-2011)*

□ **Interface User WIP Records to Either Time Sheets or General WIP Transaction Entry**

These two operations have been enhanced to ensure that all characters loaded from the user supplied file are ASCII characters. In some cases, non-ASCII characters were being loaded into characters strings that were eventually passed on in files that were being submitted as EDI Invoices that caused rejection. Now any character that is not a valid ASCII character is converted to the <?> character.. *(Jan-27-2011)*

➲ For 2010

□ **General WIP Transaction Entry and Posting**

General WIP Entry is used to enter Work-in-Progress charges that are not directly associated to an employee's time sheet. When the User Charges Interface is

executed, it loads it's charges, and optional Recap Detail records, into a General WIP Transaction batch. A General WIP transactions has associated to it a Recap Detail record only if a WIP/RECAP Record ID Number had been specified.

When a General WIP Transaction Batch was being posted, if a WIP/RECAP Record ID was specifed, it assumed that a valid Recap Record had also been defined. If there actually was not Recap Detail record, the transaction still had been posted. The Posting function has been enhanced so that now, if the General WIP Transaction had a non-zero WIP/RECAP Record ID Number, but no associated Recap Detail record was on file, that transaction will now be flagged, and it WILL NOT be posted. *(Nov-22-2010)*

⊟ **EDI Invoices for Bank 1 & JP Morgan Chase**

Occasionally, a company name, address, or Recap Search-Name or Recap Ordered-By name would have a <~>, <|> or <*> character embedded. These are used as field and/or line terminators in the EDI file that is generated and transmitted. As a result, these files would be rejected. The EDI Invoicing routines have been enhanced to replace these special characters with <^>, </> and <+> characters respectively. *(Nov-17-2010)*

⊟ **Invoice Generation - Automatically Emailed PDF Invoices**

To automatically email generated invoices as PDF documents, for those Projects that have been set up to do so, the operator must now click on the Push Button labeled **Email/Post Finals** found on the Invoice Grid Processing screen. If the **Print/Post Finals** push button is selected, those invoices for Projects set up to be automatically emailed are skipped. *(June-02-2010)*

⊟ **Invoice Generation - Automatically Emailed PDF Invoices**

The P/I system has been enhanced to offer the ability to generate PDF invoices and have them automatically emailed to the respective customer. A new EDI Specification Type has been introduced. To set up to have invoices emailed, the following steps need to be done:

- Add a new EDI Specification code record, of type "Auto-Emailed PDFs". Enter it's properties. These include the Root Name of the generated file, the directory where the PDF files are created, the name of the text file that holds the email message, and the names of the MS Word Templates used to format the output files.
- Create the directory designated to hold the PDF Invoices
- For each Project that is to have it's invoices emailed, assign the EDI Specification Control Code that was created above.
- For each Customer associated to the above Projects, on their A/R Profile tabbed sub-screen, set the Email Statements and Invoices property. Specify whether which email address is to be used; the company's, or either one of the Contacts.
- Create the MS Word Template that is to be used to format the appearance of the invoices. Set the margins, font, orientation, spacing and as an option, a watermark. (This template must be installed on the Windows client machine where the invoices are generated.)
- Generate the invoices in the normal fashion.
- A new push button function has been added to the Invoice Grid Processing

screen labeled "Email/Post Finals". Click this button, and only those invoices for those Projects that have been set up for emailed invoices will be automatically created as PDF files, and emailed.

- As an option, defined by a property associated to the EDI Specification Control record, a Recap Report for each invoice will also be generated as a PDF, and attached to the email.
- The PDF files for the Invoices, and their Recap Reports, are created in the designated directory. They will remain on the system until they are deleted from Windows.

Note that when PDF Invoices are generated, they are really generated as an MS Word document, and from within Word, is saved as a PDF. This functionality ONLY works if Microsoft Office 2007, or later, is installed on your client computer. *(Mar-18-2010)*

▱ **EDI Specifications for PDF Invoices**

A new type of EDI Specifications Control record has been introduced. It is used to designate that invoices, for the Projects to which it is assigned, will be generated as a PDF document and automatically emailed to the customer. As an option, a Detail Recap report will also be generated which is also emailed. *(Mar-05-2010)*

▱ **EDI Specifications Maintenance**

The EDI Specifications record have been increased in size to accommodate larger fields. As well, the Historic Statistics table has been broken out and is now kept in a separate file that now holds up to 25 entries, (up from 15). In the Specifications record, the Data Directory Path has been increased to handle names up to 100 characters in length. *(Feb-25-2010)*

> **Upgrade instructions**
>
> When the software with this enhancement is installed, you **MUST** execute the PI Upgrade utility to have your existing EDI Control records rebuilt. Please contact Sentinel Hill Software for further information.

▱ **BB & T Generated EDI Invoices**

The Invoice EDI file that is generated has a summary total line as the last record in the file. The total number of Credit Units reported was incorrect. The problem has been fixed. *(Feb-03-2010)*

▱ **EDI Invoices for Bank 1 & JP Morgan Chase**

Those Invoices that had tax amounts allocated to charges were not reporting the tax amounts correctly. The TXI record was being output, but the amount was not being included. The problem has been fixed. *(Jan-28-2010)*

▱ **cXML Invoices**

For the cXML invoices that are generated, the Search Company Name, and the Ordered By fields that are loaded from the Recap records, are appended together into a string as information within the <Description> tag of the <InvoiceDetailItemReference> tag. The logic has been revised so that any <%>

characters will be replaced with the <p> character, and any <'> or <"> characters will be removed. *(Jan-07-2010)*

For 2009

☐ **WIP Period Analysis Inquiry/Report**

The option to export data to spreadsheet has been enhanced. There are up to 8 different types of data that may be output to an Excel spreadsheet. Each type will now be output to it's own worksheet within the Excel workbook. *(Dec-16-2009)*

☐ **Functions Exporting to Excel Spreadsheets**

For those functions that export data to Excel spreadsheets, the following enhancements have been made:

- When titles are output, they will be formatted as bold in 14-point
- When legends are output, they will be formatted as bold in 12-point
- When headers are output, they will be formatted as bold and italic
- Dollar amount data column will be formatted for "Currency", (where $ signs will be displayed with 2 decimal places)

The following applications have been revised accordingly, where applicable *(Dec-15-2009)* :

- Task Codes Maintenance – Properties Export
- Invoice Group Codes Maintenance – Properties Export
- XML Supplier Part Mapping Maintenance – Properties Export
- Credit Card / Cost Center Mapping Maintenance – Properties Export
- Project Codes Maintenance – Properties Export
- WIP Period Analysis – Export functions
- Recap Detail Spreadsheet/Reports – Generating Invoiced Recap and Recap Detail Spreadsheet functions

☐ **Project Write-Offs**

This was provided as a function from the the **Select Project for Billing** application. It now may be accessed with a menu item from the P/I menu's Operations drop -down menu. *(Nov-10-2009)*

☐ **Invoice History Inquiry**

Context sensitive Help has been introduced to the screens offered in the Invoice History Inquiry functions. *(Nov-10-2009)*

☐ **Invoice History Inquiry - Credit Note Entry**

Credits may be entered and applied against a selected Historic Invoice. A number of cosmetic enhancements have been made to the screens used to enter the Credits. In particular the operator may now switch between the Credit Note Entry and the Apply to

Invoiced WIP Item tabbed sub-screens at will.   *(Nov-10-2009)*

Invoice History Inquiry

Both Historic Invoices and Archived Invoices may be inquired upon. From this function, the Historic Invoices Register report may be selected. A number of cosmetic changes have been made to identify which types of historic records are being displayed, and reported on.   *(Nov-10-2009)*

Project Inquiry

Context sensitive Help has been introduced to the Project Inquiry function.   *(Nov-10-2009)*

Project Inquiry

The functions to **Apply Credit to WIP items**, and to **Write-Off a Project's WIP** items have been removed from the **Project Inquiry** application. Entry of Credits to specific Invoices is provided only as a function within the **Historic Invoice Inquire** application. Writing Off a Project is provided as a function within the **Select Project for Billing** application. *(Nov-10-2009)*

WIP Adjustments

When a WIP item's Extended Amount is edited, from the P/I Project Inquiry function, the Unit Rate will now be recomputed and displayed accordingly based on the revised Extended Price and the # of Units. *(Nov-02-2009)*

Invoice Generation - cXML Invoices

To correctly handle Credits, the cXML invoicing routine has been revised as follows:

- If a negative Recap charge is encountered it is assumed to be a Credit item
- For a negative Recap charge, the Quantity field will now always be output as a negative value and the Unit Rate field will be output as a positive value, (regardless of the signs that were recorded in the Recap record).

This was needed because there was some inconsistency with how the signs were passed in the Unit Rate and the Quantity fields in the Recap records. *(Aug-25-2009)*

Invoice Generation - LEDES98B Invoices

The LEDES98B Invoice Generation program has been revised to output a variation to the standard as required by Kilpatrick Stockton. *(Aug-25-2009)*

EDI Specifications Maintenance - LEDES98B Invoices

The LEDES98B Invoice Generation program has been revised to accommodate variations needed for Kilpatrick Stockton. The EDI Control maintenance screen has been revised offering a new field used to indicated the version of LEDES that is to be used.   Also, a 2nd new field was added to provide the Line Item Expense Code that must be output. *(Aug-25-2009)*

Invoice Generation

The Invoice Generation routines have a feature to honor a $ Value Limit of Invoices defined by the Invoice Layout records. As each WIP charge is assigned to an invoice, if the amount that it contributes to the total value of the invoice exceeds the $ Limit

defined by the Layout, it is not included, and the invoice is completed. If the value of an individual WIP item was greater than the $ Limit, a problem occurred, in that the system would create up to 999,999 Zero Valued invoices. The system has been revised to ignore any WIP items whose $ value exceeds the Limit defined by the corresponding Invoice Layout. *(Aug-05-2009)*

▫ **cXML Invoices**

For the cXML invoices that are generated, the Search Company Name, and the Ordered By fields that are loaded from the Recap records, are appended together into a string as information within the <Description> tag of the <InvoiceDetailItemReference> tag. The logic has been revised so that any "<" or ">" characters will be removed. This was necessary so the XML processor system would not think that a new tag was in the file. *(Aug-05-2009)*

▫ **EDI Invoices for Bank 1 & JP Morgan Chase**

The logic for the EDI Invoices has been revised so that if Credit Invoices are generated, the minus sign will now be on the leading edge of the numbers that are reported. *(July-29-2009)*

▫ **cXML (Ariba), Invoices for Bank-of-America**

Tax charges will now be reported within the <Tax>....</Tax> tag within the <InvoiceDetailItem>....</InvoiceDetailItem> area of the cXML file. (For JP Morgan/ Chase, no tax detail information is recorded). *(July-2-2009)*

▫ **cXML (Ariba), Invoices for Bank-of-America and JP Morgan/Chase**

The generated XML code has been revised so that commas in numeric quantity or amount fields will now be removed. *(June-30-2009)*

▫ **Invoice Generation - LEDES98B Invoices**

The Invoice Generation program has been revised to consolidate the charges for a given invoice to a single charged item. This consolidation is done when the LEDES98B output interface file is generated. (Note that the detail associated to charges are lost). *(June-24-2009)*

▫ **Invoice Generation - VISA Paymentech Invoices**

The Invoice Generation program has been revised to consolidate the charges for a given invoice to a single charged item. This consolidation is done when the Paymentech output interface file is generated. (Note that the detail associated to charges are lost). *(June-24-2009)*

▫ **EDI Specifications Layout - LEDES98B Invoices**

The control properties for EDI Invoices generated to be submitted to customers that require Invoices to be submitted using LEDES98B has been enhanced. A new option has been introduced to have the all invoice detail items consolidated to a single a single charge when the LEDES98B output interface file is generated. (Note that the P/I Invoices will still show the detail when inquired upon). *(June-23-2009)*

▫ **EDI Specifications Layout - VISA Paymentech Invoices**

The control properties for EDI Invoices generated to be submitted to Paymentech has been enhanced. A new option has been introduced to have the all invoice detail items

consolidated to a single a single charge when the Paymentech output interface file is generated. (Note that the P/I Invoices will still show the detail when inquired upon). *(June-23-2009)*

☐ **Invoice Generation**

The Invoice Generation routines have been enhanced to honor the new $ Value Limit of Invoices property that was introduced to the Invoice Layout records. As each WIP charge is assigned to an invoice, if the amount that it contributes to the total value of the invoice exceeds the $ Limit defined by the Layout, it is not included, and the invoice is completed. A new invoice will be started for the remaining charges to be billed for the given Project. *(June-18-2009)*

☐ **Invoice Layout - Limit the $ Value of an Invoice**

A new property has been introduced to the Invoice Layout record to define a dollar value limit that is allowed for any given invoice that is generated. The limit will apply to all P/I Projects that use the specified Layout. If a $ limit is applicable, a check-box is set and the maximum $ value may be set. The limit field has a maximum value of $ 999,999. *(June-18-2009)*

Upgrade instructions

When the software with this enhancement is installed, you **MUST** visit each existing Invoice Layout Code that has been defined in the P/I system, and clear the **Limit the $ Value of an Invoice** check-box before invoices are generated.

☐ **LEDES98B EDI Invoicing**

For numeric fields in the Ledes EDI output file, for numbers greater than zero, the first character of the field was output as a space. Leading spaces are not allowed in numeric fields. The program was revised to set this field to the number ZERO where applicable. For negative numbers, the first digit will continue to hold the "-" negative sign. Note that the formal specifications of LEDES98B states that leading ZEROS are acceptable in numeric fields, and leading and trailing blanks in character fields are acceptable. *(June-16-2009)*

☐ **Clear Credit Card Numbers**

A new function has been introduced to the P/I system. Under the menu's **File** drop-down menu, **Clear All Credit Card Numbers** may be invoked to have all occurrences of credit card numbers cleared. That is, in those data records where a credit card number is stored, the number **1111-1111-1111-1111** will be assigned to the card number. A cutoff date may be entered as a filter to limit the records that have the numbers cleared for those files were dates would be applicable. This function should be executed on a regular basis to ensure that historic Invoice records have their credit card fields cleared. Also, if data files are being used in a test environment, all data files should have the credit card fields cleared. *(June-01-2009)*

☐ **Accounts Receivables Purge A/R Function**

When the Purge A/R function is executed in the Accounts Receivable system, if the items being purged originated from the P/I system, the associated P/I Invoice history record is read, and flagged as having had it's Cash Payments applied. For a specific

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situation, if the Cash Payment Open Item had an earlier, or the same date as the Invoice and a different Invoice in the PI system had the same Invoice # as the payments Check Number, it was incorrectly being flagged as being paid. Also, the Payment Date will now be correctly recorded in the P/I Invoice History record. These problems have been fixed. *(April-21-2009)*

☐ **XML (Ariba), Invoices for Bank-of-America and JP Morgan/Chase**

The generated XML code has been revised so that leading ZEROS in numeric quantity or amount fields will now be removed. *(April-17-2009)*

☐ **P/I Interface to Accounts Receivable**

When prepaid P/I Invoices are posted to Accounts Receivable as Sales Transactions, if paid with Credit Cards, the Credit Card number is passed as xxxxxxxxxxxx9999, where 9999 is the last 4 digits. The Credit Card # as stored in the Sales Transaction is not encrypted. *(Mar-11-2009)*

☐ **P/I Files Rebuild for Encryption**

A new program has been developed that will process all PI records that contain Credit Card numbers.   It reads the Credit Card Mapping, Invoice and Invoice History files and encrypts any Credit Card Numbers that have been previously stored. *(Mar-11-2009)*

Upgrade function

When the software with this enhancement is installed, the program
UPGRADPI_ENCRYPT must be compiled, defined as a User Function, and executed.

☐ **Paymentek Invoicing function**

The function to generate charges submitted to Paymentek has been revised to deal with the encryption/decryption of the Credit Card numbers used for generating invoice for designated Projects. When these invoices are created, the credit card # is encrypted. The encrypted Credit Card numbers are also moved into the A/R system's Sales transactions. *(Mar-11-2009)*

☐ **Cost Center Credit Card Mapping Maintenance**

The Credit Card fields in the mapping records are now encrypted. The encryption is considered a "strong" encryption based on a Vigenere Cipher algorithm using multiple dynamically built conversion tables. The file is also encrypted using Acucobol's ISAM file encryption, (which is a "soft" encryption). *(Mar-11-2009)*

➡ For 2008

☐ **Active and Historic Invoice Records**

The definition of the Invoice and Historic Invoice records has been revised. These records had a field that carried an applicable Bill Code associated to the Invoice. This field has been increased from 20 to 30 characters in size. A rebuild must be executed on the Invoice file, the Invoice History file, and the Archived Invoice History file. All

related PI functions have been modified to use the 30 character code. *(Nov-11-2008)*

☐ **General WIP Entry - Import from Spreadsheet function**

The input column for the Recap Search Time may now be either blank, a 6 digit number representing hhmmss, or a text string of "hh:mm:ss". Previously, if the text string was input, it was interpreted as an error, and the remaining Recap fields of the item was not being input. *(Nov-3-2008)*

☐ **Recap Detail Spreadsheet/Report function**

A problem has been fixed. When generating a Recap Report or Spreadsheet for Un-Posted Invoices sorted by Invoices, no detail was not being reported. *(Nov-3-2008)*

☐ **XML (Ariba), Invoices for Bank-of-America and JP Morgan/Chase**

A new Codes Maintenance function has been added to the P/I system. This maintains records that will map product codes, (that are actually segments of the P/I Task Code), to the Ariba Line Reference code. When cXML invoices are generated, a segment of the PI Task Code will be used to look up the Line Reference code which is assigned to the argument in the <InvoiceDetailItemReference lineNumber=99999> tag. Also the segment of the PI Task Code will be inserted in the <ItemID><SupplierPartID>.....</SupplierPartID></ItemID> tag. *(Nov-3-2008)*

☐ **XML (Ariba), Invoices for Bank-of-America and JP Morgan/Chase**

A number of fixes were required for files submitted to Ariba to be accepted *(Oct-15-2008)*

- Leading spaces in dollar value amounts are removed.
- The EDI-OUTPUT record was increased from 420 to 500 bytes to handle larger output records
- The <cXML payloadID> tag was revised to be made up of the "Date.Time.PID600.999", where 999 is an Invoice counter.
- The WIP record's Recap-ID Number and Counter will be assigned to the <InvoiceDetailItem invoiceLineNumber=> tag argument
- The Recap record's Order Number and Line Number will be assigned to the <InvoiceDetailItemReference LineNumber=> tag argument
- The <Description > tag portion of the <InvoiceDetailItemReference ... > will now be as follows:
  Date: *Recap Search Date* Name: *Recap Searched Company* User: *Recap Searched By* Desc: *Recap Activity Description*

☐ **Wilmington Trust EDI Invoices**

Minor changes to the data being generated in the spreadsheet. *(Oct-15-2008)*

- The constant in column C was changed from "VN123456" to "VN011273".
- The Cost Center in column H is now obtained from the 1st four characters of the Bill Code. (Previously it was bytes 12-15)

☐ **Find and Replace for P/I Project Records**

The Find/Replace function was enhanced to provide for the searching and replacing

the fields associated to a Project's EDI controlling fields. These were in a different record, and were not handled correctly. Now, you can use whatever Search criteria you wish to select projects, and specify to assign, or replace, settings of the EDI control fields. If originally, the record did not exist, it will now be written. This makes it easy now to assign EDI options to may projects. *(Oct-15-2008)*

⊟ EDI – XML Invoices

The generation of XML Invoices has been revised so that each invoice produces a separate XML file. *(Oct-7-2008)*

⊟ RECAP Detail Record

The definition of one of the fields of the Recap Detail record has been changed. What used to be the RECAP-DETAIL-DFS-NUMBER field is now used to hold information passed from the WIP record. Specifically, it will hold a copy of the WIP's Task Code from the Recap's associated WIP record. The WIP Task Code is moved into the Recap Detail record when Invoices are generated. This new field is needed in the Recap Record so to be available when cXML invoices are generated. *(Aug-28-2008)*

⊟ cXML Invoices

The invoicing function producing cXML invoices for submission to Ariba has been modified. The <Supplier Secret> tag field is now obtained from the P/I Projects associated EDI Control specification record. Also, the <Supplier Part ID> tag will be determined as either the entire, or part of the P/I WIP Task Code, as determined by a setting in the EDI Control specification record. *(Aug-28-2008)*

⊟ ANSI X12 4010-810 EDI Invoices

The [PER] Invoice Header Data record used to provide information about each Invoice has it's CONTACT-NAME field. This field now contains the Customer Code, and the Invoices "Attention To" individual as a text string "XXXXXX-Attention Name".   It used to just have the Search Date of the charge. *(Aug-28-2008)*

⊟ EDI Control Specifications Maintenance

In the EDI Specification Control record used for ARIBA cXML Invoices, a new field has been added, and an existing fields has expanded in size. The new field Supplier Secret, defines one of the required tags; and the Remit-To Identifier field was increased from 10 to 30 characters in size. The EDI Control Maintenance application screen has been revised accordingly. ***The UPGRAD_UCC3 utility must be executed to have the existing EDI Control records rebuilt to accommodate the new and larger fields***. *(Aug-28-2008)*

⊟ On-Line Help

The Professional Invoicing system now has On-Line Help. You can access these help files from the application's screens or menu bars. *(Aug-10-2008)*

New and Different – Enhancements and Fixes in all Series 5 Systems

For 2014

Support for Office 365

The printing routines, and the import/export routines have been enhanced to provide support for MS Word and MS Excel in Office 365. *(Oct-01-2014)*

Series 5 User Logon Profile Maintenance

A new property has been introduced to the Series 5 Logon User's profile. You may now specify the Default Import/Export File type for each user. When Importing or Exporting data the selected default will now be automatically set. The Import/Export routines has been revised to use the specified default. *(Mar-26-2014)*

For 2013

Generating Documents and Reports as MS Word Documents

When output is generated as an MS Word Document, an entry in the runtime configuration file is used to define the output orientation, font name, font size, and where applicable, a Template. The system has been enhanced to now provide for 40 character font names and template filenames. (Increased from 25 characters) *(July-03-2013)*

Attach Supporting Documents function

The ability to attach documents to different Series 5 Transactions Master Code records has been enhanced. You may now attach an HTML file or a link to a Web Page. Also, when displaying JPEG or Bit-Map files, the Microsoft Office Picture Viewer Utility will be employed.

Also, when adding a new attachment, the system will default the path to a folder that should exist in the directory designated to be the "Temporary" directory associated to each Company System. You should create a directory named "Attachments" in that directory, (if it's not already there). *(Jun-27-2013)*

Series 5 Outlook Email Reading

Series 5 applications may now make use of a new routine that provides the ability to read email from MS Outlook. Currently used by the A/P and O/P Manager Approval functions, emails are read that were sent from designated approval managers. The internal driver used to read emails using calls to Microsoft Office Outlook. The following capabilities associated to reading emails are now possible:

- Emails are read from program selected in-boxes
- Filters may be set to read only emails from selected Senders or emails with a specified character string within the Subject line
- Up to 3 attachments may be read and passed to the S5 application
- Sub-folders withing a designated In-Box may be created by the system
- Emails may be deleted or moved to different sub-folders

⮕ For 2012

□ **Series 5 Import/Export Functions**

When importing or exporting data fields from/to MS Excel, after the process has been completed, the EXCEL.EXE process was not being terminated, (due to a problem with Windows, or there is some secret function to do so). The problem has been fixed. Now, when Excel is launched from Series 5, it's Process Id is detected, and once the import/export is completed, the process is "Killed" using a system call using the TASKKILL DOS command.   *(Nov-12-2012)*

□ **Series 5 Import/Export Functions**

When importing or exporting data fields from MS Excel, tab-delimited, or CSV data files, the system will now handle text fields up to 200 characters in length.   *(Sept-18-2012)*

□ **Series 5 Launching Microsoft Calendar**

The Series 5 Applications make calls to the Microsoft Calendar routine to display a calendar, and accept the operator's selection of a date. In order to make use of this feature, the Microsoft Calendar must be registered on all client computers executing Series 5. MSCAL.OCX may be found in **\ms\ocx** on the AcuGT, (Extend 9.xx), installation CD for Windows. If you cannot locate it on the release CD, a copy is included in the Series 5 release directory in **S5\UTIL** .   *(June 25-2012)*

This is accomplished by executing the following command from the designated DOS Command Prompt:

REGSVR32.EXE S5\UTIL\MSCAL.OCX

where:

For System	From Directory	Comments
Windows Server 2003 & 2008 - 64 bit	C:\Windows \SysWOW64	Right click on the Command Prompt and select "Run as Administrator"
Windows XP and 7	C:\Windows \System32	Right click on the Command Prompt and select "Run as Administrator"
earlier Windows	C:\Windows\System	

□ **Reports and Forms generated as MS Word Documents**

All reports and forms that are generated as MS Word Documents may now have an assorted formatting properties applied to the text that is generated. The following formatting capabilities may be applied:

- "Formatting Regions", defined as ranges of lines, for a page may be formatted

with a particular font type and size and be set as Bold, Italic, Underlined, Shaded, or as Reverse Video. Up to 5 different regions may be defined and activated under program control as the page is being populated with text.

- "Tab Sets" may be defined consisting of up to 10 tab settings per line. The types of tabs include Left-Tab, Right-Tab, Center-Tab, and Decimal-Aligned-Tab. Up to 20 different Tab Sets may be defined and activated under program control as the page is being populated with text. As the line of reporting text is output, the tabs are inserted and any preceding spaces are removed. (This basically now allows the use of variable pitch fonts, when outputting columns of data, ensuring proper alignment).
- Individual words or sub-strings, within a print line, may now be output as Bold, Italic, Underlined, Shaded, or as Reverse Video. On a given page, up to 50 sub-strings may be formatted in this manner. On a given line, up to 6 sub-strings may be formatted in this manner.
- Single, (thick or thin), and Double Lines may now be inserted at any position within a page. As the page is being populated with text, the lines are defined to the printing routines with position and sizing set under program control. Up to 40 line may be output per page.

These types of formatting controls could be implemented for Invoices, Purchase Orders, Customer Statements, A/P Checks or Customer Quotes. In order to take advantage of these features, the appropriate applications' program must be pro-grammatically customized. Contact Sentinel Hill Software Inc., for more information. further details. *(Apr-24-2012) HS5_Enhancements_to_ALL_Systems-2011-2013.xml*

All Series 5 Applications offering Export Functions

When entering export selection options, if the operator was to click on the "About Exporting" information tab, an error was being reported that the "File did not exits". This problem has been fixed. Now you may freely select any filtering or output options tab when they are presented without any problems. *(March-09-2012)*

Using Windows' Logon Usernames

New functionality has been introduced to the Series 5 Main menu Signon process. You may now define to have the Series 5 system use the client's Windows Logon Code as the User Code for signing in to Series 5. If set, when Series 5 is launched, the Windows Signon Code will be used. The User-Logon screen will be presented, but only the Password field may be displayed for keyboard entry. *(If the given Series 5 User Logon profile had a blank password entered, then the User-Logon screen will not be presented at all. Control will be transferred directly to the Main Menu screen.)*

For systems that are set to use the Windows User Logon code, user's will ONLY be able to log in to Series 5 using the Windows Logon Code. The function to **"Repeat User's Logon"**, found under the Main Menu's File drop-down menu will be disabled. **Note however, if a user has their System Management Access set to Full, they will still be able to "Repeat User's Logon", and sign on as a different user.**

For systems that do not wish to use the Windows logon, the default will still be set to that defined by the PC Client user's **SHSI_USER_NAME** environment variable. (Feb-

28-2012)

Bitmapped Images in Series 5

All Series 5 applications that load bitmapped images have been revised to expect the image filenames to be in upper case. *(Feb-28-2012)*

Upper Case Bitmap Files

On UNIX systems, please make sure that all bitmap files in the bin/images folder have uppercase file names.

Series 5 File Error Handling Routine

The logic used to report serious file I/O errors has been enhanced to correctly identify the full folder path for any sequential text files that might be generated. Previously in some cases, the error message displayed incorrectly showed the path that was assigned as the Data Files Directory assigned to the Company System. This problem has been fixed. *(Jan-30-2012)*

Series 5 Directory/Folder Selection "Browse" Feature

For any application that requires entry or selection of a directory path, a "Browse" push button is presented. The operator could click this button, and the Windows Folder browse dialogue window would be presented. Previously, only descendants of the user's default working folder are shown. The system has been revised to now display only those folders which are descendants of the root directory of the Directory Path field associated to the "Browse" button. So now, if you were to enter C:\ in the Directory Path, when the "Browse" button is clicked, you would be able to browse any directory on your computer's "C" drive. Setting the Directory Path blank, or to something other that a drive letter designation, would result in only being able to browse descendants of the user's default working directory. *(Jan-18-2012)*

"Series 5 File Error Handling Routine

The logic used to report serious file I/O errors has been enhanced to identify errors associated to the use of AcuServer. Previously, 9D-104 errors were reported as an "AcuServer Connection Failure". Now, all 9D-XX errors are identified, and the applicable message displayed. *(Jan-10-2012)*

Reports and Forms generated as MS Word Documents

All reports and forms that are generated as MS Word Documents are now created protected as "Read-Only" documents. A password may be used to un-lock them. Refer to the applicable documentation for further details. *(Jan-10-2012)*

⮕ For 2011

Series 5 Import/Export Routine

The generic routine to handle importing and exporting of data, (to spreadsheet or

character delimited files), has been enhanced to provide for CSV files that do not have/ allow quotes around character strings. *(Dec-12-2011)*

☐ **"CALLEREQ" Program**

The CALLEREQ program has been revised to call either the W/M's E-Request Service routine or the new P/I's On-Demand Billing Service routine. It no longer resides as a program belonging to the W/M system, rather, it has been moved into the S/M, (System's Management) directory and library. Please ensure the correct compile script files are installed. *(Nov-11-2011)*

☐ **Interfacing with MS Office Excel and Word**

The logic provided to launch MS Excel or MS Word has been expanded to handle the case where MS Office was installed in **C:\Program Files (x86)\Microsoft Office \Office**. (Previously the system only looked in in **C:\Program Files\Microsoft Office \Office** . *(Oct-03-2011)*

☐ **Series 5 Email Generation**

A number of different application functions offer the ability to automatically generate and send emails. This includes the emailing of invoices, purchase orders, statements, customer quotes, reports and other messages.
The internal driver used to send emails has been enhanced to generated and send emails using calls to Microsoft Office Outlook, (rather than to the MAPI library). As a result, the following capabilities associated to sending emails are now possible:

- Emails may be sent as Plain Text, Rich Text, or as HTML
- Emails may be generated when executing as either a thin-client of FAT client
- Emails may now be sent with copies going to Cc users and Bcc
- The text message associated to emails are now loaded from user created/ maintained data files, rather than being coded from within the application software. These text files may be either plain ASCII text, or HTML files and contain up to 8192 characters. Except for specific types of emails, these files MUST BE LOCATED in the directory named **Email-Templates** located in each Company System's designated reports directory.
- Provides support for 120 character email addresses, and 140 character subject line

(Sept-20-2011)

☐ **Importing $ Numeric Cells from Spreadsheet**

A problem has been identified and fixed when importing $ formatted columns of data from spreadsheet. If any headings were specified, and they exceeded 22 characters in length, the number being input and recorded was ZERO. The problem has been fixed. *(July-25-2011)*

☐ **Generating Reports as MS Word Documents**

The Series 5 printing routines had the ability to generate output as an MS Word document. This function has been enhanced to provide support for Office 2010 Word utility. Now, when presented with the print options screen, and the operator chooses to

"Save To Disk", they may choose to output as an Office 2007/2010 or Office 2003 Word document. The system will automatically append either the .DOCX or the .DOC extension, and generate the document using the correct file format. *(June-14-2011)*

⊟ **Import/Export Functions**

The import and export function has been enhanced to provide support for Office 2010 EXCEL utility. Now, when presented with the import/export options screen, the operator may select to load from, or output to, either an Excel 2007/2010 Workbook, or an Excel 97-2003 Workbook. The system will automatically append either the .XLSX or the .XLS extension, and read or write the spreadsheet using the correct file format. *(June-14-2011)*

⊟ **Generic Search Function**

In all Series Series 5 applications where a grid screen is presented for the entry of transactions, or the maintenance of master codes, a "Search" function is provided. This function has been enhanced in the cases where the operator has chosen to search for a given record where a Date is chosen as the search criteria.   Now the following literal label is displayed, "mm/dd/yy", indicating the desired format that the date should be entered as. As well, the date entered may now be as "*mmddyy*", "*mmddyyyy*", "*mm/dd/yy*", or "*mm/dd/yyyy*", depending on the mood of the operator. *(May-02-2011)*

⊟ **New Feature to Attach Supporting Documents to assorted Master Code Records and Transactions**

You may now attach a variety of different documents to assorted Master Code records, and Transactions. Up to 15 separate documents may be selected, and attached and viewed from the applicable functions in assorted Series 5 systems. These documents may also be viewed where applicable. The different types of documents supported are as follows:

- PDF
- Bitmap (*.BMP files)
- JPEG
- TIFF
- ASCII Text (*.TXT files)

- MS Word 2003 documents
- MS Word 2007 documents
- MS Excel 2003 documents
- MS Excel 2007 documents
- ASCII Text (*.txt files)

(Apr-14-2011)

⊟ **Printing to Windows Spooler**

The Series 5 provides for the definition of Printer Queues. As a property to each Series 5 Printer Queue, you may define a "Captured Printer". When a report is generated and a given Series 5 Printer Queue is chosen that has a "Captured Printer", the report prints directly to the associated network printer. If the Printer Queue does not have a "Captured Printer" defined, then a Windows "Printer Select" dialogue box window is displayed. Previously, the the Series 5 system made a call to have the "Printer Select" window displayed which was an older style, compatible with older versions of Windows. Now a new call is made displaying a modern Windows XP/7 "Printer Select" Window. *(Feb-09-2011)*

⊟ **System Captured Windows Maintenance**

The Series 5 provides for the definition of Printer Queues. As a property to each Series 5 Printer Queue, you may define a "Captured Printer". When a report is generated and a given Series 5 Printer Queue is chosen that has a "Captured Printer", the report prints directly to the associated network printer. The routine used to capture a Windows printer was not working correctly under Windows 7. This problem has been fixed. *(Feb-09-2011)*

➲ For 2010

⊟ **Default Reporting Output Destination**

In all Series 5 applications that generate reports that might normally be printed, a Print Options screen is presented. From this screen, the operator may choose to have the output directed to a printer; to be "Archived", to be just displayed to the screen to "Browse"; or output as an MS Word or PDF file. The default output has been changed to be just displayed to the screen to be "Browsed". (Previously it was defaulted to be output to a printer).

Additionally, should you desire to set the default output, you may do so by inserting a variable in the runtime Configuration file. The variable SHSI_RPT_DESTINATION with a single numeric argument, will provide the default target for generated reports, where you would set the argument as follows:

1 - To the Printer   17 - To Disk as an MS Word 2003 document
2 - Archived   26 - To Disk as an MS Word 2007 document
3 - Both the Printer 35 - To Disk as a PDF document
and Archived
4 - To be just
Browsed

Note that if the applicable application already determined the target output, these defaults will NOT be used. *(Oct-13-2010)*

⊟ **Data File "Properties" function**

In all Series 5 applications that maintain master codes records, or provide for the entry or inquiry of transaction or history records, under File on the menu bar, the Properties function will display information about the related files. This function has been enhanced to now display 12 numeric digits for both the files size, and the number of records in the file. Also, now the version of the Vision file is displayed, along with the number of volumes that are used to hold the data and the index keys for the associated file(s). *(Sept-01-2010)*

⊟ **Using the Mouse Wheel to navigate Series 5 Grid Screens**

In all Series 5 applications that use a paged grid screen, (those showing rows of master codes and/or transaction records similar to a spreadsheet), the operator may now navigate forwards and backwards through the records using the Mouse Wheel. If

the Ctrl-Key is also pressed while twirling the mouse, 4 rows of data are skipped instead of just 1. (If when you spin the mouse too fast, and a "Stack Overflow" error occurs, in the runtimes Configuration file, add the variable PERFORM_STACK 384 and it should work OK) Note that this new feature is only available for systems with at least AcuGT Rev 8.1.3 *(July 27-2010)*

⊟ MS Excel System Error Recovery

The Series 5 family of applications offers the ability to import to, and export from, an MS Excel Workbook document. System error that could be generated while outputting to and/or inputting from, MS Excel documents were causing Series 5 applications to terminate with a not too friendly error message. The errors that were particularly annoying were as follows:

- When importing from an Excel document with a filename, selected from the application, that did not actually exist, (and the operator had forgotten to "Browse" to choose the particular file).

- When a user attempted to generate output as an MS Excel document, but they did not have MS Excel installed, or it was installed in a location other than the default, a fatal error occurred.

The import/export routines have been enhanced to now capture any system errors that were being generated from MS Excel. A reasonably friendly error message will now be displayed, and the particular application will continue processing. (In most cases, the import/export will just be abandoned). *(May-31-2010)*

⊟ Compiling with INTEL Native mode

A problem has been discovered when compiling with the Intel native mode. This option must be removed from the S5_GCBL.BAT compiler macro that can be found in the S5 \util directory. (Basically replace the **set NATIVE=--intel** command with **set NATIVE=** command. *(May-21-2010)*

⊟ Generating Standard Forms as MS Word Documents

The Series 5 generates a number of different forms. For example, A/P Checks, Invoices, Picking Tickets, Statements and Purchase Orders. Variables within the runtime configuration file may be set up that are used to indicate how the forms are to be generated and/or printed. Arguments to these variables indicated whether the form was printed, archived, and/or saved as MS Word documents. The 2nd argument, used to define the output, may now have the following values:

- WORD2003
- WORD2007
- PRINT&WORD2003
- PRINT&WORD2007
- ARCHIVE&WORD2003
- ARCHIVE&WORD2007

Existing arguments associated to WORD will be interpreted as WORD2003.

The applications that generated these forms have been enhanced to now recognize arguments that indicate the forms are to be generated as Office 2007 Word or Office 2003 Word documents. *(May-21-2010)*

⊟ MS Word System Error Recovery

The Series 5 printing routines had the ability to generate output as an MS Word document. System error that could be generated while outputting to and/or automatic printing of MS Word documents were causing Series 5 applications to terminate with a not too friendly error message. The errors that were particularly annoying were as follows:

- When outputting to an MS Word document that had a template defined, and the given template file was not set up for that user, a fatal error occurred.

- When outputting to an MS Word document that was supposed to be automatically printed, but the given network printer was either offline, or that segment of the network was not active, a fatal error occurred.

- When a user attempted to generate output as an MS Word document, but they did not have MS Word installed, or it was installed in a location other than the default, a fatal error occurred.

The printing routines have been enhanced to now capture any system errors that were being generated from MS Word. A reasonably friendly error message will now be displayed, and the particular application will continue processing. (In most cases, the generation of the report will just be abandoned). *(May-21-2010)*

Generating Reports as MS Word Documents

The Series 5 printing routines had the ability to generate output as an MS Word document. This function has been enhanced to provide support for Office 2007 Word utility. Now, when presented with the print options screen, and the operator chooses to "Save To Disk", they may choose to output as an Office 2007 or Office 2003 Word document. The system will automatically append either the .DOCX or the .DOC extension, and generate the document using the correct file format. For users that have Office 2007 installed, the default File Type will be the Office 2007 Word, but they may choose either Office formats. For users that do not have Office 2007 installed, the default File Type will be the Office 2003 Word, and they will not be able to choose Word 2007 or the PDF formats. *(May-20-2010)*

Automatic Sending of Emails

The Series 5 system has the capability of automatically sending emails. Emails are sent by making a call to a MAPI.Library, which in turn sends the email using Microsoft Outlook. If the receiver's email address is prefixed with "**LN:**" or "**Ln:**", (indicating that they are Lotus Notes users), then instead of using MAPI, a DOS command call is made using the command line defined by the runtime configuration variable "**DOS_MAIL_CMD**", to actually send the email.   Within this command line, there are pseudo variables, that would be replaced with the Subject, Receivers Name and Address and the path to an Attachment. This capability has been enhanced to now provide for sending the email with 2 attachments. The new pseudo variable **% ATTACHMENT2%** will be replaced with the full path to a 2nd attachment, if applicable. *(May-03-2010)*

Import/Export Functions

The import and export function has been enhanced to provide support for Office 2007

EXCEL utility. Now, when presented with the import/export options screen, the operator may select to load from, or output to, either an Excel 2007 Workbook, or an Excel 97-2003 Workbook. The system will automatically append either the .XLSX or the .XLS extension, and read or write the spreadsheet using the correct file format. For users that have Office 2007 installed, the default File Type will be the Excel 2007 Workbook, but they may choose either Excel format. For users that do not have Office 2007 installed, the default File Type will be the Excel 97-2003 Workbook, and they will not be able to choose Excel 2007. *(May-03-2010)*

☐ **Import/Export Functions**

When the import/export screen is presented and a particular directory and file is selected for processing, if the operator clicks on the Back push-button, (to go back and change an option of prior screens), upon re-displaying the import/export screen, the originally selected file/directory was being reset to the program's default. This problem has been fixed. *(Mar-24-2010)*

☐ **Generating Sub-Documents as MS Word or PDF Files**

The Series 5 printing routines had the ability to generate a sub-document as an MS Word document. (A sub-document might be a single Invoice or Customer Statement, generated with a unique filename). This functionality has been enhanced to have the sub-document generated as either an MS Word document, or a PDF document. These sub-documents may be generated at the same time, totally independent from, their normal "printed" versions. When generated as Word documents or PDF documents, MS Word Templates may be used to define the properties of the resulting document with watermarks and headers and footers. *(Mar-15-2010)*

☐ **Import functions from Excel Spreadsheets**

The Series 5 import function offers the option to input from an Excel spreadsheet. In any application that loaded data in this manner, it was difficult to determine when all valid rows of data had been loaded. The Excel import function has been enhanced so that it will correctly stop once valid rows of data have been loaded. (Previously, the system would attempt to load up to 65,436 rows of data and when executing any given Import function it would appear as if the system has hanging). *(Mar-03-2010)*

☐ **Printing of Report as PDF Documents**

All reports and forms that are generated from the Series 5 applications may now be saved as PDF documents. This option is available only to users that have Microsoft's Office 2007 installed on their systems. When the Print Options screen is presented, click the **Save To** check box, and select **PDF Document** from the associated **Save As** drop list. *(Feb-23-2010)*

☐ **Browsing to Select Files and/or Directories Functions**

All routines that offer the functionality to click a "Browse" button to present the operator with a window from which a directory, or a file, can be selected have been revised. Under Windows 7, the clicking of the "Browse" caused a "nested input of events" syndrome to occur. In effect, repeatedly displaying the browse window. The logic for these routines have been revised to avoid this problem. *(Jan-28-2010)*

⊟ **Encryption/Decryption Function**

The subroutine has been revised to now handle 8 digit numeric seeds. This was done to accommodate the A/R system that now has 8 digit documents numbers. All existing encrypted fields will still be able to be decrypted. *(Jan-24-2010)*

➡ For 2009

⊟ **Printing of Reports in Series 5**

The Series 5 printing function has been enhanced to offer the option of printing multiple copies of reports, forms, invoices, orders, etc. A new entry field has been added to the print options sub-screen labeled **# of Copies.** You may select to have up to 9 copies printed. These copies printed will be automatically collated.

> **Multiple Copies**
>
> The ability to have the system print multiple copies is a a feature that is provided as a function of the Windows operating system, and the driver for your printer. If either does not support multiple copies, then setting a value other than 1, will have no effect.
>
> This feature is available only to users executing on Windows system, either directly, or as thin clients.

As well, fields on the Print Options sub-screen have been reorganized slightly to accommodate the new field. (Fields and display prompts associated to outputting reports to a Print Queue are now enclosed within a frame.

Where applicable, in all Series 5 applications, the size of display windows and/or tab sub-screens have been adjusted accordingly. *(Dec-22-2009)*

⊟ **Export functions to Office 2007 Excel Spreadsheets**

The Series 5 import/export function offers the option to output/input to an Excel spreadsheet. Office 2003 Excel had allowed for 65,500 rows, and Office 2007 Excel allows for 1,000,000 rows. When exporting data, the Series 5 system would automatically start outputting to a 2nd worksheet when 65,500 rows were reached. The system will now switch to a 2nd worksheet depending on which version is being used.

As well, the Spreadsheet I/O routines have been enhanced to support up to 999,999 rows of data. *(Dec-16-2009)*

⊟ **Exporting to Excel Spreadsheets functions**

The logic used to export to Excel spreadsheets has been enhanced. In the assorted Series 5 applications, those functions that offer functions to export to an Excel spreadsheet have the ability to perform the following:

- Create multiple worksheets
- Select a specific worksheet to be populated
- Format titles, legends and headers in larger fonts, as bold, and/or as italic

- Have data columns justified left, center or right
- Have a data column formatted for "Currency", (where $ signs will be displayed with 2 decimal places)
  - ❑ For Office 2003 Excel negative numbers are displayed with parenthesis around them
  - ❑ For Office 2007 Excel negative numbers are displayed in red with parenthesis around them

Where applicable, in most of the Series 5 applications, these new capabilities have been introduced. *(Dec-10-2009)*

⊟ **Import and Export functions to Excel Spreadsheets**

The Series 5 import/export function offers the option to output/input to an Excel spreadsheet. If the user selected to launch Excel after exporting data, the system incorrectly assumed Office 2003 was installed, and it's Excel utility was being executed. If you only have Office 2003, then this would not have been a problem. The system now correctly detects the version of Excel to launch. *(Nov-11-2009)*

⊟ **Selecting Dates from Lookup Calendars**

When executing under Windows VISTA, dates were not properly being returned. The year was loaded incorrectly as year ZERO which resolved to a date falling in the year 2000. The problem has been fixed. *(Oct-28-2009)*

⊟ **Automatic Disabling of User who Fail to Correctly Logon**

As a new security feature, as an option, you may select to have users that fail to correctly log in to Series 5 after a specified number of times, automatically disabled from logging in again. Before they can use the Series 5 system again, the System's Manager, or Series 5 Gatekeeper must modify their Logon Properties record. This option may be selected with a new field found on System Control Options screen. *(Oct-22-2009)*

⊟ **User Logon Passwords**

Passwords now must contain at least one numeric digit, and one alpha character, and be at least 8 characters in length. *(Oct-22-2009)*

⊟ **Import and Export functions to Excel Spreadsheets**

The Series 5 import/export function offers the option to output/input to an Excel spreadsheet. If that output/input option is selected, and Excel is not installed on the user's workstation, a message will now be displayed. Previously, the system assumed it was installed, and when it attempted to call Excel to build/read the spreadsheet, the program would bomb out with an error. This will no longer happen. *(June-02-2009)*

⊟ **Outputting Reports and Invoices as MS Word Documents**

Any Series 5 generated reports, invoices, statements, etc, may be output as an MS Word document. For any MS Word documents that are generated, a Template may also be specified, (as defined in a Series 5 Configuration file variable). These templates must be installed on each users workstation in the ***C:\Documents and***

Settings\<PC UserName>\Application Data\Microsoft\Templates folder. For users with Office 2007 these templates need an extension of **.DOTX**. For earlier versions of MS Office, the templates need an extension of **.DOT**. The system has been enhanced so that if from the Series 5 Print Options screen, MS Word output is chosen, it will test for the occurrence of the designated template file for the particular type of output being generated. If the template cannot be located, an error message is displayed. Previously, if when generating the output, the MS Word utility could not find the template, the system displayed an evil looking message, and would abort. *(June-02-2009)*

Main Menu User Logon

When a user fails to logon after 5 attempts of entering their User Code and Password, the system exits. Now, as well, an entry will be recorded in the User Access Log file. *(April-04-2009)*

Encryption/Decryption Function

A new subroutine has been developed that provides the functionality to encrypt and decrypt data fields. The algorithm used is based on a Vigenere Cipher. This would be considered a "strong" encryption. The subroutine is made available to any Series 5 application that requires encryption of any given data record field. *(March-11-2009)*

Series 5 Grid Management Screens

In any of the Maintenance or Transaction Inquiry routines that listed items in a grid whereby a given item, such as a Customer Code or a G/L Account, could be selected. If there were no item on file to be listed, sometimes transactions for the next item on file were being displayed, but the entry field was not being updated. This problem has been fixed. Also, now a message will be displayed indicating that no records were found for the item entered, but the next highest item's items were being displayed. *(Feb-03-2009)*

For 2008

Using AcuGT Rev 8.1

With the recent release of Rev 8.1 of AcuGT, we have discovered that the INTEL native mode, on certain occasions cause Memory Access errors. The batch file used to compile programs **S5\util\s5_gcbl.bat** must be edited to have the variable NATIVE set to nothing. *(Nov-15-2008)*

User Logon Passwords

The Series 5 system now requires all passwords to be made up of at least 8 non-space characters, at lease one of which must be a numeric digit. Also, if a users password has expired, they will be offered the opportunity to assign a new password, after entering the old password. The rules for password entry will apply. *(Oct-7-2008)*

Import and Export and User Interface Applications

An error occurred when exporting to an Excel spreadsheet if the 1st character the output string was a "+", "=", or "-" character. In this case, Excel expected a valid formula. If this was not the case, a terminating error was displayed. The problem has been fixed. Now the Series 5 software will automatically insert a single quote"'" character in front of the string before inserting to the cell. *(Oct-7-2008)*

User Access Maintenance

The Series 5 User Access maintenance routine has been enhanced to simplify the steps to establish new users and give/deny access rights. *(Sept-24-2008)*

- The Enable and Enable-Like functions have been simplified. In each case, you now just highlight the "Red" head that is to be given access rights, and click the Enable or Enable-Like push button, (or right click, and select the desired function from the pop-up menu.

- For the Enable-Like function, a drop-down list will be presented, from which you can select the user that already has access rights, whose rights are assigned to the new user.

- The Copy function has been simplified. If you highlight a "Green" head user that is already enabled, and select Copy from the Edit menu's drop-down menu, you will be able to select one of the users that has no access rights in drop-down list that is presented. (The Copy is basically the reverse of the Enable-Like function)

- For "Green" head users that are already enabled, when right-clicked, the pop-up menu has 2 new functions - "Set All Items to Full Access" - "Set All Items to No Access". These will make it easier to set up and maintain the users' access rights.

- A pop-up window will now be displayed, when any given menu-item in the tree is right-clicked. You will be able to set the access to either "No Access", or to "Full Access" directly, without having to edit the properties sub-screen.

User Access Maintenance

The Series 5 User Access has been enhanced to support up to 250 Logon Users. Formerly was limited to 100 users. *(Sept-10-2008)*

Print Manager and Browser

The Series 5 reporting and printing routines have been enhanced to handle filenames of up to 30 characters long. The UPGRADSM utility must be executed to have the Report-Manager file's records rebuilt to accommodate the larger field. *(Aug-25-2008)*

Import and Export and User Interface Applications

In all applications that offer the opportunity to load from or read a text based interface file where a **BROWSE** button had been provided, you will now be able to select files that have a "—" or a SPACE in the filename or the directory path. *(Aug-25-2008)*

Import/Export Functions

The import and export function has been enhanced to provide support for Office 2007 EXCEL utility. The system will identify Office 2007 utilities by seeing if Excel.EXE can be found in the clients's C:\Program Files\Microsoft Office\Office12 folder. For exporting, the files will be created with the *.XLSX* extension; and if selected to be launched, Office 2007 Excel will now correctly be executed. *(Aug-25-2008)*

⊟ **On-Line Help**

The Series 5 systems now have On-Line Help. You can access these help files from the application. In all functions that offer a menu bar, clicking Help will display a drop-down menu offering General Help, Help on the particular function, and Help about Grids. For menu items that don't have a menu bar, if help is available, a help icon may be clicked to display Help about the particular screen. (Note that help may not actually be available in all cases where offered in the drop down menus) *(Aug-10-2008)*

⊟ **Broadcast Messages**

The Series 5 Broadcast messages have been increased in size. You may now specify 3 lines of 80 character lines of message text to be displayed. The files used to hold these messages have been renamed to be EMERGENCY.DAT and BROADCASTS.DAT. *(Aug-10-2008)*

⊟ **Application User Access Analysis Export**

A new function has been introduced to each applications' User Access Maintenance function. You may now Export to a spreadsheet an analysis table of users access rights. Each row of the table is a menu item, and each column is a Logon User. It provides a quick snapshot of which users have access to any particular function. *(July-15-2008)*

⊟ **User Access Logging**

As an option, your systems manager can turn on the option to log user access to all the systems' menu items. *(June-15-2008)*

Major P/I Features not Found in Series 4

⊟ **New Search and Replace function has been introduced**

The Project, Task, Employee, Vendor Master records, the Invoice History and Work-In-Progress records may now be processed with a search/replace function.

⊟ **Generic Project and WIP selections for Reports**

All reporting functions now have a generic Project and Work-In-Progress transaction selection filter screens. It allows you to randomly select different Projects and/or WIP items to be reported.

⊟ **Enhanced Interfaces for Generic types of Chargeable Data Types**

New interface routines have been introduced to provide for fast and efficient input of data to a "Generalized WIP" entry function

⊟ **Interface/Invoicing Wizard**

A wizard program is one that handles a number of standard repetitive functions. There is a wizard that handles the interface of data, the billing process, the printing of Invoices, and the posting to Accounts Receivables. It examines specific folders for the presence of specific files, and process them accordingly.

⊟ **Enhanced Invoicing Capabilities**

The generation of Invoicing has been enhanced to provide a grid display of the Invoices being generated. All the functions associated to generating, printing proofs, final printing, and posting of invoices is easily available from a single screen. Invoices may also be de-generated should the need arise.

⊟ **EDI Billing**

The generation of Invoicing has been enhanced to provide a grid display of the Invoices being generated. All the functions associated to generating, printing proofs, final printing, and posting of invoices is easily available from a single screen. Invoices may also be de-generated should the need arise.

⊟ **Enhanced Interfaces for Generic Types of Chargeable Data Types**

New interface routines have been introduced to provide for fast and efficient input of data to a "Generalized WIP" entry function.

⊟ **3rd Party Billing**

Charges for specific Projects may be designated as to be billed to pre-defined 3rd parties, based on billing codes associated to the charges. This may be useful where a given head office is generating charges on behalf of a number of subsidiary or branch offices. Based on a billing code, the invoices will be generated and sent to the 3rd specified 3rd party.

2.4 Getting Help

There are a number of different sources of help in Series 5. In addition to this help file you can also access the Power Point tutorials and Sentinel Hill Software support.

To get started, your main source of information should be this help file. We have designed it to provide all the information you will need for using and learning the Professional Invoicing.

Before contacting support, please make sure that you really can't find the information you need here. Thanks!

Displaying the help

- The quickest way to display the help is to press **shift-F1**. If context-sensitive help is available it will be displayed automatically.

- Most screens will have a **Help** button that displays relevant information when clicked.

- On the Series 5 main menu screen, and each application menu screen on the menu-bar click **Help** then **On-Line** Help .

Contacting Sentinel Hill Software support

- Direct email support is available from the Sentinel Hill Software team at support@sentinel-hill.com. You can send an email to this address automatically by clicking on the **support@sentinel-hill.com** graphic on the Licensing tab screen displayed after clicking Help / About on each systems' menu.

- If you have a Support Contract, you may contact Sentinel Hill support center directly at 1-800-663-8354.

Summary of Fixes and Enhancements

- For each application, a detailed history of the changes that have been made is available from our website at   Series 5 Fixes and Enhancements.

Getting a printed user manual

You can download formatted PDF versions of the documentation for each application from our website with the following links:

Accounts Payable	Miscellaneous Invoicing
Accounts Receivable	Fixed Assets
Customer Order Processing	Web Access Management
Inventory Management	Series 5 Systems Manager
Purchase Order Processing	Professional Invoicing

Part III
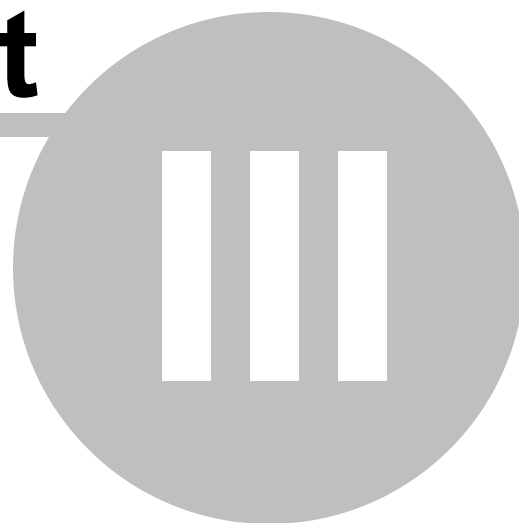
3 P/I Setup and Implementation

This chapter provides some information that will be useful during the setup process of the Series 5 Professional Invoicing system. In particular, sub-sections describe the different Types of WIP items are utilized and what Status they may take on. Also, descriptions as to how Unit Rates are assigned, and what G/L Journal entries are generated as project activity is recorded and invoiced.

☞ **Setup and Implementation**

3.1 Initial Setup Steps

Enter topic text here.

3.2 Time Charges Entry / Invoicing Cycle

Enter topic text here.

3.3 P/I Status and Type Codes

All WIP items that are entered in the system are recorded with a Status Code, and a Type Code. The values for these fields may change depending on how the WIP item is processed, or at what stage of the invoicing cycle, it has reached.

Project Inquiry Grid Display Screen

The P/I Project Inquiry grid screen displays summary information about each WIP item. In the column with the heading C-**T**-**S**, the WIP **T**ype Codes and the WIP **S**tatus Codes are displayed. *(The C indicates whether the WIP item is Chargeable or Non-Chargeable).*

The following sections define what the different values are:

➡ WIP Type Codes

As WIP items are processed by the P/I system they will be updated with different Status Codes. These are defined in the following table:

WIP Type Codes

Code		Description
A	Active	These items have been entered and are eligible to be billed. These would have typically been entered from employee time-sheets, or the Generalized WIP entry operation.
D	On-Demand WIP	These WIP items were entered into the system as "On-Demand" charges, and invoiced accordingly.
F	Forward Balance	These items are represent any credits that have been entered against a Project. The invoice amount field contributes as a credit to the invoiced totals for the Project. As WIP items are marked as having been "Manually Invoiced", this amount will diminish.
C	Credit Note	These items represent any credits that have been entered against a Project. The invoice amount field contributes as a credit to the invoiced totals for the Project. As WIP items are marked as having been "Credited", this amount will diminish.
I	Manual Invoice	These items represent any manual invoices that have been entered for the Project. The invoice amount field contributes to all invoiced totals for the Project. As WIP items are marked as having been "Manually Invoiced", this amount will diminish.
M	Memo	These items are memo records that have been recorded. Only the description field is used. These items do not contribute to any reported totals.
H	Holdbacks	These are system generated holdback amounts for those projects that have been appropriately flagged. A percentage of all invoices is computed and subtracted from the invoice total to be held until the project is completed. At that time, these holdback amounts are invoiced.
R	Partial Balance	These items are system generated partial balance amounts associated to those WIP items that were partially billed. These items will eventually be invoiced.
V	Fully Billed WIP	These items have been invoiced at their original chargeable amounts.
P	Partially Billed WIP	These items have been invoiced only at a partial amount of their original chargeable amounts. For each of these records, there is a corresponding "Partial Balance" WIP record.
K	Marked Up and Billed	These items have been invoiced with an amount that has been marked up or down from their original chargeable amounts.

W	Write-Off	These Items have been Written-Off. They are considered as a cost to the project, bu no revenue was derived from them.

→ WIP Status Codes

As WIP items are processed by the P/I system they will be updated with different Status Codes. These are defined in the following table:

WIP Status Codes		
Code		**Description**
U	Unselected	These items have been entered and are eligible to be billed. All unselected items will be automatically selected when the General Selection for Billing [396] function is executed.
B	Force to be Selected	These items, when entered into the system, are flagged so they will have automatically been selected to be billed. When Invoices are generated, these items will be included on the invoices.
N	Never to be Selected	These items will never be selected to be billed or invoiced. They may include Memos, Write-offs and Deposits.
D	Deferred	These items have been Deferred from being billed. It is possible to defer WIP items permanently, or until a specified date. (Items that have been deferred to a specified date may be automatically billed when the General Selection for Billing function is executed).
T	Temporarily Deferred	These items have been temporarily deferred from being billed. The next time when Invoices are generated, these WIP items will automatically be changed back to the Unselected status.
S	Selected in Full	These items have been selected for billing at their original full value.
P	Selected Partially	These items have been selected for billing at a partial amount of their original value. The amounts remaining will be eligible to be selected for billing at a later time.
M	Selected Marked Up/Down	These items have been selected for billing after being marked up or down from their original amounts.
I	Invoiced	These WIP items have been invoiced.
C	Paid	The Invoice for which these items have been billed under have

		been fully paid. (ie., a Cash Receipt has been fully applied to the invoice in the A/R system).
W	Select to Write-Off	These Items have been selected to Written-Off. They remain with this status until the Write-Off Items have been posted.

➡ Disbursement Status Codes

As Disbursement items are processed by the P/I system they will be updated with different Status Codes. These are defined in the following table:

Disbursement Status Codes		
Code		**Description**
A	Active	These items have been entered and are eligible to be billed. All active items will be automatically selected when the General Selection for Billing ⌐396⌐ function is executed.
N	Non-Chargeable	These may never be selected for billing. The amounts contribute only to the costs of the project.
D	Deferred	These items have been Deferred from being billed. They will remain deferred until selected for billing, or changed to an active state.
S	Selected	These items have been selected for billing. They will be invoiced when invoices are next generated for the project.
I	Invoiced	These items have been invoiced.
C	Paid	The Invoice for which these items have been billed under have been fully paid. (ie., a Cash Receipt has been fully applied to the invoice in the A/R system).

3.4   G/L Account Distributions

The P/I system generates G/L Distributions, as required, basically for all Costs and Revenues. Depending on the the P/I system is configured and how it is used, different types of distributions, (which end up in the G/L as journal entries), might be written. This topic will describe where these accounts are defined, how they are used, and which distributions are generated for the assorted operations available in the P/I system.

➡ G/L Accounts Used in P/I

The G/L accounts used by the P/I system must be defined as valid A/R accounts, and valid G/L accounts. Depending on the account, in the P/I system, they must be assigned to assorted fields in the different Control Specifications, or Master Codes records. Where they must be set up are defined in the following table:

G/L Accounts Defined in the Professional Invoicing System	
Account Name	**Record or Master Code Record Defined With**
AR Control	A/R Control Preferences
Work-In-Progress (WIP)	P/I Control Preferences
Unearned Revenue	P/I Control Preferences
Invoiced Revenue	P/I Control Preferences
Holdback Revenue	P/I Control Preferences
Deferred Income	P/I Control Preferences
Disbursements Markup	P/I Control Preferences
Accumulated Costs	P/I Control Preferences
Suspense Revenue	P/I Control Preferences
Suspense Credits	P/I Control Preferences
Recoverable Expense	Project Code or Disbursement Code Record
Tax	A/R Tax Codes
Revenues	Source is defined by a field in the P/I Control preferences and/or in the Task Code records. The possible sources include the following: • Project Code • Invoice Group Code • Invoice Section Code • Employee Department
Costs	Source is defined by a field in the P/I Control preferences and/or in the Task Code records. The possible sources include the following: • Project Code • Invoice Group Code • Invoice Section Code • Employee Department • Task Code • Employee Code

The P/I system may be configured to record revenue either at the time WIP charges are entered into the system, or at the time that Invoices are generated. Depending on the selected option, the system is referred to either a **Type T Revenue Distribution System**, or a **Type I Revenue Distribution System**.

Detail or summary distributions are written according to options set up in the Control Preferences, the Project, and the Task master records; and depending on the types of transactions being recorded.   The following rules apply:

Detail and/or Summary Distribution Rules			
Account Name	**Defined By**	**Detail by**	**Summary by**
Work-In-Progress	P/I Control Preferences	TimeSheet or Invoice #	Date
Type **T** Revenue	P/I Control Preferences	TimeSheet or Invoice #	Date
Type **I** or **A** Revenue	A/R Control Preferences	Invoice # or Accrual Project	Date or Accrual Date
Recoverable Expense	A/R Control Preferences	Invoice #	Date
Type **I** or **A** Systems Unearned Revenue	(only summary)	n/a	Date
Type **T** Systems Invoiced Revenue	(only summary)	n/a	Invoice Date
Holdbacks	(only summary)	n/a	Invoice Date
Deferred Revenue	(only summary)	n/a	Date
Accumulated Costs	(only summary)	n/a	Time Entry Batch
Costs	(only detail)	TimeSheet and Employee	n/a

G/L Journal Entry Distributions

All G/L Distributions that are generated from the P/I and A/R applications are written to the A/R Distribution file. These A/R Distributions are recorded into the General Ledger system only after the *Interface from Subsystem* operation is executed from the G/L Menu' application.

 Type "T" Revenue Distribution Systems - Distributions Generated

A property in the P/I Control Preferences found on the Rates and Revenue Assignment tab [697] determines whether revenue distributions are to generated at the time that Work-In-Progress (WIP) items are entered into the system (Type "T" systems); or when Invoices are generated. The following table defines which debit/credit distributions are generated for each major P/I

function for Type "T" systems:

Type "T" Revenue Distribution Systems (Revenue distributions generated when WIP charges are entered)			
Function	**Description**	**Debit Account**	**Credit Account**
Time Sheet Entry	WIP Charges	WIP	REVENUE
	Forward Balance Deposits	n/a	n/a
Generalized WIP Entry	WIP Charges	WIP	REVENUE
Project Billing	WIP Write-Offs	REVENUE	WIP
	Mark WIP Manually Invoiced	SUSPENSE REVENUE	WIP
	WIP Items Marked Up/Down	REVENUE	WIP
Invoice Generation	Invoice Amount	INVOICED REVENUE	WIP
	WIP Items Marked Up/Down	REVENUE	WIP
Invoice De-Generation	P/I Control Preferences	WIP	INVOICED REVENUE
On-Demand Invoices	Invoiced WIP	INVOICED REVENUE	REVENUE
	When Posted in A/R	A/R CONTROL	INVOICED REVENUE
On-Demand Re-Generate	Credited Invoice Amount	REVENUE	A/R CONTROL
	Re-Generated Invoice	INVOICED REVENUE	REVENUE
	When Posted in A/R	A/R CONTROL	INVOICED REVENUE
Invoice Query Credits	When Posted in A/R	REVENUE	A/R CONTROL
A/R Sales Batch Posting	Amount of Invoice	A/R CONTROL	INVOICED REVENUE
	Holdback Amts Deducted	HOLDBACKS	INVOICED REVENUE
	Holdback Amts Invoiced	A/R CONTROL	HOLDBACKS
	Disbursements Amounts	A/R CONTROL	RECOVERABLE EXPENSE
	Taxes	A/R CONTROL	TAX CODE ACCOUNT

	Disbursement Markups	A/R CONTROL	DISBURSEMENT MARKUP
	Credit Notes	SUSPENSE CREDIT	A/R CONTROL
	Manual Invoices	A/R CONTROL	SUSPENSE REVENUE
	Prepaid Amounts (CrCard)	CASH	A/R CONTROL

Type "I" Revenue Distribution Systems - Distributions Generated

A property in the P/I Control Preferences found on the Rates and Revenue Assignment tab [697] determines whether revenue distributions are to generated at the time that Work-In-Progress (WIP) items are entered into the system ; or when Invoices are generated (Type "I" systems). The following table defines which debit/credit distributions are generated for each major P/I function for Type "I" systems:

Type "I" Revenue Distribution Systems (Revenue distributions generated when Invoices produced)			
Function	**Description**	**Debit Account**	**Credit Account**
Time Sheet Entry	WIP Charges	WIP	UNEARNED REVENUE
	Forward Balance Deposits	n/a	n/a
Generalized WIP Entry	WIP Charges	WIP	UNEARNED REVENUE
Project Billing	WIP Write-Offs	UNEARNED REVENUE	WIP
	Mark WIP Manually Invoiced	SUSPENSE REVENUE	REVENUE
		UNEARNED REVENUE	WIP
	WIP Items Marked Up/Down	UNEARNED REVENUE	WIP
Invoice Generation	Invoice Amount	UNEARNED REVENUE	WIP
	WIP Items Marked Up/Down	UNEARNED REVENUE	WIP
Invoice De-Generation	P/I Control Preferences	WIP	UNEARNED REVENUE
On-Demand Invoices	Invoiced WIP	n/a	n/a
	When Posted in A/R	A/R CONTROL	REVENUE

On-Demand Re-Generate	Credited Invoice Amount	REVENUE	A/R CONTROL
	Re-Generated Invoice	n/a	n/a
	When Posted in A/R	A/R CONTROL	REVENUE
Invoice Query Credits	When Posted in A/R	REVENUE	A/R CONTROL
A/R Sales Batch Posting	Amount of Invoice	A/R CONTROL	REVENUE
	Holdback Amts Deducted	HOLDBACKS	REVENUE
	Holdback Amts Invoiced	A/R CONTROL	HOLDBACKS
	Disbursements Amounts	A/R CONTROL	RECOVERABLE EXPENSE
	Taxes	A/R CONTROL	TAX CODE ACCOUNT
	Disbursement Markups	A/R CONTROL	DISBURSEMENT MARKUP
	Credit Notes	SUSPENSE CREDIT	A/R CONTROL
	Manual Invoices	A/R CONTROL	SUSPENSE REVENUE
	Prepaid Amounts (CrCard)	CASH	A/R CONTROL

➡ Type "A" Revenue Distribution Systems - Distributions Generated

Type "A" Revenue systems are basically the same as type "I" systems, except Revenue Accruals for each Project may be generated. Since Revenue is not recorded to the G/L until invoices are generated, for those projects requiring longer than your fiscal reporting periods to be completed, the system will record accrued distributions. The total revenue for the period is recorded dated the last day of the period, and a reversing entry to the first day of the next period. The following table defines which debit/credit distributions are generated:

Type "A" Accrual Revenue Distribution Systems **(Un-Invoiced Revenue is accrued from one reporting period to the next)**			
Function	**Description**	**Debit Account**	**Credit Account**
Accrual Posting	Un-Invoiced WIP Charges (Last Day of Current Month)	UNEARNED REVENUE	REVENUE

	Un-Invoiced WIP Charges (1s Day of Next Month)	REVENUE	UNEARNED REVENUE
	Forwarded Balance Deposits	DEFERRED REVENUE	REVENUE

⟳ Costing Distributions Generated

As an option in the P/I Control Preferences 700, applicable Costing Distributions will be generated when WIP activity is recorded in the system. The following table defines which debit/credit distributions are generated:

Cost Distributions			
Function	**Description**	**Debit Account**	**Credit Account**
Time Sheet Entry	WIP Charges	ACCUMULATED COSTS	EMPLOYEE or TASK COST
Generalized WIP Entry	WIP Charges	ACCUMULATED COSTS	EMPLOYEE or TASK COST

3.5   Assignment of Unit Rates

The PI system has been designed to allow for a great deal of flexibility in the assignment or calculation of a rate for a given unit of service performed. Through the use of Standard Rates and Special Rates 671 and P/I system Control Preferences 697, the user may define a rating system which will accommodate various requirements.

All time entered can be classified as chargeable or non-chargeable in nature. All chargeable time will be invoiced to a client for work performed on a given Project. Corresponding to the chargeable and non-chargeable concept are two rates assigned to all rate-bearing sources. These are referred to as Rate 1 (chargeable) and Rate 2 (non-chargeable).

Rates are assigned automatically by the system when project, task and employee information is entered from a time sheet; interfaced from external sources; or entered as General WIP Entry 289. The system will examine the possible sources of a rate in a specific sequence. The sequence is partially controlled by the user utilizing parameters in the P/I Control Preferences. It is still possible to manually enter the rate or override the system developed rate by the "operator override" function.

The system assigned rate is derived by first selecting a rate from either the Client, the Project or the Task records. This rate is called the Standard Rate and is our first choice for the candidate rate. *(The Candidate Rate is the rate that will be chosen by the system when no other rates are found during examination of subsequent possible sources of rates).*
   At this point the program will determine whether a chargeable or a non-chargeable rate is used, and if Special Rates are needed. If a Special Rate Class Code 669 exists in the Project

or Client record, the Special Rates table will be examined. An entry in the special rates table will be searched for utilizing the Special Rate Class Code as a column indicator and variations of the Employee, Employee Group or Employee/Task Codes as the row indicators.

If a Special Rate is found, it becomes a new Candidate Rate. If no special rate exists, the Standard Rate will remain.

The system has several parameters which can be set to determine where information is to be found or in what sequence a Candidate Rate will be derived. The following sections will describe how a rate becomes chargeable or non-chargeable, when Special Rates are used and how a final Candidate Rate is chosen..

Chargeable vs Non-Chargeable Rates

The system defines a chargeable or non-chargeable rate only from the Project or Client records. To determine if a rate is chargeable or not, the system checks the Project and the Client records for the Active Rate. If the Active Rate is the **Default Chargeable Rate**, then the chargeable rate is used. If the Active Rate is **Default Non-Chargeable Rate**, then the non-chargeable rate is used. If the Project has been determined to be chargeable, then the chargeable/non-chargeable flag from the Task record will determine if the WIP item is chargeable or non-chargeable. Only the chargeable rate, (rate 1) will be invoiced, rate 2 (non-chargeable) is never invoiced.

Standard Rates and Special Rates

The system determines from the Project or Client code records whether a Standard or a Special rate will be used. It first selects, as a "Candidate" rate, the Standard rate. It then proceeds to check the Project or Client records for a Special Rate Class Code. If a code exist then the Special Rates Table 671 will be used to determine a new candidate rate. If a Special Rate Class Code is not found or if the Special Rates table is examined and there is not a special rate established, then the Standard rates will remain the candidate rate.

> **Special Rates**
>
> A Special Rate can be established for an Employee, an Employee Group, a Task Group, or for when an Employee performs a specific Task. These, in turn, can be associated to a specific, (or group of), projects by assigning a Rate Class Code 669.

Selection of the Chargeable Unit Rate from the "Candidates"

Control for the steps in determining the final chargeable unit rate is dictated by various options in the P/I Control Preferences 697 application. The program is designed to perform a sequence of steps to test for the possible rates that might be defined. At each step, any rate found becomes the new Candidate Rate. When all possibilities are exhausted, the last Candidate Rate is assigned to the WIP item. A schematic of the rating procedure is shown in the section following.

The first three options defined in the Rates and Revenue tab subscreen of the P/I Controls Preferences, determine the selection process. The following series of tests are performed to come up with a rate.

	The first step is to determine if the Project or the Client is a Chargeable or Non-Chargeable one:
Rate Type Selection	• The PI Preferences **Rate Select Basis** property is tested to determine whether rates are controlled at the Project level or at the Client level. This code directs the system to either the Project or the Client code properties to test whether typically Chargeable WIP items are recorded and invoiced, or not. • If WIP items are deemed to by typically chargeable, then the system will be directed to select the Chargeable Rates from the possible candidate sources. • If they are not typically Chargeable, then the system will be directed to select the Non- Chargeable Rates from the possible candidate sources.
	The system will now determine a candidate rate from the possible Standard Rates available from the Client, Project or Task code properties:
Standard Rate Selection	• If non-Zero, the Client Code's properties' rate becomes the new candidate rate. • The PI Preferences **Rate Selection Precedence** property is tested next. It defines the order in which Task and Project Code properties are tested. • If Projects are precedence over Tasks, then the system first selects the non-zero rate from the Task's properties; then attempts to select the non-zero rate from the Project's properties. (***Testing for the Project rate 2nd gives it priority over the Task***) • If Tasks take precedence over Projects, then the system first selects the non-zero rate from the Project's properties; then attempts to select the non-zero rate from the Task's properties. (***Testing for the Task rate 2nd gives it priority over the Project***)
	At this point, the Candidate Rate becomes the Standard Rate. However, the system will now attempt to determine if any Special Rates were set up. This is accomplished by examining the Special Rates Tables. If no Special Rates are defined in the system, the current Candidate rate will be the one assigned to the WIP item. Special Rates are created using specific codes. Each combination of codes, related

to the type of Special Rate, can be considered as a row in a table. The columns of this table are defined by the P/I as a Rate Class. If you need a Project to test for Special Rates, it must have a Rate Class defined. Finding a Special Rate is a process of testing to see if a rate record has been created using specific combinations of codes related to the WIP item being entered. Each occurrence found becomes the new Candidate rate.

Special Rates Test and Selection	• The PI Preferences **Special Rates Class Selection Precedence** property is tested next. It defines the order in which the system looks for special rates set up based on Employee or based on the Task being performed. and Project Code properties are tested. • If Employee Groups take precedence, then the system first checks to see if a special rate was set up for the Invoice Group, (similar types of Tasks may be assigned the same Invoice Group Code). Then the system checks to see if a special rate was set up for the Employee's Rate Group, (similar types of Employees may be assigned the same Rate Group). Then the system checks to see if a special rate was set up for the Employee. (*Remember that the last source for a rate tested always overrides earlier selected candidate rates*). • If Task/Invoice Groups take precedence, then the system first checks to see if a special rate was set up for the Employee Rate Group. Then the system checks to see if a special rate was set up for the Employee. Then the system checks to see if a special rate was set up for the Task's Invoice Group. • Finally, the system checks to see if a special rate was set up for the Employee when they were performing a specific Task. If found, this rate takes precedence over any previously selected candidate rate.

At this point, the last selected non-zero Candidate Rate becomes the one that will be assigned. But wait Batman, there is one more test that the system will perform. That is there may have been a **Task Modifier Percentage** special rate that was established. (This crafty special rate may be used to easily adjust the resulting unit rate up or down for specific Tasks that are performed).

Task % Modifier	• For the Task associated to the WIP, test to see if a Task Modifier rate was set up. If found, then multiply the final candidate rate by the specified coefficient.

The final candidate rate will be assigned as the unit rate to the WIP item being entered. When entering Employee Time Sheets or Generalize WIP, it will be displayed to the operator. Note that a code is also assigned to the WIP record indicating which rate was selected.

Operator Overrided Rates

After the system derived rate is determined and displayed, the operator may override it and enter a different rate.

➲ Flowchart of the P/I Chargeable Rates Selection

The following chart may help in describing the sequence of selecting the final WIP rate. At each step, the specified non-zero rate becomes the next candidate rate.

Select Client Code Rate

⬇

Rate Selection Precedence
?

Task over Projects ← → Projects over Tasks

Select Project Code Rate — Select Task Code Rate

⬇ ⬇

Select Task Code Rate — Select Project Code Rate

(Test for Special Rates defined for the Projects' Rate Class Code)
Special Rate Class Selection Precedence
?

Employees Groups over Invoice/Task Groups ← → Invoice/Task Groups over Employee Groups

Invoice Group Code Rate — Employee Group Rate

⬇ ⬇

Employee Group Rate — Employee Rate

⬇ ⬇

Employee Rate — Invoice Group Rate

Employee/Task Special Rate

⬇

Task % Modifier

⬇

Operator Override

3.6   Costing

The PI system has been designed to provide, as an option, the tracking of Project Costs. Both expenses and labour consumed for a project, whether chargeable or non-chargeable is recorded as costs.

Labour costs are defined using the Task record in the system. Each task will define whether the unit cost is related to, (or to be determined from), the employee or the actual task being performed. (ie. An hour of consulting by an employee as opposed to the cost of a megabyte of disk storage or use of a machine). The cost of a given WIP item is carried with that item. The cost amount is used in each of the Project Costing reports for both chargeable and non-chargeable activity and is used to calculate a cost amount for each invoice moved to the Accounts Receivable for chargeable activity. The cost of a given disbursement item is the original amount before being marked-up. The original amount is used in the cost amount for each invoice moved to the Accounts Receivable.

A variation to costing is costing with distributions. If selected, WIP costs will be recorded in the A/R distribution file and subsequently moved to the General Ledger.

➡ Unit Costs

In order to monitor the costs associated to project activity, you must have set the applicable check-box on the Costing tab sub-screen in the P/I Control Preferences 700. For systems that have the costing option selected, for all WIP and Disbursement entered for a project, a cost will be computed. The cost amount for both chargeable and non-chargeable WIP charges is computed as follows:

$$COST = \# \text{ TASK UNITS} \times \text{UNIT COST}$$

The # of Task Units are those entered record with time sheet entries and General WIP charges. The Unit Cost is obtained from the task record, the employee record, or from the Special Rates Table.

Determining the Unit Cost Rate uses a similar method to that used in computing the chargeable unit rates. The following series of tests are performed to come up with a unit cost.

The system will determine a candidate cost rate from the possible Unit Cost Rates available from the Employee or Task code properties:	
Unit Cost Rate Selection	• A Unit Cost is may be assigned to both Employees and Tasks. A property associated to each Task is used to indicated whether the Unit Cost Rate is to be determined from the Task or from the Employee. Based on the setting, the appropriate Unit Cost becomes the new candidate rate.
At this point, the Candidate Rate becomes the Unit Cost. However, the system will now attempt to determine if any Special Unit Cost Rates were set up. This is accomplished by examining the Special Rates Tables. If no Special Rates are	

defined in the system, the current Candidate cost rate will be the one assigned to the WIP item.

Special Rates may be established for specific Employee or Task codes. Each code, related to the type of Special Rate, can be considered as a row in a table. The columns of this table are defined by the P/I as a Rate Class. If you need a Project to test for Special Rates, it must have a Rate Class defined. Finding a Special Rate is a process of testing to see if a rate record has been created using specific combinations of codes related to the WIP item being entered. Each occurrence found becomes the new Candidate rate.

Special Unit Cost Rates

You would want to set up Special Cost Rates for Tasks or Employees in order to compute different costs for different sets of Customers. Remember that different sets of costs can be defined for different Rate Class Codes 669, which are assigned to different Projects. (Projects belong to Customers).

Special Unit Cost Rate Test and Selection	• The property associated to each Task which is used to indicated whether the Unit Cost Rate is to be determined from the Task or from the Employee is examined. • Based on the setting, the system checks to see if a special cost rate was set up for either the Task or the Employee. (***Only one or the other is tested, not both***).

At this point, the last selected non-zero Candidate Cost Rate becomes the one that will be assigned. But wait Batman, there is one more test that the system will perform. That is there may have been a **Task Cost Modifier Percentage** special rate that was established. (This crafty special rate may be used to easily adjust the resulting unit cost rate up or down for specific Tasks that are performed).

Task % Modifier	• For the Task associated to the WIP, test to see if a Task Cost Modifier rate was set up. If found, then multiply the final candidate rate by the specified coefficient.

➲ Flowchart of the P/I Cost Rates Selection

The following chart may help in describing the sequence of selecting the final WIP rate. At each step, the specified non-zero rate becomes the next candidate rate.
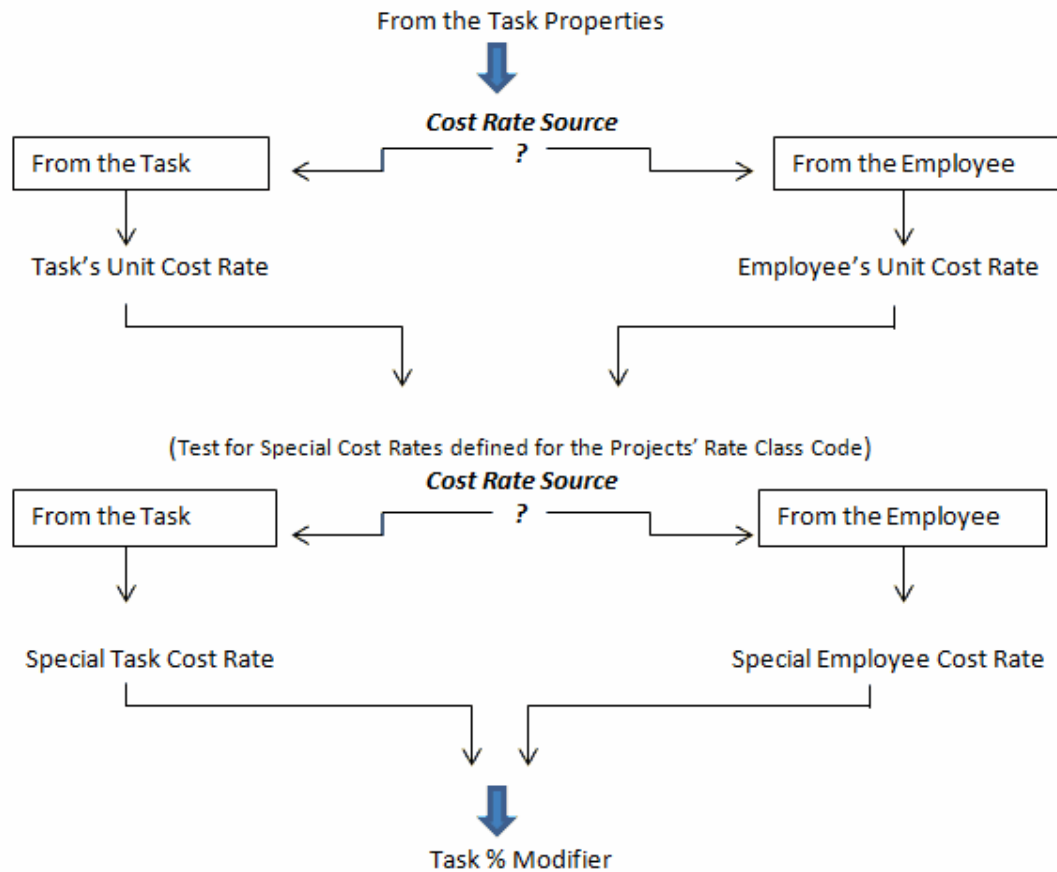
◉ Cost Distribution Accounts

For systems that have selected the check-box to **Generate G/L Cost Distributions for Work-In-Progress** in the P/I Control Preferences [700], Cost Distributions will be generated in the A/R distribution file. The account number is determined using control parameters in the P/I Control Preferences, and in the Task record. The account may be defined in the Task, Project, Employee, Department, Invoice Section or Invoice Group records. After the account is determined, the Special Account file is examined to see if an account had been defined for a combination of the Employee's Job Class Code and the Task Code. If found, it becomes the Cost Account. As well, it is possible to override the profit centre of the selected account with a profit centre code from either the Department record or the Location record.

The G/L accounts used by the P/I system must be defined as valid A/R accounts, and valid G/L accounts.

3.7 Daily Processing

Enter topic text here.

3.8   Month-End Processing

Enter topic text here.

3.9   Year-End Processing

Enter topic text here.

Part IV

4   The Basic User Interface

Throughout the Series 5 system applications, there are a number of basic common types of screens to provide a consistent operation. These are discussed in this chapter and it's related sub-topics.

4.1   Professional Invoicing Application Menu

Each Application has a primary menu screen. These menu programs all operator in the same manner, and basically offer the same types of functions.

The instructions below explain the features available and how to customize some of the sub-screens. For detailed instruction on the actual application, refer to the related topics in the Professional Invoicing Menu Functions 202 and The P/I Menu 202 chapters.

Here is the P/I menu that will be used to identify the different functions available.
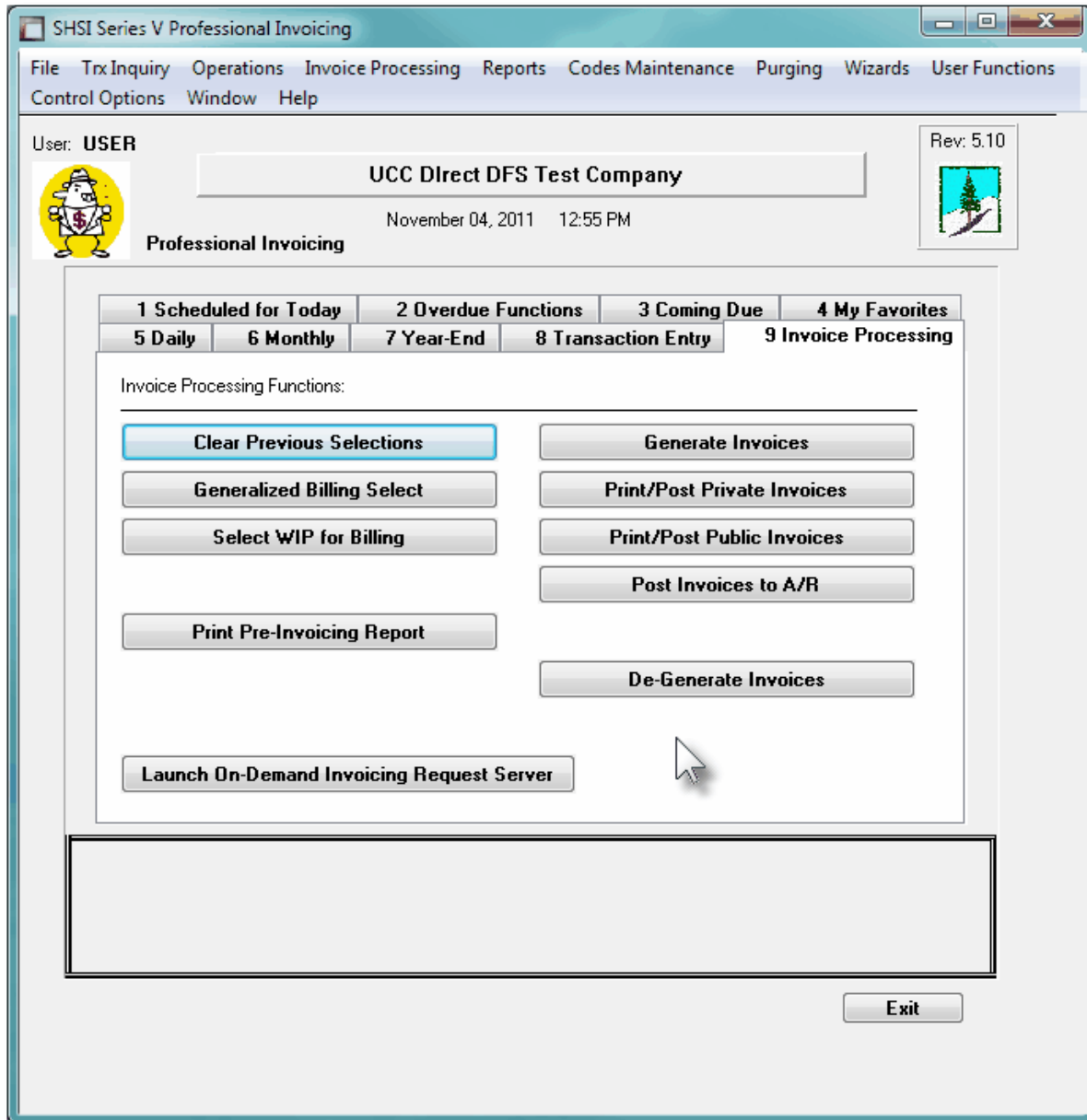
Applications' Menu Bar

All functions available to a given user may be accessed from the menu bar at the top of the screen. Menu items are grouped according to the type of functions for each application.
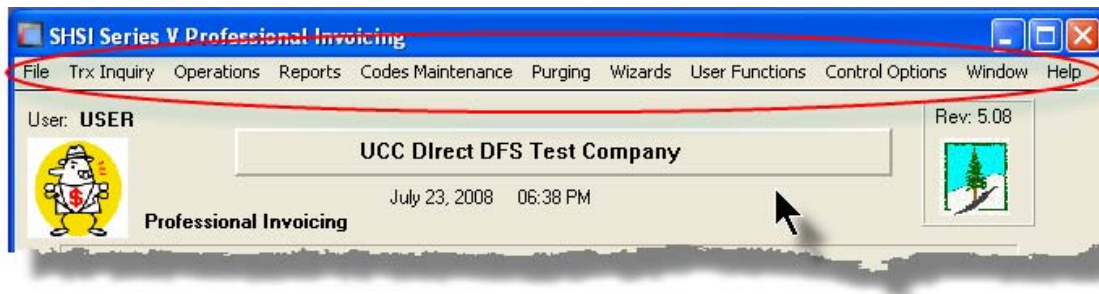
Applications' Menu Bar

The following menu bar groups of functions are defined:

Menu Bar Group	Types of Application Functions
File	For the Reports Manager, Batch Job Processor, and other File Management functions
Trx Inquiry	For functions that offer screen Inquiry of current or archived data, or interactive analysis
Operations	For Sales Transaction Entry, Cash Receipts Entry, Invoicing, Printing Customer Statements or Dunning Letters, Purging the Receivables and other typically daily, monthly or annual functions
Reports	For the generations of reports
Code Maintenance	Maintenance functions for defining and updating master code files
Purging	Functions that Purge History files
Wizards	For setting up and/or launching user defined Wizards
User Functions	For launching user created programs or other Window's Utilities
Window	Functions to manage the simultaneous execution of up to 9 of the applications' functions
Help	Displays licensing information, launches Help, or executes a Monitor displaying users currently using the system

For example, to select the Customer Codes Maintenance function:

1. Click Codes Maintenance in the menu bar.
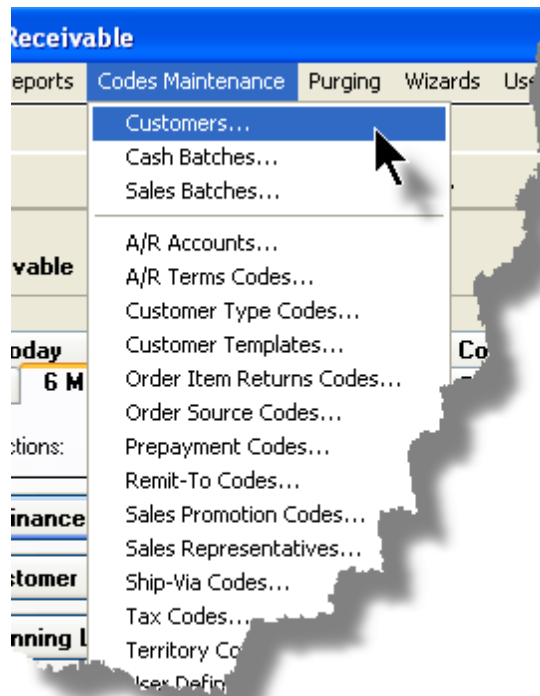
2. Select **Customers...** from the drop-down menu and the Customer Codes
Maintenance screen will be displayed**.**

▬ Daily Operations - Monthly Operations, Year-End Operations and Transaction Entry tabbed sub-screens

Tabbed sub-menus are provide on the application menus that offer common types of
functions. Each of the applications menus offer tabbed sub-screens that have those
functions that would be typically invoked a certain times, or to enter Transactions.

For example, those menu functions in the G/L system that might be executed on a daily
basis:
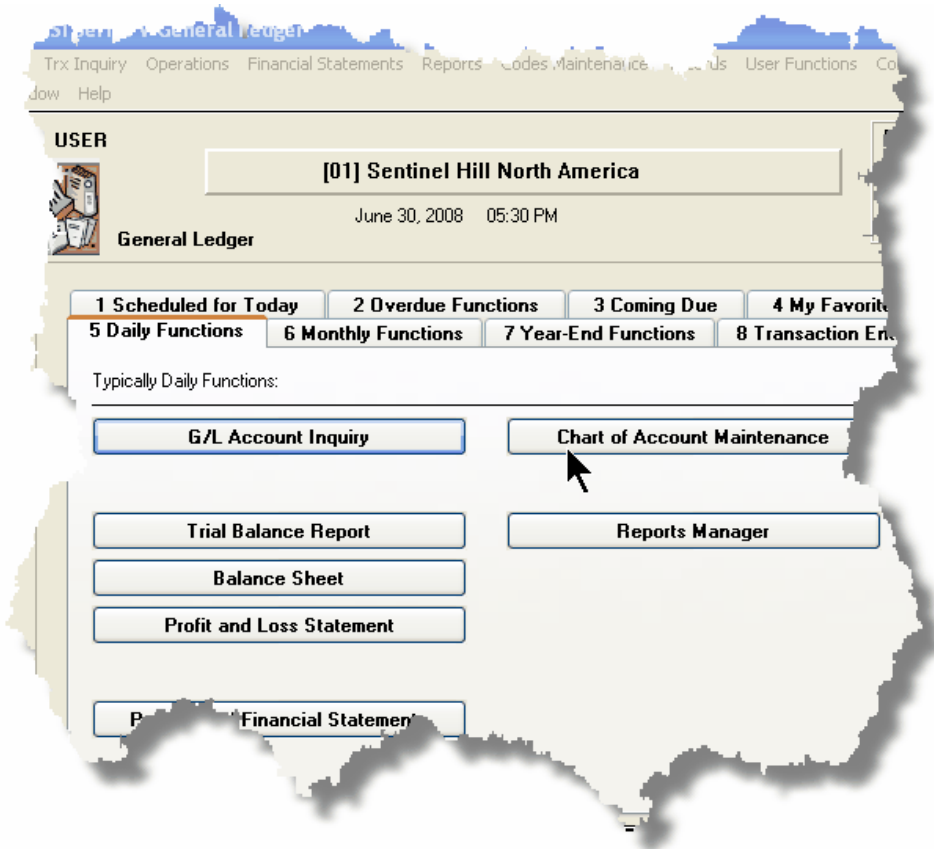
1. Click on the applications' **Daily Functions** tab.

2. Click on the desired function push button.

4.1.1   Multi-Threaded Windows

The applications menus provide the ability to select and execute up to 9 functions all at the same time. Each executes in their own window independent of one another.

⊙ Execute multiple functions from the Applications' menu simultaneously

- The functions that have been launched are displayed in the frame at the bottom on the application menu
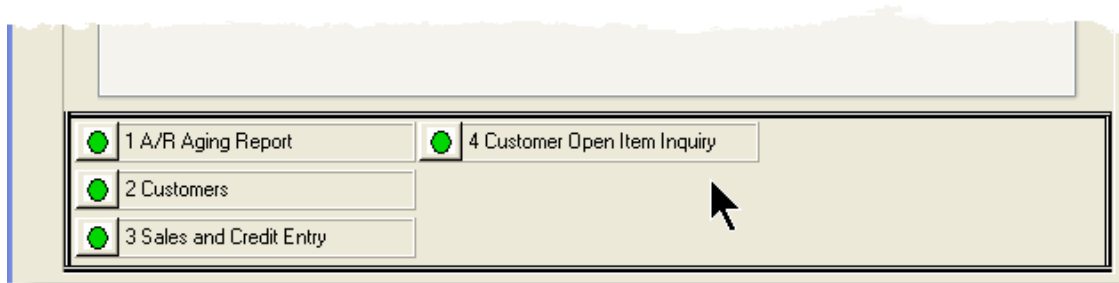
- If you right click the icon associated to an executing function, a drop-down menu will appear from which you can hide or restore it's screen, or terminate the function.
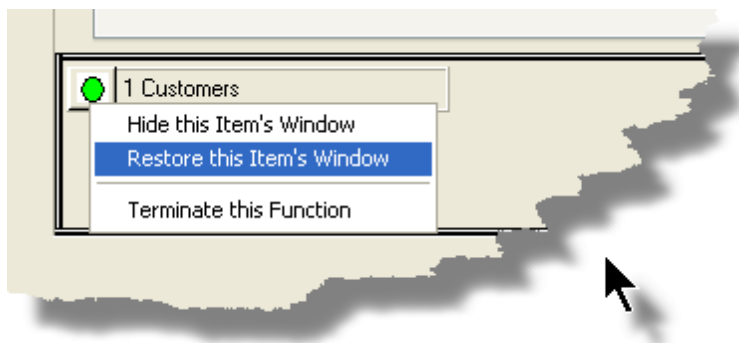
- The functions that have been launched are visible as items under the menu bar's **Window** sub-menu
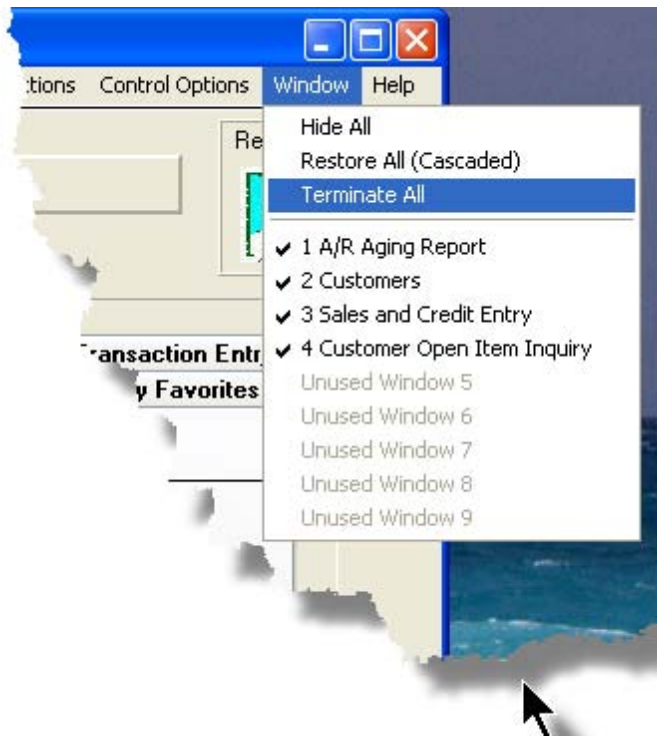
- You may terminate, hide or cascade the executing functions windows by selecting the appropriate function from the menu bar's **Window** sub-menu
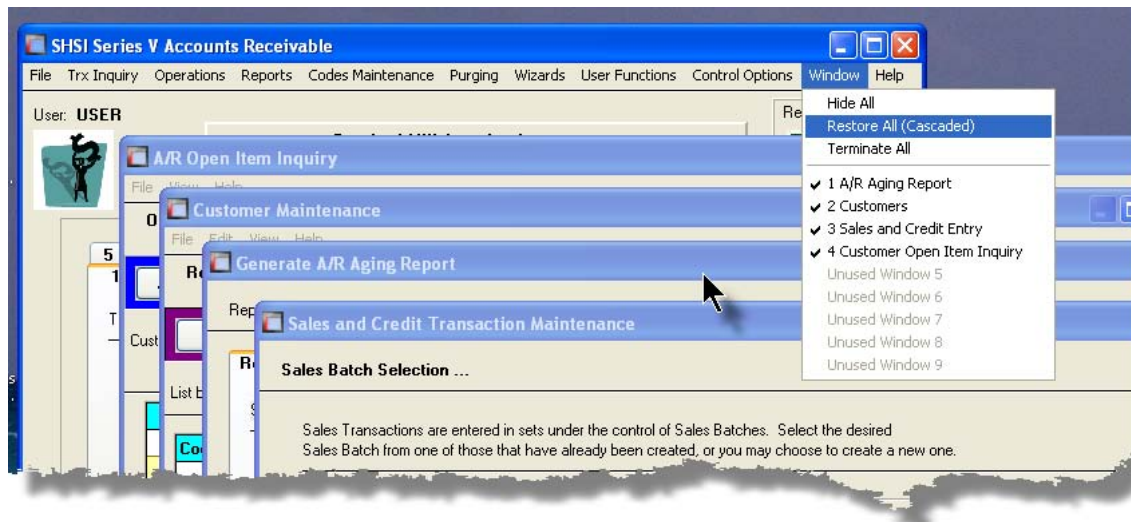
- You may hide, or redisplay a particular executing function by clicking on it's entry in the menu bar's Window sub-menu

4.1.2   Scheduled Menu Functions

The Series 5 Menus offers the ability to define certain functions to be scheduled for particular times of the day at specified intervals.   Tabbed sub-screens display those functions that have been scheduled and are **Overdue**, **Due for Today**, or **Coming Due**.   The operator must click the push button in the sub-screen to select these functions to have them executed.   Once the function is finished, the operator will be prompted to reschedule the job.

Refer to the section on Users Scheduled Menu Functions 186 under the User Access Management 179 Chapter for the steps to set up the Scheduled functions.

Scheduled Menu Sub-Screen Examples

- For menu functions that are scheduled to be launched today:
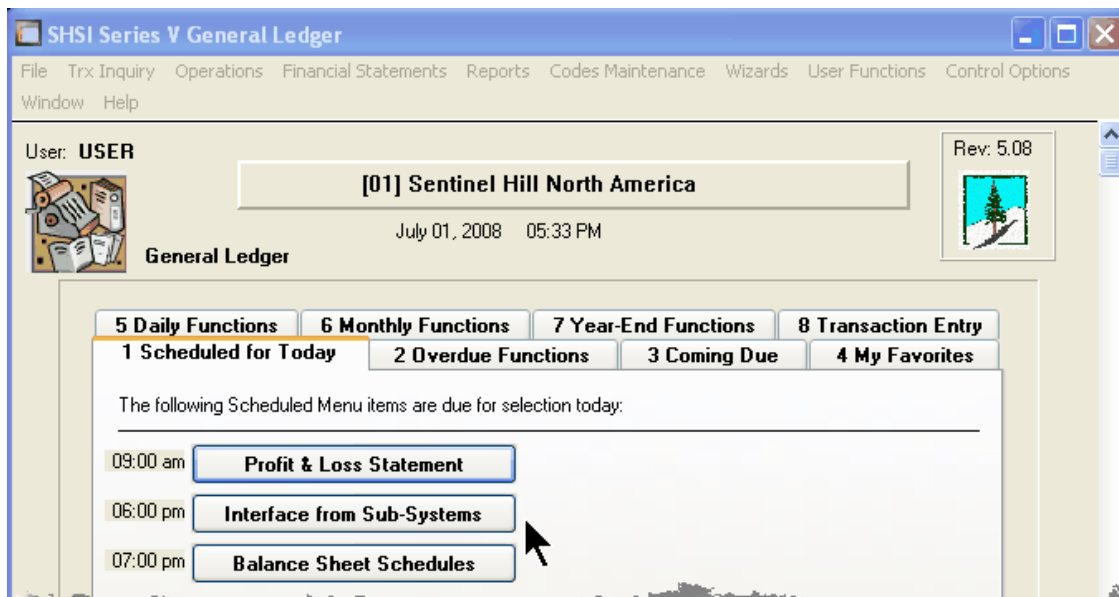
- For menu functions that are scheduled, but were not launched on the day they were due. They are Overdue:

- For menu functions that are scheduled, but for a date in the future:
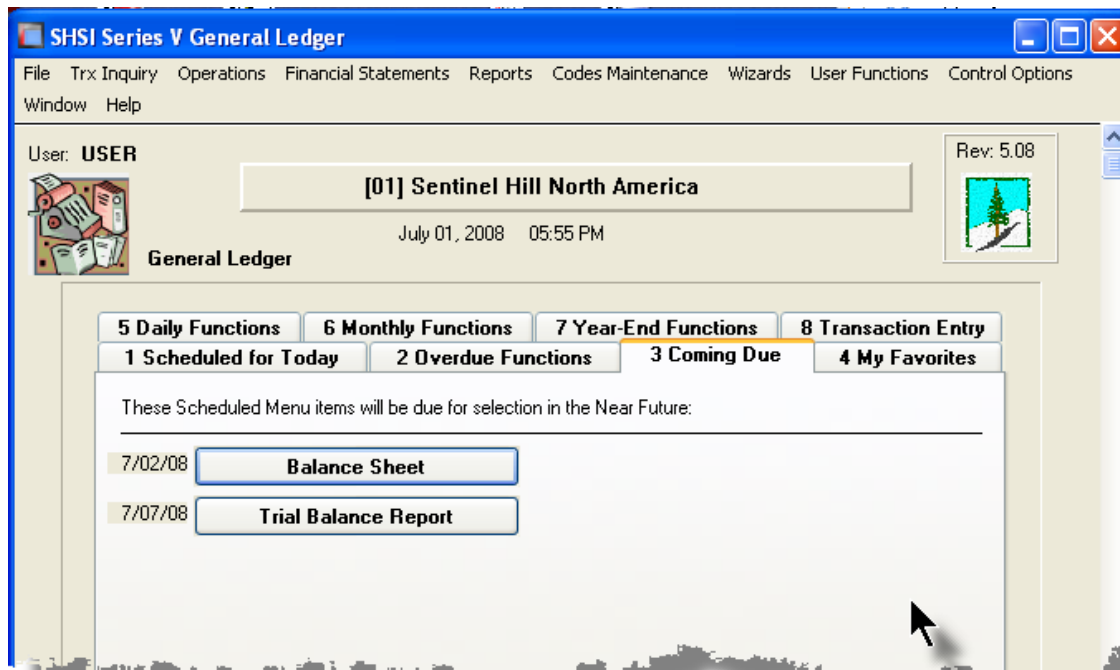
Rescheduling Scheduled Functions

Once a scheduled menu item's process has completed, a screen is presented to the operator offering to have the menu item rescheduled.
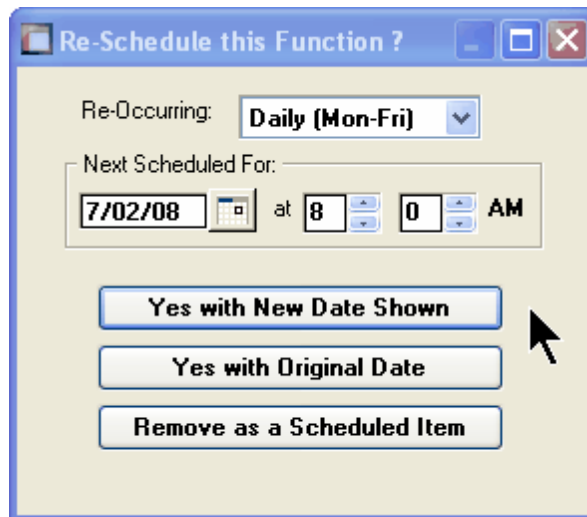
1. The fields will default so the function will be scheduled as defined.

2. You may have the item rescheduled using one of the following intervals:

No
Hourly (9-5)
Daily (Mon-Fri)
Every Day
Weekly
Monthly
Quarterly
Annually
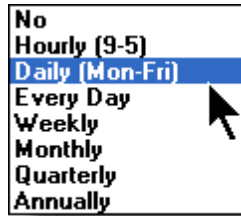
3. Click on the applicable push button as required.

4.2 Grid Processing Screens

The Series 5 applications have been developed around the concept that the operator should be able to navigate easily through the master codes data sets or batches of transactions that are being worked with. To accomplish this, the assorted accounting systems have made use of a graphical control known as a grid.

The grid control is basically a table that provides the operator with a list of the data records being worked with, and controls to navigate through the associated file. Individual fields may be edited, pop-up menus may be displayed for related functions, and the cursor up/down and Page up/down keys may be used to move around rows and columns of data.

The screens that display these grids also offer a number of functions that the operator can manage or manipulate the particular records' information. These are fairly consistent throughout the Series 5 accounting systems.

Grid screens are typically developed for the following types of menu functions:

- ❑ Master Code Maintenance routines
- ❑ Transaction Entry routines
- ❑ Data Inquiry routines
- ❑ Operations that require the operator to perform some type of function to easily set or edit properties of a specific type of data record

Here is an example of a grid based screen that offers most of the controls typical of a Transaction Entry function. *(In this case there are 2 rows in information for each data item being displayed)*.

List-By or View Options Menu

In those grid applications where the items may be displayed using different sort criteria, click on **View** in the menu-bar for a drop-down menu of selections; or make the selection from the **List-By** drop-down list.
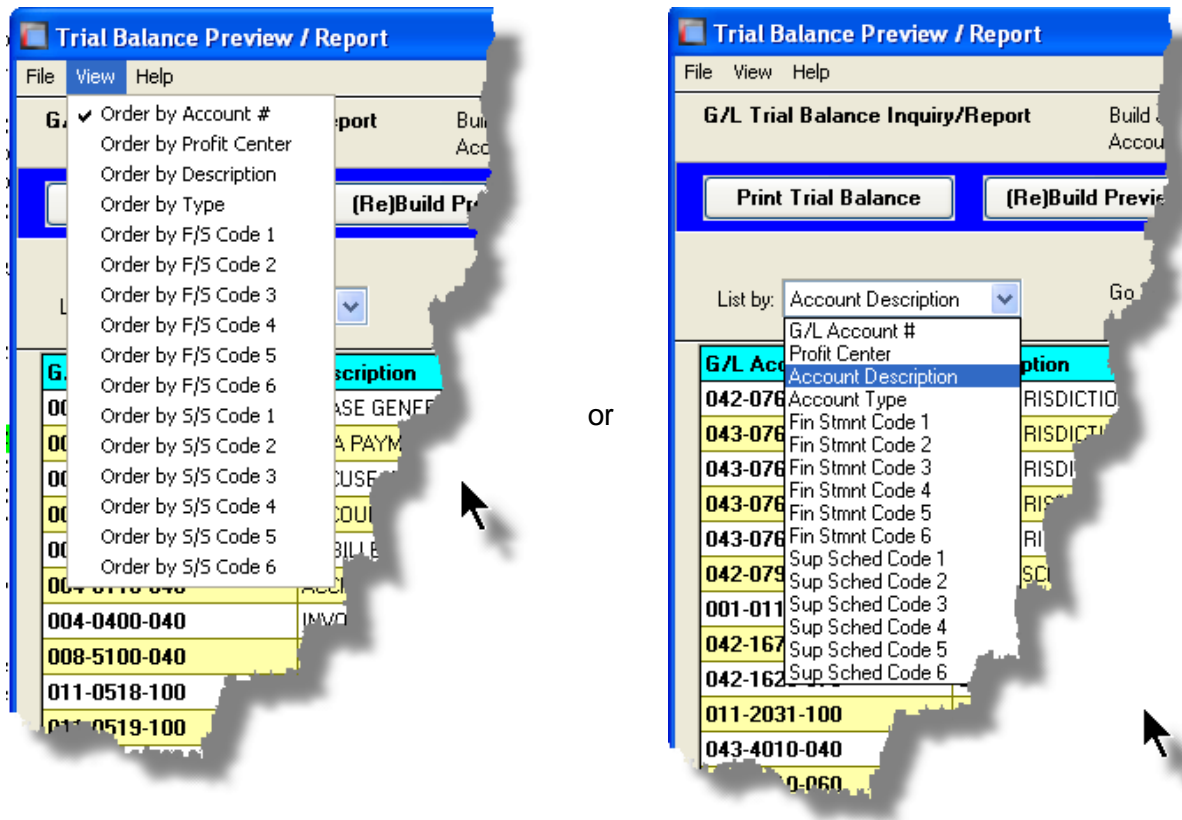
A description of the sort order is displayed in the status bar at the bottom of the screen.
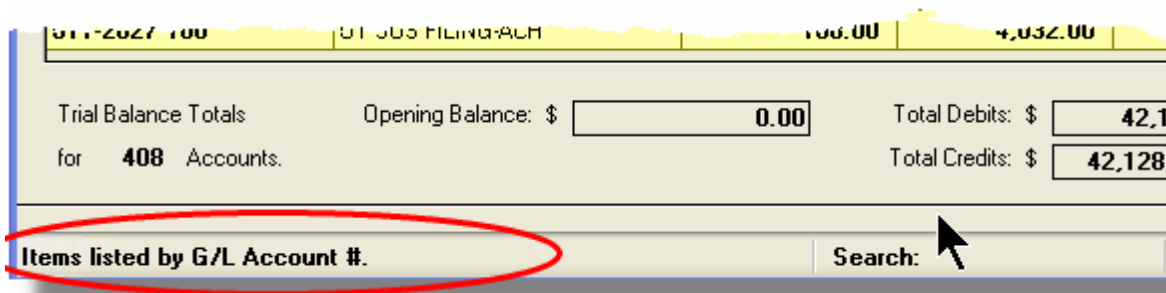
▬ "Fast Button" Frame Tasks Push Buttons

In all the grid based screen functions, the major operations that could be performed are displayed as Push Buttons in a brightly colored frame. This is referred to as the "Fast Button" Frame.
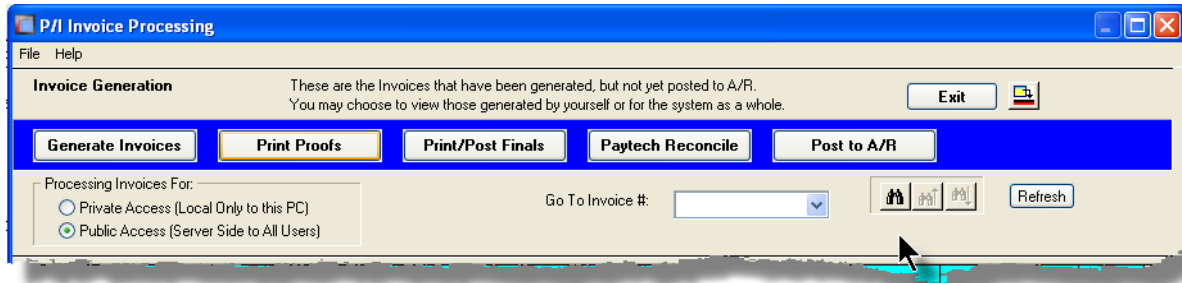
Or for another example:
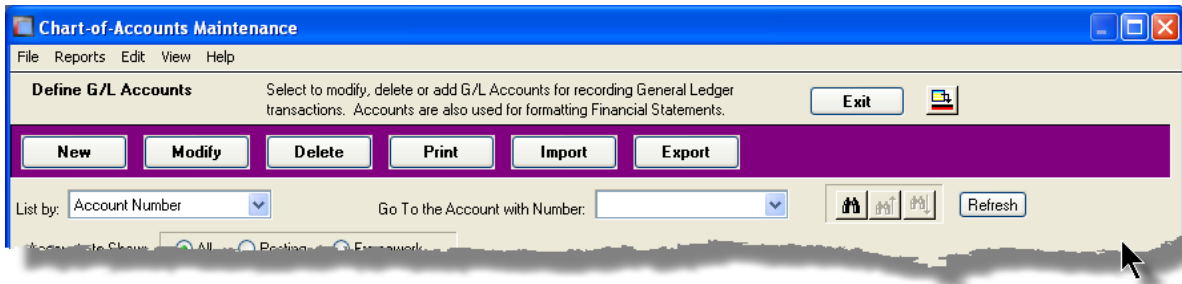
Note that different types of functions have different frame background colors.

■ - Blue		Active data Inquiry or Analysis
■ - Burgundy		Codes Maintenance
■ - Olive Green		Archived transaction Inquiry
■ - Aqua-Marine Green		Transaction Entry

▬ Selecting to Display Items Associated to a Particular Code

In certain grid based applications, you will be able to display only those items associated to a particular master code. There is a field in which you can enter the desired code.

In the example, the screen displays all Open Items for a selected Customer.
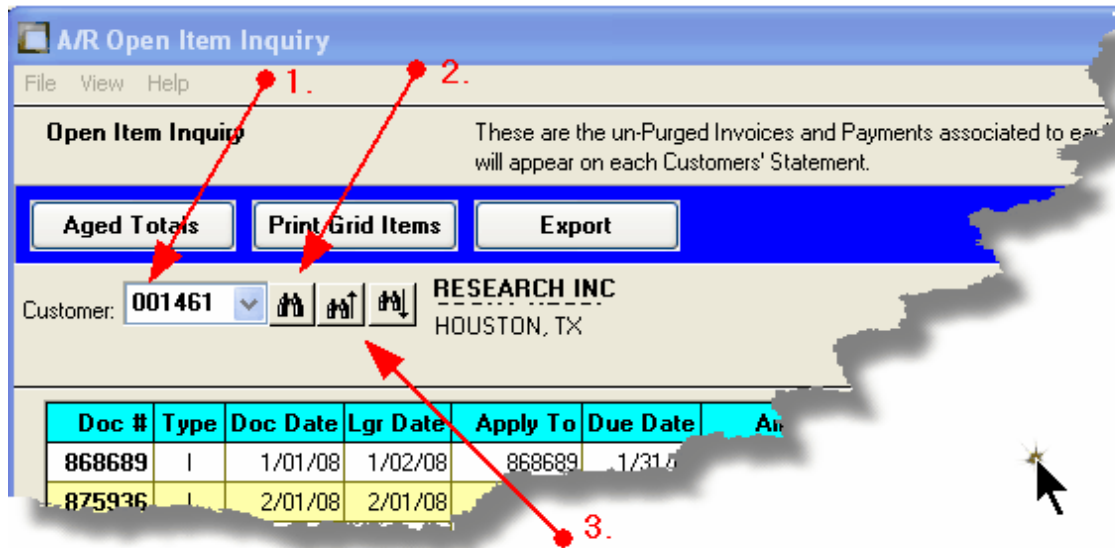
In this example there are three ways that a given Customer may be selected:

1. Enter the Customer Code whose items are to be displayed in the grid.

2. Click on the icon to have the Customer "Lookup" window displayed and select the desired customer.

3. Click on the "Find Prior" or "Find Next" icons for the prior or next Customer Code on file with items to be displayed

---

Processing Tip

When a grid application that offers a code to be selected is initially displayed, that field is is normally blank. If you wish to just display items for the 1st code on file, click on the "Find Next" icon push button and the system will do the rest.

 Search Function

In all the grid based screen functions, a Search function is provided.

1. Click on the Search icon.
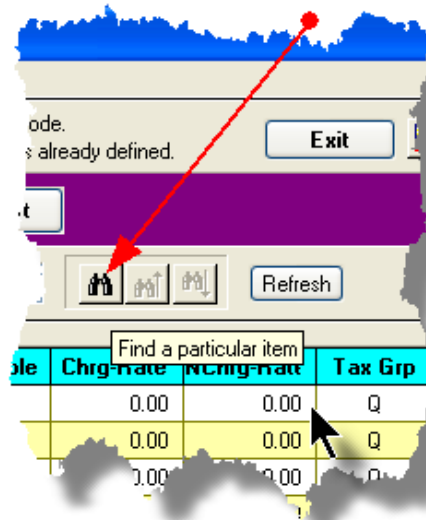
2. The Search window will be displayed. Enter the string or number to be searched in the **Find** field and select the particular field of the given record to be tested.
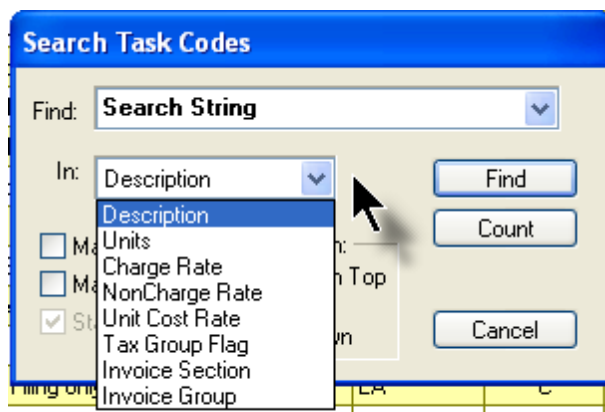
3. Set the searching options as desired and click on the **Find** push button. (If you rather just get a count of the # of records that satisfy the search, click on the **Count** push-button

4. If a record is found, then the grid will be refreshed with that item displayed. Also, the Search Backward/Forward icons will be enabled, and you could then search back or forward by clicking on the appropriate buttons.
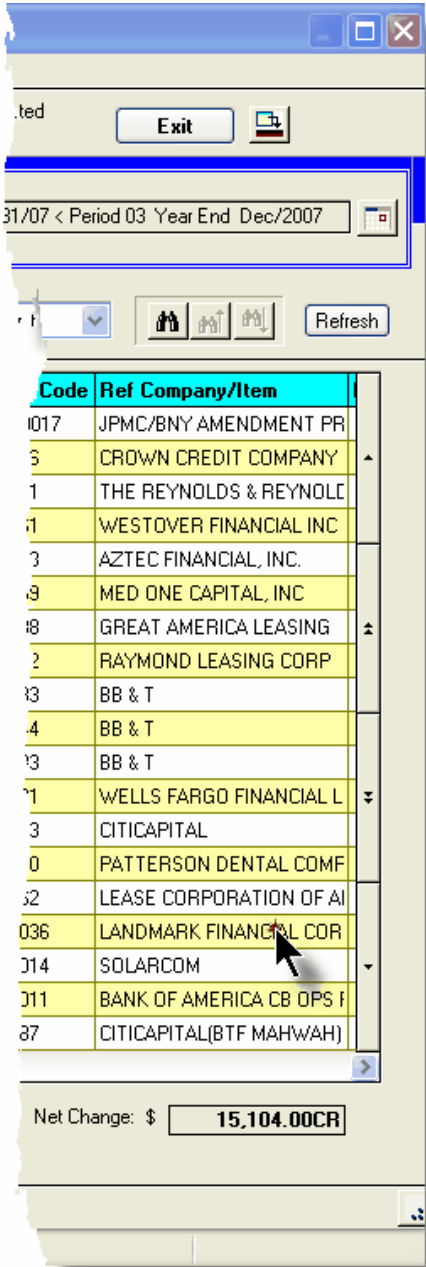
5. The current search string, and name of the field tested is displayed in the status bar at the bottom of the screen.

| | Total Debits: $ | 42,128,369.07 | Net Change: $ | 0.00 |
| 0.00 | Total Credits: $ | 42,128,369.07Cl | Closing Balance: $ | 0.00 |

Search: Description   for: Search String

Grid Navigation Buttons

To move through a file of records that are accessed or displayed using the grid, use the Navigation Buttons found at the right side of the screen.

Navigation To	Keyboard Key or Mouse Click	Graphic	
The next grid row	Cursor-Down Key or rotate the mouse wheel towards you		

Down 4 grid rows	Hold the Ctrl-key and rotate the mouse wheel towards you		
The prior grid row	Cursor-Up Key or rotate the mouse wheel away		
Up 4 grid rows	Hold the Ctrl-key and rotate the mouse wheel away		
The 1st row of the next screen	Click bottom down button		
The 1st row of the current screen, or the row just before the 1st row of the current screen	Click top up button		
The last row of the next screen	Page-Down key, or click the lower dbl-down button		
The 1st row of the prior screen	Page-Up key, or click the top upper dbl-down button		
The 1st record on file	Hold the shift key and click the top up button		
The last record on file	Hold the shift key and click the bottom down button		

Grid Row Pop-Up Menus

For most of the grid based menu item screens, you can right-click a given row to have a pop-up menu of the functions that would be applicable to the record represented in the row.
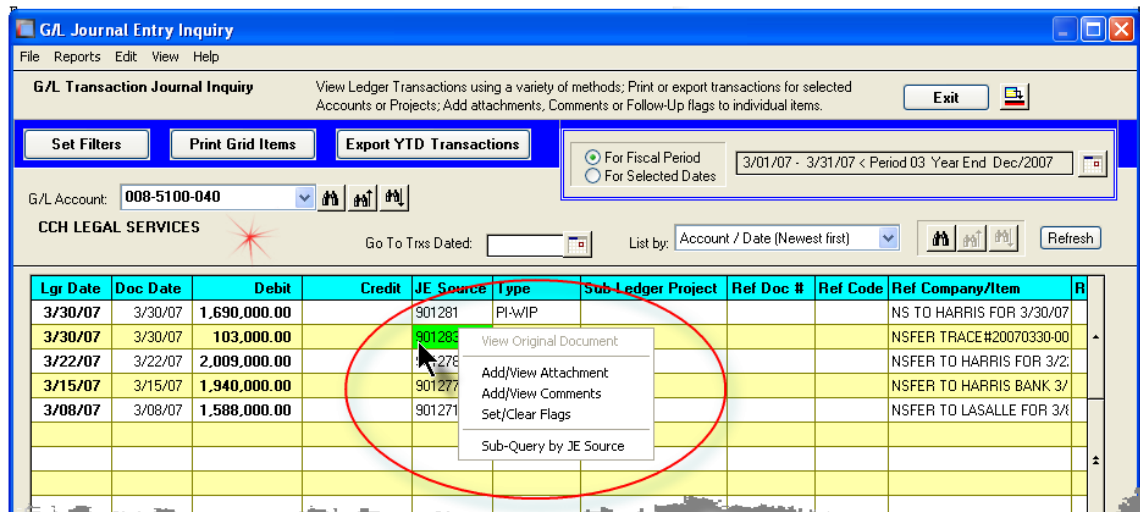
Editing Cell Contents Directly on the Grid

In a number of code maintenance applications, descriptive fields may be edited directly on the grid. If this is allowed, when those particular cells are double clicked, the contents of the cell will be highlighted. the operator may then key in the new value.
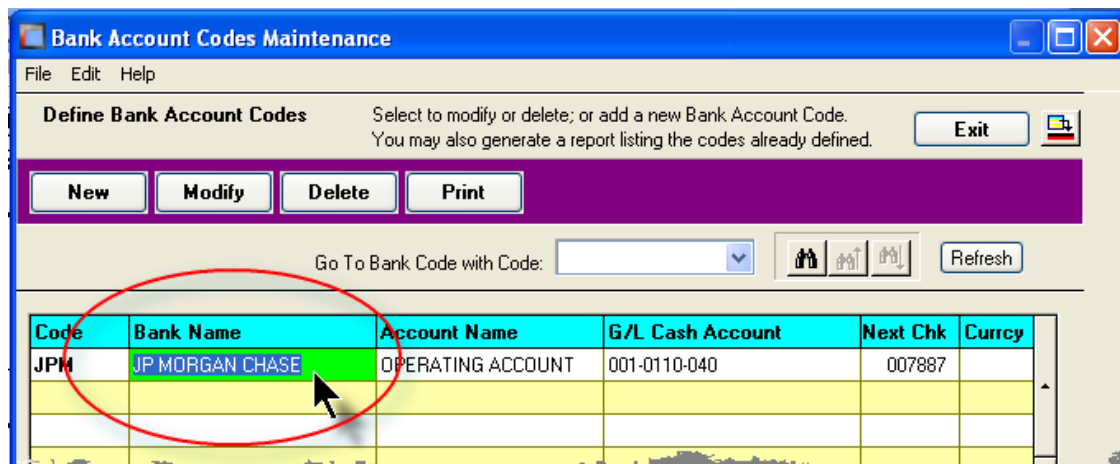
Standard Record Editing Functions

Most of the grids in the Series 5 system's applications provide an Edit drop-down menu from the menu bar. This offers functions to Cut, Copy and Paste the associated records belonging to the grid. For codes maintenance applications, there are also functions to Undo the last deleted item; and to Undo the last edited item. From the drop down menu under **Edit** in the menu-bar, click the desired function. *(In most cases, these functions are also available from the pop-up menu displayed when a row in the grid is right-clicked).*
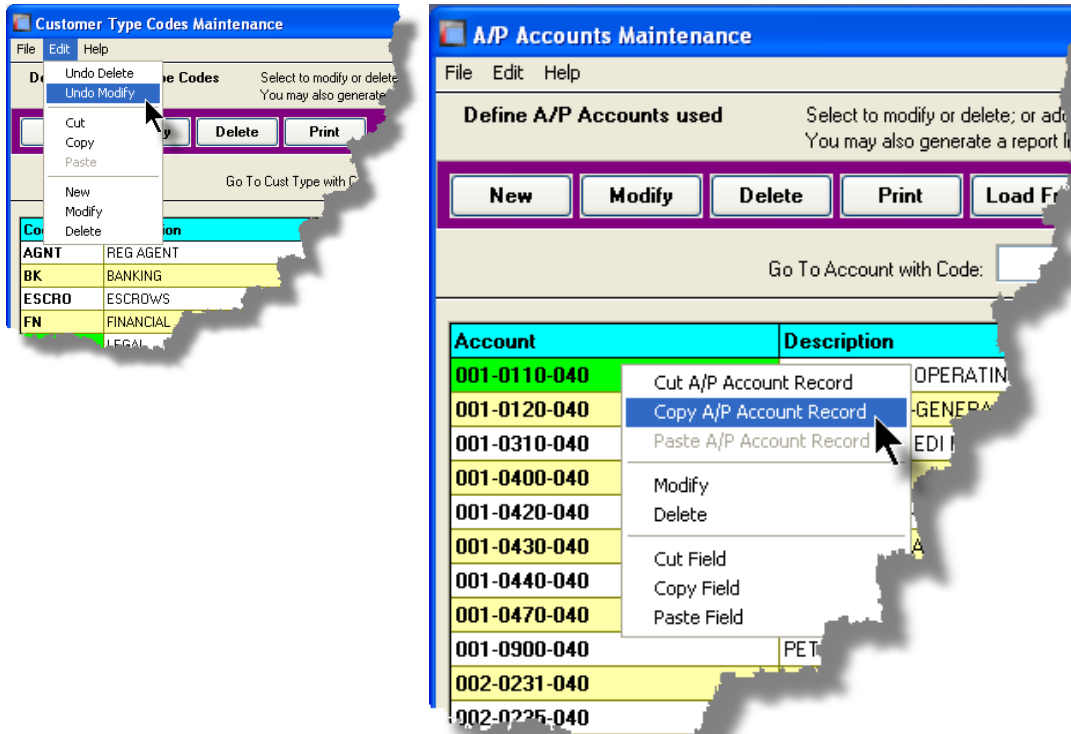
Warning
The Undo Delete, Undo Modify, Cut, Copy and Paste functions are only operable while working in the particular function. If you exit the function associated to the grid, when you return, any Cut, Modified or Deleted record may not be Pasted or Undone.

Most Recently Accessed Items Menu

In the drop down menu under **File** in the menu-bar, most grid screens will provide a list of the

last 6 items that were added or edited . You can click on any one these to position to it.
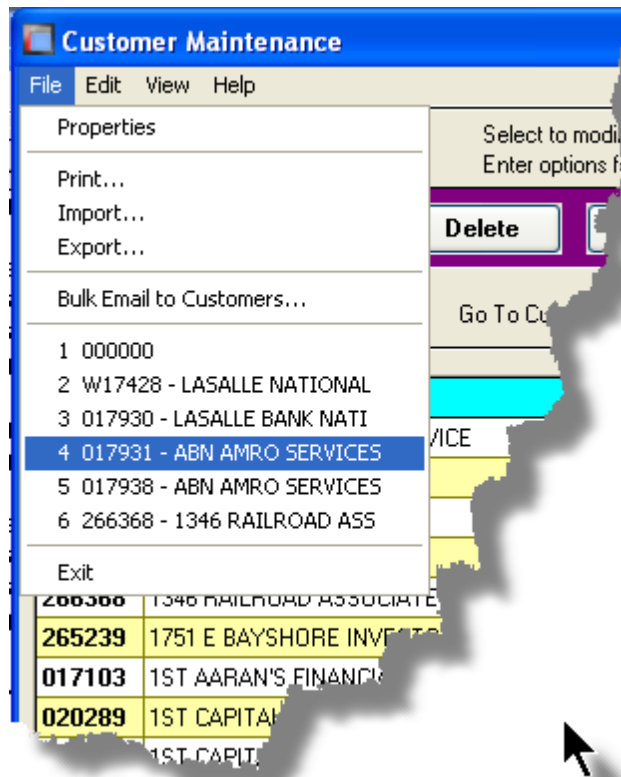
Grid File Properties Menu Function

In almost all applications using a grid screen, the rows of data displayed represent a data record in a file. The Properties function found In the drop down menu under **File** in the menu-bar, when clicked will display some properties about the displayed file.
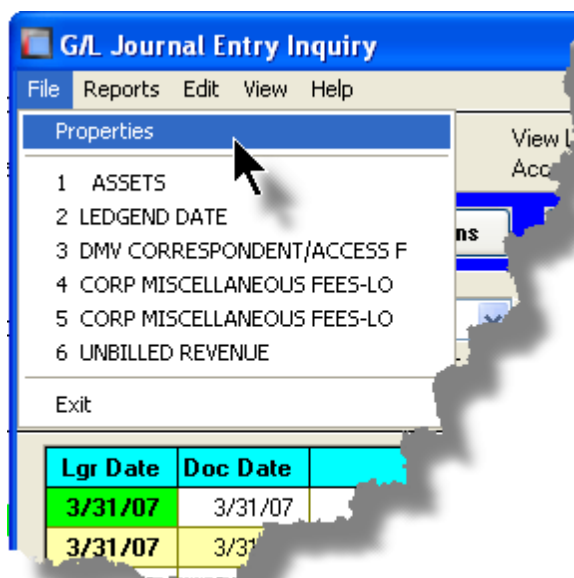
The Properties Screen displayed shows the names of the files, the # of records, and the size.
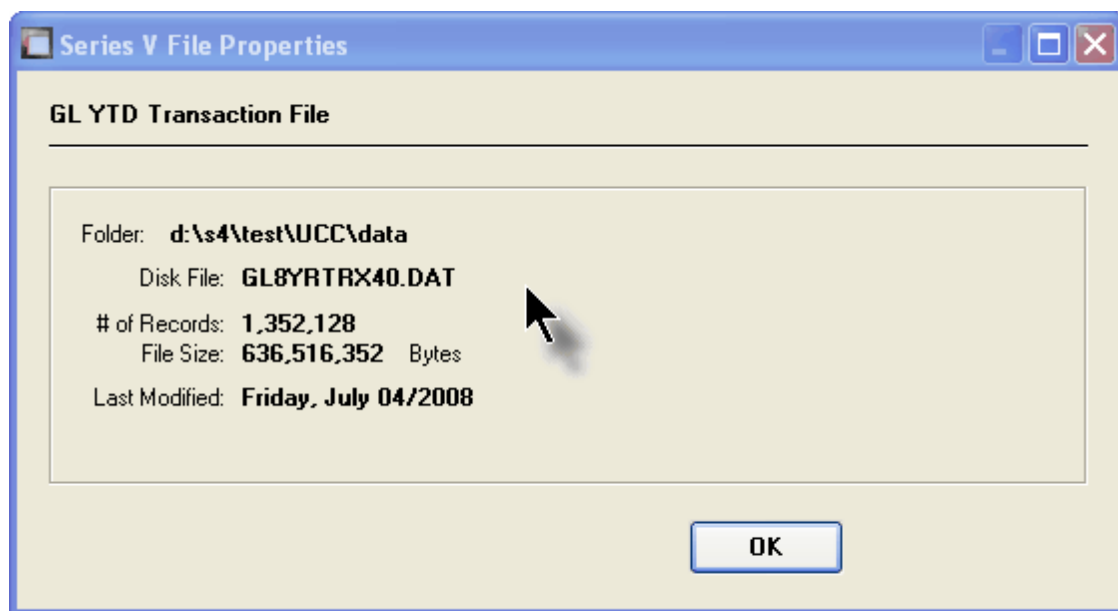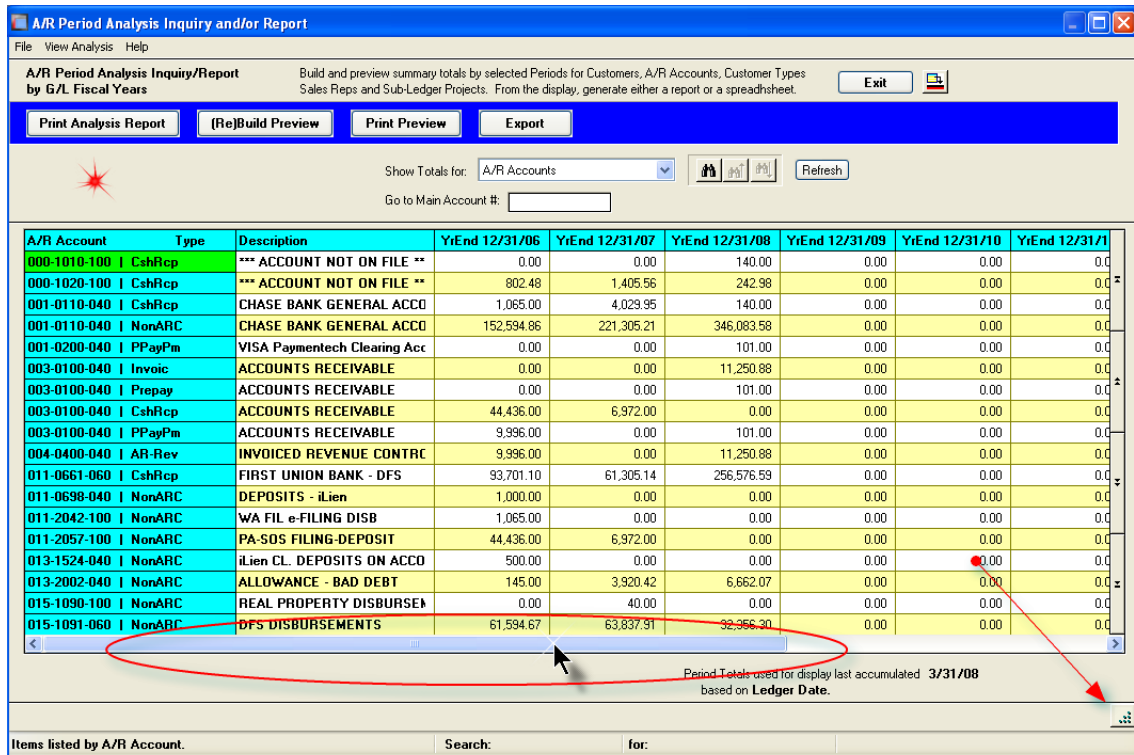
Grid Slide Bar and Full Screen Expand Push Button

In most cases, the columns of data displayed in the grid can be displayed in the screen's window. There are a few functions that have too many columns of data to fit.

If there are more columns defined that can't all fit on the screen at once, there will be a slide bar displayed at the bottom of the grid. The operator may slide it over with the mouse to view

the hidden columns of data.

If there is an [icon] icon in the lower right corner of the screen, clicking on this will expand the screen laterally to it's full size. (You will need to have a wide screen for this to be effective).

4.3 Code "Lookup" Window

Throughout each of the Series 5 applications there may be master codes that must be entered into a field on a screen. In most cases there will be an icon [binoculars] of a pair of binoculars located to the right of the field. If you click on the binoculars, a "Codes Lookup" window will be displayed, from which you can browse for and select a code.

Here is an example of fields with the binoculars icon for entering master codes in the Professional Invoicing system.
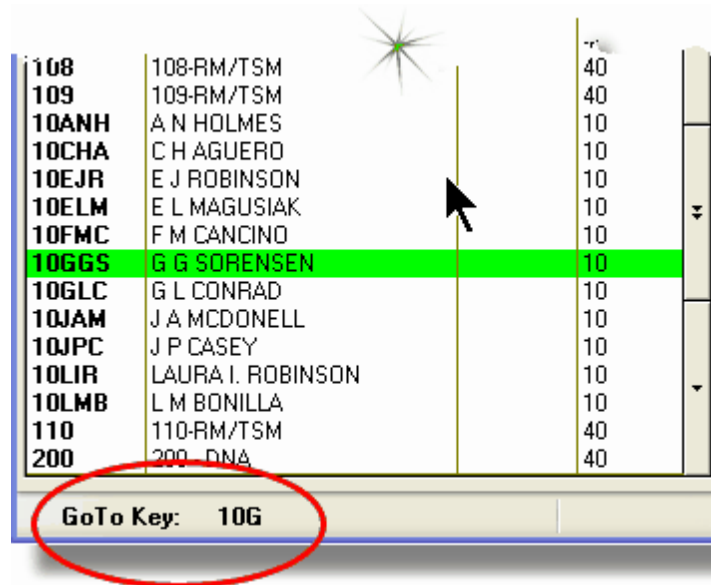
Code "Lookup" Window

All "Lookup" windows basically have the same characteristics and controls.

❖ Select a particular code by navigating to it in the window and double clicking the row, or clicking the **Select** push button

❖ To exit the Lookup window without selecting an item, click on the **Cancel** push button

❖ A Search window may be activated by clicking on the 🔍 binoculars icon

❖ Move through the codes in the window by clicking on the grid navigate bar icons (on the right), or the cursor up/down keys, or the Page Up/Down keys.

❖ If you know the 1st few letters of the code you are wanting, you can type these, and the grid will redisplay showing the item closest to the **Goto Key** that you have typed. (To reset the Goto Key string, strike the ESC key, of click the **Reset** pushbutton).

G/L Account "Lookup" Window

For "Lookup" windows offering a G/L Account to be selected, a similar window with the same characteristics and controls is displayed.

The main difference is the entry of the GoTo Key:

❖ As each numeric digit is entered, the system will attempt to redisplay showing the closest **Goto Key** account

❖ For systems with more than one G/L Account Main segment, enter either the Space-Bar, or the "-" character to indicate entry of the next Account Bank segment

❖ Only the G/L Account Main number is recognized. Don't bother trying to enter the Profit Center portion

❖ In the above screen example, you could have entered **730-** or **073090** to have the system position itself in the grid as shown

❖ Once the number of digits in the G/L Account's Main number has been entered, the GoTo Key fields is cleared, and a different number may be started

4.4 Date "Lookup" Window

Throughout the Series 5 applications there is the need to enter dates. With each date entry field there will be an icon of a calendar located to the right of the field.
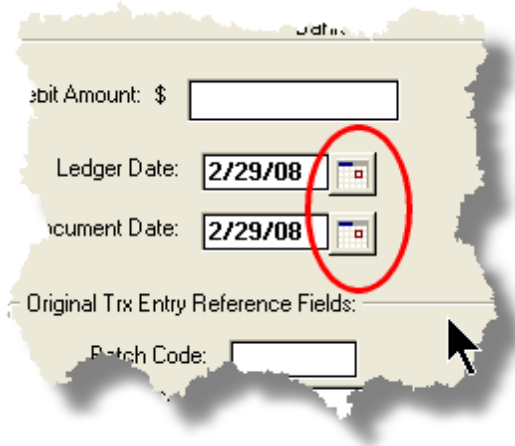
If you click on the calendar, a "Date Lookup" window will be displayed, from which you can choose a date.

▬ Date entry "Lookup" Window

Here is the "Date Lookup" window.
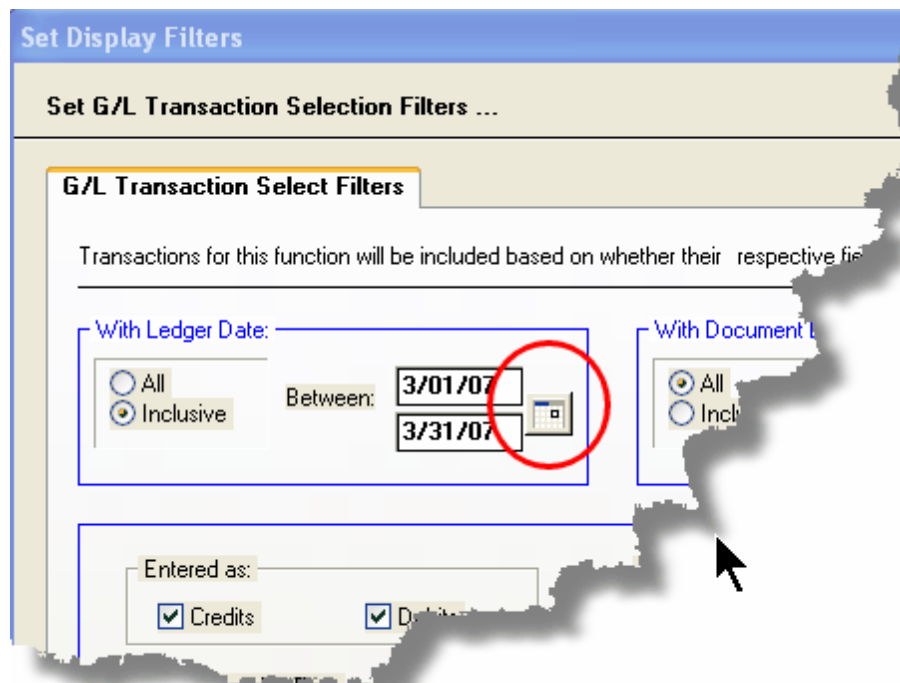
- ❖ Select a particular date by double-clicking it on the calendar
- ❖ Select a particular **Month** or **Year** by selecting it from the given drop down list fields
- ❖ Move to the next or previous Years and Months by clicking on the navigate buttons at the bottom

❖ Exit without selecting a date by clicking on the **Cancel** push button

4.5 Date Range "Lookup" Window

Throughout each of the Series 5 applications there may be a need to enter a range of dates. In most cases there will be an icon [icon] of a small calendar located to the right of the fields.

Here is an example of selecting a range of Ledger dates in one of the G/L system's functions.

If you click on the calendar, a "Date Range Lookup" window will be displayed, from which you can enter the starting/ending dates, or choose from a variety of different date range possibilities from a drop down select field.

⊟ Date Range "Lookup" Window

The window for entering a range of dates, (or selecting one form a drop down list).
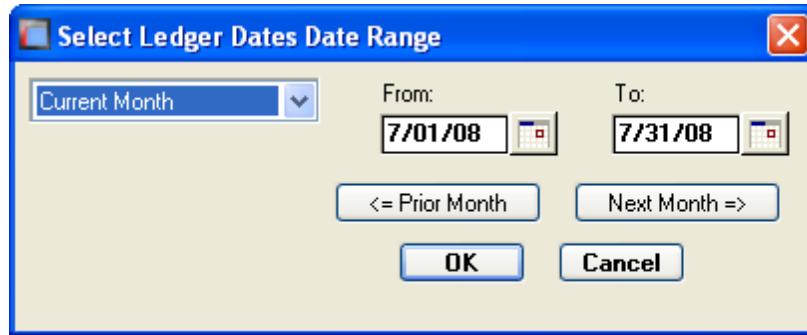
You may choose, or set, a given date range using a variety of methods:

❖ Enter the dates in the **From** and **To** fields

❖ Click on the little calendar icons to have a calendar displayed from which a data can be chosen

❖ Click on the **Prior ...**. or **Next ....** push buttons to adjust the dates accordingly

❖ Choose a particular date range from the drop down list

Select Ledger Dates Date Range

Current Month

ALL Dates
Dates Entered
Earliest-To-Date
Today
Current Week
Current Month
Current Month Last Year
Current Quarter
Current Quarter Last Year
Current Year
Month-To-Date
Quarter-To-Date
Year-To-Date
Year-To-Date Last Year
Year-To-Month
Year-To-Month Last Year
Last Week
Last Month
Last Quarter
Last Year
Last 12 Months
Last 12 Quarters
Last 12 Years
Up to 3 Yrs Ago

From: 7/01/08

To: 7/31/08

<= Prior Month   Next Month =>

OK   Cancel

(Fields left blank are NOT considered.)

Part

V

5   Quick Start Tutorials

Enter topic text here.

5.1   Adding a New Project

Enter topic text here.

5.2   Entering Time Sheets

Enter topic text here.

5.3   Selecting Items for Billing

Enter topic text here.

5.4   Generating Invoices

Enter topic text here.

5.5   Interface Invoices to A/R

Enter topic text here.

5.6   Reprinting an Invoice

Enter topic text here.

Part VI

6 Starting and Using the P/I System

In order to use any of the Series 5 system applications, each user must go through a sign-on process.

The following steps are required.

1. Signon using the users assigned User Code and Password**.**

2. Select the Company System that is to be processed. (If only one Company system is defined, then this step is not required).

3. From the Main Menu screen, click the Accounts Receivable icon.

6.1 User Logon

Each user must first log in to use any of the Series 5 applications.

Key Information
Your Systems Manager, or designated "Gate Keeper" must first create a User Profile before any user can sign on to the system.

➡ User Logon Screens

1. Click on the Series 5 application icon that has been set up on your desktop.
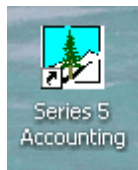
2. Enter your User Code and Password. If setup by your Systems manager, the Username Code will default to that defined by the **SHSI_USER_NAME** DOS Environment Variable.
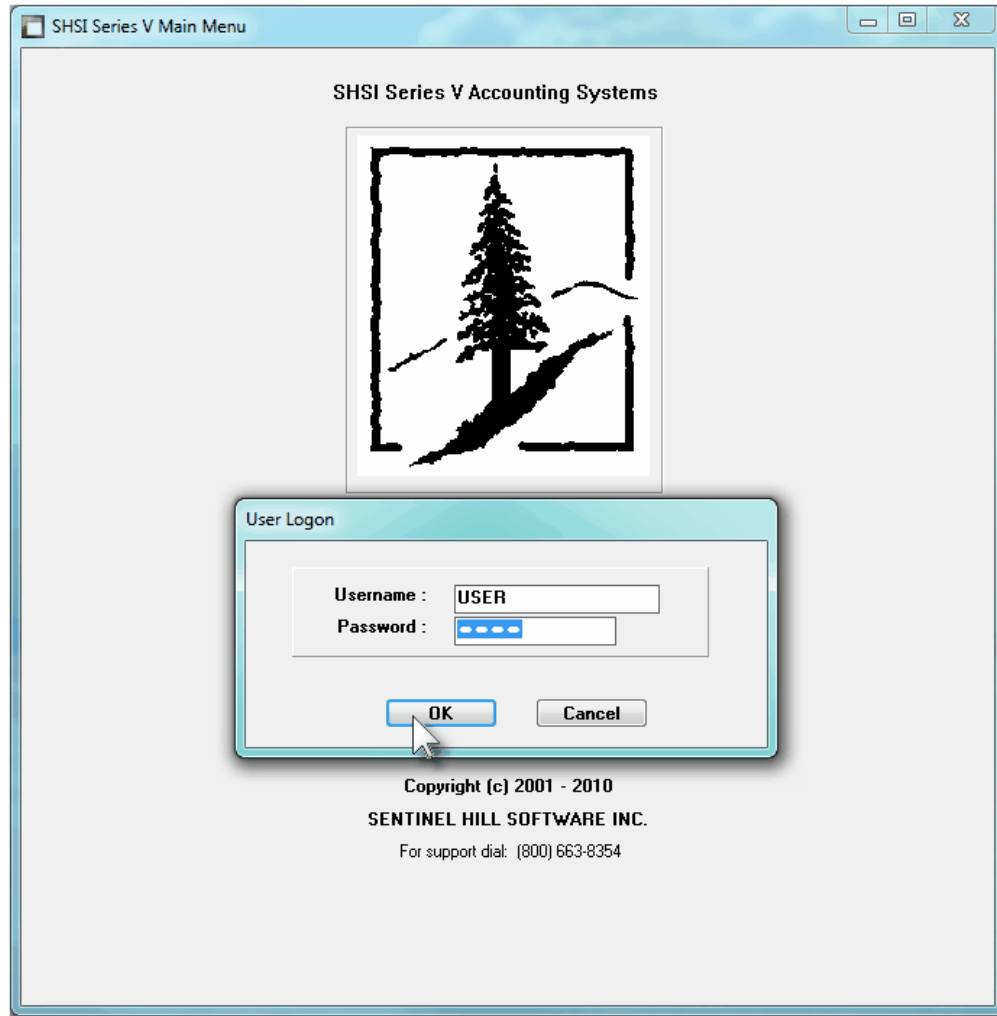
- You must enter the correct password to get into the system.

- You will have five attempts at entering the correct Username and Password combination

- Your Systems Manager may have established the rule that passwords must be renewed at some interval of time. (ie., every 3 months). If this is the case, the system will warn you 21 days ahead of time, that you will need to change the password. If it has expired, you will have to contact your System Administrator, or your Gatekeeper to set up a new password for you.

3. If you have defined more that one Company System, select the company to be worked with:
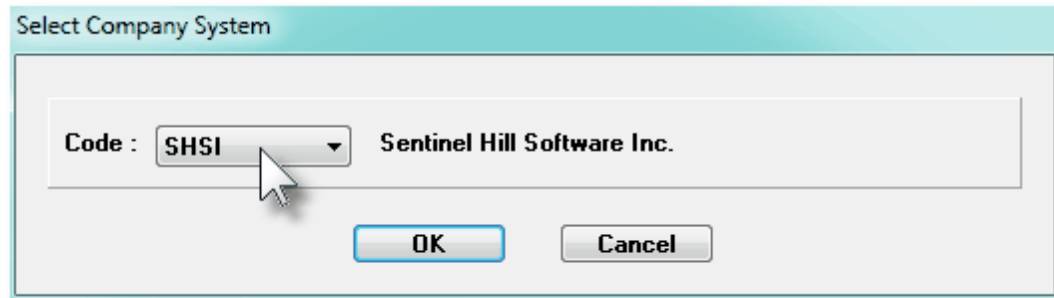
Defining a New Password

On occasion, you may be required to define a new password. You can have your Systems Manager, or the designated Gate Keeper assign you a new password, or you can do that yourself.

1. From the Main Menu's menu bar, click on **My Own Setup**, and from the drop down menu, click on **Change My Password**. The following screen will be displayed:
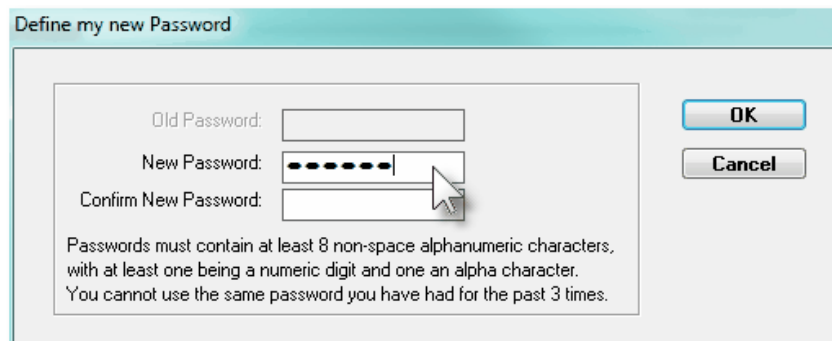
2. Enter your old password

3. Enter your new password in both fields presented. There are a few rules about the password you are allowed to use:

    ✓ The password must contain at least 8 non-space characters

    ✓ The password must contain at least 1 numeric digit and 1 alpha character

    ✓ You cannot use the same password that you have used for the last 3 times

    ✓ The password will time-out after a pre-determined period of time. (As setup by your Systems Manager)

    ✓ If you fail to enter the password correctly after a number of tries, (as setup by your Systems Manger), you will be disabled from logging in. You will have to contact your System Manager to have your profile re-enabled.

4. Click **OK** to proceed.

6.2 Series 5 Main Menu

The Series 5 Main Menu screen provides each of the bitmap buttons for each application that has been defined on your system.

➜ Series 5 Main Menu

Launch the P/I application by clicking it's associated graphic.

Part VII

7 Basic Processing Procedures

Throughout the Series 5 system applications, a variety of functions provide standard processing options screens. These are documented in this chapter and it's related sub-topics.

7.1 Background or Night Processing

Many of the Series 5 applications provide the ability to execute a number of their reporting and processing functions in the background as a batch job. You might choose to execute an application as a Batch Job so that your terminal may be free to be used for other activity, or so that a report could be delayed to be executed in the evening when the demands on your computer system are less. In order to process jobs in the background a PC terminal, running Windows, must be dedicated to executing the Batch Job Processor utility.

Some of the features of Batch processing:

> ➢ **Jobs may be queued to one of 5 different Job Queues**

> ➢ **Jobs may be queued with different Priorities**

> ➢ **Jobs may be queued to execute after a specified time of day (for Night Processing)**

> ➢ **Jobs may be defined as "Re-Occurring" at a variety of time intervals**

> ➢ **A Batch Job Manager can control and/or change individual jobs waiting to be executed**

> ➢ **Each Job has a Parameter Control file that can be edited**

> ➢ **Each completed Job has an Execute Audit Log file that may be viewed**

> ➢ **Multiple Batch Job Processor may execute simultaneously**

The ability to submit jobs to execute in the Background Job Processor is a privilege granted to individual users for each application's menu functions. It is also possible to define the option that a given operation MUST be executed by the Job Processor; and alternatively, that the job must execute after 6:00 PM in the evening.

7.1.1 Selecting Jobs for Background Processing

Only certain jobs have been set up to optionally execute using the Batch Job Processor. These are mainly functions that generate reports, or functions that need to be executed every night, or those functions requiring extensive CPU processing.

Processing Note

Batch Processing is a feature that carried over from the days when processors were relatively slow compared to today. As such, only a limited number of functions have been set up to execute in this manner. If there are any functions that you feel should be revised to execute in the Batch, please make your request to the development team at Sentinel Hill Software Inc.

If an application has been set up for Batch Processing, then typically on the last screen used to enter processing options, there will be a prompt at the bottom. Set the check box if you wish to execute the job in Batch. *If the user's access for the given menu item is set such that the job must be executed as a batch job, the check-box will be set, and disabled.*

If you set the **Execute as Batched Background Job** check-box, the following options screen is displayed:

You may select to have the job executed in a different job queue

You also can designate to have this job execute on a re-occurring basis, or delayed until a specific time.

Batch Execution Setup - Job #: 00000072

You have chosen to have this process executed by the Background Processor. You can have it execute later, and/or you can mark it as a recurring job.

Job Name: A/R Aging Report

Batch Queue: BATCH_INPUT

Program: ARAGERPT

Priority:
○ Low
● Normal
○ High

Scheduled Processing:
☑ Delayed Processing   Delay Hours: 4   Minutes: 0

For After: 6:14 PM (Today)

Re-Occurring: No

OK   Cancel

Once the **OK** push button is clicked, then the job will be submitted to the Job Batch Queue to wait for it's time to be executed. In the meantime, you may continue with other functions, or exit the Series 5 application totally. Notice that every job is assigned a unique number. This may be used to track the job using the Batch Job Manager.

▬ Batch Execute Setup Field Definitions

Job Name	*X(30)*
By default, is the name of the Report or Operation. The job may easily be tracked by the Batch Job Manager using this name.	

Batch Queue	*drop-list*
The system provides pre-defined Batch Queue names. Each job may be dispatched to a particular queue to be processed. Your System's Manager may have defined multiple queues, each with different execute priorities, or on different processors.	REPORTING BATCH_INPUT BATCH_INPUT REPORTING PRODUCTION NIGHT_PROCESS

Program	
This field defines the name of the Series 5 program this is executed. It may not be changed.	

Priority	*radio-buttons*

The priority will determine how quickly the batch request is executed. The default setting is determined from the User's access properties for the given application.	⦿ Low ◯ Normal ◯ High
Delayed Processing	*check-box*
Should you wish to have this job execute at some designated time of the day, set this check-box. You will then be able to set the Delay Hours and Minutes. The delay will default such that the job would executed after 6:00 pm today.	
Re-Occurring	*drop-list*
When a job is initially queued, you may set this option to have it automatically re-occur at one of the defined intervals. After it eventually executes, it will automatically re-queue itself to execute. Note that any date parameters or filters associated to the application, will automatically be updated based on the given interval chosen.	No ▾ No Hourly (9-5) Daily (Mon-Fri) Every Day of the Week Weekly Monthly

7.1.2 Batch Job Management

The Batch Job Manager is available to each of the Series 5 applications. Whenever an application's function is queued to be executed by the Batch processor, an entry is recorded in the Batch Job file. The Batch Manager allows you to view the status of the job, put it on Hold, have it re-queued, or even delete it.

✤ Accessing the P/I Batch Job Manager

> From either the P/I Main menu, or any application, select **Batch Job Processing** from the **File** drop-down menu.

➡️ Batch Job Queue Manager Grid Screen

Maintenance and monitoring of the Batch Jobs is done with a Series 5 grid screen.
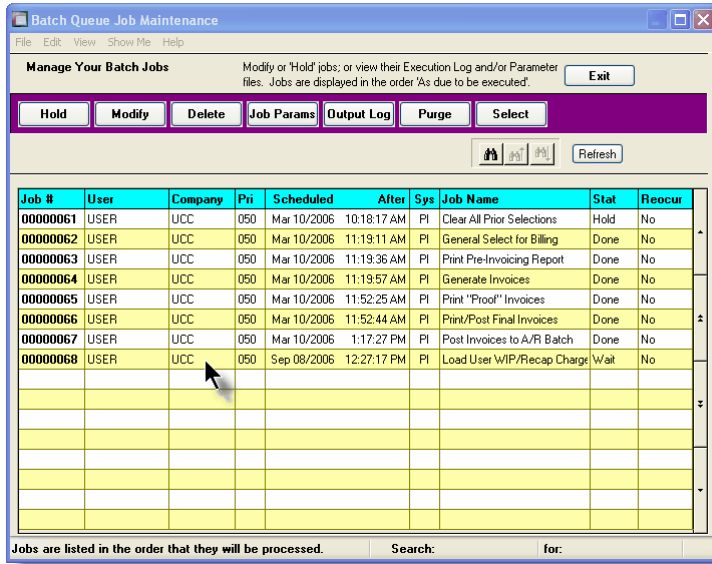
"Fast Buttons"	
Hold	Put a Hold on the the selected Job
Modify	Modify the properties of the selected job
Delete	Delete the selected Job
Job Params	Display and edit the Job's execution parameters with Notepad
Output Log	View the output log generated when the selected job was executed.
Purge	Have those jobs satisfying a number of filters deleted from the system
Select	Set filters for the items that are displayed in the grid

➖ Modifying a Job in the Batch Queue

1. In the grid, navigate to the row listing the job that is to be modified.

2. Double-click the row, or right-click the row to have a drop-down menu displayed, then click **Modify**, ... or just click on the **Modify** button in the "Fast Button" frame. The Job's properties screen will be displayed.
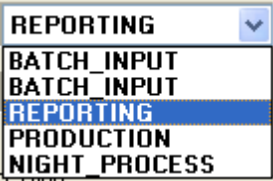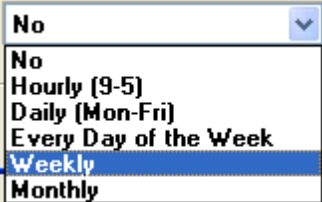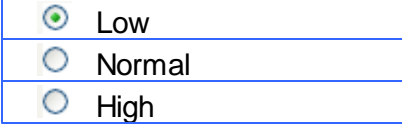
3. Edit any given field as required. Note in particular, that if a job has been placed on "Hold", or if it has completed, you can click on the Reset Status to "WAITING" check box, and the job will be executed at the next opportunity after the specified execution time.

4. You can also view and edit the system command line that is used to launch the particular job. This is the shell or Command Prompt command that is issued. **YOU SHOULD NOT NORMALLY EVER NEED TO EDIT THIS COMMAND LINE.**

5. Click the **Update** push button at the bottom of the screen.

Batch Job Properties Screen Field Definitions

Batch Queue	*drop-list*

The system provides pre-defined Batch Queue names. Each job may be dispatched to a particular queue to be processed. Your System's Manager may have defined multiple queues, each with different execute priorities, or on different processors.	REPORTING ▼ BATCH_INPUT BATCH_INPUT **REPORTING** PRODUCTION NIGHT_PROCESS
Re-Occurring	*drop-list*
A job that has already completed, may be set up to have it automatically re-occur at one of the defined intervals. After it eventually executes, it will automatically re-queue itself to execute. Note that any date parameters or filters associated to the application, will automatically be updated based on the given interval chosen.	No ▼ No Hourly (9-5) Daily (Mon-Fri) Every Day of the Week **Weekly** Monthly
Priority	*radio-buttons*
The priority will determine how quickly the batch request is executed. The default setting is determined from the User's access properties for the given application.	◉ Low ○ Normal ○ High
Queued for Execution - Date and Time	*(mm/dd/yy)*
You can set to have this job execute at some designated time of a particular date.	
Reset Status to "WAITING"	*check-box*
If a job has completed, or if it has been placed "On-Hold", then you can reactivate it and have it execute again. *(Depending on the function, you may have to re-edit the Job Parameters to set up correct dates of report options)*.	

▬ Grid Display Search options

You may search for specific records displayed in the grid using a number of relevant fields.

Click on the [🔍 search icons] Search icon.
A search string may be entered for the following fields:

- Job Name
- Job Number

Grid Display and Purge Filters Screen

If your company makes use of Batched Jobs, over a period of time you may have a great number of Job History records. You can limit the number of items that are displayed in the grid. The same filter fields are also available to the Purge function.

1. Click on **Selections** in the "Fast Button" frame. The Archive Report selection filters screen will be displayed.

2. Set the applicable filters

3. Click the **OK** push-button. The grid will be redisplayed showing only those reports satisfying the selected filters.

Filters Screen Field Definitions

Systems	**radio-buttons & drop down list**
Click the **All** button, or the **Selected** button with a specific application from the drop down list. Only those jobs generated from the selected system will be listed.	

Company System	**radio-buttons & drop down list**
Click the **All** button, or the **Selected** button with a specific Company for which job records are to displayed or processed.	
Batch Execute Queue	**radio-buttons & drop down list**
Click the **All** button, or the **Selected** button with a specific Batch Queue. Only those jobs generated and processed by by the selected queue will be listed.	
Execute Date	**radio-buttons & (mm/dd/yy) entry fields**
Click the **All** button, or the **Selected** button with a date range. Only those jobs that executed within the range of dates entered will be listed.	

Putting a Job "On-Hold"

If a job has not yet executed, and for whatever reason, you want to put it on hold, you can do so. (Perhaps to change a parameter or priority).

1. In the grid, navigate to the row listing the Job to be put on-hold.

2. Right-click the row to have a drop-down menu displayed, then click **Hold**, ... or just click on the **Hold** button in the "Fast Button" frame.

3. A hold verification screen will be displayed. Click the **Put On Hold** button to proceed.

4. The Job's status will be set accordingly.

5. To re-activate the Job, you will have Modify it, and click the **Rest Status to "WAITING"** check-box.

Purging old "Completed" Job Control Records

Over a period of time, your users may have generated a great number of Job records. If you wish, you may delete them to reduce the overhead, make available more disk space, or just to get rid of them.

1. Click on the **Purge** button in the "Fast Button" frame.

2. The Purge options screen will be displayed. (This is the same screen as used for the Grid Display filters).

3. Click the **OK** push-button. The system will remove all those jobs satisfying the selected filters.

7.1.3   The Batch Job Processor

In order to process any Professional Invoicing function jobs that might have been queued to be run in the background, or at night, a PC terminal running Windows must be dedicated to executing the Batch Job Processor utility. This is basically another Series 5 program that gets launched from the Batch Job Management function.

Some of the features of Batch Processor Utility:

> ➢ **The Processor Utility is launched from the File drop-down menu from the Batch Job Manager**

> ➢ **Multiple instances of the Processor Utility may execute at the same time on different client terminals**

> ➢ **Each Processor Utility may be set up to service jobs sent to a particular Batch Execute Queue**

> ➢ **Each Processor Utility may be set up to service jobs generated for a particular Company Systems**

> ➢ **Each Processor Utility may be set up to service jobs generated for a particular application**

> ➢ **An Execution Log screen is available that displays the last 10 jobs that have executed**

> ➢ **The window within which the Job Processor executes can be toggled between two sizes. In Expanded mode it shows the details and log of executing jobs; In Brief mode, it just shows a small general status screen**

━ Launching the Series 5 Batch Job Processor Utility

From the Batch Job Manager screen:

1. Click on **Start Batch Processor** from the **File** drop-down menu. A prompt will be displayed confirming the launch of the Job Processor.
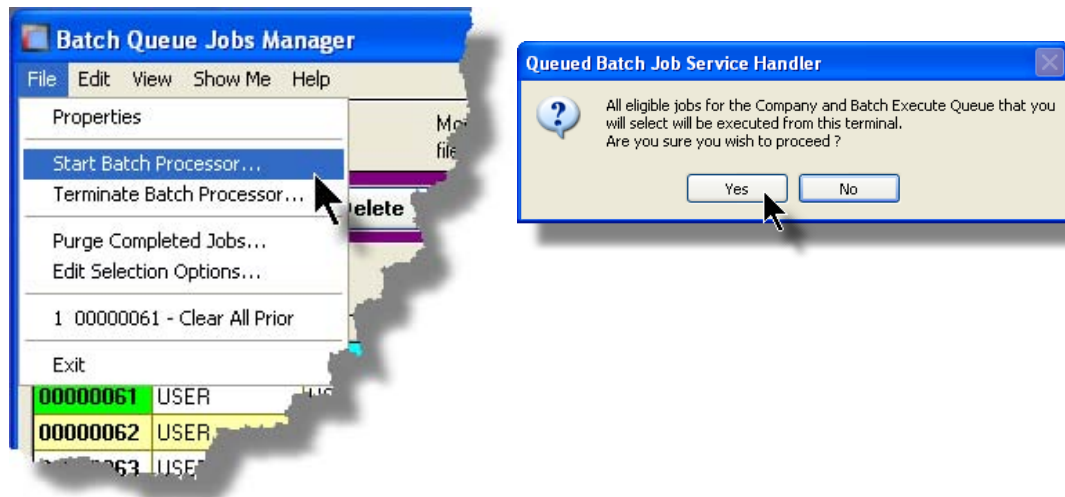
2. Click the **Yes** button, then the Job Service Handler screen will be displayed and you will be able to set a number of filters that are used to select particular jobs that are to be accepted. *(By default All jobs will be processed).*
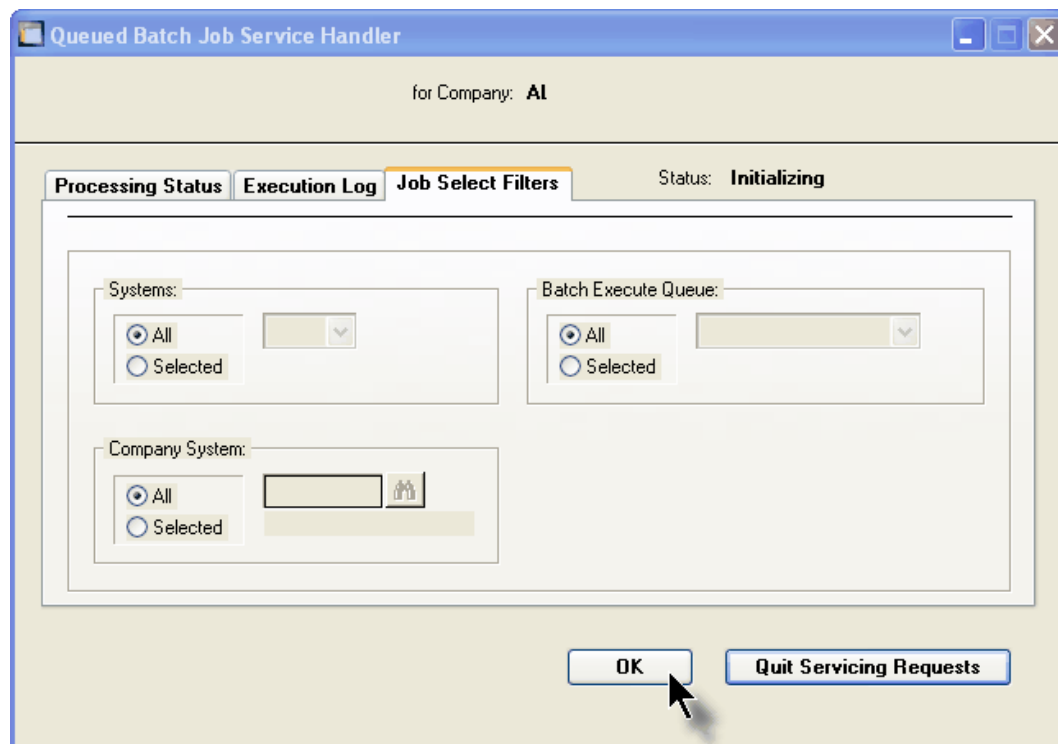
3. Click **OK** and the Job Processor will trundle off and wait for a job that it can execute.

Processing Note

The Batch Job Processor, when launched, is executed as an entirely new task in it's own window. You can switch back to the Batch Job Manager window, exit that, and do whatever you please without disturbing the Job Processor.

Processing Status Tab Screen

As jobs are executing, you can view their status on the Processing Status tab screen. It displays the jobs that is currently executing, or the last job that was executed.

Execution Log Tab Screen

A table is kept displaying the last ten jobs that have executed since the Job Processor has started.
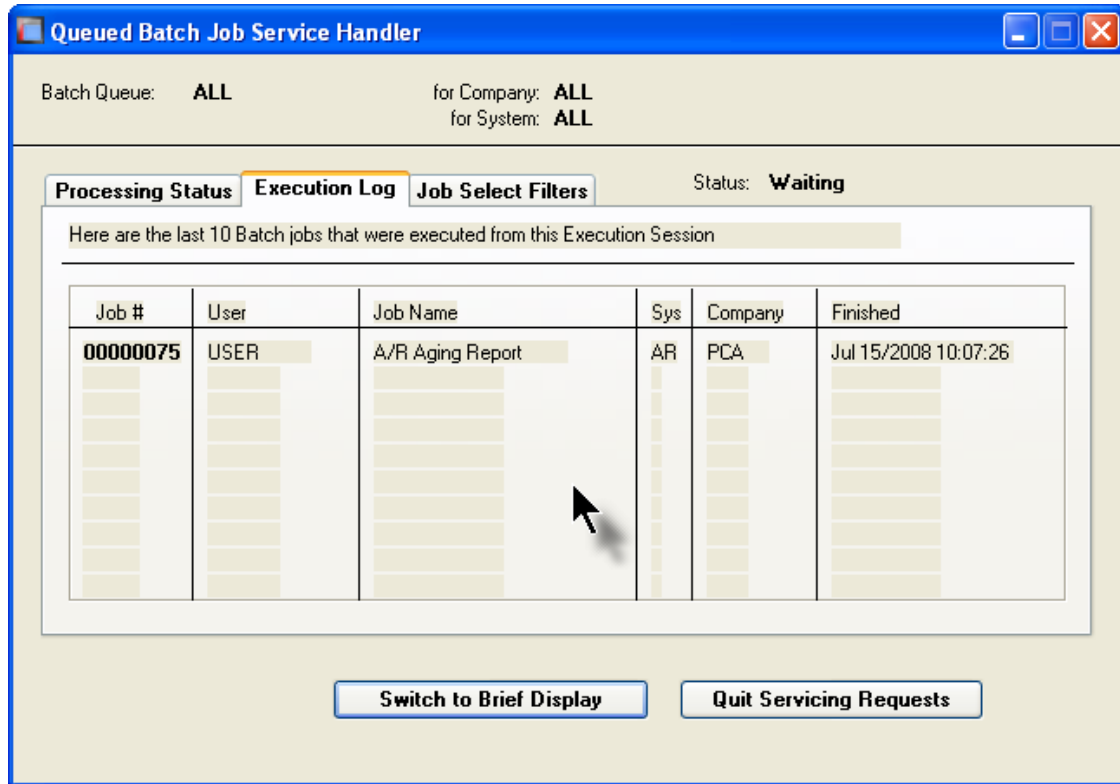
Job Processor "Brief" Window

If you are not interested in view the progress of the batched jobs, you can switch the window to a "Brief" display.   From which you can switch back to an "Expanded" display.
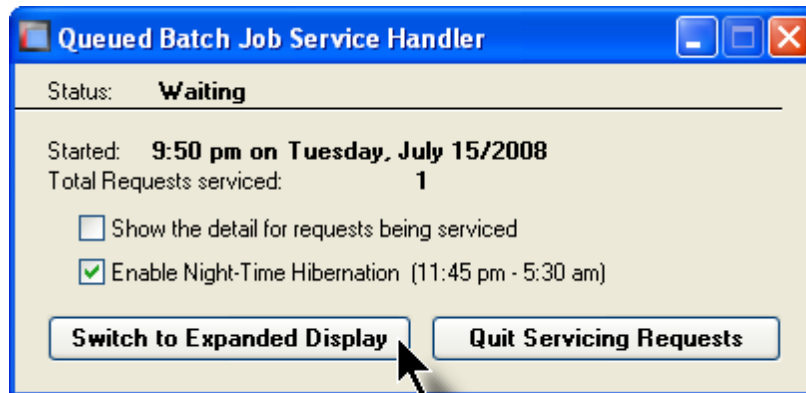
Job Select Filters Screen Field Definitions

Systems	radio-buttons & drop down list

Click the **All** button, or the **Selected** button with a specific application from the drop down list. Only those jobs generated from the selected system will be executed.

Company System	**radio-buttons & drop down list**

Click the **All** button, or the **Selected** button with a specific Company for which job records are to be executed.

Batch Execute Queue	**radio-buttons & drop down list**

Click the **All** button, or the **Selected** button with a specific Batch Queue. Only those jobs submitted to the selected queue will be executed.

7.2 Data Importing and Exporting

In several Series 5 applications, the ability to import or export data from/to external sources has been implemented. There are standard import/export data screens that are displayed.

A number of different data formats are supported. These include:

- ➢ **MS Excel Workbooks**
- ➢ **Tab Delimited Text**
- ➢ **Lotus Text (Comma Delimited with quotation marks)**
- ➢ **Slash "\" Delimited Text**
- ➢ **CSV Text (Comma Delimited)**

7.2.1 Data Export Functions

Many of the Inquiry and assorted master Code Maintenance menu items offer the ability to export data.
When selected, the following options screen is presented:
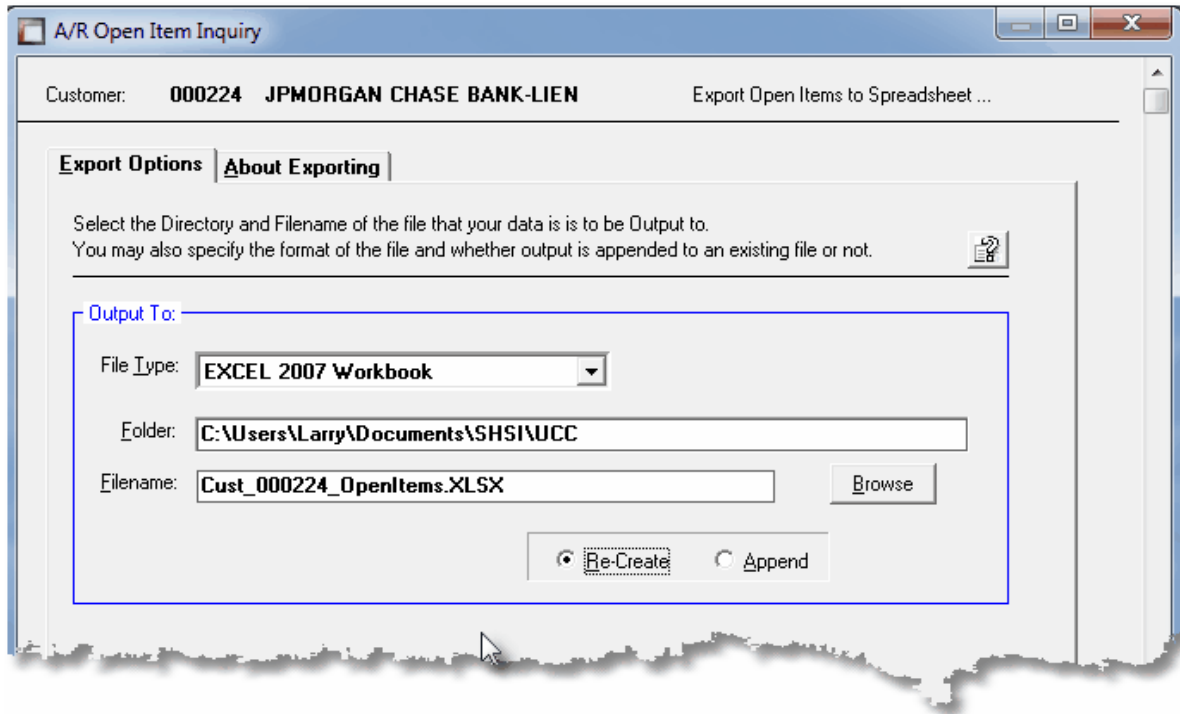
Selecting Export Format Options

Normally, the Export Options screen will be presented with all fields defaulted for the particular application and function.   However, you may want to revise the format of the output data and where it is to be generated. The following steps may be taken:

1. Determine the format of the data to be output. From the drop down list select from the following:

Data Input Format	Comments
⇥ **EXCEL 2007/2010 Workbook**	An Office 2007 or 2010 MS Excel workbook is opened, and data is output directly to the 1st worksheet's designated rows and columns. A maximum of 950,000 rows may be output to each sheet.
⇥ **EXCEL 97-2003 Workbook**	An Office 2003, or earlier, MS Excel workbook is opened, and data is output directly to the 1st worksheet's designated rows and columns. A maximum of 65,530 rows may be output.
⇥ **Tab Delimited Text**	The output columns of data are separated with the <tab> character. A maximum of 65,530 rows may be output.
⇥ **CSV Comma Delimited Text**	The columns of data are output separated with a comma <,> character. Strings are output within the

	double quote, <">, character. A maximum of 99,999 rows may be processed.
⇨ **20/20 Text**	Formatted for an older spreadsheet utility.
⇨ **Lotus Text**	The columns of data must be comma separated with quotation marks around each field.
⇨ **Slash Delimited Text**	The columns of data must be separated with the "\" character.

2. You may then select the folder to which the file is created and the name of the file. You can click the [Browse] push button to locate or change the location.

Folder: C:\Documents and Settings\Larry Carlsen\My Documents\SHSI\UCC

Filename: GL_Accounts.XLS   [Browse]

⊙ Re-Create   ○ Append
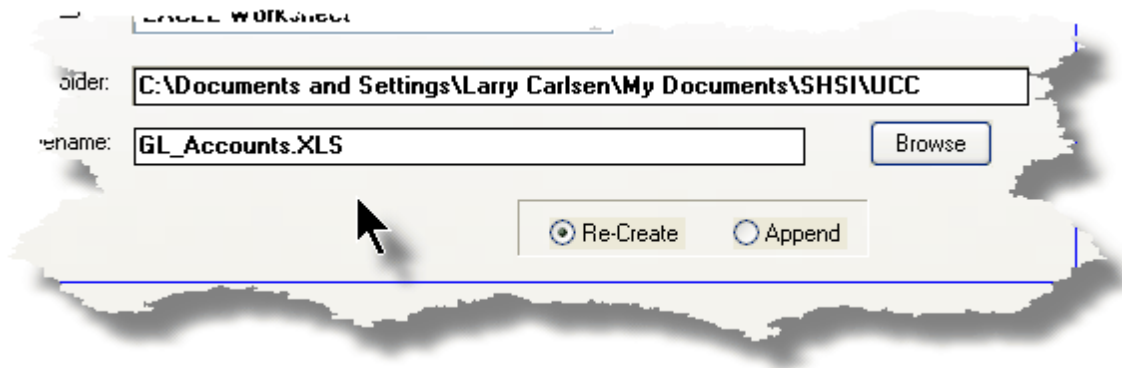
Thin Client Processing Tip

If executing as a Thin Client user you should select output as Tab Delimited Text. Over a slow network, output to an Excel Spreadsheet is disgustingly slow. If you want the output to be on your PC, then make sure that the "Thin Client" Unix Home Page in your User Logon Profile contains a path on the UNIX server. (Files are actually 1st created on the UNIX server, then copied to the PC client).

━ Field Definitions

File Type: *drop-down list*

Select the file type that is to be generated. This field will default to the type that is defined in the Series 5 User Logon Profile. *(Note that if the the particular import/export function requires a specific format other that an Excel Spreadsheet, the default from the User Logon Profile is not set as the default).*

Folder: *X(90)*

Enter the name of the directory folder to which the exported data is to be written to. This will default to the directory path defined in the Users Logon Profile established by your Systems Manager. You may click the Browse button to select a different folder.

You may click on the **Browse** button to locate the desired directory. Only those folders which are descendants of the root directory, of that which is defined by the Folder field, can be displayed. So if you wish to choose a folder on your "C" drive, enter **C:** in the Folder field before clicking the "Browse" button. Setting the Folder field blank, or to a path that does not have a drive letter designation, would result in only being able to browse descendants of the user's default working directory.

Filename: *X(50)*

The filename will default to a name applicable to the type of data. You may change if you so desired.

About Exporting Tab Screen

Along with the Export Options tab screen there will be an About Exporting tab screen. This provides the operator with information about which fields are output to which columns, (assuming MS Excel output).

A/P Distributions Inquiry

Export A/P Distributions to Spreadsheet & Optionally email to recipient ...

Export Filters | Export Options | **About Exporting**

For your information ....   **The following Spreadsheet Output fields are gen**

Column	Field	Format
A	Acct Main 1	9(3)
B	Acct Main 2	9(4)
E	Acct PfCtr	9(5)
F	Lgr-Date	MM/DD/YY
G	Doc-Date	MM/DD/YY
H	Amount	-99,999,999.99
I	Type	X(4)
J	Project	X(10)
K	Narrative	X(30)
L	Ref-Batch	X(6)
M	Ref-Doc#	9(10)
N	Ref-Code	X(6)
O	Vendor-Name	-99,999,999.99
P	Currency	X(4)
Q	Exch Rate	99.99999
R	Foreign Amt	-99,999,999.99

The codes displayed under the Format column indicated the type and size of the data. Here are some examples:

Data Format	Comments
⟶ **X(30)**	30 character alphanumeric
⟶ **9(6)**	6 digit numeric integer
⟶ **MM/DD/YY**	6 digit date in mm/dd/yy order
⟶ **-9,999,999.99**	signed numeric amount with 2 decimal places

⇢ **9(8)-9(5)**	G/L Account # 999999999999999999-99999
⇢ **S9(9)**	signed 9 digit integer

7.2.2 Data Import Functions

Many of the Inquiry and assorted master Code Maintenance menu items offer the ability to import data.

When selected, the following options screen is presented:
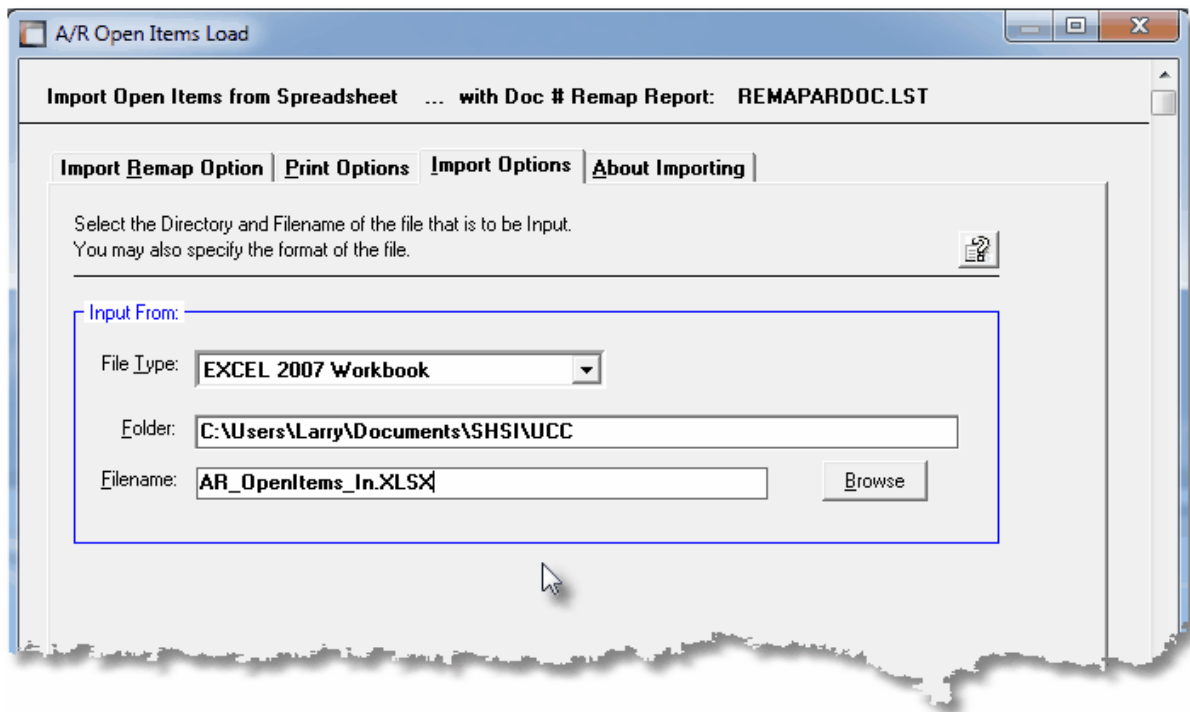
Selecting Import Format Options

Normally, the Import Options screen will be presented with all fields defaulted for the particular application and function. However, you may want to revise the format of the input data and where it is to be loaded from. The following steps may be taken:

1. Determine the format of the data to be input. From the drop down list select from the following:

Data Input Format	Comments
⇢ **EXCEL 2007/2010 Workbook**	An Office 2007 or 2010 MS Excel workbook is opened, and data is read directly from the 1st worksheet's

	designated rows and columns. A maximum of 950,000 rows may be processed.
➠ **EXCEL 97-2003 Workbook**	An Office 2003, or earlier, MS Excel workbook is opened, and data is read directly from the 1st worksheet's designated rows and columns. A maximum of 65,530 rows may be processed.
➠ **Tab Delimited Text**	The input columns of data must be separated with the <tab> character. A maximum of 65,530 rows may be processed.
➠ **CSV Comma Delimited Text**	The columns of data must be separated with a comma <,> character. Strings must begin and end with the double quote, <">, character. A maximum of 99,999 rows may be processed.
➠ **20/20 Text**	Formatted for an older spreadsheet utility.
➠ **Lotus Text**	The columns of data must be comma separated with quotation marks around each field.
➠ **Slash Delimited Text**	The columns of data must be separated with the "\" character.

2. You may then select the folder from which the file is to be loaded from and the name of the file. You can click the Browse push button to locate or change the location.

Thin Client Processing Tip

If executing as a Thin Client user you will appreciate considerably faster processing of large data files when you process input as Tab Delimited Text. Over a slow network, input to an Excel Spreadsheet is disgustingly slow. If loading the input from your PC, then make sure that the "Thin Client" Unix Home Page in your User Logon Profile contains a path on the UNIX server. (Files are actually 1st copied to the UNIX server, then read

into the system).

Field Definitions

File Type: *drop-down list*

Select the type of data that is to be loaded. This field will default to the type that is defined in the Series 5 User Logon Profile. *(Note that if the the particular import/export function requires a specific format other that an Excel Spreadsheet, the default from the User Logon Profile is not set as the default).*

Folder: *X(90)*

Enter the name of the directory folder from which the imported data is to be read from. This will default to the directory path defined in the Users Logon Profile established by your Systems Manager. You may click the Browse button to select a different folder.

Filename: *X(50)*

The filename will default to a name applicable to the type of data. You may change if you so desired.

About Importing Tab Screen

Along with the Export Options tab screen there will be an About Exporting tab screen. This provides the operator with information about which fields are output to which columns, (assuming MS Excel output).

The codes displayed under the Format column indicated the type and size of the data. Here are some examples:

Data Format	Comments
➟ **X(30)**	30 character alphanumeric
➟ **9(6)**	6 digit numeric integer
➟ **MM/DD/YY**	6 digit date in mm/dd/yy order
➟ **-9,999,999.99**	signed numeric amount with 2 decimal places
➟ **9(8)-9(5)**	G/L Account # 999999999999999999-99999
➟ **S9(9)**	signed 9 digit integer

In some of the import functions, you can specify a Processing Directive in column 1 of your input data file. These are basically commands that direct the system to process the rows of data following in a special way. These commands are typically only provided for the input of Master Code records.

Pseudo Command	*Comments*
⟾ **%RADD%**	If the data record being input is already defined on file, it is 1st deleted. Then a new record is written with the data loaded. (In some cases, the record being written may have other fields that would be initialized when the new record is written.
⟾ **%DELE%**	Once a Master Code is identified, the associated record on file is deleted. No data is subsequently input.

7.3 Record Processing Filters

In each Series 5 application, there is normally a primary Master Code or Transaction that is typical to most reporting and query activities. As such, in these functions, there is usually a screen that displays a number of fields associated to the Master Code or Transaction that may be set in order to limit the records or transactions being processed.

These filtering or selection screens provide the ability to select all codes, ranges of codes, or selected codes of the assorted Master Codes.

7.3.1 Project Filters

Most reporting and inquiry functions available in the Professional Invoicing application, are based on the P/I Project Master record. These routines provide the operator an opportunity to set filters such that only selected customer are reported or inquired. The following screen is presented where applicable:

Set WIP Display Filters

Set Display Selection Options ...

WIP Selects | Project Selects | Customer Select Filters

Projects for this report will be included based on whether their respective fields match the selections made below.

Callout (left): Click to have a window displayed from which specific Projects may be selected.

Callout (left): Click to have a window displayed from which specific Locations or Departments may be selected.

Include Projects:

Project(s): ○ All ○ Selected ○ A Range

With Billing Status of: ☑ Active ☑ On Hold ☑ Proposed ☑ Closed ☑ Inter Departmental

Of Type: ☑ Regular ☑ Sub-Ordinate ☑ Master ☑ Multi-Client ☑ Chargeable ☑ Non-Charg'ble

☐ Select ONLY those Projects that have been flagged to generate EDI Invoices

Inlcude Projects Matching:

Project Location(s): ○ All ○ Selected ○ A Range

Project Department(s): ○ All ○ Selected ○ A Range

Partner In-Charge: [   ] 🔍

Project Leader: [   ] 🔍

Keyword 1: [   ] User Project Type: [   ] Rate Class Code: [   ] 🔍
Keyword 2: [   ] User Billing Type: [   ] Invoice Layout: [0] 🔍
Keyword 3: [   ] User Rate Type: [   ] EDI/XML Specs {n/a} ▾
Keyword 4: [   ] Invoice Cycle Code: [   ]

(Fields left blank are NOT considered in the selection process.)

[< Back] [Next] [Cancel]

In particular, for Projects, Locations and Departments, you may choose to provide filters for Selected Codes or a Range of Codes. If the **A Range** radio button is clicked, then enter the starting and ending codes for the range of items that are wanted on the report. It the **Selected** radio button is clicked, then a window will be displayed from which you can select codes that are to be reported.

➖ Field Definitions

Project(s)	*radio-buttons*
Click to include all, selected or a range of Projects that are to be processed.	

⦿	All	All Projects are considered
○	Selected	A window is displayed from which specific items may be chosen
○	A Range	Specify a Starting and Ending Project Code for a range of items to be processed

Select ONLY Projects flagged to generate EDI Invoices	*check-box*
Set the check-box to include ONLY those Projects that have been set up to generate Electronic Invoices.	

With Billing Status of:	*check-boxes*
Click to select or unselect Projects of different status.	

Of Type(s)	*check-boxes*
Click to select or unselect Projects of different types.	

Chargeable or Non-Chargeable	*check-boxes*
Click or unclick to include or exclude those Projects that have been defined as being Chargeable or Non-Chargeable.	

Project Location(s)	*radio-buttons*
To consider only those Projects that have been assigned to a particular Location, click to include all, a selected, or a range of Locations.	

⦿ All	All Projects are considered regardless of Location
○ Selected	A window is displayed from which specific items may be chosen
○ A Range	Specify a Starting and Ending Location for a range of items to be processed

Project Department(s)	*radio-buttons*
To consider only those Projects that have been assigned to particular Department, click to include all, a selected, or a range of Departments.	

⦿ All	All Projects are considered regardless of Department
○ Selected	A window is displayed from which specific items may be chosen
○ A Range	Specify a Starting and Ending Department Code for a range of items to be processed

with Matching - Partner-In-Charge	*X(6)*
Select only those Projects whose Partner-In-Charge matches that entered. Leave the field blank if it is NOT to be considered as a filter.	

with Matching - Project Leader	*X(6)*
Select only those Projects whose Project Leader matches that entered. Leave the field blank if it is NOT to be considered as a filter.	

with Matching - Keywords 1 - 4	*X(10)*
Select only those Projects with a Keyword that matches any that are entered. Leave the field blank if it is NOT to be considered as a filter.	

with Matching - User Project Type Code	*X(5)*
Select only those Projects whose User Project Type Code matches that entered. Leave the field blank if it is NOT to be considered as a filter.	

with Matching - User Billing Type Code	*X(4)*
Select only those Projects whose User Billing Type Code matches that entered. Leave the field blank if it is NOT to be considered as a filter.	

with Matching - Rate Type Code	*X(1)*
Select only those Projects whose Rate Type Code matches that entered. Leave the field blank if it is NOT to be considered as a filter.	

with Matching - Invoice Cycle Code	*X(1)*
Select only those Projects whose Invoice Cycle Code matches that entered. Leave the field blank if it is NOT to be considered as a filter.	

with Matching - Rate Class Code	*X(6)*
Select only those Projects whose Rate Class Code matches that entered. Leave the field blank if it is NOT to be considered as a filter.	

with Matching - Invoice Layout Code	*999*
Select only those Projects whose Invoice Layout Code matches that entered. Leave the field blank if it is NOT to be considered as a filter.	

with Matching - EDI/XML Invoicing Code	*drop-list*
Select only those projects that generate EDI Invoices of the type selected. Select the *{n/a}* option if it is NOT to be considered as a filter.	

Selecting Specific Projects, Locations or Departments for Reporting

If you clicked to have **Selected** Projects, Locations or Departments from the **Project Select Filters** screen, then a window, similar to the one that follows, is displayed. From the grid display on the left, double-click the items that are to be included in the report, or query.

1. Double click an item in the left pane to have it included.

2. The codes of those Items that have been chosen are displayed in the right pane.

3. Search for a particular code by clicking on the [binoculars icon] binoculars icon.

4. Click on the [push button icons] push button icons to position to the previous or next item, in the left pane, that has already been selected.

5. Click to have "ALL" items selected or unselected.

6. When a particular previously selected item is highlighted in the right pane, click the [<-- Remove] button to have it unselected.

7. Use the grid navigate buttons to move through the list of possible items.

8. If you know approximately the code that you wish to select, start typing it. As each character is keyed in, the system will reposition itself to the closest matching item, and redisplay the items in the left pane. As each character is typed, it will be displayed as the GoTo string. To clear the GoTo string, press the <Esc> key on the keyboard.

Processing Tip

Selecting specific items in this manner requires more overhead when processing. If possible, you should select a range of items from the filters screen.

7.3.2   WIP Filters

Most reporting and inquiry functions available in the Professional Invoicing application, are based on the P/I Work-In-Progress, (WIP), record. These routines provide the operator an opportunity to set filters such that only selected WIP are reported or inquired. The following screen is presented where applicable:

In particular, for Employees and Tasks, you may choose to provide filters for Selected Codes or a Range of Codes. If the **A Range** radio button is clicked, then enter the starting and ending codes for the range of items that are wanted on the report. It the **Selected** radio button is clicked, then a window will be displayed from which you can select codes that are to be reported.

− Field Definitions

Employees(s)	*radio-buttons*
To consider only those WIP items that have been recorded for a particular Employee, click to include all, a selected or a range of Employees.	

⦿ All	All WIP items are considered regardless of Employee
○ Selected	A window is displayed from which specific items may be chosen
○ A Range	Specify a Starting and Ending Employee Code for a range of items to be processed

Task(s)	*radio-buttons*
To consider only those WIP items that have been recorded for a particular Task, click to include all, a selected or a range of Tasks.	

⦿ All	All WIP items are considered regardless of Task
○ Selected	A window is displayed from which specific items may be chosen
○ A Range	Specify a Starting and Ending Task Code for a range of items to be processed

Of Type(s)	*check-boxes*
Click to select or unselect WIP of different types.	

With Status of:	*check-boxes*
Click to select or unselect WIP of different status.	

Chargeable or Non-Chargeable	*check-boxes*
Click or unclick to include or exclude those WIP items that have been defined as being Chargeable or Non-Chargeable.	

with Matching - Partner-In-Charge	*X(6)*

Select only those WIP for Projects whose Partner-In-Charge matches the code entered. Leave the field blank if it is NOT to be considered as a filter.

with Matching - Project Leader	X(6)

Select only those WIP for Projects whose Project Leader matches the code entered. Leave the field blank if it is NOT to be considered as a filter.

with Matching - Employee Department	99

Select only those WIP items for Employee's who's Department matches the code entered. Leave the field blank if it is NOT to be considered as a filter.

with Matching - Employee Job Class	X(6)

Select only those WIP items for Employee's who's Job Class matches the code entered. Leave the field blank if it is NOT to be considered as a filter.

with Matching - Employee Location	X(6)

Select only those WIP items for Employee's who's Location matches the code entered. Leave the field blank if it is NOT to be considered as a filter.

with Matching - Leader Location	X(6)

Select only those WIP items for Projects whose Project Leader's Location matches the code entered. Leave the field blank if it is NOT to be considered as a filter.

with Matching - Invoice Group Code	X(6)

Select only those WIP items that have an Invoice Group that matches the code entered. Leave the field blank if it is NOT to be considered as a filter.

with Matching - Taxable Status Code	X(1) - "Y" or "N"

Select only those WIP items that have a Taxable Status of **Y** or **N**, matching the code entered. Leave the field blank if it is NOT to be considered as a filter.

with Matching - Invoice Number(s)	*radio-buttons with 9(6) Invoice #s*
Select only those WIP items that have been invoiced with Invoice Numbers that fall within the range entered.	

with Matching - Date(s)	*radio-buttons with (yymmdd) dates*
Select only those WIP items that have been recorded with a date that falls in the range entered.	
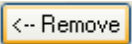
Selecting Specific Employees or Tasks for Reporting

If you clicked to have **Selected** Employees or Tasks from the **WIP Select Filters** screen, then a window, similar to the one that follows, is displayed. From the grid display on the left, double-click the items that are to be included in the report, or query.

1. Double click an item in the left pane to have it included.

2. The codes of those Items that have been chosen are displayed in the right pane.

3. Search for a particular code by clicking on the ▥ binoculars icon.

4. Click on the [icon] push button icons to position to the previous or next item, in the left pane, that has already been selected.

5. Click to have "ALL" items selected or unselected.

6. When a particular previously selected item is highlighted in the right pane, click the [<-- Remove] button to have it unselected.

7. Use the grid navigate buttons to move through the list of possible items.

8. If you know approximately the code that you wish to select, start typing it. As each character is keyed in, the system will reposition itself to the closest matching item, and redisplay the items in the left pane. As each character is typed, it will be displayed as the GoTo string. To clear the GoTo string, press the <Esc> key on the keyboard.

Processing Tip

Selecting specific items in this manner requires more overhead when processing. If possible, you should select a range of items from the filters screen.

7.3.3   Customer Filters

Most reporting and inquiry functions available in the Professional Invoicing application, are based on the A/R Customer Master record. These routines provide the operator an opportunity to set filters such that only selected customer are reported or inquired. The following screen is presented where applicable:

Click to have a window displayed from which specifc Customers may be selected

Click to have a windows displayed from which specific Customer Types may be selected.

Click to have a windows displayed from which specific Sales Reps may be selected.

In particular, for Customers, Customer Types and Sales Reps, you may choose to provide filters for Selected Codes or a Range of Codes. If the **A Range** radio button is clicked, then enter the starting and ending codes for the range of items that are wanted on the report. It the **Selected** radio button is clicked, then a window will be displayed from which you can select codes that are to be reported.

Field Definitions

Customer(s)	*radio-buttons*
Click to include all, selected or a range of Customers that are to be processed.	

⦿	All	All Customers are considered
○	Selected	A window is displayed from which specific items may be chosen
○	A Range	Specify a Starting and Ending Customer Code for a range of items to be processed

Customer Type(s)	*radio-buttons*
To consider only those Customers that have been assigned as being a particular Customer Type, click to include all, a selected or a range of Types.	

⦿	All	All Customers are considered regardless of Type
○	Selected	A window is displayed from which specific items may be chosen

○ A Range	Specify a Starting and Ending Customer Type for a range of items to be processed

Sales Representative(s)   *radio-buttons*

To consider only those Customers that have been assigned to particular Sales Representatives, click to include all, a selected or a range of Sales Reps.

◉ All	All Customers are considered regardless of Sales Rep
○ Selected	A window is displayed from which specific items may be chosen
○ A Range	Specify a Starting and Ending Sales Rep Code for a range of items to be processed

Customer Status   *radio-buttons*

To consider only those Customers that have been flagged as having a given Status, click the appropriate radio button.

◉ All	All Customers are considered regardless of status
○ Only Active	Only those Customers whose status is Active.
○ Only Canceled	Only those Customers marked as being Canceled will be processed.

Credit Rating Code   *radio-buttons*

Each Customer may have a Credit Rating status assigned to them. Consider only those Customers with the status as clicked.

◉ All	All Customers are considered regardless of Rating
○ Different Name	Only those Customers whose Remit-To Company Name is different from it's own name will be processed.
○ Different Address	Only those Customers whose Remit-To address is different from it's own address will be processed.
○ Either	Only those Customers whose Remit-To name or address is different from it's own I be processed

Email-Status   *radio-buttons*

To consider only those Customers that have or have not been enabled to have their Customer Statements emailed to them.

◉ All	All Customer are considered regardless of status
○ Only Enabled	Only Customers enabled for emailed statements are processed
○ Only NOT Enabled	Only Customers NOT enabled for emailed statements are processed

with Matching - City	*X(25)*
Select only those customers whose City matches that entered. Leave the field blank if it is NOT to be considered as a filter.	

with Matching - Country	*X(20)*
Select only those customers whose Country matches that entered. Leave the field blank if it is NOT to be considered as a filter.	

with Matching - State/Province	*X(5)*
Select only those customers whose State or Province matches that entered. Leave the field blank if it is NOT to be considered as a filter.	

with Matching - Primary Phone Area Code	*9(3)*
Customers have phone numbers. Select only those customers whose Area Code matches that entered. Leave the field blank if it is NOT to be considered as a filter.	

with Matching - Tax Code 1	*X(6)*
Customers are assigned a primary Tax Code. Select only those customers whose Tax Code 1 matches that entered. Leave the field blank if it is NOT to be considered as a filter.	

with Matching - Tax Code 2	*X(6)*
Customers are assigned a secondary Tax Code. Select only those customers whose Tax Code 2 matches that entered. Leave the field blank if it is NOT to be considered as a filter.	

with Matching - Sales Territory	*X(5)*
Customers may be assigned to a particular Territory. Select only those customers whose Territory Code matches that entered. Leave the field blank if it is NOT to be considered as a filter.	

Selecting Specific Customers, Customer Types or Sale Reps for Reporting

If you clicked to have **Selected** Customers, Customer Types, or Sales Reps from the **Customer Select Filters** screen, then a window, similar to the one that follows, is displayed. From the grid display on the left, double-click the items that are to be included in the report, or query.

1. Double click an item in the left pane to have it included.

2. The codes of those Items that have been chosen are displayed in the right pane.

3. Search for a particular code by clicking on the 🔍 binoculars icon.

4. Click on the ✓↑ ✓↓ push button icons to position to the previous or next item, in the left pane, that has already been selected.

5. Click to have "ALL" items selected or unselected.

6. When a particular previously selected item is highlighted in the right pane, click the ⟵ Remove button to have it unselected.

7. Use the grid navigate buttons to move through the list of possible items.

8. If you know approximately the code that you wish to select, start typing it. As each
    character is keyed in, the system will reposition itself to the closest matching item,
    and redisplay the items in the left pane. As each character is typed, it will be displayed
    as the GoTo string. To clear the GoTo string, press the <Esc> key on the keyboard.

Processing Tip

Selecting specific items in this manner requires more overhead when
processing. If possible, you should select a range of items from the
filters screen.

7.3.4   Customer Demographics Filters

As well as being able to set filters associated to the Customer Master records, you may also
set filters for the Customer Demographic codes that have been assigned to your Customer
Master records.   These routines provide the operator an opportunity to set filters such that
only selected customers, based on whichever Customer Demographics have been assigned
to them, are reported or inquired. The following screen is presented where applicable:

For each Demographic Code, you may choose to provide filters for Selected Codes or a Range of Codes. If the **A Range** radio button is clicked, then enter the starting and ending codes for the range of items that are wanted on the report. It the **Selected** radio button is clicked, then a window will be displayed from which you can select codes that are to be reported.

Point of Interest

Please note that the Demographic Codes are dreamed up by you, the user. The screen here shows some creative, or maybe not so creative, examples.

− Field Definitions

Xxxxxx Code(s)	*radio-buttons*
To consider only those Customers that have been assigned a particular Demographic Code, click to include all, or selected codes.	

⦿ All	All Customers are considered
○ Selected	A widow is displayed from which specific items may be chosen

Selecting Specific Demographic Codes

If you clicked to have **Selected** a code from the **Demographic Selects** screen, then a window, similar to the one that follows, is displayed. From the grid display on the left, double-click the items that are to be included in the report, or query.

1. Double click an item in the left pane to have it included.

2. The codes of those Items that have been chosen are displayed in the right pane.

3. Search for a particular code by clicking on the 🔍 binoculars icon.

4. Click on the ✓ push button icons to position to the previous or next item, in the left

pane, that has already been selected.

5. Click to have "ALL" items selected or unselected.

6. When a particular previously selected item is highlighted in the right pane, click the ⟨-- Remove button to have it unselected.

7. Use the grid navigate buttons to move through the list of possible items.

Processing Tip

Selecting specific items in this manner requires more overhead when processing. If possible, you should select a range of items from the filters screen.

7.4   Report Generation and Printing

Most of the Series 5 applications generate reports or forms that need to be printed. The system offers a variety of options for selecting the format in which reports are generated and how they are actually to be printed.   Reports may be generated as follows:

> **Viewed by the Series 5 Report Browser**

> **Printed to a selected printer**

> **"Archived" for later reference**

> **Saved as an ASCII text file or MS Word file**

> **Emailed to specified recipients**

> **Any combination of the above**

When a report is to be actually printed, any of the Series 5 defined Print Queues may be selected. An unlimited number of Printer Queues may be set up by your System Administrator. Each Queue has a variety of properties associated that means you can pretty well print to any of your network defined printers using different fonts or margin settings. (Refer to the chapter on *Defining Series 5 Print Queues* in the Systems Management Help or manuals).

7.4.1   Report Options Screen

When any kind of report or form output is to be generated, the following window screen is displayed:

```
┌─────────────────────────────────────────────────────────────────────────┐
│ □ Vendor Type Codes Maintenance                              _ □ ✕      │
├─────────────────────────────────────────────────────────────────────────┤
│  Report:  VENDTYPE.LST          Print a list of the Vendor Type Codes currently on file │
│  ─────────────────────────────────────────────────────────────────────  │
│  ┌ Print Options ┐                                                        │
│                                                                           │
│   Select where to have this report printed to.  You may choose any combination of the possible destinations. │
│   Reports that are 'Archived' to the Reports Manager can be browsed or reprinted at a later date.      [?]    │
│                                                                           │
│   ┌ Direct Generated Document(s) to: ──────────────────────────────────┐ │
│   │   ☑ Screen Browser        ☑ Archive to Reports Manager             │ │
│   │                                                                      │ │
│   │   ┌──────────────────────────────────────────────────────────────┐ │ │
│   │   │ ☑ Print Queue:  WPRINT3        ▼    WinPrint (Courier-10 Compress) │ │
│   │   │                                     Standard Courier 10 pt (Compressed) │ │
│   │   │ PreCaptured Printer: [LASER_LAND] - hp LaserJet 1300 PCL 6      │ │
│   │   │                                            # of Copies:  1      │ │ │
│   │   └──────────────────────────────────────────────────────────────┘ │ │
│   │   ┌──────────────────────────────────────────────────────────────┐ │ │
│   │   │ ☑ Save to:  C:\Users\Larry\Documents\SHSI\PCA                  │ │
│   │   │                                                                │ │
│   │   │ Save as:  MS WORD (Printed)   ▼    To Captured Printer:  [Browse] │ │
│   │   │                                    CanonPortrat  ▼             │ │
│   │   │ Send a copy to E-Mail Recipient □   hp LaserJet 1300 PCL 6     │ │
│   │   └──────────────────────────────────────────────────────────────┘ │ │
│   └──────────────────────────────────────────────────────────────────┘ │
│   ┌ Report Header User Note: ──────────────────────────────────────────┐ │
│   │ A list codes for Rembrandt                                         │ │
│   │ (This text will appear at the top of the 1st page and may be used so you can personalize your report). │ │
│   └──────────────────────────────────────────────────────────────────┘ │
│                                                                           │
│                                    [ Create Report ]   [ Cancel ]        │
│                                          ▷                                │
└─────────────────────────────────────────────────────────────────────────┘
```

⊙ Selecting Report Generation Options

Normally, the Print Options screen will be presented with all fields defaulted for typical report handling.   However, you may want to revise how and where the report is to be generated. The following steps may be taken:

1. Determine where the generated report is to be directed. Click the appropriate check-box. You may choose one or more from the following:

Output To	Comments

☑ **Screen Browser**	Output is displayed to the screen using the Series 5 Report Browser [165].
☑ **Archived to Report Manager**	Output is saved as an "Archived" report. It may be viewed and reprinted using the Series 5 Report Manager [166]. It will remain on the system until purged.
☑ **Print Queue**	Output will be directed to the selected Series 5 Printer Queue. This may be any printer that has been defined on your network. When selecting to output to a Printer Queue, you may select to have up to 9 copies printed, (as long as that feature is supported by your operating system, and printer).
☑ **Saved to Disk** as an MS Word Document	The output is written to an MS Word Document in the specified folder.
☑ **Saved to Disk** as an MS Word Document and printed	The output is written to an MS Word Document in the specified folder. It is also printed to the designated Captured Printer from within Word.
☑ **Saved to Disk** as an ASCII Text file	The output is written as a text file to the specified folder. This would be useful only if you needed to parse the file with some 3rd party utility.
☑ **Saved to Disk** as a PDF Document	The output is written to a PDF Document in the specified folder.

2. When selected to direct the report output to a Printer Queue, you may select a Series 5 Printer Queue from the drop down list. *(The list will contain each of the printers that has been assigned to the particular Company System that you are working in).* When the Print Queue has been selected, the system will echo the Description, the Font, and if applicable, the network assigned printer name of the Captured printer.
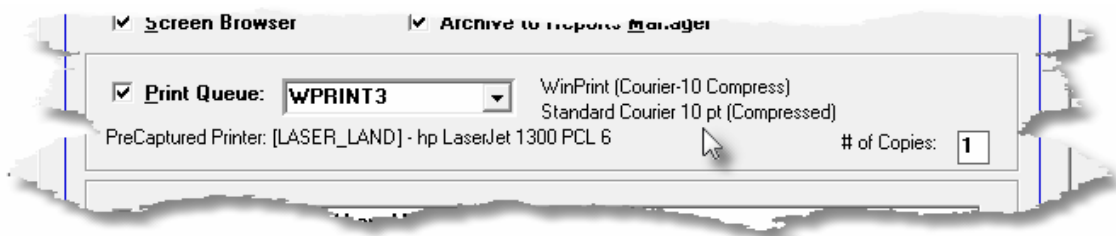
3. When selected to direct the report **Saved To Disk** you must select to save it as an MS Word Document, an MS Word Document Printed, a PDF Document, or an ASCII Text

File. In either case you need to have specified the folder to which the file is saved. The default is the directory that is defined in the Series 5 User's Logon Profile field labeled as the **User's "My Documents" folder Pathname**. You can click the Browse push button to locate or change the folder where the file is to be stored.
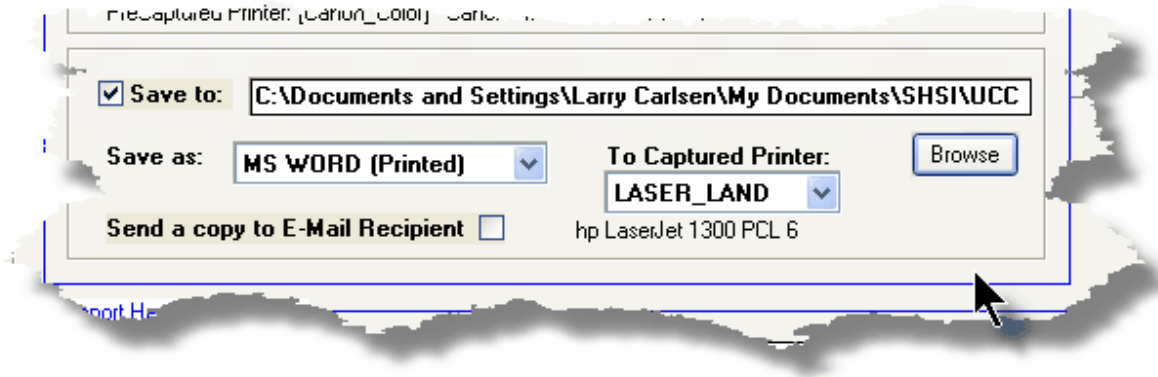
4. If saving to an **MS Word Document Printed**, then after generated, the document will be printed from within Word. You will need to select a specific Captured Printer. Captured Printers are defined by your Systems Manager using the Captured Windows Printers maintenance function available from the Series 5 main menu under the System Maintenance drop down sub-menu. (Refer to the chapter on *Defining Series 5 Captured Windows Printers* in the Systems Management Help or manuals).

Setup Tip

If you wish to be able to generate your reports as Word or PDF documents, your Systems Manager must have defined pertinent variables in the AcuGT runtime configuration file. For simple reports you specifically need to have set up the variable *MSWORD-DEFAULT-SPECS*. This defines whether the document is generated as Portrait or Landscape, the Font Name and Font Size and an optional Template that might be applied to the document when it is created. (Refer to the chapter *Setting up for MS Word* in the Systems Management Help or manuals.)

If templates are used to format the output to MS Word or PDF documents, they must be installed on each user's individual client PC. On Windows XP clients, these must be saved to the **C:\Documents and Settings \<PC UserName>\Application Data\Microsoft\Templates** folder. On Windows VISTA and Windows 7 clients, these must be saved to the **C:\Users\<PC UserName>\AppData\Roaming\Microsoft\Templates** folder.

For users of Office 2003 the file must be named with a xxxx.dot extension. For users of Office 2007 or later, the file must be named with a xxxx.dotx extension.

---

5. When a report is saved to disk, you may also select to have the generated disk file email to a given recipient. Set the check-box accordingly. After the report is generated, the window to send an email will be displayed. You can select the recipient(s), and edit the text of the message and click the Send button to send the email.
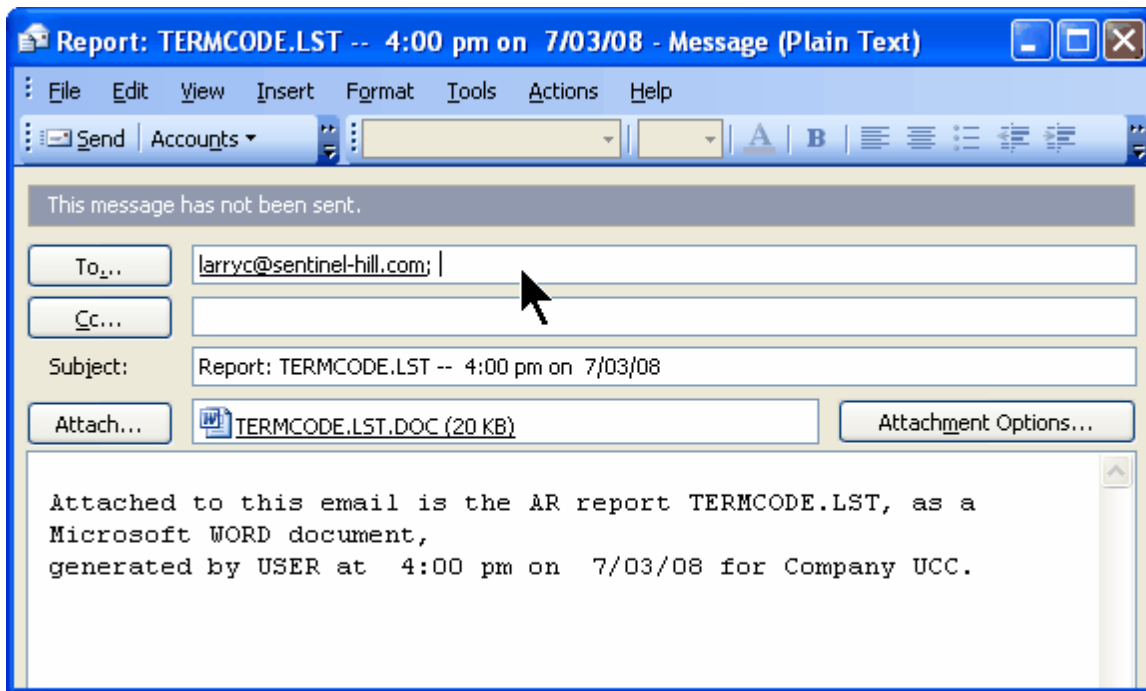
Protected MS Word Documents

When reports of forms are output as MS Word Documents, they are generated in protected "Read-Only" mode. If you really need to un-protect it, the password is **SENTINELHILL**.

— Field Definitions

Screen Browser:	*check-box*
Set the check mark to have the report displayed to the screen using the Screen Browser utility.	

Archive to Reports Manager:	*check-box*
Set the check mark to have the report output as an "Archived Report". This may later be viewed and/or reprinted from the Reports Manager.	

Print Queue:	*check-box*

Set the check mark to have the report output to a printer.

Print Queue:	*drop-down list*

Select the the Series 5 Printer Queue to which the report is to be output to.

# of Copies:	*9*

When outputting to a Printer Queue, you may specify how many copies are to be printed. You can print up to 9 copies. This is a feature that is offered only on WIndows XP, VIsta and Windows 7, and is dependant on the type of printer and it's drivers. When multiple copies are chosen, they are printed collated.

Save To:	*check-box*

Set the check mark to have the report output to a disk file, or folder, on your system as either an MS Word Document, a PDF Document, or a simple ASCII text file.

Save To:	*X(90)*

Enter the name of the directory folder to which the saved-to-disk report is to be written. This will default to the directory path defined in the Users Logon Profile established by your Systems Manager.

You may click on the **Browse** button to locate the desired directory. Only those folders which are descendants of the root directory, of that which is defined by the Save-To field, can be displayed. So if you wish to choose a folder on your "C" drive, enter **C:** in the Save-To field before clicking the "Browse" button. Setting the Folder field blank, or to a path that does not have a drive letter designation, would result in only being able to browse descendants of the user's default working directory.

Save As:	*drop-down list*

Select to have the output saved as an Office Word document, an Office Word document that is printed from Word, as a PDF document, or as an ASCII text file. If chosen to Save to "MS Word Printed", then you must select the Captured Printer to which the report is to be printed.

To Captured Printer:	*X(12)*

If chosen to Save to "MS Word Printed", then you must select the Captured Printer to which the report is to be printed. This must be a valid network printer that was captured using the Captured Windows Printers maintenance function available from the Series 5 main menu under the System Maintenance drop down sub-menu. *(Refer to the Systems*

Management Help if required).

Send a copy to E-Mail Recipient:	*check-box*
If chosen to save the report to a disk file, you may also select to have an email sent with the generated disk file as an attachment. Set the check mark to have the report emailed.	
Report Header User Note:	*X(100)*
If you need to personalize the report, the text you enter here will be printed at the top of the 1st page.	
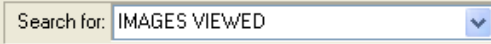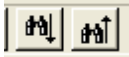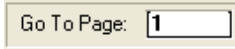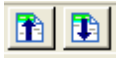
7.4.2   Report Browser

When selected to direct a report output to the Screen Browser, or from the Reports Manager you have selected a particular report, the Series 5 Report Browser screen window will be shown.
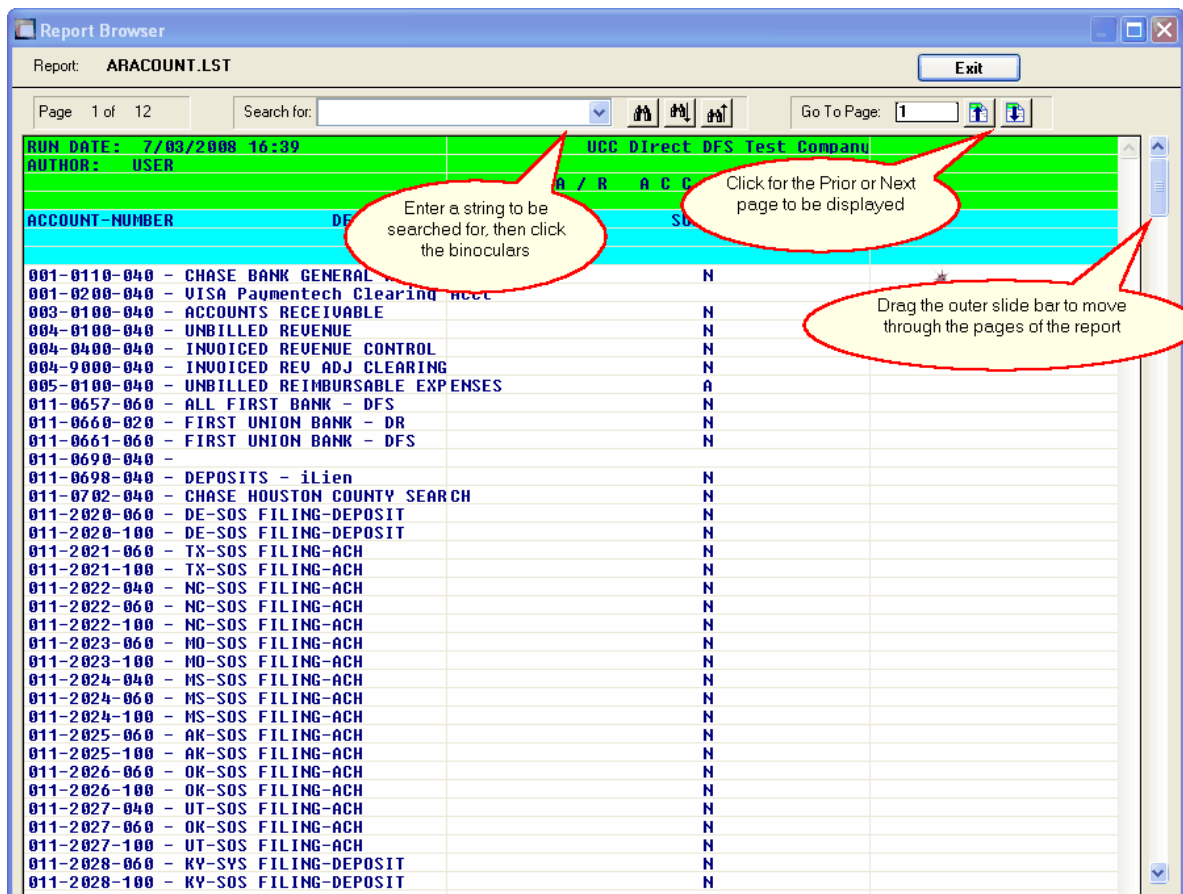
You may navigate around the report in number of ways:

Graphic or Control to click	Action
Slide bar to the right	Position to up or down through the pages of the report. As you drag the slide bar, the 1st data line of each page is displayed at the bottom of the screen.
Search for: IMAGES VIEWED	Enter a search string. This may be text, or a number as it would be printed in the report. The drop down list contains previously entered search strings.
🔍	Search for the entered search string. The page where the string is found will be displayed, and the line containing the text will be displayed in red.
🔍🔍	Search Forward or Backward for the entered search string.
Go To Page: 1	Display the select Page.
⬆⬇	Display the Prior or Next page of the report.

7.4.3   Archived Reports Management

The Reports Manager is available to each of the Series 5 applications. Whenever a report is generated, the operator may have chosen to direct the output to be "Archived". These archived reports may be viewed and printed using the Reports Manager.

✦ Accessing the P/I Reports Manager

From either the P/I Main menu, or any application, select **Reports Manager** from the **File** drop-down menu.

Reports Manager Grid Screen

Maintenance of the Archived reports is done with a Series 5 grid screen.
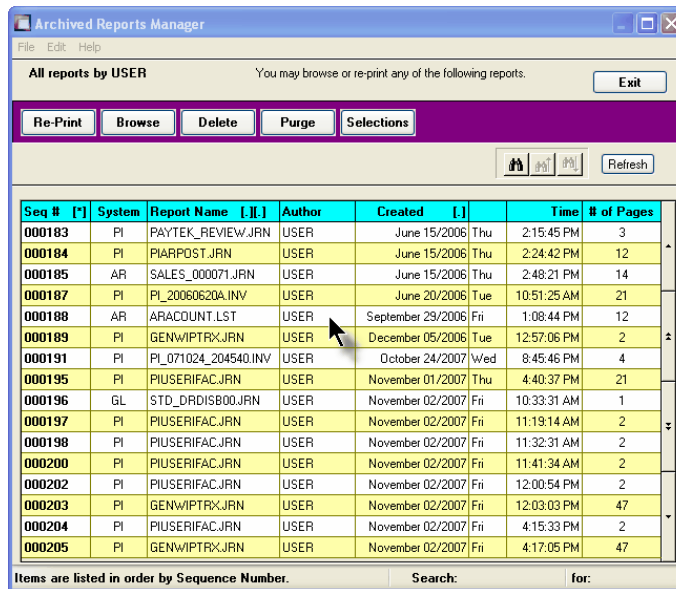
	"Fast Buttons"	
Re-Print	Print the selected report	
Browse	Browse the selected report	
Delete	Delete the selected Archived report	
Purge	Have reports satisfying a number of filters deleted from the system	
Selections	Set filters for the items that are displayed in the grid	

Viewing an Archived Report

1. In the grid, navigate to the row listing the report that is to be viewed.

2. Double-click the row.

3. The Report Browser window will be displayed.

Process Warning

The "archive" report files are stored in a sub-directory under the folder specified to be used for the company's data files. These files are not in any type of format that can be used, other than directly from the Reports Manager utility.

■ Re-Printing an "Archived" Report

1. In the grid, Navigate to the row listing the report that is to be printed.

2. Right-click the row to have a drop-down menu displayed, then click **Re-Print**, ... or just click on the **Re-Print** button in the "Fast Button" frame. The Re-Print options screen will be displayed.

3. Enter the reprint options. Basically you can either print the report, or save it to disk as

---

an MS Word or ASCII text file. Notice that you can also specify a range of pages that are to be printed.

4. Click the **Reprint Report** push button at the bottom of the screen.

Grid Display Search options

You may search for specific records displayed in the grid using a number of relevant fields.

Click on the [search icons] Search icon.
A search string may be entered for the following fields:

- Sequence #
- Report Name

Grid Display Sort options

You may choose to have the items in the grid displayed using a number of sorts. These include:

- By Sequence #
- By System then Report Name
- By Report Name Extension, then System, then most recent date
- By the date created (with the most recent ones listed first)

To change the displayed sort order:

1. Click on the heading of the column of data which is to be used for the sort. Only those columns with a **[.]** can be used. The column that is currently used for the sort has **[*]** displayed.

Grid Display and Purge Filters Screen

Over a period of time, your users will probably be generating a great number of "Archived" reports. You can limit the number of items that are displayed in the grid. The same filter fields are also available to the Purge function.

1. Click on **Selections** in the "Fast Button" frame. The Archive Report selection filters screen will be displayed.

2. Set the applicable filters

3. Click the OK push-button. The grid will be redisplayed showing only those reports satisfying the selected filters.

➖ Filters Screen Field Definitions

Systems	**radio-buttons & drop down list**
Click the **All** button, or the **Selected** button with a specific application from the drop down list. Only those reports generated from the selected system will be listed.	

Report Types	**radio-buttons & drop down list**
Click the **All** button, or the **Selected** button with a specific report name extension from the drop down list. Only those reports with their report name extension matching that	

which was selected will be listed.	
Users	**radio-buttons & drop down list**
Click the **All** button, or the **Selected** button with a specific user from the drop down list. Only those reports generated by the selected user will be listed.	
Date Generated	**radio-buttons & (mm/dd/yy) entry fields**
Click the **All** button, or the **Selected** button with a date range. Only those reports generated within the range of dates entered will be listed.	
Report Name Template	*X(20)*
Enter a template to be used to match the report names to be listed. The "$" will match any single character. Use the "*" character immediately before or after the ".", or as the 1st character, to match a string of characters.	

Delete an "Archived" Report

1. In the grid, navigate to the row listing the report that is to be deleted.

2. Right-click the row to have a drop-down menu displayed, then click **Delete**, ... or just click on the **Delete** button in the "Fast Button" frame.

3. A delete verification screen will be displayed. Click the **Remove-It** button to proceed.

4. Both the entry in the tables, and it's corresponding "Archive" file will be deleted.

Purging old "Archived" Reports

Over a period of time, your users will probably be generating a great number of "Archived" reports. If you wish, you may delete them to reduce the overhead, make available more disk space, or just to get rid of them.

1. Click on the **Purge** button in the "Fast Button" frame.

2. The Purge options screen will be displayed. (This is the same screen as used for the Grid Display filters).

3. Click the OK push-button. The system will remove all reports satisfying the selected filters.

7.5   Search and Replace

In each Series 5 application, there is normally a function that provides a Search and Replace operation on a variety of different records. (The replace phase of the function is optional). This function is particularly useful if you need to change a code that exists within a great number of, say for example, P/I Project master or A/R Customer master records.

The operation of the screen controls available to these Search/Replace functions are the same for all types of records for each of the Series 5 applications for which it exists.   Only the field names for each type of record may differ.

The Search and Replace function, is accessed from the drop-down menu under the P/I system's menu bar under **Operations**
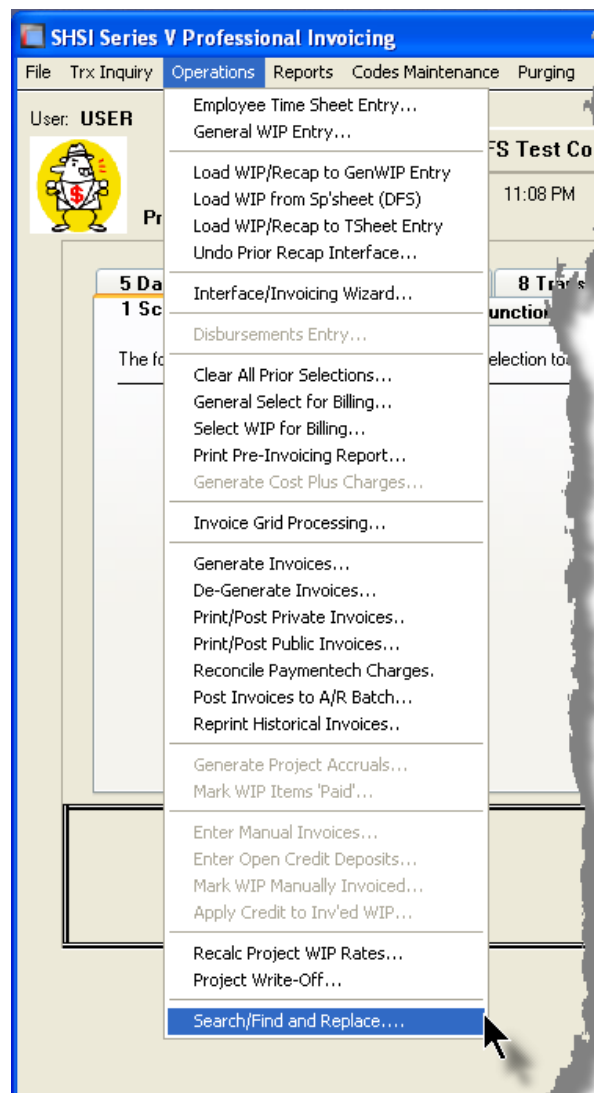
For the Professional Invoicing system, the Search and Replace function is provided for the following record types:

> ➢ Project Master
>
>   Records
> ➢ Client Master Records
> ➢ Employee Master
>
>   Records
> ➢ Task Master Records
> ➢ WIP Charges
>
>   Transactions
> ➢ Invoice History
>
>   Records

Process Warning

Access to this menu item should only be granted to those
that know what's going on. Malicious or ignorant use of th
could cause a great deal of grief.

7.5.1   Search and Replace Options Screen

For the Search and Replace function, you must 1st select the record that is to be searched.

Once selected, the Search and Replace Options screen will be displayed. At this point you must enter the Search options and the Replace options. This requires the operator to choose the field to be tested, it's test value, and the field which is to have a new value assigned along with it's new assigned value.

The Series 5 system basically breaks the Search/Replace function into three main phases.

1. Search Phase	- Read through the chosen set of records examining the selected search field for the test string or code that was entered. After all records have been processed, those records found will be displayed in the grid.
2. Preview Phase	- You can then browse through the list if records that have been identified as having the search field matching the given test field.
3. Replacement Phase	- The last phase is the Replacement pass. Note that this pass is started only if initiated by the operator by clicking on the **Start Searching** push-button.

Processing Tip

You may use the Search and Replace function, identifying a particular field to be replaced, in order to have its' existing value displayed in the preview grid without actually having new values assigned. **JUST MAKE SURE YOU CHECK THE Preview Items Before Replacement BOX, AND CLICK ON THE Cancel BUTTON AFTER BROWSING THE PREVIEW GRID.**

⊟ Search and Replace Options Screen

The Search and Replace Options and Preview widow screen is displayed as follows:
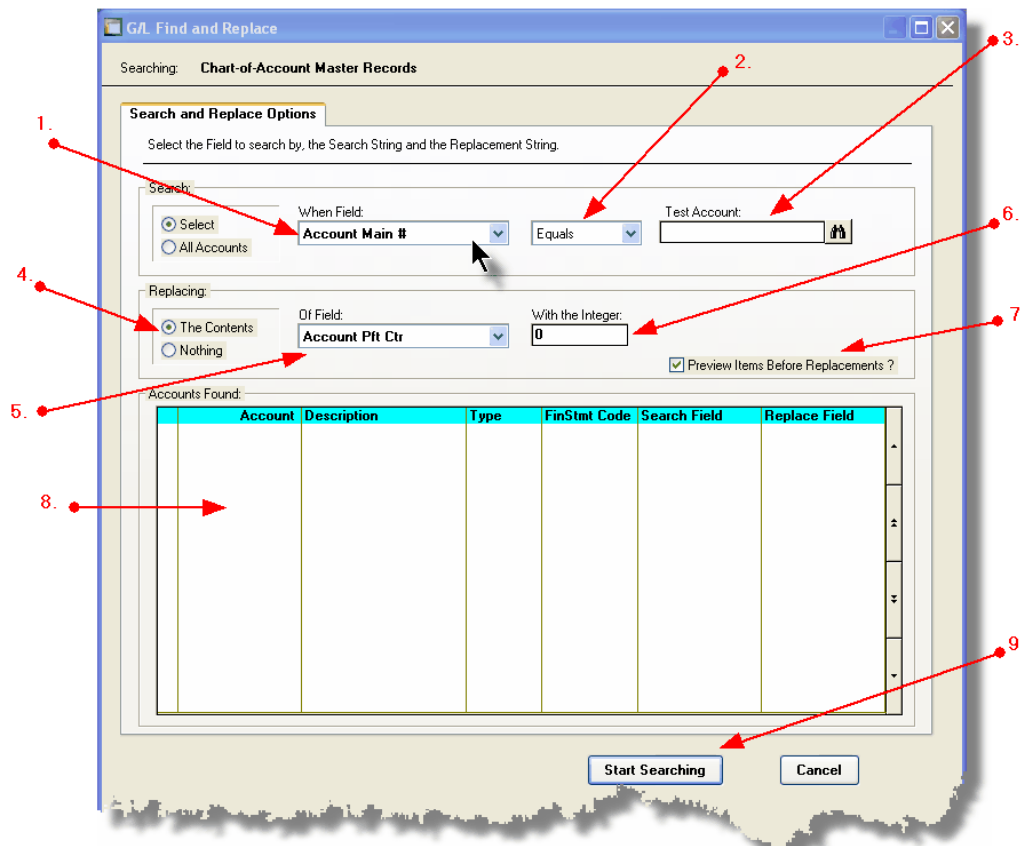
To have a search executed on the select record, referencing this screen, you need to perform the following steps:

1) In the **Search** frame, make sure the **Select** radio-button has been clicked. From the drop-down list, select the field that is to be tested.	
2) From the drop-down list, select the test operation to be performed.	Equals / Equals / NOT Equal / Is Greater Than / Is Less Than
3) In the **Test String** field, enter the string, or code, or value that the test field must match in order for the record to be "selected". If the field is for a standard code that is defined by the system, the binoculars icon will be displayed, and may be used to select a particular code that is to be test for.	Test Account:
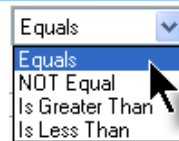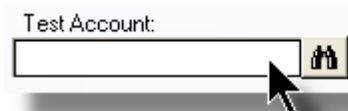
4)	In the **Replacing** frame, click on the **The Contents** radio-button. Note that you may choose to select a "replacing" field to have it's current value displayed, but not actually proceed with the replacement phase.	
5)	From the **Of Field** drop-down list, select the field that is to have it's value replaced.	
6)	In the field provided, enter the value to be assigned to the selected field. If the field is for a standard code that is defined by the system, the binoculars icon will be displayed, and may be used to select a particular code that is to be assigned.	
7)	The Preview Items check-box should always be checked. After the "search" phase, if this check-box is set, then the system will display a list of those records that have matched the test successfully. If this box is not checked, and you have chosen to actually have a field's values replaced, then the system will just go ahead and do it without first asking.	☑ Preview Items Before Replacements ?
8)	Before the replacement pass, the records that have been selected will be displayed in the grid. Use the standard grid navigation buttons to view those selected records. It's an opportunity to verify that you have entered the correct search values.	
9)	Initially, after the Search and Replacing options have been entered, click on the **Start Searching** push-button to start the search.	
10)	After the selected items have been displayed to the grid, you may choose to proceed and have all records found updated, or you can select those items that are to be updated. Click the **Replace All** push-button to have all records updated.	Revise Search Replace All Start Replacing Cancel

	To select specific items, double click each of the records' entries in the grid. Once all items have been checked off, then click the **Start Replacing** push-button to proceed with the "replacement" phase. Should you want to revise the search, click on the **Revise Search** push-button.	
11)	To exit without having any records updated, click on the **Cancel** push-button.	

Sample Search/Replace Preview Screen

Here is an example of the Search screen after finding some records matching the search criteria.

A couple of things to note:

- The number of records with the Search field matches the test string is displayed at the top of the screen.

- You may **Select All** or **Clear All** by clicking the buttons to the right of the display grid.

- Double clicking a row in the grid selects that particular item to have it's Replace field updated in the "replacement" pass

- Click on the Previous/Next Selected icons ⬆⬇ to position the grid to the prior/next item that has already been selected

- Once ready, click on the **Start Replacing** button to proceed to have those items that have been checked processed.

- To exit without having anything replaced, click the **Cancel** button.

7.6   User Access Management

The Series 5 system provides for User Access security at the menu item level for each application, based on a users' sign-on code.

There are two user access records that must be established before any given user can access the system.

	Data	*Accessed From*	*Comments*
1.	User Logon Profile Record	The main menu's **System Maintenance** drop-down menu	Each user must have a Logon Profile record before they can be set up with any Application's Access rights. The user's sign-on code, password, email address, and default documents pathname are defined. Only users with full system Management access rights can maintain the Logon Profile records.
2.	User Application Access Record	The P/I menu's **Control Options** drop-down menu	A separate Access record must be established in each application that the user needs to execute. In those Professional Invoicing systems with multiple companies, a separate Access record must be defined for each company. The user's default printer and each individual menu items access rights are defined.

Once the User Access for a user is established, they may define specific menu items to be scheduled. That is, an icon will appear in a tabbed sub-screen in the applications menu on the date that it has been scheduled. Refer to the section on Scheduled Menu Functions 87 under the Professional Invoicing Application Menu 80 Chapter for further information and the topic following.

Accessing P/I Users' Access Maintenance Function

From the P/I menu, select **User Access Privileges** from the **Control Options** drop-down menu.
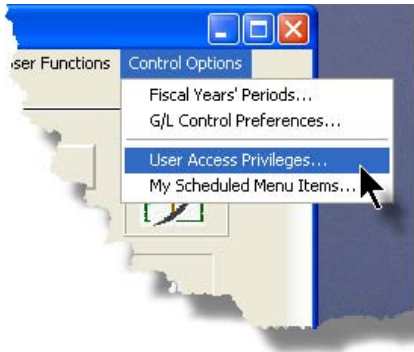
Processing Tip

If your company requires strict controls as to which individual is entitled to set up User Access rights, then a Gate Keeper may have been established. (See the topic on System Control Options found in the Systems Manager's Help for further information). If this is the case, then the designated Gate Keeper will be the only individual that will be able to select the User Access Privileges maintenance function.

7.6.1   Defining Users' Access Rights

The Users' Access Rights record holds information about the users' privileges - ie., which menu items they can access.

P/I User Access Maintenance Tree Screen

Maintenance of the User Access properties is done in a tree structure. Following is the screen that is displayed listing each user that has been defined with a Logon Access record.
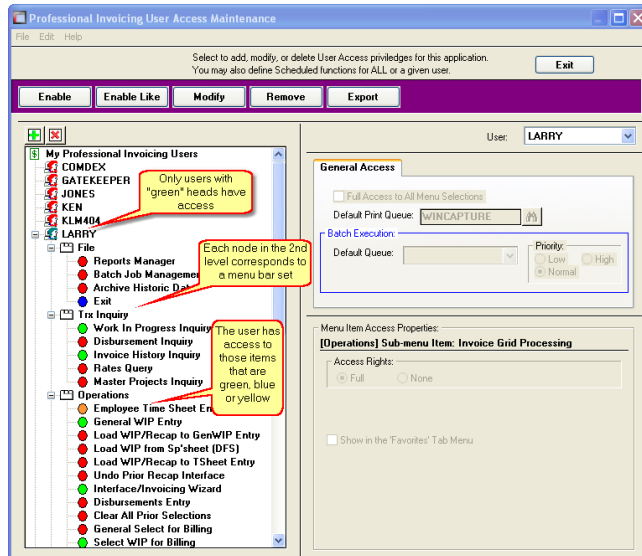
	"Fast Buttons"
Enable	Setup to give the h... "Red Head" user a...
Enable Like	Select a "Red Hea... enabled just like on... already enabled "G... user's access righ... down list will prese... those users that al... been enabled)
Modify	Modify the General... properties of the hi... "Green Head" user...
Remove	Remove all access... highlighted "Green...
Export	Generate a spread... users' menu acces... showing Users in e... and the application... in each row.

Characteristics of the screen to note:

- Each user defined with a Logon Access record is shown. Those users with a green head have a User Access record set up for this application. Those with red heads have no access.

- Click on the ⊞ next to the green heads to expand the tree to display the applications' menu bar topics.

- Click on the ⊞ next to the topic to expand the tree to display each of the associated drop-down menu functions. You can easily identify the access rights by the graphic next to the menu name.

  - 🔵 - All users always have access
  - 🟢 - Full access
  - 🟡 - Restricted access
  - 🔴 - No access

- The top right pane of the screen is used to edit the properties associated to the user.

- The bottom right pane of the screen is used to assign the access rights to the selected menu item

- Note that you can set the check-box to the menu item displayed in the My Favorites tab

sub-screen of the application menu.

- Expand or collapse the sub-trees of all Users with access by clicking the icons.

Establishing Access for a User

1. First make sure that the user's User Code is visible in the tree as a ⚇ red head. If a User Code has not been set up, this needs to be done. User Logon Profiles are defined by your Systems Manager using the User Logon Profiles maintenance function available from the Series 5 main menu under the System Maintenance drop down sub-menu. (Refer to the chapter on *Defining Series 5 User Logon Profiles* in the Systems Management Help or manuals).

2. You can Enable the User using one of four methods:

   I.   Double click the ⚇ red head, ... or

   II. Highlight the node of the user to be set up, and click **Enable** in the "Fast Button" frame,..... or

   III. Highlight the node of the user to be set up, and right-click to display the pop-up menu. Then click on **Enable This User**, ... or

   IV. Highlight the node of the user to be set up, and right-click to display the pop-up menu. Then click on **Enable User Like Another**

   In each case, the General Access tab sub-screen on the top of the right pane of the window will be activated.

   o If the user is to have access to all menu items, set the **Full-Access** check-box

   o Select, if any, the **Print Queue** that this user is most likely to be using. This will be displayed as the default when they generate a report.

   o Click on the **Add It** push button

3. At this point, the user is established, but if you had not given them Full Access, you need to set the Access Rights of each of the menu items that they are allowed to access.

   o Expand the tree of the newly added user by clicking on the ⊞ icon next to his now ⚇ green head

   o Expand the tree of each of the application's menu bar topics

   o Double-click the menu item to which you want to allow access. The Access Properties fields for the given menu item will be displayed at the bottom of

the right pane of the window.

o Click the applicable **Access Rights** radio-button

o If this menu item is to be shown in the User's Favorites sub-screen, set the check-box

o If this menu item is to be scheduled, select the desired **Re-Occurring** frequency and set an initial scheduled date

o Click the **OK** push button

o Repeat for the next menu item

4. This potentially could be a lot of effort to set up all your users. If you have a number of users that will each have the same access rights, you can build the table for the 1st user, then copy it. Perform the following steps:

o Highlight the read head of the User that you wish to enable access for

o Click on **Enable Like** in the "Fast Button" frame or in the pop-up menu

o Select the User Code of the currently enabled user that you want the new user to have the same access privileges.

o Click on the **Select User** push button

o Keep the same access rights values, or change them as required.

o Click on the **Add It** push button again

o The new user is now set up with the copied user's access rights

o You may now go ahead and change any of the Access Rights of the menu items as needed

Batch Job Execution Access

If the particular menu item has been set up to provide the option to be executed in the Series 5 Batch Job Processor, then in order for the user to make use of this, the appropriate access rights must be assigned. Four variations are offered:

❖ Allowed - The user can decide when the menu item is executed, whether or not to submit it to the Job Processor

❖ Not Allowed - The user may not select to execute the job using the Job Processor

❖ Forced - When the menu item is chosen, and after any processing options or filters are entered, the job will be automatically submitted to the Job Processor to be executed

❖ Delayed - The job will be automatically submitted to the Job Processor to be executed after 6:00 pm the same day.
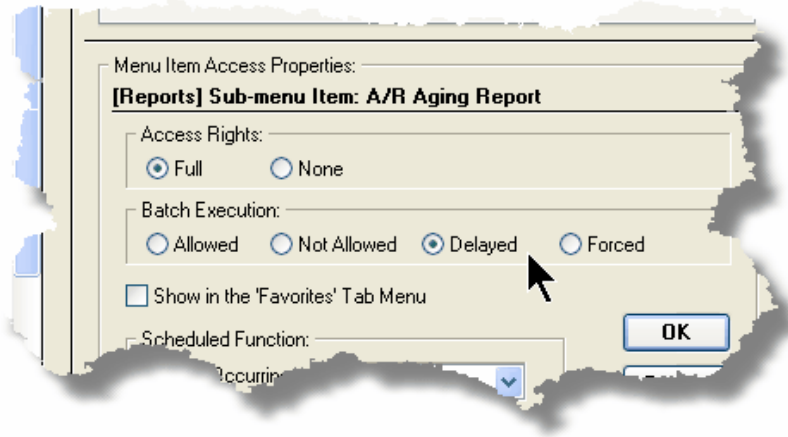
Modifying Access for a User

1. Highlight the 🔲 green head of the User to modified

2. If you wish to modify the General Access properties

   o Click **Modify** in the "Fast Button" frame, ... or right-click and click on **Modify** in the pop-up-menu

   o The right pane of the window will be activated

   o Make the necessary changes and click the **Update** push-button

3. If you wish to change the Access properties of a particular menu item

   o Double-click the menu item to which you want to allow access. The Access Properties fields for the given menu item will be displayed at the bottom of the right pane of the window.

   o The Access Properties fields for the given menu item will be displayed at the bottom of the right pane of the window

   o Make the necessary changes and click the **OK** push-button.

4. If you wish to change the Access properties of a particular menu item in a slightly more elegant manner

o Highlight the menu item of interest, and right-click to display the pop-up menu.

o You can either give full access, or remove access totally, depending on the already assigned access

o Make the necessary changes and click the **OK** push-button.
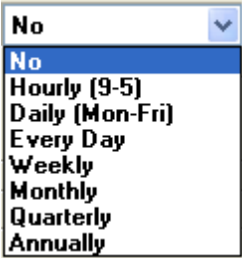
▬ Removing Access for a User

1. Highlight the 🧑 green head of the User to removed.

2. Click **Remove** in the "Fast Button" frame, ... or right-click and click on **Remove** in the pop-up-menu:

3. Click the Yes push-button in the prompt.

▬ General Access tab sub-screen Field Definitions

Full Access to All Menu Selections	*check-box*
For the user if checked, then he/she will have full access to all menu items.	

Default Print Queue	*X(20)*
Select the Series 5 Printer Queue that this user would typically by using. When any of the reporting functions are executed, this printer will be displayed as the default. Print Queues are defined by a System Maintenance function. *(Refer to the Systems Management Help if required).*	

Batch Execution - Default Queue	**drop down list**
Jobs submitted by this user to the Series 5 Batch Job Processor will use the selected Queue	

Batch Execution - Priority	**radio-buttons**
Jobs submitted by this user to the Series 5 Batch Job Processor will have the selected priority	

─ Menu Item Access Property sub-screen Field Definitions

Access Rights	radio-buttons
Click Full, Semi-Restricted, Restricted, or None. Those menu items that offer Semi-Restricted or Restricted as options generally have multiple functions, some of which will not be granted to the user.	
Show in the 'Favorites' Tab Menu	check-box
If checked, the corresponding menu item will be displayed as a push-button on the Professional Invoicing application's menu on the **My Favorites** tabbed sub-screen.	
Scheduled Function - Re-Occurring	drop down list
To set up this menu item to be scheduled, select a frequency, other than "No". The corresponding menu item will be displayed as a push-button in either the Scheduled for Today, Overdue Function or Coming Due tabbed sub-screen on the Professional Invoicing application's menu.	No ⌄ No Hourly (9-5) Daily (Mon-Fri) Every Day Weekly Monthly Quarterly Annually
Scheduled Function - Next Scheduled For	(mm/dd/yy)
Enter the date and time at which this particular scheduled function is to be executed.	

7.6.2   Users Scheduled Menu Functions

Users may choose to select specific menu items to appear on the **Favorites** or **Scheduled** sub-screens when the Professional Invoicing menu is displayed.   (Refer to the Scheduled Menu Functions topic in the chapter on The Basic User Interface for a description of these menu sub-screens).

➡ My Scheduled Menu Items Screen

Users set up the scheduled functions in a tree structure. Following is the screen that is

displayed listing each menu-set and sub-functions.
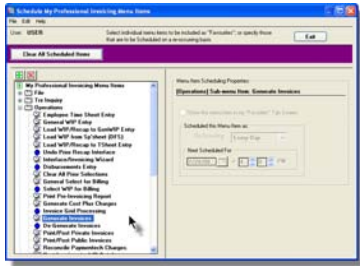
Characteristics of the screen to note:

- Click on the ⊞ next to each of the primary menu topics to expand the tree to display each of the associated drop-down menu functions. Only those items with the 🕒 icon can be scheduled.

- The right pane of the screen is used to edit the properties associated to the scheduled item.

- Note that you can set the check-box to the menu item displayed in the My Favorites tab sub-screen of the application menu.

- Expand or collapse the sub-trees of all Users with access by clicking the [➕][✖] icons

Defining a Scheduled Menu Item

1. When the screen is displayed, click on the green "Plus-sign" of the [➕][✖] icons to expand the tree structure to show each menu item.

2. Double-click the clock icon next to the menu item to be scheduled. The right pane of the window will be activated.

   o If this menu item is to be shown in the User's Favorites sub-screen, set the check-box

   o Select the desired **Re-Occurring** frequency and set an initial scheduled date

   o Click the **OK** push button

   o Repeat for the next menu item

3. The menu item will appear on the applicable Professional Invoicing tabbed sub-screen when next refreshed displayed.
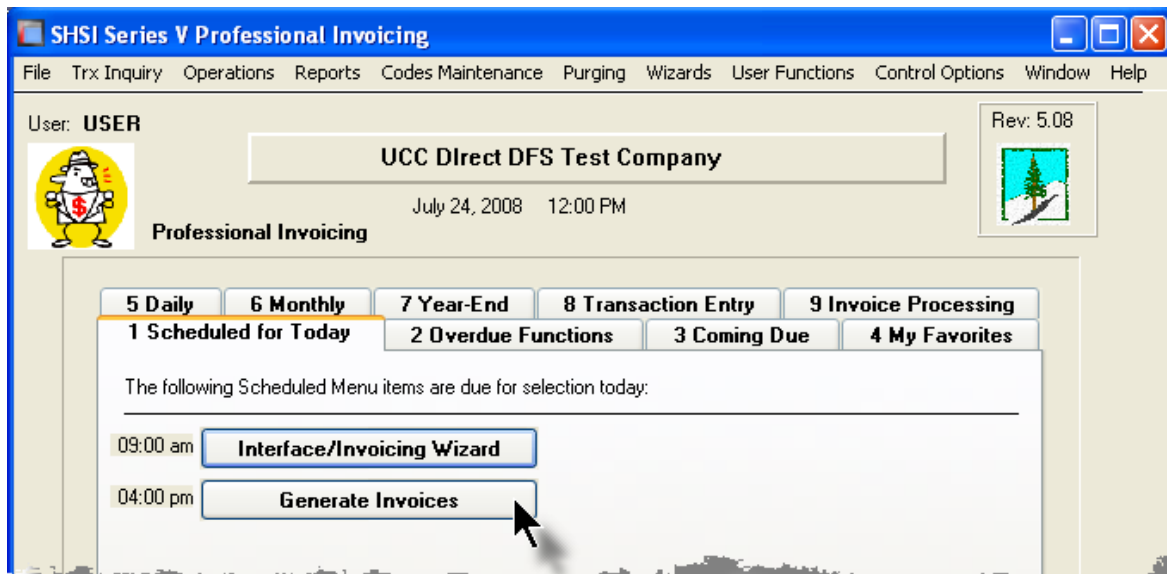
Menu Item Access Property sub-screen Field Definitions

Show in the 'Favorites' Tab Menu	*check-box*
If checked, the corresponding menu item will be displayed as a push-button on the Professional Invoicing application's menu on the **My Favorites** tabbed sub-screen.	
Scheduled Function - Re-Occurring	**drop down list**
To set up this menu item to be scheduled, select a frequency, other than "No". The corresponding menu item will be displayed as a push-button in either the Scheduled for Today, Overdue Function or Coming Due tabbed sub-screen on the Professional Invoicing application's menu.	No ▼ No Hourly (9-5) Daily (Mon-Fri) Every Day Weekly Monthly Quarterly Annually
Scheduled Function - Next Scheduled For	**(mm/dd/yy)**
Enter the date and time at which this particular scheduled function is to be executed.	

7.7   Wizard Management

Each of the Series 5 system provides for the opportunity to define a number of Wizards. A wizard is a program that automatically performs a series of steps. Each step is a menu item that is associated to the application.

Basic properties and features of a Wizard:

❖ Wizards are user defined

❖ Define up to 20 Wizards for each application

❖ Each Wizard can be created with up to 10 menu functions

❖ Wizards can be launched from the applications' menu

❖ As Wizards are executed, each step is displayed on the screen and it can be aborted at any time

➖ Accessing the P/I Wizard Functions

From the P/I menu, click on **Wizards** to display the drop-down menu. Select **Wizard Manager** to maintain your Wizards, or if any are defined, click to launch.

Processing Tip

If in a given application there are a series of menu items that are always performed, a Wizard may be created that will automatically launch each of these steps.
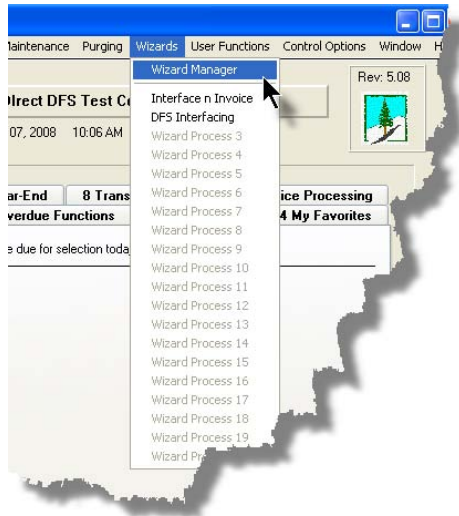
7.7.1 Maintaining Your Wizards

➲ Wizard Manager Grid Screen

Maintenance of the Wizards is done with a Series 5 grid screen.
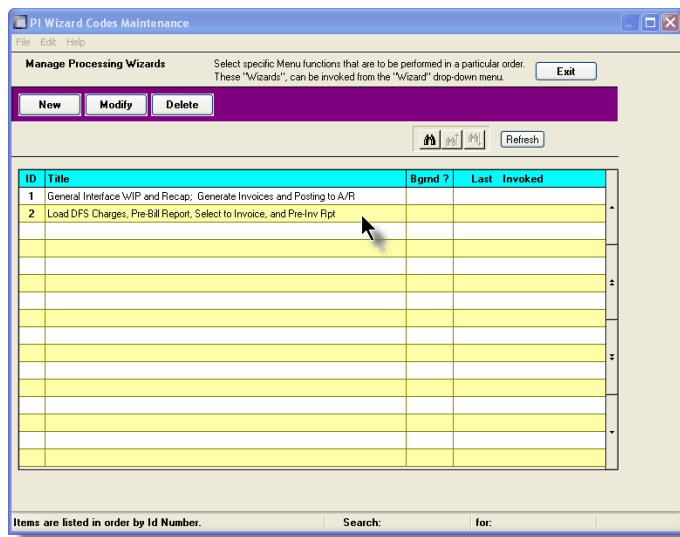
	"Fast Buttons"	
New	Add a new Wizard	
Modify	Modify the Wizard highlighted in the grid	
Delete	Delete the Wizard highlighted in the grid	

➖ Building a New Wizard

Setting up a Wizard consists of two basic parts. First, enter it's properties, then secondly, define each of the application's menu items that are to be executed by the wizard.

1. In the grid, click on the **New** button in the "Fast Button" frame.

2. The **Properties** screen will be displayed.

3. Enter a Wizard #, description, and any instructions to be displayed when it executes.

4. Click the **Next >** button at the bottom of the screen to proceed to the next tabbed sub-screen to define each step to be performed.

5. The **Processing Steps** grid screen will be displayed.

6. Click the New button to display a screen listing each of the possible menu items that can be used by the Wizard.

7. Select the item from the list and click the **OK** button.   Each item selected will be displayed in the **Processing Steps** grid.

Modify an existing Wizard

1. In the grid, navigate to the row displaying the wizard that is to be modified.

2. Double-click the row, ... or right-click the row to have a drop-down menu displayed, then click **Modify**, ... or click on the **Modify** button in the "Fast Button" frame.

3. The Wizard Properties sub-screen is displayed with two tabbed sub-screens. Make the necessary changes to either sub-screens, and click the **Update** button to proceed.

Delete an existing Wizard

1. In the grid, navigate to the row displaying the wizard that is to be modified.

2. Double-click the row, ... or right-click the row to have a drop-down menu displayed, then click **Modify**, ... or click on the **Modify** button in the "Fast Button" frame.

3. The Wizard Properties sub-screen is displayed with two tabbed sub-screens. Make the necessary changes to either sub-screens, and click the **Update** button to proceed.

Wizard Properties tab Screen

The Properties screen displays those fields used to identify it, and displayed when used.

Wizard Properties Screen Field Definitions

Wizard # 9(2)

This is a unique # used to identify the wizard.

Menu Bar Description X(25)

This is the description that will be displayed on the applications menu.

Title X(70)

This is a title that is displayed on the Wizard's execution screen.

Launch Instructions 4 lines of X(90)

These instructions are displayed on the Wizard's execution screen

Background Execution   *check-box*

Set to determine whether or not the Wizard can be executed in the Series 5 Background processor. *(The feature associated to this field has not yet been implemented).*

Confirmation Email   *check-box and X(40)*

Set to have an email sent when the wizard is finished processing. *(The feature associated to these fields has not yet been implemented).*

▬ Wizard Processing Steps tab Screens

The Processing Steps screen is a grid that displays each of the the menu items that are executed by the Wizard.
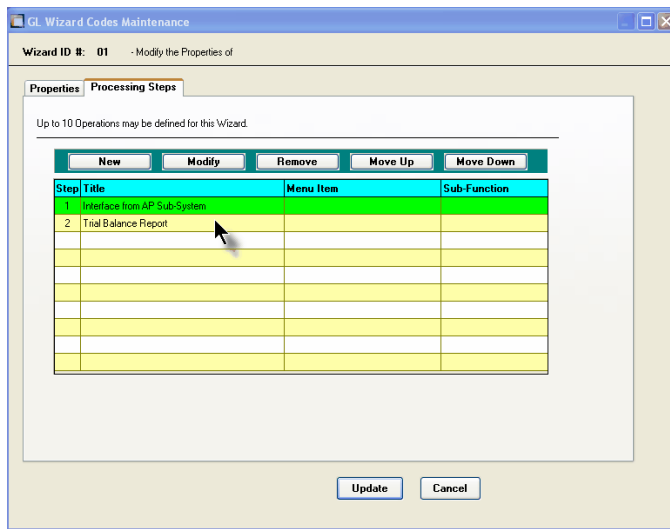
	"Fast Buttons"	
New	Add a new Process Step	
Modify	Modify the Process Step highlighted in the grid	
Remove	Delete the Process Step highlighted in the grid	
Move Up	Shift the highlighted Process Step up 1 row in the grid	
Move Down	Shift the highlighted Process Step down 1 row in the grid	

.

The following functions are provided for using the push-buttons:

❑ New   - To add a new step to the table

❑ Modify   - To change the currently selected grid item

❑ Remove   - To delete the currently selected grid item

❑ Move Up   - To move the currently selected grid item up in the table

❑ Move Down - To move the currently selected grid item down in the table

The following screen is provided for selection of each step. The items listed are those P/I system menu items that have been configured to be executed using the Wizard.
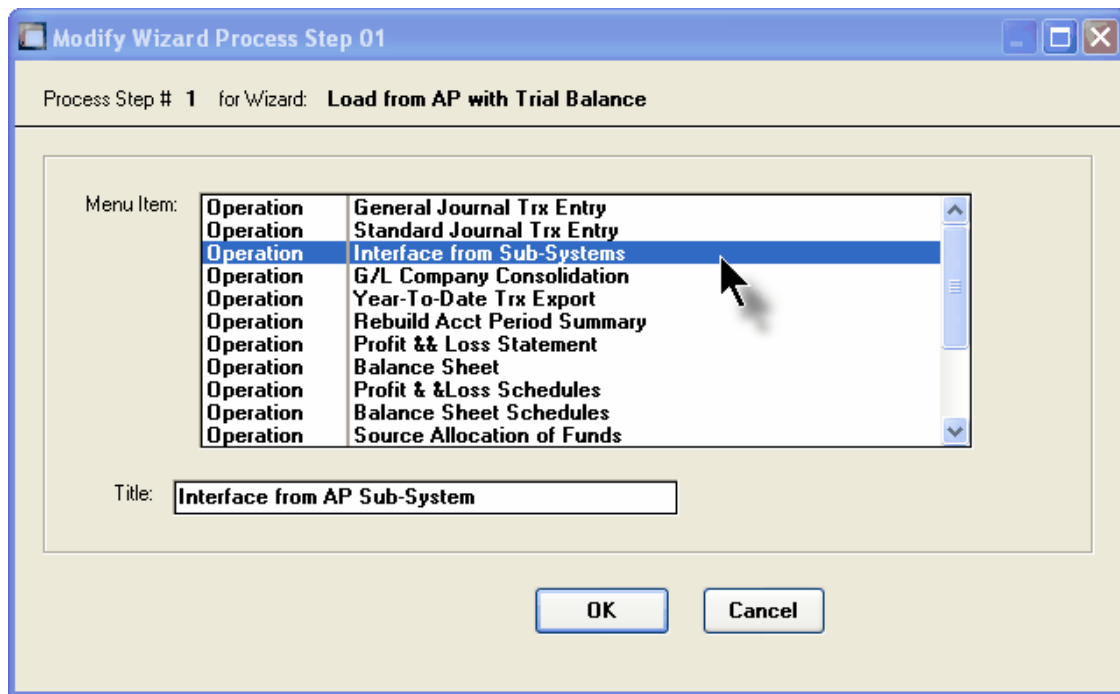
Wizard Steps Screen Field Definitions

Menu Item   list-box

The list is made up of those menu items that may be selected as a step by the Wizard.

Title   X(40)

This is the title of the processing step. This field defaults to the name used in the applications' menu. It may be changed.

Grid Display Search Options

You may search for specific records displayed in the grid using a number of relevant fields.

Click on the Search icon.

A search string may be entered for the following fields:

- Title
- Wizard ID #

7.7.2 Wizard Execution Screen

When a Wizard is launched from a given applications' menu, the following screen is displayed.
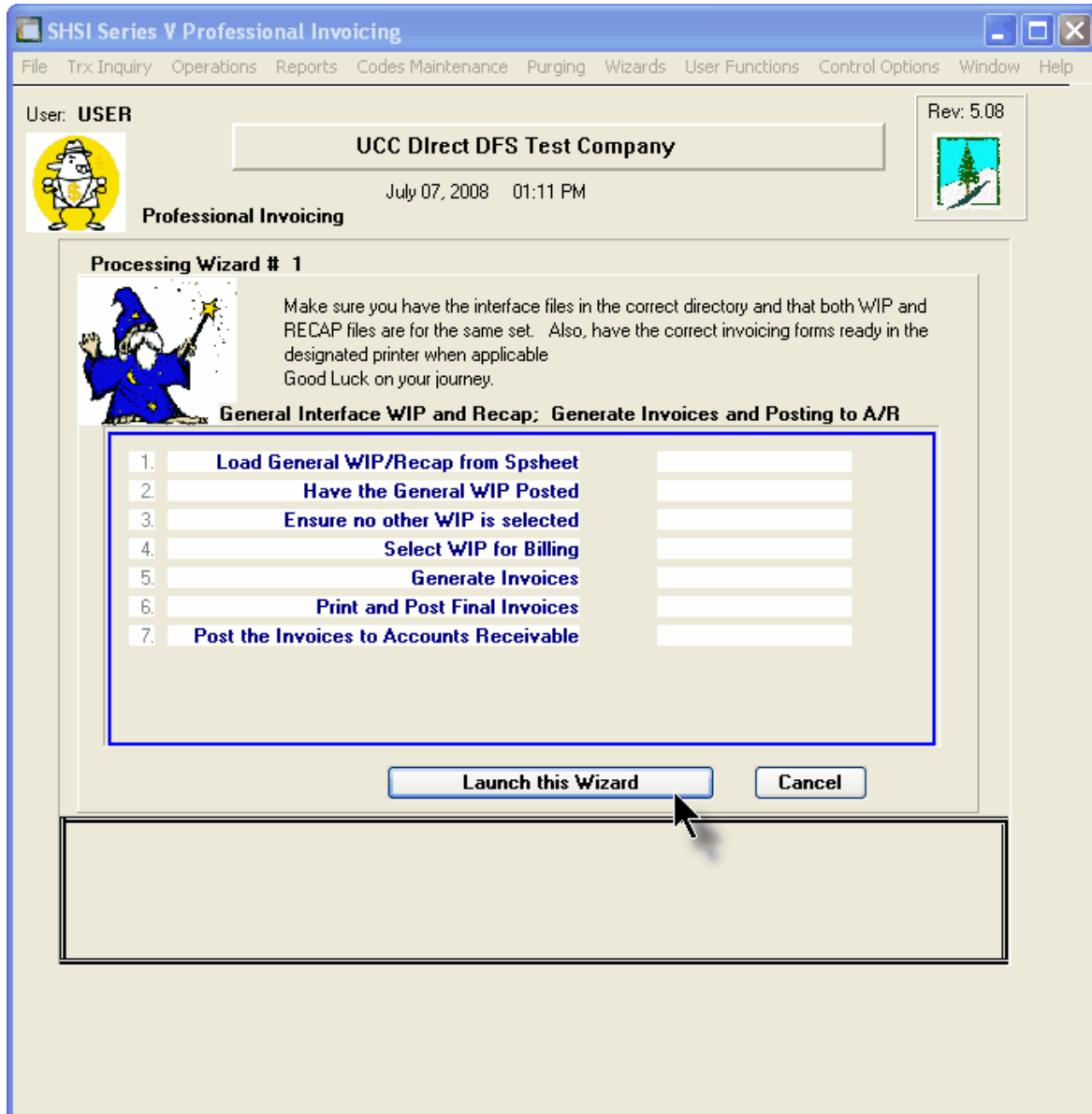
Click on the **Launch this Wizard** push-button to have it started. As each step is executed it's status is displayed in the table.

Processing Wizard # 1

Make sure you have the interface files in the correct directory and that both WIP and RECAP files are for the same set. Also, have the correct invoicing forms ready in the designated printer when applicable
Good Luck on your journey.

General Interface WIP and Recap; Generate Invoices and Posting to A/R

1.	**Load General WIP/Recap from Spsheet**	**Completed**
2.	**Have the General WIP Posted**	**Completed**
3.	**Ensure no other WIP is selected**	**Completed**
4.	**Select WIP for Billing**	**<---- N E X T Step**
5.	**Generate Invoices**	
6.	**Print and Post Final Invoices**	
7.	**Post the Invoices to Accounts Receivable**	

[Proceed with the Next Step]   [Cancel]

As each step is finished, you must click on the **Proceed with the Next Step** button, or you can abandon the Wizard by clicking on the **Cancel** push-button.

7.8   Monitor System Usage

TheSeries 5 keeps track of which users are currently logged into the system, and what menu function they are executing.
This screen may be displayed by selecting Monitor System Usage from the drop-down menu under any applications' menu bar that contains Help as a topic.

ds User Functions Control Options Window Help

Rev: 5.08

About
Monitor System Usage

Transaction Entry
My Favorites
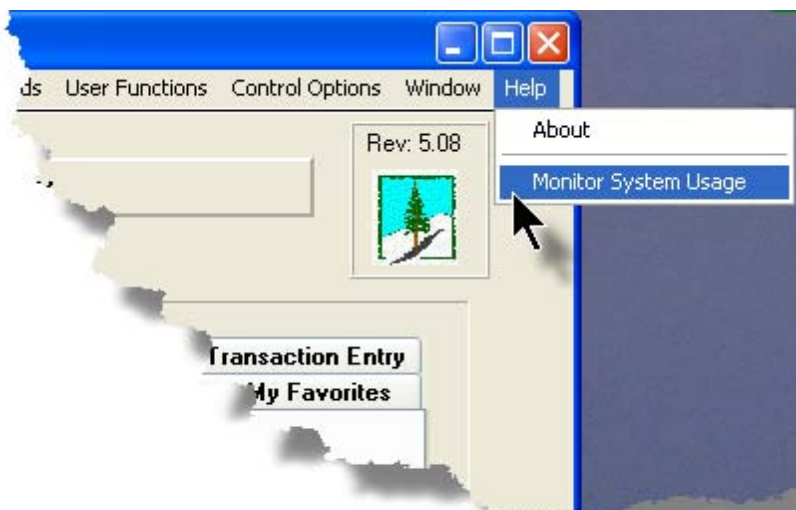
The following is an example of the Monitor display screen:

System Access Monitor

These are the users currently accessing the system as of **10:35:08 am**

PID	Username	Company System	Sys	Function	GL Company	Started		Elapsed Time	Access Code
101-0	SHSI4.LARRY	PCA	IM	IM Menu		10:33:42	7/04/08	0:01:26	0
101-1	SHSI4.LARRY	PCA	IM	Inventory Item Master		10:33:45	7/04/08	0:01:23	1
251-0	USER	UCC	AR	Monitor System Usage		10:34:38	7/04/08	0:00:30	1
251-1	USER	UCC	AR	Customers		10:33:01	7/04/08	0:02:07	1
251-2	USER	UCC	AR	Customer Open Item Inquiry		10:33:06	7/04/08	0:02:02	1
351-0	SHSI4.LARRY	UCC	GL	GL Menu	40	10:34:21	7/04/08	0:00:47	0
351-1	SHSI4.LARRY	UCC	GL	Trial Balance Report	40	10:34:26	7/04/08	0:00:42	1
351-2	SHSI4.LARRY	UCC	GL	G/L Account Trx Inquiry	40	10:34:31	7/04/08	0:00:37	1

[Refresh]   [Exit]

Processing Tip

Should you discover that there are items listed, but you know that there are no users in the system, ask your Systems Manager to purges these records. (There is a System Maintenance function that will delete all the records used in displaying the items on this screen).

Part

VIII

8   Your Business and Professional Invoicing

Enter topic text here.

8.1   Managing the Professional Invoicing

Enter topic text here.

8.1.1   How Do I ...

Enter topic text here.

8.2   Getting Data into P/I

Enter topic text here.

8.2.1   How do I ...

Enter topic text here.

Part

IX

9   Professional Invoicing Menu Functions

All functions for the P/I system can be accessed from the menu bar at the top of the menu screen.

They are divided into types of functions. Each section following describes each set of common types of functions.

9.1   The P/I Menu

The Professional Invoicing Menu screen provides your access to all functions offered in the P/ I system.

> ➡ Professional Invoicing Main Menu
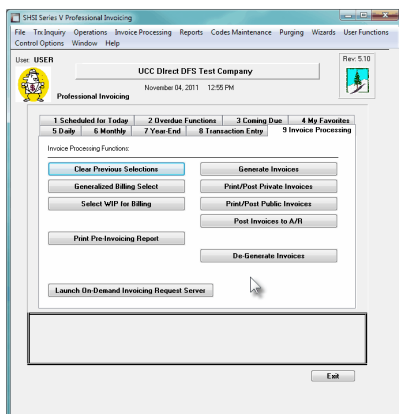
- All functions associated to the Series 5 Professional Invoicing system are available from this screen

- Each function can be found within the sub-menu displayed under the menu-bar associated to the type of the function

- A number of tab sub-screens are available from which associated functions may be selected

- If menu functions have been set up to be scheduled, they may appear within tabbed sub-screens labeled **Scheduled for Today**, **Overdue Functions**, or **Coming Due**

- The **My Favorites** tab sub-screen will have any menu-functions that have been so define by the User Access Privileges function that may have been set up by your Systems Manager or Gate Keeper

- You can select up to 9 menu item functions at a time, each executing in their own window

- Access to specific menu items may be granted or denied from the User Access privileges function. *(Those functions that you are denied access to will be displayed in the drop-down menus as dimmed items)*

<div style="border:1px solid #ccc; padding:5px;">

— Menu Bar Headings

</div>

The menu bar is divided into major categories of functions. *(Follow the link in each item below for further information on each function).*

File	For accessing the Archived Reports Manager, and the Batch Job Processor utilities.
Trx Inquiry 210	For those functions that provide inquiry to assorted historic transactions and/or analysis.
Operations 262	For those menu items that provide basic operational functions.
Reports 471	For generating all the reports associated to the Professional Invoicing system.
Codes Maintenance 532	Those menu items for maintaining the assorted master codes used in the Professional Invoicing system.
Purging 690	Those menu items for Purging outdated historical transaction records used in the Professional Invoicing system.
Wizards 189	For user defined Wizards.
User Functions	For menu items to launch user defined programs or Windows utilities. (Refer to the Systems Management Help for details on setting up)
Control Options 692	For setting up control preferences and User Access rights to the Professional Invoicing system.
Window 84	For managing the multi-threaded windows that might have been activated by the user.
Help	Basic help, and a function to display those users currently in the Series 5 system.

9.2   P/I E-Billing Menu

A sub-set to the standard Professional Invoicing Menu is the P/I E-Billing Menu. This is a specialized menu offering a subset of the functions found in the P/I Menu. The initial screen displayed offers options to select which type of EDI, (Electronic Data Interchange), data types are to be generated, and automatically launches the "E-Billing Wizard" function. Other pertinent functions may be selected from the Menu Bar

P/I E-Billing Interface Menu

- All functions associated to the Series 5 E-Billing system are available from this screen

- Each function can be found within the sub-menu displayed under the menu-bar associated to the type of the function

- The E-Billing Wizard may be launched directly after selecting the type of EDI file to be generated

- You can select up to 9 menu item functions at a time, each executing in their own window

- Access to specific menu items may be granted or denied from the User Access privileges function. *(Those functions that you are denied access to will be displayed in the drop-down menus as dimmed items)*

9.3   File Management

The topics in this chapter describe functions and procedures that are a available under the **File** drop down menu on the Professional Invoicing menu. These menu items are used to perform assorted File Processing type functions. In particular, the function to access and view Archived Reports is found here.

These functions are available from the P/I Menu Bar as shown:
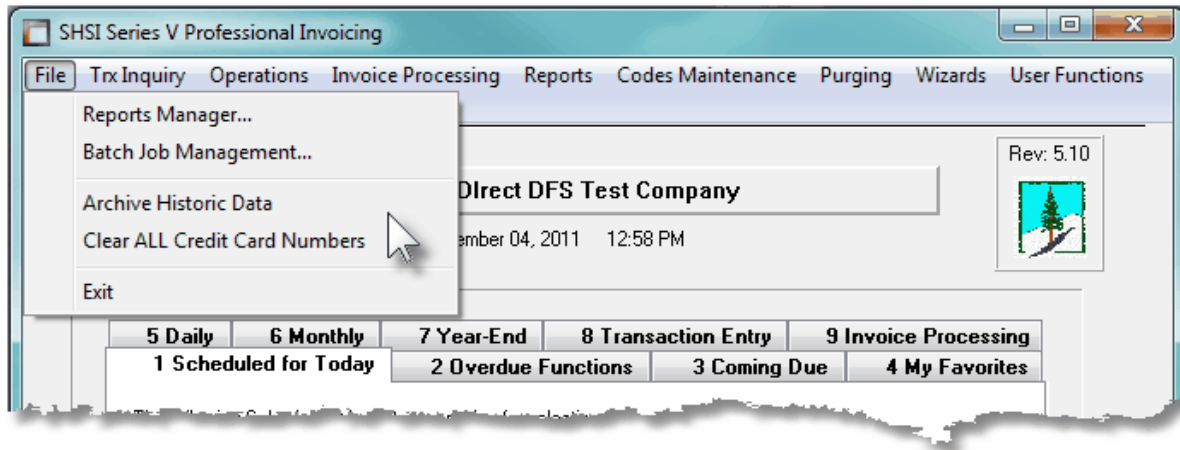
9.3.1 Archive Historic Data

Depending on the volume of charges being processed, and the number of invoices that are produced from the Professional Invoicing system, a number of the data files may grow to an unruly size. To process very large files, the system requires a fair amount of overhead in the number of disk reads made. This function attempts to address this problem by copying the data records from those significant production files that tend to grow large, to *Archived* equivalent files.

Records are moved based on a specified cut-off date that is used to select those invoices. For each Invoice, the following related data records are moved to their respective "Archived" equivalent files:

- Invoice Header record

- Invoice Line Item records

- Work-in-Progress History records

- Disbursement History records

- Recap Detail records

Archived Invoice History Inquiry

Both the normal Invoice History, and the Archived Invoice History records may be inquired upon from the Invoice History Inquiry function 235 . (From that functions View drop down menu, you may choose to view either the normal Invoice History records, or the Archived records).

✛ Accessing the Archive Historic Data function

From the P/I Main menu, select **Archive Historic Data** from the **File** drop-down menu.
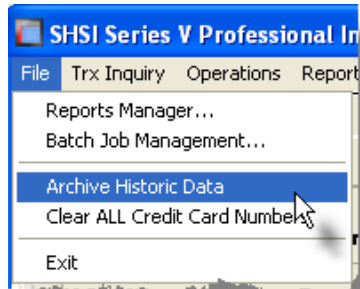
Archive Historic Data - Options Screen

The following screen is presented to enter the cut-off date, and to display statistical information:

➖ Archive Historic Data Screen - Field Definitions

Clear Cutoff Date	*radio-buttons and (mmddyy)*
You may choose to specify the cutoff date in two modes. Either by choosing to have items older that a specified number of months archived; or to keep all items since a specified date. (Is the glass half empty or half full ?). Click your preference.	
Next Scheduled Date	*(mmddyy)*
This field is for information purposes only. It is reserved for use in a future enhancement.	
PROCEED	*X(7)*
Enter the word PROCEED to continue with this function.	

9.3.2   Clear All Credit Card Numbers

This Professional Invoicing function is used to clear those data fields from assorted data files that would be considered sensitive. In particular, Credit Card Numbers that have been recorded for all prepaid invoices entered into the P/I system will be cleared.

Also, as an option, the P/I Credit Card to Bill-Code mapping file records card number fields are also cleared. This is provided so that if this file is copied into a test environment, real card numbers would not be available.

Some points to note when having Credit Card Numbers cleared:

- When a Credit Card field is cleared, it is assigned the number **1111-1111-1111-1111**.

- The Credit Card Expiry date is set to 12/06

- The function to clear the Credit Card Numbers for historic and archived invoice files, should be executed at least every 6 months setting the cut-off date so that only the last 6 months of card #s are available. (Note that in the P/I Invoice Inquiry functions, only the last 4 digits of the card number are displayed. Also, when credit card numbers are stored, they are encrypted).

Caution

The Bill-Code Credit Card Mapping file, and the Invoices file should ONLY have their credit cards cleared if these files have been copied to a test environment. These files, and the credit card numbers contained within, are critical in the production of invoices that have been pre-paid.

✚ Accessing the Clear Credit Card Numbers function

From the P/I Main menu, select **Clear All Credit Card Numbers** from the **File** drop-down menu.

The following verification to proceed screen will be displayed. Type the word **PROCEED** in the field provided.
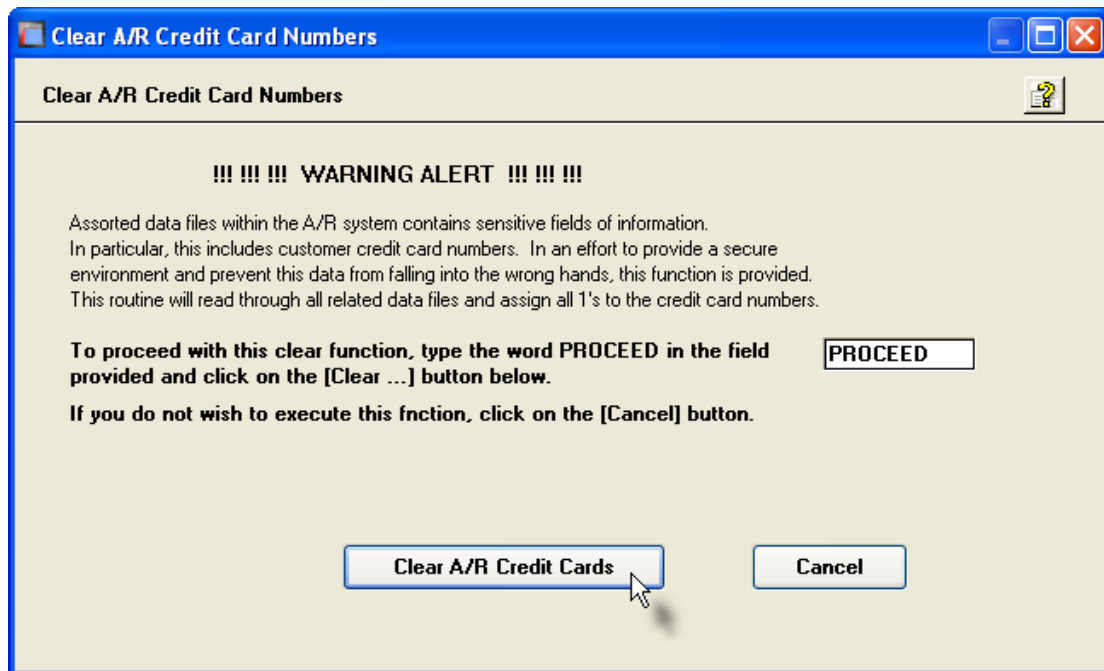
➡ Clear Credit Card Numbers - Options Screen

The following screen is presented to enter the cut-off date, and to indicate which files are to be processed:

➖ Clear Credit Card Number Screen - Field Definitions

Clear Cutoff Date	*(mmddyy)*
For the Invoice History records, specify the cutoff date. All invoices that were prepaid with a credit card, dated on or before the date entered, will have their credit card number fields cleared. (The cutoff date does not apply to the Bill Code Credit Card Mappings file).	

Select Files for Clearing:	*check-boxes*
Set the check box for each of the files that are to be processed to have their credit card numbers cleared. By default, only the historic Invoice files are pre-checked. (You would not normally want to clear the active Invoices file, or to the Bill-Code Mapping file because for production purposes, their credit card fields are required for invoicing).	

File	*Fields Cleared*
Bill Code Credit Card Mappings	• Credit Card numbers are set to **1111-1111-1111-1111** • Expiry dates are set to 12/06

	• Card holder name and address are set to Joe Smith 1234 Main Street Happyville, QQ, 123456
Invoices	• Credit Card numbers are set to **1111-1111-1111-1111** • Expiry dates are set to 12/06
Historic Invoices	• Credit Card numbers are set to **1111-1111-1111-1111** • Expiry dates are set to 12/06
Archived Historic Invoices	• Credit Card numbers are set to **1111-1111-1111-1111** • Expiry dates are set to 12/06

9.4   Inquiry Functions

The topics in this chapter describe functions and procedures that are a available under the **Trx Inquiry Options** drop down menu on the Professional Invoicing menu. These menu items are used to perform assorted screen inquiry functions. In particular, the function to query the Work-In-Progress Items and Invoice History records for your Projects are found here.

These functions are available from the P/I Menu Bar as shown:
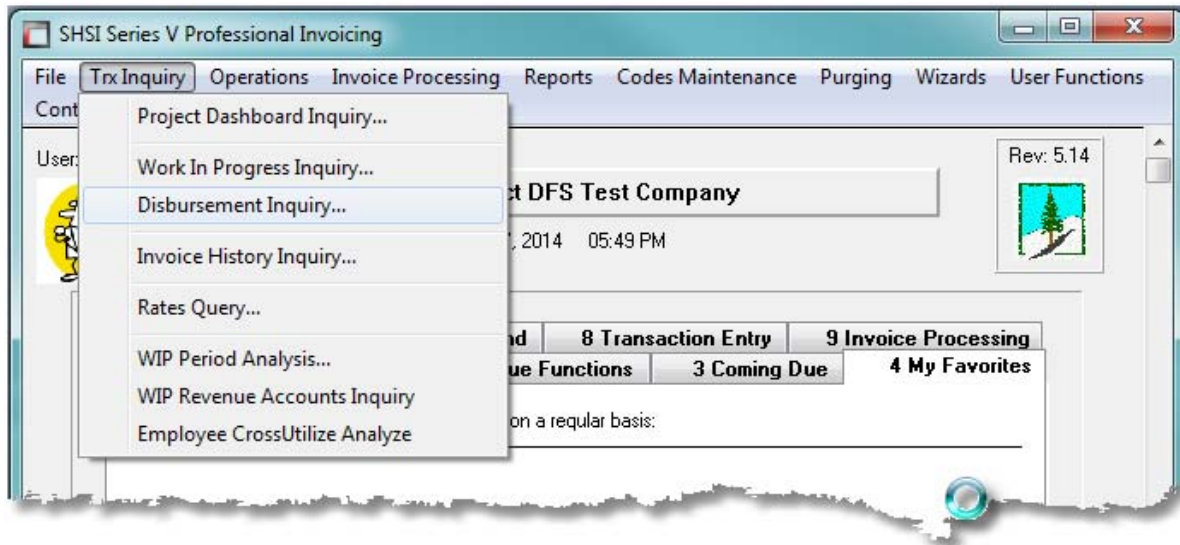
9.4.1   Project Dashboard Inquiry

The PI system records all WIP activity and generates Invoices for each project defined in the system. As well, Employees may be assigned to a Project; there may be Budgets set up; and there certainly is history to be kept.

The Project Dashboard Inquiry function provides the means to displaying most, if not all, information about each Project in one place. A Windows tree structure is employed where Projects my be presented either by Code or Description; or they may be shown grouped as offspring nodes to Customer, Project Leader, Project Partner, Location, or Invoice Layout parent nodes. When a given Project in the left hand pane tree is selected, all relevant data is displayed in the right pane of the screen.

For each project, different types of data are displayed presented in separate tabbed sub-screens. These include the following:

- Properties – a summary of significant properties associated to the Project

- Assigned Employees – displays a list of Employees that have been assigned to the Project

- Budgets – if used, lists each Budget period, and amounts

- Employee Totals – sub-totals of WIP activity, costs, and profit by Employee

- Task Totals – sub-totals of WIP activity, costs, and profit by Task

- Disbursement Totals – sub-totals of WIP activity, costs, and profit by Disbursement

- Sub-Contractors – sub-totals of Disbursements recorded to Sub-Contractors

- Purchases – sub-totals of Disbursements recorded as Purchases

- Inventory Issued – sub-totals of Disbursements recorded as items pulled from Inventory

- Invoice History – a list of Invoices and their totals

The Project Dashboard is launched from the P/I Menu's **Trx Inquiry** drop-down menu by selecting either the **Project Dashboard Inquiry**.
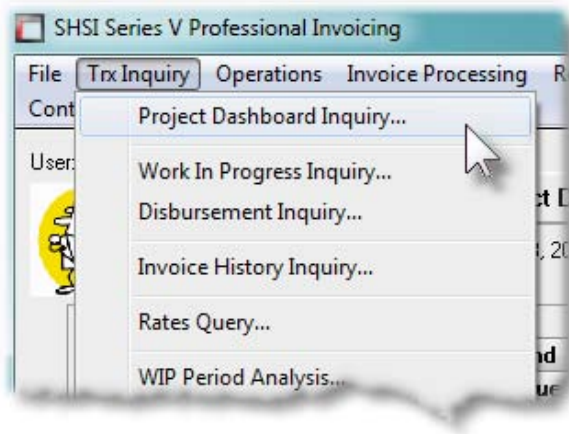
Project Dashboard Inquiry Tree
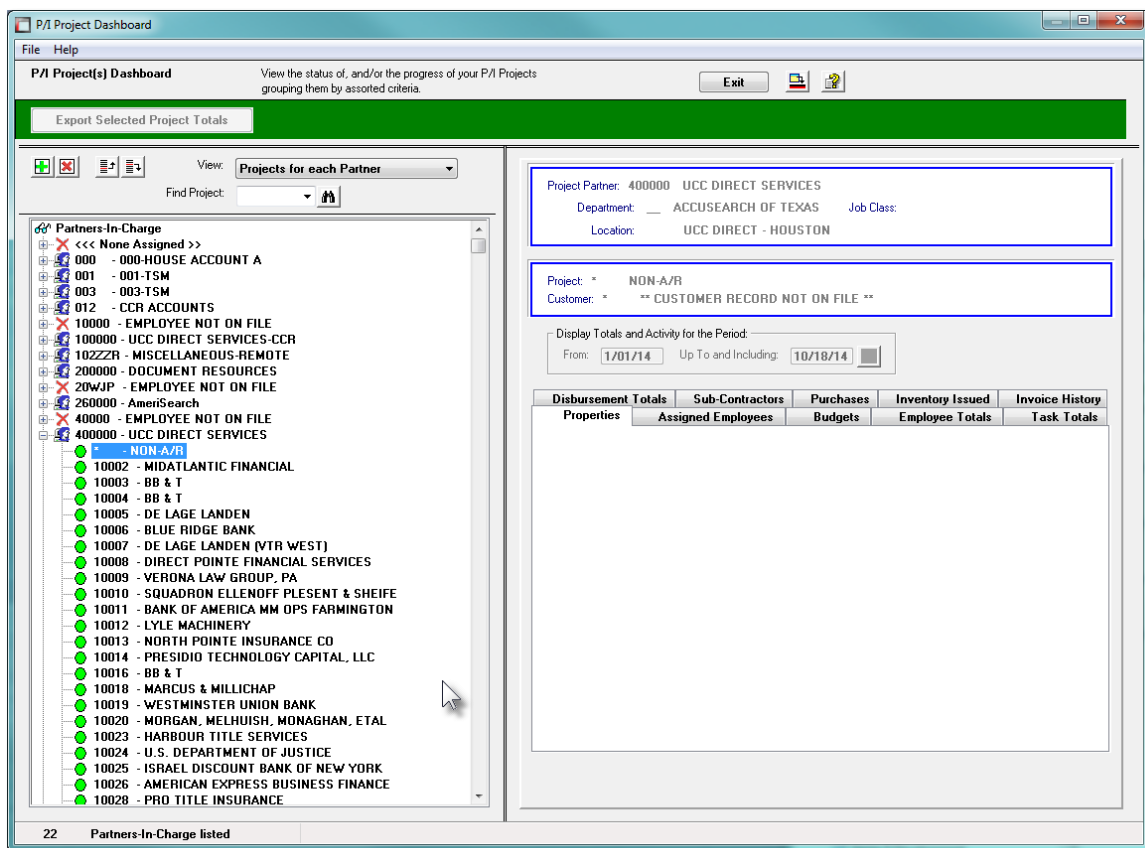
Characteristics of the Tree screen to note:
- Project nodes in the tree are shown with a green circle -- 🟢
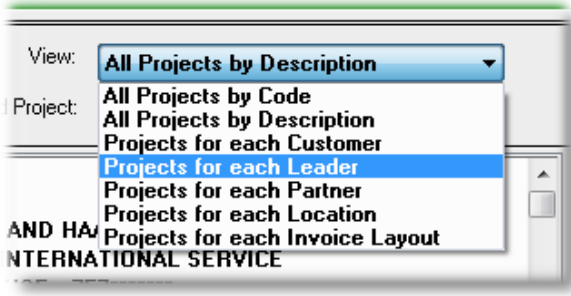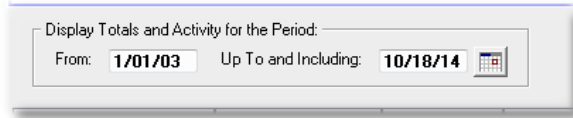
- Click on the ⊞ next to a group icon to expand the tree to display the associated Projects.

- The top right pane of the screen is used to display properties of the code under which Projects are grouped.

- The bottom right pane holds the tabbed sub-screens of information, associated to each project, that is available for display

- When the tree has been expanded, click on the ▤↑ ▤↓ icons to position to the prior, or next top-level group code.

- Expand or collapse the sub-trees of all Projects by clicking the ➕ ❌ icons.

- You may increase or decrease the size of the tree screen window by clicking on the bottom of the window, and dragging it up or down

Some of the special features of this "Inquiry" tree are as follows:

➤ Select how Projects are presented in the tree from the "View" drop-down list. Projects may be listed as the primary nodes, either by Project Code or Description or, they may be shown as the secondary nodes of the tree, grouped by Customers, Project Leaders, Project Partners, Locations or by Invoice Layouts.	View: **All Projects by Description** ▼
	Project: All Projects by Code
	    All Projects by Description
	    Projects for each Customer
	    Projects for each Leader
	    Projects for each Partner
	AND HA Projects for each Location
	NTERNATIONAL SERVICE Projects for each Invoice Layout

➤ Should you wish to display the information associated to a specific Project, enter the Project code in the "Find Project" field, (or invoke the Lookup function and select the Project). The system will search tree, and refresh it with the Project node shown at the bottom of the tree panel.	Find Project: **3459** ▼ 🔍
➤ On the right pane of the window, you may set a date range to be used as filters that are applied when having the Invoice History, Employee Totals and Task	Display Totals and Activity for the Period: From: **1/01/03** Up To and Including: **10/18/14** 📅

Totals tabbed sub-screens displayed.	

Project Tab Sub-Screens

Following are examples of each of the Project tabbed sub-screens that may be displayed:

9.4.2   Project Inquiry

Once Project WIP and Disbursement charges are entered into the system, they are kept in the system, and available for a variety of different functions. These would include being invoiced, used for analysis, printed to a report, written-off, archived or even adjusted. This Inquiry function provides access to all Work-in-Progress and Disbursement items that have been recorded against a given project, both chargeable and non-chargeable items, (chargeable being those that are invoiced).

The Project Inquiry function provides a means of displaying either WIP or Disbursements that have been recorded to a given Project. In either case, a number of different filters may be set to limit the items displayed. The operator can easily select and display the detail for any particular item, and perform a number of different functions on them. These include the following functions:

- Inquiry – All the details associated to the item, may be viewed

- Amending – any given WIP item that has not already been invoiced, may have any of it's properties amended

- Apply Credit – any given invoiced WIP item may be marked as being associated to a Credit that might have been issued

Some of the features of the Inquiry function are as follows:

- In the grid display, WIP or Disbursement items for a selected Project may be listed sorted by Date, Status or Invoice Number.

- In the grid display, WIP items may be listed for a selected Project, or regardless of Project, by Employee or by Task.

- A function is provided that will generate a brief report listing all the WIP items for the selected Project.

- A function is provided that will generate a WIP Items report, which is basically the WIP Detail Report 477.

The Project Inquiry function is launched from the P/I Menu's **Trx Inquiry** drop-down menu by selecting either the **Work In Progress Inquiry** or **Disbursement Inquiry**.
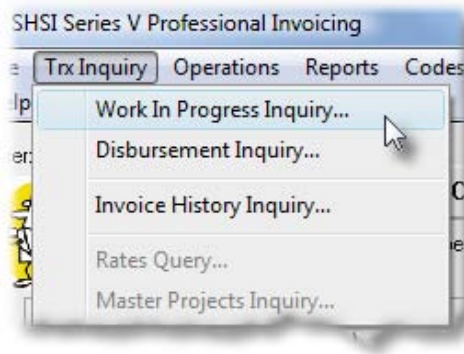
9.4.2.1   Work-in-Progress (WIP) Inquiry

The WIP Inquiry function provides the means of displaying the Work-in-Progress items that have been entered for a given Project, by a given Employee, or that have been recorded with a given Task. For any WIP item displayed, you may "drill-down" to display the detail information associated to that item. WIP items are displayed to the screen managed using a Series 5 grid processing screen. You can easily navigate through the items on file using the grid buttons, or enter the respective key for the desired transaction. WIP items may be displayed to the grid sorted using a variety of different criteria.

From the "Fast Buttons" frame, push buttons are provided that can be used to compute and display Print items associated to the selected Project, generate the WIP Detail Report or Set Display Filters.

Project WIP Inquiry Grid

	"Fast Buttons"
Print Grid Items	To have all WIP items for the selected Project output to a report.
Print WIP Items Report	To have the WIP Detail Report [477] generated listing selected WIP for selected Projects.
Set Filters	To have a number of different filters set to limit the WIP items that are displayed to the grid.
	When selected, the operator is presented with the standard WIP Select Filters [147] screen, the Project Select Filters [142] screen and the Customer Select Filters [151] screen. These allow you to specify selected or ranges of WIP Items, Projects, Project Locations, Project Departments, Customers, Customer Types, Sales Representatives, and/or only those

customers and/or projects satisfying a variety of filter criteria.

Some of the special features of this "Inquiry" grid are as follows:

➢ WIP Items may be listed either for a selected Project, Employee or Task by a number of different criteria.

➢ If listing for a particular Project, Task or Employee, they may be chosen either by entering their assigned code, choosing it using the Lookup binoculars icon, or by having the next or previous code displayed that has items on file. *(Click the binocular icon with the up/down arrow to display WIP items that exist for the prior/next occurrence of that code on file).*

➢ Depending on the **List By** selection, a field will be presented, in which the operator may enter a value for the applicable key of the items of interest to be displayed. The system will attempt to read to the closest order for the data entered and display it in the grid.

➢ For the selected Project, Task or Employee, totals are displayed below the grid display.

➢ Once a Project is selected, you may switch to display either WIP items or Disbursement items by clicking on the

applicable tab.	
➤ Within the grid, right-click a row to have a pop-up menu displayed offering available functions that may be performed on the associated WIP item.	

➤ The column with the heading **C-T-S** displays a number of different codes.

    o The 1st letter indicates whether the WIP item is Chargeable or Non-Chargeable
    o The 2nd letter indicates Type of WIP item.
    o The 3rd letter indicates the Status of the WIP item.

For a description of what each letter represents, refer to the chapter titled P/I Status and Type Codes 61 *found in the Setup and Implementation section.*

Show WIP Detail Screen

When a given row in the grid is double-clicked, the detail information for the WIP item is displayed in the following screen:

The Next or Previous WIP item on file may be displayed by clicking the Page Forward/

Backward icons,   or striking the Page Down or Page Up keys,

9.4.2.2   WIP Adjustments

Some times you just don't get it right the first time. You're in a hurry and you record the wrong Task Code or the wrong Project for work that has been performed and your secretary bangs in the times charges before you know it.   For just these particular instances, the WIP Adjustment function comes to your rescue.

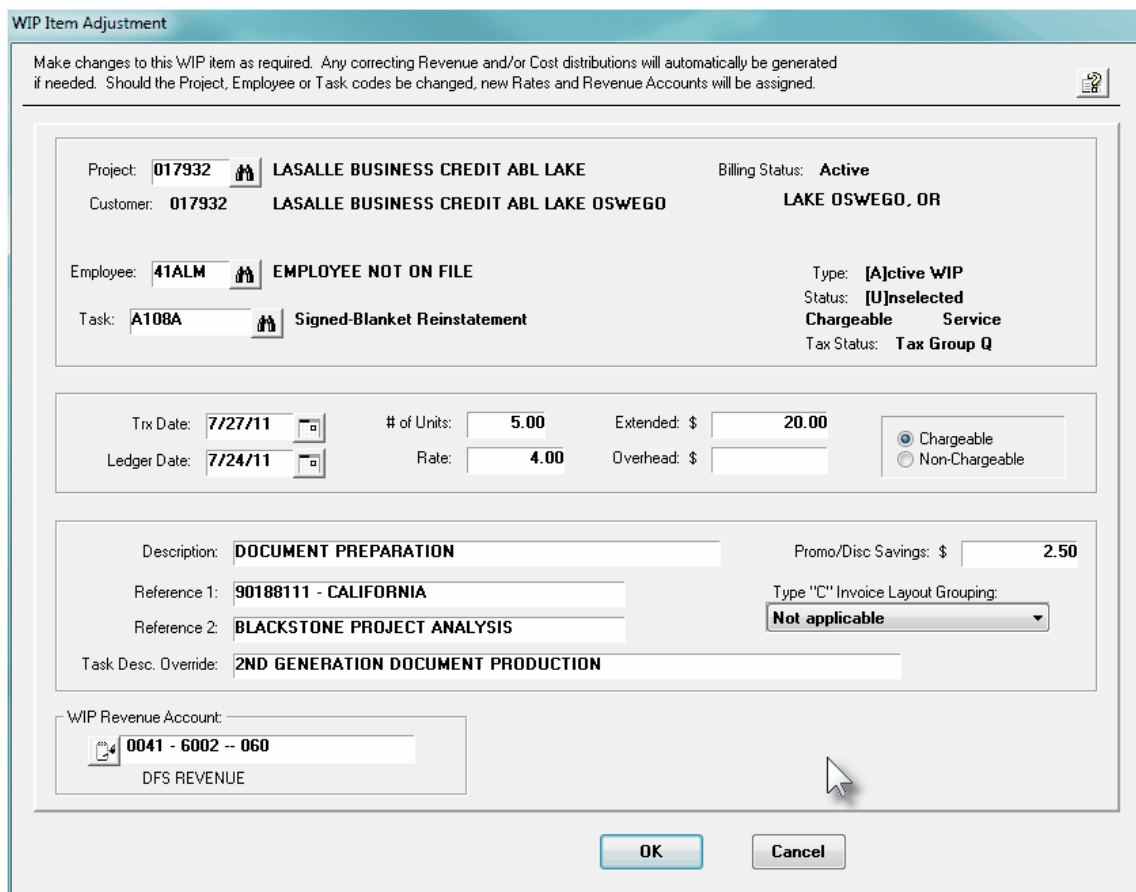You can select a WIP item and change the Project Code, the Employee Code, the Task Code

and even the # of Units and the Rate. For any change made, the system will automatically make any correcting adjustments for G/L revenue distributions that should be generated. If any of the Project, or Employee or Task codes are changed, the system automatically looks up and reassigns the Charge Rate and the Revenue Account for the WIP item.

Only items that have not yet been invoiced are eligible to be adjusted. WIP items created from the Generalized WIP Entry application are not adjusted.

To adjust a particular WIP item displayed within the grid, right-click it's associated row. From the displayed pop-up menu, click offering available functions that may be performed on the associated WIP item.

➡ Project WIP Adjustment Screen

The following screen is displayed:

WIP Adjustments Edit Screen - Field Definitions

Project	*X(6)*
Enter the Project Code for which the WIP item is to be associated with. The Customer will be automatically assigned, and it's information displayed.	

Employee	*X(6)*
Enter the Employee Code for which the WIP item is to be associated with.	

Task	*X(8)*
Enter the Task Code which would be used to describe the activity associated to the activity performed by the employee.	

Transaction Date	*(mmddyy)*
This is the actual date which the activity associated to the WIP item was performed on.	

Ledger Date	*(mmddyy)*
For WIP activity entered that will generate either Revenue or Costing G/L distributions, they will be recorded in the General Ledger system with the Ledger Date that is entered. *(This date is used to determine which G/L Fiscal Period the Revenue or Cost will be recorded to).*	

# of Units	*99,999.99-*
Enter the number of hours, or times that the selected Task was performed.	

> **Negative # of Units for Recording Credit Amounts**
>
> If you need to reverse a previous charge, or record a credit amount that is to be shown on this Project's invoice, enter a negative number of units. (WIP Rates must always be positive).

Rate	*$ 999,999.99*
This is the Unit Rate used to compute the extended charge associated to the WIP item. This is normally always computed by the system, however it may be overridden.	

System Assigned Unit Rates

The Professional Invoicing system, based on the Project, Task and Employee will always want to automatically determine the Unit Rate based on established rates and rules that have been set up. You normally should never have to enter the Charge Rate, the Cost Rate, or the Revenue Account.

If the system computed rate would change as a result of a different Project, Employee or Task being entered, then you will be prompted as to whether or not it should be assigned.

The unit rate may be set manually if so required.

Extended Amount	*$ 9,999,999.99-*

This is the Extended dollar amount associated to the WIP item. For Chargeable WIP items, this is the amount that will be invoiced to the customer. This amount is always computed from the # of Units and the Unit Rate. If this amount is overridden, then the Unit Rate is adjusted accordingly.

The system has the option of automatically generating an Overhead Amount. If this is the case, and then if the Extended Amount is revised, then the system will compute a new Overhead Amount.

Overhead Amount	*$ 999,999.99-*

The system has the option of automatically generating an Overhead Amount. If this is the case, then when a new Extended Amount is computed, an Overhead Amount is also computed. *(Overhead amounts are computed only if the option is defined for the Project, and the Project is a "Chargeable" Project).*

Chargeable / Non-Chargeable Item	*radio-buttons*

WIP items are recorded as Chargeable or Non-Chargeable. Chargeable items are invoiced to the Projects' customers. WIP items will be automatically recorded either way based on whether the Project is defined as a Chargeable or Non-Chargeable one; and whether the Task is defined as a Chargeable or Non-Chargeable one.

Description	*X(50)*

This field is used to record a brief description of the activity performed. For Projects using specific Invoice Layouts, this field may be used to sort items printed on invoices.

Reference 1 and 2	*X(40)*

These fields are used to record codes relating to sub-contracts, job numbers, billing codes, contact names, etc., or to record more verbiage describing the WIP activity. For Projects using specific Invoice Layouts, and/or that generate EDI invoices, segments of these fields may be used to determine how items are grouped or sorted for invoicing.

Task Description Override	*X(60)*

This field is used to provide an opportunity to override the description that is associated to the Task. For a particular Invoice Layout, detail is listed with the description derived from the Task Code. If a description is entered in this field, then this text is printed on the invoice instead. *For WIP recorded not using the mentioned Invoice Group, it may be used to record further description associated to the activity.*

Promotional/Discounted Savings Amount	*$ 9,999,999.99-*

This information field is used to record the amount of savings that the customer appreciated as a result of a discounted or promotional charge rate associated to the service. The Rate provided is the discounted rate. On selected types of invoices, the total of these Savings Amount are accumulated and printed in the footer of the invoice. **(No G/L Distributions are generated as a result of any amount entered to this field).**

Type "C" Invoice Layout Grouping	*drop-down list*

When invoices are generated for a Project, the P/I system provides for a number of different sorting and grouping options. Invoice Layouts are created and assigned to every Project. For Projects that have a Type "C" Invoice Layout, these radio-buttons are offered so a Group and/or Consolidation code may be recorded with their associated WIP items.

WIP charges may be recorded into the P/I system with a Consolidation Flag. This is a 1 character field that can take a value of **D**, **F**, or a number from **1, ... 9**. Depending on the options specified, all WIP charges may be grouped and sub-totalled by their Consolidation Flag. All WIP having the same Consolidation Flag are grouped together.

As an additional option, the WIP within each Group will be sorted by the WIP Reference field. In some cases, the Reference field holds an individuals's name, or a Billing-Code. All charges with the same Reference field would be sub-totalled and printed as one line on the invoice.

⦿ None	No consolidation is performed. Each WIP charge is printed in detail
○ Sum items within a Group printed as a total	All the charges with the same Consolidation Flag are sub-totalled and printed as one line.
○ WIP for a Group are sub-totalled by Reference	All the charges with the same Consolidation Flag are sub-totalled by their WIP Reference field. An additional sub-total is printed for each Consolidation Group.
○ Sub-Total by Reference Bill-Code	All the charges with the same Bill-Code, that is determined from the WIP's Reference field, are sub-totalled and printed. When selected, you must also specify which portion of the Reference field is to be used as the Bill-Code. (The Consolidation Flag is not used in this case).

Consolidation Flags in the Configuration File

Using type B or C Invoice Layouts with Consolidation Flags requires the definition of up to 9 variables in the runtimes Configuration file. Each variable is associated to the 9 numeric values that the Consolidation Flag may take. The variable is defined as follows:

PI-INV-DESCn <flag> <description text>

where:

- **n** is the value 1 - 9;
- **<flag>** will be either an A or a B indicating the Generation Type rule to be used, (or ignored for the B layouts);
- **<description text>** will be printed as the description on the invoice for the consolidated total of all items flagged with **n**.

WIP Revenue Account	9(18) - 9(5)

This is the G/L Revenue Account that is used to record the revenue in the General Ledger system. This is normally always computed by the system, however it may be overridden.

9.4.2.3 Disbursements Inquiry

The Disbursements Inquiry function provides the means of displaying the extra charge items that have been entered for a given Project. These include purchases from suppliers, sub-contracted services, and inventory items that were pulled from inventory. For any item displayed, you may "drill-down" to display the detail information associated to that item. Disbursement items are displayed to the screen managed using a Series 5 grid processing screen. You can easily navigate through the items on file using the grid buttons, or enter the respective key for the desired transaction. Disbursement items may be displayed to the grid sorted by date, Disbursement Code, or Invoice Number.

From the "Fast Buttons" frame, push buttons are provided that can be used to compute and display Print items associated to the selected Project, Set Display Filters, or Purge Historic records.

Project Disbursement Inquiry Grid

	"Fast Buttons"	
Print Grid Items	To have all Disbursement items for the selected Project output to a report.	
Set Filters	To have a number of different filters set to limit the Disbursement items that are displayed to the grid.	
Purge History		

Some of the special features of this "Inquiry" grid are as follows:

➢ Disbursement Items are listed for a selected Project. These may may be listed sorted by Date, Disbursement Code, or by the Invoice Number charged to the Project's Customer.

➢ The Project to list items for may

be chosen either by entering their assigned code, choosing it using the Lookup binoculars icon, or by having the next or previous code displayed that has items on file. *(Click the binocular icon with the up/down arrow to display Disbursement items that exist for the prior/ next occurrence of that code on file).*

➢ Depending on the **List By** selection, a field will be presented, in which the operator may enter a value for the applicable key of the items of interest to be displayed. The system will attempt to read to the closest order for the data entered and display it in the grid.

➢ For the selected Project, Task or Employee, totals are displayed below the grid display.

➢ Once a Project is selected, you may switch to display either Disbursement items or Disbursement items by clicking on the applicable tab.

➢ Within the grid, right-click a row to have a pop-up menu displayed offering available functions that may be performed on the associated Disbursement item.

Show Disbursement Detail Screen

When a given row in the grid is double-clicked, the detail information for the Disbursement item is displayed in the following screen:

The Next or Previous Disbursement item on file may be displayed by clicking the Page Forward/Backward icons, or striking the Page Down or Page Up keys,

9.4.2.3.1 Print WIP Items Report

The WIP Items Report is a detailed listing of Work-in-Progress items for each Project. Items may be sorted by Project, Employee or Task, and a variety of different filters may be entered.

> ➡ WIP Items Report Filters Screen

The following screen is displayed for entry of a number of different filters that may be set to limit the audit records that are output to the report.

When selected, the operator is presented with the standard WIP Select Filters 147 screen, the Project Select Filters 142 screen and the Customer Select Filters 151 screen. These allow you to specify selected or ranges of WIP Items, Projects, Project Locations, Project Departments, Customers, Customer Types, Sales Representatives, and/or only those customers and/or projects satisfying a variety of filter criteria.

The report generated, if archived, will be catalogued with a report name of **PIPROJECTWIP.RPT**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full*

details).

⊟ WIP Items Report Filters Screen - Field Definition

WIP Items Sort	**drop-down list**
To have the WIP Items listed grouped by one of the available fields.	Project / Date Project / Invoice Number Employee / Date Task / Project - Date

---

9.4.2.4   Recalculate Project Rates

When time charges are recorded for an employee's time sheet, basically a Project Code, a Task Code and a Quantity of Units is all that is needed to be entered. From this information the system will determine the Unit Charge Rate with a G/L Revenue account, and a Cost Rate with a G/L Cost account. If budgets are maintained for the selected Project, then they also are updated. There are also codes assigned that affect the way that items are listed on invoices. Determining the values assigned by the system to these fields is a process that involves examining a number of control options associated to the Project, Employees and Tasks, and possibly the use of special rates tables.

If the situation arises that a particular control code was not set correctly, or if special rates were not right, you may discover that the amounts charged to your customers for work performed is not what you had hoped; or perhaps revenue earned was not being allocated to the correct department. There is silver bullet for this problem. This function exists to recalculate charge rates and revenues, and all other codes for the WIP items associated to a Project.

For a selected Project, you may choose a range of WIP items that will have their Charge Rates, Revenue Account, Cost Account, Cost Rate reassigned by the system. Not only are these fields changed, but all the appropriate correcting G/L Distributions will be made also.

From the P/I Main menu, multiple Projects may be processed by selecting **Recalc Project WIP Rates** from the **Operations** drop-down menu. A single Project may be processed when selected from **Work in Progress Inquiry** of the **Trx Inqury** drop-down menu, and from it's Operations drop-down menu, **Recalc Project Default Rates** .

Some points to note when having the Project Rates and G/L Accounts reassigend:

- The generic WIP selection filters screen is presented to allow you to select specific WIP items within a given date range, and/or for specific Employees or Tasks.

- If your system is configured to compute Cost Plus Charges, then as an option, you may select to have these items also deleted. Cost Plus charges are recorded as WIP items using designated Task Codes as determined by the P/I Control Preferences [705] function. These WIP charges are recorded with an employee code of **$CSTPL**.

- Only Active, Uninvoiced WIP items may have their rates and codes reassigned.

- If when a WIP charge was originally entered into the system, it's rate was entered manually, of supplied from an externally interfaced set of charges, then THE **UNIT INVOICE RATE IS NOT RECALCULATED** by the system. *(However, other codes*

and Costs and Revenue Accounts are reassigned).

- The following codes associated to a WIP item are reassigned:

Code	*Dervied from*
❑ Client/Customer Code	Project properties record
❑ Partner-In-Charge	Project properties record
❑ Project Leader	Project properties record
❑ Person/Machine Flag	Employee properties record
❑ Foreign Flag	Task properties record
❑ Invoice Section Code	Assorted properties defined by Preferences
❑ Invoice Group Code	rules
❑ Budget Group	Assorted properties defined by Preferences
❑ Taxable Status	rules
	Assorted properties defined by Preferences
	rules
	Task properties record

- The following rates and/or G/L Accounts are reassigned to each WIP item:

Code	*Dervied from*
❑ G/L Revenue	Assorted properties defined by Preferences rules
Account	Assorted properties defined by Preferences rules
❑ Unit Invoice Rate	Computed
❑ Extended WIP	Computed
Amount	Computed from assorted properties defined by
❑ Overhead Amount	Preferences rules
❑ Cost Amount	Assorted properties defined by Preferences rules
❑ G/L Cost Account	

- If the system is configured to maintain Budgets, they are updated with any newly created amounts,

- For those systems that generate Revenue Distributions at the time WIP charges are entered into the system, reversing and new distributions are recorded.

Only Eligible WIP items are Recalculated

In addition to the filters offered, only those WIP items of the following Types or Status will have their Rates and G/L Accounts reassigned:

Of Type:

☑ Active   ☐ Fully Invoiced
☐ Credits   ☐ Maked Up/Down
☐ Deposits   ☐ Part Invoiced
☐ Holdbacks   ☐ Part Inv Balance
☐ Manual Inv'd   ☐ Writeoffs
☐ Memo Entry

With Status of:

☑ Unselected   ☐ Invoiced
☐ Select To Bill   ☑ Force Inv'd
☑ Perm Deferred   ☐ Inv'd / Paid
☑ Temp Deferred   ☐ Never Select

Note that regardless of the selections made to these WIP filters by the operator, the displayed WIP Type and Status settings shown will apply.

Recalculate Single Project's WIP Rates - Options Screen

The following screen is presented when selecting to have a given Project's WIP rates and codes reassigned:

Recalculate Project WIP Rates

Set Display or Processing Selection Options ...

Recalculate Options | WIP Selects

For the selected Project(s) and WIP items, all unbilled items will have their rates and G/L accounts re-assigned, and where applicable, correcting G/L Distributions will be made.

☐ Remove Unbilled system generated Cost-Plus charge WIP items too ?

[Next]   [Cancel]

When selected, the operator is presented with the standard WIP Select Filters [147] screen. This allows you to specify WIP for selected or ranges of Employees and Tasks, and/or only those WIP items satisfying a variety of filter criteria.

Recalculate Project Rates Options Screen - Field Definitions

Remove Unbilled system Generated Cost-Plus Charges	*check-box*
If your system is configured to compute Cost Plus Charges, then as an option, you may select to have these items also deleted. Cost Plus charges are recorded as WIP items using designated Task Codes as determined by the P/I Control Preferences [705].	

9.4.3 Invoice History Inquiry

Once P/I Invoices have been generated, printed and posted to A/R, they will be recorded in the P/I system as Historic Invoices. Their respective data records, along with the WIP and Recap Detail records, are available for display, and to be reprinted if necessary.

This Inquiry function provides access to all Historic Invoices that have been from P/I to the Accounts Receivable system.
You can easily bring up and display the details and the total amounts for each Invoice. As well, a selected Invoice may be reprinted.

Some of the features of the Inquiry function are as follows:

- In the grid display, Invoices may be listed for a selected Project, for a selected Customer, or regardless of customer or Project, by Invoice #.

- Once an Invoice is selected, a screen is displayed offering tabbed sub-screens for the Invoice Totals, a list of the associated WIP charges, and a list of related Recap Detail records.

- Selected Invoices may be reprinted. For 3rd Party Invoices, both the client and the 3rd Party Invoice is printed.

- A function is provided that willl purge Historic Invoices records

- Either normal Historic Invoices may be displayed, or "Archived" Invoices may be displayed.

- A Credit Note may be entered and applied against a given Invoice.

Historic Invoices are classified as being either "Current" or "Archived". The "Current" invoices are those invoices that have not yet been "Archived".

Archived Invoice History Inquiry

When Invoices are generated, printed and posted, they are copied to the Invoice History file. Over time, if the Invoice History files become exceedingly large and unruly, they may be "Archived". This process basically moves Invoices, and their associated data, for specified dates, into their corresponding "Archive" files. Invoices are archived using the Archive Historic Data function [205] provided by the P/I Menu's File drop-down menu.

Both the normal Invoice History, and the Archived Invoice History records may be inquired upon from this Inquiry function. (From that functions View drop down menu, you may choose to view either the normal Invoice History records, or the Archived records).

The Historic Invoices Inquiry function is launched from the P/I Menu's **Trx Inquiry** drop-down

menu.
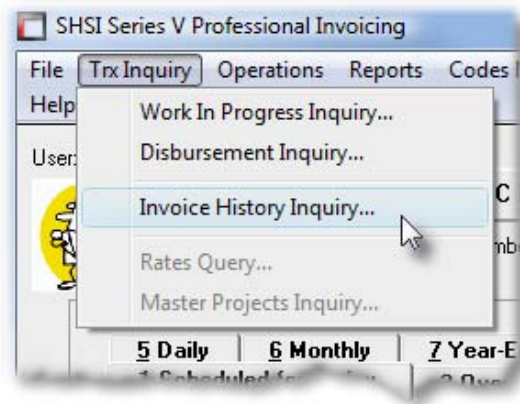
9.4.3.1 Invoice History Inquiry Grid Screens

Historic P/I Invoices are displayed to the screen managed using a Series 5 grid processing screen. You can easily navigate through the items on file using the grid buttons, or enter the Invoice Number key for the desired transaction. A list of Invoices may be displayed to the grid sorted using a variety of different criteria.

From the "Fast Buttons" frame, push buttons are provided that can be used to Re-Print an Invoice, compute and display Totals, Set Display Filters, have items Purged, and even issue a Credit Note for a selected Invoice. Either "Current" Invoice History records or "Archived" Invoice History records may be selected to be displayed. **(By selecting the respective item from the menu-bar's View drop-down menu).** The selected function will be applied to those Invoice History records that are being displayed at the time.

Historic Invoices Inquiry Grid

	"Fast Buttons"	
RePrint Invoice	To have the current highlighted Invoice in the grid reprinted. For those Projects where an EDI file is generated, then the designated type of EDI file is re-generated. *(The invoice may be reprinted also by Right-clicking the particular row of the invoice, and selecting the Invoice Reprint option).*
Set Filters	To have a number of different filters set to limit the Invoices that are displayed to the grid.
Purge History	To have the Historic Invoices records purged. A range of dates, Invoice Numbers and other filters may be entered thus purging only selected items up to a specified date.
Totals	To compute totals of the different types or

	Invoices in the system. The number of each type of document is displayed, along with a dollar amount breakdown of the types of charges.
Credit Invoice	To have a Credit Note generated and issued against the selected Invoice. The credit amount, which may be less that the original amount of the invoice, may be applied to All related WIP charges, or selected items.

Some of the special features of this "Inquiry" grid are as follows:

➢Historic Invoices may be listed belonging to just a selected Project or Customer. As well, all invoices may be displayed listed either by Invoice Number or Invoice Date. ➢If listing for a particular Project or Customer, a given code may be chosen either by entering their Project or Customer Code, choosing it using the Lookup binoculars icon, or by having the next or previous Project or Customer displayed that has items on file. *(Click the binocular icon with the up/down arrow to display Invoices that exist for the prior/next occurrence of that code on file).*	
➢ Depending on the **List By** selection, a field may be presented, in which the operator may key in an Invoice #, or a Bill Code. The system will attempt to read to the closest transaction for the data entered and display it in the grid.	
➢ Either "Current" Invoice History records or "Archived" Invoice	

History records may be selected to be displayed. To switch between "Current" and "Archived", from the menu bar's View drop-down menu, click either Show Current Data Records or Show Archived Data Records.

➢ When displaying Archived Invoices, the "Fast Frame" background color changes from the normal olive green to a lovely orange.

➢ A Credit may be entered against an Invoice by clicking on the push button in the "Fast Button Frame". A window is displayed for entry of the particulars, and to apply the credit amount to specific WIP charges.

9.4.3.2   Historic Invoice Display Screens

When a particular row in the Invoice Inquiry grid screen is double-clicked, a window is displayed showing the header summary and totals for that historic Invoice transaction.

Some of the features associated to the display of the Invoice are as follows:

- Within the screen displayed, a Totals, WIP Items and Recap Detail tabbed sub-

screens may be clicked to show different information associated to the Invoice.

- The Previous or Next Invoice on file may be easily navigated to by clicking the

  icons at the right top of the window.

- The Invoice may be Reprinted, or for those customers utilizing EDI invoices, the applicable EDI file may be re-generated.

- If Recap Detail is associated to the Invoices, a Recap Detail spreadsheet may be generated for the invoice.

- When displaying the WIP or Recap tabbed sub-screens, there are more columns of information available than will fit on the screen. At the bottom of the grid, a scroll-bar is presented which may be dragged to view the columns of data that are not shown

  on the right. (If your screen is wide enough, you may also click on the icon at the bottom right corner of the window, to expand it.

The following function may be launched, associated to the Invoice, using the displayed push-buttons at the bottom of the window.

Generate a Recap Spreadsheet – Recap Detail records hold additional information relating to WIP charges. If used each WIP record may have one or more Recap records associated to it. The Recap Detail spreadsheet basically lists all the Recap charges that were invoiced by the given invoice.

Reprint the Invoice – If needed, you may have the Invoice reprinted. If it's a 3rd Party Invoice, both the client's and the 3rd party's Invoices are printed together as a single document.

Re-Generate EDI File – If needed, you may have the associated EDI file re-generated. (This option is only available to those Projects that have been set up to produce EDI Invoice.

  ➡ Invoice Inquiry – Totals tab Screen

The following sub-screen is displayed when the **Totals** tab is clicked. It shows the Totals for the Invoice:

Invoice Inquiry – WIP Items tab Screen

The following sub-screen is displayed when the **WIP Items Invoiced** tab is clicked. It shows a grid listing each WIP item that was invoiced:

Invoice History Inquiry

Invoice # : **054569** For Project: **16911** For Customer: **016911**

Invoice

Customer Address:

US BANK OSHKOSH CLS

400 CITY CENTER
OSHKOSH WI 54902

Invoice #: 054569 Invoice Date: 4/01/06
Due Date: 5/01/06

Project:
16911 US BANK OSHKOSH CLS
Re: 16911 US BANK OSHKOSH CLS

Attention: JUDI LONG

Totals | **WIP Items Invoiced** | Recap Detail

Date	Task	Employee	# Units	Unit Rate	Charge Amt	Overhead	Tax 1	Tax 2	Amt Inv'd	L
3/03/06	RPZZ554R	400RPR	1.00	12.00	12.00	0.00	0.000	0.000	12.00	20
3/06/06	RPZZ554R	400RPR	1.00	12.00	12.00	0.00	0.000	0.000	12.00	20
3/21/06	RPZZ554R	400RPR	1.00	12.00	12.00	0.00	0.000	0.000	12.00	20
3/06/06	RPZZ554R	400RPR	1.00	12.00	12.00	0.00	0.000	0.000	12.00	30
3/10/06	RPZZ554R	400RPR	1.00	12.00	12.00	0.00	0.000	0.000	12.00	30
3/21/06	RPZZ554R	400RPR	1.00	12.00	12.00	0.00	0.000	0.000	12.00	30
3/29/06	RPZZ554R	400RPR	1.00	12.00	12.00	0.00	0.000	0.000	12.00	30
3/28/06	RPZZ554R	400RPR	1.00	12.00	12.00	0.00	0.000	0.000	12.00	40
3/09/06	RPZZ554R	400RPR	1.00	12.00	12.00	0.00	0.000	0.000	12.00	50

| Totals: | 3,252.00 | 0.00 | 0.00 | 0.00 | 3,252.00 |

Final Payment Received: 0/00/00 Customer Check #:

Generate Recap **S**preadsheet for this Invoice | Regenerate **E**DI for this Invoice | **E**xit

Invoice Inquiry – Recap Detail tab Screen

The following sub-screen is displayed when the **Recap Detail** tab is clicked. It shows a grid listing each Recap extended information record associated to the Invoice:

9.4.3.3   Invoice History Filters

The following functions may be executed from the Invoice Inquiry grid screen, where a number of assorted selection filters may be entered.

Set Grid Display Filters	Enter a number of different filters set to limit the transactions that are displayed to the grid.
Compute and Display Totals	Tally and display totals of the Invoices sub-totalled over a 12 month period broken down to the types of amounts. Note that either "Current" Invoice History records or "Archived" Invoice History records may be displayed to the grid screen. When the totalling function is invoked, those history records that are being displayed will be the ones that are purged.
Purge Historic Invoices	Have older Historic Invoice Transactions Purged from the system. Note that either "Current" Invoice History records or "Archived" Invoice History records may be displayed to the grid screen. When the purge function is invoked, those history records that are being displayed will be the ones that are purged.

Archiving or Purging

When displaying "Current" Invoice History records you should not
the Purge function. Instead, execute the Archive Historic Data func
by the P/I Menu's File drop-down menu. That will move the "Curre
the "Archived" Invoice file, and they can them be inquired upon.

Should the "Archived" Invoices file become too large, then select to
"Archived" Invoices, and execute the purge.

The following screen, or something very similar, is displayed for each of these functions:

When having the history records purged or accumulating the Totals for display, the operator
is also presented with the standard Project Select Filters [142] screen, the Customer Select
Filters screen [151]. and Demographic Selects screen [156]. These allow you to specify selected
or ranges of Projects, Project Locations, Project Departments, Customers, Customer Types,
Sales Representatives, and/or only those customers and/or projects satisfying a variety of
filter criteria.

Processing Filter Options Screen - Field Definition

Historic Invoice Number(s)	*radio-buttons and 9(6)*
To select All Invoices regardless of their Invoice numbers; or for only those that fall within a range of numbers. If a range is selected, enter the starting/ending Invoice numbers.	

For the 12 Periods — in Intervals of	*radio-buttons and (mmddyy)*
Totals are accumulated for up to 12 periods, of either Months, Quarters or Years. Based on the selection, the system will default the From/To dates displayed. *(If a different date range is selected, the 12 periods tallied for will commence from the Starting Date ending up to the ending date, or up to the end of the 12th period, which ever is earliest).*	

Include only Invoices — for Invoice Layout Code	*9(3)*
To have only those Invoices that were generated based on a particular Invoice Layout Code. *(Leave the field blank if it is not to be considered as a selection filter).*	

Include only Invoices — for Customer	*X(6)*
When entering grid display filters, to have only those Invoices that were generated for a particular Customer Code. *(Leave the field blank if it is not to be considered as a selection filter).*	

Include only Orders — for Tax Codes 1 & 2	*X(6)*
When entering grid display filters, to have only those Orders processed that were recorded with a particular Tax Code. *(Leave the field blank if it is not to be considered as a selection filter).*	

9.4.3.4   Invoice History Totals

This function accumulates totals for the Historic Invoices on file in the P/I system. It breaks it down in to 12 reporting periods and displays the number of Invoices, and a break down of the dollar amounts contributing to the values of invoices for the transactions satisfying the filters selected.

The following screen is displayed:

9.4.3.5 Invoice Register Reports

The Invoices Register report provides a simple list of all the Invoices that were generated within a specific range of Dates and/or Invoice Numbers. You may choose to have the items listed sorted by Invoice #, Project Code, or Customer Code.

When viewing "Current" Historic Invoices, click **Print Invoice Register** or when viewing "Archived" Historic Invoices, click **Print Archived Inv Register**, from the grid screen's menu-bar **File** drop-down menu.
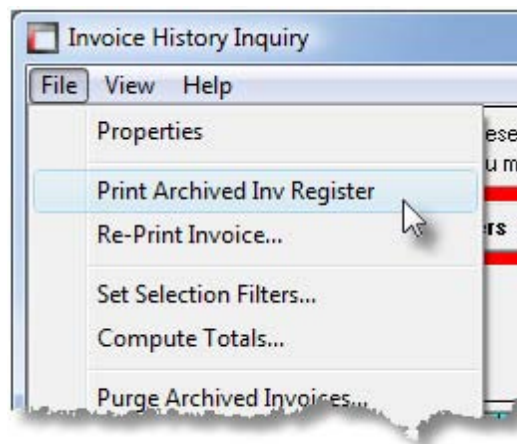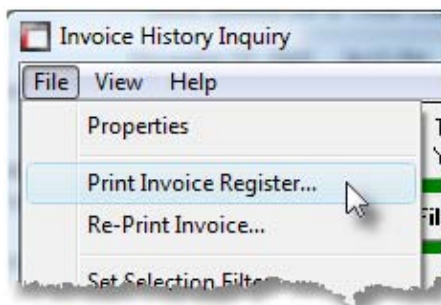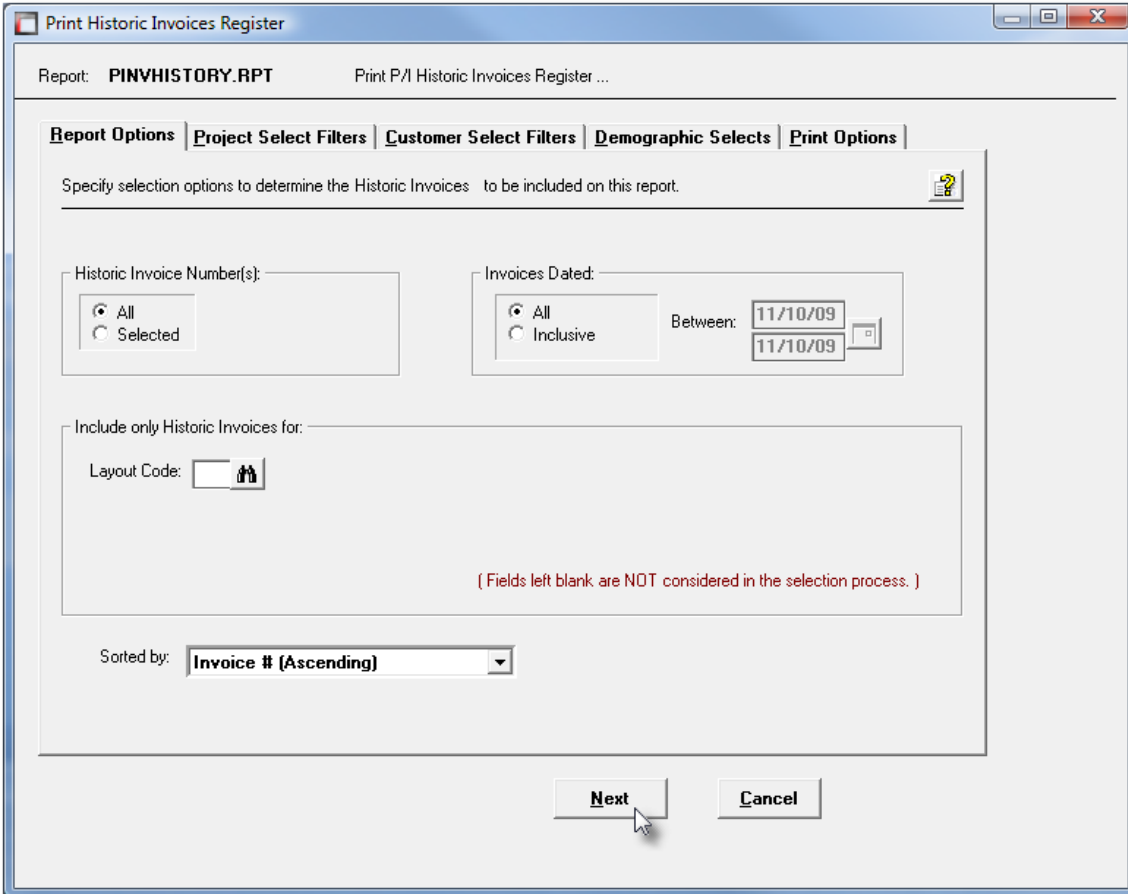
Archived Invoices or Historic Invoices

When Invoices are generated, printed and posted, they are copied to the Historic Invoices file. Over time, if the Invoice History files become exceedingly large and unruly, they may be "Archived". This process basically moves Invoices, and their associated data, for specified dates, into their corresponding "Archive" files. Invoices are archived using the Archive Historic Data function 205 provided by the P/I Menu's File drop-down menu.

Depending whether Archived or Current Invoice History records are being displayed, either the Archived register or the Historic register report is generated.

Invoices Register Reports Filters Screen

The following screen is displayed for entry of a number of different options and filters that may be set to limit the records that are output to the report.

When selected, the operator is presented with the standard Project Select Filters 142 screen and the Customer Select Filters 151 screen. These allow you to specify selected or ranges of Projects, Project Locations, Project Departments, Customers, Customer Types, Sales Representatives, and/or only those customers and/or projects satisfying a variety of filter criteria.

When the "Archived" Register is generated, if archived, will be catalogued with a report name

of **PINVARCHIVE.RPT**. For the "Historic" Invoice Register is generated, it is catalogued with a name of of **PINVHISTORY.RPT**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

➖ Invoices Register Filters Screen - Field Definition

Historic Invoice Number(s)	*radio-buttons and 9(6)*
To select All Invoices regardless of their Invoice numbers; or for only those that fall within a range of numbers. If a range is selected, enter the starting/ending Invoice numbers.	
Invoices Dated	*radio-buttons and (mmddyy)*
Select to have Invoices selected regardless of their dates; or only those for a given date range. If an inclusive range is selected, enter the starting/ending dates. Click the calendar icon for a common set of ranges to be presented.	
Include only Invoices — for Invoice Layout Code	*9(3)*
To have only those Invoices that were generated based on a particular Invoice Layout Code. *(Leave the field blank if it is not to be considered as a selection filter).*	
Invoices Sort	*drop-down list*
To have the Invoices listed sorted by one of the available fields.	Invoice # (Ascending) Project Code Customer Code

---

9.4.3.6   **Enter Credit Notes to Historic Invoices**

This function is used when you wish to generate a Credit against an invoice that has already been printed and posted to the Accounts Receivable system. The Credit Note will be printed the next time the Generate and Print Invoices function is selected. When the Credit is posted to the Receivables system, a type **[C]** credit document is recorded.

When a Credit Note is entered and applied to specific WIP charges of the invoice, negative valued WIP and Recap records are written. These in turn are used to generate a Credit Invoice document, and used to reduced the amount of revenue, that might be reported for the associated Project in assorted inquiry and reporting functions. When the credit document eventually is posted to the Accounts Receivables system, applicable reversing distributions are made to the A/R Control account and associated Revenue accounts.

Presumably, credited amounts would be for specific WIP items that contributed to the charges on the Invoice. Once the initial credit information is entered, a second tabbed sub-screen is displayed, titled **[Apply to Invoiced WIP Items]**. Here you may have the system select ALL the WIP items associated to the original Invoice, or apply the credit amount selectively to specfic WIP items. (If you are not sure of the total amount that is to be credited, just go ahead and select the WIP items that need to be credited, then you can click the **[Adjust CR Total to Amts Applied]** push-button and the system will tally the total for you).

Once all WIP items have been credited, click the **[Enter the Credit]** push button at the bottom of the screen to have the Credit Note generated and printed.

From the P/I Main menu, select **Enter Credit to an Invoice** from the **Operations** drop-down menu or select **Invoice History Inquiry** from the **Trx Inquiry** drop-down menu. Locate the Invoice in the displayed grid and click the **[Credit Invoice]** push button from the "fast buttons" frame; or select the Invoice in the displayed grid, and click the **[Apply Credits to this Invoice]** push button at the bottom of the screen.

Some points to note about the automatic selection process:

- The Credit Note can only be applied to a single Invoice. That invoice must have been already generated and posted to Accounts Receivable.

- The Credit Note must have a unique document number. It should not have the same number as the Invoice that it is being applied to. By default, it will be assigned from the **Next Credit Document Number** field, as defined in the A/R Control Preferences.

- Enter the amount of the Credit as a positive value

- The amount of the Credit may be applied to all, or specific WIP items, associated to the Invoice to which the Credit applies to.

- After the Credit is entered, it will be written to the P/I Invoices file as a Credit document, and it will be printed according to the properties of the original invoices Invoice Layout.   It will be displayed as a Credit in the grid display screen from the Invoice Grid Processing [419] Operations function. When Invoices are next posted to A/R, it will be written to the designated A/R Sales Batch as a Credit Note.

Entering Credits - Data Entry Screen

The following screen is presented for entry of fields associated to entry of the Credit:

Credit Entry Data Screen - Field Definitions

Credit Document Number	9(6)
This will be the number identifying the Credit document and will be assigned to the	

resulting Open Item record in the Accounts Receivable system. The default is determined from a field defined in the A/R Control Preferences. When assigning the Document Number, it is important that you assign a range of numbers that will not conflict with the invoices that are generated by the system. *Do not use the number of the invoice to which the credit is to be applied against for the Credit's document number.*

Document Date	*(mmddyy)*

This is the date that will be assigned to the Credit Note.

Reference	*X(30)*

A brief description may be recorded. This will be carried through to the A/R system and used as the reference in the resulting Open Item record.

WIP and Overhead Credit Amounts	*$ 9,999,999.99*

Enter the portion of the Credit that is to be applied against WIP charges, and any Overhead charges that were computed for the invoice. *Enter this amount as a positive value.*

The total of all Credit amounts cannot exceed the original total of the invoice to which the credit is being applied.

Tax 1 and 2 Credit Amounts	*$ 99,999.99*

Enter the portion of the Credit that is to be applied against Tax amounts that were computed for the invoice. You will not have to enter the Tax amounts as these will be automatically computed when the Credit Invoice is generated. *Enter these amounts as a positive values.*

The total of all Credit amounts cannot exceed the original total of the invoice to which the credit is being applied.

Applying Credit to Invoiced WIP Items - Grid Select Screen

The following grid screen is presented for selection of those WIP items to which the credit amounts are to be applied:

Some of the special features of this "Apply Credit to WIP" grid are as follows:

> To select a particular WIP item to be Credited, double-click the row that it's information is displayed in.

> WIP tems that have had a Credit Amount applied to them have the ✔ icon shown in the 1st column of the grid.

> To apply the total amount of the Credit to All WIP items, click the **Apply to ALL** push button.

> To clear any previously applied amounts, click the **Clear ALL** push button.

> The WIP amounts Remaining to be Credited, and the amount

Already Credited are displayed. The entry of the Credit may be completed only when the Amount Remaining to be Credited is ZERO.

➢ If the amounts applied do not equal the expected amount originally entered, click the **Adjust CR Total to Amts Applied** button to have the total computed from the amounts applied.

➢ Once the total amount of the Credit has been applied, the Enter the Credit push-button will be enabled. To have the Credit entered, click this button.

➢ The table displaying the WIP fields is wider than the screen is able to accommodate. To display the extra fields, at the bottom of the grid, a scroll-bar is presented which may be dragged to view the columns of data that are not shown on the right.

➢ (If your screen is wide enough, you may also click on the [icon] icon at the bottom right corner of the window, to expand it.

⊙ Applying Credit to WIP - Data Entry Screen

When a given WIP item's grid row is double-clicked, the following screen is presented for entry of the Credit amounts to be applied to that WIP:

Applying Credit to WIP Data Entry Screen - Field Definitions

Amount to Credit – WIP Amount	*$ 9,999,999.99-*
Enter the amount of the Credit that is to be applied to the WIP items Charged amount. The respective New Invoice Amount field will be adjusted accordingly.	

Amount to Credit – Overhead	*$ 999,999.99-*
Enter the amount of the Credit that is to be applied to the WIP item's Overhead amount. The respective New Invoice Amount field will be adjusted accordingly.	

New Invoice Amounts – # of Units	*99,999.99-*
As a result of the Credit, enter the new # of Units that would be considered as having been invoiced.	

New Invoice Amounts – Unit Rate	*$ 999,999.99*
If the credit is issued because the rate was incorrect, enter the correct Unit Rate. The	

New WIP amount will be automatically recomputed.	
New Invoice Amounts – WIP & Overhead	*$ 9,999,999.99-*
As a result of the Credit, this is the new amount that would be recognized as being invoiced for this WIP item.	

9.4.3.7   Generate an Invoice's Recap Detail Spreadsheet

Enter topic text here.

9.4.4   Rates Query/Calculator

The P/I system provides for the automatic assignment of Billing Unit Rates, Unit Costs Rates, and the G/L Accounts used for recording revenues and cost.   There are a variety of different sources and combinations of settings that are employed. This function attempts to display the different alternatives as to how the rates and the accounts are derived. You will basically enter a Project Code, Employee Code and a Task Code, and the system will determine and display the associated Chargeable Rate that will be assigned to WIP items. Each possible "candidate" rates and accounts will be displayed showing the priority of how the final rate is achieved.

As well as charge-out rates, the G/L Revenue account that is assigned to the WIP item is also displayed, showing each "candidate" account.

If the P/I system is also tracking Costs, (as determined by a preference in the P/I Control Preferences), the operator will be invited to also show the steps in obtaining the Cost Rate for the WIP item that would be generated.

From the P/I Main menu, select **Rates Query** from the **Trx Inquiry** drop-down menu.
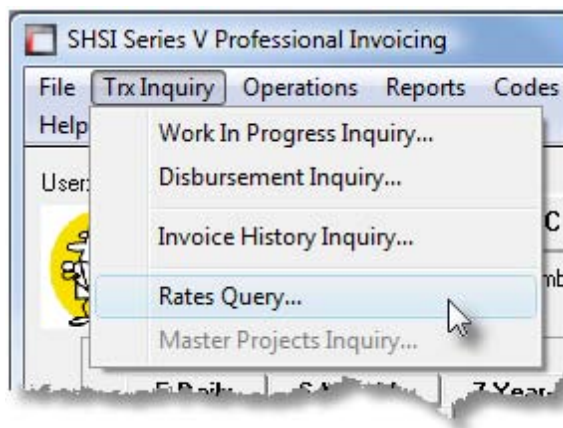
Some points to note about the automatic selection process:

- Two tabbed sub-screens are presented. One for the Revenue Rates and one for the Costing Rates.

Displaying Cost Rates

The Costing Rates sub-screen is offered only if Costing has been enabled in the system.

Also, if you do not wish all users to view the Cost Rates, a setting in the P/I Control Preferences may be used to define a single logon user who is allowed. (If that field is blank, all users may view the costs).

➡ Rates Query - Codes Entry Screen

The following screen is presented for entry of the Project, Employee and Task codes for which Rates are displayed:

➖ Rates Query Codes Entry Screen - Field Definitions

For Project	X(6)
Enter the Project for which Rates are to be displayed.	

For Employee	X(6)
Enter the Employee for which Rates are to be displayed.	

For Task	X(8)

Enter the Task for which Rates are to be displayed.

➡ Rates Query - Invoice Rate and Revenue Account Display Sub-Screen

The following tabbed sub-screen is displayed showing the candidate sources for the derived Unit Rate and G/L Revenue Account:

➡ Rates Query - Cost Rate and Account Display Sub-Screen

The following tabbed sub-screen is displayed showing the candidate sources for the derived Unit Cost and G/L Cost Account:

9.4.5 WIP Periods Analysis

The Professional Invoicing system records all chargeable and non-chargeable employee activity, and/or external system generated charges to the Work-In-Progress, WIP, file. These records represent a history of all activity, and are available for analysis. The WIP Period Analysis function accumulates sub-totals for the WIP for a variety of related codes, including and not limited to, Project, Task and Employee. Analysis may be done for periods of calendar years or months, or G/L Fiscal years or periods. The number of Chargeable and

non-chargeable Units and Amounts, Overhead Amount, Invoiced Amount, and Costs are tallied, and presented along with assorted totals.

Once the analysis is generated for the specified type of period, the totals for any particular period, of the range of periods analyzed, may be displayed to the grid screen with totals, which may then be reviewed, exported, or printed as a report.

Analysis with sub-totals by assorted periods of time, are available as follows:

- ❏ by Project
- ❏ by Task
- ❏ by Employee
- ❏ by Customer
- ❏ by Department
- ❏ by Location
- ❏ by Invoice Layout Codes
- ❏ by EDI Control Codes
- ❏ by Projects for selected Customer, Employee, Department, Task, Project Leader, EDI Code or Invoice Layout
- ❏ by Tasks for selected Project or Employee
- ❏ by Employees for selected Project or Department
- ❏ by Departments for selected Project or Leader Department

For each of the given analysis types, a sub-totals may be broken down to the following periods:

- ❏ by Calendar Year for up to 9 year prior to a selected year
- ❏ by Calendar Months for up to 47 months prior to a selected month
- ❏ by G/L Fiscal Periods for up to 2 years worth of Fiscal Periods preceding a selected period
- ❏ by G/L Fiscal Years for up to 8 years preceding a selected Fiscal Year

For any row of data presented, (where a row represents either a Project, Task, Employee, Customer, Department, Location, Invoice Layout, or EDI Code), a drill down function presents a screen displaying the accumulated totals for the item, for each of the reporting periods. Totals are displayed along with a Trend Analysis. These drill down screen data may also be exported to a spreadsheet.

The inquiry analysis is obtained using the current WIP records that are accumulated in the P/I system. For this analysis to be accurate, you must maintain at least the last ten years of historic data, purging only transactions older than ten years.

As a special feature of the Series 5 reporting function, the totals may be viewed on screen,

printed or exported to an MS Excel spreadsheet.

The P/I WIP Analysis Inquiry function and the P/I WIP Analysis Report function are in fact the same function. For a full description, refer to the topic titled <u>WIP Period Analysis Report</u> ⌐506⌐ found under the chapter on <u>Reporting Functions</u> ⌐471⌐ later in this documentation.

9.4.6   WIP Revenue GL Account Analysis

The Professional Invoicing system records all chargeable and non-chargeable employee activity, and/or external system generated charges to the Work-In-Progress, WIP, file. These records represent a history of all activity, and are available for analysis. Each WIP item that is invoiced is assigned a G/L account representing the P/L Income to which the revenue is to be assigned. The WIP Revenue Analysis function accumulates sub-totals for each assigned G/L Account for a variety of related codes, including and not limited to, Project, Task and Employee.   Analysis may be done for periods of calendar years or months.   The number of Chargeable and non-chargeable Units and Amounts, Overhead Amount, Invoiced Amount, and Write-Off Amounts are tallied, and presented along with assorted totals.

Once the analysis is generated for the specified type of period, the totals for the date range analyzed, may be displayed to the grid screen with totals, which may then be reviewed, exported, or printed as a report.

Analysis with sub-totals are available as follows:

- ❑ by G/L Account

- ❑ by Project for select G/L Account

- ❑ by Customer for selected G/L Account

- ❑ by Task for selected G/L Account

- ❑ by Employee for selected G/L Account

- ❑ by Invoice Group for selected G/L Account

- ❑ by EDI Control Code for selected G/L Account

- ❑ by Invoice Layout Codes for selected G/L Account

The inquiry analysis is obtained using the current WIP records that are accumulated in the P/I system. For this analysis to be accurate, you must maintain at least the last ten years of historic data, purging only transactions older than ten years.

As a special feature of the Series 5 reporting function, the totals may be viewed on screen, printed or exported to an MS Excel spreadsheet.

The P/I WIP Revenue Accounts Inquiry function and the P/I WIP Revenue Analysis Report function are in fact the same function. For a full description, refer to the topic titled <u>WIP Revenue Analysis Report</u> ⌐519⌐ found under the chapter on <u>Reporting Functions</u> ⌐471⌐ later in this documentation.

9.4.7 Employee Cross Utilization Analysis

Chargeable and non-chargeable activity by employees is recorded as Work-In-Progress items against specific Projects. All employees belong to both a Department and a Location; and all Projects also are associated to both a Department and a Location. Generally, employees for a given department or location will perform work on projects that belong to the same department or location. However, if this is not always the case, you may want to determine how much WIP activity is being performed by employees associated to a given department or location on projects belonging to other departments or location. This is referred to as "Employee Cross Utilization".

The Employee Cross Utilization Analysis function accumulates sub-totals for the WIP recorded be employees on projects for other departments or locations for a variety of related codes, including and not limited to, Project, Department, Location and Employee. Analysis may be done for periods of calendar years or months, or G/L Fiscal years or periods. The number of Chargeable and non-chargeable Units and Amounts, Overhead Amount, Invoiced Amount, and Costs are tallied, and presented along with assorted totals.

Once the analysis is generated for the specified type of period, the totals for any particular period, of the range of periods analyzed, may be displayed to the grid screen with totals, which may then be reviewed, exported, or printed as a report.

Analysis with sub-totals by assorted periods of time, are available as follows:

- ❏ by Projects for selected Location, Employee, Department, or Location
- ❏ by Locations for selected Project, Department, Leader Location or Employee
- ❏ by Employees for selected Location, Department or Project
- ❏ by Departments for selected Location, Project, Employee or Leader Department

For each of the given analysis types, a sub-totals may be broken down to the following periods:

- ❏ by Calendar Year for up to 9 year prior to a selected year
- ❏ by Calendar Months for up to 47 months prior to a selected month
- ❏ by G/L Fiscal Periods for up to 2 years worth of Fiscal Periods preceding a selected period
- ❏ by G/L Fiscal Years for up to 8 years preceding a selected Fiscal Year

For any row of data presented, (where a row represents either a Project, Location, Employee, or Department), a drill down function presents a screen displaying the accumulated totals for the item, for each of the reporting periods. Totals are displayed along with a Trend Analysis. These drill down screen data may also be exported to a spreadsheet.

The inquiry analysis is obtained using the current WIP records that are accumulated in the P/I system. For this analysis to be accurate, you must maintain at least the last ten years of historic data, purging only transactions older than ten years.

As a special feature of the Series 5 reporting function, the totals may be viewed on screen,

printed or exported to an MS Excel spreadsheet.

The P/I Employee Cross Utilization Analysis Inquiry function and the P/I Cross Utilization Report function are in fact the same function. For a full description, refer to the topic titled Employee Cross Utilization Report 485 found under the chapter on Reporting Functions 471 later in this documentation.

9.5 Operational Functions

The topics in this chapter describe functions and procedures that are a available under the **Operations** drop down menu on the Professional Invoicing menu. These menu items are used to perform the major processing functions in the Professional Invoicing system. In particular, the functions for entering Employee Timesheets, entering General Work-In-Progress charges, and Interfacing 3rd party generated WIP activity are found here.

These functions are available from the P/I Menu Bar as shown:
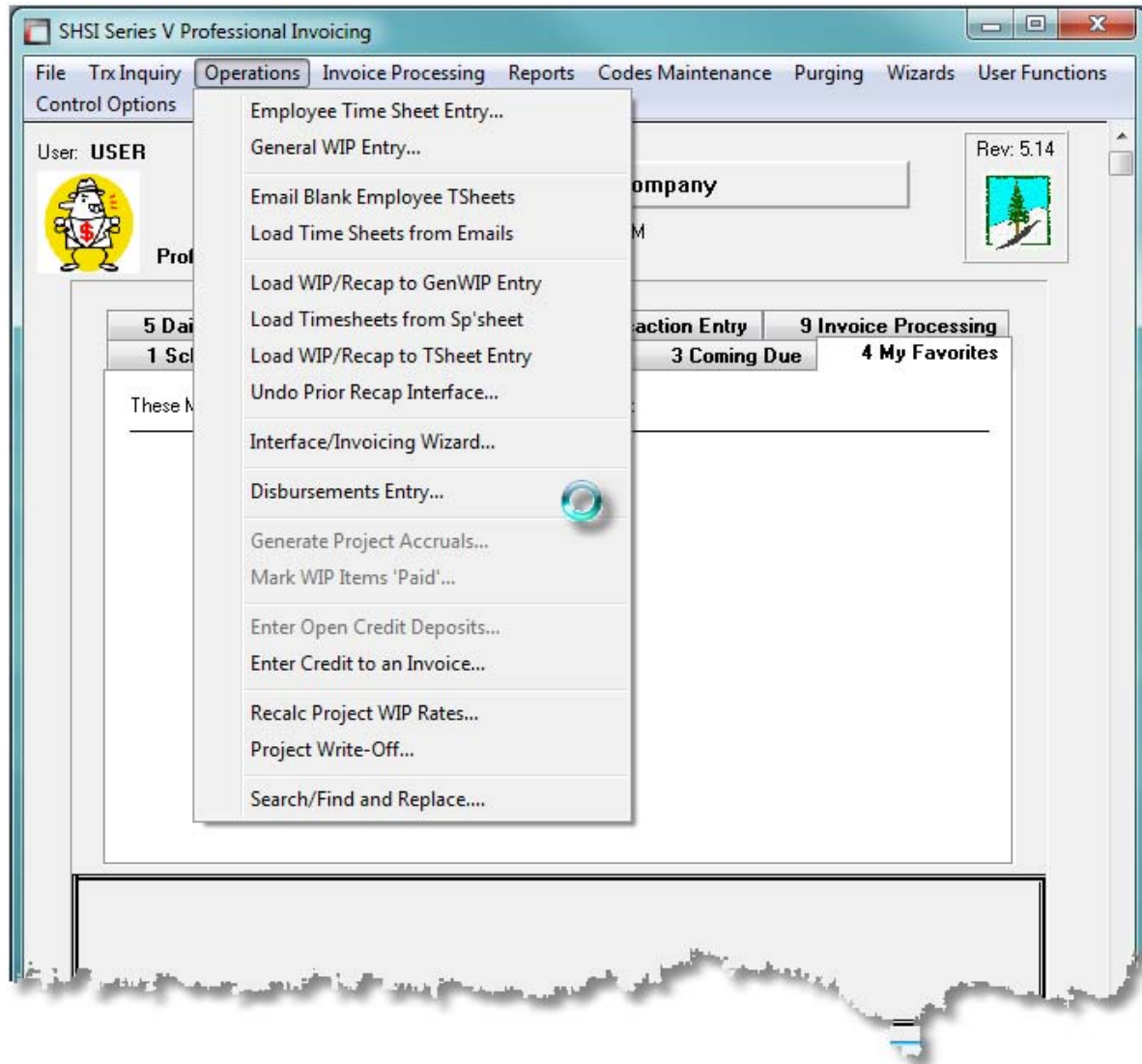
9.5.1 Employee Timesheet Entry

This Series 5 Professional Invoicing system primary purpose is to capture your Employee's working activity. This may include both billable time, and non-chargeable time. Depending on how rigorous you wish to track your employee's working hours, the system provides for entry of different types of time.

Given that generally employees are performing work on different projects, when activity is recorded in the P/I system as Work-In-Progress, (known as WIP), it must be entered for pre-defined Projects. WIP can be recorded as chargeable or non-chargeable depending on whether it can be billed out to a customer. Also, a P/I employee could also be a machine that you wish to track the number of chargeable or non-chargeable hours that it is used.

WIP that is directly associated to employee or machine hours, is normally kept track of using a Time Sheet and is recorded in the P/I system manually using this Employee Timesheet Entry function.

There are a number of features associated the recording of WIP activity. These are highlighted under the topic titled About, Concepts and Features that follows:

- Time Sheets are entered under the control of Timesheet Entry Batches 265 as either a Regular Batch or a Permanent Entry Batches. Permanent Batches are used for WIP activity that is the same on a regular reoccurring basis.

- Employee hours may be entered as individual WIP items, or as a traditional weekly timesheets. The "Weekly" timesheet mode for an employee provides for the entry of the Project and the Task codes, for which associated hours may be entered Monday thru Sunday.

- WIP may be recorded basically as one of four Types of WIP Activity 268. Active, Force Billed, Deferred and Memos.

- When an Employee's activity is entered, all that needs to be recorded is the # of Hours, a Project, and a Task. The system will automatically determine Charge-out Rates 268, Cost rates and G/L Revenue and Costing Accounts.

- If you wish to restrict the entry of specific Projects and Tasks to individual Employees, this can be accomplished by defining those projects using Employee Assigned Projects Codes Maintenance 645 function.

- WIP activity may be entered directly to a time sheet, interfaced from a user supplied data file 269, or loaded from a spreadsheet.

- In the event you have activity, or charges that you wish to bill your customer for, but they are not really directly associated to a a particular employee or machine, they may be entered as Generalized WIP charges 270. These can be entered directly, or they can be interfaced from data files 270 that are generated from another system, or they can be loaded from a spreadsheet 270.

Before entering the individual Employee Time Sheets, a Timesheet Entry Batch must be created. These are created directly from the Employee Timesheet Entry routine.

☞ **Employee Timesheet Entry**

✛ Accessing the P/I Timesheet Entry Function

From the P/I Main menu, select Employee Timesheet Entry from the Operations drop-down menu.
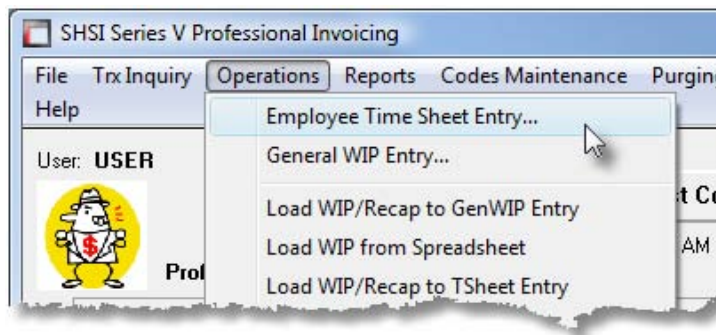
9.5.1.1   About,Concepts and Features

There are a number of features associated to Order Entry. These are highlighted under the following sub-topics. (Click the green plus sign to expand the display for the related text).

⟳ Time Entry Batches

Batching is provided as the method for entering transactions in those Series 5 applications requiring operator interaction with the screen. Examples of such transactions include the following:

- Accounts Receivable Cash and Sales Transaction Entry
- General Ledger Standard and General Journal Entry
- Professional Invoicing Time Sheet Entry
- Accounts Payable Suppler Invoice Entry

Batching was introduced as a concept to the Series 5 family of applications for three main reasons:

1) To provide a method of validating figures, representing totals of all Invoice transactions, entered into the system. A fixed number of transactions can be assigned for entry under a given Batch, and in advance, the total of all amounts may

be computed. This Batch Total may then be used as a check against the total actually entered. If the amounts do not match, the operator is then alerted.

2) To provide for the capability of a great number of transactions to be entered into the system by a number of different operators at the same time. Employees may enter their own activity using their own Time Entry batch, or a group of data entry clerks can enter activity separately. Each batch may be entered, and posted independently from one another.

3) To ensure that transactions are entered under a rigorous control system. They are first entered into a batch. An edit list may be generated and it's transactions verified to be correct. That batch of transactions are then "posted", moving them into their respective active data files. During the post process, and transaction posting journal is generated and archived, providing an audit trail for future reference.

In essence, transactions are divided into groups of batches prior to data entry. Each batch is allocated a batch number or code, and the sum of all the transactions may be determined and used as a Control Total. A batch is created in the respective system, and the various totals and defaults pertinent to the batch are entered. Each transaction is then entered under that batch number, and prior to posting, is only accessible via that batch number. A Transaction Edit List for the batch may be printed prior to the it being posted.

During entry of transactions for a Batch, the current state of the totals is displayed whenever possible. Separate totals, for number of transactions and transaction totals, both expected and actually entered, are maintained in the Batch Header file. When the Batch Posting option is selected, if the Batch entered values do not match the expected values, the user is warned, and given the option of allowing transaction entry to continue. If a transaction being added causes the number of transactions expected to be exceeded, the user is informed and the entry aborted.

Two types of batches are available, Regular and Permanent. Normally, time sheet activity is entered in a Regular batch, and they are posted. The batch is deleted when posted. When entering time sheets in a Permanent batch, after posting the batch remains on the system. The next time the Permanent batch is used, the operator only needs to change the Ledger Date and the Transaction Date, and perhaps only a few selected items on the existing time sheets.

The process of entering one or more employees' activity can be summarized as follows:

Example using a Regular Time Entry Batch
Over the period of week, an employee needs to record the number of hours that they had spent on a variety of different Projects. On Friday afternoon, Time Sheets have to be recorded into the system. The following steps might be followed:
➤ First thing Monday morning, each employee, or their secretary, needs to create the Time Entry Batch that they will be recording their time to. From the P/I system's Operations drop-down menu select **Employee**

Timesheet Entry. At the bottom of the screen displayed, click the **Create and Select a New Time Entry Batch** push-button. They would create their own Time Entry Batch and enter the appropriate control figures. If the activity from week to week tended to be the same, a Permanent Batch could be created, otherwise if employees worked on many different Projects, then a Regular Batch should be employed. For control purposes, as an option, specify the number of time sheets and/or the total number of units, or hours, that will be entered. *(Depending on the number of entries that would have to be recorded, you could set up for a separate time sheet for every day of the week, or just have one for the week).* Either way, a separate time sheet must be created for each employee.

➢ At the end of every day, activity for the employee should be entered. Invoke the Timesheet Entry operation and choose the appropriate Time Entry Batch from the drop-list, (or if displayed, select it from the Recently Accessed or Created Batch table).

➢ If the Time Sheet for the day, or week, already exists, it will be displayed in the grid. Double-click the Time Sheet to be used.

➢ If the Time Sheet does not already exist, click on the **New** push button in the "Fast Frame", to create a new one. The system will assign the Timesheet Number. Enter the Employee code and the default dates that are to be assigned to each WIP activity. Control totals may be entered for the time sheet.   (If there are no Time Sheets already entered, the system will automatically display the screen to have the first one added).

➢ Add each WIP charge to the Time Sheet by clicking on the New push button. A screen will be displayed on which the employees activity is to be recorded. Normally only the Project, the Task and the Number of Units need be entered. All other fields should be automatically assigned by the system.

➢ At the end of the week, on Friday, after all Time Sheets are entered satisfactorily, the operator may wish to check that all was entered correctly. Click on the **Print Edit List** push button in the "Fast Frame", and an Timesheet Edit List may be printed, which will list all the information about each time sheet. This could be checked against the employees' time card or paper timesheet.

➢ Once the operator is content that everything is correct, they would then click on the **Post** push button. All time sheets for the selected batch would then be Posted to the active WIP file, ready for Invoicing. At this time a Time Sheet Entry Posting Register is generated, which may be printed, providing a hard copy audit trail of the activity entered.

Types of WIP Charges

There are four types of WIP activity that may be entered into the system. Basically, depending on the type of WIP specified when the activity is entered, determines how the item is billed. The following types may be entered:

Type of WIP Items	Description
Active WIP Charge	An **Active WIP** Item is one that is either Chargeable or Non-Chargeable. Chargeable Items may eventually be selected for billing and contribute to charges on a Customer's Invoice to be generated for the Project.
Force Billed WIP	A **Force Billed WIP** Item is similar to an Active WIP, but when posted to the WIP file it is automatically selected for billing. These items would appear on the next Invoice produced for the Project. (Only chargeable WIP items may be entered as Force Billed ones).
Deferred WIP	**Deferred WIP** Items are similar to Active Items, but are posted to the WIP file marked as *Deferred from Billing*. These items can be selected for billing only by specifically being selected from the Selective Billing and Adjustments [400] function.
Memo	**Memos** are WIP records that carry text information only. They are used only to record information about the Project, or describe events associated to a specific date. Memo WIP items are typically never allowed to be selected for billing. However, if a Project has a specific Invoice Layout, these Memo records may be used for information printed in the headers of invoices.

System Assigned Chargeable and Non-Chargeable WIP Rates

The P/I system has been designed to allow for a great deal of flexibility in the assignment or calculation of a rate for a given unit of service performed. Through the use of Standard Rates and Special Rates and system control parameters, the user should be able to define a rating system which will accommodate their requirements.

All employee WIP activity entered can be classified as chargeable or non-chargeable in

nature. All chargeable time will be invoiced to a client for work performed on a given Project. Corresponding to the chargeable and non-chargeable concept are two rates assigned to all rate-bearing sources. These are referred to as Rate 1 (chargeable) and Rate 2 (non-chargeable).

Rates are assigned automatically by the system when project, task and employee information is entered to a time sheet. The system will examine the possible sources of a rate in a specific sequence. The sequence is partially controlled by the user utilizing parameters in the P/I Control Preferences 697. It is still possible to manually enter the rate or override the system developed rate.

The system assigned rate is derived by first selecting a rate from either the Client, the Project or the Task records. This rate is called the Standard Rate and is our first choice for the candidate rate *(the Candidate Rate is the rate that will be chosen by the system when no other rates are found during examination of subsequent possible sources of rates)*.   At this point the program will determine whether a chargeable or a non-chargeable rate is used, and if any Special Rates 671 have been established. If a Special Rate Class Code exists in the Project or Client record, the Special Rates table will be examined. An entry in the special rates table will be searched for utilizing the Special Rate Class Code as a column indicator and variations of the Employee, Employee Group or Employee/Task Codes as the row indicators.

If a Special Rate is found, it becomes a new Candidate Rate. If no special rate exists, the Standard Rate will remain.

The system has several parameters which can be set to determine where information is to be found or in what sequence a Candidate Rate will be derived. The following sections will describe how a rate becomes chargeable or non-chargeable, when Special Rates are used and how a final Candidate Rate is chosen.

Loading Employee Timesheet Activity from Spreadsheet

The Series 5 system offers a simple interface to/from spreadsheets or tab-delimited text files. Should you wish to accumulate employee activity within a spreadsheet, or from another application, Time Sheet activity can be loaded accordingly.

Amending Posted Timesheet Charges

Should you discover that you have posted charges against the wrong Project, or Task or Employee, you may correct the entry by selecting it from the Work In Progress Inquiry 215 screens. Locate the WIP item in the grid display screen, right-click to have the pop-up menu displayed, and select the Adjust This WIP Item 220 function. Any changes made to the Unit Rate or the Amount will cause correcting distributions to be made to the appropriate G/L Revenue and WIP accounts.

If you find that rates or revenue accounts, or costs or cost accounts were incorrectly

assigned to WIP items, you may have new rates and accounts assigned, based on any of the new rules or rates that have been set up since the items were posted from time sheets. Select Recalc Project WIP Rates 368 from the P/I menu bar's Operations drop-down menu. For a range of Projects, Task Codes or Employees, their WIP items will have their cost and charge rates recomputed, have their cost and revenue accounts re-assigned, and budget figures adjusted. (Alternatively, from the Work In Progress Inquiry screen, select a specific Project for which rates are to be recomputed, etc., and from that window's Operation drop-down menu, select Recalc Project Default Rates 230.

General WIP Charges Entry

When the occasion arises that you need to record charges, or events, that are not directly associated to an employee or a machine, you may record the time as a Generalized WIP Entry. Generalized WIP items are not recorded from the Employee Timesheet Entry function. Instead use the General WIP Entry operation 289 to enter a single set of these items. When all entries have been added, the transaction file is then Posted to the W-I-P file.

When entering Generalized WIP entries, you have the opportunity to enter the Cost and Billing Rates, and other fields normally assigned by the system, directly. Other than that, once posted they are the same as other WIP items. They can be billed and invoiced, might be chargeable or non-chargeable, and have costs associated to them.

Loading General WIP Charges from Spreadsheet

The Series 5 system offers a simple interface to/from spreadsheets or tab-delimited text files. Should you wish to accumulate these General WIP charges within a spreadsheet, or from another application, they can then be loaded accordingly. .

Loading General WIP Charges or Timesheet Activity from External Data Sources
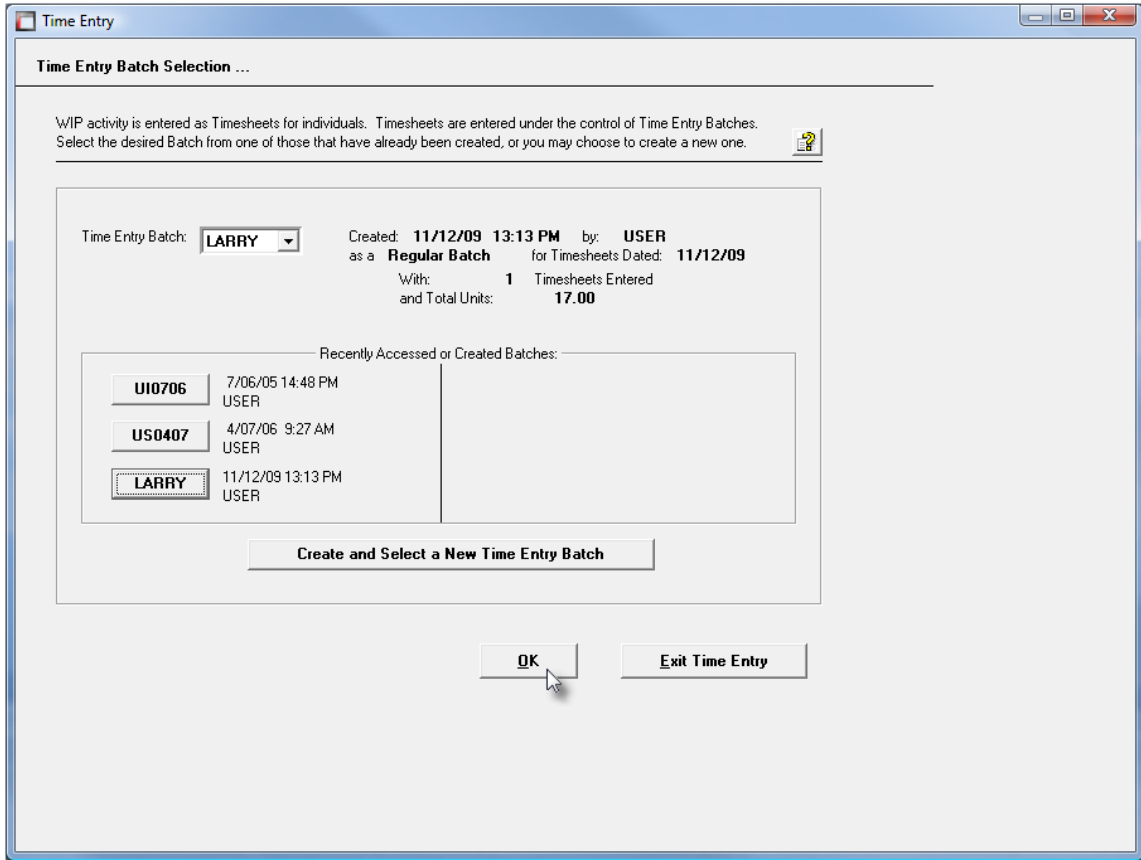
The P/I system may be used primarily for the extensive variation of Invoices that it can produce, and charges are actually derived from some other application, or even from services offered over the Work WIde Web. If this is the case, then two different User Interface menu operations are available. Pre-defined sequential files may be processed, and loaded either into the General WIP Charges entry batch, or into an Employee Time Sheet Entry batch. In either case, the sequential file provided must conform to a defined format.

9.5.1.2   Timesheet Batch Selection

The first screen that is displayed when the Employee Timesheet Entry operation is selected, is one that lets you select an already establish Time Entry Batch, or create a new one. It will display push-buttons of the most recently created or accessed Batches. A given Time Entry

Batch may be selected by clicking on the button, or selecting one from the drop-down list.

➡ Time Entry Batch Selection Screen Grid

If the Time Entry Batch has not yet been created, you can do so by clicking on the **Create and Select a New Time Entry Batch** push button.

A Processing Tip

Before setting up a Time Entry Batch, tally the number of Timesheets, and the total number of units that is to be entered. These figures can be recorded with the Time Entry Batch properties, and before a batch is posted, the system will compare the expected totals to those that have been entered.

For further discussion, and detailed description of the screen used for adding a new Order Entry Batch refer to the topic titled found later in this documentation.

9.5.1.3   Timesheet Batch Control Properties

Batching was introduced as a concept to the Series 5 family of applications for three main reasons:

1) To provide a method of validating figures, representing totals of all Invoice

transactions, entered into the system. A fixed number of transactions can be assigned for entry under a given Batch, and in advance, the total of all amounts may be computed. This Batch Total may then be used as a check against the total actually entered. If the amounts do not match, the operator is then alerted.

2) To provide for the capability of a great number of transactions to be entered into the system by a number of different operators at the same time. Each Order Entry clerk may be assigned a different batch. The transactions may be divided into workable sets of transactions, with each set being allocated to a separate operator, and to a separate batch. Each batch may be entered, and posted independently from one another.

3) To ensure that transactions are entered under a rigorous control system. They are first entered into a batch. An edit list may be generated and it's transactions verified to be correct. That batch of transactions are then "posted", moving them into their respective active data files. During the post process, and transaction posting journal is generated and archived, providing an audit trail for future reference.

In essence, transactions are divided into groups of batches prior to data entry. Each batch is allocated a batch number or code, and the sum of all the transactions may be determined and used as a Control Total. A batch is created in the respective system, and the various totals and defaults pertinent to the batch are entered. Each transaction is then entered under that batch number, and prior to posting, is only accessible via that batch number. A Transaction Edit List for the batch may be printed prior to the it being posted.

Two types of batches are available, Regular and "Quick". Normally, orders are entered in a Regular batch, and they are posted. The batch is deleted when posted. When entering orders in a "Quick" batch, after the order is entered, the system automatically transfers control to the "Quick Post & Pick Print" sub-menu option so the order can be posted with either an Invoice or a Pick Ticket printed immediately. A "Quick" batch should be used for "Point-of-Sale" order entry.

Time Entry Batch - Properties Screen

The properties for eachTime Entry Batch are defined with the following screen:

Operational Tip

You can edit the properties for the batch while executing the Timesheet Entry function. From the Time Sheet Entry grid screen, on the menu bar, click **Edit**, then from the drop down menu, click on **Edit Time Batch Properties**.

— Field Definitions

Time Entry Batch Code	X(6)

This is the code assigned to the Time Entry Batch. It can be either numeric, or alphanumeric. There should not be any spaces or punctuation in the batch code, as it is used within the name of one of the Series 5 data files.

Assigning Order Entry Batch Codes

When a new Batch is created, the following default code is provided:

> ***UUMMDD***
>
> where: ***UU*** is the first 2 characters of the operators signon code
> ***MMDD*** is the numeric month and day of the system date
>
> Time Entry Batch Codes should normally not be re-used. It is possible, and my be necessary, to trace a transaction back to a particular Batch Code. Also, when a batch of orders is posted, the Batch Code is embedded within the name of the posting journal report.

Batch Type	*radio-buttons*

Specify the type of batch that is being created. Normally most batches will be a Regular Batch used to enter time sheets.

⊙ Regular
○ Permanent

A Permanent Batch would be used to enter employee or machine activity that is re-occurring with the same number of hours in a given period. After a Permanent Batch is posted, it remains on the system to be re-used at some point in the future. (Regular Batches and their Time Sheets are deleted after they are posted).

Entry of Employee Timesheet Activity	*radio-buttons*

WIP items are created as the result of employee worked hours, or use of a given resource, both of which is associated to a Project and a Task. Both of these types of activities may be entered to an employee's timesheet.

Enter Employee Timesheet Activity:
○ As Individual WIP Items
⊙ Daily for a Week by Project/Task
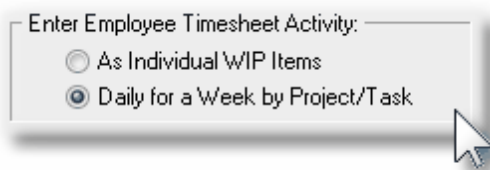
Entering activity as an individual event results in a single WIP item being generated for the Project/Task combination of codes entered. You might employ this approach if you just accumulate totals for a given period of time and it just needs to be entered as a single item.

Choosing to enter hours daily for a given week's worth of activity associated to a specific Project and Task offers a traditional day-to-day entry of employee hours over a 7 day period. For weekly oriented timesheets, each recorded entry potentially results in up to 7 WIP items being generated. (One for each day of the week having non-zero hours recorded).

Default Transaction & Ledger Dates	*(mmddyy)*

When new Time Sheets are added for this batch, these dates will be automatically

assigned to their respective date fields, which in turn may be edited. When WIP activity is added to a given Time Sheet, the default dates assigned to that Time Sheet are also assigned to WIP items.

Time Sheet Activity Dates

Once a Time Sheet has been added to the system, it's Transaction and Ledger Dates may not be changed. Also, all WIP activity added to a Time Sheet, will carry these dates and may not be changed.

Batch Control Totals - # of Time Sheets   *9(6)*

If known, you may enter the expected # of time sheets to be entered under the control of this batch. It's used by the system for control purposes, to verify that the correct number of time sheets have been entered prior to them being posted. This option may be disabled if not needed.

Batch Control Totals - Expected # of Units   *999,999.99-*
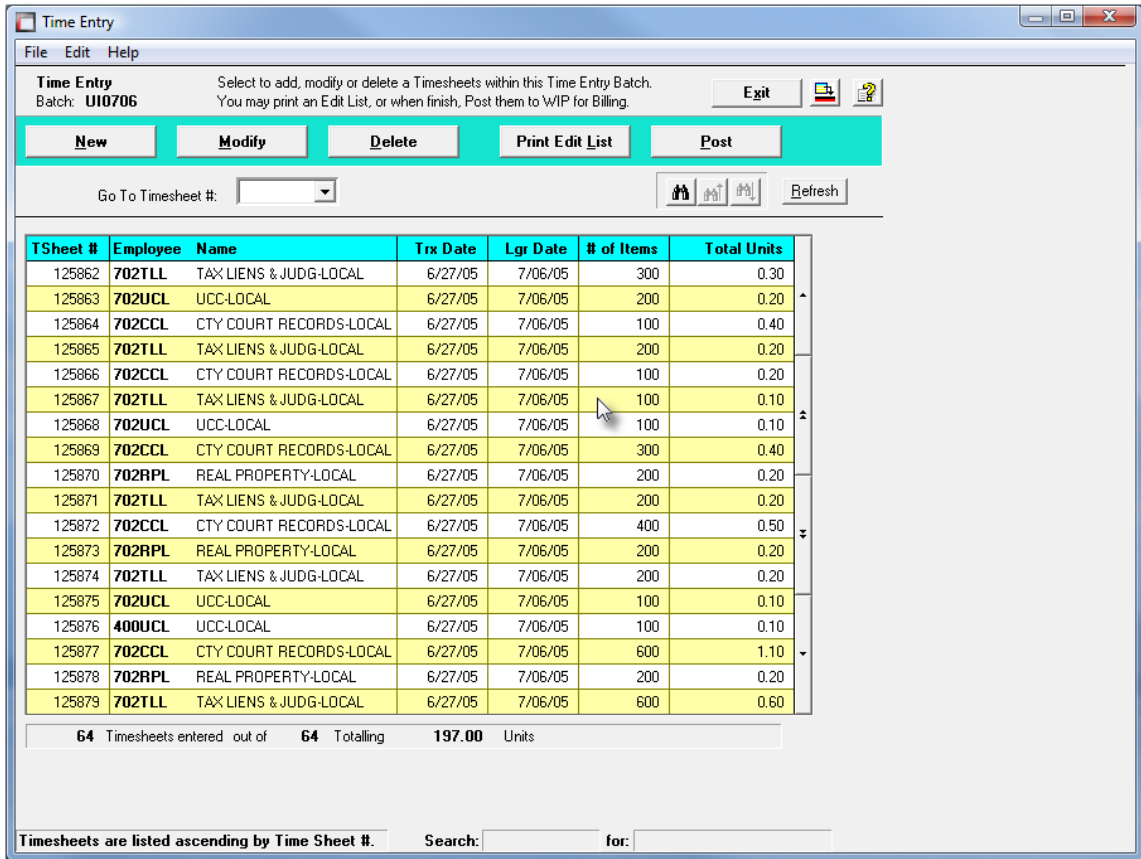
If known, you may enter the expected # of units, or hours, for all the time sheets to be entered under the control of this batch. It's used by the system for control purposes, to verify that employee activity has been correctly entered prior to the time sheets being posted. This option may be disabled if not needed.

9.5.1.4 Timesheet Entry Grid Screen

Time Sheets are maintained using a Series 5 grid processing screen.

The "Fast Buttons" frame provides the push buttons to launch the most common functions associated to the entry of Time Sheets.

"Fast Buttons"	
New	Add a new Time Sheet
Modify	Modify the Time Sheet highlighted in the grid
Delete	Delete the Time Sheet highlighted in the grid
Print Edit List	Print an Edit List showing the details of each Time Sheet entered into the batch
Post	Post the Batch of Time Sheets

Edit an existing Time Sheet by double-clicking it's associated row.   Standard Series 5 grid

controls apply.

If the function to have the Edit List printed is selected, the report if archived, will be catalogued with a report name of **TIME_XXXXXX.LST**. where **XXXXXX** is the code assigned to the Time Sheet Entry Batch.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled* Report Generation and Printing *159 for full details).*

Other functions are available from the menu bar's Edit drop-down menu. These include the following:

Menu Bar Edit drop-Down functions
New, Modify or Delete • Pretty self explanatory if you ask me.
Delete All Time Sheets • All Time Sheets associated to the Batch are deleted from the system. There is no Undo associated to this function.
Edit Time Sheet Batch Properties • The Time Sheet Batch properties screen is displayed, and its fields may be edited.

9.5.1.5 Employee Timesheet Entry Screen

A separate Time Sheet must be created for each employee for which activity needs to be recorded. Each Time Sheet has associated to it, a Transaction Date and a Ledger Date. The dates that were assigned to the batch will be assigned as the default, although they may be changed as needed. Many Time Sheets can be added for a particular batch. A new Time Sheet could be set up every day, or every week.

Some points to note about adding new Time Sheets:

• The system will automatically assign the Time Sheet Numbers. The next number is obtained from a field defined by the P/I Control Properties. *694*

• Once a Time Sheet has been added, **YOU WILL NOT BE ABLE TO CHANGE THE TRANSACTION DATE OR THE LEDGER DATE**. All WIP activity recorded to the Time Sheet will have these dates assigned to them.

The properties associated to each Time Sheet are maintained using a Series 5 grid processing screen. This grid screen offers the operator a summary display of the individual WIP items belonging to the Time Sheet. From this grid screen, push-buttons are provided that may be used to add, modify or delete employee time sheet activity. *(When adding or editing a Time Sheet Item, a new window is displayed).*

⊙ Adding a New Employee Time Sheet — Data Entry Screen

⊟ Field Definitions

Employee	X(6)
Select the code for the employee for which activity is to be recorded on the timesheet. Keep in mind that this could be an employee, or a resource which is utilized for completion of a job associated to the project.	

Transaction & Ledger Dates	(mmddyy)
When new Time Sheet activity is recorded, these dates will be automatically assigned to their respective WIP items. For Time Entry Batches that have been marked as *Daily for a Week by Project/Task*,	

this date MUST fall on a Monday. When the WIP items are generated for the 7 days of hours entered, they will be assigned dates relative to this date.

> **Time Sheet Activity Dates**
>
> Once a Time Sheet has been added to the system, it's Transaction and Ledger Dates may not be changed. Also, all WIP activity added to a Time Sheet, will carry these dates and may not be changed.

Timesheet Control Totals - # of Time Sheets	*9(6)*

If known, you may enter the expected # of charges to be entered under the control of this Timesheet. It's used by the system for control purposes, to verify that the correct number of items have been entered prior to them being posted. This option may be disabled if not needed.

Timesheet Control Totals - Expected # of Units	*999,999.99-*

If known, you may enter the expected # of units, or hours, for all the items to be entered under the control of this Timesheet. It's used by the system for control purposes, to verify that employee activity has been correctly entered prior to the time sheet being posted. This option may be disabled if not needed.

🔵 Employee Time Sheet Entry — WIP Activity Grid Screen
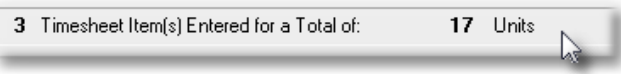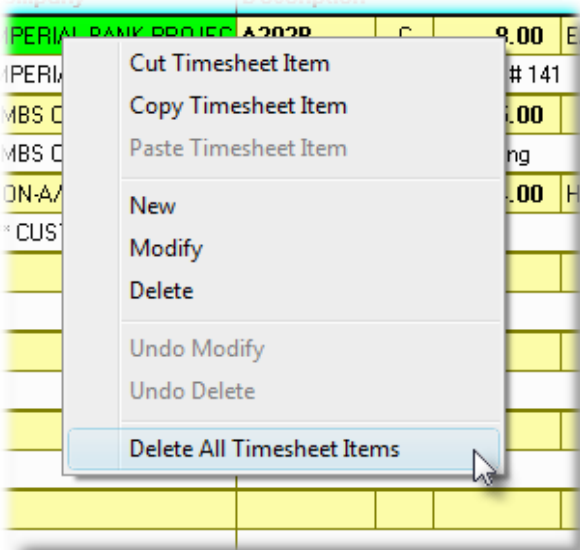
For Time Entry Batches where items are entered as individual items, the following grid screen is displayed:

For Time Entry Batches where daily hours are entered on a weekly basis, the following grid screen is displayed:

Some of the special features of either of the Timesheet items "Selection" grid are as follows:

> ➤ To add new WIP activity to the Time Sheet, click the New push-button.

> ➤ Edit a particular WIP item by double clicking the row it is displayed upon.

> ➤ For the selected Time Sheet, totals are displayed below the grid display.

> ➤ Within the grid, right-click a row to have a pop-up menu displayed offering available functions that may be performed on the associated WIP item.
>
> ➤ In particular, a function is provided that will delete all the items on the Time Sheet.

9.5.1.6 Timesheet Charges Data Screens

To add a new WIP item, from the Time Sheet entry grid screen click the New button. To edit an existing WIP item, double-click the row of the WIP item to be edited.

Some points to note about entering Time Sheet activity:

- When WIP activity is added, they are assigned a unique Line ID #. Once assigned, these cannot be changed. Items will be presented in the Time Sheet sortd by these

Line ID numbers.

- If Projects have been assigned to an Employee, then those projects will be presented in a drop-down list. Any other Project may not be selected on the time-sheet. Additionally, if Tasks were assigned to the chosen Project, they will be presented in a drop-down list.

- All employee WIP activity entered can be classified as chargeable or non-chargeable in nature. All chargeable time will be invoiced to a client for work performed on a given Project. Corresponding to the chargeable and non-chargeable concept are two rates assigned to all rate-bearing sources. These are referred to as Rate 1 (chargeable) and Rate 2 (non-chargeable).

- Rates are automatically assigned by the system from the Project, Task and Employee codes entered to the time sheet. The system will examine the possible sources of a rate in a specific sequence. The sequence is partially controlled by the user utilizing parameters in the P/I Control Preferences 697. It is still possible to manually enter the rate or override the system developed rate.

- If the activity being entered is for a Project that is designated to compute Overhead charges, then it will be automatically computed and displayed.

- The Revenue Account that is shown is automatically determined by the assorted rules defined for the Project, the Task, and the P/I Control Preferences 697.

- For Weekly based entry, time is recorded as hours and minutes for each day of the week from Monday though Sunday. The transaction date assigned to the Timesheet must have been for the 1st Monday for which time is entered. Note that time is entered as hours and minutes for each day, but is then converted to units with 2 decimal places.

Time Sheet WIP Item Entry Screen

The following screen is presented for entry of the WIP activity items where they are entered as individual items:

The following screen is presented for entry of the employee WIP activity items as hours for each day of the week. Note that Unit Rate and Extended Amounts may be displayed by clicking the **Show Rates and $ Extended** button.

Time Sheet WIP Items Screen - Field Definitions

Project Code	X(6)
Select or enter the Project Code for which the activity being recorded was performed for. If Projects have been assigned to an Employee, then only those Projects will be presented in a drop-down list. *Projects may be assigned to Employees using the Employee Assigned Projects Codes Maintenance* [645] *function.*	

Task Code	X(10)
Select or enter the Task Code for the activity that was performed. If Projects have been assigned to an Employee, and Task assigned to that Project, then only those Tasks will be presented in a drop-down list**.** *Project and Tasks may be assigned to Employees using the Employee Assigned Projects Codes Maintenance* [645] *function.*	

# of Units	99,999.99-
Enter the number of Units associated to the activity that is to be invoiced and or charged	

to the Project. For chargeable WIP activity, this is the number of units that will be used, along with the Unit Rate, to compute the amount that is invoiced.

When recording a Credit to the Project, the # of Units should be entered with a minus sign. WIP Rates cannot be negative.

Unit Rate	*$ 99,999.99*

For chargeable WIP items, this is the Unit Charge-out Rate associated to the activity that is to be invoiced and charged to the Project.

When recording a Credit to the Project, the # of Units should be entered with a minus sign. WIP Rates cannot be negative.

Extended $ Amount	*$ 999,999.99-*

This is the Extended dollar amount associated to the WIP item. This is the amount that will be invoiced to the customer. This amount is always computed from the # of Units and the Unit Rate. If this amount is overridden, then the Unit Rate is adjusted accordingly.

Overhead $ Amount	*$ 999,999.99-*

When the WIP item is selected to be billed, this is the Overhead Amount associated to the activity that is to be invoiced and charged to the Project.

Promotional/Discounted Savings Amount	*$ 999,999.99-*

This information field is used to record the amount of savings that the customer appreciated as a result of a discounted or promotional charge rate associated to the service. The Rate provided is the discounted rate. On selected types of invoices, the total of these Savings Amount are accumulated and printed in the footer of the invoice. *(No G/L Distributions are generated as a result of any amount entered to this field).*

Table of Daily Hours for the Week	*hh:mm, or hh, or hh.mm*

For the selected Project and Task, enter the number of hours to be recorded on each given day of the week. Time may be recorded to the minute, (separating hours from minutes by either a space, or the [:] or the [.] characters.

Converting Hours:Minutes to Units of WIP

In the case where activity is recorded down to the minute, the resulting total for the week will be converted to a decimal value with 2 decimal places. This amount will then be used to compute the chargeable or non-chargeable amounts associated to the resulting WIP records.

Also, if any Costs or Overhead is computed for the Employee, Project, Customer combination of codes, when each of up to 7 WIP records are generated, will be pro-rated based on the ratio of daily to total hours:minutes.

Chargeable or Non-Chargeable	*radio-buttons*

Defines whether the WIP item is to be invoiced or not. This setting will always default depending on the properties set up for the Project and/or the Task the activity is being recorded for. *(If a Project is defined as a Non-Chargeable Project, then selecting the item to be Chargeable has no effect. However setting the item to non-chargeable for Projects that do get invoiced results in this item never being invoiced).*

WIP Transaction Type	*radio-buttons*

There are four types of WIP activity that may be entered into the system. Basically, depending on the type of WIP specified when the activity is entered, determines how the item is billed.

WIP Transaction Type:
- ⦿ [A]ctive Normal WIP
- ○ Pre-Selected for [B]illing
- ○ [D]eferred from Billing
- ○ WIP [M]emo
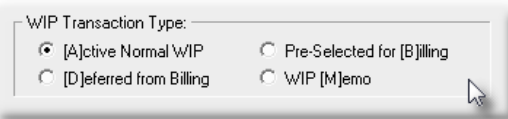
The Types are defined as follows:

Type of WIP Items	*Description*
Active WIP Charge	An **Active WIP** Item is one that is either Chargeable or Non-Chargeable. Chargeable Items may eventually be selected for billing and contribute to charges on a Customer's Invoice to be generated for the Project.
Force Billed WIP	A **Force Billed WIP** Item is similar to an Active WIP, but when posted to the WIP file it is automatically selected for billing. These items would appear on the next Invoice produced for the Project. (Only chargeable WIP items may be entered as Force Billed ones).
Deferred WIP	**Deferred WIP** Items are similar to Active Items, but are posted to the WIP file marked as *Deferred from Billing*. These items can be selected for billing only by specifically being selected from the Selective Billing and Adjustments [400] function.
Memo	**Memos** are WIP records that carry text information only. They are used only to record information about the Project, or describe events associated to a specific date. Memo WIP items are typically never allowed to be selected for billing. However, if a Project has a specific Invoice Layout, these Memo records may be used for information printed in the headers of invoices.

Type "C" Invoice Layout Grouping	*drop-down list*

When invoices are generated for a Project, the P/I system provides for a number of different sorting and grouping options. Invoice Layouts are created and assigned to every Project. For Projects that have a Type "C" Invoice Layout, these radio-buttons are offered so a Group and/or Consolidation code may be recorded with their associated WIP items.

WIP charges may be recorded into the P/I system with a Consolidation Flag. This is a 1 character field that can take a value of **D**, **F**, or a number from **1, ... 9**. Depending on the options specified, all WIP charges may be grouped and sub-totalled by their Consolidation Flag. All WIP having the same Consolidation Flag are grouped together.

As an additional option, the WIP within each Group will be sorted by the WIP Reference field. In some cases, the Reference field holds an individuals's name, or a Billing-Code. All charges with the same Reference field would be sub-totalled and printed as one line on the invoice.

◉ None	No consolidation is performed. Each WIP charge is printed in detail
○ Sum items within a Group printed as a total	All the charges with the same Consolidation Flag are sub-totalled and printed as one line.
○ WIP for a Group are sub-totalled by Reference	All the charges with the same Consolidation Flag are sub-totalled by their WIP Reference field. An additional sub-total is printed for each Consolidation Group.
○ Sub-Total by Reference Bill-Code	All the charges with the same Bill-Code, that is determined from the WIP's Reference field, are sub-totalled and printed. When selected, you must also specify which portion of the Reference field is to be used as the Bill-Code. (The Consolidation Flag is not used in this case).

Consolidation Flags in the Configuration File

Using type B or C Invoice Layouts with Consolidation Flags requires the definition of up to 9 variables in the runtimes Configuration file. Each variable is associated to the 9 numeric values that the Consolidation Flag may take. The variable is defined as follows:

PI-INV-DESCn <flag> <description text>

where:

- **n** is the value 1 - 9;
- **<flag>** will be either an A or a B indicating the Generation Type rule to be used, (or ignored for the B layouts);
- **<description text>** will be printed as the description on the invoice for the consolidated total of all items flagged with **n**.

Working Location of WIP Activity — *drop-down list*

This field is used to record the location that the activity was actually performed. This is provided for information purposes, and may be used as a filter or analysis by third party report writers.

```
Administration Offices
Service/Order Desk
Assembly Shop
Warehouse
Head Office
Remote Office
Home Office
Retail Outlet
Web Site
Customer's Office
Construction Site
In the Field
In Transit
Other
```

Description — *X(50)*

This field is used to record a brief description of the activity performed. For Projects using specific Invoice Layouts, this field may be used to sort items printed on invoices.

Reference 1 and 2 — *X(40)*

These fields are used to record codes relating to sub-contracts, job numbers, billing codes, contact names, etc., or to record more verbiage describing the WIP activity. For Projects using specific Invoice Layouts, and/or that generate EDI invoices, segments of these fields may be used to determine how items are grouped or sorted for invoicing.

> **No Reference 2 for Weekly Timesheet Entries**
>
> The Reference 2 field associated to WIP items is not available to record information when entering Timesheets for employee WIP activity items as hours for each day of the week.
> Also, the WIP's Reference 1 field is labeled as the **Billing Code**

Task Description Override — *X(60)*

This field is used to provide an opportunity to override the description that is associated to the Task. For a particular Invoice Layout, detail is listed with the description derived from the Task Code. If a description is entered in this field, then this text is printed on the invoice instead. *For WIP recorded not using the mentioned Invoice Group, it may be used to record further description associated to the activity.*

Recap Detail ID Number — *9(8)*

For WIP charges that are interfaced from another users system, as an option, a Recap Detail record may be associated to them. These Recap records contain additional fields used to describe the charge in more detail, and may contain billing information. These Recap records must have a Recap ID Number. To tie these Recap records to WIP items, this number is also carried in the WIP record, thus is presented for display.

Generally, these numbers should never be changed.

Recap Id Numbers are not used when entering Timesheets for employee WIP activity items as hours for each day of the week.

9.5.1.7   Posting Employee Timesheet Batches

The process of posting a Time Entry Batch, moves the WIP items associated to each Time Sheet, to the active Work-in-Progress file. These items will then be available for billing and/or analysis. Once WIP items are posted, they may also be viewed using the Project Inquiry 216 application.

When a Time Entry Batch is posted, a Posting Journal report will be produced. This may be printed, or saved to disk for later reference. If the journal that is generated, is archived, it will be catalogued with a report name of **TIME_XXXXXX.JRN,** where **XXXXXX** is the code assigned as the Time Entry Batch.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing 159 for full details).*

9.5.2   General WIP Entry

This function is used to enter WIP activity that is not directly related to an employee or a machine. This is referred to as Generalized WIP Entries. Generalized WIP items are not recorded to an Employee's Timesheet. Instead, they are entered as a single batch of transactions. When all entries have been added, the transaction file is then Posted to the W-I-P file.

When entering Generalized WIP entries you have the opportunity to enter the Cost and Billing Rates, and other fields normally assigned by the system, directly. Other than that, once posted they are the same as other WIP items. They can be billed and invoiced, might be chargeable or non-chargeable, and have costs associated to them.

One additional feature associated to the entry of Generalized WIP, is the opportunity to enter extended information about the activity. This extended information is referred to a WIP's Recap Detail. Some of the fields associated to Recap records are as follows:

- Customer's Order Number, and Billing Codes
- 3rd Party Client Bill Codes
- Alternate Company Names, City and State (if different from the Customer's office

address)
- Extended Activity Description fields
- Customer Department Codes, Names and Manager
- An additional 7 Reference fields of up to 90 characters each

---

Interfaced WIP & Recap Detail

For users providing interfaced detail charges from a different application, the Load WIP/Recap for General WIP Entry operation may be used. It reads a sequential file and will populate a General WIP Transaction Entry Batch. It is assumed that this data has been validated, and that for each WIP charge, an optional associated Recap Detail record exists.

When a given General WIP Transaction Batch is posted, each record is tested to validate the Project, Employee and Task codes; and if a Recap is expected, then that too is validated. If an error is encountered, the associated transaction WILL NOT be posted.

From the P/I Main menu, select **General WIP Entry** from the **Operations** drop-down menu.

◉ General WIP Items - Grid Select Screen

The following grid screen is presented for entry and maintenance of General WIP charges:

The "Fast Buttons" frame provides the push buttons to launch the most common functions associated to entry of General WIP.

	"Fast Buttons"
New	Add a new General WIP Transaction
Modify	Modify the General WIP Transaction highlighted in the grid
Delete	Delete the General WIP Transaction highlighted in the grid
Edit List	Print an Edit List showing the details of each General WIP Transaction entered into the batch
Post	Post the Batch of General WIP Transactions
Import	Import General WIP transactions from an Excel spreadsheet, or a tab-delimited text file. Both the WIP information and Recap information is loaded.
Revalidate WIPs	When transactions are imported, or interfaced from a user

supplied data file, there is a chance that some of the codes that are loaded are undefined to the P/I system. These transactions are loaded, but they are flagged as having a problem. After any of the identified undefined codes are added to the P/I system, execute this function to revalidate any of the flagged transactions.

Some of the special features of this General WIP entry grid are as follows:
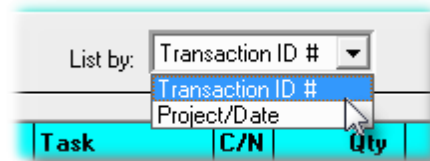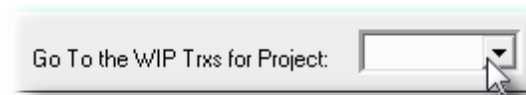
➢Transactions may be listed by either the Transaction ID, or by Project. (The ID is just a sequential counter assigned when the transaction is added).	List by: Transaction ID # Transaction ID # Project/Date Task · C/N · Qty
➢ Depending on the **List By** selection, a field is presented, in which the operator may key in an ID #, or a Project Code. The system will attempt to read to the closest transaction for the data entered and display it in the grid.	Go To the WIP Trxs for Project:
➢If after interfacing from Spreadsheet, you realize that you didn't really want to do that, you can delete all the transactions. From the **Edit** drop-down menu, click **Delete All Transactions.**	General WIP/Recap Transaction Entry File Edit View Help Undo Delete Undo Modify Cut Transaction Copy Transaction Paste Transaction New Modify Delete Delete All Transactions...

If the function to have the Edit List printed is selected, the report if archived, will be catalogued

with a report name of **GENWIPTRX.LST**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled [Report Generation and Printing]* 159 *for full details).*

➡ Entering General WIP Charges - Data Entry Screen

The following screen is presented for entry of fields associated to entry of the WIP charges:

➖ General WIP Data Screen - Field Definitions

Project Code	*X(6)*
Select or enter the Project Code for which the activity being recorded was performed for.	

Employee Code	*X(6)*

Select or enter the Employee Code who performed the activity that is being entered.

Task Code	*X(8)*

Select or enter the Task Code for the activity that was performed.

Transaction and Ledger Dates	*(mmddyy)*

Enter these dates as required. The Ledger Date is used when any G/L Distributions are generated for recording Revenue or Costs.

Working Location of WIP Activity	*drop-down list*

This field is used to record the location that the activity was actually performed. This is provided for information purposes, and may be used as a filter or analysis by third party report writers.

Administration Offices
Service/Order Desk
Assembly Shop
Warehouse
Head Office
Remote Office
Home Office
Retail Outlet
Web Site
Customer's Office
Construction Site
In the Field
In Transit
Other

Description	*X(50)*

This field is used to record a brief description of the activity performed. For Projects using specific Invoice Layouts, this field may be used to sort items printed on invoices.

Reference 1 and 2	*X(40)*

These fields are used to record codes relating to sub-contracts, job numbers, billing codes, contact names, etc., or to record more verbiage describing the WIP activity. For Projects using specific Invoice Layouts, and/or that generate EDI invoices, segments of these fields may be used to determine how items are grouped or sorted for invoicing.

Task Description Override	*X(60)*

This field is used to provide an opportunity to override the description that is associated to the Task. For a particular Invoice Layout, detail is listed with the description derived from the Task Code. If a description is entered in this field, then this text is printed on the

invoice instead. *For WIP recorded not using the mentioned Invoice Group, it may be used to record further description associated to the activity.*

Recap Detail ID Number	*9(8)*

For WIP charges that are interfaced from another users system, as an option, a Recap Detail record may be associated to them. These Recap records contain additional fields used to describe the charge in more detail, and may contain billing information. These Recap records must have a Recap ID Number. To tie these Recap records to WIP items, this number is also carried in the WIP record, thus is presented for display. Generally, these numbers should never be changed.

WIP Revenue Account	*9(18) - 9(5)*

Enter the G/L Revenue account that is to be assigned to the WIP activity to be used if it is a chargeable item that is to be invoiced.

WIP Cost Amount	*9(8)*

If the system is configured to maintain costs, this amount will be used as the Cost associated to this WIP charge item. The system does not attempt to determine the Unit Cost Rate using the rules that have been defined. For General WIP entry, the cost must be entered.

Cost Account	*9(18) - 9(5)*

If the system is configured to maintain costs, and a Cost Amount was entered, enter the G/L Cost account that is to be assigned to the WIP activities Cost. The system will assign a default Cost Account based on the rules that have been defined by the P/I Control Preferences 700.

⮕ General WIP Recap - Data Entry Screen

One additional feature associated to the entry of Generalized WIP, is the opportunity to enter extended information about the activity. This extended information is referred to as a WIP's Recap Detail. Most of this data is kept as information to be viewed for reference. Depending on the customer to which the Project is associated with, Recap Detail may be used for generation of Invoices.

Account Status on the WEB
For users utilizing the Series 5 Web Management System and offering the Web based

"Account Status on the WEB" inquiry software, Recap detail associated to any invoice may be selected to be displayed.

When a Recap ID # is provided on the WIP Charge tab screen, then the Recap Detail tab screen will be presented:

General WIP Recap Data Screen - Field Definitions

Most of the fields offered for entry of Recap information are provided for recording details associated to the charge. (As such, not all fields are described in the following tables). Those fields that have significant settings are described below:

Customer Order Number	9(10)
The Order Number associated to the original WIP activity. For certain customers having specific Invoice Layouts, charges are grouped to produce a different invoice for each Order, or for other Invoice Layouts, charges are grouped by Order Number	

Customer Service Rep	*X(6)*

When the Recap information records are loaded, if a value is provided in this field, then it will be assigned to the associated Customer's CSR Demographic Code field. It will be assumed that the provided CSR Code has already been defined.   The name and description associated to the CSR Code will be printed on Invoices generated from specific Invoice Layouts.Select or enter the Employee Code who performed the activity that is being entered.

Order Service Rep	*X(6)*

The Order Service Rep code field is provided form information purposes.

Customer Billing Code	*X(40)*

For a number of different Invoice Layouts, when Invoices are generated, charges are either grouped by this Billing Code, or separate Invoices are generated for each Billing Code

✛ General WIP Entry Import Data Formats

When the General WIP charges are imported, the following fields are input from an Excel spreadsheet, a tab-delimited text file, or a CSV text file. The default input filename is **GenWIPTrxIn.XLS.**

Column #	*Excel Column*	*Field*	*Format*
1	A	Project Code	X(6)
2	B	Employee Code	X(6)
3	C	Task Code	X(10)
4	D	Transaction Date	MM/DD/YY
5	E	Ledger Date	MM/DD/YY
6	F	# of Units of Task	99,999.99-
7	G	Unit Charge Rate (only positive)	99,999.99
8	H	Overhead Amount	999,999.99-
9	I	Promo/Discount Savings Amount	999,999.99-
10	J	Chargeable/Non-Chargeable Flag	X(1)
11	K	WIP Transaction Type	X(1)

12	L	Service of Disbursement Flag [S] or [D]	X(1)
13	M	Invoice Consolidation Flag [space], [0-9], [D] or [F]	X(1)
14	N	Work Location 1 - Admin Office 8 - Retail Store 2 - Service Desk 9 - Web Site 3 - Shop 10 - Customer Site 4 - Warehouse 11 - Building Site 5 - Head Office 12 - In the Field 6 - Remote Office 13 - In Transit 7 - Home Office 14 - Other	9(2)
15	O	Description	X(50)
16	P	Reference 1	X(40)
17	Q	Reference 2	X(40)
18	R	Task Description Override	X(60)
19	S	Revenue Acct - Main #	9(18)
20	T	Revenue Acct - Profit Center	9(5)
21	U	Cost Amount	9,999,999.99-
22	V	Cost Acct - Main #	9(18)
23	W	Cost Acct - Profit Center	9(5)
24	X	Recap ID Number (-1 to have system assigned Recap #).	9(8)

The following columns are used to supply Recap Detail. (These are NOT processed if Column [X] is blank).

25	Y	Order Number	9(10)
26	Z	Order Line Number	9(3)
27	AA	Client Service Rep	X(6)
28	AB	Order Service Rep	X(6)
29	AC	Billing Code	X(40)
30	AD	3rd Party Bill Code	9(6)
31	AE	Search Date	MM/DD/YY
32	AF	Search Time	hhmmss
33	AG	Ordered By	X(35)

34	AH	Search Company Name	X(50)
35	AI	Search County	X(30)
36	AJ	Search State Code	X(2)
37	AK	Search Court Info	X(200)
38	AL	Activity Description	X(60)
39	AM	Lease Number	X(20)
40	AN	Reference 2	X(40)
41	AO	Reference 3	X(100)
42	AP	Reference 4	X(94)
43	AQ	Reference 5	X(90)
44	AR	Reference 6	X(90)
45	AS	Reference 7	X(90)
46	AT	Reference 8	X(90)
47	AU	Application Code	X(3)
48	AV	Company ID Flag	X(1)
49	AW	Ordering Department Code	X(15)
50	AX	Ordering Department Name	X(50)
51	AY	Subsidiary Search ID Number	X(15)

9.5.3   Email Blank Employee Timesheets

The Series 5 Professional Invoicing system offers this function that will generate a spreadsheet for each employee pre-listing potential time sheet activity to be recorded. A number of standard entries are created assigned to a specific administrative Project, but as well, entries for the Projects and Tasks that are defined by this maintenance function are also created. This time-sheet spreadsheet is then automatically emailed to each employee.

The spreadsheet may then be edited as required, and emailed back. An associated function, that may be executed, will read the returned emails from employees containing the completed time-sheet spreadsheet as an attachment. *(See the topic titled* Load Timesheets from Employee Emails 305 *for more information).*

Some points to note when generating timesheet spreadsheets and having them emailed, as follows:

- A number of filters may be set should you wish to restrict generation of emails to employees associated to a given Department, Job Class, Location, or with a given Supervisor.

- The generated spreadsheet has a separate row for each Project / Task combination. Then a separate column is provided for each day falling within the specified date range. The employee completes the spreadsheet by filling in the # of hours associated to each Task/Project for each day.

- If Projects, along with selected Tasks, have been assigned to an employee, they will be listed in the spreadsheet. **(See the topic titled** Assign Valid Projects to Employees [645] **on assigning Projects to an employee).**

- Up to 25 additional Tasks may be defined that will automatically be recorded to the spreadsheet. These might be those tasks associated to any non-chargeable activity that the employee might perform. (Ie., Holiday, Sick-Time, Administration, Meetings, etc.). These additional Tasks will be written with a designated Project, that presumably will be set up for Company non-chargeable activity.

- The spreadsheets will be created in the directory defined by the runtime Configuration file variable **WEB_EDOCS_DIRECTORY**.

- For the emails that are created, the body of the email message, is loaded from the file named **Employee_Tsheet_EmailMessage.TXT** that must be located in the directory named **Email-Templates** located in each Company System's designated reports directory. This text file may be either a plain ASCII text, or an HTML file and contain up to 8192 characters.

- In the event you have activity, or charges that you wish to bill your customer for, but they are not really directly associated to a a particular employee or machine, they may be entered as Generalized WIP charges [270]. These can be entered directly, or they can be interfaced from data files [270] that are generated from another system, or they can be loaded from a spreadsheet [270].

From the P/I Main menu, select **Email Blank Employee Timesheets** from the **Operations** drop-down menu.
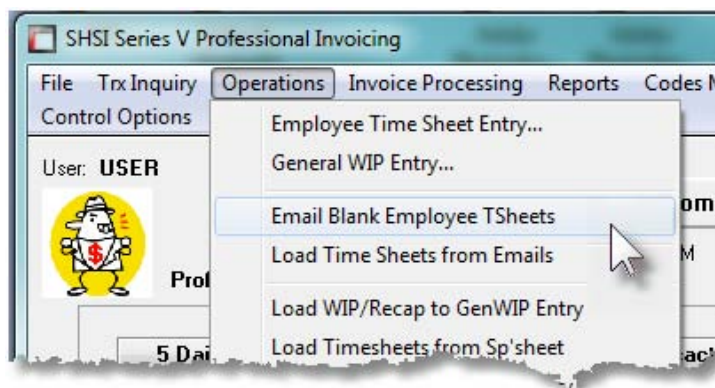
🔁 Generate Timesheet Emails - Options Screen

The following screen is presented for entry of options and filters when generating Employee Timesheet emails:

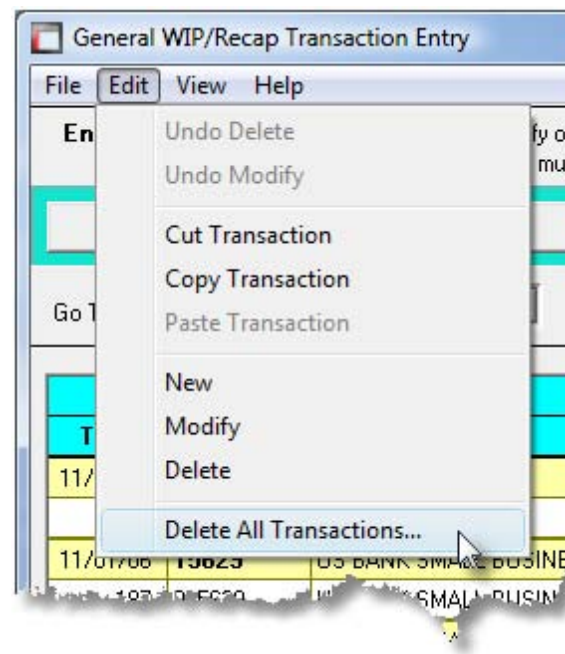Some of the special features of this General WIP entry grid are as follows:

> ➤ Transactions may be listed by either the Transaction ID, or by Project. (The ID is just a sequential counter assigned when the transaction is added).

Generate Timesheet Emails - Field Definitions

Generate Timesheets for Entry Of	*Radio-Buttons*
Select the time frame for which the timesheets will be representative of. This may be for a one or two week period; or where each item is for a separate WIP activity, (assuming one WIP per spreadsheet row).	

Generate Timesheets for Entry Of:

○ Daily WIP Activity for the Week   ○ Individual WIP Items Activity

○ Daily WIP Activity for 2 Week Period

Depending on the selection, different layouts of spreadsheets are generated. In the 1st row of the spreadsheet the Timesheet Layout will be identified as follow:

- For 1 Week Timesheet - Layout W
- For 2 Week Timesheet - Layout B
- For Individual Item Timesheet - Layout S

For WIP Date, or Week(s) Starting	*(mmddyy)*

For one and two week layouts, enter the starting date for which charges are to be recorded. For Individual layouts, enter the data to be used as the default, (which would either be the specific date, or the date of the most recent entry).

Department	*X(2)*

Select only those Employees who's Department matches the code entered. Leave the field blank if it is NOT to be considered as a filter.

Job Class	*X(6)*

Select only those Employees who's Job Class matches the code entered. Leave the field blank if it is NOT to be considered as a filter.

Location	*X(6)*

Select only those Employees who's Location matches the code entered. Leave the field blank if it is NOT to be considered as a filter.

WIth Supervisor	*X(6)*

Select only those Employees who's assigned Supervisor matches the code entered. Leave the field blank if it is NOT to be considered as a filter.

Additional Standard Tasks to be Included	*List-Box Table*

This table lists those default Tasks that are to be generated in the timesheet's spreadsheet. When this function is first executed, a default list of Tasks will be assigned. These may be edited to suite your requirements. (Note that any Tasks defined here

must also be set up as Tasks in the P/I system).

Task	Description	Units
ADMIN	Administration Duties	Hours
MEETINGS	Company Meetings	Hours
NONCHARG	Misc Non-Chargeable Activity	Hours
PTIMEOFF	Paid Time-Off	Hours
SICKTIME	Sick Days Off	Hours
1000	PROFESSIONAL FEES	Hours

The set of Tasks may be edited by double-clicking the table, of clicking the small icon in the top right corner of the table.

Use with Project	*X(6)*

Timesheet entries must be made up of a Task and a Project. The default timesheet WIP entries created in the spreadsheet, will be written with the Project Code that is defined here. Typically, this would be a project that is set up in the P/I system to record the time employees spend on non-chargeable activity.

✤ Timesheet Spreadsheet Layouts

When the spreadsheets are generated, the following fields are output as an Excel spreadsheet. The files are created with the filename of **Tsheet_XXXXXX_yyyymmdd.XLS.** where **XXXXXX** is the employee code.

Note that the 1st 5 rows of the spreadsheet will contain titles and header information; and those fields below that are show in blue are to be entered by the user.

For 1 week layout "W":

Column #	*Excel Column*	*Field*	*Format*
1	A	Project Code	X(6)
2	B	Project Description	X(30)
3	C	Task Code	X(10)
4	D	Task Description	X(40)
5	E	Task Units	X(12)
6	F	Chargeable/Non-Chargeable flag	"N" or "C"
7	G	WIP Description	

8	H	Day 1 - Monday-date	
9	I	Day 2 - Tuesday-date	
10	J	Day 3 - Wednesday-date	
11	K	Day 4 - Thursday-date	
12	L	Day 5 - Friday-date	
13	M	Day 6 - Saturday-date	
14	N	Day 7 - Sunday-date	
15	O	Sum of Columns H thru N	999,999.99
16	P	Reference 1	
17	Q	Reference 2	
18	R	Task Description Override	
19	S	Working Location	

For 2 week layout "B":

Column #	Excel Column	Field	Format
1	A	Project Code	X(6)
2	B	Project Description	X(30)
3	C	Task Code	X(10)
4	D	Task Description	X(40)
5	E	Task Units	X(12)
6	F	Chargeable/Non-Chargeable flag	"N" or "C"
7	G	WIP Description	
8	H	Week 1 - Day 1 - Monday-date	
9	I	Week 1 - Day 2 - Tuesday-date	
10	J	Week 1 - Day 3 - Wednesday-date	
11	K	Week 1 - Day 4 - Thursday-date	
12	L	Week 1 - Day 5 - Friday-date	
13	M	Week 1 - Day 6 - Saturday-date	
14	N	Week 1 - Day 7 - Sunday-date	
15	O	Week 2 - Day 1 - Monday-date	
16	P	Week 2 - Day 2 - Tuesday-date	
17	Q	Week 2 - Day 3 - Wednesday-date	
18	R	Week 2 - Day 4 - Thursday-date	

19	S	Week 2 - Day 5 - Friday-date	
20	T	Week 2 - Day 6 - Saturday-date	
21	U	Week 2 - Day 7 - Sunday-date	
22	V	Sum of Columns H thru U	999,999.99
23	W	Reference 1	
24	X	Reference 2	
25	Y	Task Description Override	
26	Z	Working Location	

For Individual WIP Items layout "S":

Column #	Excel Column	Field	Format
1	A	Project Code	X(6)
2	B	Project Description	X(30)
3	C	Task Code	X(10)
4	D	Task Description	X(40)
5	E	Date	MM/DD/YY
6	F	# of Hours or Task Units	
7	G	Task Units	X(14)
8	H	Chargeable/Non-Chargeable flag	"N" or "C"
9	I	WIP Description	
10	J	Reference 1	
11	K	Reference 2	
12	L	Task Description Override	
13	M	Working Location	

9.5.4   Load Timesheets from Employee Emails

The Series 5 Professional Invoicing system offers the function that will generate a spreadsheet for each employee, pre-listing potential time sheet activity to be recorded. A number of standard entries are created assigned to a specific administrative Project, but as well, entries for the Projects and Tasks that are defined by this maintenance function are also created.   This time-sheet spreadsheet is then automatically emailed to each employee.   *(See the topics titled* <u>Email Blank Employee Timesheets</u> 299 *for more information).*

The spreadsheet may then be edited as required, and emailed back. This function is used examine a designated Outlook Inbox to read any returned emails from employees containing the completed time-sheet spreadsheet as an attachment. The spreadsheet are loaded, and WIP activity is recorded in a Time Entry Batch, that is posted into the PI system.

Some points to note associated to the loading of timesheets from employee emails, as follows:

- The employees must maintain the original layouts of the spreadsheets

- When the spreadsheets are returned, the original email must be replied to, and the subject line contain the following string:

  RE: Your Timesheet for

- As the emails are read and processed, they will be moved to sub-folders withing the designated Inbox. Those loaded without a problem are moved to the **Loaded** folder; those that had some sort of coding error are moved to the **Not-Loaded** folder, and those that could not be properly identified as an Reply with an employee timesheet are moved to the the **Un-Related** folder.

-

From the P/I Main menu, select **Load Timesheets from Emails** from the **Operations** drop-down menu.
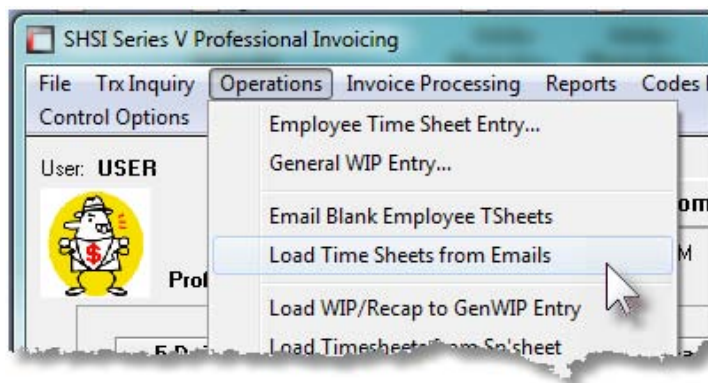
⮕ Load Employee Timesheets from Emails - Options Screen

The following screen is presented for entry of options when loading Employee Timesheet from emails:

Default Input From Folder

You would typically always have the interface file that is generated from the invoicing or order entry system deposited into the same folder. As such, it would be nice to have this interface function load the file without the operator having to hunt for it.

A variable may be be added to the Runtime Configuration file 736 that specifies the path from where the interface files are always loaded. It needs to be defined as follows:

xxx-TRXTXT-PATH   full-directory-path

Where: **xxx** is the Series 5 company system code
          full-directory-path is the full path to the directory

Contact your system or accounting manager to have this capability set up.

The Interface Journal/Edit list report generated, if archived, will be catalogued with a report name of **EMAIL_TIMESHEETS.JRN**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a

PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

Outlook's Inbox

In order for this function to operate correctly, you must have created a sub-folder named **S5 TimeSheets** within Outlook's Inbox. The sub-folders used to hold emails that are completed and moved will be created by the system.

As well, you must create an Outlook E-mail Rule that will automatically move the managers' approval reply emails to this new folder. You might name the rule S5 PI Employee Timesheets. You must then assign the following settings as shown below, and turn on the rule.

Rules Wizard

What do you want to do with the message?

Step 1: Select action(s)

- ☑ stop processing more rules
- ☑ move it to the specified folder
- ☐ assign it to the category category
- ☐ delete it
- ☐ permanently delete it
- ☐ move a copy to the specified folder
- ☐ forward it to people or public group
- ☐ forward it to people or public group as an attachment
- ☐ reply using a specific template
- ☐ flag message for follow up at this time
- ☐ clear the Message Flag
- ☐ clear message's categories
- ☐ mark it as importance
- ☐ print it
- ☐ play a sound
- ☐ start application
- ☐ mark it as read
- ☐ run a script

Step 2: Edit the rule description (click an underlined value)

Apply this rule after the message arrives
with RE: Your Timesheet in the subject
move it to the S5 TimeSheets folder
  and stop processing more rules

[Cancel]   [< Back]   [Next >]   [Finish]

⊟ Field Definitions

Post Charges to a Timesheet Entry Batch	*check-box*
When loading the interface data, if you wish to actually perform the interface and have time sheet transactions generated, then set this check box. ***(Leave it un-checked if you just wish to validate the input data, and have an exception report generated).***	

Print an Interface Journal/Edit List	*radio-buttons*
When loading the Time Sheet transactions from employee emails, if you wish to have an edit list, an exception report, or a journal report generated, set this applicable radio-button.	

The Full Detail report list all transactions. The Exception report lists only those transactions that have undefined Projects, Task or Employee codes.

Time Entry Batch Code	*X(6)*

This is the code assigned to the Time Sheet Entry Transaction Batch. It can be either numeric, or alphanumeric. There should not be any spaces or punctuation in the batch code, as it is used within the name of one of the Series 5 data files. By default, a code of **UI***mmdd* is used, (where *mmdd* is the current month and day).

Ledger Date	*(mmddyy)*

When loading WIP charges from employee emails, only the WIP Transaction date is input. You must specify the Ledger date to be assigned by this field. It would normally be the date of the most recent WIP charge. When associated G/L distributions are generated, this is the date that is used.

Mark Items "Pre-Selected for Billing"	*check-box*

Normally when WIP items are recorded, they remain on the system until their associated Project is selected to be billed; or they are individually selected to be billed.

As an option, WIP items that are interfaced may be automatically selected to be billed. These will be flagged with a status of "Force Billed", and the original rates, units and amounts will be used as the corresponding amounts for invoicing.

✛ Timesheet Spreadsheet Layouts

The spreadsheets were initially generated with the following fields in the Excel spreadsheets. The files were created with the filename of **Tsheet_XXXXXX_yyyymmdd.XLS.** where **XXXXXX** is the employee code.

It is important that the employees maintain the same layout as was generated, when the enter the timesheet activity.

Note that the 1st 5 rows of the spreadsheet will contain titles and header information; and those fields below that are show in blue were to be entered by the user.

For 1 week layout "W":

Column #	Excel Column	Field	Format
1	A	Project Code	X(6)
2	B	Project Description	X(30)
3	C	Task Code	X(10)

4	D	Task Description	X(40)
5	E	Task Units	X(12)
6	F	Chargeable/Non-Chargeable flag	"N" or "C"
7	G	WIP Description	
8	H	Day 1 - Monday-date	
9	I	Day 2 - Tuesday-date	
10	J	Day 3 - Wednesday-date	
11	K	Day 4 - Thursday-date	
12	L	Day 5 - Friday-date	
13	M	Day 6 - Saturday-date	
14	N	Day 7 - Sunday-date	
15	O	Sum of Columns H thru N	999,999.99
16	P	Reference 1	
17	Q	Reference 2	
18	R	Task Description Override	
19	S	Working Location	

For 2 week layout "B":

Column #	Excel Column	Field	Format
1	A	Project Code	X(6)
2	B	Project Description	X(30)
3	C	Task Code	X(10)
4	D	Task Description	X(40)
5	E	Task Units	X(12)
6	F	Chargeable/Non-Chargeable flag	"N" or "C"
7	G	WIP Description	
8	H	Week 1 - Day 1 - Monday-date	
9	I	Week 1 - Day 2 - Tuesday-date	
10	J	Week 1 - Day 3 - Wednesday-date	
11	K	Week 1 - Day 4 - Thursday-date	
12	L	Week 1 - Day 5 - Friday-date	
13	M	Week 1 - Day 6 - Saturday-date	
14	N	Week 1 - Day 7 - Sunday-date	
15	O	Week 2 - Day 1 - Monday-date	

16	P	Week 2 - Day 2 - Tuesday-date	
17	Q	Week 2 - Day 3 - Wednesday-date	
18	R	Week 2 - Day 4 - Thursday-date	
19	S	Week 2 - Day 5 - Friday-date	
20	T	Week 2 - Day 6 - Saturday-date	
21	U	Week 2 - Day 7 - Sunday-date	
22	V	Sum of Columns H thru U	999,999.99
23	W	Reference 1	
24	X	Reference 2	
25	Y	Task Description Override	
26	Z	Working Location	

For Individual WIP Items layout "S":

Column #	Excel Column	Field	Format
1	A	Project Code	X(6)
2	B	Project Description	X(30)
3	C	Task Code	X(10)
4	D	Task Description	X(40)
5	E	Date	MM/DD/YY
6	F	# of Hours or Task Units	
7	G	Task Units	X(14)
8	H	Chargeable/Non-Chargeable flag	"N" or "C"
9	I	WIP Description	
10	J	Reference 1	
11	K	Reference 2	
12	L	Task Description Override	
13	M	Working Location	

9.5.5   Load WIP/Recap for General WIP Entry

The Series 5 Professional Invoicing system is designed as a stand-alone system that can generate invoices for charges as a result of employee activity recorded as time sheets, or by other system's home grown servicing or production packages. Either way, WIP end up in the

P/I system ready to be invoiced.

This menu function provides the means to load WIP activity or charges from an external source such as a custom developed Web servicing system or employee time keeping system. That system needs only to generate a sequential file in a specifically designed format. That file is then read and interfaced as General WIP [289] transactions for the Series 5 system.

Some points to note when interfacing WIP charges and activity:

- The interface file may be processed either to be read to generate a report, or to actually generate General WIP Transactions, or both. The report may be generated as a full interface journal, or as just an exception report.

- The interface handles both WIP records data, and Recap Detail record data. (Recap data provides the opportunity to record extended information about the WIP activity). The interface function offers the option to load just the WIP data, just the Recap data, or both.

- The P/I system provides support for 3rd Party billing. When interfacing WIP activity, that has associated to it Recap Detail, these charges may be applicable for 3rd Party Invoicing. For these Projects, a 3rd Party Billing Address needs to be defined based on a Bill Code. The 3rd Party Bill Code, along with the billing Company Name and Address must be provided within the interfaced Recap data records. This data is recorded as a 3rd Party Billing Address and may be viewed or edited using the 3rd Party Bill Codes Maintenance function [591]. *(The USER-RECAP2-SUB-CLIENT-CODE field is used to provide the Billing Code)*.

- All input data is validated. Any Project code, Employee code and Task codes are all validated within the system. If an undefined code is encountered, the transaction is recorded, but it is flagged as having a problem. (These are easily identified within the General WIP Entry function [289], and may be fixed).

- The system, by default, will look for the interface file in a sub-folder on your system that is defined by a variable in the runtime configuration file [736]. Your System's Manager can set this up for you.

- After interfacing the transactions, you must select General WIP Entry function [289] from the P/I's Operations drop-down menu and post it to have the transactions recorded as WIP items ready to be processed for invoicing.

- When WIP interface files are successfully loaded, an entry is recorded into an Interfaced File Audit Log. If an attempt is made to re-load the same file, the operator will be advised and may choose to repeat the interface, or not. (When the interface is called from the Invoicing Wizard, if a file has already been loaded, then an error will be returned to the Invoicing Wizard, and the file will not be loaded).

✤ Accessing the "Interface User WIP/Recap to General WIP" function

From the P/I Main menu, select **Load WIP/Recap to GenWIP Entry** from the **Operations** drop-down menu.
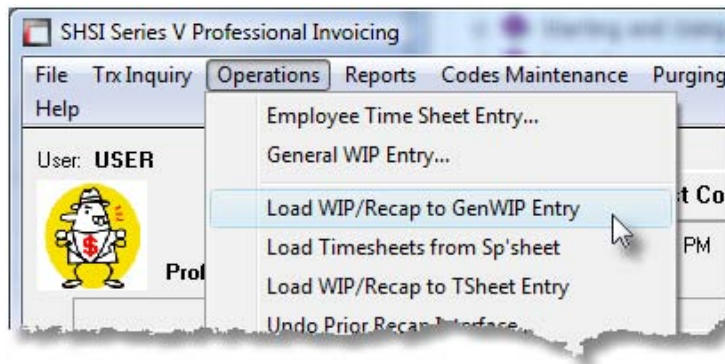
➜ Interface User WIP/Recap to General WIP - Options Screen

The following screen is presented when interfacing the user defined WIP and Recap charges as General WIP Transactions:

Default Input From Folder

You would typically always have the interface file that is generated from your external system deposited into the same folder. As such, it would be nice to have this interface function load the file without the operator having to hunt for it.

A variable may be be added to the Runtime Configuration file 736 that specifies the path from where the interface files are always loaded. It needs to be defined as follows:

    xxx-TRXTXT-PATH   full-directory-path

Where: **xxx** is the Series 5 company system code
      full-directory-path is the full path to the directory

Contact your system or accounting manager to have this capability set up.

The Interface Journal/Edit list report generated, if archived, will be catalogued with a report name of **PIUSERIFAC.JRN**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, 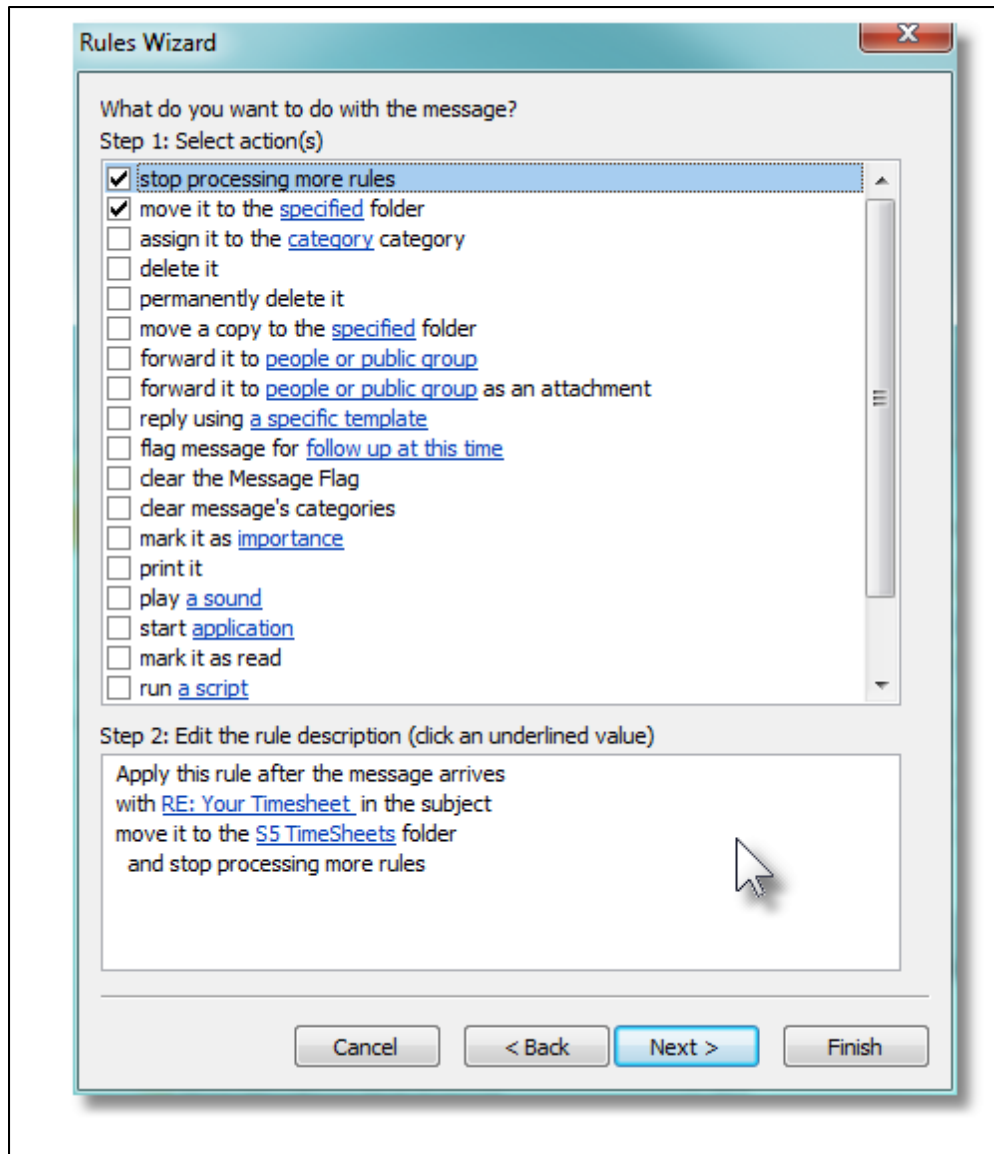printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

Field Definitions

Data Record Types to be Loaded	*radio-buttons*
The interface function is basically designed to load WIP charges, and as an option, associated Recap Detail information. Select to have one or the other file loaded, or both. **(Each type of data is read from different files, but Recap data is tied to WIP data using a Recap ID Number that needs to be assigned by the system that generates the interface files).** As a custom feature for one Series 5 customer, the option to load Chase Bank Cost Center mapping codes has been added.	

Input Files From Folder and Filename	*X(30) and X(120)*
Enter the folder location and filename of the file to be interfaced. Click the **Browse** button to navigate to the file to be interfaced. Separate files are loaded for the WIP and the Recap data.	

Record Charges as General WIP Transactions	*check-box*
When loading the interface data, if you wish to actually perform the interface and have transactions generated, then set this check box. **(Leave it un-checked if you just wish to validate the input data, and have an exception report generated).**	

Ledger Date and Transaction Date	*(mmddyy)*
If not provided by the interface file, when WIP transactions are generated, these dates will be automatically assigned as the Ledger Date and the Transaction Date. When associated G/L distributions are generated, the Ledger Date is used.	

Mark Items "Pre-Selected for Billing" ?	*check-box*
Normally when WIP items are recorded, they remain on the system until their associated Project is selected to be billed; or they are individually selected to be billed. As an option, WIP items that are interfaced may be automatically selected to be billed. These will be flagged with a status of "Force Billed", and the original rates, units and amounts will be used as the corresponding amounts for invoicing.	

Print an Interface Journal/Edit List	*radio-buttons*

When loading the A/R transactions interface data, if you wish to have an edit list, a exception report, or a journal report generated, set this applicable radio-button.

The Full Detail report list all transactions. The Exception report lists only those transactions with the following problems:

- Undefined Project, Customer, Task or Employee Codes

- Invalid type of Charge was specified, or not set as a Chargeable or Non-Chargeable item

- Derived Unit Rate for the charge was ZERO

- Undefined G/L Revenue Account was assigned

⊙ User WIP/Recap Sequential File Import - Input Record Definition

When loading P/I charges information from from a sequential file, up to three different file layouts may be employed.

- For the WIP Charge data
- For the Recap Detail data
- For the Chase Cost Center Mapping data

Three records are used for each WIP charge. The 2nd record is optional, and is required only if WIP Reference information is available. The 3rd record is also optional. It is used to either add or update the A/R systems' Customer Service Rep codes. *(Note that the Customer Service Rep is really just one of the A/R Customer Demographic Codes. Before using the 3rd record you must have already defined in the P/I Control Preferences, which Demographic Code is designated as the Customer Service Rep. See below under* Control Preferences - General Tab Screen 694 *)* .

The following record layouts are used:

```
*
*   SEQUENTIAL FILE DEFINITIONS FOR USER TIME ENTRIES FOR INTERFACE TO PI
*
*   EACH RECORD IS 156 BYTES (LAST BYTE COULD BE CR OR NEWLINE)
*
*   ONE TYPE OF RECORDS DEFINED:
*        TYPE 1  -  PRIMARY TIME ENTRY
*        TYPE 2  -  PRIMARY TIME ENTRY REFERENCE 1 & 2 FIELDS (OPTIONAL)
*
*

FD  USER-PITIME-FILE
        LABEL RECORDS ARE OMITTED
        BLOCK  CONTAINS 4056 CHARACTERS
        RECORD CONTAINS 156 CHARACTERS
        DATA RECORDS IS USER-PITIME-RECORD-1.

01  USER-PITIME-RECORD-1.
        03  USER-PITIME-REC-TYPE            PIC 9(1).
        03  USER-PITIME-EMPLOYEE           PIC X(6).
        03  USER-PITIME-TRX-DATE           PIC 9(6).
        03  USER-PITIME-PROJECT            PIC X(6).
        03  USER-PITIME-TASK               PIC X(10).
        03  USER-PITIME-RATE               PIC 9(6)V99.
        03  USER-PITIME-UNITS              PIC S9(5)V99 SIGN IS TRAILING SEPARATE.
        03  USER-PITIME-AMOUNT             PIC S9(6)V99 SIGN IS TRAILING SEPARATE.
        03  USER-PITIME-OVERHEAD           PIC S9(6)V99 SIGN IS TRAILING SEPARATE.
        03  USER-PITIME-CHARGE-FLAG        PIC X(1).
        03  USER-PITIME-TYPE               PIC X(1).
        03  USER-PITIME-DESCRIPTION        PIC X(50).
        03  USER-PITIME-SERVICE-DISB-FLAG  PIC X(1).
        03  USER-PITIME-WORK-LOCATION      PIC 9(2).
        03  USER-PITIME-DSCNT-SAVINGS-AMT  PIC S9(6)V99 SIGN IS TRAILING SEPARATE.
        03  FILLER                         PIC X(23).
        03  USER-PITIME-REC-COUNT          PIC 9(5).
        03  FILLER                         PIC X(1).

01  USER-PITIME-RECORD-2.
        03  FILLER                         PIC 9(1).
        03  USER-PITIME-REFERENCE-1        PIC X(40).
        03  USER-PITIME-REFERENCE-2        PIC X(40).
        03  USER-PITIME-INV-MODE-FLAG      PIC X(1).
        03  USER-PITIME-RECAP-DETAIL-ID    PIC 9(8).
        03  USER-PITIME-ITEM-DESC-OVERRIDE PIC X(60).
        03  USER-PITIME-REC-2-COUNT        PIC 9(5).
        03  FILLER                         PIC X(1).

*  USER-PITIME-INV-MODE-FLAG is user defined to Force a "Detail/Summary" Invoice
*  when corresponding WIP item is billed

01  USER-PITIME-RECORD-3.
        03  FILLER                         PIC 9(1).
        03  USER-PITIME-CSR-CODE           PIC X(6).
        03  USER-PITIME-CSR-DESCRIPTION    PIC X(50).
        03  FILLER                         PIC X(93).
        03  USER-PITIME-REC-3-COUNT        PIC 9(5).
        03  FILLER                         PIC X(1).
```

Three records are provided for each Recap Detail item.

The 1st one, (identified as USER-RECAP-RECORD-0), is used only by the On-Demand Invoicing routines. It provides information associated to the origin of the request of the production of the on-demand invoice.

The 2nd record, (identified as USER-RECAP-RECORD-0), provides the detail, and charges associated to the corresponding service that was provided.

Assigning CSR Codes to Customers

When the Recap information records are loaded, if a value is provided in the **USER-RECAP-CLIENT-CSREP-CODE** field, then it will be assigned to the associated Customer's CSR Demographic Code field. It will be assumed that the provided CSR Code has already been defined.

The 3rd record, (identified as USER-RECAP-RECORD-2), is optional, and is required only if extra Reference information is available, or if 3rd Party Billing Customer information is applicable.

Assigning 3rd Party Billing Address Information

In order to process 3rd party billing, the **USER-RECAP2-SUB-CLIENT-xxxxxx** fields must have the appropriate values.   If no **USER-RECAP2-SUB-CLIENT-CODE** field is included, then the associated charges will only be invoiced to the primary Customer owning the Project.   When Sub-Client fields are provided, for the given Customer, a 3rd Party Billing master record will be written, or updated, in the Professional Invoicing system. (See the topic titled 3rd Party Codes Maintenance 591 for further information).

The following record layouts are offered for reference:

```
*  SEQUENTIAL FILE DEFINITIONS FOR USER THE RECAP DETAIL FOR INTERFACE TO PI
*  EACH RECORD IS 692 BYTES (LAST BYTE COULD BE CR OR NEWLINE)
*

  FD  USER-RECAP-FILE
        LABEL RECORDS ARE OMITTED
        BLOCK  CONTAINS 6920 CHARACTERS
        RECORD CONTAINS 692 CHARACTERS
        DATA RECORDS IS USER-RECAP-RECORD-1.

01  USER-RECAP-RECORD-0.
        03 USER-RECAP0-REC-TYPE        PIC 9(1).
        03 USER-RECAP-REQUESTOR-ID     PIC X(12).
        03 USER-RECAP-OPERATOR-NAME    PIC X(30).
        03 USER-RECAP-HOW-TO-EMAIL-FLAG PIC X(1).
        03 USER-RECAP-OPERATOR-EMAIL   PIC X(120).
        03 USER-RECAP-CUSTOMER-EMAIL   PIC X(120).
        03 USER-RECAP-PREPAY-CODE      PIC X(3).
        03 USER-RECAP-PREPAY-AMOUNT      PIC S9(5)V99 SIGN IS TRAILING SEPARATE.
        03 USER-RECAP-CRCARD-APROVE-CODE PIC X(8).
        03 USER-RECAP-INV-REQUEST-DATE   PIC 9(8).
        03 USER-RECAP-INV-REQUEST-TIME   PIC 9(8).
        03 FILLER                      PIC X(373).

01  USER-RECAP-RECORD-1.
        03 USER-RECAP-REC-TYPE         PIC 9(1).
        03 USER-RECAP-WIP-ID           PIC 9(8).
        03 USER-RECAP-WIP-COUNTER      PIC 9(4).

        03 USER-RECAP-ORDER-NUMBER     PIC 9(10).
        03 USER-RECAP-ORDER-LINE       PIC 9(3).
        03 FILLER                      PIC X(15).
        03 USER-RECAP-BILLING-CODE     PIC X(40).
        03 USER-RECAP-CUSTOMER-CODE    PIC X(6).
        03 USER-RECAP-SEARCH-DATE      PIC 9(8).
        03 USER-RECAP-SEARCH-TIME      PIC 9(6).
        03 USER-RECAP-ORDERED-BY       PIC X(30).
        03 USER-RECAP-SEARCH-NAME      PIC X(50).
        03 USER-RECAP-LEASE-NUMBER     PIC X(20).
        03 USER-RECAP-SEARCH-STATE     PIC X(2).
        03 USER-RECAP-SEARCH-COUNTY    PIC X(30).
        03 USER-RECAP-APPLICATION      PIC X(3).
        03 USER-RECAP-ACTIVITY-DESC    PIC X(60).
        03 USER-RECAP-DEPARTMENT-NO    PIC X(20).
        03 USER-RECAP-CLIENT-CSREP-CODE PIC X(6).
        03 USER-RECAP-ORDER-CSREP-CODE  PIC X(6).
        03 FILLER                      PIC X(3).
        03 USER-RECAP-CHARGE-RATE       PIC S9(5)V99 SIGN IS TRAILING SEPARATE.
        03 USER-RECAP-CHARGE-UNITS      PIC S9(5)V99 SIGN IS TRAILING SEPARATE.
        03 USER-RECAP-CHARGE-AMOUNT     PIC S9(5)V99 SIGN IS TRAILING SEPARATE.
        03 USER-RECAP-REFERENCE-2      PIC X(40).
        03 USER-RECAP-REFERENCE-3      PIC X(100).
        03 USER-RECAP-REFERENCE-4      PIC X(100).
        03 USER-RECAP-REFERENCE-5      PIC X(90).
        03 FILLER                      PIC X(6).
        03 FILLER                      PIC X(1).
```

```
01  USER-RECAP-RECORD-2.
       03 USER-RECAP2-REC-TYPE                 PIC 9(1).
       03 USER-RECAP2-WIP-ID                   PIC 9(8).
       03 USER-RECAP2-WIP-COUNTER              PIC 9(4).

       03 USER-RECAP2-REFERENCE-6              PIC X(90).
       03 USER-RECAP2-REFERENCE-7              PIC X(90).
       03 USER-RECAP2-REFERENCE-8              PIC X(90).
       03 USER-RECAP2-SUB-CLIENT-CODE          PIC X(6).
       03 USER-RECAP2-SUB-CLIENT-COMPANY       PIC X(150).
       03 USER-RECAP2-SUB-CLIENT-ATTENTION     PIC X(30).
       03 USER-RECAP2-SUB-CLIENT-ADDRESS-1     PIC X(30).
       03 USER-RECAP2-SUB-CLIENT-ADDRESS-2     PIC X(30).
       03 USER-RECAP2-SUB-CLIENT-CITY          PIC X(20).
       03 USER-RECAP2-SUB-CLIENT-STATE         PIC X(2).
       03 USER-RECAP2-SUB-CLIENT-ZIP           PIC X(10).
       03 USER-RECAP2-SUB-CLIENT-PHONE         PIC X(10).
       03 USER-RECAP2-SUB-CLIENT-EMAIL         PIC X(120).
       03 FILLER                               PIC X(1).
```

For the loading of Case/JP Morgan Cost Center Mapping Codes the following record layout is used:

```
* File used for the Chase/JP Morgan Cost Center Mapping
*
*  SEQUENTIAL FILE DEFINITIONS OF THE COST CENTER MAPPINGS
*  EACH RECORD IS 82 BYTES (LAST 2 BYTES SHOULD BE CR/LF)
*
  FD  USER-CHASE-MAP-TEXT-FILE
         LABEL RECORDS ARE OMITTED
         DATA RECORDS IS USER-CHASE-MAP-TEXT-RECORD.

  01  USER-CHASE-MAP-TEXT-RECORD.
         03 FILLER                       PIC X(1).
         03 USER-CHASE-MAP-INDICATOR-B    PIC X(1).
         03 FILLER                       PIC X(3).
         03 USER-CHASE-SAP-COMPANY-ID     PIC 9(4).
         03 FILLER                       PIC X(3).
         03 USER-CHASE-NEW-COST-CENTER    PIC 9(10).
         03 FILLER                       PIC X(3).
         03 USER-CHASE-GLAS-COMPANY-ID    PIC 9(4).
         03 FILLER                       PIC X(3).
         03 USER-CHASE-OLD-COST-CENTER    PIC 9(12).
         03 FILLER                       PIC X(3).
         03 USER-CHASE-CENTRE-TYPE-CODE   PIC X(2).
         03 FILLER                       PIC X(3).
         03 USER-CHASE-CORP-VIEW-FLAG     PIC X(1).
         03 FILLER                       PIC X(3).
         03 USER-CHASE-PRIMARY-MAP-FLAG   PIC X(1).
         03 FILLER                       PIC X(3).
         03 USER-CHASE-EARN-UNIT-TYPE     PIC X(1).
         03 FILLER                       PIC X(19).
         03 FILLER                       PIC X(2).
```

9.5.6 Load User Timesheets from Spreadsheet

The Series 5 Professional Invoicing system is designed as a stand-alone system that can generate invoices for charges as a result of employee activity recorded as time sheets, or by other system's home grown servicing or production packages. Either way, WIP end up in the P/I system ready to be invoiced.

This menu function provides the means to load WIP activity or charges from an external source such as a custom developed Web servicing system or employee time keeping system. That system needs only to generate an Excel spreadsheet, or a tab-delimited text file in a specifically designed format. That file is then read and interfaced as Time Sheet ²⁶³ transactions for the Series 5 system.

Some points to note when interfacing Time Sheet WIP charges and activity:

- The interface file may be processed either to be read to generate a report, or to actually generate Time Sheet Transactions, or both. The report may be generated as a full interface journal, or as just an exception report.

- For Time Sheet activity, the interface handles ONLY WIP records data, no Recap Detail.

- By default, the import will assume a tab-delimited text file is input. You may designate the input as an Excel spreadsheet from the Import Options tabbed sub-screen.

- Three types of spreadsheet input rows may be input from the same input file. These include the following:

  ❖ Employee Time Sheet activity, (WIP Item)
  ❖ Employee Time Sheet Memo WIP references
  ❖ Customer name and address load/update fields

  For WIP activity, a time sheet entry is recorded. For Customer loading or updating, if the customer is already defined, it us updated with the supplied information. If the customer is not yet on file, it is written. (For CT Lien Solutions Inc., Default Customer Layout # 60 is used to provide codes for the fields for newly added customers).

- All input data is validated. Any Project code, Employee code and Task codes are all validated within the system. If an undefined code is encountered, the transaction is recorded, but it is flagged as having a problem. (These are easily identified within the General WIP Entry function ²⁸⁹, and may be fixed).

- For Series 5 Company System Codes "40", "98" and "UCC where the Series 5 License is "80001" or "90001", the Unit Rate supplied is the one that is used. For all other systems, the Unit Rate is computed based on the rules that have been established for the Project, Employee and Task.

- If the given Project has been set up for computing Overhead Amounts, then the

Overhead amount is computed.

- If Costing is enabled for the system, then Unit Costs are computed based on the rules that have been established for the Project, Employee and Task.

- The system, by default, will look for the interface file in a sub-folder on your system that is defined by a variable in the runtime configuration file 736. Your System's Manager can set this up for you.

- After interfacing the transactions, you must select Employee Timesheet Entry function 263 from the P/I's Operations drop-down menu, choose the specified Time Entry Batch and post it to have the transactions recorded as WIP items ready to be processed for invoicing.

✛ Accessing the "Load User Timesheets from Spreadsheet" function

From the P/I Main menu, select **Load User Timesheets from Spreadsheet** from the **Operations** drop-down menu.
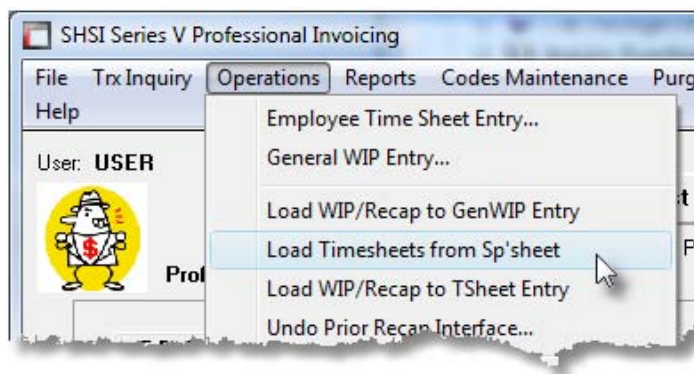
➡ Interface User Timesheets from Spreadsheet - Options Screen

The following screen is presented when interfacing the user Time Sheet WIP Charges from Spreadsheet:

Default Input From Folder

You would typically always have the interface file that is generated from the invoicing or order entry system deposited into the same folder. As such, it would be nice to have this interface function load the file without the operator having to hunt for it.

A variable may be be added to the Runtime Configuration file 736 that specifies the path from where the interface files are always loaded. It needs to be defined as follows:

    xxx-TRXTXT-PATH   full-directory-path

Where: **xxx** is the Series 5 company system code
         full-directory-path is the full path to the directory

Contact your system or accounting manager to have this capability set up.

The Interface Journal/Edit list report generated, if archived, will be catalogued with a report name of **PIUSERIFAC.JRN**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled* <u>*Report Generation and Printing*</u> 159 *for full details).*

Field Definitions

Post Charges to a Timesheet Entry Batch	check-box
When loading the interface data, if you wish to actually perform the interface and have time sheet transactions generated, then set this check box. ***(Leave it un-checked if you just wish to validate the input data, and have an exception report generated).***	

Print an Interface Journal/Edit List	radio-buttons
When loading the Time Sheet transactions interface data, if you wish to have an edit list, a exception report, or a journal report generated, set this applicable radio-button.	
The Full Detail report list all transactions. The Exception report lists only those transactions that have undefined Projects, Task or Employee codes.	

Time Entry Batch Code	X(6)
This is the code assigned to the Time Sheet Entry Transaction Batch. It can be either numeric, or alphanumeric. There should not be any spaces or punctuation in the batch code, as it is used within the name of one of the Series 5 data files. By default, a code of **UI*mmdd*** is used, (where ***mmdd*** is the current month and day).	

Ledger Date and Transaction Date	(mmddyy)
If not provided by the interface file, when Time Sheet transactions are generated, these dates will be automatically assigned as the Ledger Date and Transaction Date. When associated G/L distributions are generated, this is the date that is used.	

Mark Items "Pre-Selected for Billing"	check-box
Normally when WIP items are recorded, they remain on the system until their associated Project is selected to be billed; or they are individually selected to be billed.	
As an option, WIP items that are interfaced may be automatically selected to be billed. These will be flagged with a status of "Force Billed", and the original rates, units and amounts will be used as the corresponding amounts for invoicing.	

User Timesheet Import Data Formats

When the Timesheet activity is imported, the following fields are input from an Excel spreadsheet, a tab-delimited text file, or a CSV text file. The default input filename is **UserTsheetWIPIn.XLS.**

There are three types of records, or rows, that may be loaded. The first 2 rows may be left blank, of used to define headings.

The following table defines the WIP Timesheet entry fields:

Column #	Excel Column	Field	Format
1	A	Row Counter	9(6)
2	B	Record Identifier (must be "E")	X(1)
3	C	Customer Code	X(6)
4	D	Project Code	X(6)
5	E	Employee Code	X(6)
6	F	Task Code (if blank use "ASUMMARY")	X(10)
7	G	Transaction Date (if blank today's date)	MM/DD/YY
8	H	# of Units of Task	99,999.99-
9	I	Unit Charge Rate (only positive)	99,999.99
10	J	Overhead Amount	999,999.99-
11	K	Promo/Discount Savings Amount	999,999.99-

12	L	Billing Consolidation Flag
		    D - Detail
		    F - Grouped no consolidation
		  1, 2, 3, 4, ... 8, 9 - Consolidation Group
			X(1)

13	M	Filing State	X(2)
14	N	DFS Billing Code	X(12)
15	O	DFS Batch Code	X(11)
16	P	Reference 1	X(17)
17	Q	Reference 2	X(40)
18	R	WIP Description (Bytes 1-30)	X(30)
19	S	WIP Description (Bytes 31-50)	X(20)
20	T	Chargeable / Non-Chargeable Flag "C" or "N"	X(1)
21	U	Service/Disbursement Flag "S" or "D"	X(1)
22	V	Task Description Override	X(60)
23	W	Work Location	9(2)

| | | 1 - Admin Office   8 - Retail Store
2 - Service Desk 9 - Web Site
3 - Shop   10 - Customer Site
4 - Warehouse   11 Building Site
                   -
5 - Head Office   12 - In the Field
6 - Remote Office 13 - In Transit
7 Home Office   14 Other
                   - | |

The following table define the WIP Memo entry fields:

Column #	Excel Column	Field	Format
1	A	Row Counter	9(6)
2	B	Record Identifier (must be "F")	X(1)
3	C	Customer Code	X(6)
4	D	Project Code	X(6)
5	E	DFS Billing Code	X(12)
6	F	DFS Batch Code	X(11)
7	G	Reference 1	X(17)
8	H	Reference 2	X(40)
9	I	WIP Description	X(50)

The following table define the Customer to Add or Update fields:

Column #	Excel Column	Field	Format
1	A	Row Counter	9(6)
2	B	Record Identifier (must be "C")	X(1)
3	C	Customer Code	X(6)
4	D	Customer Company Name	X(150)
5	E	Address Line 1	X(40)
6	F	Address Line 2	X(40)
7	G	Address Line 3	X(40)
8	H	City	X(25)

9	I	State/Province	X(5)
10	J	ZIP/Postal Code	X(10)
11	K	Country	X(20)
12	L	Phone Number (999-999-9999)	X(16)
13	M	Fax Number (999-999-9999)	X(16)
14	N	Email Address	X(120)
15	O	Contact 1 "*Sss Fffffff Lllllllll*" (where *Ssss* is the salutation *Fffffff* is the 1st name *Lllllllll* is the last name)	X(40)
16	P	Contact 1 Email Address	X(120)
17	Q	Contact 2 (as for Contact 1)	X(25)
18	R	Contact 2 Email Address	X(120)
19	S	Customer Remit-To Code	X(6)
20	T	Salesman Code (ignored)	X(3)
21	U	Territory Code	X(5)
22	V	Customer Type Code	X(5)
23	W	Customer Tax Code 1	X(6)
24	X	Customer Tax Code 2	X(6)
25	Y	Customer Member Code (OW ID #)	X(15)
26	Z	Demographic Code 1 (optional)	X(6)
...	...	... ...	...
40	AN	Demographic Code 15 (optional)	X(6)

9.5.7   Load WIP/Recap for Timesheet Entry

The Series 5 Professional Invoicing system is designed as a stand-alone system that can generate invoices for charges as a result of employee activity recorded as time sheets, or by other system's home grown servicing or production packages. Either way, WIP end up in the P/I system ready to be invoiced.

This menu function provides the means to load WIP activity or charges from an external source such as a custom developed Web servicing system or employee time keeping system. That system needs only to generate a sequential file in a specifically designed

format. That file is then read and interfaced as Time Sheet [263] transactions for the Series 5 system.

Some points to note when interfacing Time Sheet WIP charges and activity:

- The interface file may be processed either to be read to generate a report, or to actually generate Time Sheet Transactions, or both. The report may be generated as a full interface journal, or as just an exception report.

- The interface handles both WIP records data, and Recap Detail record data. (Recap data provides the opportunity to record extended information about the WIP activity). The interface function offers the option to load just the WIP data, just the Recap data, or both. There are separate files for each type of data types. WIP records are input first, and then if selected, the Recap data records are input.

Recap WIP ID Numbers

Recap records are linked to WIP records utilizing an 8 digit Recap WIP ID number, and a 2 digit Recap Counter. You may load up to 99 Recap records which belong to a single WIP record.

When WIP records are invoiced, the system locates any associated Recap records, and records the WP's assigned Invoice Number to each Recap. In some cases, depending on the Project, invoices are generated from the Recap records.

- Recap records are tied to WIP records by a Recap WIP ID#.

- All input data is validated. Any Project code, Employee code and Task codes are all validated within the system. If an undefined code is encountered, the transaction is recorded and it is reported on the Exceptions report. (It is important the you identify these problems and fix them prior to the Time Sheets being posted).

- For Series 5 Company System Codes "40", "98" and "UCC where the Series 5 License is "80001" or "90001", the Unit Rate supplied is the one that is used. For all other systems, the Unit Rate is computed based on the rules that have been established for the Project, Employee and Task.

- If the given Project has been set up for computing Overhead Amounts, then the Overhead amount is computed.

- If Costing is enabled for the system, then Unit Costs are computed based on the rules that have been established for the Project, Employee and Task.

- The system, by default, will look for the interface file in a sub-folder on your system that is defined by a variable in the runtime configuration file [736]. Your System's Manager can set this up for you.

- After interfacing the transactions, you must select Employee Timesheet Entry function [263] from the P/I's Operations drop-down menu, choose the specified Time Entry Batch and post it to have the transactions recorded as WIP items ready to be

processed for invoicing.

To Improve Performance

WIP data is loaded in the order it is read from the sequential file. When either a new Employee or a new Date is encountered, the system sets up a new Time Sheet. To improve performance, ensure that the data presented is sorted by Employee. This way one time sheet is created for each employee.

✤ Accessing the "Interface User WIP/Recap to Time Sheet" function

From the P/I Main menu, select **Load WIP/Recap to Tsheet Entry** from the **Operations** drop-down menu.
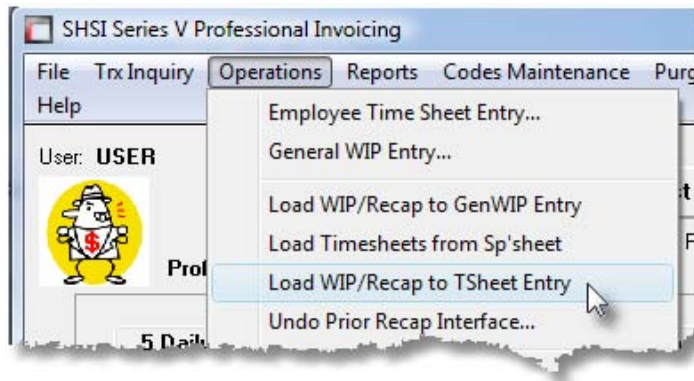
➲ Interface User WIP/Recap to Time Sheet - Options Screen

The following screen is presented when interfacing the user defined WIP and Recap charges as Timesheet Transactions:

Default Input From Folder

You would typically always have the interface file that is generated from the invoicing or order entry system deposited into the same folder. As such, it would be nice to have this interface function load the file without the operator having to hunt for it.

A variable may be be added to the Runtime Configuration file 736 that specifies the path from where the interface files are always loaded. It needs to be defined as follows:

    xxx-TRXTXT-PATH   full-directory-path

Where: **xxx** is the Series 5 company system code
    full-directory-path is the full path to the directory

Contact your system or accounting manager to have this capability set up.

The Interface Journal/Edit list report generated, if archived, will be catalogued with a report name of **PIUSERIFAC.JRN**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

- Field Definitions

Select Data to be Loaded	*radio-buttons*
The interface function is basically designed to load WIP charges, and as an option, associated Recap Detail information. Select to have one or the other file loaded, or both. **(Each type of data is read from different files, but Recap data is tied to WIP data using a Recap ID Number that needs to be assigned by the system that generates the interface files).**	

Input Files From Folder and Filename	*X(30) and X(120)*
Enter the folder location and filename of the file to be interfaced. Click the **Browse** button to navigate to the file to be interfaced. Separate files are loaded for the WIP and the Recap data.	

Post Charges to a Timesheet Entry Batch	*check-box*
When loading the interface data, if you wish to actually perform the interface and have time sheet transactions generated, then set this check box. *(Leave it un-checked if you just wish to validate the input data, and have an exception report generated).*	

Print an Interface Journal/Edit List	*radio-buttons*
When loading the Time Sheet transactions interface data, if you wish to have an edit list, a exception report, or a journal report generated, set this applicable radio-button. The Full Detail report list all transactions. The Exception report lists only those transactions that have undefined Projects, Task or Employee codes.	

Time Entry Batch Code	*X(6)*
This is the code assigned to the Time Sheet Entry Transaction Batch. It can be either numeric, or alphanumeric. There should not be any spaces or punctuation in the batch code, as it is used within the name of one of the Series 5 data files. By default, a code of **UI***mmdd* is used, (where *mmdd* is the current month and day).	

Ledger Date and Transaction Date	*(mmddyy)*
If not provided by the interface file, when Time Sheet transactions are generated, these	

dates will be automatically assigned as the Ledger Date and Transaction Date. When associated G/L distributions are generated, this is the date that is used.

Mark Items "Pre-Selected for Billing"	*check-box*

Normally when WIP items are recorded, they remain on the system until their associated Project is selected to be billed; or they are individually selected to be billed.

As an option, WIP items that are interfaced may be automatically selected to be billed. These will be flagged with a status of "Force Billed", and the original rates, units and amounts will be used as the corresponding amounts for invoicing.

➔ User WIP/Recap Sequential File Import - Input Record Definition

When loading Work-In-Progress transactions interfaced from sequential file the following record layout defines the fields:

Three records are used for each WIP charge. The 2nd record is optional, and is required only if WIP Reference information is available. The 3rd record is also optional. It is used to either add or update the A/R systems' Customer Service Rep, (CSR), codes. *(Note that the Customer Service Rep, is really just one of the A/R Customer Demographic Codes. Before using the 3rd record you must have already defined in the P/I Control Preferences, which Demographic Code is designated as the Customer Service Rep. See below under* Control Preferences - General Tab Screen 694 *) .*

The following record layouts are used:

```
*
*  SEQUENTIAL FILE DEFINITIONS FOR USER TIME ENTRIES FOR INTERFACE TO PI
*
*  EACH RECORD IS 156 BYTES (LAST BYTE COULD BE CR OR NEWLINE)
*
*  ONE TYPE OF RECORDS DEFINED:
*       TYPE 1  -  PRIMARY TIME ENTRY
*       TYPE 2  -  PRIMARY TIME ENTRY REFERENCE 1 & 2 FIELDS (OPTIONAL)
*
*

FD  USER-PITIME-FILE
        LABEL RECORDS ARE OMITTED
        BLOCK  CONTAINS 4056 CHARACTERS
        RECORD CONTAINS 156 CHARACTERS
        DATA RECORDS IS USER-PITIME-RECORD-1.

01  USER-PITIME-RECORD-1.
        03  USER-PITIME-REC-TYPE              PIC 9(1).
        03  USER-PITIME-EMPLOYEE              PIC X(6).
        03  USER-PITIME-TRX-DATE              PIC 9(6).
        03  USER-PITIME-PROJECT               PIC X(6).
        03  USER-PITIME-TASK                  PIC X(10).
        03  USER-PITIME-RATE                  PIC 9(6)V99.
        03  USER-PITIME-UNITS                 PIC S9(5)V99 SIGN IS TRAILING SEPARATE.
        03  USER-PITIME-AMOUNT                PIC S9(6)V99 SIGN IS TRAILING SEPARATE.
        03  USER-PITIME-OVERHEAD              PIC S9(6)V99 SIGN IS TRAILING SEPARATE.
        03  USER-PITIME-CHARGE-FLAG           PIC X(1).
        03  USER-PITIME-TYPE                  PIC X(1).
        03  USER-PITIME-DESCRIPTION           PIC X(50).
        03  USER-PITIME-SERVICE-DISB-FLAG     PIC X(1).
        03  USER-PITIME-WORK-LOCATION         PIC 9(2).
        03  USER-PITIME-DSCNT-SAVINGS-AMT     PIC S9(6)V99 SIGN IS TRAILING SEPARATE.
        03  FILLER                            PIC X(23).
        03  USER-PITIME-REC-COUNT             PIC 9(5).
        03  FILLER                            PIC X(1).

01  USER-PITIME-RECORD-2.
        03  FILLER                            PIC 9(1).
        03  USER-PITIME-REFERENCE-1           PIC X(40).
        03  USER-PITIME-REFERENCE-2           PIC X(40).
        03  USER-PITIME-INV-MODE-FLAG         PIC X(1).
        03  USER-PITIME-RECAP-DETAIL-ID       PIC 9(8).
        03  USER-PITIME-ITEM-DESC-OVERRIDE    PIC X(60).
        03  USER-PITIME-REC-2-COUNT           PIC 9(5).
        03  FILLER                            PIC X(1).

* USER-PITIME-INV-MODE-FLAG is user defined to Force a "Detail/Summary" Invoice
* when corresponding WIP item is billed

01  USER-PITIME-RECORD-3.
        03  FILLER                            PIC 9(1).
        03  USER-PITIME-CSR-CODE              PIC X(6).
        03  USER-PITIME-CSR-DESCRIPTION       PIC X(50).
        03  FILLER                            PIC X(93).
        03  USER-PITIME-REC-3-COUNT           PIC 9(5).
        03  FILLER                            PIC X(1).
```

Three records are provided for each Recap Detail item.

The 1st one, (identified as USER-RECAP-RECORD-0), is used only by the On-Demand Invoicing routines. It provides information associated to the origin of the request of the production of the on-demand invoice.

The 2nd record, (identified as USER-RECAP-RECORD-0), provides the detail, and charges associated to the corresponding service that was provided.

Assigning CSR Codes to Customers

When the Recap information records are loaded, if a value is provided in the **USER-RECAP-CLIENT-CSREP-CODE** field, then it will be assigned to the associated Customer's CSR Demographic Code field. It will be assumed that the provided CSR Code has already been defined.

The 3rd record, (identified as USER-RECAP-RECORD-2), is optional, and is required only if extra Reference information is available, or if 3rd Party Billing Customer information is applicable.

Assigning 3rd Party Billing Address Information

In order to process 3rd party billing, the **USER-RECAP2-SUB-CLIENT-xxxxxx** fields must have the appropriate values.   If no **USER-RECAP2-SUB-CLIENT-CODE** field is included, then the associated charges will only be invoiced to the primary Customer owning the Project.   When Sub-Client fields are provided, for the given Customer, a 3rd Party Billing master record will be written, or updated, in the Professional Invoicing system. (See the topic titled 3rd Party Codes Maintenance 591 for further information).

The following record layouts are offered for reference:

```
*  SEQUENTIAL FILE DEFINITIONS FOR USER THE RECAP DETAIL FOR INTERFACE TO PI
*  EACH RECORD IS 692 BYTES (LAST BYTE COULD BE CR OR NEWLINE)
*

  FD  USER-RECAP-FILE
        LABEL RECORDS ARE OMITTED
        BLOCK  CONTAINS 6920 CHARACTERS
        RECORD CONTAINS 692 CHARACTERS
        DATA RECORDS IS USER-RECAP-RECORD-1.

01  USER-RECAP-RECORD-0.
        03 USER-RECAP0-REC-TYPE         PIC 9(1).
        03 USER-RECAP-REQUESTOR-ID      PIC X(12).
        03 USER-RECAP-OPERATOR-NAME     PIC X(30).
        03 USER-RECAP-HOW-TO-EMAIL-FLAG PIC X(1).
        03 USER-RECAP-OPERATOR-EMAIL    PIC X(120).
        03 USER-RECAP-CUSTOMER-EMAIL    PIC X(120).
        03 USER-RECAP-PREPAY-CODE       PIC X(3).
        03 USER-RECAP-PREPAY-AMOUNT     PIC S9(5)V99 SIGN IS TRAILING SEPARATE.
        03 USER-RECAP-CRCARD-APROVE-CODE PIC X(8).
        03 USER-RECAP-INV-REQUEST-DATE  PIC 9(8).
        03 USER-RECAP-INV-REQUEST-TIME  PIC 9(8).
        03 FILLER                       PIC X(373).

01  USER-RECAP-RECORD-1.
        03 USER-RECAP-REC-TYPE          PIC 9(1).
        03 USER-RECAP-WIP-ID            PIC 9(8).
        03 USER-RECAP-WIP-COUNTER       PIC 9(4).

        03 USER-RECAP-ORDER-NUMBER      PIC 9(10).
        03 USER-RECAP-ORDER-LINE        PIC 9(3).
        03 FILLER                       PIC X(15).
        03 USER-RECAP-BILLING-CODE      PIC X(40).
        03 USER-RECAP-CUSTOMER-CODE     PIC X(6).
        03 USER-RECAP-SEARCH-DATE       PIC 9(8).
        03 USER-RECAP-SEARCH-TIME       PIC 9(6).
        03 USER-RECAP-ORDERED-BY        PIC X(30).
        03 USER-RECAP-SEARCH-NAME       PIC X(50).
        03 USER-RECAP-LEASE-NUMBER      PIC X(20).
        03 USER-RECAP-SEARCH-STATE      PIC X(2).
        03 USER-RECAP-SEARCH-COUNTY     PIC X(30).
        03 USER-RECAP-APPLICATION       PIC X(3).
        03 USER-RECAP-ACTIVITY-DESC     PIC X(60).
        03 USER-RECAP-DEPARTMENT-NO     PIC X(20).
        03 USER-RECAP-CLIENT-CSREP-CODE PIC X(6).
        03 USER-RECAP-ORDER-CSREP-CODE  PIC X(6).
        03 FILLER                       PIC X(3).
        03 USER-RECAP-CHARGE-RATE       PIC S9(5)V99 SIGN IS TRAILING SEPARATE.
        03 USER-RECAP-CHARGE-UNITS      PIC S9(5)V99 SIGN IS TRAILING SEPARATE.
        03 USER-RECAP-CHARGE-AMOUNT     PIC S9(5)V99 SIGN IS TRAILING SEPARATE.
        03 USER-RECAP-REFERENCE-2       PIC X(40).
        03 USER-RECAP-REFERENCE-3       PIC X(100).
        03 USER-RECAP-REFERENCE-4       PIC X(100).
        03 USER-RECAP-REFERENCE-5       PIC X(90).
        03 FILLER                       PIC X(6).
        03 FILLER                       PIC X(1).
```

```
01  USER-RECAP-RECORD-2.
       03 USER-RECAP2-REC-TYPE            PIC 9(1).
       03 USER-RECAP2-WIP-ID              PIC 9(8).
       03 USER-RECAP2-WIP-COUNTER         PIC 9(4).

       03 USER-RECAP2-REFERENCE-6         PIC X(90).
       03 USER-RECAP2-REFERENCE-7         PIC X(90).
       03 USER-RECAP2-REFERENCE-8         PIC X(90).
       03 USER-RECAP2-SUB-CLIENT-CODE     PIC X(6).
       03 USER-RECAP2-SUB-CLIENT-COMPANY  PIC X(150).
       03 USER-RECAP2-SUB-CLIENT-ATTENTION PIC X(30).
       03 USER-RECAP2-SUB-CLIENT-ADDRESS-1 PIC X(30).
       03 USER-RECAP2-SUB-CLIENT-ADDRESS-2 PIC X(30).
       03 USER-RECAP2-SUB-CLIENT-CITY     PIC X(20).
       03 USER-RECAP2-SUB-CLIENT-STATE    PIC X(2).
       03 USER-RECAP2-SUB-CLIENT-ZIP      PIC X(10).
       03 USER-RECAP2-SUB-CLIENT-PHONE    PIC X(10).
       03 USER-RECAP2-SUB-CLIENT-EMAIL    PIC X(120).
       03 FILLER                          PIC X(1).
```

9.5.8   Undo Prior Recap Interface

The Series 5 Professional Invoicing system is designed as a stand-alone system that can generate invoices for charges as a result of employee activity recorded as time sheets, or by other system's home grown servicing or production packages. Either way, WIP end up in the P/I system ready to be invoiced.

One of the interfaces used to load charges into the Professional Invoicing system handles both WIP records data, and Recap Detail record data. Recap data provides the opportunity to record extended information about the WIP activity.   The Load Timesheet WIP Interface function 329 offers the option to load just the WIP data, just the Recap data, or both. There are separate files for each type of data types. WIP records are input first, and then if selected, the Recap data records are input.

If you discover that the wrong Recap file was loaded, or it should not have been loaded at all, this menu function provides the means to Unload a specific range of Recap records. (Recap records are keyed by a WIP Recap ID number, that is used to tie them to their associated WIP records).

Some points to note when Undoing the Recap Interface:

- The specified range of Recap records are deleted from the system. If they were tied to WIP records the system does not really care.

A big assumption is made ….

When Recap records are interfaced, they are written directly into the Recap Detail file. When WIP records are interfaced, they are written either to a Time Sheet Entry batch, or the General WIP Entry session, and they don't end up in the working WIP record file until they are posted.

It is assumed that in deleting the Recap records, their corresponding WIP records are still unposted.

However, if you really wish to just delete Recap Records, irregardless of any associations that have been established to WIP records, this function will do just that.

✚ Accessing the "Undo Recap Interface" function

From the P/I Main menu, select **Undo Prior Recap Interface** from the **Operations** drop-down menu.
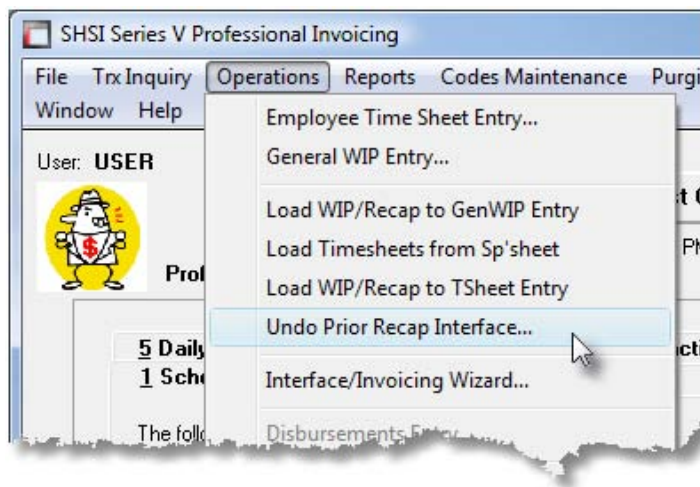
➡ Undo Recap Interface - Options Screen

The following screen is presented for entry of the starting and ending Recap ID for the range of records to be deleted:

Undo Recap Detail Interface

UNDO Previously Interfaced Recap Detail Upload

Undo Recap Interface Options

If you realize that you have inadvertly interfaced the wrong Recap Detail File to a particular set of General WIP Charges, you can UNDO that interface.

UNDO a Recap Interface:

Starting Recap ID # to Undo: 00017854

Ending Recap ID # to Undo: 00019088

OK   Cancel

▬ Field Definitions

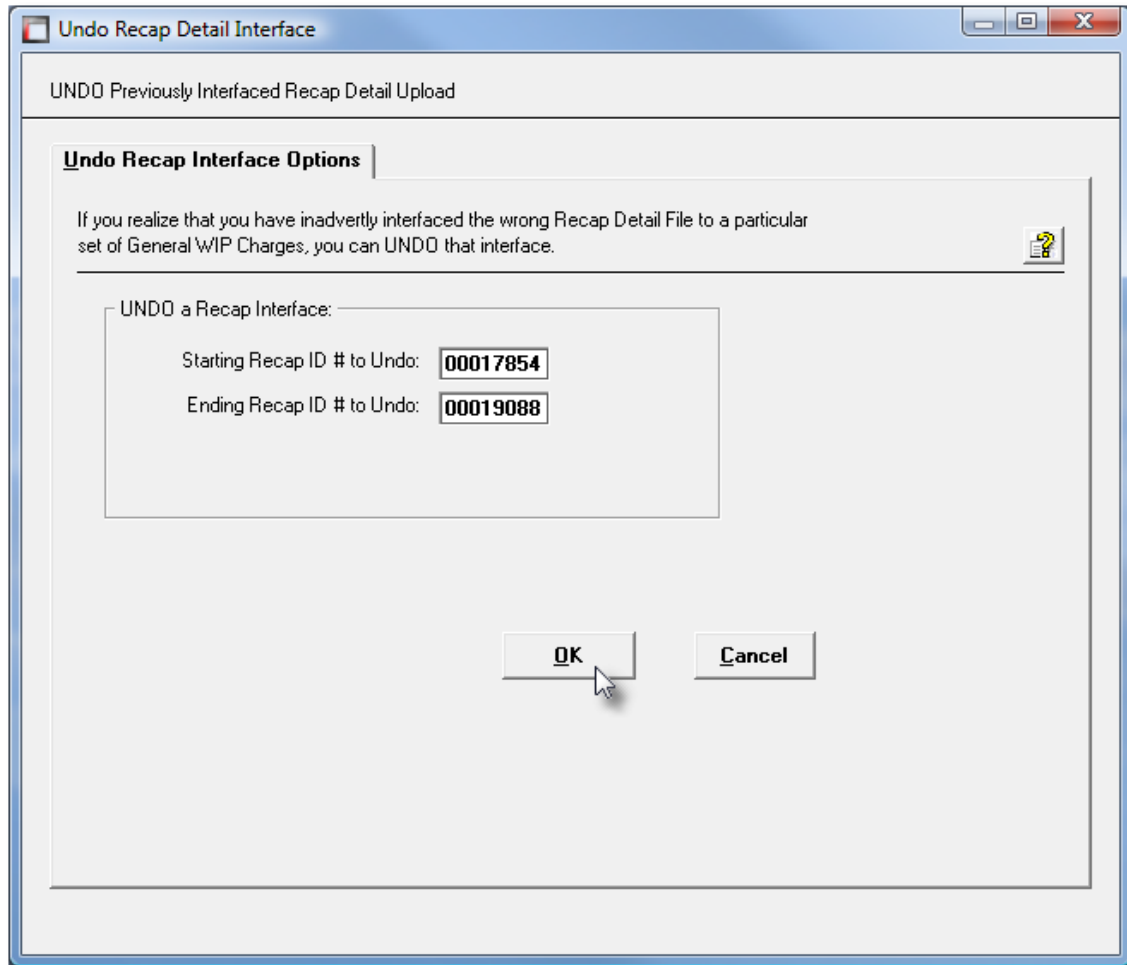| Starting and Ending Recap ID Numbers	*2 x 9(8)*
Recap records are keyed by a Recap ID Number. Determine the range of the Recap records that are to be deleted and enter their Starting and Ending Numbers.	

9.5.9   Interface/Invoicing Wizard

The Series 5 Professional Invoicing system provides an Invoicing Wizard that that may be invoked to automatically process the sequence of functions typically associated to daily operation. A wizard is really just another operation that automatically steps through a number of other operations associated to the application.

The wizard will automatically attempt to execute itself for each Invoicing Wizard Code 707 that has been defined to the P/I system. It reads the Invoicing Wizard Codes file for each code that has been created. It examines the designated folder, for each code, to see if any interface files exist. If files are found, then that Wizard Code is set up to be processed. Up to

12 Wizard Codes will be processed at once. For each Invoicing Wizard Code found, the wizard basically performs the following steps:

1) Calls the Load WIP/Recap to Generalized WIP Entry [312] operation to validate the interface files provided from other sources. The files are read and any Project Codes, Task Codes and Employee codes are validated. Should any invalid codes be found, the Interface is abandoned. Also, this step will verify that the associated interface file have not previously been loaded. If this is the case, then the interface is abandoned, and an appropriate message is displayed to the status screen, and is output to the exception report.

2) Calls the Load WIP/Recap to Generalized WIP Entry [312] operation to interface chargeable activity that had been generated from other sources. An example would be data that represents charges to be billed to customers that make assorted queries to a Web based data archiving system. The data is loaded and validated, and ends up as transactions that might normally be entered manually using the P/I system's General WIP Entry [289] function. There are actually two sets of data that are loaded; the 1st is what is referred to as *"Remote"* charges, and the second set is *"Local"* charges. Both types of data are converted to a single set of transactions that are ready to post. When the files have been successfully loaded, they are rename with the extension of ***.loaded***.

3) Calls the Load WIP/Recap to Generalized WIP Entry [312] operation to have the interfaced transactions, loaded from step 1, posted to the PI system. This step generates the Work-in-Progress, (WIP), items that will eventually be used to generated invoices. When these WIP items are created, they are automatically recorded marked as selected to be invoiced. Once posted, they are on file waiting to be invoiced.

4) Calls the P/I operation to Generate Invoices [436]. For all Projects that have WIP items that have been selected, invoices will be generated. Note that any other WIP items, other than those that were interfaced from steps 1 and 2 by the Wizard, will also be invoiced. The generated invoices would be listed in the grid screen associated to the Invoice Grid Processing [415] operation.

5) Calls the P/I operation to Print and Post Public Invoices [440]. All Invoices that have not yet been printed, are printed. Should any of these invoices really generated EDI versions of the invoices, the applicable EDI files are also generated. If defined as a property associated to the Invoice Wizard Code being processed, the invoices may be archived, printed as normal text on pre-printed forms, or printed as MS Word documents. When invoices are physically printed, they might be printed on a local printer, or on a network printer in some branch office.

6) Calls the Post Invoices to Accounts Receivable [432] operation. All Invoices that have been printed, are moved to a designated Accounts Receivable Sales Batch. If the batch does not exist, it is created. If it already exists, with transactions from a prior posting, then the new invoices are simply appended to the batch. Note that if another user has that Sales Batch open, the posting will not be able to proceed.

For each Invoicing Wizard code that is being processed, a separate tabbed status sub-screen is provided for. As each step is performed, the status is displayed. If any of the called applications produces a report that is printed, that report is printed. An audit log report is also generated, which once all Wizard Codes are dealt with, is printed.


Dealing with Failures

There is a potential for the Invoicing Wizard to fail. If there are any problems associated to the interface files, then the whole process will abort. (Ie., if there are undefined Project, Task or Employee codes, or invalid dates, then the interface cannot proceed).

In an attempt to catch these problems, once each Wizard Code has been identified, the system will call the Interfacing Operation for each Wizard Code's set of data to have an Exception report generated and printed. If all Wizard Codes are processed without errors, then the Invoicing Wizard will proceed. If problems were encountered, they must be fixed before the Invoicing Wizard can be launched again.

✚ Accessing the P/I Invoicing Wizard

From P/I Main menu, select **Interface/Invoicing Wizard** from the **Operations** drop-down menu.
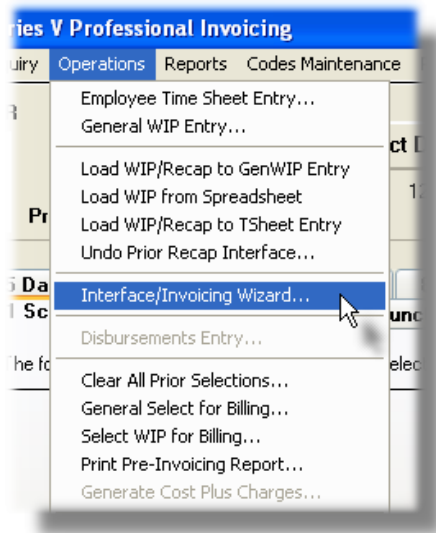
Invoicing Wizard – Select-to-Execute Screen

When launching the Invoicing Wizard operation, each of the eligible Wizard Codes are tested to see if any data files have been provided to be interfaced. Each is displayed, and those with data are enabled.

The Invoicing Wizard uses the Name Prefix to build the names of the files that are to be loaded. The Invoicing Wizard loads basic WIP charge records for the Wizard Code, and Recap supporting records. Each Wizard Code represents the charges, say for a particular office. The File Name Prefix is used to identify the interface files for each office. The Recap data is loaded from one file identified with a specific name. (If there are more than one sets of files for multiple offices, or multiple Wizard Codes, to be loaded, the Recaps are still loaded from only one file).

For each Wizard Code, when the Invoicing Wizard is executed, there are two types of WIP charges files that are loaded. These are referred to as Remote charges and Local charges. Hence for each Wizard Code there potentially are 4 interface files that could be processed.

The following filenames are expected for the Recap detail record files:

> UDS_DyRecap**yymmddR**_**hhmmss**.dat
>
> UDS _DyRecap**yymmddL**_**hhmmss**.dat

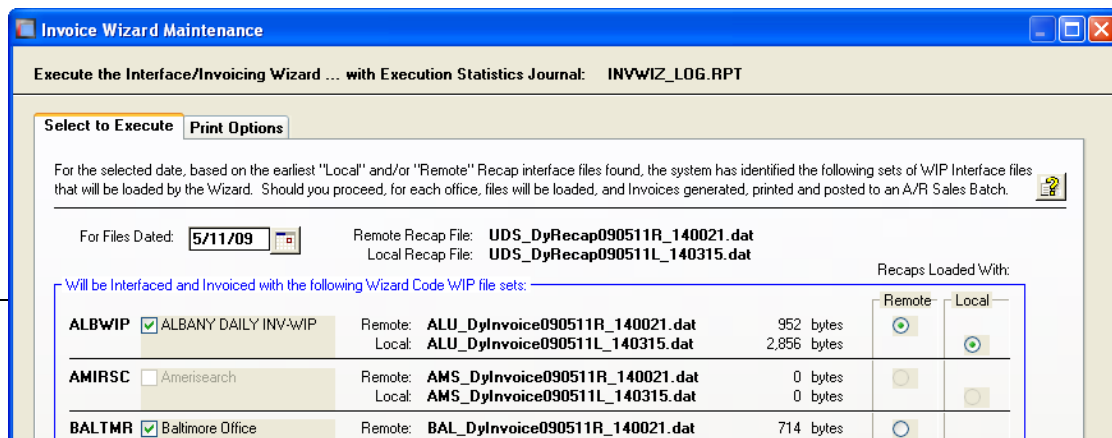The following filenames are expected for the WIP charges record files:

> **PPPPPP**_DyInvoice**yymmddR**_**hhmmss**.dat
>
> **PPPPPP**_DyInvoice**yymmddL**_**hhmmss**.dat

> Where: **PPPPPP** - Is the File Name Prefix associated to the Wizard Code
> **yymmdd** - Is the date the interface files were created
> **hhmmss** - Is the time the interface files were created
> **R or L** - Indicates the files as being either the Remote or Local charges

When the Invoicing Wizard is executed, it first attempts to find the earliest pair of Remote and Local Recap files in the selected directory. Once these are found it uses the date and time stamp embedded within the filename, along with the File Name Prefix, to form the WIP charges filenames.

The following screen is displayed:

▬ Invoicing Wizard Select-to-Execute Screen - Field Definitions

For Files Dated	**(mmddyy)**
Enter the date to define which sets of interface files are to be loaded. The interface files, have embedded within their names, the date of the charges for which the represent. Today's date will be the default, but it may be changed as needed. Based on the date entered, the system will test for the occurrence of each Wizard Code's files.	
XXXXXX - Select to Interface	*check-box*
Set or clear the check-box to have the corresponding set of files for the associated Wizard Code loaded or not.	
Recaps Loaded with - Remote and Local	*radio-buttons*
When the Invoicing Wizard is executed, it first attempts to find the earliest pair of Remote and Local Recap files in the selected directory. Once these are found it uses the date and time stamp embedded within the filename, along with the File Name Prefix, to form the WIP charges filenames.	

When the Invoicing Wizard is executed, it first attempts to find the earliest pair of Remote and Local Recap files in the selected directory. Once these are found it uses the date and time stamp embedded within the filename, along with the File Name Prefix, to form the WIP charges filenames.

For each time the Invoicing Wizard is executed, it needs to load a set of Recap files. The radio buttons indicate with which Invoice Wizard Code the Recap files are to be loaded with.

> **Loading Recap Data Files**
>
> For a given set of files processed by the Invoicing Wizard, there must be at least one pair of Record files defined. These files must contain Recap detail records that are associated to the WIP file records being loaded.

▬ Invoicing Wizard – Launch Screen

The following screen is displayed after the Invoicing Wizard selection options are entered. For each of the Invoice Wizard Codes found to have data that is ready to be loaded, a separate tab sub-screen will be provided. As the Wizard is processing, the status of each step will be displayed.

Click to have the Wizard launched, or it may be aborted by clicking **Cancel**.
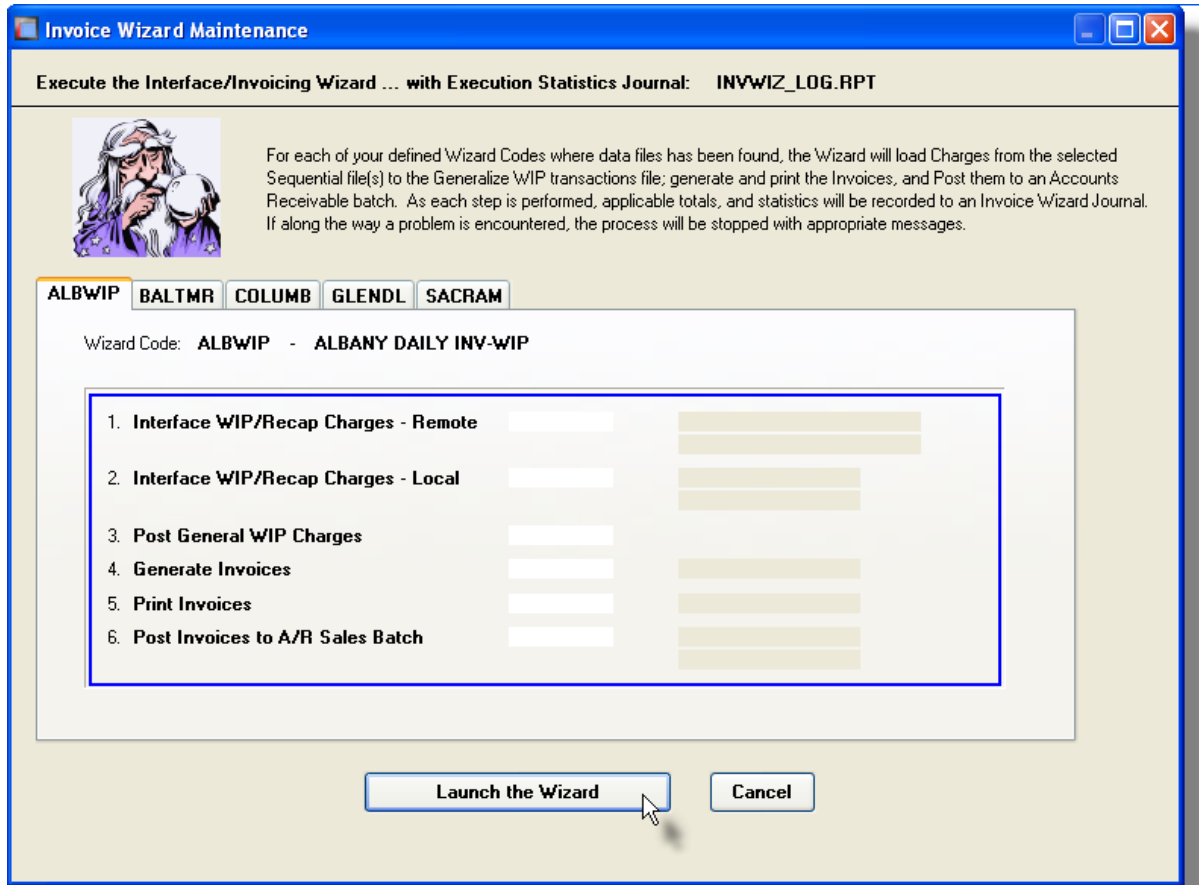
Invoicing Wizard – Interface Error Screen

There is a potential for the Invoicing Wizard to fail during the interfacing operation. If there are any problems associated to the interface files, then the whole process will abort. (Ie., if there are undefined Project, Task or Employee codes, or invalid dates, then the interface cannot proceed).

In an attempt to catch these problems, once each Wizard Code has been identified, the system will call the Interfacing Operation for each Wizard Code's set of data to have an Exception report generated and printed. If all Wizard Codes are processed without errors, then the Invoicing Wizard will proceed. If there are any errors encountered, the following screen is presented, and none of the data files for any of the Wizard Codes are processed.

The Launch screen status tab sub-screens will be refreshed indicating the problems. Those Wizard Codes with errors are indicated with a red *X* in the tab as shown:
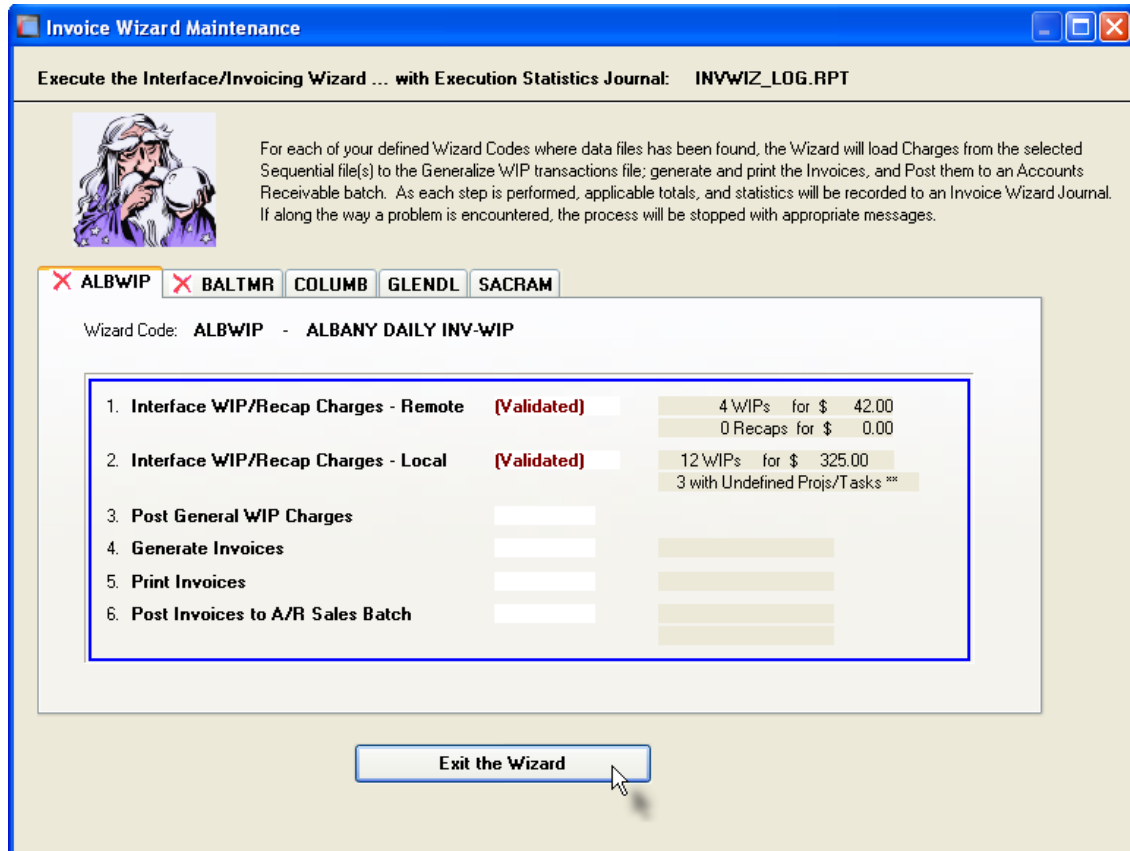
Interface Exception Reports

An Interface Exception report is created for each Invoice Wizard Code that is processed. If any errors are encountered, it will have to be reviewed to determine what codes were undefined or invalid. These reports are archived, or printed, or both, depending on one of the properties associated to the Invoice Wizard Code 707.

Invoicing Wizard – Interface Done Screen

When the Invoicing Wizard has successfully finished, each of the tab sub-screens for the Wizard Codes that were processed, are updated with applicable statistics. Click on the tab assigned to each Wizard Code for it's statistical totals.
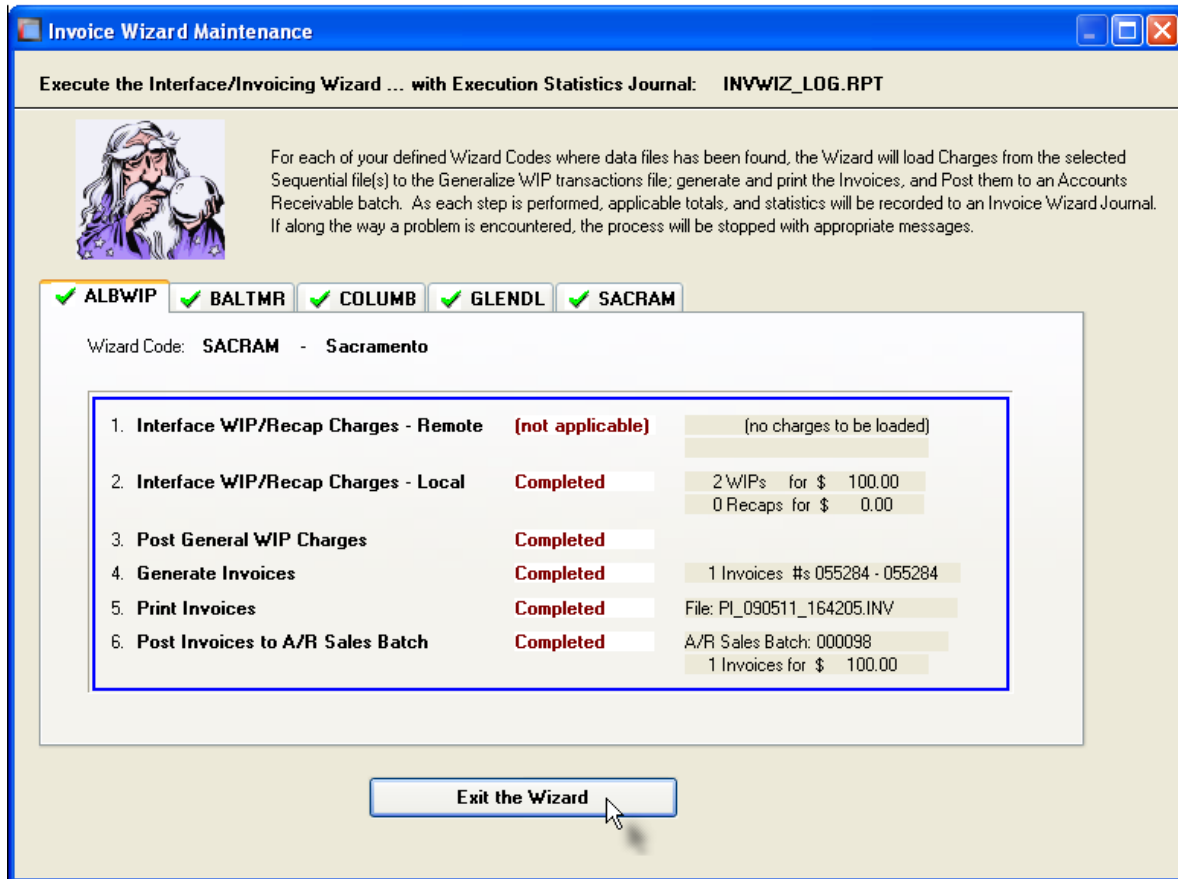
9.5.10 Disbursements Entry

This function is used to enter Disbursement Expense transactions that are associated to a given Project. These items may, or may not, be eventually passed on to the customer as a recoverable expense. If they are invoiced to the Project, they may be marked up be a given percentage. Either way, the cost amount of these items are recorded as a cost against the Project.

Three types of Disbursements may be recorded. These are as follows:

1. Purchases	– These are purchases that were made that are associated to the completion of the Project. These may be entered directly using this function, or they may be entered in the Accounts Payable system when the supplier's Invoice is entered. If known, you may record the PO #, Invoice # and Date.
2. Sub-Contracted Services	– These are services that were sub-contracted to a third party, for which all, or a portion of the Project required for completion. Starting and Ending Dates may be recorded, along with the # of applicable units of time and the unit rate for the cost of the service.
3. Inventory Items	– If parts were pulled from your in-house Inventory for use by the Project, these may be recorded. For these you may

record the Quantity, and the Unit Cost of these items. If necessary, the total cost may also be marked up for when the customer is invoiced.

When entering Disbursements you have the opportunity to enter the Cost, the Date, and the Employee that used, or was responsible for acquiring the goods or services.

Interfaced Disbursement Detail

For users providing interfaced detail charges from a different application, the option to Import Disbursements is offered. You may import from an Excel spreadsheet, a CSV file or a tab-delimited file.

If during the import, an invalid code is detected, the transaction is loaded, but it is flagged with an error code, and set with a status of ON-HOLD.

From the P/I Main menu, select **Disbursements Entry** from the **Operations** drop-down menu.
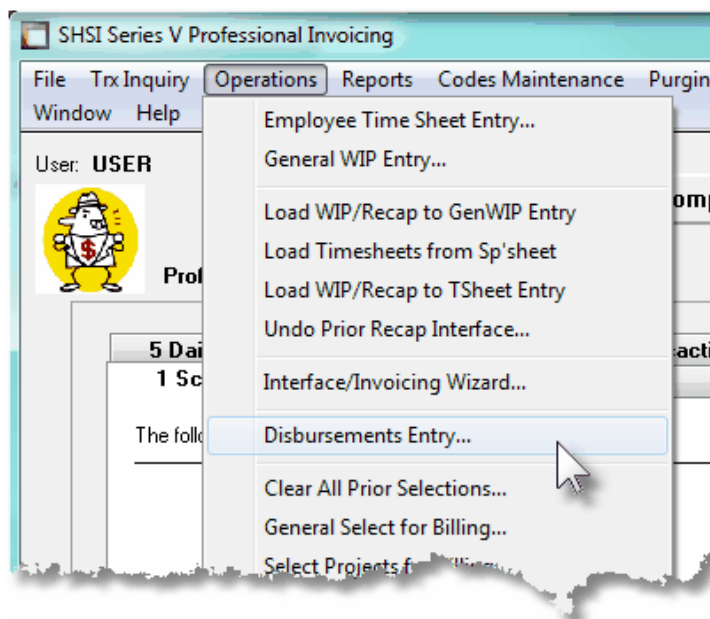
➡ Project Disbursements Entry - Grid Select Screen

The following grid screen is presented for entry and maintenance of Project Disbursement charges:

The "Fast Buttons" frame provides the push buttons to launch the most common functions associated to entry of General WIP.

"Fast Buttons"	
New	Add a new Disbursement Transaction
Modify	Modify the Disbursement Transaction highlighted in the grid
Delete	Delete the Disbursement Transaction highlighted in the grid
Edit List	Print an Edit List showing the details of each Disbursement Transaction entered into the batch
Import	Import Disbursement transactions from an Excel spreadsheet, or a tab-delimited text file.

Some of the special features of this Disbursement entry grid are as follows:

<table>
<tr>
<td>

➢ Transactions may be listed by Date, or for a selected Project, Disbursement Code or Vendor.

➢ If listing for a particular Project, Disbursement or Vendor, they may be chosen either by entering their assigned code, choosing it using the Lookup binoculars icon, or by having the next or previous code displayed that has items on file. *(Click the binocular icon with the up/down arrow to display Disbursement items that exist for the prior/ next occurrence of that code on file).*

</td>
<td>

List by: Project/Date
Date (Most Recent 1st)
Project/Date
Project/Disbursement
Disbursement/Date
Vendor/Date

Project: 18393 BANK OF AMERICA CREB-COMMERCIAL
Customer Code: 018393

</td>
</tr>
<tr>
<td>

➢ Depending on the **List By** selection, a field is presented, in which the operator may key in a Date or Disbursement code. The system will attempt to read to the closest transaction for the data entered and display it in the grid.

</td>
<td>

Go To Disbursement(s) Dated:

</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</table>

If the function to have the Edit List printed is selected, the report if archived, will be catalogued with a report name of **PROJDISBMNTS.LST**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* *for full details).*

⊙ Entering Disbursement Charges - Data Entry Screen

The following screen is presented for entry of fields associated to entry of the Disbursement charges:

For Sub-Contracted Disbursements, the middle section offers the following fields:

For Inventory Item Disbursements, the middle section offers the following fields:

Disbursement Data Screen - Field Definitions

Project Code	*X(6)*
Select or enter the Project Code for which the Disbursement being recorded was performed for. If In the PI Control Preferences, if the option to derive the Recoverable Expense account from the Project is set, then it is assigned accordingly. Also, if for the Project, its *Markups on Disbursement* property is set, and a *Markup %* is set up, then that % is assigned.	

Disbursement Code	*X(6)*
Select or enter the Disbursement Code for the charge that is being recorded against the project. The Taxable Status, and the default Markup % is obtained from the selected Disbursement Code's properties. In the PI Control Preferences, if the option to *Derive the Recoverable Expense account from the Disbursement* is set, then it is also assigned accordingly. If for the Project, its *Markups on Disbursement* property is set, and a *Markup %* is ZERO, then the Markup % will be assigned from that which is defined by the Disbursement.	

Employee Code	*X(6)*
Select or enter the Employee Code who was responsible for purchasing or using the Disbursement that is being recorded. In the PI Control Preferences, one of the properties determines whether the Profit Center assigned to any Revenue distribution is derived from Project, the Employee's assigned Location Code, or the Employee's assigned Department Code. If to be obtained from the Department or Location, then the chosen Employee's applicable code is read to assign the Profit Center.	

Date	*(mmddyy)*
This is the date that the disbursement is used for the selected Project.	

Type	*drop-down list*

Select the type of disbursement which is being recorded against the Project

Purchased Goods
Sub-Contracted Services
Parts from Inventory

Type of Disbursement	*Description*
Purchases	These are purchases that were made that are associated to the completion of the Project. These may be entered directly using this function, or they may be entered in the Accounts Payable system when the supplier's Invoice is entered. If known, you may record the PO #, Invoice # and Date.
Sub-Contracted Services	These are services that were sub-contracted to a third party, for which all, or a portion of the Project required for completion. Starting and Ending Dates may be recorded, along with the # of applicable units of time and the unit rate for the cost of the service.
Inventory Items	If parts were pulled from your in-house Inventory for use by the Project, these may be recorded. For these you may record the Quantity, and the Unit Cost of these items. If necessary, the total cost may also be marked up for when the customer is invoiced.

Disbursement Charge Status	**radio-buttons**

Select the Status of the charge being entered. Initially, you would choose from either Eligible for Billing, or Non-Recoverable, (basically Chargeable or Non-Chargeable). You might wish to initially select to put the item On-Hold, so it would not be automatically invoiced until it is take off On-Hold status.

Disbursement Charge Status:
- ⦿ Eligible for Billing   ○ Selected for Billing   ○ Invoiced
- ○ Non-Recoverable   ○ On Hold from Billing   ○ Invoiced and Paid

The different Status options are defined as follows:

Status	*Description*
Eligible for Billing	This disbursement is for a **Chargeable** service or item for which the customer associated to the Project will eventually be invoiced for.

Non-Recoverable	This disbursement is for a Non-Chargeable, or **Non-recoverable**, service or item for which the customer associated to the Project will NOT be invoiced for. The costs for this disbursement will be associated to the Project.
Selected for Billing	A disbursement that is **Selected for Billing** is a Chargeable item, that will automatically be selected to be invoiced the next time an invoice is generated for the associated Project.
On-Hold	**On-Hold** Items are similar to Eligible for billing Items, but are marked as *On-Hold*. These items can be selected for billing only by specifically being selected from the Selective Billing and Adjustments 400 function.
Invoiced	You would normally not select this as the assigned status when entering a new disbursement. Once this chargeable item is invoiced, this status will be set by the system.
Invoiced and Paid	You would normally not select this as the assigned status when entering a new disbursement. Once the Invoice on which this item has been assigned to has been paid, this status will be set by the system.

Vendor - (for Purchased items or Sub-Contracted Service)	*X(6)*

Select or enter the A/P system defined Vendor that the goods were purchased from, or the sub-contracted service obtained from. *(If the disbursement is entered prior to the supplier's invoice being received, then when it is received, the Vendor # will be used to attempt to link it to this Disbursement so the Voucher #, Invoice # and Invoice Date fields may be assigned).*

Purchases - PO Number	*X(11)*

Enter the PO Number, if applicable, that was used to purchase the goods or services associated to the Disbursement. *(If the disbursement is entered prior to the supplier's invoice being received, then when it is received, the PO # will be used to attempt to link it to this Disbursement so the Voucher #, Invoice # and Invoice Date fields may be assigned).*

Purchases - A/P Voucher Number	9(6)

This field is used to record the A/P Voucher Number that is assigned to the supplier's Invoice. It will be assigned when the A/P Invoice is entered, **and it can be tied to this Disbursement from the PO# and Vendor Code**.

Purchases - A/P Invoice Number	X(12)

If known, and Disbursements are entered manually, rather than being created when the supplier's Invoice is entered in Accounts Payable, enter the Invoice number "for the record". *(If the disbursement is entered prior to the supplier's invoice being received, then when it is received, the PO # and the Invoice Number fields will be used to attempt to link it to this Disbursement so the Voucher # and Invoice Date fields may be assigned).*

Purchases - A/P Invoice Date	(mmddyy)

If known, and Disbursements are entered manually, rather than being created when the supplier's Invoice is entered in Accounts Payable, enter the Invoice Date "for the record". *(If the disbursement is entered prior to the supplier's invoice being received, then when it is received, the Invoice # and Invoice Date fields will be assigned).*

Purchases - Expense Account	9(18) - 9(5)

This is the G/L Expense account that is used to record the cost of the goods or services purchased. This field is updated when the supplier's invoice is entered into the Accounts Payable system.

Purchases - Disbursement Charge	$ 999,999.99

This is the purchase cost of the goods used for the project.

Sub-Contracted Services – Start/End Dates	(mmddyy)

Used to record the dates which the sub-contracted services were performed. Used for information purposes only.

Sub-Contracted Services – # of Units and Type	9,999 and drop-down list

Used to record the # of units, and the type of units that was

sub-contracted for. The # of Units along with the Unit Rate field, are used to compute the Extended Cost of the sub-contracted services.

Hours
Days
Weeks
Months
Items

Sub-Contracted Services – Unit Rate	*$ 999,999.99*

For sub-contracted services this the Unit cost of the services which the supplier charged.

When recording a Credit to the Project for Disbursements, the # of Units should always be entered as a positive value and the Unit Rate with a minus sign.

Sub-Contracted Services – Extended $ Amount	*$ 999,999.99-*

This is the purchase cost of the sub-contracted services used for the project. It will be computed from the # of UNits and the Unit Rate as entered.

Inventory – Warehouse Location	*X(6)*

Enter the Warehouse Location code that the Inventory was obtained from. This is a code that is defined in the Series 5 Inventory Management system.

Inventory – Item Code	*X(23)*

Enter the Inventory Item code that is associated to the Inventory that was used for the Project.   This is a code that is defined in the Series 5 Inventory Management system.

Inventory – # of Units	*9,999*

Used to record the # of inventory items that were used for the Project. The # of Units along with the Unit Rate field, are used to compute the Extended Cost of the inventory items.

Inventory – Unit Cost Rate	*$ 999,999.99*

For Inventory items is the Unit cost of the items. ***This is not the Unit Selling Price -- It is the Cost of inventory and is used in computing the Cost associated to the Project.***

Inventory – Extended Amount	$ 999,999.99

For Inventory items that were used for the Project. This is the Extended Cost of the items used for the Project.

Brief Description	X(40)

This field is used to record a brief description of the purchases or services associated to the Project. It will default to the description recorded with the Disbursement Code on file.

Extended/Invoice Descriptions 1 and 2	X(50)

These fields are used to record additional information to describe the purchases or services associated to the Project.

Markup %	999.99 %

Enter a markup percentage that is to be applied to the purchased cost of the goods or services, to be used to determine the amount to be invoiced. This will default either to the Markup % that was assigned to the Project, or to the Disbursement master records. *(The % from the Project takes precedence over the % from the Disbursement).* The Markup % may be entered, or cleared, regardless of the default that is set.

Invoice Amount	$ 999,999.99-

This is the amount that will be charged to the customer on the invoice that is generated for the Project. If a Markup % is entered the amount will be computed as follows:

Invoice Amount = Disbursement Charge x (1 + Markup%/100)

Billing Code	X(6)

This field may be used to record a Billing Code. It may be used to determine how this charge is to be invoiced for those Projects that generate multiple Invoices based on a user supplied Bill Code.

Recoverable Expense Account	9(18) - 9(5)

This is the G/L Revenue Account which the chargeable, recoverable, expense amount will be recorded to when the invoice is generated and passed on to the Accounts Receivable system. This will be assigned by the system either from the Project Code's properties or from the Disbursement Code's properties, as determined by a setting in the P/I Control Preferences 700. Also, the Profit Center will also be assigned either from

the Project, the Employee's Location or from the Employee's Department properties, as determined by a setting in the P/I Control Preferences 700.

Disbursement Entry Import Data Formats

When the Disbursement charges are imported, the following fields are input from an Excel spreadsheet, a tab-delimited text file, or a CSV text file. The default input filename is **GenWIPTrxIn.XLS.**

Column #	Excel Column	Field	Format
1	A	Project Code	X(6)
2	B	Disbursement Code	X(6)
3	C	Employee Code	X(6)
4	D	Transaction Date	MM/DD/YY
5	E	Type - [P]urchase, [S]ub-Contracted Service or [I]nventory Items	X(1)
6	F	Status - [C]hargeable, [N]on-Chargeable, [S]elect to Invoice, On-[H]old	X(1)
7	G	Vendor Code	X(6)
8	H	PO Number	X(11)
9	I	Sub-Contracted Start Date	MM/DD/YY
10	J	Sub-Contracted End Date	MM/DD/YY
11	K	Sub-Contracted Units Type - [H]ours, [D]ays, [W]eeks, [M]onths	X(1)
12	L	Inventory Warehouse	X(6)
13	M	Inventory Item	X(23)
14	N	# of Inventory or Sub-Contracted Units	9,999
15	O	Unit Cost of Inventory or Sub-Contract	999,999.99
16	P	Extended Cost Amount of Disbursement	999,999.99
17	Q	Description	X(40)
18	R	Invoice/Extended Reference 1	X(50)

13	S	Invoice/Extended Reference 2	X(50)
14	T	Markup Percentage	999.99
15	U	Amount to be Invoiced	999,999.99
16	V	Billing Code	X(6)
17	W	Recoverable Expense Acct - Main #	9(18)
18	X	Recoverable Expense Acct - Profit Center	9(5)

9.5.11 Entering a Credit Note

This function is used when you wish to generate a Credit against an invoice that has already been printed and posted to the Accounts Receivable system. The Credit Note will be printed the next time the Generate and Print Invoices function is selected. When the Credit is posted to the Receivables system, a type **[C]** credit document is recorded.

When a Credit Note is entered, a type **[C]** WIP record is written with Task Code and Employee Code of **$CRDNT.**   This, in effect, is used to reduced the amount of revenue, that might be reported for the associated Project in assorted inquiry and reporting functions. When the credit document eventually is posted to the Accounts Receivables system, a debit is made to the A/R Control account and a credit to Suspense Credit; and the Credit is recorded in the P/I Invoice History file.

Presumably, specific WIP items that contributed to the charges on the Invoice that was credited will have to be marked down. Once the initial credit information is entered, a second tabbed sub-screen is displayed, titled **[Apply to Invoiced WIP Items]**. Here you may have the system select ALL the WIP items associated to the original Invoice, or apply the credit amount selectively to specfic WIP items. The Credit amount recorded with the type **[C]** $CRDNT WIP record will be reduced, the Suspense Credit will be debited and the WIP's Revenue will be credited.

From the P/I Main menu, select **Enter Credit to an Invoice** from the **Operations** drop-down menu; or click the **Credit Invoice** push button from the **Invoice History Inquiry** "fast buttons" frame.

Some points to note about the automatic selection process:

- The Credit Note can only be applied to a single Invoice. That invoice must have been already generated and posted to Accounts Receivable.

- The Credit Note must have a unique document number. It should not have the same number as the Invoice that it is being applied to. By default, it will be assigned from the **Next Credit Document Number** field, as defined in the A/R Control Preferences.

- Enter the amount of the Credit as a positive value

- The amount of the Credit may be applied to all, or specific WIP items, associated to the Invoice to which the Credit applies to.

- After the Credit is entered, it will be written to the P/I Invoices file as a Credit. It will be displayed as a Credit in the grid display screen from the Invoice Grid Processing [419] Operations function. When Invoices are next printed, it will be printed as a Credit Note.

➡ Entering Credits - Data Entry Screen

The following screen is presented for entry of fields associated to entry of the Credit:

Credit Entry Data Screen - Field Definitions

Credit Document Number	*9(6)*
This will be the number identifying the Credit document and will be assigned to the resulting Open Item record in the Accounts Receivable system. The default is determined from a field defined in the A/R Control Preferences. When assigning the Document Number, it is important that you assign a range of numbers that will not conflict with the invoices that are generated by the system. ***Do not use the number of the invoice to which the credit is to be applied against for the Credit's document number.***	

Document Date	*(mmddyy)*
This is the date that will be assigned to the Credit Note.	

Reference	*X(30)*
A brief description may be recorded. This will be carried through to the A/R system and used as the reference in the resulting Open Item record.	

WIP and Overhead Credit Amounts	*$ 9,999,999.99*

Enter the portion of the Credit that is to be applied against WIP charges, and any Overhead charges that were computed for the invoice. ***Enter this amount as a positive value.***

The total of all Credit amounts cannot exceed the original total of the invoice to which the credit is being applied.

Tax 1 and 2 Credit Amounts	*$ 99,999.99*

Enter the portion of the Credit that is to be applied against Tax amounts that were computed for the invoice. ***Enter these amounts as a positive values.***

The total of all Credit amounts cannot exceed the original total of the invoice to which the credit is being applied.

◉ Applying Credit to Invoiced WIP Items - Grid Select Screen

The following grid screen is presented for selection of those WIP items to which the credit amounts are to be applied:

Some of the special features of this "Apply Credit to WIP" grid are as follows:

➢ To select a particular WIP item to be Credited, double-click the row that it's information is displayed in.

➢ WIP tems that have had a Credit Amount applied to them have the ✔ icon shown in the 1st column of the grid.

➢ To apply the total amount of the Credit to All WIP items, click the **Apply to ALL** push button.

➢ To clear any previously applied amounts, click the **Clear ALL** push button.

➢ The WIP amounts Remaining to be Credited, and the amount

Already Credited are displayed. The entry of the Credit may be completed only when the Amount Remaining to be Credited is ZERO.

WIP Amount Remaining to be Credited: 1,032.25
WIP Amount Already Credited: 36.00

Amt | Credit Amt | New Inv Amt | Line | Description

Enter the Credit

➢ Once the total amount of the Credit has been applied, the Enter the Credit push-button will be enabled. To have the Credit entered, click this button.

➢ The table displaying the WIP fields is wider than the screen is able to accommodate. To display the extra fields, at the bottom of the grid, a scroll-bar is presented which may be dragged to view the columns of data that are not shown on the right.

| 5/31/05 | UCMN304F | 400UCR | | 1.00 |

➢ (If your screen is wide enough, you may also click on the [icon] icon at the bottom right corner of the window, to expand it.

➲ Applying Credit to WIP - Data Entry Screen

When a given WIP item's grid row is double-clicked, the following screen is presented for entry of the Credit amounts to be applied to that WIP:

Applying Credit to WIP Data Entry Screen - Field Definitions

Amount to Credit – WIP Amount	$ 9,999,999.99-
Enter the amount of the Credit that is to be applied to the WIP items Charged amount. The respective New Invoice Amount field will be adjusted accordingly.	

Amount to Credit – Overhead	$ 999,999.99-
Enter the amount of the Credit that is to be applied to the WIP item's Overhead amount. The respective New Invoice Amount field will be adjusted accordingly.	

New Invoice Amounts – # of Units	99,999.99-
As a result of the Credit, enter the new # of Units that would be considered as having been invoiced.	

New Invoice Amounts – Unit Rate	$ 999,999.99
If the credit is issued because the rate was incorrect, enter the correct Unit Rate. The	

New WIP amount will be automatically recomputed.

New Invoice Amounts – WIP & Overhead	*$ 9,999,999.99-*

As a result of the Credit, this is the new amount that would be recognized as being invoiced for this WIP item.

9.5.12 Recalculate Project Rates

When time charges are recorded for an employee's time sheet, basically a Project Code, a Task Code and a Quantity of Units is all that is needed to be entered. From this information the system will determine the Unit Charge Rate with a G/L Revenue account, and a Cost Rate with a G/L Cost account. If budgets are maintained for the selected Project, then they also are updated. There are also codes assigned that affect the way that items are listed on invoices. Determining the values assigned by the system to these fields is a process that involves examining a number of control options associated to the Project, Employees and Tasks, and possibly the use of special rates tables.

If the situation arises that a particular control code was not set correctly, or if special rates were not right, you may discover that the amounts charged to your customers for work performed is not what you had hoped; or perhaps revenue earned was not being allocated to the correct department. There is silver bullet for this problem. This function exists to recalculate charge rates and revenues, and all other codes for the WIP items associated to a Project.

For a selected Project, you may choose a range of WIP items that will have their Charge Rates, Revenue Account, Cost Account, Cost Rate reassigned by the system. Not only are these fields changed, but all the appropriate correcting G/L Distributions will be made also.

From the P/I Main menu, multiple Projects may be processed by selecting **Recalc Project WIP Rates** from the **Operations** drop-down menu. A single Project may be processed when selected from **Work in Progress Inquiry** of the **Trx Inqury** drop-down menu, and from it's Operations drop-down menu, **Recalc Project Default Rates** .

Some points to note when having the Project Rates and G/L Accounts reassigend:

- The generic WIP selection filters screen is presented to allow you to select specific WIP items within a given date range, and/or for specific Employees or Tasks.

- If your system is configured to compute Cost Plus Charges, then as an option, you may select to have these items also deleted. Cost Plus charges are recorded as WIP items using designated Task Codes as determined by the P/I Control Preferences [705] function. These WIP charges are recorded with an employee code of **$CSTPL**.

- Only Active, Uninvoiced WIP items may have their rates and codes reassigned.

- If when a WIP charge was originally entered into the system, it's rate was entered manually, of supplied from an externally interfaced set of charges, then THE **UNIT INVOICE RATE IS NOT RECALCULATED** by the system. *(However, other codes*

and Costs and Revenue Accounts are reassigned).

- The following codes associated to a WIP item are reassigned:

Code	*Dervied from*
❑ Client/Customer Code	Project properties record
❑ Partner-In-Charge	Project properties record
❑ Project Leader	Project properties record
❑ Person/Machine Flag	Employee properties record
❑ Foreign Flag	Task properties record
❑ Invoice Section Code	Assorted properties defined by Preferences
❑ Invoice Group Code	rules
❑ Budget Group	Assorted properties defined by Preferences
❑ Taxable Status	rules
	Assorted properties defined by Preferences
	rules
	Task properties record

- The following rates and/or G/L Accounts are reassigned to each WIP item:

Code	*Dervied from*
❑ G/L Revenue	Assorted properties defined by Preferences rules
Account	Assorted properties defined by Preferences rules
❑ Unit Invoice Rate	Computed
❑ Extended WIP	Computed
Amount	Computed from assorted properties defined by
❑ Overhead Amount	Preferences rules
❑ Cost Amount	Assorted properties defined by Preferences rules
❑ G/L Cost Account	

- If the system is configured to maintain Budgets, they are updated with any newly created amounts,

- For those systems that generate Revenue Distributions at the time WIP charges are entered into the system, reversing and new distributions are recorded.

Only Eligible WIP items are Recalculated

In addition to the filters offered, only those WIP items of the following Types or Status will have their Rates and G/L Accounts reassigned:

Of Type:
- ☑ Active
- ☐ Credits
- ☐ Deposits
- ☐ Holdbacks
- ☐ Manual Inv'd
- ☐ Memo Entry
- ☐ Fully Invoiced
- ☐ Maked Up/Down
- ☐ Part Invoiced
- ☐ Part Inv Balance
- ☐ Writeoffs

With Status of:
- ☑ Unselected
- ☐ Select To Bill
- ☑ Perm Deferred
- ☑ Temp Deferred
- ☐ Invoiced
- ☑ Force Inv'd
- ☐ Inv'd / Paid
- ☐ Never Select

Note that regardless of the selections made to these WIP filters by the operator, the displayed WIP Type and Status settings shown will apply.

➜ Recalculate Multiple Projects WIP Rates - Options Screen

The following screen is presented when selecting to have a Projects' WIP rates and codes reassigned:

Recalculate Project WIP Rates

Set Display or Processing Selection Options ...

Recalculate Options | WIP Selects | Project Selects | Customer Select Filters

For the selected Project(s) and WIP items, all unbilled items will have their rates and G/L accounts re-assigned,
and where applicable, correcting G/L Distributions will be made.

☐ Remove Unbilled system generated Cost-Plus charge WIP items too ?

[Next]   [Cancel]

When having Projects' WIP Rates recomputed, the operator is also presented with the standard WIP Select Filters 147 screen, the Project Select Filters 142 screen and the Customer Select Filters screen 151. These allow you to specify selected or ranges of Projects, Project Locations, Project Departments, Customers, Customer Types, Sales Representatives, and/or only those customers and/or projects satisfying a variety of filter criteria; And to specify WIP for selected or ranges of Employees and Tasks, and/or only those WIP items satisfying a variety of filter criteria.

Recalculate Project Rates Options Screen - Field Definitions

Remove Unbilled system Generated Cost-Plus Charges	*check-box*
If your system is configured to compute Cost Plus Charges, then as an option, you may select to have these items also deleted. Cost Plus charges are recorded as WIP items using designated Task Codes as determined by	

the P/I Control Preferences 705.

9.5.13 Writing Off a Project's WIP Items

In the event a given chargeable WIP item, or set of WIP items, should never be invoiced, then they should be written off. By writing off a WIP item, any revenue distributions that might have been generated when it was originally entered into the system will be reversed.

To have WIP items for a given Project written off, requires three step process:

1. Select the Project whose WIP items are to be written off.
2. Select the WIP items that are to be written off, either individually, or as a set.
3. Execute the function to Post the WIP items that have been selected to be Written Off

➡ Project WIP Write Off Selection Grid

Type	Stat	Date	Task	Employee	Quantity	Unit Rate	Extended	Overhead	Description	Sect / Group	3rdPty	Bill?
A	W	12/13/07	UCWA101R	400UCR	1.00	$ 20.00	$ 20.00	$ 0.00	HAZELL	UC101R		W
A	W	12/13/07	UCWA101R	400UCR	1.00	$ 20.00	$ 20.00	$ 0.00	LIFETIME FAMILY	UC101R		W
A	W	12/13/07	UCWA101R	400UCR	1.00	$ 20.00	$ 20.00	$ 0.00	HAZELL	UC101R		W
A	W	12/13/07	UCWA101R	400UCR	1.00	$ 20.00	$ 20.00	$ 0.00	LIFETIME FAMILY	UC101R		W
A	W	12/13/07	UCWA101R	400UCR	1.00	$ 20.00	$ 20.00	$ 0.00	HAZELL	UC101R		W
A	W	12/13/07	UCWA101R	400UCR	1.00	$ 20.00	$ 20.00	$ 0.00	LIFETIME FAMILY	UC101R		W
A	W	12/13/07	UCWA101R	400UCR	1.00	$ 20.00	$ 20.00	$ 0.00	HAZELL	UC101R		W
A	W	12/13/07	UCWA101R	400UCR	1.00	$ 20.00	$ 20.00	$ 0.00	LIFETIME FAMILY	UC101R		W
A	W	12/13/07	UCWA101R	400UCR	1.00	$ 20.00	$ 20.00	$ 0.00	HAZELL	UC101R		W
A	W	12/13/07	UCWA101R	400UCR	1.00	$ 20.00	$ 20.00	$ 0.00	LIFETIME FAMILY	UC101R		W
A	W	12/13/07	UCWA101R	400UCR	1.00	$ 20.00	$ 20.00	$ 0.00	HAZELL	UC101R		W
A	W	12/13/07	UCWA101R	400UCR	1.00	$ 20.00	$ 20.00	$ 0.00	LIFETIME FAMILY	UC101R		W

Select Project Items to be Written-Off

File   Operations   Help

P/I Project Billing   Select the Project for which WIP items are to be Written-Off. Then either mark individual WIP items, or from Operations select to mark Multiple WIP items for Write-Off. Once items have been marked, click the Post Items Marked for Write-off button.

Exit

Post Items Marked Writeoff

Project: 14565   BROWN RUDNICK BERLACK ISRAELS LLP
Customer: 014565   BROWN RUDNICK BERLACK ISRAELS LLP
BOSTON, MA

Refresh

WIP

Project WIP Totals   12   Un-Selected: $ 240.00   0   Permanent Defers: 0.00   12   to Write Off: $ 240.00
for   12 Items.   0   Selected: $ 0.00   0   Temporary Defers: $ 0.00

For the Project, WIP listed by Inv Section/Group.   Search: for:

"Fast Buttons"	
Post Items Marked for Write-Off	Those WIP items that had been marked to be Written Off will be written off. *(See the section following on Writing Off a Project's WIP Items* 373*).*

Some of the special features of this "Selection" grid are as follows:

➤ WIP Items or Disbursement Items are listed for a selected Project. Projects may be chosen either by entering their assigned code, choosing it using the Lookup binoculars icon, or by having the next or previous code displayed that has items on file. *(Click the binocular icon with the up/down arrow to display WIP items that exist for the prior/next occurrence of that code on file).*

Project: 18393 ▾ | 🔍 🔍 🔍 | BANK OF AMERICA CREB-COMMERCIAL
Customer Code: 018393

➤ If a particular row in the grid, representing a given WIP Item, is double clicked, it will be "Selected to Be Written Off" (If that item was already selected, then it will be "Unselected From Being Written Off".

➤ The last column of each row, for each item displayed, contains an graphic designating the billing status of the item.

➤ These are defined as follows:

🔴	Permanently Deferred
🟡	Temporarily Deferred
✔	Selected for Billing
↕✔	Marked Up/Down
✔	Selected to be Partially
W	Selected to be Written

Bill?
🔴
✔
✔
✔
✔
✔
🟠

W

➤ For the selected Project applicable totals are displayed below the grid display.
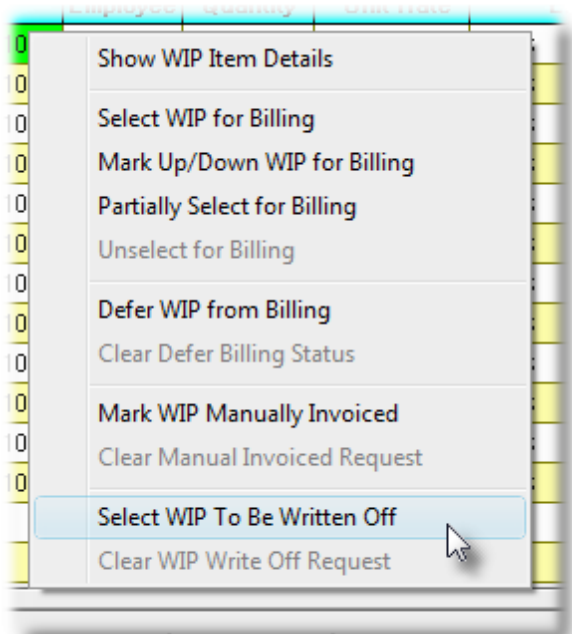
Project WIP Totals 2,933   Un-Selected: $ 93,495.95   1   Permanent Defers: 14.00   2 to Write Off: $ 28.00
for 2,940 Items.   7   Selected: $ 162.00   1   Temporary Defers: $ 14.00

> In the screen's menu-bar at the top of the screen, under the Operations drop-down menu, a variety of functions are available that might be performed on all, or the selected Project.

> In particular, the function to have Multiple WIP Items selected to be Written Off is found here.

Select Project Items for Billing

File | Operations | Help

P/I

Clear All Previous Selects..

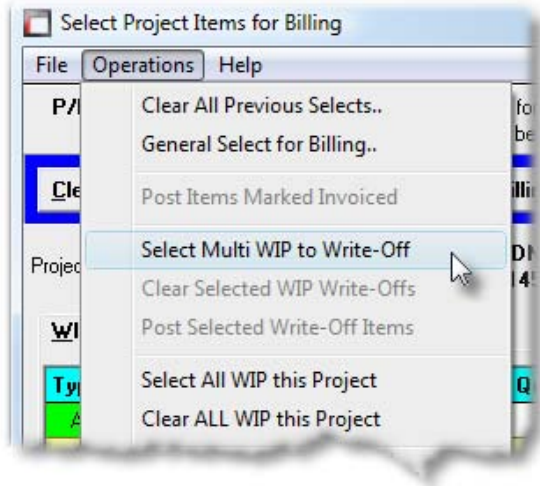General Select for Billing..

Post Items Marked Invoiced

Select Multi WIP to Write-Off

Clear Selected WIP Write-Offs

Post Selected Write-Off Items

Select All WIP this Project

Clear ALL WIP this Project

> Within the grid, right-click a row to have a pop-up menu displayed offering available functions that may be performed on the associated WIP item. The function to have a single WIP item selected, or de-selected, for Write Off is found here.

Show WIP Item Details

Select WIP for Billing
Mark Up/Down WIP for Billing
Partially Select for Billing
Unselect for Billing

Defer WIP from Billing
Clear Defer Billing Status

Mark WIP Manually Invoiced
Clear Manual Invoiced Request

Select WIP To Be Written Off
Clear WIP Write Off Request

Some points to note about having WIP Written Off:

- The WIP Description, and Reference Fields may also be edited. (You might wish to record a reason as to why the item was not invoiced).

- When items have been marked to be Written Off, when displayed in the Project Selection grid screen, a **W**, will be displayed in the right-most column.

- The WIP item may have it's Selected for Write Off Status cleared by selecting the **Clear WIP Write Off Request** from the pop-up menu.

- Once the selected items have been Posted for Write-Off, they may not be reinstated to the status where they can be billed.

➡ Selecting a Single WIP Item to be Written Off

The following screen is presented for having a WIP item Written Off. Basically you need to enter the Ledger Date that will be used when applicable G/L Reversing Distributions are generated.

➖ Selecting a Single WIP to be Written Off - Field Definitions

Description	X(50)
This field is used to record a brief description of the activity performed. For Projects using specific Invoice Layouts, this field may be used to sort items printed on invoices.	
Reference 1 and 2	X(40)

These fields are used to record codes relating to sub-contracts, job numbers, billing codes, contact names, etc., or to record more verbiage describing the WIP activity. For Projects using specific Invoice Layouts, and/or that generate EDI invoices, segments of these fields may be used to determine how items are grouped or sorted for invoicing.

Type "C" Invoice Layout Grouping	*drop-down list*

When invoices are generated for a Project, the P/I system provides for a number of different sorting and grouping options. Invoice Layouts are created and assigned to every Project. For Projects that have a Type "C" Invoice Layout, these radio-buttons are offered so a Group and/or Consolidation code may be recorded with their associated WIP items.

WIP charges may be recorded into the P/I system with a Consolidation Flag. This is a 1 character field that can take a value of **D**, **F**, or a number from **1, ... 9**. Depending on the options specified, all WIP charges may be grouped and sub-totalled by their Consolidation Flag. All WIP having the same Consolidation Flag are grouped together.

As an additional option, the WIP within each Group will be sorted by the WIP Reference field. In some cases, the Reference field holds an individuals's name, or a Billing-Code. All charges with the same Reference field would be sub-totalled and printed as one line on the invoice.

⦿ None	No consolidation is performed. Each WIP charge is printed in detail
○ Sum items within a Group printed as a total	All the charges with the same Consolidation Flag are sub-totalled and printed as one line.
○ WIP for a Group are sub-totalled by Reference	All the charges with the same Consolidation Flag are sub-totalled by their WIP Reference field. An additional sub-total is printed for each Consolidation Group.
○ Sub-Total by Reference Bill-Code	All the charges with the same Bill-Code, that is determined from the WIP's Reference field, are sub-totalled and printed. When selected, you must also specify which portion of the Reference field is to be used as the Bill-Code. (The Consolidation Flag is not used in this case).

Write-Off Ledger Date	*(mmddyy)*

Enter the Ledger Date that will be used for any reversing G/L Distributions that are generated.

➡ Selecting Multiple WIP Items to be Written Off

The following screen is presented to have all, or a filtered set, of WIP items selected to be Written Off. Basically you need to enter the Ledger Date that will be used when applicable G/

L Reversing Distributions are generated, and any filters to be used in limiting those WIP items to be selected.

When selected, the operator is presented with the standard WIP Select Filters 147 screen. This allows you to specify WIP for selected or ranges of Employees and Tasks, and/or only those WIP items satisfying a variety of filter criteria.

▬ Selecting Multiple WIP Items to be Written Off - Field Definitions

Write-Off Ledger Date	(mmddyy)
Enter the Ledger Date that will be used for any reversing G/L Distributions that are generated.	

9.6   E-Billing Menu Operational Functions

The topics in this chapter describe functions and procedures that are a available under the **Operations** drop down menu on the P/I E-Billing menu. These operations are the same as those offered from the standard P/I Menu, with the E-Billing Wizard, that can be launched only from the E-Billing menu.

These functions are available from the E-Billing Menu Bar as shown:
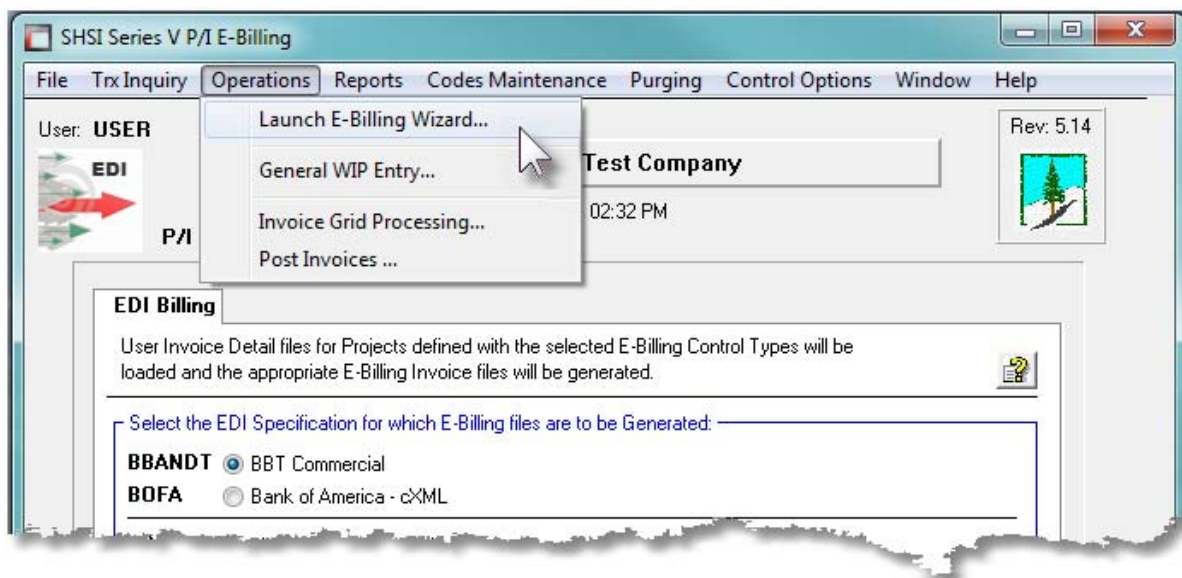
9.6.1   E-Billing Wizard

The Series 5 Professional Invoicing system is designed to either generate invoices for charges as a result of employee activity recorded as time sheets, or by other system's home grown servicing or production packages; or to build the appropriate EDI interface files from Invoices that have been generated by other software packages. The E-Billing Wizard is the routine that will build EDI data files from other system generated invoices.

This menu function provides the means to build EDI data files, ready to be transmitted, formatted as determined by the selected EDI Control Code. (The EDI Control Codes must have been already established using the EDI Specifications Codes Maintenance 608 function).

Some points to note when executing the Wizard:

- The function may be launched directly from the P/I E-Billing menu, where a specific EDI Control Code may be pre-selected.

- EDI data files are built for invoices that have already been created by other software packages.

- The detail used to generate the Invoices must be presented in a CSV file named in the following format:

   PPPPP_NNNNNNNN.xxx.CSV

   where: **PPPPP** is the Project Code and **NNNNNNNN** is the Invoice Number

- By default, the import will assume a CSV text file is input. You may designate the input as an Excel spreadsheet from the Import Options tabbed sub-screen.

- All input data is validated. Any Project code, Employee code and Task codes are all validated within the system. If an undefined code is encountered, the generation of the EDI file will be aborted.

- Once a given invoice file has been successfully processed, it will be renamed with a "**.loaded**" extension, and moved to a sub-directory, (that must exist in the same directory as where the input files are read from), named **Loaded**.

✚ Accessing the "E-Billing Wizard function

Launch directly from the P/I E-Billing menu for a specified EDI Control.

or, ... From the P/I E-Billing Main menu, select **Launch E-Billing Wizard** from the **Operations** drop-down menu.
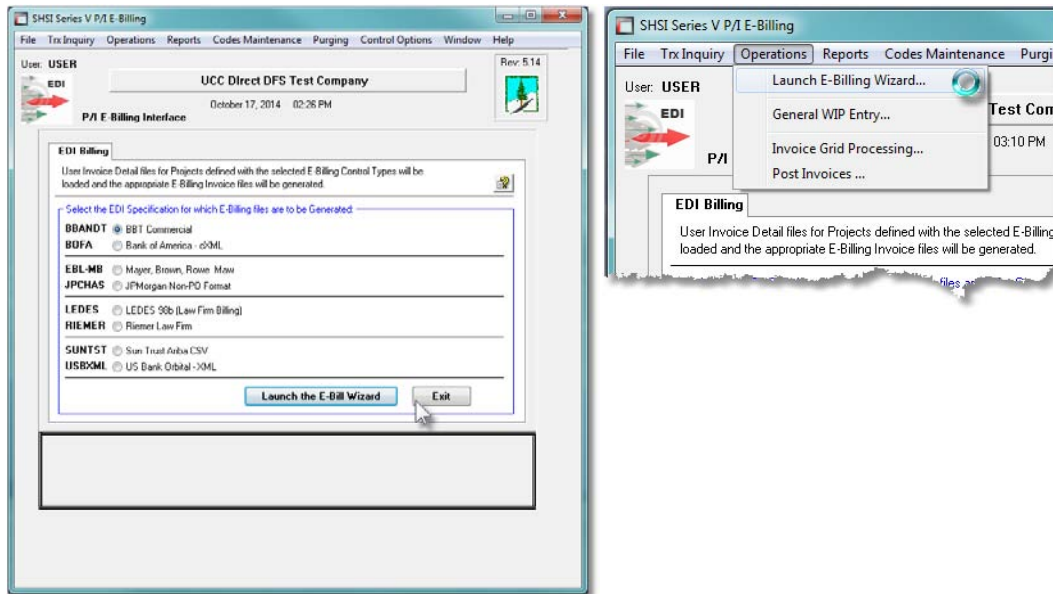
➲ E-Billing Wizard - Options Screen

The following screen is presented when the E-Billing Wizard is launched:
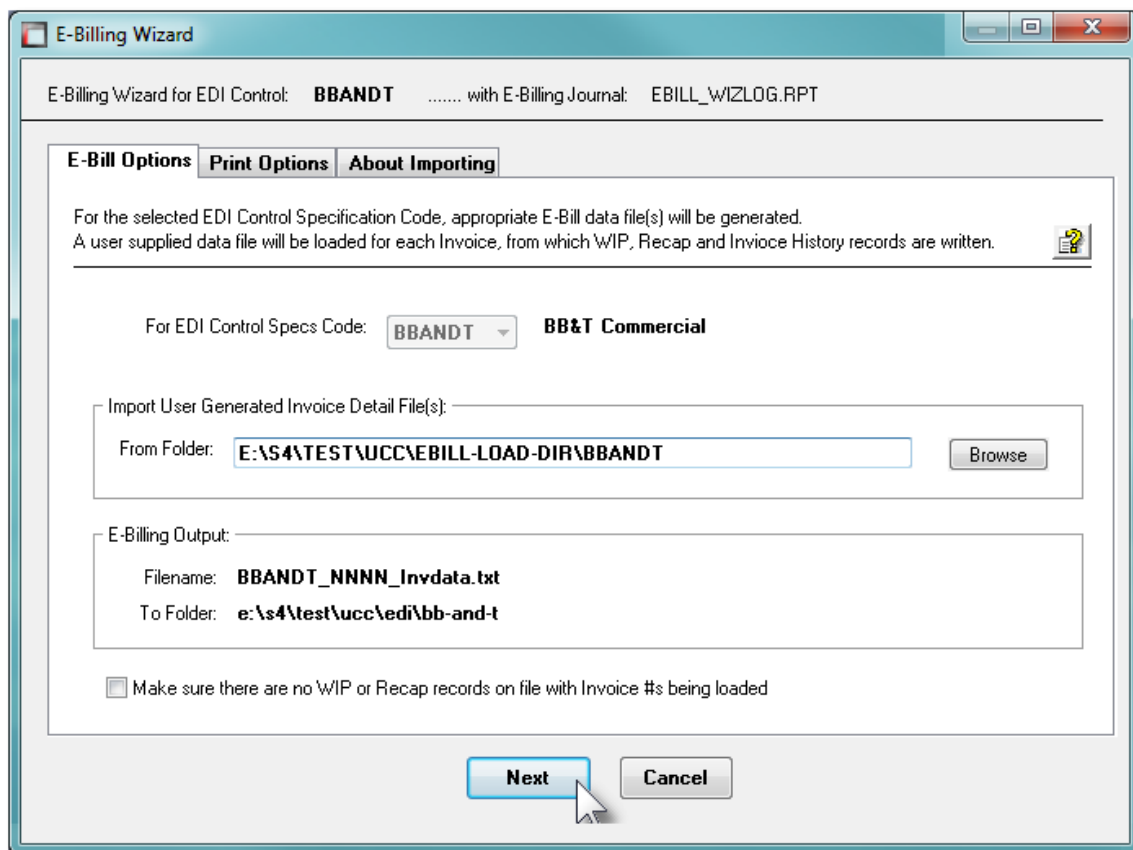
The Interface/EDI Generation audit report generated, if archived, will be catalogued with a report name of **EBILL_WIZLOG.RPT**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

Field Definitions

EDI Control Specs Code	*X(6)*
This is the code that is used to identify the EDI Control in the P/I system. When launched directly from the P/I EDI-Billing menu, this code will have been already assigned. ***This code must have already been assigned to the P/I Project that is associated to each input file being processed.***	

Import User Generated Invoice Detail - From Folder	*X(120)*
Select the folder from which the user generated Invoice Detail data files are to be read from. Once a given folder has been selected, the system will remember the full path, ***up to and NOT INCLUDING*** the lowest level sub-folder. On subsequent execution of the Wizard, the saved path will be used with the EDI Control Code being appended to form the default input folder path.	

E-Billing Output	
The generated EDI output file will be created with a filename in the folder as determined from the properties associated to the EDI Control.	

Make sure there are no WIP or Recap records on file	*check-box*
The detail associated to each interfaced Invoice, is recorded in the PI system as WIP and Recap Detail records. These are written keyed with Recap ID numbers, and the supplied Invoice Number. If a given set of Invoices are repeatedly interfaced, this check-box should be set to ensure that any WIP or Recap records on file with the same Invoice # are first deleted. Failure to set this option may result in faulty EDI files being generated.	

E-Bill Wizard CSV File Import Data Formats

When the Invoiced detail files are loaded, the following fields are input from a CSV text file. The default input filename must be named as **PPPPPP_NNNNNNNN.xxx.CSV,**

where **PPPPPP** is the P/I Project Code, and **NNNNNNNN** is the Invoice Number.

The following table defines the input file entry fields:

Column #	Column	Field	Format
1	A	Order Number	9(10)
2	B	Order Line #	9(3)
3	C	Client Service Rep	X(6)
4	D	Order Service Rep	X(6)
5	E	Billing Code	X(40
6	F	WIP Task Code	X(10)
7	G	Service/Disbursement Flag "S" or "D"	X(1)
8	H	Search Date/Time	MM/DD/YYYY HH:MM
9	I	Ordered By	X(35)
10	J	Search Company Name	X(50)
11	K	Search State Code	X(2)
12	L	Search Location/County	X(30)
13	M	Application Code	X(3)
14	N	Activity Description	X(60)
15	O	Search Court Information	X(200)
16	P	Unit Charge Rate	99,999.99
17	Q	# of Units of Task	99,999.99-
18	R	Total Fee Amount	999,999.99-
19	S	Tax Amount	9,999.999-
20	T	Promo/Discount Savings Amount	999,999.99-
21	U	Invoice Number	9(8)
22	V	Invoice Date	MM/DD/YY
23	W	Client/Customer Code	X(6)
24	X	3rd Party Billing Code	X(6)
25	Y	WIP/Recap ID Number	9(8)
26	Z	Reference 2	X(40)
27	AA	Reference 3	X(100)
28	AB	Reference 4	X(96)
29	AC	Reference 5	X(90)

30	AD	Reference 6	X(90)
31	AE	Reference 7	X(90)
32	AF	Reference 8	X(90)

9.7   Invoicing Functions

The topics in this chapter describe functions and procedures that are a available under the **Invoice Processing** drop down menu on the Professional Invoicing menu. These menu items are used to perform the functions associated to selecting items/projects to be billed, the generation and printing of invoices, and the posting to Accounts Receivable. In particular, the functions for entering managing Invoices, and for handling the On-Demand Invoicing requests are found here.

These functions are available from the P/I Menu Bar as shown:
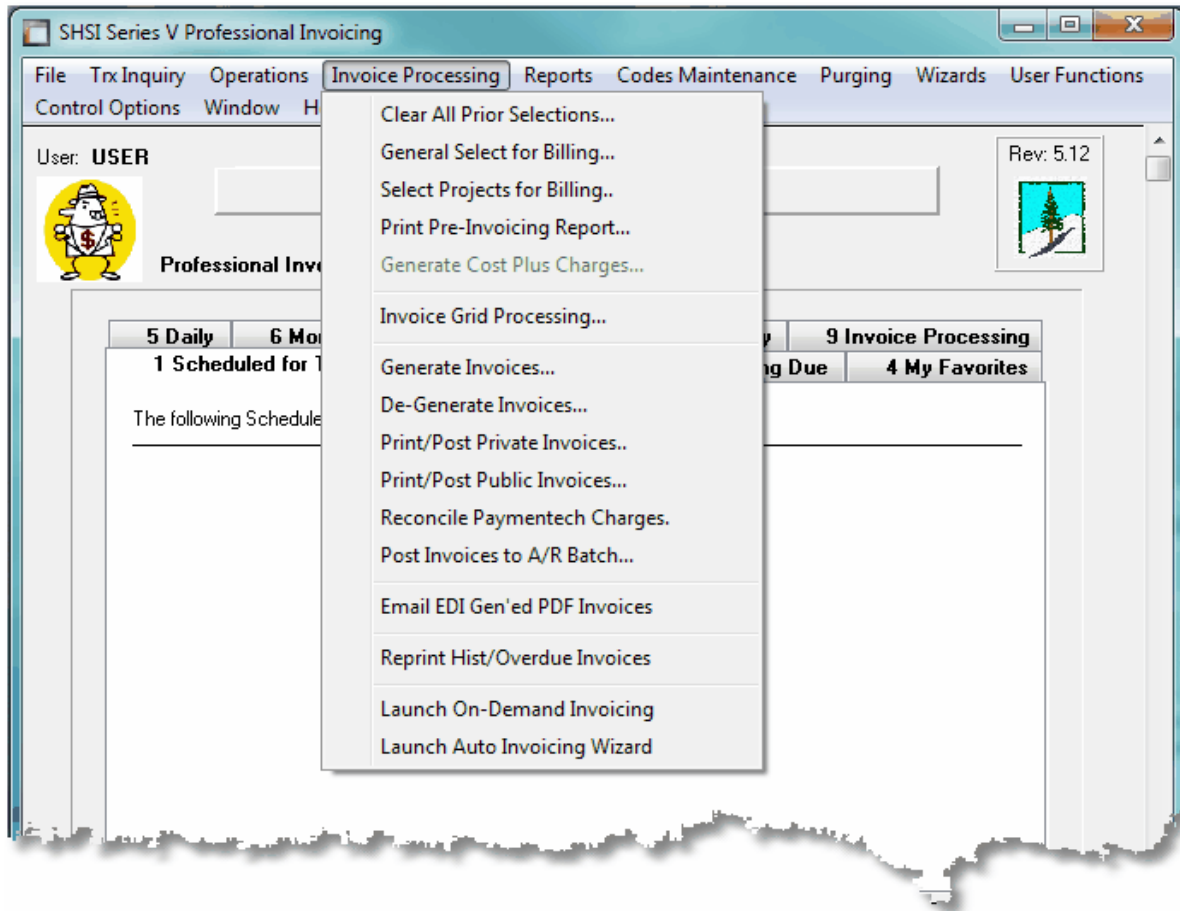
9.7.1 Clear All Prior Selections

This function provides an automatic process to have all WIP and Disbursement items that had been previously selected to be billed, unselected.

This function is one that is associated to the Select Projects for Billing operation application. As a convenience, it is offered as a menu item under the P/I's **Operations** drop-down menu. For a full description, refer to the topic titled Project Billing Selection Grid Screen 391 found under the chapter on Select Projects for Billing 386 earlier in this documentation.

9.7.2 General Select for Billing

This function provides an automatic process to have all eligible WIP and Disbursement items selected to be billed and invoiced at the next earliest opportunity. *(That would be when the Generate Invoices function is next performed).* You will specify the Invoice Date, and a Cut-off Date, and be able decide if Holdback Charges and/or Disbursement Charges are to be billed or not. You may also choose to automatically select either a range, or a specific Project that is to be billed.

The function to have Projects' items selected for billing is one that is associated to the Select Projects for Billing operation application. As a convenience, it is offered as a menu item under the P/I's **Operations** drop-down menu. For a full description, refer to the topic titled General Project Selection for Billing 396 found under the chapter on Select Projects for Billing 386 earlier in this documentation.

9.7.3   Select Projects for Billing

This operational function is used to handle the selection, and/or de-selection, of WIP and Disbursement items, associated to a Project, for billing purposes. Work-In-Progress items entered into the system from time sheets or from the various import processes remain on file and will not be invoiced until they are Selected for Billing. You may choose to have the system select all eligible WIP and Disbursement items, as of a particular date, and mark them for billing; or you may select WIP items on an individual basis. When items are specifically selected, you may also mark the Amount to be Invoiced up or down as desired.

One of the sub-menu options offers a Pre-Invoicing report, that lists all WIP and Disbursement items that have been selected to be billed. Another sub-menu function provides the capability of having WIP items written-off, assuming they will never be invoiced.

When a Project is selected, its' WIP items and Disbursement items are presented in a grid display. Only those items that have not been invoiced are presented. Individual items may be selected for billing, deferred from being billed, marked up or down, or written-off.

There are a number of features associated to the Selection of item to be Billed. These are highlighted under the topic titled About, Concepts and Features that follows:

- The function to Clear All Previous Selections 388 may be executed in the event you wish to undo and restart the selection process.

- The system will Automatically Select Projects' Items for Billing 388. For a variety of processing options and Project filters, the system can automatically select all eligible items to be billed.

- WIP and Disbursement items may be Individually Selected and/or Adjusted for Billing 389.

- A Pre-Invoicing Report 389 listing all items that have been selected for Invoicing may be generated.

- As an option, the system may be configured to Generate Cost Plus Billing Charges 389. This is a process that may be used to automatically generated Management and/or Overhead fees, based on billable charges.

- Projects, or individual WIP Items may be Written-Off 389. In other words, billable items that can never be Invoiced will be marked accordingly, and applicable G/L Distributions made.

The operator can easily select and display the detail for any particular item, and perform a number of different functions on them. These include the following functions:

- Inquiry – All the details associated to the item, may be viewed

- Select for Billing – individual WIP or Disbursement items may be selected for billing

- Invoice Rates may be Marked Up or Down – adjust then # of units, or Unit Rate that will actually be invoiced

- Defer from being Billed – WIP items may be deferred until after the next Invoice run, a specific date, or until specifically selected for billing

- Write-Off WIP Items – if the WIP item is never going to be invoiced, it can be written off. In this case then applicable reversing distributions are generated

Other functions that apply to one or more Projects are as follows:

- Clear All Selections – all WIP and Disbursements that have been selected for billing are restored to being eligible for billing.

- General Selection for Billing – all eligible WIP and Disbursements will be selected for billing for all, or a range of Projects that satisfy a variety of selections filters.

- Select a Project's WIP for Billing – for the selected Project, all eligible WIP items are selected to be billed.

- Clear a Projects WIP from Billing – for the selected Project, all selected WIP items are unselected from being billed.

- Generate a Pre-Invoicing Report – which lists all items that have been selected for billing.

The Project Billing Selection function is launched from the P/I Menu's **Invoice Processing** drop-down menu by selecting **Select Projects for Billing.**
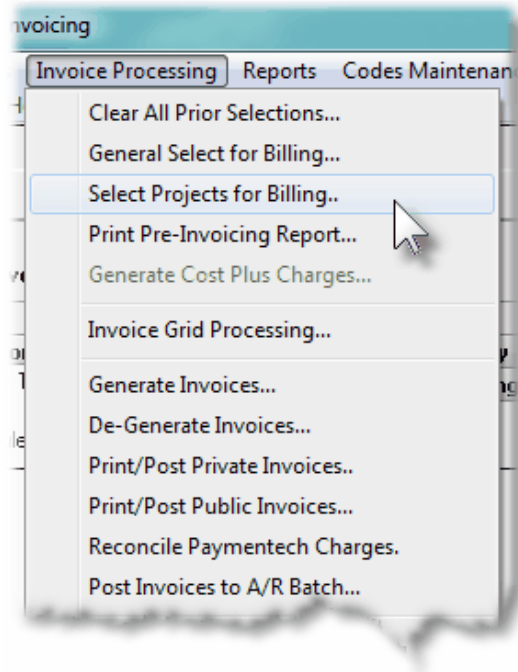
9.7.3.1   About, Concepts and Features

There are a number of features associated to the Billing Selection process. These are highlighted under the following sub-topics. (Click the green plus sign to expand the display for the related text).

Clearing All Previously Selected Items

If after executing the Generalized Selection function, you have realized that the wrong parameters had been entered, you may have the previous selections Un-Done. Any items that had been Partially Selected, or that had been Marked Up or Down are also cleared.

This function will unselect all Work-In-Progress items which have been previously selected, or temporarily deferred. Any Disbursement items that had been selected for billing are also unselected. Items that had been marked deferred from being billed are NOT cleared. If budgets are defined, the associated Committed fields are also cleared.

Automatic Selection of Project Charges for Billing

This function is used to have all possible WIP and Disbursement items selected to be billed and invoiced.

The system will automatically mark all eligible WIP and Disbursement items as selected to be billed and invoiced at the next earliest opportunity. *(That would be when the Generate Invoices function is next performed).* You will be able to specify the Invoice Date, and a Cut-off Date, and be able decide if Holdback Charges and/or Disbursement Charges are to be

billed or not. You may also specify to automatically select items for Selected Project, a range of Projects, or only those that satisfy a variety of selection filters.

Selecting, Deferring and Marking Up/Down WIP for Billing

These functions provide the ability to select a specific WIP item for the purpose of billing, or not.   That item may be selected in full, it's charge-out rate marked up or down, partially or fully billed, deferred temporarily or deferred until a specific date. Items may also be unselected, written-off or marked as manually paid.   For each item displayed, its associated budget values (budget, actual, committed and remaining values) are displayed.

Pre-Invoicing Report

The Pre-Invoicing report provides a list of all the WIP and Disbursement items that have been selected for billing. You may choose to have the items listed grouped by their Invoice Group Codes, or by their Budget Group Codes.
Budget amounts, if maintained, are printed showing the Original, Committed and Remaining amounts as a result of each item being selected for billing.

This report may be distributed to the Project Leaders to verify or authorize the Invoicing of the selected items.

Generation of Cost Plus Charges

Cost Plus Billing is available in the PI system. When a contract is negotiated with your customer, it may involve a situation where you will be able to charge an amount that represents a fixed percentage of the labor charges and/or disbursements recorded against the project. These charges are sometimes referred to as Overhead, or General and Administration Charges. Up to six different Cost Plus items may be defined in the system.

Prior to performing the generation of Invoices, this function can be used to compute and generate Cost Plus charges. These will be recorded as WIP items. The Cost Plus Task Codes and the % values are defined using the PI Control Maintenance application.   There are currently two sets of formulas that may be used to compute the Cost Plus Charges. (These formulas are coded into the system. If you require different computations, please contact Lions Gate Software and they can be added).

Cost Plus charges are generated into a temporary transaction file and may be revised prior to being posted to the WIP files.

Writing Off Project WIP Charges

This function provides the ability to have all or selected WIP items Written Off. That is, because a given project never got completed, or there was billable activity recorded that you know could not actually be invoiced, these will be marked as Written Off. These items do remain on the system contributing to assorted costing and/or labor analysis reports.

When items are written off, applicable reversing G/L distributions are also generated.
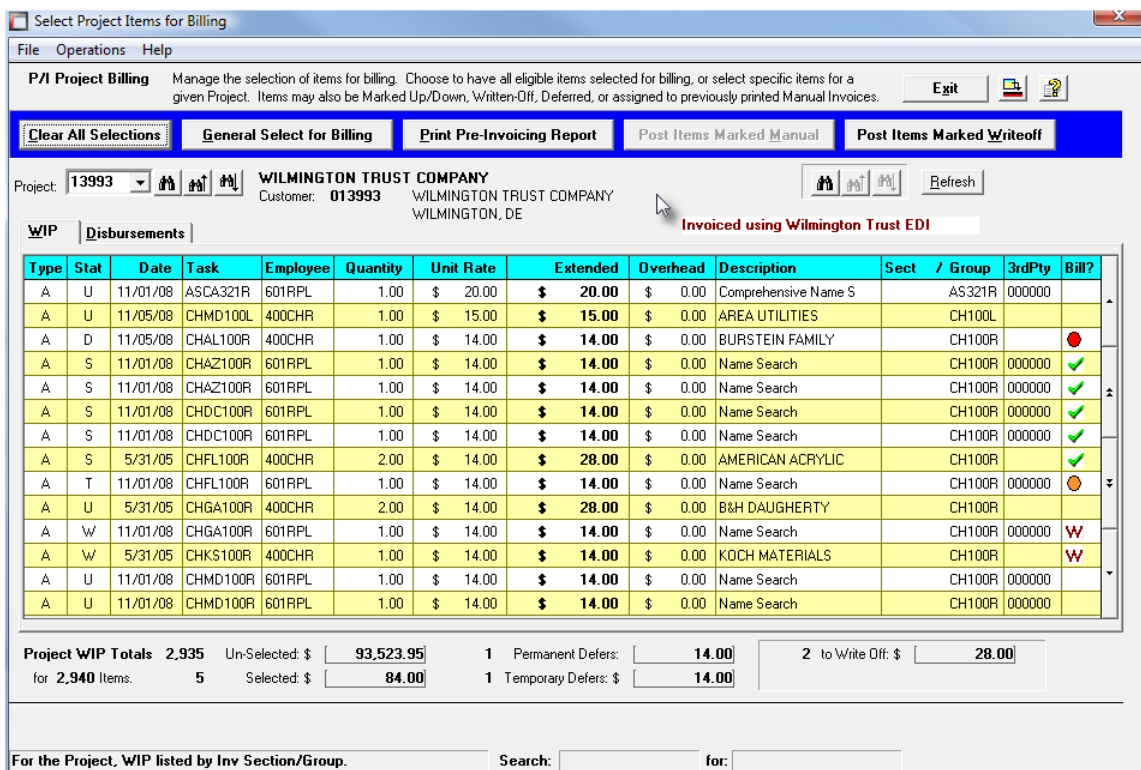
9.7.3.2   Project Billing Selection Grid Screen

The Project Billing function provides the means of selecting eligible Work-in-Progress and Disbursement items recorded against a Project to be invoiced. For any displayed WIP item, it may be individually selected, it's rate or charge amount marked up or down, deferred from being billed, or written-off.

WIP items and Disbursement items are displayed, each in their own tab sub-screens, managed using a Series 5 grid processing screen. You can easily navigate through the items on file using the grid buttons, or enter the respective key for the desired transaction. Only unbilled items associated to a selected Project are displayed to the grid.

From the "Fast Buttons" frame, push buttons are provided that can be used to automatically select items for billing for all Projects; and a Pre-Invoicing report may be generated.

Project Billing Selection Grid

When the Disbursement's tab is selected, the following grid screen is displayed:

"Fast Buttons"	
Clear All Selections	To have all WIP items and Disbursement charges that had previously been selected for billing, for all Projects, unselected. As well, if these items had been marked up or down, or had been set as Temporarily Deferred, these settings are also cleared.
General Select for Billing	For all Projects, a range of Projects, or selected Projects, automatically select all eligible WIP and Disbursement items to be billed. (*Refer to the topic following titled General Project Selection for Billing* 396*.*)
Print Pre-Invoicing Report	To have the Pre-Invoicing Report 413 generated listing all those WIP and Disbursement items that have been selected to be billed and invoiced.
Post Items Marked Manually Invoiced	Reserved for a future enhancement.
Post Items Marked for Write-Off	Those WIP items that had been marked to be Written Off will be written off. *(See the section following on Writing Off a Project's WIP Items* 373*).*

Some of the special features of these "Selection" grid are as follows:

➢ WIP Items or Disbursement Items are listed for a selected Project. Projects may be chosen either by entering their assigned code, choosing it using the Lookup binoculars icon, or by having the next or previous code displayed that has items on file. *(Click the binocular icon with the up/down arrow to display WIP items that exist for the prior/next occurrence of that code on file).*

Project: 18393 ▼ | BANK OF AMERICA CREB-COMMERCIAL
Customer Code: 018393

➢ If a particular row in the grid, representing a given WIP or Disbursement Item, is double clicked, it will be "Selected to be Billed 400". (If that item was already selected, then it will be "Unselected From Being Billed".

➢ On the WIP and Disbursement display screens, the last column of each row, for each item displayed, contains an graphic designating the billing status of the item.

➢ These are defined as follows:

Bill?

🔴	Permanently Deferred o
🟡	Temporarily Deferred
✔	Selected for Billing
✔↕	Marked Up/Down
✔⊤	Selected to be Partially F
W	Selected to be Written C

➢ For the selected Project applicable totals are displayed below the grid display.

Project WIP Totals	2,933	Un-Selected: $	93,495.95	1	Permanent Defers:	14.00	2	to Write Off: $	28.00
for 2,940 Items.	7	Selected: $	162.00	1	Temporary Defers: $	14.00			

➢ Once a Project is selected, you may switch to display either WIP items or Disbursement items by clicking on the applicable tab.

➢ In the screen's menu-bar at the top of the screen, under the Operations drop-down menu, a variety of functions are available that might be performed on all, or the selected Project.

➢ In particular, the function to have all eligible items, for the selected Project, selected to be billed is found here. There is one for WIP and a separate one for Disbursements.
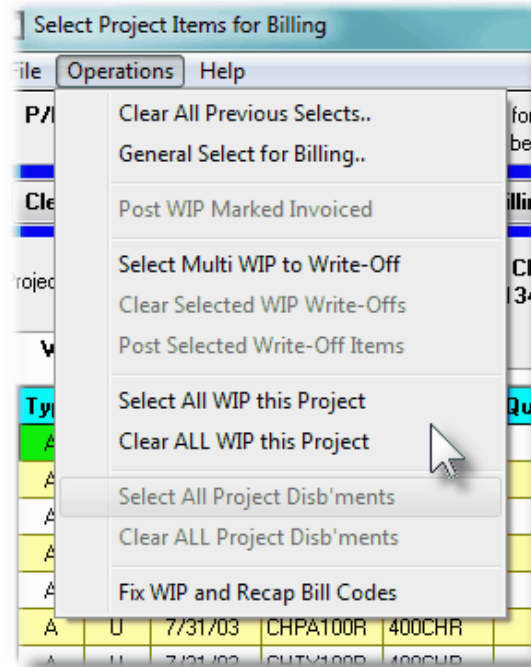
➢ Within the WIP display grid, right-click a row to have a pop-up menu displayed offering available functions that may be performed on the associated WIP item.
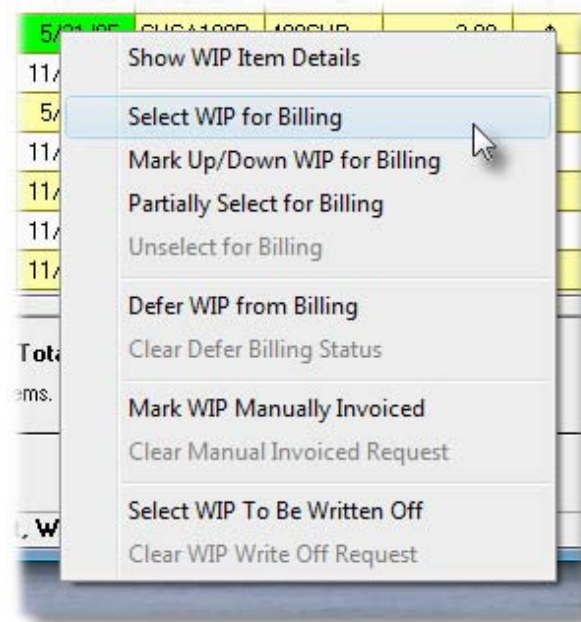
➢ Within the Disbursement

display grid, right-click a row to have a pop-up menu displayed offering available functions that may be performed on the associated Disbursement item.
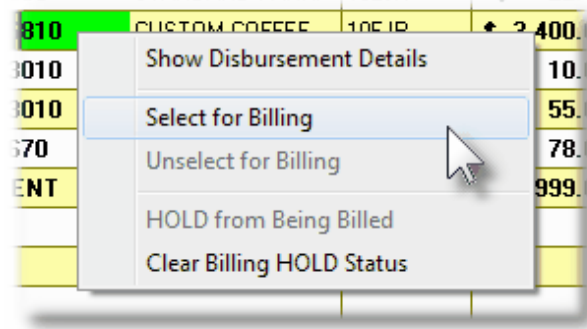
▬ Show WIP Detail Screen

When the function to **Show WIP Item Details** is selected from a given rows pop-up menu, the detail information for the WIP item is displayed as in the following screen:

▬ Show Disbursement Detail Screen

When the function to **Show Disbursement Details** is selected from a given rows pop-up menu, the detail information for the Disbursement item is displayed as in the following screen:

9.7.3.3   General Project Selection for Billing

This function provides an automatic process to have all eligible WIP and Disbursement items selected to be billed and invoiced at the next earliest opportunity. *(That would be when the*

Generate Invoices function is next performed). You will specify the Invoice Date, and a Cut-off Date, and be able decide if Holdback Charges and/or Disbursement Charges are to be billed or not. You may also choose to automatically select either a range, or a specific Project that is to be billed.

From the P/I Main menu, select **General Select for Billing** from the **Operations** drop-down menu; or click the **General Select for Billing** push button from the Select Project Items Billing "fast buttons" frame.
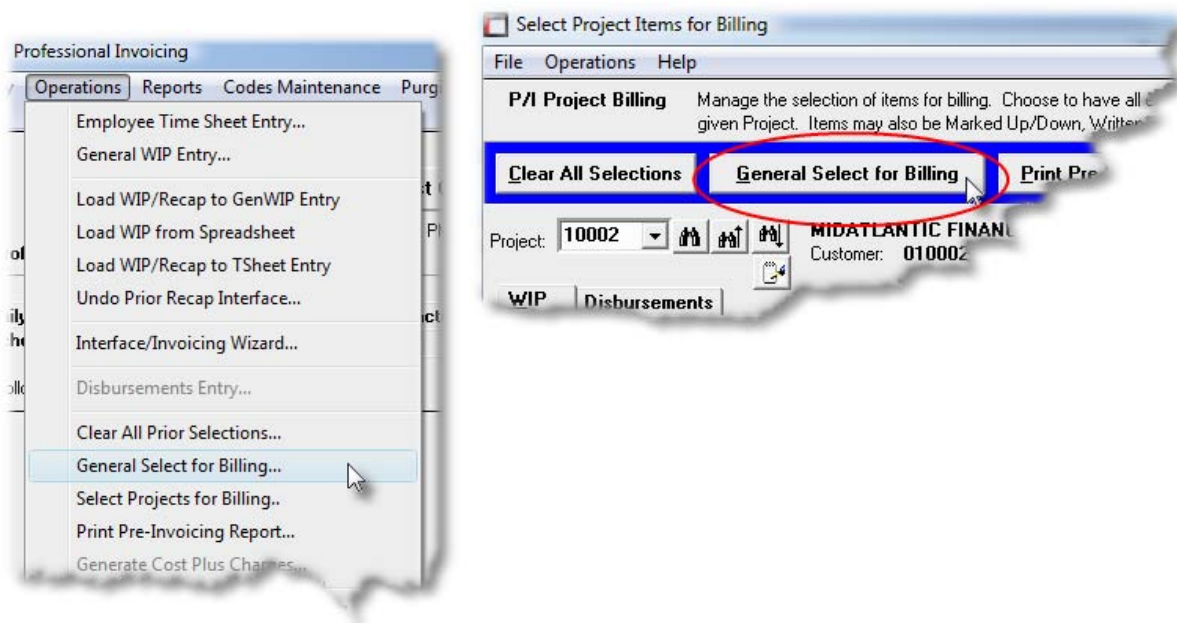
Some points to note about the automatic selection process:

- Items that have been permanently deferred will NOT be selected to be billed.

- Any WIP or Disbursement items that had been manually selected, or having a Force Billed status, will not be disturbed. Their settings and invoicing amounts will remain the same.

- All WIP and Disbursement items will be selected be billed at their initial full value. However for items that have had a partial amount previously invoiced, only the balance due amount will be billed.

- When items have been selected for billing, when displayed in the Project Selection grid screen, a check mark, ✔ , will be displayed in the right-most column.

Projects Eligible for Automatic Billing Selection
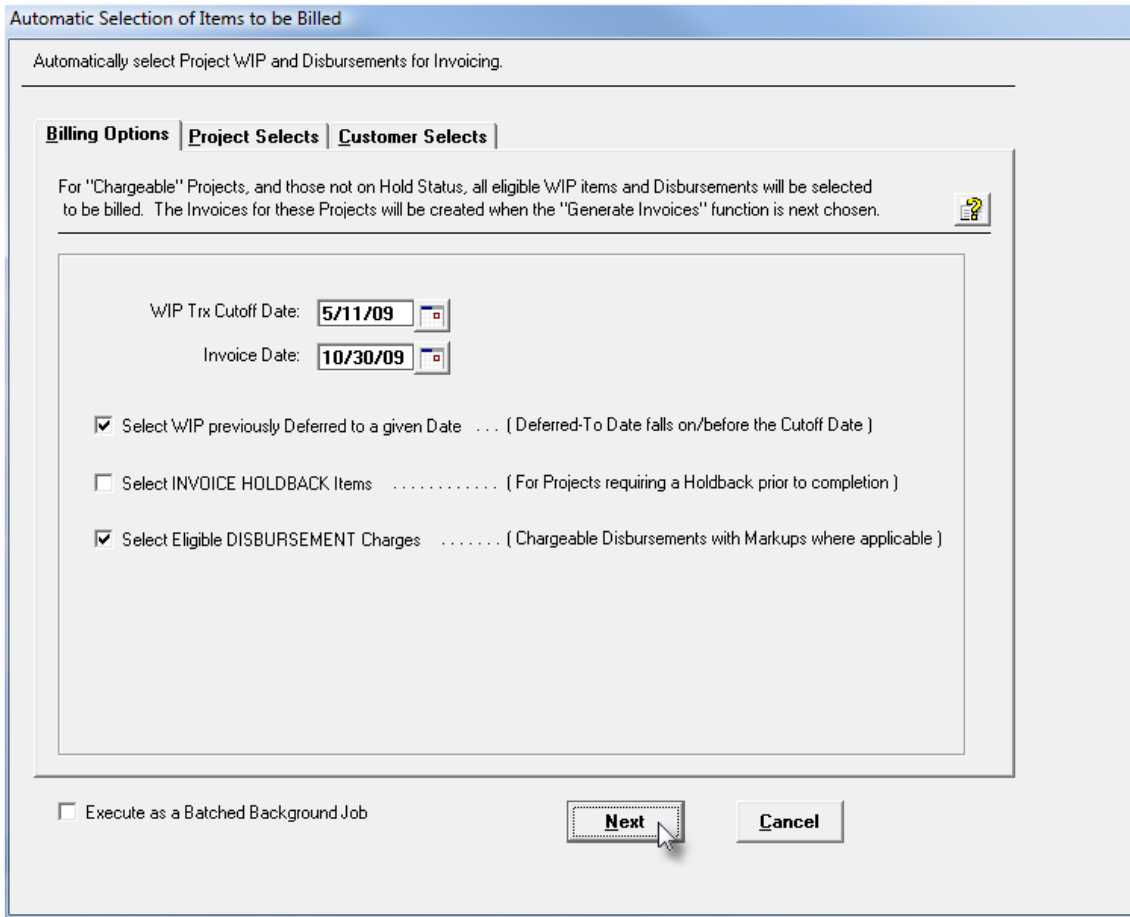
Any Project that has NOT been defined as one that Typically has Chargeable WIP Items entered and will have Invoices generated and printed, will not be considered in the General Selection process.

Also, any Project that has had its Billing Status property set as Proposed, On-Hold, or Closed will not be considered in the General Selection process.

(Refer these Project properties found on the Billing tab sub-screen of Project Maintenance) 540.

⮞ General Selection of Project Items for Billing - Options Screen

The following screen is presented for entry of options when automatically selecting Project WIP and Disbursement items to be billed:

```
Automatic Selection of Items to be Billed

  Automatically select Project WIP and Disbursements for Invoicing.

  ┌ Billing Options ┬ Project Selects ┬ Customer Selects ┐

    For "Chargeable" Projects, and those not on Hold Status, all eligible WIP items and Disbursements will be selected   [?]
    to be billed.  The Invoices for these Projects will be created when the "Generate Invoices" function is next chosen.

              WIP Trx Cutoff Date:  [5/11/09  ] [▪]

                   Invoice Date:  [10/30/09 ] [▪]

       ☑ Select WIP previously Deferred to a given Date  . . . ( Deferred-To Date falls on/before the Cutoff Date )

       ☐ Select INVOICE HOLDBACK Items  . . . . . . . . . . .  ( For Projects requiring a Holdback prior to completion )

       ☑ Select Eligible DISBURSEMENT Charges  . . . . . . . ( Chargeable Disbursements with Markups where applicable )

    ☐ Execute as a Batched Background Job         [  Next  ]      [  Cancel  ]
```

When automatically selecting items to be billed, the operator is also presented with the standard Project Select Filters 142 screen and the Customer Select Filters screen 151. These allow you to specify selected or ranges of Projects, Project Locations, Project Departments, Customers, Customer Types, Sales Representatives, and/or only those customers and/or projects satisfying a variety of filter criteria.

Item Selection for Billing Options Screen - Field Definitions

WIP Transactions Cutoff Date	*(mmddyy)*
All WIP and/or Disbursement items that have a transaction date on or before the date specified will be selected for billing. The default is today's date.	

Invoice Date	*(mmddyy)*
This is the Invoice Date. This date is **NOT** used in any decision process for selecting items to be billed. It will, however, be printed on the Pre-Invoicing Report. The date entered here will be carried forward and used as the default for when Invoice are eventually generated. (If when invoices are generated, a different date is entered, then that date will be assigned as the Invoice Date).	

Select WIP Previously Deferred to a Given Date	*check-box*
Set this check-box if you wish to have any WIP items that had been deferred to a particular date tested to be selected for billing. If the Deferred To date is earlier than the date entered, then the item will be selected to be billed. ***Note that if this setting is never selected, then any items deferred to a particular date would never be selected.***	

Select INVOICE HOLDBACK Items to be Billed	*check-box*
Set this check-box if you wish to have any previously generated Invoice Holdbacks selected for billing. Project Holdbacks are items that represent a fixed percentage of invoices that have previously been issued, but can be invoiced only when the project is completed. If it is time that the customer gets billed, these items will be selected for billing. You would typically want to have the Holdback charges invoiced at the completion of a Project. The automated generation of Invoice Holdbacks is a property associated to each Project.	

Select Eligible DISBURSEMENT Charges to be Billed	*check-box*
Set this check-box if you wish to have any eligible Disbursements selected for billing.	

9.7.3.4   **Select WIP Items for Billing**

From the WIP tab sub-screen displayed on the Select for Billing grid screen, a given WIP item can be selected to be billed. You may wish to employ this method for selecting items for billing, rather than executing the automated General Billing function, if you need to have only specific activity invoiced.

From the grid, double-click the row of the WIP item to be billed. A screen is presented, for verification purposes, and clicking the **Select Item to Bill** push-button marks the item to be billed. Alternatively, right-click the row of the WIP item to be billed, and click the **Select WIP for Billing** function from the pop-up menu.
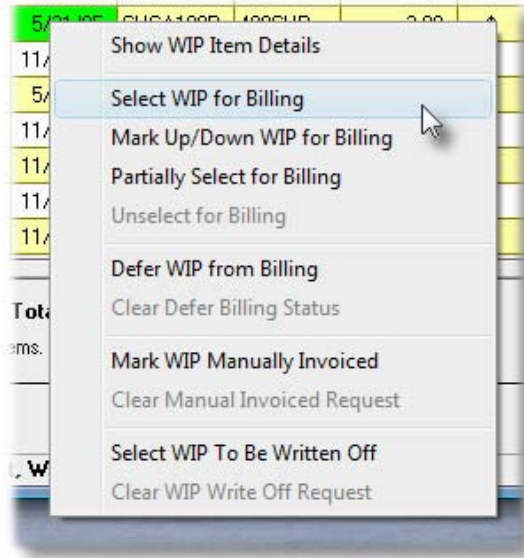
Some points to note about selecting the WIP to be billed:

- The selected for billing WIP Item may be de-selected from being billed by double-clicking it's row.

- The WIP activity will be selected to be billed at their initial full value. However for items that have had a partial amount previously invoiced, only the balance due amount will be billed.

- When items have been selected for billing, when displayed in the Project Selection grid screen, a check mark, ✔ , will be displayed in the right-most column.

> 🔁 Selecting a WIP item for Billing Screen

The following screen is presented to verify the selection of the WIP item to be billed:

9.7.3.5 Marking Up/Down WIP Charges

If the times comes when a Project is invoiced, you realize that the amount to be invoiced will be too much, or not enough, this function allows you to adjust the amount of the WIP item to be billed at the time it is selected.

From the grid, right-click the row of the WIP item to be billed and adjusted. From within the pop-up menu click the **Mark Up/Down WIP for Billing** function, and a screen is presented for entry of the amounts to be invoiced.
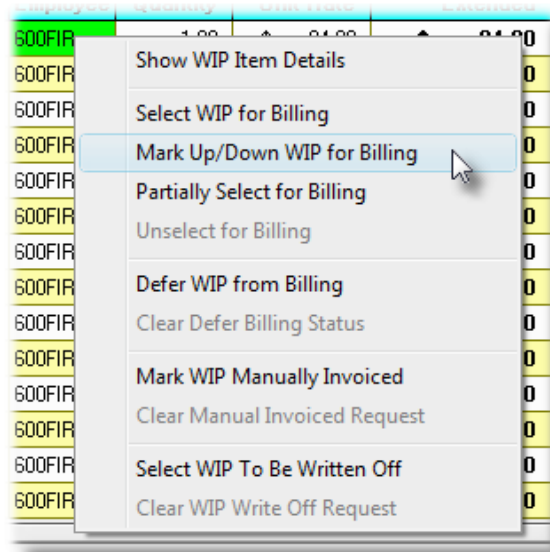
Some points to note about marking up/down WIP charges when they are billed:

- The selected for billing WIP Item may be de-selected from being billed by double-clicking it's row.

- The original charge-out values of the WIP items are kept intact for reference.

- The WIP Description, and Reference Fields may also be edited. (It's possible customer Bill Codes are found in these fields, and are used for sorting or grouping of Invoices).

- When items have been marked up/down and selected for billing, when displayed in the Project Selection grid screen, a check mark, ✓↕ , will be displayed in the right-most column.

- If Budgets have been established for the associated Project, they are updated with the new revised Invoice amounts.

➡ Marking Up/Down WIP items for Billing Screen

The following screen is presented for entry of the adjusted invoice amounts of the WIP item to be billed:

Marking WIP Items Up/Down Screen - Field Definitions

To Invoice – # of Units	99,999.99-
When the WIP item is selected to be billed, this is the # of Units associated to the activity that is to be invoiced and charged to the Project. By default, this will be the number of units recorded on the original time sheet. When the WIP item is partially billed, or marked up/down, the # of Units should be adjusted accordingly. *When recording a Credit to the Project, the # of Units should be entered with a minus sign. WIP Rates cannot be negative*.	

To Invoice – Rate	$ 99,999.99
When the WIP item is selected to be billed, this is the Unit Charge-out Rate associated to the activity that is to be invoiced and charged to the Project. By default, this will be the rate recorded on the original time sheet. When the WIP item is partially billed, or marked up/down, the # of Units should be adjusted accordingly, keeping the Rate as is. *When recording a Credit to the Project, the # of Units should be entered with a minus sign. WIP Rates cannot be negative*.	

To Invoice – Extended $ Amount	*$ 999,999.99-*

This is the Extended dollar amount associated to the WIP item. This is the amount that will be invoiced to the customer. This amount is always computed from the # of Units and the Unit Rate. If this amount is overridden, then the Unit Rate is adjusted accordingly.

To Invoice – Overhead $ Amount	*$ 999,999.99-*

When the WIP item is selected to be billed, this is the Overhead Amount associated to the activity that is to be invoiced and charged to the Project. By default, this will be the amount recorded on the original time sheet.

Description	*X(50)*

This field is used to record a brief description of the activity performed. For Projects using specific Invoice Layouts, this field may be used to sort items printed on invoices.

Reference 1 and 2	*X(40)*

These fields are used to record codes relating to sub-contracts, job numbers, billing codes, contact names, etc., or to record more verbiage describing the WIP activity. For Projects using specific Invoice Layouts, and/or that generate EDI invoices, segments of these fields may be used to determine how items are grouped or sorted for invoicing.

Task Description Override	*X(60)*

This field is used to provide an opportunity to override the description that is associated to the Task. For a particular Invoice Layout, detail is listed with the description derived from the Task Code. If a description is entered in this field, then this text is printed on the invoice instead. *For WIP recorded not using the mentioned Invoice Group, it may be used to record further description associated to the activity.*

Type "C" Invoice Layout Grouping	*drop-down list*

When invoices are generated for a Project, the P/I system provides for a number of different sorting and grouping options. Invoice Layouts are created and assigned to every Project. For Projects that have a Type "C" Invoice Layout, these radio-buttons are offered so a Group and/or Consolidation code may be recorded with their associated WIP items.

WIP charges may be recorded into the P/I system with a Consolidation Flag. This is a 1 character field that can take a value of **D**, **F**, or a number from **1, ... 9**. Depending on the options specified, all WIP charges may be grouped and sub-totalled by their Consolidation Flag. All WIP having the same Consolidation Flag are grouped together.

As an additional option, the WIP within each Group will be sorted by the WIP Reference field. In some cases, the Reference field holds an individuals's name, or a Billing-Code. All charges with the same Reference field would be sub-totalled and printed as one line

on the invoice.

⦿ None	No consolidation is performed. Each WIP charge is printed in detail
◯ Sum items within a Group printed as a total	All the charges with the same Consolidation Flag are sub-totalled and printed as one line.
◯ WIP for a Group are sub-totalled by Reference	All the charges with the same Consolidation Flag are sub-totalled by their WIP Reference field. An additional sub-total is printed for each Consolidation Group.
◯ Sub-Total by Reference Bill-Code	All the charges with the same Bill-Code, that is determined from the WIP's Reference field, are sub-totalled and printed. When selected, you must also specify which portion of the Reference field is to be used as the Bill-Code. (The Consolidation Flag is not used in this case).

Consolidation Flags in the Configuration File

Using type B or C Invoice Layouts with Consolidation Flags requires the definition of up to 9 variables in the runtimes Configuration file. Each variable is associated to the 9 numeric values that the Consolidation Flag may take. The variable is defined as follows:

PI-INV-DESCn <flag> <description text>

where:

- **n** is the value 1 - 9;
- **<flag>** will be either an A or a B indicating the Generation Type rule to be used, (or ignored for the B layouts);
- **<description text>** will be printed as the description on the invoice for the consolidated total of all items flagged with **n**.

9.7.3.6   Defer WIP Items from Billing

If the event a given WIP item should be deferred from being invoiced, this function provides the ability to do just that. You may choose the following options:

- Defer from being Invoiced until after the next Invoice Generation is performed
- Defer from being Invoiced until after a specified date
- Defer permanently until Cleared and Selected for billing

From the grid, right-click the row of the WIP item to be deferred. From within the pop-up menu click the **Defer WIP from Billing** function, and a screen is presented for entry of the

amounts to be invoiced.
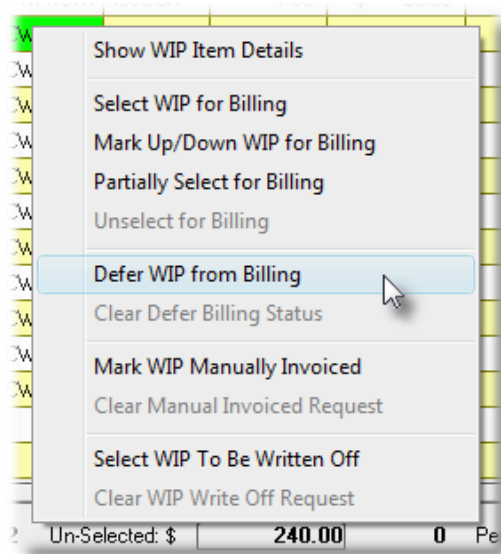
Some points to note about having WIP items deferred:

- The WIP Description, and Reference Fields may also be edited. (It's possible customer Bill Codes are found in these fields, and are used for sorting or grouping of Invoices).

- When items have been marked as deferred, when displayed in the Project Selection grid screen, either a 🔴, or a 🟡, will be displayed in the right-most column. (Red for permanent).

- The WIP item may have it's Deferred Status cleared by selecting the Clear Defer Billing Status from the pop-up menu.

➡ Marking WIP items Deferred from Billing Screen

The following screen is presented for having a WIP item Deferred. Select the type of Deferral required:

Marking WIP Deferred Screen - Field Definitions

Description	X(50)
This field is used to record a brief description of the activity performed. For Projects using specific Invoice Layouts, this field may be used to sort items printed on invoices.	

Reference 1 and 2	X(40)
These fields are used to record codes relating to sub-contracts, job numbers, billing codes, contact names, etc., or to record more verbiage describing the WIP activity. For Projects using specific Invoice Layouts, and/or that generate EDI invoices, segments of these fields may be used to determine how items are grouped or sorted for invoicing.	

Type "C" Invoice Layout Grouping	drop-down list
When invoices are generated for a Project, the P/I system provides for a number of different sorting and grouping options. Invoice Layouts are created and assigned to every Project. For Projects that have a Type "C" Invoice Layout, these radio-buttons are offered so a Group and/or Consolidation code may be recorded with their associated WIP items.	

WIP charges may be recorded into the P/I system with a Consolidation Flag. This is a 1 character field that can take a value of **D**, **F**, or a number from **1, ... 9**.   Depending on the options specified, all WIP charges may be grouped and sub-totalled by their Consolidation Flag. All WIP having the same Consolidation Flag are grouped together.

As an additional option, the WIP within each Group will be sorted by the WIP Reference field. In some cases, the Reference field holds an individuals's name, or a Billing-Code. All charges with the same Reference field would be sub-totalled and printed as one line on the invoice.

⦿ None	No consolidation is performed. Each WIP charge is printed in detail
◯ Sum items within a Group printed as a total	All the charges with the same Consolidation Flag are sub-totalled and printed as one line.
◯ WIP for a Group are sub-totalled by Reference	All the charges with the same Consolidation Flag are sub-totalled by their WIP Reference field. An additional sub-total is printed for each Consolidation Group.
◯ Sub-Total by Reference Bill-Code	All the charges with the same Bill-Code, that is determined from the WIP's Reference field, are sub-totalled and printed. When selected, you must also specify which portion of the Reference field is to be used as the Bill-Code. (The Consolidation Flag is not used in this case).

Defer From Billing Until	*radio-buttons & (mmddyy)*
Select the desired type of deferral. If **Until After Invoices Next Generated** is chosen, then the deferral status remains in effect for the WIP item until the associated Project is tested to see if an Invoice is to be generated.	⦿ After Invoices Next Generated ◯ A specific Date ◯ Specifically Re-Selected

9.7.3.7   Write-Off WIP Items

In the event a given chargeable WIP item, or set of WIP items, should never be invoiced, then they should be written off. By writing off a WIP item, any revenue distributions that might have been generated when it was originally entered into the system will be reversed.

To have WIP items for a given Project written off, requires three step process:

1. Select the Project whose WIP items are to be written off.
2. Select the WIP items that are to be written off, either individually, or as a set.
3. Execute the function to Post the WIP items that have been selected to be Written Off

Selecting a Single WIP to be Written Off: *Select multiple WIP items to be Written Off:*

- From the grid, right-click the row of the WIP item to be deferred. Then, from within the pop-up menu, click the **Select WIP to be Written Off** function, and a screen is presented for confirmation and entry of the Ledger Date to be used.

- From the menu-bar, click **Operations**, and then from the drop-down menu, click **Select Multi-WIP to Write-Off** function. A window will be displayed for entry of the Ledger Date to be used, and for entry of any applicable WIP selection filters.
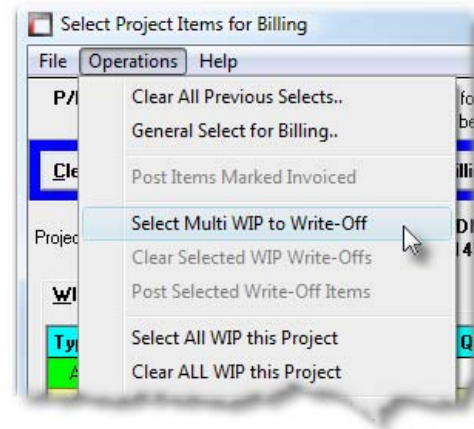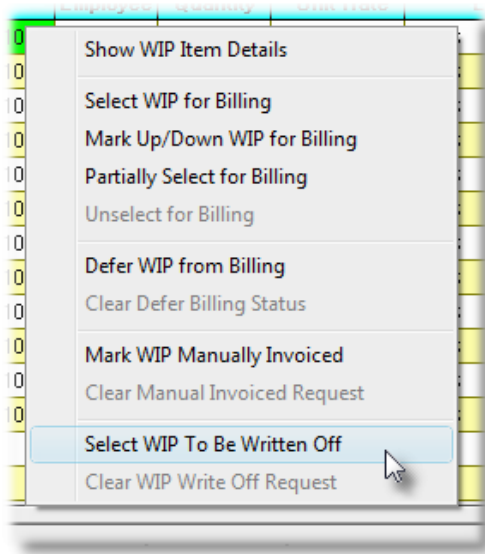
- Then once all desired WIP items for the Project are marked, from the "Fast Buttons" frame, click the Post Items Marked Writeoff push button to have them posted.

Some points to note about having WIP Written Off:

- The WIP Description, and Reference Fields may also be edited. (You might wish to

record a reason as to why the item was not invoiced).

- When items have been marked to be Written Off, when displayed in the Project Selection grid screen, a W , will be displayed in the right-most column.

- The WIP item may have it's Selected for Write Off Status cleared by selecting the **Clear WIP Write Off Request** from the pop-up menu.

- Once the selected items have been Posted for Write-Off, they may not be reinstated to the status where they can be billed.

Selecting a Single WIP Item to be Written Off

The following screen is presented for having a WIP item Written Off. Basically you need to enter the Ledger Date that will be used when applicable G/L Reversing Distributions are generated.

Selecting a Single WIP to be Written Off - Field Definitions

Description	X(50)
This field is used to record a brief description of the activity performed. For Projects	

using specific Invoice Layouts, this field may be used to sort items printed on invoices.

Reference 1 and 2	*X(40)*

These fields are used to record codes relating to sub-contracts, job numbers, billing codes, contact names, etc., or to record more verbiage describing the WIP activity. For Projects using specific Invoice Layouts, and/or that generate EDI invoices, segments of these fields may be used to determine how items are grouped or sorted for invoicing.

Type "C" Invoice Layout Grouping	*drop-down list*

When invoices are generated for a Project, the P/I system provides for a number of different sorting and grouping options. Invoice Layouts are created and assigned to every Project. For Projects that have a Type "C" Invoice Layout, these radio-buttons are offered so a Group and/or Consolidation code may be recorded with their associated WIP items.

WIP charges may be recorded into the P/I system with a Consolidation Flag. This is a 1 character field that can take a value of **D**, **F**, or a number from **1, ... 9**. Depending on the options specified, all WIP charges may be grouped and sub-totalled by their Consolidation Flag. All WIP having the same Consolidation Flag are grouped together.

As an additional option, the WIP within each Group will be sorted by the WIP Reference field. In some cases, the Reference field holds an individuals's name, or a Billing-Code. All charges with the same Reference field would be sub-totalled and printed as one line on the invoice.

⊙ None	No consolidation is performed. Each WIP charge is printed in detail
○ Sum items within a Group printed as a total	All the charges with the same Consolidation Flag are sub-totalled and printed as one line.
○ WIP for a Group are sub-totalled by Reference	All the charges with the same Consolidation Flag are sub-totalled by their WIP Reference field. An additional sub-total is printed for each Consolidation Group.
○ Sub-Total by Reference Bill-Code	All the charges with the same Bill-Code, that is determined from the WIP's Reference field, are sub-totalled and printed. When selected, you must also specify which portion of the Reference field is to be used as the Bill-Code. (The Consolidation Flag is not used in this case).

Write-Off Ledger Date	*(mmddyy)*

Enter the Ledger Date that will be used for any reversing G/L Distributions that are generated.

Selecting Multiple WIP Items to be Written Off

The following screen is presented to have all, or a filtered set, of WIP items selected to be Written Off. Basically you need to enter the Ledger Date that will be used when applicable G/L Reversing Distributions are generated, and any filters to be used in limiting those WIP items to be selected.

When selected, the operator is presented with the standard WIP Select Filters 147 screen. This allows you to specify WIP for selected or ranges of Employees and Tasks, and/or only those WIP items satisfying a variety of filter criteria.

Selecting Multiple WIP Items to be Written Off - Field Definitions

Write-Off Ledger Date	**(mmddyy)**
Enter the Ledger Date that will be used for any reversing G/L Distributions that are generated.	

9.7.3.8 Editing or Fixing WIP Bill Codes

Enter topic text here.

9.7.4 Print Pre-Invoicing Report

The Pre-Invoicing report provides a simple list of all the WIP and Disbursement items that have been selected for billing. You may choose to have the items listed grouped by their Invoice Group Codes, or by their Budget Group Codes. If Cost Plus charges have been generated for a Project, these will also be printed.

From the P/I Main menu, select **Print Pre-Invoicing Report** from the **Invoice Processing** drop-down menu or the **Reports** drop-down menu; or click the **Print Pre-Invoicing Report** push button from the Select Project Items Billing "fast buttons" frame.

Budget amounts, if maintained, are printed showing the Original, Committed and Remaining amounts as a result of each item being selected for billing.

> ➡ Pre-Invoicing Report Filters Screen

The following screen is displayed for entry of a number of different options and filters that may

be set to limit the records that are output to the report.

When selected, the operator is presented with the standard Project Select Filters 142 screen and the Customer Select Filters 151 screen. These allow you to specify selected or ranges of Projects, Project Locations, Project Departments, Customers, Customer Types, Sales Representatives, and/or only those customers and/or projects satisfying a variety of filter criteria.

The report generated, if archived, will be catalogued with a report name of
PIPREINVOICE.RPT.
The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing 159 for full details)*.

━ Pre-Invoicing Report Filters Screen - Field Definition

WIP Items Sort	*drop-down list*

To have the WIP Items listed grouped by one of the available fields.

Invoice Group
Budget Group (with Budgets)

9.7.5   Invoice Grid Processing

This Series 5 Professional Invoicing system primary purpose is to generate and print your Customers Invoices for the billable activity that have been record against their defined Projects.

There are a number of features associated to generating and printing Invoices. These are highlighted under the topic titled About, Concepts and Features that follows:

- There are a certain sequence of steps that must be performed when Generating Invoices 416.

- Once Invoices are generated, prior to having the formal invoices printed, Draft Invoices 417 may be printed.

- When Printing the Final Invoices 417, a variety of different formats are available.

- When printing the final Invoices, some Projects may generated EDI Invoice Interface 418 files, that are sent to the customer, to Ariba, or to Paymentech for processing.

- There is also the option of have a PDF version of each invoices Automatically Emailed 417 to the customer.

- If there is a problem with the Invoices that have been generated or printed, they may be De-Generated 418.

- All P/I Invoices must be Posted to the Accounts Receivable 419 system.

- After Invoices have been posted to A/R, an Invoice History record is recorded. There is an Historic Invoice Inquiry function 419, and an operation to have Historic Invoices Reprinted 419.

☞   Invoice Processing

- ➢ Concepts and Features 416
- ➢ Invoice Processing Grid Screen 419
- ➢ Generate Invoices 422
- ➢ Printing Invoices 426
- ➢ Automatic Emailing of Invoices 428
- ➢ Reconcile Paymentech Credit Card Charges 443

> ➢ [Post Invoices to Accounts Receivable](#) 432

✚ Accessing the P/I Invoice Processing Functions

From the P/I Main menu, select Invoice **Grid Processing** from the **Invoice Processing** drop-down menu.
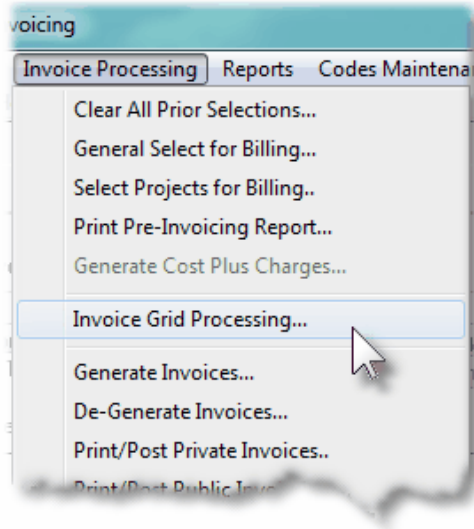
9.7.5.1   **Concepts and Features**

There are a number of features associated to the generation of Professional Invoicing Invoices. These are highlighted under the following sub-topics. (Click the green plus sign to expand the display for the related text).

▬ Preparing for the Generation of Invoices

The generation and printing of Invoices is really accomplished in three steps.

1) First, all WIP charges and Disbursements must have been selected to be billed. If nothing has been selected, then no invoice will be generated.

2) Next, the invoices must be generated. This process may be simple, or complex, depending on the types of invoices that are to be produced. Depending on the rules that have been set up for a given Project it is possible that one or more invoices will be generated. Typically, though, only one invoice is printed per Project. Other formatting options are defined for each Project, and you might have different types of Invoice Layouts that govern the generation of invoices. When invoices are generated, an Invoice Header

with Invoice Detail records are created. These records hold all information including the charges, sub-totals and totals, the formatting and the sort order of items. These Invoice Header and Detail records remain on the system until they are purged. That means that you may print Draft Invoices, Final Invoices, and you can even reprint invoices in the future if necessary. The process of generating invoices may be broken into multiple cycles. That is, you can specify an Invoice Cycle Code such that only those Projects that have a matching code will have an invoice generated. For example, perhaps you wish to invoices Projects whose customers start with A-K at the beginning of the month, and those with L-Z at the middle of the month. You would then have two cycle codes, [1] and [2]. Or maybe you have two or three different types of customers that each require totally different invoice stationary. Get the idea ?

3) The third step is the actual printing of the invoices. This step is finalized in the sections below. There is one more step after the printing of invoices, and this is the Posting of Invoices to Accounts Receivable.

Printing Draft Invoices

Draft Invoices are useful for ensuring that the correct information has been invoiced and that Customer addresses are correct. You may wish to distribute these to the various department Managers for authorization. The printing of Draft Invoices is strictly an option.

Printing the Final Invoices

Printing Final Invoices is the last step to the generation of invoices. This process not only prints the final version, but marks the Invoice Header records with a status of being printed.

Automatic Emailing of Invoices

The Series 5 P/I system provides for the ability to automatically have project invoices automatically emailed to their designated customers. Once invoices are generated, for those Projects and Customers that have been correctly setup, a given function is selected and the system will generated the invoices as PDF documents and automatically email them. The steps required to set up a Project and it's Customer for automatic emailing of invoices are as follows:

- Add a new EDI Specification code record, of type "Auto-Emailed PDFs". Enter it's properties. These include the Root Name of the generated file, the directory where the PDF files are created, the name of the text file that holds the email message, and the names of the MS Word Templates used to format the output files.
- Create the directory which will be used to hold the PDF Invoices
- For each Project that is to have it's invoices emailed, assign the EDI Specification Control Code that was created above.
- For each Customer associated to the above Projects, on their A/R Profile tabbed sub-screen, set the Email Statements and Invoices property. Specify whether which email

address is to be used; the company's, or either one of the Contacts.
- Create the MS Word Template that is to be used to format the appearance of the invoices. Set the margins, font, orientation, spacing and as an option, a watermark. (This template must be installed on the Windows client machine where the invoices are generated.)
- Generate the invoices in the normal fashion.
- A new push button function has been added to the Invoice Grid Processing screen labeled "Email/Post Finals". Click this button, and only those invoices for those Projects that have been set up for emailed invoices will be automatically created as PDF files, and emailed.
- As an option, defined by a property associated to the EDI Specification Control record, a Recap Report for each invoice will also be generated as a PDF, and attached to the email.
- The PDF files for the Invoices, and their Recap Reports, are created in the designated directory. They will remain on the system until they are deleted from Windows.

Generating EDI Invoices

The Series 5 P/I system provides for the ability to generated electronic invoices. These are commonly referred to as EDI invoices.

There are a variety of different EDI invoices that may be generated. Some of these are unique to specific customer, and some are generated using specific standard formats For each of the types of EDI invoices that may be generated, the P/I system has an EDI Specifications Control code that is created. This Control Code defines the different properties associated to each type of EDI invoice.

In order for a particular project to have it's invoices generated as EDI invoices, it must select as one of it's properties, one of the EDI Control Codes that you have defined to the system using the EDI Specifications Codes Maintenance [608] function.

De-Generation of Invoices

Some times you just don't get it right the first time. You're in a hurry and you enter the wrong Invoice Date, or you realize that one of the properties of the Invoice Layout being used was not set correctly. The De-Generate Invoices [436] function comes to your rescue. This basically undoes the generation of invoices. Every function performed by the generation and posting of invoices is reversed. All WIP and Disbursement items that contributed to the invoice will have its status reset to being active. You will need to re-select these items for billing.

Even if you have posted your invoices to the Accounts Receivable system, you may still De-Generate. Also, if you have posted the A/R Sales Entry batch of transactions for the invoice run, it can be reversed using a function in that application.

Note that only computer generated invoices will be reversed. Credit Notes and Manual

Invoices cannot be de-generated. Also, if in the A/R system, payment has been received against the invoice, it may not be de-generated.

Posting Invoices to Accounts Receivable

To finish up the billing process you MUST Post Invoices to the Accounts Receivable [432] system. A Sales Batch will be created in the A/R, and each invoice will be recorded as a Sales Transaction. When that Sales Batch is posted, the invoices will become Open Items.

Historic Invoice Inquiry

When Invoices are posted to Accounts Receivable, an entry is also recorded in the P/I Historic Invoices files. There is an Inquiry function that offers the ability to browse through the historic Invoices, and have the charges associated to an invoice displayed. You can even have the Invoice reprinted in necessary.

Reprint Historic Invoices

If for whatever reason, you need to have sets of P/I invoices re-printed, this function is available.   It basically lets you re-print invoices based on a range of Dates, Projects, Customers or Invoice Numbers. It might be a handy function if you need to re-print all the invoices for a given customer.

9.7.5.2 Invoicing Grid Screen

P/I Invoices are Generated and Printed, and basically managed, maintained using a Series 5 grid processing screen.

P/Invoice Processing Grid

The "Fast Buttons" frame provides the push buttons to launch the most common functions associated to the P/I Invoices.

"Fast Buttons"	
Generate Invoices	Have the P/I Invoices Generated for all Projects that have had items selected for billing
Print Proofs	Print Draft Invoices. These are useful if you need to ensure that the invoices are correct before the final ones are printed. These could be distributed to the various Project Managers for approval. The printing of Proof Invoices is strictly an option.
Print/Post Finals	Have the final Project Invoices Printed. EDI Interface files are generated for those Projects so designated.
Email/Post Finals	ONLY those Projects and Customers that have been set up for automatic emailing, generate their invoices as PDF documents, and automatically email them. Invoices that are emailed may also have hardcopy versions printed and/or archived.

	Note that when selecting this option, any invoices that have been generated, that are NOT to be printed as PDFs and emailed, are NOT printed or posted. ***Also, Projects that generated EDI invoices are not processed when this function is envoked.***
Paytech Reconcile	For Invoices that were produced as EDI Visa Charges that had been submitted to Paymentech for approval, when Paymentech returns it's authorization file, select this push-button to have it loaded.
Post to A/R	Post the P/I Invoices to the Accounts Receivable system. These will become Sales Transactions within the specified Sales Batch

Details associated to an existing Invoice may be displayed by by double-clicking it's associated row.   Standard Series 5 grid controls apply.

If the function to have Draft Invoices printed is selected, the report if archived, will be catalogued with a report name of **DRAFT_PI.INV.**
When the final Invoices are printed, if archived, will be catalogued with a report name of **PI_yymmdd_hhmmss.INV.**

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled [Report Generation and Printing] 159 for full details).*

Other functions are available from the menu bar's File drop-down menu. These include the following:

Menu Bar File drop-Down functions	
	Approve ALL Prepay Invoices • This function is applicable for any Projects that are invoiced and pre-paid with VISA credit cards, whereby an EDI file to be sent to Paymentech. Normally, a Paymentech Approval file must be loaded that is used to identify which charges are approved, and which ones were rejected. If that function cannot be processed, this function will just go through all the applicable invoices and mark them approved. (Approved Invoices may then be posted to Accounts Receivable).
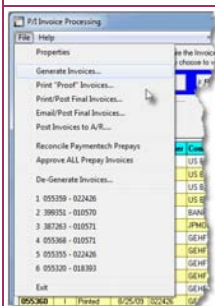
- **This function should not normally be executed, unless something is wrong with the Paymentech Approval file.**

De-Generate Invoices

- This function is used to De-Generated Invoices. This is useful if you had realized that the wrong date was specified, or if the wrong Invoice Layout options were used.   (Refer to the topic titled DeGenerate Invoices ⌊436⌋ below).

9.7.5.3   Generating Invoices

Once all active WIP and Disbursement items for Projects have been selected for billing, invoices can then be generated. Invoices need to be generated before they can be printed. The system will read through the WIP and Disbursement files and generate Invoices for items that have been selected. Normally a single invoice will be generated for each Project, although, if Invoice Layout Codes are utilized, depending on the option chosen, multiple invoices could be created for a given Project.

From the P/I Main menu, select **Generate Invoices** from the **Operations** drop-down menu; or click the **Generate Invoices** push button from the Invoice Grid Processing "fast buttons" frame.
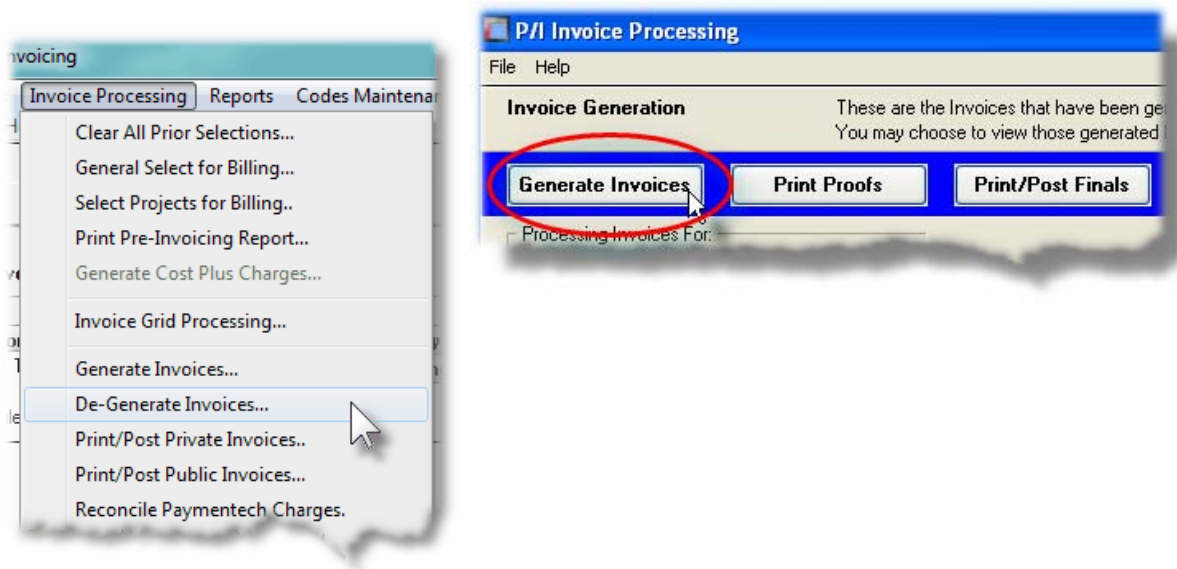
Some points to note when generating Invoices:

- For those Projects that have been configured to generate EDI, (Electronic Data Interchange), invoices are generated using the same process as other Projects.

The EDI interface files are generated when the P/I Invoices are printed.

- There are a variety of different sets of rules that have been established for the generation of Invoices. Normally, these rules are defined as properties associated to each Project. In some cases, special rules are in place that dictate how charges are to be grouped, how taxes are computed and presented, the format in which charges are presented, and whether for a given Project whether multiple invoices are generated. These rules are defined as properties associated to P/I Invoice Layouts 654. An Invoice Layout may be assigned to each Project.

- If a Project has it's Billing Status property set as On-Hold, Proposed, or Closed, an invoice will not be generated. Also, if no items have been selected to be billed, and invoice will not be generated.

- Invoice Numbers are assigned sequentially starting with the number specified from the selection parameters entered. This field is initialized from the Next Invoice Number that is kept in the P/I Control Preferences 694. When posted to the Accounts Receivable, the invoice becomes a sales transaction with the invoice number assigned. Care must be taken to ensure that invoice numbers assigned from the Order Processing system do not conflict with sales transaction document numbers that originated from A/R or other systems.

- When assigning the next Invoice Number, if the system finds that the invoice number has already been used, the value is incremented.

Public and Private Invoice Processing

Invoices may be generated as Private or Public Invoices.

Private Invoices are maintained in a file that may be accessed only be the user that generated them. The concept was developed so that the files associated to private invoices reside in folders on the client's PC.

Public Invoices are those that are generated and available to all users of the Professional Invoicing system. The Public data files are stored on the server.

Normally, all Invoice generation processes should be done using Public Access options.

 Generating Invoices - Options Screen

The following screen is presented when generating the P/I Invoices:

When generating the Invoices, the operator is also presented with the standard Project Select Filters [142] screen and the Customer Select Filters screen [151]. These allow you to specify selected or ranges of Projects, Project Locations, Project Departments, Customers, Customer Types, Sales Representatives, and/or only those customers and/or projects satisfying a variety of filter criteria.

▬ Invoice Generation Options Screen - Field Definitions

For Project Invoice Cycle Code	*radio-buttons and X(1)*
One of the properties associated to Projects is an Invoice Cycle Code. If you wish to generate Invoices in groups, you may assign an Invoice Cycle Code to a particular set of Projects. Click the **Specify** radio button and enter the Cycle Code for the Projects that are to be invoiced. Cycle Codes are user defined, and are not validated, so you MUST dream up a standard set of codes, like A, B, C, D, or 1, 2, 3 ,4 etc. If you have some Projects with a code, and other that have no code, you may click the **That are Blank** radio-button to just generate invoices for the project that have no code assigned. Should you just want to generate invoices for all Projects, regardless of Cycle Code, click the **All** radio button.	
Starting with System Assigned Invoice Number	*9(6)*

The Next Invoice Number field is retrieved from the P/I Control Preferences. This value will automatically be incremented as the invoices are printed. If different number is entered from that which is from the control, it must be greater in value.

Invoice Numbers

Invoice Numbers are assigned sequentially starting with the number specified from the selection parameter entered. When the invoices are posted to the Accounts Receivable, the invoice becomes a Sales Transaction with the invoice number that is assigned from the Professional Invoicing system. Care must be taken to ensure that invoice numbers assigned from P/I do not conflict with sales transaction document numbers that originated from A/R or other systems.

Invoice Print Date	*(mmddyy)*

The date entered here will be printed on the Invoices.

Sub-Section Title Suffix	*2 x X(15)*

When invoices standard invoices are printed, the charges are divided into two main sections. One is for listing the WIP charges, the other for Disbursements. A sub-title is printed at the top of each section. The titles printed are defined as properties in the P/I Control Preferences $_{694}$. The text entered in these fields are appended to the titles obtained from the Control Preferences. Note that these Sub-Section titles are printed only for standard P/I invoices.   Those invoices generated using the rules from an Invoice Layout do not print these titles.

Bottom of Invoice Comments	*3 x X(55)*

Three brief comments may be entered that will be printed at the bottom of all invoices that are printed.

Generating Private or Public Invoices	*radio-buttons*

Invoices may be generated as Private or Public Invoices. Private Invoices are maintained in a file that may be accessed only be the user that generated them. The concept was developed so that the files associated to private invoices reside in folders on the client's PC. Public Invoices are those that are generated and available to all users of the Professional Invoicing system. The Public data files are stored on the server.

Normally you would only have generated Private invoices if there were networking performance issues on your system.

- ◉ Private Access (Local to this PC)
- ○ Public Access (Server Side to All Users)

9.7.5.4   **Print Invoices**

Once all Project Invoices have been generated, you will need to have them printed. For those Projects where EDI Invoices are generated, the applicable interface files will also be printed. Once the Invoices have been successfully printed, you will also need to Post the Invoices to the Accounts Receivable system.

The printing of Customer Invoices is a key process of the Professional Invoicing system. Invoices are the requests for payment for the services provided to your customers. You will probably have special forms that were designed and printed, that have your company name, remit address, along with your logo.

From the P/I Main menu, select **Print/Post Public Invoices** or **Print/Post Private Invoices** from the **OInvoice Processing** drop-down menu; or click the **Print/Post Finals** push button from the Invoice Grid Processing "fast buttons" frame.

Some points to note when printing Invoices:

- For those Projects that have been configured to generate EDI, (Electronic Data Interchange), invoices, an applicable ASCII data file is generated containing the information associated to the invoices. There are a number of different types of EDI invoices that may be generated. Two of the properties associated to each Project are a flag indicating that EDI invoices are generated, and the EDI Type. EDI Control Specifications are defined using the EDI Specifications Codes Maintenance function

608 .

- When Invoices are printed, up to ten different type of EDI output interface files may be generated at once. When the P/I Invoices are printed, all Projects designated to a particular EDI Control Code have their invoices output to the same interface file. The P/I system maintains internal tables for up to ten different EDI Controls at once.

- When Invoices are printed, they will eventually be recorded as Sales Transactions in the Accounts Receivable system. When the operation to Post Invoices to A/R is selected, a Sales Transaction will be written to an A/R Sales Batch along with the necessary revenue distributions.

- The formatting and layout of the Invoice output may be customized.   *(Contact Sentinel Hill for further details)*.

Public and Private Invoice Processing

Invoices may be generated as Private or Public Invoices.

Private Invoices are maintained in a file that may be accessed only be the user that generated them. The concept was developed so that the files associated to private invoices reside in folders on the client's PC.

Public Invoices are those that are generated and available to all users of the Professional Invoicing system. The Public data files are stored on the server.

Normally, all Invoice generation processes should be done using Public Access options.

One of the features offered with the Series 5 system is the ability to define an MS Word Template that is used to configure each page of MS Word documents that are generated. You can build your own Template that has your company logo, pre-formatted field names, lines, boxes and even watermarks. The P/I Invoices could be printed to an MS Word document.

Word Templates for Invoices

Should you select to output the Invoices as MS Word documents, you may define a page template. Use MS Word to build your template. Make sure that the text of the Invoice align correctly. (You should use a test form when constructing the template). The template must be stored on each user's PC, that will actually generate the invoices, in their **C:\Documents and Settings\<PC UserName>\Application Data\Microsoft\Templates"** directory.

Additionally, a variable must be added to the <u>Runtime Configuration file</u> 736 that specifies the name of the template. It needs to be defined as follows:

    MSWORD-PI-INV-SPECS LANDSCAPE "Courier New" 8 "My-PI-Invoice-Template"

Contact your system or accounting manager to have this capability set up.

➡ Invoice Printing - Options Screen

The standard Series 5 print options screen is presented when P/I Invoices are printed:

The Series 5 applications provide a variety of different printing options.

Default Invoice Print Output Options

A print options screen is presented when Invoices are generated. The system may be configured to present the print options screen with the selections that would always apply.

A variable must be added to the Runtime Configuration file 736 that specifies the default options to be presented as follows:

    cccccc-PI-INVOICE-Q **[Printer-Queue]** **[Create-Option]** **[Output-Type]**

and:
    cccccc-PI-INV-REPRINT-Q **[Printer-Queue]** **[Create-Option]** **[Output-Type]**

Where: **cccccc** is the Series 5 Company System Code
      Printer-Queue is the Professional Invoicing Printer Queue
      Create-Option would typically always be RECREATE
      Output-Type designates whether they are sent to a printer, archived, or created as MS Word documents

Contact your system or accounting manager to have this capability set up.

The Invoices output generated, if archived, will be catalogued with a report name of **PI_*yymmdd_hhmmss*.INV**. where *yymmdd* is the date, and *hhmmss* is the time of day.

9.7.5.5   **Automatic Emailing of Invoices**

Once all Project Invoices have been generated, you will need to have them printed. As an extended feature, you could have the Invoices automatically generated as PDF documents and emailed.   The Series 5 P/I system provides for the ability to automatically have project invoices automatically emailed to their designated customers.

To have the invoices for a Project automatically emailed, assign the "Automatic Emailed" EDI Control Code to that project. As well, in the Customer master record associated to the project, specify to use either the Company email address, or that assigned to either of the Contacts as the recipient of the emailed invoice.

Invoices will be created as a PDF document. The Invoices are actually created as an MS Word document, and then saved as a PDF. (This feature is available only when using Office 2007 Word). You need to create an MS Word Template that will be used to specify the assorted properties of the pages. Using Office 2007 Word, build and save a template using the following steps:

- Launch Word
- Click on the Office icon on the top left corner, and click on New in the drop-down menu
- Set the assorted page properties to set up margins etc., and optionally define a watermark and/or headers or footers
- Then choose to Save As a Word Template

Under Windows 7, if copying a template from Office 2003 or editing an Office 2007 template, put that template into the directory **C:\Users\<*username*>\AppData\Roaming\Microsoft \Templates,** then perform the following steps:

- Launch Word
- Click on the Office icon on the top left corner, and click on New in the drop-down menu
- In the left most column of the displayed window, click on My Templates... , then on the window displayed, click the Create New Template radio-button and then double-click the template that you are copying.   Make any modifications, or not, as required
- Then choose to Save As a Word Template, using the same name, and confirming to have it replaced.

In order to fit an invoice on the page, the following properties in the template must be established:

- Orientation: as Portrait for Legal Letter paper (8 1/2 x 11)
- Custom Margins: Top and bottom of 0.4 inches; Left and Right of 0.6 inches
- Font: Courier New at 9 or 10 point (or whatever will fit on the page). The font chosen sould be a fixed size font
- Paragraph: Before and After Spacing of ZERO points with Single Line Spacing
- Optional Watermarks. (If included make sure any Headers or Footer spacing is as thin as possible)

When the invoices are emailed, a separate document is created for each invoice in the directory defined for the EDI Control specifications. The PDF versions of the invoices are generated regardless whether or not a hardcopy or an archived copy of invoices are also generated. (When launching the function to have the invoices emailed, the Professional Invoicing Print Options screen is presented. Select whatever other output option you desire for the invoices.)

As an option defined by the EDI Control specifications, you may also have the system generate a Recap Detail Report as a PDF document, and emailed with the Invoice.

From the Invoicing Grid Processing operation screen click the **Email/Post Finals** push button found on the "fast buttons" frame.
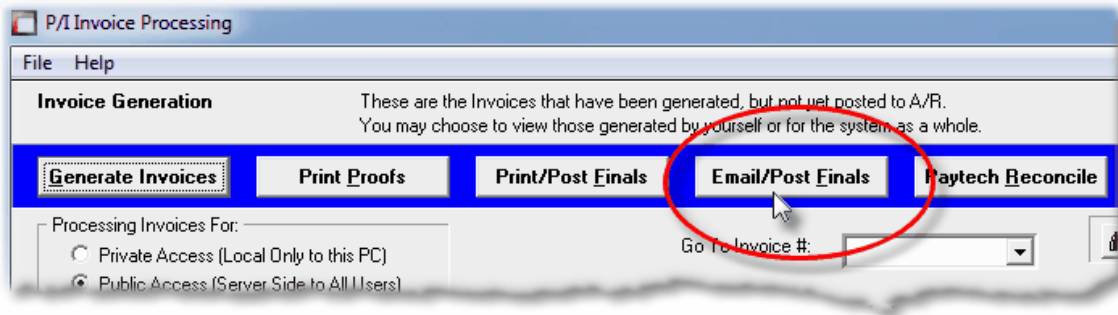
Some points to note when emailing Invoices:

- Only those Projects that have been configured to generate EDI, (Electronic Data Interchange), invoices as "Auto-Emailed PDFs" will automatically have invoices emailed. Two of the properties associated to each Project are a flag indicating that EDI invoices are generated, and the EDI Type. EDI Control Specifications are defined using the EDI Specifications Codes Maintenance function 608. For the given EDI Control record, you must specify the directory where the PDF files are created, the MS Word Template to be used for both the Invoice and the Recap Report, and the name of the file to be used that contains the text inserted in the body of the email message.

- The Customer master record's property "Email Statements and Invoices", (found on the A/R Profile tab sub-screen), must be set to indicate which email address is to be used for the recipient. Choose from the company's generic email, or from either of the Company Contacts.

- The Subject and the body of the email message are provided in a text file that must exist in the same directory as where the PDF files are created. This cannot be larger that 8100 characters in size. The first line of this file is used as the Subject of the email and must start with the word **SUBJECT:**. Within the subject line the character string **999999** will be replaced with the actual Invoice Number.

- The body of this message, which you can edit to your likening, is loaded from a file that must be located in the folder named **Email-Templates** found in the designated Company System's "Generated and Archived Reports" data directory. This file can be either a simple text file, or an HTML file and must not contain more that 8192 characters. The following files are loaded for the 4 different types of invoices that may be sent:

File Name	*Type of Invoice*
DBAgent_Inv_EmailMessage.TXT	For On-Demand Invoices sent to just the Agent
DBCust_Inv_EmailMessage.TXT	For On-Demand Invoices sent to the Customer
WIZ_Invoice_EmailMessage.TXT	For "Daily" Wizard Invoices sent to the Customer
OverDue_Invoice_EmailMessage.TXT	For Overdue Re-Printed Invoices sent to the Customer

- Within the body of the message file, you may include a number of pseudo variables that will be replaced with applicable text, associated to the information for the Customer properties, or the Invoice record. The following variables may be used and replaced as follows:

Variable	Description	Size
%%CUSTOMER-CODE%%	Code assigned to the Customer	X(6)
%%CUSTOMER-NAME%%	Customer's Company Name	X(40)
%%ATTENTION-TO%%	The Invoice's Attention-To field	X(30)
%%ADDRESS-LINE-1%%	Address line 1	X(40)
%%ADDRESS-LINE-2%%	Address line 2	X(40)
%%ADDRESS-LINE-3%%	Address line 3	X(40)
%%CITY-STATE%%	City, State from the Invoice's Address	X(15), X(5)
%%COUNTRY%%	Country from the Invoice's Address	X(20)
%%MY-STRING-1%%	Customer Membership Code	X(15)
%%GEN-DATE%%	Date and Time Invoice was emailed	hh:mm AM on MM/DD/YY
%%INV-NUMBER%%	The Invoice Number	999999
%%RECIPIENT-NAME%%	The name of the person the email is sent to	$ 999,999,999.99CR
%%RECIPIENT-EMAIL%%	The email address of recipient	$ 99,999,999

One of the features offered with the Series 5 system is the ability to define an MS Word Template that is used to configure each page of MS Word documents that are generated. You can build your own Template that has your company logo, pre-formatted field names, lines, boxes and even watermarks. The P/I Invoices could be printed to an MS Word document.

Word Templates for Invoices

Should you select to output the Invoices as MS Word documents, you may define a page template. Use MS Word to build your template. Make sure that the text of the Invoice align correctly. (You should use a test form when constructing the template). The template must be stored on each user's PC, that will actually generate the invoices, in their **C:\Documents and Settings\<PC UserName>\Application Data\Microsoft\Templates"** directory.

Additionally, a variable must be added to the <u>Runtime Configuration file</u> 736 that specifies the name of the template. It needs to be defined as follows:

> **MSWORD-PI-INV-SPECS LANDSCAPE "Courier New" 8 "My-PI-Invoice-Template"**

For invoices that are generated as PDF documents, the orientation, font and font-size, and indicated template are used. The template specified here may be overridden by the template specified in the EDI Control specifications.

9.7.5.6   Post Invoices to Accounts Receivable

Once all the P/I Invoices have been generated and printed, they need to be posted to an Accounts Receivable Sales Batch. This is the process required to have the invoices for your Customers' Projects recorded as Open Items.

You may generate a report the will list the Invoices that will be posted, or you may just go ahead and post the invoices. You may also post with a register.

When Posting, you need to specify a Sales Batch code, or the system will allocate the next batch number available as defined by the A/R Control Preferences. The system will check to see if the given Sales Batch already exists or not. The appropriate Sales Batch records and files will be created in the A/R.

When PI Invoices are posted to the A/R system, the following functions are performed:

- An Invoice History record is written to the PI Invoice History file

- The active Invoice record is deleted

- Sales Transaction and Revenue Distribution records are written for the A/R Sales Batch specified.

- If the Sub-Ledger option is chosen in the A/R Preferences, then Disbursement Markup and WIP Revenue distributions will be written with the P/I Project Code recorded as the G/L Sub-Ledger Code. The respective GL accounts, in the A/R, must be defined with the P/A Project Revenue Distribution flag set. If this is not set, the Project Code field will be left blank.

From the P/I Main menu, select **Post Invoices to A/R Batch** from the **Invoice Processing** drop-down menu; or click the **Post to A/R** push button from the Invoice Grid Processing "fast buttons" frame.

Some points to note when generating Invoices:

- Only computer generated Invoices will be de-generated. Credit Notes and Manual Invoices cannot be de-generated.

- If within the A/R system, a payment has been received for a given invoice, it will not be de-generated.

- If de-generating posted Invoices, the option is presented to have a Credit Note generated. This is a handy feature, if the invoices had been posted to an Accounts Receivable Sales Batch, and that batch has already been posted. Having the Credit Notes generated, formally generates all applicable reversing transactions.

When De-Generating Invoices, the following steps are performed:

- The unposted Invoice record and/or Invoice History records are deleted
- Invoice Items records for the Invoice are deleted
- WIP and Disbursement records have their Invoice fields cleared and their Status and Type fields reset
- If any WIP or Disbursement Budget had been set up, their totals will be reduced accordingly
- Any Holdback WIP items will have reversing "Holdback Revenue" distributions generated
- Type "T" Revenue systems, (those where revenue distributions are generated when WIP charges are introduced), will have "Mark Up/Down distributions generated
- Any Partial Payment WIP records that were generated will be deleted

- The statistics keep for each Project will be reduced accordingly
- If any Recap Detail records are associated to the Invoice charge, their Invoice fields are cleared, and any Allocated Tax amounts are reset to zero.

Posting the A/R Sales Batch

When posting the invoices to A/R, you are copying all the PI invoices to an Accounts Receivable Sales Batch. That Sales Batch must be accessed from the A/R Sales Entry application, and eventually posted.

You can also generated an Edit List report, and even change transactions. (Not recommended, because your Receivables will not reflect figures maintained in the PI system).

➡ Posting Invoices to Accounts Receivable Sales Batch - Options Screen

The following screen is presented when posting invoices to A/R:

The Interface Journal/Edit list report generated, if archived, will be catalogued with a report name of **PIARPOST.JRN**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing [159] for full details).*

Post Invoices to A/R Options Screen - Field Definitions

Processing Invoices For	*radio-buttons*

Invoices may be generated as Private or Public Invoices. Private Invoices are maintained in a file that may be accessed only be the user that generated them. The concept was developed so that the files associated to private invoices reside in folders on the client's PC. Public Invoices are those that are generated and available to all users of the Professional Invoicing system. The Public data files are stored on the server.

Normally you would only have generated Private invoices if there were networking performance issues on your system.

      ◉ Private Access (Local to this PC)
      ○ Public Access (Server Side to All Users)

Print a Posting Journal/Edit List	*check-box*

When posting the invoices, should you wish to have an edit list, or a journal report generated, set this applicable radio-button.

Post Invoices to an A/R Sales Batch	*check-box*

When this function is executed, you may choose not to actually post the invoices to A/R, then leave the check-box unchecked. You would do this only if you wanted to generate an Edit List first, to be reviewed prior to executing the Posting to the Sales Batch.

Record to Sales Batch	*check-box*

This is the code assigned to the Sales Transaction Batch. It can be either numeric, or alphanumeric. There should not be any spaces or punctuation in the batch code, as it is used within the name of one of the Series 5 data files. If you wish to have the system automatically assign a unique numeric Batch code, press the F1 function key.

Ledger Date	**(mmddyy)**

The Ledger Date entered will be assigned to each Sales Transaction recorded for each of the P/I Invoices that are posted. When the A/R Sales Batch is posted within the Accounts

Receivable system, the distributions generated to the A/R Control Account, and the A/R Revenue Accounts will be recorded with this Ledger Date.

Accounts Receivable Control Account	*9(18)-9(5)*

This is the G/L Accounts Receivable Control account to which the amount of the Invoice is recorded to as a debit. If the Accounts Receivable system was configured with only one A/R Control Account, then this field is not presented to be edited. It defaults to the Default A/R Control account defined in the A/R Control Preferences.

9.7.6 Generate Invoices

Once all active WIP and Disbursement items for Projects have been selected for billing, invoices can then be generated. Invoices need to be generated before they can be printed. The system will read through the WIP and Disbursement files and generate Invoices for items that have been selected. Normally a single invoice will be generated for each Project, although, if Invoice Layout Codes are utilized, depending on the option chosen, multiple invoices could be created for a given Project.

The function to have invoices generated is one that is associated to the Invoice Grid Processing operation application. As a convenience, it is offered as a menu item under the P/I's **Invoice Processing** drop-down menu. For a full description, refer to the topic titled found under the chapter on earlier in this documentation.

9.7.7 DeGenerate Invoices

Some times you just don't get it right the first time. Once all the Invoices have been generated and printed, and maybe even interfaced to A/R, you may realize that those invoices should not have been generated. The De-Generate function comes to your rescue. Or perhaps, they were generated with the wrong Date, or using the wrong formats.

This function basically undoes the generation of invoices. You may select to de-generate either Posted or Un-posted invoices. Every function performed by the generation and posting of invoices is reversed. All WIP and Disbursement items that contributed to the invoice will have its status reset to being active. You will need to re-select these items for billing.

Even if you have posted your invoices to the Accounts Receivable system, you may still De-Generate.

From the P/I Main menu, select **De-Generate Invoices** from the **Invoice Processing** drop-down menu; or select **De-Generate Invoices ...** from the Invoice Grid Processing screens menu bar's **File** drop-down menu. Specific Invoices may be de-generated if when selected from the Invoicing Processing grid, the applicable function is selected from the pop-up menu

that is presented.

Some points to note when generating Invoices:

- Only computer generated Invoices will be de-generated. Credit Notes and Manual Invoices cannot be de-generated.

- If within the A/R system, a payment has been received for a given invoice, it will not be de-generated.

- If de-generating posted Invoices, the option is presented to have a Credit Note generated. This is a handy feature, if the invoices had been posted to an Accounts Receivable Sales Batch, and that batch has already been posted.   Having the Credit Notes generated, formally generates all applicable reversing transactions.

When De-Generating Invoices, the following steps are performed:

- The unposted Invoice record and/or Invoice History records are deleted
- Invoice Items records for the Invoice are deleted
- WIP and Disbursement records have their Invoice fields cleared and their Status and Type fields reset
- If any WIP or Disbursement Budget had been set up, their totals will be reduced accordingly
- Any Holdback WIP items will have reversing "Holdback Revenue" distributions generated
- Type "T" Revenue systems, (those where revenue distributions are generated when WIP charges are introduced), will have "Mark Up/Down distributions generated

- Any Partial Payment WIP records that were generated will be deleted
- The statistics keep for each Project will be reduced accordingly
- If any Recap Detail records are associated to the Invoice charge, their Invoice fields are cleared, and any Allocated Tax amounts are reset to zero.

De-Generating Invoices that have been Posted to Accounts Receivable

Even if you have posted your invoices to the Accounts Receivable system, you may still De-Generate them.

If the applicable Sales Batch has also been posted within the A/R system, it too may be Un-Posted using a function associated to Sales Transaction Entry; or .... an option is presented that will automatically create Credit notes for each Invoice that is de-generated.

De-Genenerate Invoices - Options Screen

The following screen is presented when de-generating the P/I Invoices:

If the option to de-generated Previously Printed and Posted Invoices is chosen, the following processing options are also presented:

For the Posted Invoices to be De-Generated:

☐ Have a P/I "Credit Note" generated for each De-Generated Invoice

☐ Confirm before proceeding to De-Generate each eligible Invoice

When De-Generating Posted Invoices, remember that they have been written to the Accounts Receivable system as Sales Transactions. If the associated Sales Batch has been posted in the A/R, then these Invoices will have been recorded as A/R Open Items. You must take one of the following actions:

1) In the A/R system, Un-Post the Sales Batch and Purge all it's Transactions.
2) In the A/R system, create a new Sales Batch, and enter Credits for each De-Generated Invoice.
3) Check the box above, so that P/I Credits are automatically generated.

▬ De-Generate Invoices Options Screen - Field Definitions

Select Invoices to De-Generate	radio-buttons
Select the types of Invoices that are to be de-generated. These are not necessarily types of invoices, but identifying the status of the invoices to de-generate. ○ Un-Posted Private (Local) Invoices ○ Previously Printed and Posted Invoices ◉ Un-Posted Public (Server) Invoices	
Un-Posted Private Invoices – These are invoices that were generated as "Private" Invoices that have not yet been posted to Accounts Receivable. (They are only available for processing by a specific user as these are stored on an individuals client PC).	
Un-Posted Public Invoices – These are invoices that were generated as "Public" Invoices that have not yet been posted to Accounts Receivable. (These are the normal invoices stored on the server available to all users).	
Previously Printed and Posted Invoices – These are invoices that are no longer in the P/I system, but have been posted to Accounts Receivable. (They are, however, available in the P/I system as historic Invoices).	
Invoices Numbered	radio-buttons & 9(6)
Select whether to generate all the possible invoices, of just a range. When A Range is clicked, enter the starting and ending Invoices to be de-generated. If possible, information about the specified invoices will be displayed.	
Select Only Invoices with Non-Zero Tax Amount	check-box

If checked, only those invoices with a tax amount will be de-generated, and only after being confirmed by the operator. This option is useful if you had realized that the wrong Tax Codes had been specified, or the wrong G/L account was defined for the specified Tax Codes.

For Posted Invoices – Generate a Credit Note	*check-box*

When the option to de-generate Previously Posted Invoices is selected, this field is presented. If checked, then a Credit Note will be generated for each de-generated invoice. This is a handy feature, if the invoices had been posted to an Accounts Receivable Sales Batch, and that batch has already been posted.   Having the Credit Notes generated, formally generates all applicable reversing transactions.

If the Sales Batch had not yet been posted, you could just select that Sales Batch, and click on the function to have all it's transactions deleted. Then all history of the Invoices in the A/R are removed. In that case, you would not want to have Credit Notes generated.

For Posted Invoices – Confirm Each Invoice	*check-box*

When the option to de-generate Previously Posted Invoices is selected, this field is presented. If you wish, the information for each invoice to be de-generated will be displayed to the operator for confirmation to be de-generated.

9.7.8   Print and Post Invoices

Once all Project Invoices have been generated, you will need to have them printed. For those Projects where EDI Invoices are generated, the applicable interface files will also be printed. Once the Invoices have been successfully printed, you will also need to Post the Invoices to the Accounts Receivable system.

The printing of Customer Invoices is a key process of the Professional Invoicing system. Invoices are the requests for payment for the services provided to your customers. You will probably have special forms that were designed and printed, that have your company name, remit address, along with your logo.

From the P/I Main menu, select **Print/Post Public Invoices** or **Print/Post Private Invoices** from the **OInvoice Processing** drop-down menu; or click the **Print/Post Finals** push button from the Invoice Grid Processing "fast buttons" frame.

Some points to note when printing Invoices:

- For those Projects that have been configured to generate EDI, (Electronic Data Interchange), invoices, an applicable ASCII data file is generated containing the information associated to the invoices. There are a number of different types of EDI invoices that may be generated. Two of the properties associated to each Project are a flag indicating that EDI invoices are generated, and the EDI Type. EDI Control Specifications are defined using the EDI Specifications Codes Maintenance function [608].

- When Invoices are printed, up to ten different type of EDI output interface files may be generated at once. When the P/I Invoices are printed, all Projects designated to a particular EDI Control Code have their invoices output to the same interface file. The P/I system maintains internal tables for up to ten different EDI Controls at once.

- When Invoices are printed, they will eventually be recorded as Sales Transactions in the Accounts Receivable system. When the operation to Post Invoices to A/R is selected, a Sales Transaction will be written to an A/R Sales Batch along with the necessary revenue distributions.

- The formatting and layout of the Invoice output may be customized. *(Contact Sentinel Hill for further details)*.

Public and Private Invoice Processing

Invoices may be generated as Private or Public Invoices.

Private Invoices are maintained in a file that may be accessed only be the user that generated them.

The concept was developed so that the files associated to private invoices reside in folders on the client's PC.

Public Invoices are those that are generated and available to all users of the Professional Invoicing system. The Public data files are stored on the server.

Normally, all Invoice generation processes should be done using Public Access options.

One of the features offered with the Series 5 system is the ability to define an MS Word Template that is used to configure each page of MS Word documents that are generated. You can build your own Template that has your company logo, pre-formatted field names, lines, boxes and even watermarks. The P/I Invoices could be printed to an MS Word document.

Word Templates for Invoices

Should you select to output the Invoices as MS Word documents, you may define a page template. Use MS Word to build your template. Make sure that the text of the Invoice align correctly. (You should use a test form when constructing the template). The template must be stored on each user's PC, that will actually generate the invoices, in their **C:\Documents and Settings\<PC UserName>\Application Data\Microsoft\Templates"** directory.

Additionally, a variable must be added to the Runtime Configuration file 736 that specifies the name of the template. It needs to be defined as follows:

MSWORD-PI-INV-SPECS LANDSCAPE "Courier New" 8 "My-PI-Invoice-Template"

Contact your system or accounting manager to have this capability set up.

Invoice Printing - Options Screen

The standard Series 5 print options screen is presented when P/I Invoices are printed:

The Series 5 applications provide a variety of different printing options.

Default Invoice Print Output Options

A print options screen is presented when Invoices are generated. The system may be configured to present the print options screen with the selections that would always apply.

A variable must be added to the Runtime Configuration file 736 that specifies the default options to be presented as follows:

cccccc-PI-INVOICE-Q [Printer-Queue] [Create-Option] [Output-Type]

and:
cccccc-PI-INV-REPRINT-Q [Printer-Queue] [Create-Option] [Output-Type]

Where: **cccccc** is the Series 5 Company System Code

> **Printer-Queue** is the Professional Invoicing Printer Queue
> **Create-Option** would typically always be RECREATE
> **Output-Type** designates whether they are sent to a printer, archived, or created as MS Word documents
>
> Contact your system or accounting manager to have this capability set up.

The Invoices output generated, if archived, will be catalogued with a report name of **PI_*yymmdd_hhmmss*.INV**. where *yymmdd* is the date, and *hhmmss* is the time of day.

9.7.9 Reconcile Paymentech Charges

For those Projects that have their invoice charges paid by credit card, an EDI file is generated and delivered to Paymentech for processing. (These Projects would have had an EDI Specification Code ₆₀₈ assigned to them set up for Paymentech Processing ₆₃₀).

The EDI file is submitted to Paymentech with a Request For Response. All data received by Paymentech must conform to a defined format. All data passed, including card numbers, name and address information, merchant codes, etc,. are validated. Paymentech generates a Response file which basically indicates which of the submitted charges are valid, or not. This validation Response file must be read and processed by the Series 5 P/I system to reconcile which invoices were successfully loaded by the Paymentech system. Those charges that were rejected, are identified and removed from the associated invoice, and are set to be eligible for a future generation of invoices.

From the P/I Main menu, select **Reconcile Paymentech Prepays** from the **Invoice Processing** drop-down menu; or click the **Paytech Reconcile** push button from the Invoice Grid Processing "fast buttons" frame.
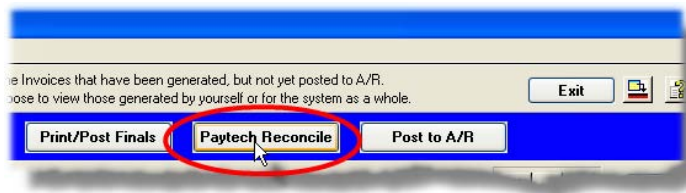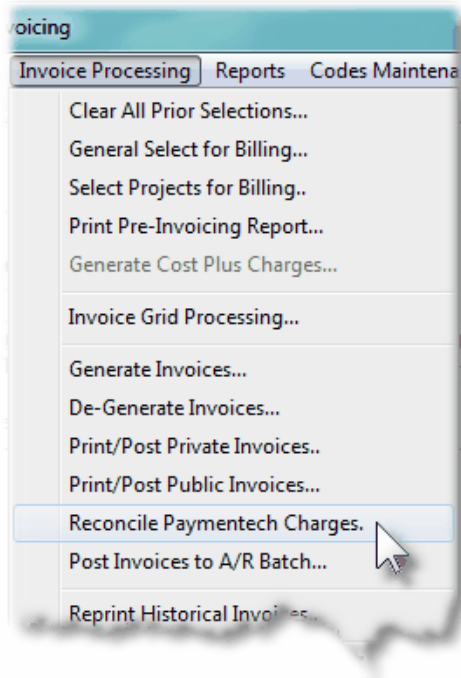
Some points to note when loading the Paymentech Response file:

- If Invoices were generated for Private Access, then you must select the Reconcile function For Private Access Invoices. Likewise, if they were generated for Public Access, make sure Public Access is selected.

- You may executed the Paymentech Reconcile function to test the integrity of the Response file by unselecting the **Mark Paymentech Invoices as Approved, Rejected and/or Declined ?** check-box. In other words, any charges that were rejected will not be removed from the Invoices, and any related Invoices would not be able to be posted to the Accounts Receivable system. (Eventually, the reconcile function would have to be executed with this check box set).

If a given charge associated to an invoice is Rejected or Declined, the following steps are performed by the system:

- The associated Invoice Item record for the Invoice is deleted and their charge and tax amounts subtracted from the totals for the Invoice
- If any Recap Detail records are associated to the Invoice charge, their Invoice fields are cleared, and any Allocated Tax amounts are reset to zero.
- WIP and Disbursement records have their Invoice fields cleared and their Status and Type fields reset waiting to be selected again
- If any WIP or Disbursement Budget had been set up, their totals will be reduced accordingly
- Any Holdback WIP items will have reversing "Holdback Revenue" distributions generated
- Type "T" Revenue systems, (those where revenue distributions are generated when WIP charges are introduced), will have "Mark Up/Down distributions generated

- If all charges on a given invoice are declined, the unposted Invoice record and/or Invoice History records are deleted
- Any Partial Payment WIP records that were generated applicable to the Invoice will be deleted
- The statistics keep for each Project will be reduced accordingly
- Rejected and/or Declined charges are listed on the Journal or Exception Report

---

Reasons for Rejection

It seems that the Paymentech system could have been developed quite a number of years ago. It's quite surprising some of the limitations that it has, either intentionally or not. It's possible to submit an EDI file to be processed, and a number of the charges are rejected. Then a few hours later, or the next day, submitting the same charges. they get accepted.

The most common reasons for rejection is the expiration of the credit card, or the dollar limit imposed on the card has been exceeded.

Paymentech charges are associated to one or more P/I system WIP charges and Recaps. When a charge is rejected, the WIP items are reinstated as unbilled items, and remain on the system until re-billed.

🔵 Paymentech Reconciliation - Options Screen

The following screen is presented to have the Paymentech Response files processed:

De-Generate Invoices Options Screen - Field Definitions

For EDI Code	*drop-list*
Select the EDI Control Code associated to the Paymentech invoices file that is to be reconciled.	

For Private or Public Access Invoices	*radio-buttons*
Invoices may have been generated as Private or Public Invoices. Private Invoices are maintained in a file that may be accessed only be the user that generated them. The concept was developed so that the files associated to private invoices reside in folders on the client's PC. Public Invoices are those that are generated and available to all users of the Professional Invoicing system. The Public data files are stored on the server. If the invoices generated for Paymentech were Private, then YOU MUST select the Private radio-button. If they were Public, YOU MUST select the Public radio-button.	

Mark Invoices Approved, Rejected or Declined	*check-box*

All charges associated to Invoices submitted to Paymentech must be either approved, rejected or declined. Set this check-box to have the system mark them accordingly. When Invoices for Paymentech are generated, and printed, they are assigned a status of "Waiting for CrCard Approval". They will hold this status until this Paymentech Reconciliation process is executed.

You could executed this function to just have the Reconcile Journal or Exception report generated, and not actually update the status of the Invoices.

> **Mark Invoices Approved**
>
> You would eventually have to execute the function with this check-box set so that Invoices would be marked as Printed so they could be posted to the Accounts Receivable system.

Input File – Folder & Filename	*X(80) and X(30)*

Input the Folder name and the Filename of the Paymentech Response file. You may click the Browse button to locate it using the Windows File select dialogue window. By default, this will be set to the same folder where the Paymentech output EDI file is created.

Input File – Folder & Filename	*radio-buttons*

When loading the Response interface data, if you wish to have either the full edit/journal list generated or just an exception report, set the applicable radio-button.

The Exception report lists only those transactions that were rejected or declined.

Reject Reason Codes

The tables following describe the Reject Reasons that might be returned.

Response Codes:	
R	Rejected
D	Declined

Action Codes:	
R	ReSend at Any Time
W	Wait 2-3 days, or resolve with customer
C	Try to resolve with customer
F	An invalid field was sent
N	Not applicable
V	Voice authorization required
P	Call Paymentech

Type	Code	Description	Action Code
R	201	Invalid Credit Card - Bad Check Digit, # or length	C
R	202	Bad Amount - Was ZERO, unreadable or greater than limit	F
R	203	The amount was ZERO	F
R	204	Other unidentifiable error	F
R	205	Bad total authorization amount	F
R	218	Invalid SKU number	F
R	219	Invalid Credit Plan	F
R	220	Invalid Store Number	F
R	225	Invalid field data within transmission	F
R	227	Missing companion data within transaction	F
R	231	Invalid Division Number	F
R	233	Wrong Card Number for Credit Card Type	F
R	241	Illegal Action Code	F
R	253	Invalid Transaction Type	F
D	301	Issuer Authorization Network Unavailable	R
D	302	Insufficient Funds	W
D	303	Generic Decline	C
D	304	Credit Card not on file	C
D	401	Card issuer wants voice contact with customer	V
D	501	Card issuer wants card returned	C
D	502	Card was reported Lost or Stolen	C
D	509	Exceeds Withdrawl/Activity amount limit	C
D	510	Exceeds Withdrawl/Activity count limit	C
D	521	Insufficient Funds	C
D	522	Card has Expired	C
D	530	Generic Decline - No information provided by Issuer	C
D	531	CVV2/VAK Failure	C
D	572	Cardholder has closed this account	C
D	591	Invalid Credit Card Number	C
D	592	Bad Amount - Was ZERO, unreadable or greater than limit	F
D	594	Other Error - Unidentifiable Error	F
D	605	Invalid Expiration Date	C
D	606	Invalid Transaction Type for issuer	C
D	607	Amount not accepted by Network	F
D	825	Account does not exist	C
D	902	System Error/Malfunction with Issuer Network	C
D	903	Invalid Expiration Date	C
D	904	Card not activated	C

9.7.10   Post Invoices to Accounts Receivable

Once all the P/I Invoices have been generated and printed, they need to be posted to an Accounts Receivable Sales Batch. This is the process required to have the invoices for your Customers' Projects recorded as Open Items.

You may generate a report the will list the Invoices that will be posted, or you may just go ahead and post the invoices. You may also post with a register.

When Posting, you need to specify a Sales Batch code, or the system will allocate the next batch number available as defined by the A/R Control Preferences. The system will check to see if the given Sales Batch already exists or not. The appropriate Sales Batch records and files will be created in the A/R.

When PI Invoices are posted to the A/R system, the following functions are performed:

- An Invoice History record is written to the PI Invoice History file

- The active Invoice record is deleted

- Sales Transaction and Revenue Distribution records are written for the A/R Sales Batch specified.

- If the Sub-Ledger option is chosen in the A/R Preferences, then Disbursement Markup and WIP Revenue distributions will be written with the P/I Project Code recorded as the G/L Sub-Ledger Code. The respective GL accounts, in the A/R, must be defined with the P/A Project Revenue Distribution flag set. If this is not set, the Project Code field will be left blank.

From the P/I Main menu, select **Post Invoices to A/R Batch** from the **Invoice Processing** drop-down menu; or click the **Post to A/R** push button from the Invoice Grid Processing "fast buttons" frame.

Some points to note when generating Invoices:

- Only computer generated Invoices will be de-generated. Credit Notes and Manual Invoices cannot be de-generated.

- If within the A/R system, a payment has been received for a given invoice, it will not be de-generated.

- If de-generating posted Invoices, the option is presented to have a Credit Note generated. This is a handy feature, if the invoices had been posted to an Accounts Receivable Sales Batch, and that batch has already been posted. Having the Credit Notes generated, formally generates all applicable reversing transactions.

When De-Generating Invoices, the following steps are performed:

- The unposted Invoice record and/or Invoice History records are deleted
- Invoice Items records for the Invoice are deleted
- WIP and Disbursement records have their Invoice fields cleared and their Status and Type fields reset
- If any WIP or Disbursement Budget had been set up, their totals will be reduced accordingly
- Any Holdback WIP items will have reversing "Holdback Revenue" distributions generated
- Type "T" Revenue systems, (those where revenue distributions are generated when WIP charges are introduced), will have "Mark Up/Down distributions generated
- Any Partial Payment WIP records that were generated will be deleted

- The statistics keep for each Project will be reduced accordingly
- If any Recap Detail records are associated to the Invoice charge, their Invoice fields are cleared, and any Allocated Tax amounts are reset to zero.

Posting the A/R Sales Batch

When posting the invoices to A/R, you are copying all the PI invoices to an Accounts Receivable Sales Batch. That Sales Batch must be accessed from the A/R Sales Entry application, and eventually posted.

You can also generated an Edit List report, and even change transactions. (Not recommended, because your Receivables will not reflect figures maintained in the PI system).

➡ Posting Invoices to Accounts Receivable Sales Batch - Options Screen

The following screen is presented when posting invoices to A/R:

The Interface Journal/Edit list report generated, if archived, will be catalogued with a report name of **PIARPOST.JRN**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

Post Invoices to A/R Options Screen - Field Definitions

Processing Invoices For	*radio-buttons*

Invoices may be generated as Private or Public Invoices. Private Invoices are maintained in a file that may be accessed only be the user that generated them. The concept was developed so that the files associated to private invoices reside in folders on the client's PC. Public Invoices are those that are generated and available to all users of the Professional Invoicing system. The Public data files are stored on the server.

Normally you would only have generated Private invoices if there were networking performance issues on your system.

- ⦿ Private Access (Local to this PC)
- ○ Public Access (Server Side to All Users)

Print a Posting Journal/Edit List	*check-box*

When posting the invoices, should you wish to have an edit list, or a journal report generated, set this applicable radio-button.

Post Invoices to an A/R Sales Batch	*check-box*

When this function is executed, you may choose not to actually post the invoices to A/R, then leave the check-box unchecked. You would do this only if you wanted to generate an Edit List first, to be reviewed prior to executing the Posting to the Sales Batch.

Record to Sales Batch	*check-box*

This is the code assigned to the Sales Transaction Batch. It can be either numeric, or alphanumeric. There should not be any spaces or punctuation in the batch code, as it is used within the name of one of the Series 5 data files. If you wish to have the system automatically assign a unique numeric Batch code, press the F1 function key.

Ledger Date	**(mmddyy)**

The Ledger Date entered will be assigned to each Sales Transaction recorded for each of the P/I Invoices that are posted. When the A/R Sales Batch is posted within the Accounts

Receivable system, the distributions generated to the A/R Control Account, and the A/R Revenue Accounts will be recorded with this Ledger Date.

Accounts Receivable Control Account	*9(18)-9(5)*

This is the G/L Accounts Receivable Control account to which the amount of the Invoice is recorded to as a debit. If the Accounts Receivable system was configured with only one A/R Control Account, then this field is not presented to be edited. It defaults to the Default A/R Control account defined in the A/R Control Preferences.

9.7.11 Email EDI Generated PDF Invoices

The Series 5 P/I system provides for the ability to generated electronic invoices. These are commonly referred to as EDI invoices.

There are a variety of different EDI invoices that may be generated. Some of these are unique to specific customer, and some are generated using specific standard formats For each of the types of EDI invoices that may be generated, the P/I system has an EDI Specifications Control code that is created. This Control Code defines the different properties associated to each type of EDI invoice.

One such type of EDI invoices that can be generated by the system is referred to as Emailed PDF Invoices. The customer's invoice is generated as a PDF document, and as well, a Recap Report is generated as a PDF document. The Recap Report lists detailed information about each charge that contributes to amounts listed on the invoice. Both the invoice and the Recap Report are automatically emailed to the customer. The properties associated to EDI invoices is defined by the EDI Specifications Codes Maintenance 608 routine. More specifically for emailed PDF Invoices refer to the topic titled About PDF Invoices 619.

The process to generate these invoices, along with their reports, may be defined to be performed in a single step, or in two steps. Normally, each Invoice is generated with it's corresponding Recap Report as PDF documents, and emailed at the same time. As an option, you could break this process into two steps. The 1st step is to have the PDF Invoice generated. The 2nd step is to have the Recap Report generated and both it and the Invoice are emailed. The 2nd step is performed by launching the menu item defined by this topic, (referred to as the "After Hours" Operation).

From the P/I Main menu, select **Email EDI Gen'ed PDF Invoices** from the **Invoice Processing** drop-down menu.

This function also offers the opportunity to repeat the emailing of the PDF Invoices, with their respective Recap Reports for a specified range of invoice numbers.
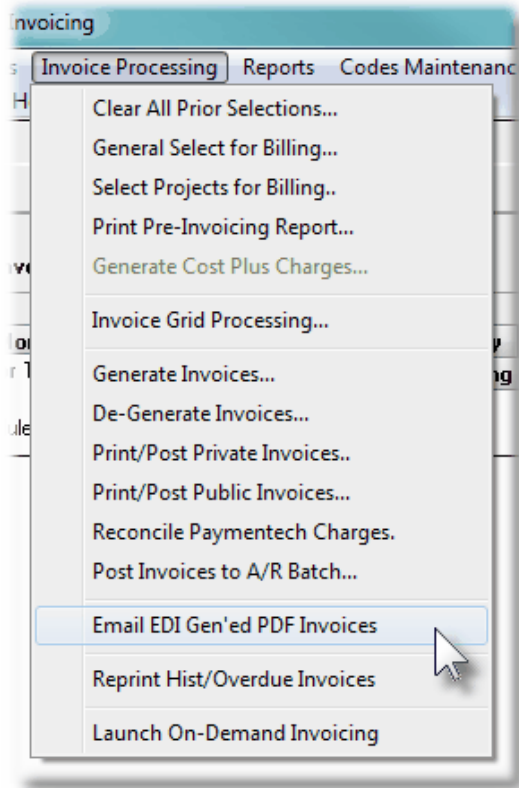
"After Hours" Emailing of PDF Invoices

Only those invoices that had previously been generated as EDI-PDF Invoices will be emailed.

⊙ Emailing of EDI-PDF Invoices - Options Screen

The following screen is presented:

After Hours Emailing of PDF Invoices Options Screen - Field Definitions

Repeat the Email Process	check-box
If you wish to repeat the emailing of any EDI-PDF invoices, set this check box. You will then be able to specify a range of invoices that are to be re-emailed. Only those invoices that had previously been generated and still exist in their designated directory/folder will be emailed with their associated Recap report. **If you are wanting to just perform the normal "After Hours" emailing of the EDI-PDF invoices that had previously been generated, leave this check-box unchecked.**	

Re-Email PDF Invoices Numbered	9(8)
Enter the starting and ending Invoices numbers of those that are to be re-emailed.	

| EDI/XML Specs Code	drop-down list
If PDF Invoices are generated under the control of different EDI Control Sets, select the EDI Control set for which the invoices are to be re-emailed. Only those invoices	

> associated to the selected EDI Control code will be processed and re-emailed.

9.7.12 Reprint Historical or Overdue Invoices

Once all Project Invoices have been generated, printed and posted, it would be hoped that that's the end of it. Just in case there is need to reprint a bunch of invoices either because of a screw up with the postal system, of there was some kind of a form setup malfunction, this function will accomplish that task. You can also choose to reprint those customer's invoices that are considered "Overdue". The invoices may be printed, or emailed.

The printing of Customer Invoices is a key process of the Professional Invoicing system. Invoices are the requests for payment for the services provided to your customers. You will probably have special forms that were designed and printed, that have your company name, remit address, along with your logo.

From the P/I Main menu, select **Reprint Hist/Overdue Invoices** from the **Invoice Processing** drop-down menu.
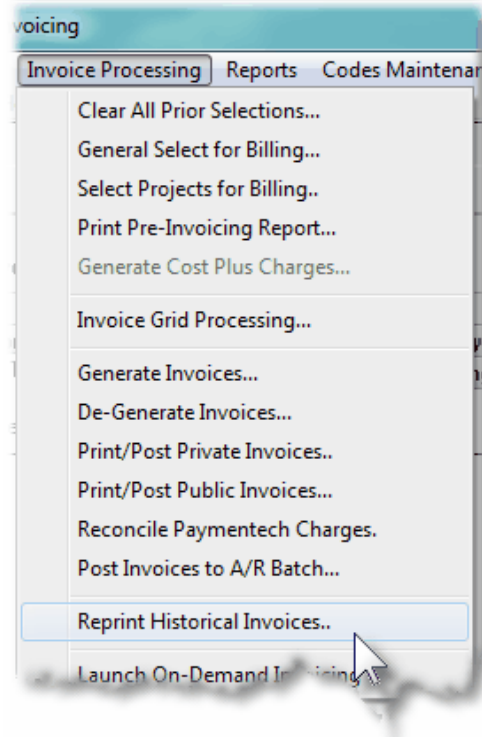
Some points to note when printing Invoices:

- Only those invoices that have been posted to the Accounts Receivable system, and hence recorded to history, will be available for printing.

- Invoices, that when printed really generate EDI files, ARE NOT PROCESSED. Only paper invoices are reprinted.

- When printing "overdue" invoices, as a filter, the operator may select to have only those that are overdue by 15, 30, 45, 60, 90 or 120 days

- When printing "overdue" invoices, as an option, they can be automatically emailed.

- If invoices are to be emailed, the body of the email message, is loaded from the file named **OverDue_Invoice_EmailMessage.TXT** that must be located in the directory named **Email-Templates** located in each Company System's designated reports directory. This text file may be either a plain ASCII text, or an HTML file and contain up to 8192 characters.

- The formatting and layout of the Invoice output may be customized. *(Contact Sentinel Hill for further details)*.

One of the features offered with the Series 5 system is the ability to define an MS Word Template that is used to configure each page of MS Word documents that are generated. You can build your own Template that has your company logo, pre-formatted field names, lines, boxes and even watermarks. The P/I Invoices can be printed to an MS Word document or to a PDF document. (either way, the Word Template is applied).

Word Templates for Invoices

Should you select to output the Invoices as MS Word or PDF documents, you may define a page template. Use MS Word to build your template. Make sure that the text of the Invoice align correctly. (You should use a test form when constructing the template). The template must be stored on each user's PC, that will actually generate the invoices, in their **C:\Documents and Settings\<PC UserName>\Application Data\Microsoft\Templates"** directory.

Additionally, a variable must be added to the Runtime Configuration file 736 that specifies the name of the template. It needs to be defined as follows:

    MSWORD-PI-INV-SPECS PORTRAIT "Courier New" 8 "My-PI-Invoice-Template"

Contact your system or accounting manager to have this capability set up.

⟳ Re-Printing Historic Invoices - Options Screen

The following screen is presented when re-printing Historic Invoices:

When selected, the operator is presented with the standard Project Select Filters ⌐142 screen and the Customer Select Filters ⌐151 screen. These allow you to specify selected or ranges of Projects, Project Locations, Project Departments, Customers, Customer Types, Sales Representatives, and/or only those customers and/or projects satisfying a variety of filter criteria.

The Series 5 applications provide a variety of different printing options.

Default Invoice Print Output Options

A print options screen is presented when Invoices are generated. The system may be configured to present the print options screen with the selections that would always apply.

A variable must be added to the Runtime Configuration file ⌐736 that specifies the default options to be presented as follows:

    cccccc-PI-INVOICE-Q [Printer-Queue] [Create-Option] [Output-Type]

and:
    cccccc-PI-INV-REPRINT-Q [Printer-Queue] [Create-Option] [Output-Type]

Where: **cccccc** is the Series 5 Company System Code
        Printer-Queue is the Professional Invoicing Printer Queue
        Create-Option would typically always be RECREATE

> **Output-Type** designates whether they are sent to a printer, archived, or created as MS Word documents
>
> Contact your system or accounting manager to have this capability set up.

The Invoices output generated, if archived, will be catalogued with a report name of **REPRINT_PI.LST**.
When invoices are emailed, each one is created as a PDF document named **INVOICE-99999999-REPRINT.PDF** in the directory defined by the **WEB-EDOCS-DIRECTORY** runtime configuration variable.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* [159] *for full details).*

Field Definitions

Invoices Numbered	*radio-buttons & 9(6)*
Select whether to reprint all the possible invoices, of just a range. When A Range is clicked, enter the starting and ending Invoices to be de-generated. If possible, information about the specified invoices will be displayed.	

Invoices Dated	*radio-buttons & (mmddyy)*
Select whether to reprint all invoices, or only those dated within a specific date range. Click the calendar icon to select a pre-defined date range.	

Only Reprint Customer "Overdue" Invoices	*check-box*
Set the check-box if you wish to ONLY print those Customer's Invoices that are deemed to be Overdue. (In other words, those invoices that have not yet been fully paid as of a specified number of days past either the Invoice Date or the Due Date) Select the aging days as required.	

Only for Customers with Specific Terms Code	*check-box*
If reprinting Overdue Invoices, you may choose to print only those invoices belonging to customers that have a specific Terms Code assigned. Set the check-box to enable the Terms Code entry field, and select the applicable Terms Code.	

Email Invoices to Qualified Customers	*check-box*

If reprinting Overdue Invoices, you may choose to have the invoices generated as PDF documents, and automatically emailed to the customer. Only those customers with their A/R Profile's *Email Statements and Invoice* property set for emailing will have their invoices emailed. (Otherwise their invoice will be output assumed ready to be printed).

> **Emailing of Invoices**
>
> When invoices are emailed, the body of the email message, is loaded from the file named **OverDue_Invoice_EmailMessage.TXT** that must be located in the directory named **Email-Templates** located in each Company System's designated reports directory. This text file may be either a plain ASCII text, or an HTML file and contain up to 8192 characters. Within the body of that text, pseudo variables ****MY-STRING-2**** and ****MY-STRING-3**** will be replaced by the "# of days Overdue" and the "# of invoices that have been issued" counters. (Refer to the topic titled Email Message Text Files 732 in the Appendix)

Aged Over xx Days Old	*radio-buttons*

Select the number of days overdue for an invoice to be reprinted.

Based On Invoice or Due Date	*radio-buttons*

Select whether the # of days overdue is relative to the Invoice Date, or the Invoice Due Date.

9.7.13 Launch On-Demand Invoicing Service

The Series 5 Professional Invoicing system provides support for On-Demand Invoicing.

Traditionally, work-in-progress activity is recorded using batched interface or employee time-sheet entry. Invoices are then generated and printed for all those chargeable projects with billable activity.

With On-Demand Invoicing, billable activity is generated immediately after a customer's interaction with a web-site or telephone sales agent. These charges are then grouped as a packet of information in a file, and delivered to an accounting server to be deposited to a pre-designated directory. The Series 5 Professional Invoicing system's On-Demand Servicing function detects the presence of this file, reads the data, generates the invoice, delivers it back to the requesting agent or system, and posts it into the Accounts Receivable system. The process is accomplished typically all in a time-frame of less than 10 seconds.

On Demand Control Sets are used to define the options associated to these invoicing related operations. Each On Demand Control Set could be established to represent a unique set of options perhaps representing charges accumulated for different branch offices, geographic regions, or sales agents. Invoices associated to each Control Set is then dealt with separately, having their accumulated activity loaded, billed, invoices generated, and moved to A/R.

When the On-Demand Servicing function is launched as an operation, it may be configured to service all Control Sets, or a group of Control Sets, or individually selected Control Sets. (Note that one of the properties associated to a Control Set is a character string that is used as a prefix to the filenames that contain the packet of charges belonging to each On-Demand Invoice that is to be generated). You could start multiple instances of the On-Demand Invoice Servicing function, where each one is looking for On-Demand Invoice requests for all Control Sets, or specific groups of Control Sets. Each On-Demand charges packet file must be created in the designated folder and have a predefined filename). For further discussion, refer to the topic under the Control Options Functions chapter titled On-Demand Invoicing Control Sets 715.

Some points to note about the On-Demand Invoicing Server function:

> ➢ **The On-Demand Invoice Server utility is launched from the Invoice Processing drop-down menu from the P/I System**

> ➢ **Multiple instances of the Server may execute at the same time on different client terminals**

> ➢ **Each Server may be configured to service requests for groups of Control Sets, thus being able to generated invoices only for specific offices or agents**

> ➢ **A Status screen is displayed showing information about the request being processed**

> ➢ **The Status screen displays the # of invoices that have been generated for each Control Set, along with the Total $ Value of Invoices**

> ➢ **The request to have an Invoice generated is triggered by the arrival of a pair of files in each Control Sets' designated Input Directory. The WIP charges file contains records associated to the charge includes information such as the Task, Employee, Unit Rate and Quantity. The Recap Detail file contains extended information associated to the activity performed. The 1st record of the Recap file MUST contain information about who submitted the request .**

> ➢ **The WIP and Recap Detail files must have specific filenames. Those files representing requests for a given Control Set must be named with the File Prefix that is defined by that Control Set.**

> ➢ **When the trigger files are deposited into the designated input directory, the WIP Charges file MUST be moved in 1st, then followed by the Recap Detail file. If this is not the case, then the invoice may not be generated.**

> ➢ **If errors are encountered in the input trigger files, an Exception Report will be generated and emailed back to the requesting agent. The request input files are renamed with a .err extension.**

> ➢ **Once an On-Demand Invoice is generated, the WIP and Recap Detail files for the request are deleted.**

If errors are detected in the data files providing information about the charges, an exception report is generated. This report will be emailed to the originator of the request, and as an option, one other email address. The body of this message, which you can edit to your likening, must be set up in a text file named **ODB_ExceptRpt_EmailMessage.TXT** that must be located in the folder named **Email-Templates** found in the designated Company System's "Generated and Archived Reports" data directory. This file can be either a simple text file, or an HTML file and must not contain more that 8192 characters.

Within the body of the message file, you may include a number of pseudo variables that will be replaced with applicable text, associated to the information in the email and the recipient. The following variables may be used and replaced as follows:

Variable	*String to be replaced with*
%%RECIPIENT-NAME%%	Name of the person to whom the email it sent
%%RECIPIENT-EMAIL%%	The email address of the email recipient

Examples of the Email Message files may be found in the Series 5 release directory, in the UTIL sub-directory.

Launching the Series 5 On-Demand Invoicing Service

From the P/I Menu:

1. Click on **Launch On-Demand Invoicing...** from the **Invoice Processing** drop-down menu.
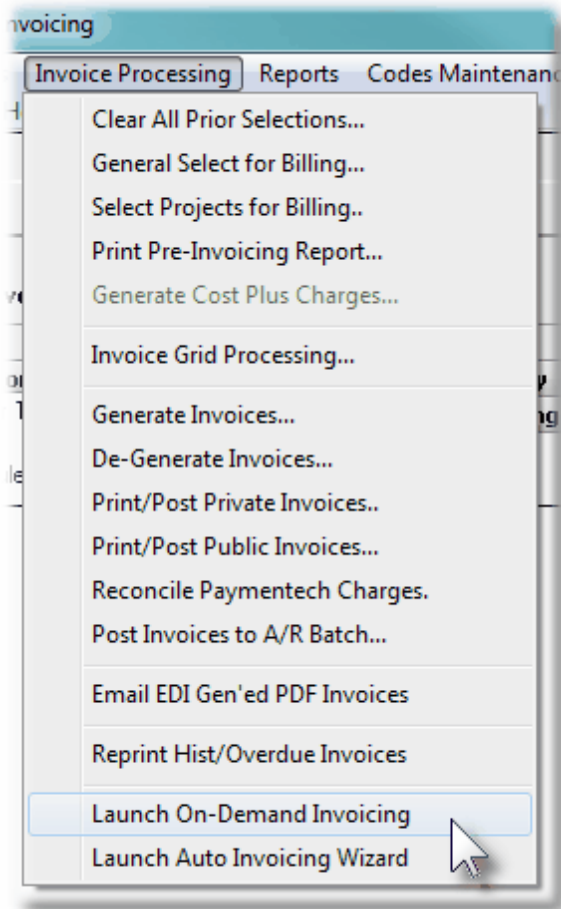
2. The On-Demand Invoicing Server Filters screen will be displayed and you will be able to set a number of filters that are used to select particular requests that are to be accepted. Up to 18 On-Demand Control Set that have been defined in the P/I system are listed. *(By default, On-Demand Invoice requests associated to ALL Control Sets will be processed).* Note that after the server is started, you can change the filters.

3. Click **OK** and the On-Demand Invoicing Server will trundle off and wait for a job that it can execute.

Processing Note

The On-Demand Invoicing Server, when launched, is executed as an entirely new task in it's own window. You can switch back to the P/I System menu window, exit that, and do whatever you please

without disturbing the Server.

## On-Demand Invoicing "Status" Waiting Window

When the On-Demand Invoicing Server is idle and waiting for a request to be processed, the following screen is displayed.
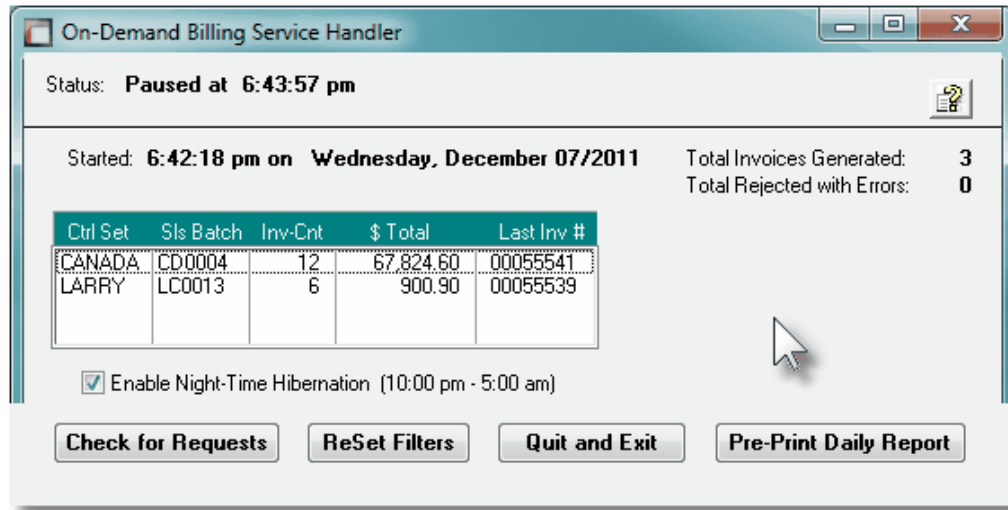
If you wish to have the On-Demand Invoicing Service hibernate between 10:00 pm and 5:00 am every night, set the applicable check-box.   During hibernation, all files are closed so a proper backup can be taken, and in the morning it will be automatically re-activated. Note that when the service enters hibernation mode, the Daily Invoice Summary Report will be automatically generated; and when re-awoke, when the 1st request is serviced, a new A/R Sales Batch will be automatically created, into which Invoices will be posted.

On-Demand Invoicing "Status" Processing Window

When a request is being serviced, the following screen is displayed. Note that if you wish to show more information about requests as they are being serviced, set the applicable check-box.
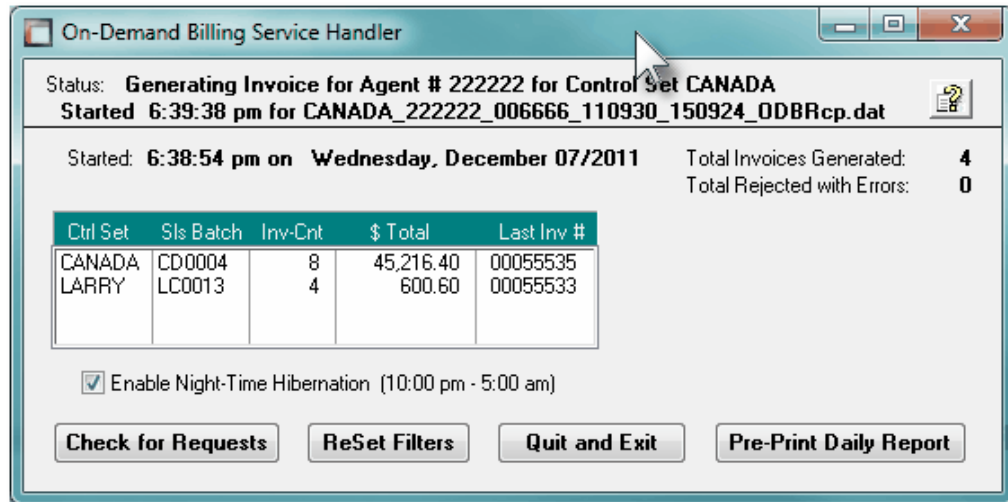
The list that is displayed shows each Control Set along with the Sales Batch to which it's Invoices are posted to in the Accounts Receivable system, the # of Invoices that have been generated, and the total $ Value.

Request Select Filters Screen Field Definitions

Control Set Launch Group	radio-buttons
One of the properties associated to each On-Demand Invoicing Control Set is a Group Code. This is used to identify those Control Sets for which associated On-Demand Invoice requests are to be serviced by the same instance of the server. Click **ALL** to display and enable all Control Sets for the operator. Click **Selected** to have a Launch Group chosen. *Note that all Control Sets are listed, but only those belonging to the selected Launch Group will be pre-checked and enabled.*	

Service Launch Group	X(6)
Select the Launch Group for which On-Demand Invoices are to be generated for.	

Control Set(s)	check-box
Up to 18 Control Sets may be defined by the system. Each will be displayed with a check-box that may be set or cleared by the operator to indicate whether or not associated requests will be serviced. If a Service Launch Group was selected, then only those Control Sets belonging to that Group will be pre-checked and enabled.	

9.7.14 Launch Auto Invoicing Wizard

The Series 5 Professional Invoicing system provides an Invoicing Wizard that that may be invoked manually to automatically process the sequence of functions typically associated to daily operation. A wizard is really just another operation that automatically steps through a number of other operations associated to the application.

The wizard will automatically attempt to execute itself for each Invoicing Wizard Code 707 that has been defined to the P/I system. It reads the Invoicing Wizard Codes file for each code that has been created. It examines the designated folder, for each code, to see if any interface files exist. If files are found, then that Wizard Code is set up to be processed. Up to 12 Wizard Codes will be processed at once.

The Wizard may be launched manually, or there is a service routing that may be launched that will automatically execute the Wizard are specific intervals of time during the day. This chapter provides information on how to invoke the Automatic Executing Wizard. **You may refer to the topic titled Interface/Invoicing Wizard 340 found earlier in this document for information about how the Wizard executes, and the functions that it performs.**

Some points to note about the Automated Invoicing Wizard Server function:

> ➤ **The Automated Invoice Wizard Server utility is launched from the Invoice Processing drop-down menu from the P/I System**

> ➤ **It may be started so that the Wizard is executed every 1/2, hourly, or every 2 or 4 hours.**

> ➤ **A Status screen is displayed showing information about when the Wizard last executed, and when it will next execute**

> ➤ **The Status screen displays a list showing a the # of invoices that had been generated along with the Total $ Value of Invoices for each time the Wizard executed.**

> ➤**The interface files that are processed to generate the invoices must be present in their designated directories before the Wizard is executed. IF THEY ARE NOT PRESENT in time, they will not be processed until the next scheduled execution. However, their is that ability to have the Wizard executed manually, which WILL NOT disturb the next scheduled automatic execution.**

> ➤**If errors are encountered in the input files, an Exception Report will be generated and the invoices WILL NOT be generated. You must address the related problems, and then select to repeat the execution of the Wizard.**

▬ Launching the Series 5 Automated Invoicing Wizard Service

From the P/I Menu:

1. Click on **Launch Auto Invoicing Wizard...** from the **Invoice Processing** drop-down menu.
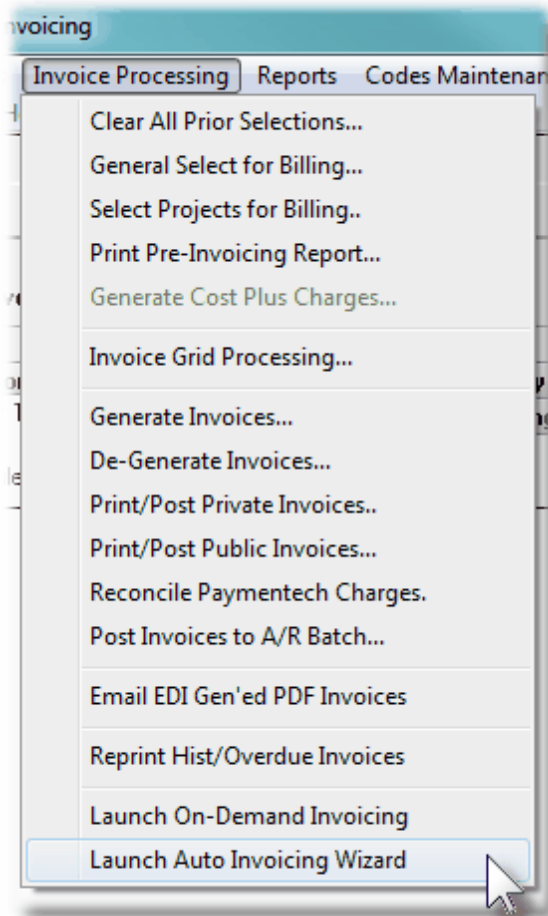
2. The Auto-Invoicing Wizard Server Filters screen will be displayed and you will be able to set a number of filters that are used to determine when the Wizard is to be executed. Note that after the server is started, you can change the filters.
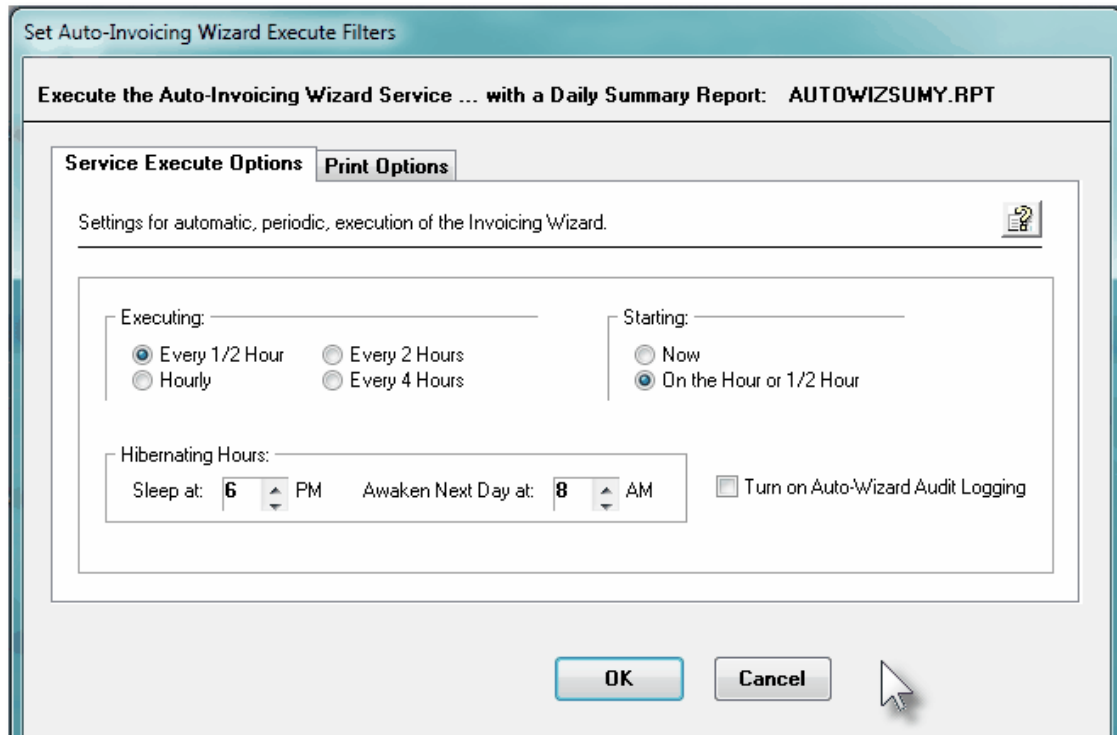
3. Click **OK** and the On-Demand Invoicing Server will trundle off and wait for a job that it can execute.

Processing Note

The Auto-Invoicing Wizard Server, when launched, is executed as an entirely new task in it's own window. You can switch back to the P/I System menu window, exit that, and do whatever you please without disturbing the Server.

Auto-Invoicing Wizard "Status" Waiting Window

When the Automated Invoicing Wizard Server is idle and waiting for a request to be processed, the following screen is displayed.

If you wish to have the Auto-Invoicing Wizard Service hibernate between 6:00 pm and 8:00 am every night, set the applicable check-box.   During hibernation, all files are closed so a proper backup can be taken, and in the morning it will be automatically re-activated. Note that when the service enters hibernation mode, the Daily Invoice Summary Report will be automatically generated.

## Auto-Invoicing Wizard Select Filters Screen Field Definitions

Executing Frequency	**radio-buttons**
Choose how often the Wizard is to be invoked. The system will automatically execute the Wizard as often as specified. *Note that it will be assumed that the interface files are always available in their respective folders when the Wizard is executed.*	

Starting	**radio-buttons**
Specify whether to the 1st execution of the Wizard immediately, or on hour or 1/2 hour, depending on the frequency selection.	

Enable Night Time Hibernation	**check-box**
If the Execution of the Wizard is to be suspended overnight between 6pm and 8am, set the check box. *It is advisable to do so, so that all processing files are closed when the nightly backup is executed.*	

Enter Hibernation Mode for 4 Minutes	**check-box**

This option is available to test the hibernation function. It is useful if you wish to back-up or replace any of the data files used in the Invoicing process without shutting down the service.

9.8   Reporting Functions

The topics in this chapter describe functions and procedures that are a available under the **Reports** drop down menu on the Professional Invoicing menu. These menu items are used to generate and print the reports associated to the Professional Invoicing system. (Note that those menu items that are dimmed have not yet been ported over from the Series 4 system).

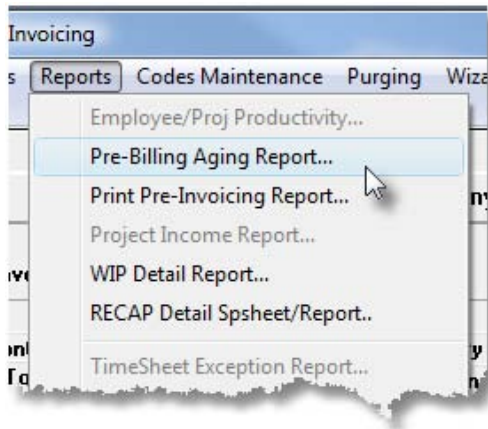These functions are available from the P/I Menu Bar as shown:
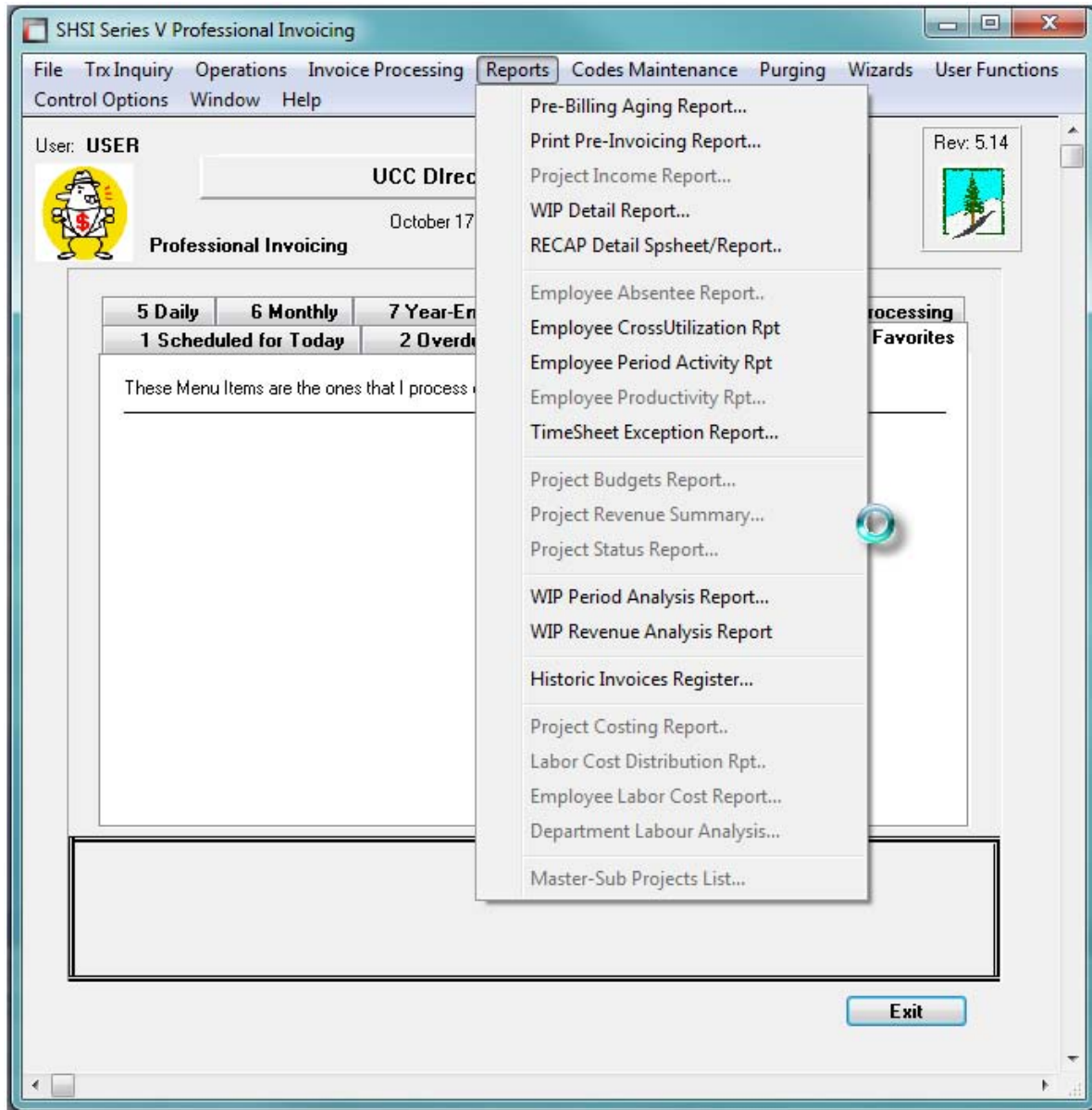
9.8.1 Pre-Billing Aging Report

The Professional Invoicing system Pre-Billing report provides a listing of WIP and Disbursements that are eligible for billing. As an option, items previously invoiced may also be listed. Items are aged and printed in appropriate columns.

✚ Accessing the P/I Pre-Billing Report

From the P/I Main menu, select **Pre-Billing Aging Report** from the **Reports** drop-down menu.

➡ P/I Pre-Billing Report - Options Screen

The following screen is presented when generating the P/I Pre-Billing Report:

When selected, the operator is presented with the standard WIP Select Filters 147 screen, the Project Select Filters 142 screen and the Customer Select Filters 151 screen. These allow you to specify selected or ranges of WIP Items, Projects, Project Locations, Project Departments,

Customers, Customer Types, Sales Representatives, and/or only those customers and/or projects satisfying a variety of filter criteria.

The report generated, if archived, will be catalogued with a report name of either **PREBILL_DETAIL.RPT** or **PREBILL_SUMMRY.RPT** depending on whether the Detail or Summary versions were selected.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* [159] *for full details).*

Field Definitions

Type of Report	*radio-buttons*
Select whether the report is to be generated in Summary or a Detail. The Summary report provides totals of Unbilled WIP and Disbursements for each Projects. The Detail report list each item with the total amount due in a separate column depending on it's age.the customers' totals along with each individual Open Item.	⦿ Detail ○ Summary
Reporting Items Dated	*radio-buttons & (mmddyy)*
Select to have WIP and Disbursements selected regardless of their dates; or only those with a transaction date since a specified date. Click the calendar icon to select a date.	
Aging Items - To Date	*(mmddyy)*
This is the date used to determine the age of each Item. The total billable amount for each item that can be invoiced is printed in one of four different columns, depending on the age of the item relative to this date. Each column corresponds to the aging periods defined by the A/R Control Preferences. The default is the current system date.	
List Previously Invoiced Items	*check-box*
Normally only unbilled WIP and Disbursement items would be listed in this report. If you wish to list already invoiced items, set this check-box.	
List Credits and Manual Invoice Entries	*check-box*
When Credit Notes or Manual Invoices are entered against a given Project, a special WIP item record is written. These hold respective values of balance amounts that have not yet been applied to specific WIP items. If you wish to list this items, set this check-box.	

Include Supporting Project Notes	*check-box*

Each Project may have a user defined comment associated with it. These are entered for each Project using the Project Codes Maintenance ⃞539 function.   If you wish to these notes list on the report for each Project, set this check-box.

Items Sorted by	*radio-buttons*

When the Detail Report is generated, Items may be listed sorted either by date or by the Invoice Section and Invoice Group codes that have been assigned to them.

- ⦿ Date
- ○ Invoice Section/Group

List Prior Invoices	*check-box & (mmddyy)*

Should you wish to have a list of prior invoices listed on the report, for each Project, select the desired option, and if prompted, enter the cut-off date.

- ⦿ None
- ○ ALL
- ○ As far Back To

9.8.2   Pre-Invoicing Report

The Pre-Invoicing report provides a simple list of all the WIP and Disbursement items that have been selected for billing. You may choose to have the items listed grouped by their Invoice Group Codes, or by their Budget Group Codes. If Cost Plus charges have been generated for a Project, these will also be printed.

Budget amounts, if maintained, are printed showing the Original, Committed and Remaining amounts as a result of each item being selected for billing.

➡ Pre-Invoicing Report Filters Screen

The following screen is displayed for entry of a number of different options and filters that may be set to limit the records that are output to the report.

Pre-Invoicing Report

Report: **PIPREINVOICE.RPT**   Print the Pre-Invoicing Report ...

__Report Options__ | Project Selects | Customer Selects | Print Options |

Specify selection options to determine the items that will be included on this report.

WIP Items Sorted by: Invoice Group ▾

Next   Cancel

When selected, the operator is presented with the standard Project Select Filters 142 screen and the Customer Select Filters 151 screen. These allow you to specify selected or ranges of Projects, Project Locations, Project Departments, Customers, Customer Types, Sales Representatives, and/or only those customers and/or projects satisfying a variety of filter criteria.

The report generated, if archived, will be catalogued with a report name of **PIPREINVOICE.RPT**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing 159 for full details).*
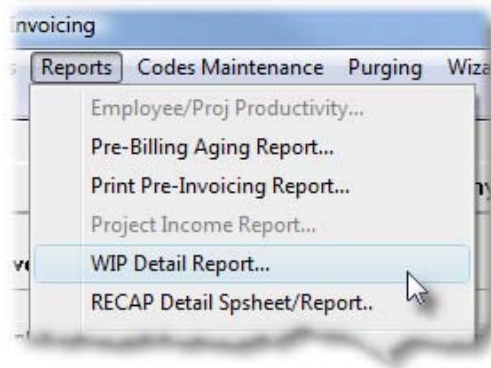
➖ Pre-Invoicing Report Filters Screen - Field Definition

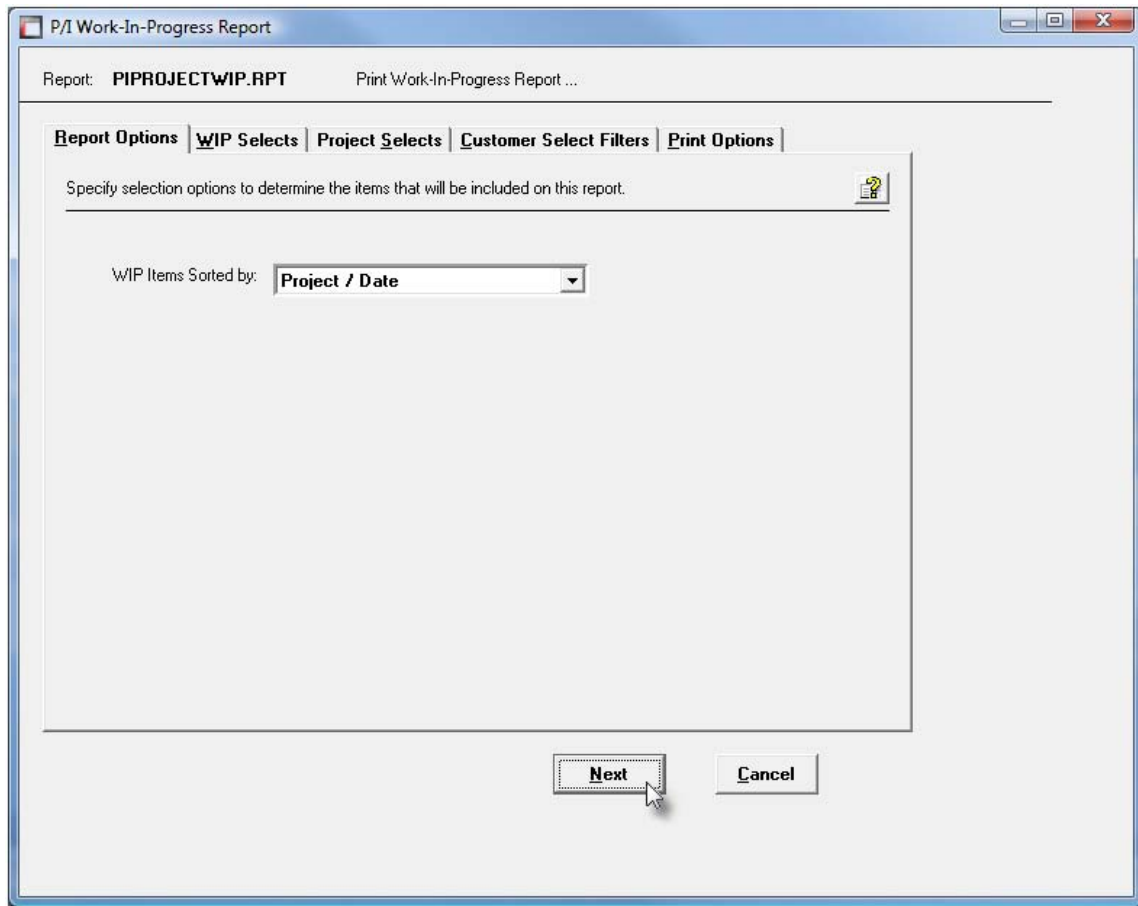| **WIP Items Sort**	*drop-down list*
To have the WIP Items listed grouped by one of the available fields.	Invoice Group Budget Group (with Budgets)

9.8.3   WIP Detail Report

The WIP Items Report is a detailed listing of Work-in-Progress items for each Project. Items may be sorted by Project, Employee or Task, and a variety of different filters may be entered.

From the P/I Main menu, select **WIP Detail Report** from the **Reports** drop-down menu.

WIP Items Report Filters Screen

The following screen is displayed for entry of a number of different filters that may be set to limit the audit records that are output to the report.

When selected, the operator is presented with the standard WIP Select Filters 147 screen, the
Project Select Filters 142 screen and the Customer Select Filters 151 screen. These allow you
to specify selected or ranges of WIP Items, Projects, Project Locations, Project Departments,
Customers, Customer Types, Sales Representatives, and/or only those customers and/or
projects satisfying a variety of filter criteria.

The report generated, if archived, will be catalogued with a report name of
PIPROJECTWIP.RPT.

The Print Options tab screen will be displayed, from which you can select to direct the output
to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a
PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing 159 for full
details).*

■ WIP Items Report Filters Screen - Field Definition

WIP Items Sort	*drop-down list*
To have the WIP Items listed grouped by one of the available fields.	Project / Date Project / Invoice Number Employee / Date Task / Project - Date

9.8.4 Recap Detail Spreadsheet / Report

The Series 5 Professional Invoicing system is designed as a stand-alone system that can generate invoices for charges as a result of employee activity recorded as time sheets, or by other system's home grown servicing or production packages. Either way, WIP end up in the P/I system ready to be invoiced.

For some projects where WIP charges are interfaced from an external servicing system, there may be additional supporting information that needs to be recorded with WIP records. This is accomplished through the use of Recap Detail records. When WIP charges are interface into the Professional Invoicing system, as an option, Recap Detail records may also be loaded.

Recap WIP ID Numbers

Recap records are linked to WIP records utilizing an 8 digit Recap WIP ID number, and a 2 digit Recap Counter. You may load up to 99 Recap records which belong to a single WIP record.

When WIP records are invoiced, the system locates any associated Recap records, and records the WP's assigned Invoice Number to each Recap. In some cases, depending on the Project, invoices are generated from the Recap records.

Recap Detail records may be used for the generation of EDI invoices for those Projects that have been configured accordingly. However, Recap records are not utilized in the generation of form printed invoices.

For installations utilizing the Professional Invoicing Web Management system, and the Account Status on the Web" web based inquiry functions, these Recap records may be displayed for selected invoices.

Some points to note when generating the Recap Detail report:

- Either a detail report or a spreadsheet may be generated

- Select to have only Invoice Recap records reported, or to have All Recap records reported

- For filters, you may select a range of Invoices, a range of WIP ID Numbers, or even a selected Project.

- When listing invoiced Recaps, they may be sorted by Invoice #, Project Code, or Customer Code

- When listing all Recap detail, they may be sorted by Invoice #, Customer Code or Recap Id Number

• When output to an Excel spreadsheet, a maximum of 65,500 items may be output.

The Professional Invoicing system Recap Detail Spreadsheet / Report function provides either a report, or a spreadsheet listing the Recap information on file for a variety of different selection criteria.

✧ Accessing the Recap Detail Reporting Function

From the P/I Main menu, select **Recap Detail Spsheet/Report** from the **Reports** drop-down menu. As well, from the , when an Invoice has been selected to be displayed, a push-button is presented which may be pressed to have an Invoiced Recap Spreadsheet generated.
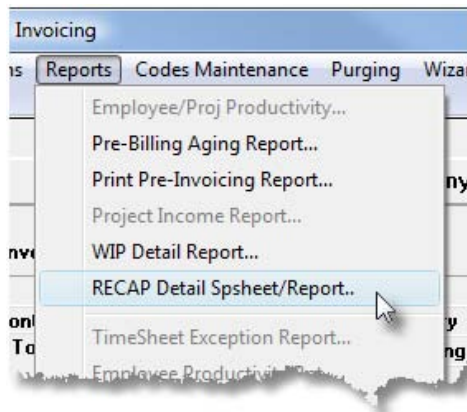
○ Recap Detail Report or Spreadsheet - Options Screen

The following screen is presented when generating the Recap Detail Report or Spreadsheet:

When selected, the operator is presented with the standard Customer Select Filters [151] screen. This allows you to specify selected or ranges of Customers, Customer Types, Sales Representatives, and/or only those customers and/or projects satisfying a variety of filter criteria.

If the report is generated, and archived, it will be catalogued with a report name of **RECAPDETAIL.RPT**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing [159] for full details).*

− Field Definitions

Generate Report Type	***radio-buttons***

Select to output either to a report, or to a spreadsheet. Also, select to either list only those Recap records that have been Invoiced, or all Recap records.

Recap Detail Sort	*radio-buttons*

If listing only invoiced Recap items, then they may be grouped by Invoice Number, Customer Code or Project Code.

If listing all Recaps, then they may be listed sorted by Invoice Number, Customer Code or Recap ID Number.

Recap Detail from Selected Invoices	*radio-buttons*

Invoices may be generated as Private or Public Invoices. Private Invoices are maintained in a file that may be accessed only be the user that generated them. The concept was developed so that the files associated to private invoices reside in folders on the client's PC. Public Invoices are those that are generated and available to all users of the Professional Invoicing system. The Public data files are stored on the server. Once invoices are posted, they are copied to history.

The Invoice Recap report or spreadsheet is generated by reading through the Invoices, and listing associated items. Identify which set of Invoices are to be processed. Normally, all Invoice processing would have been done using Public Access options.

For Invoices Numbered	*radio-buttons & 9(6)*

Select to have Recap records selected regardless of the Invoice Numbers; or only those that have been invoiced within a specific Invoice Number range.

Reporting Items Invoiced Dated	*radio-buttons & (mmddyy)*

Select to have Recap records selected regardless of their dates; or only those that have been invoiced within a specific date range. Click the calendar icon to select a date.

Recap Detail Filters – With WIP ID Number(s)	*radio-buttons & 9(6)*
Select to have Recap records selected regardless of their WIP Id Numbers; or only those with ID Numbers that fall within a specific range.	

Identify and Delete Rogue Recap Records	*check-box*
"Rogue" Recaps are those records that had been incorrectly interfaced, but remain on the system. As a special option, when the Recap report is generated, the "Rogue" records will be identified and deleted. If selected, no reports are actually generated. This was introduced as a Fix Function in the event that the wrong file was loaded as a Recap Interface file. *(If this option is selected, you will need to enter a password. The password is, in caps, the name of Henry's dog).*	

Recap Detail Filters – with Bill Code	*X(35)*
Select only those Recap items that have a Bill Code that matches the code entered. Leave the field blank if it is NOT to be considered as a filter.	

Recap Detail Filters – with Ordered By Code	*X(35)*
Select only those Recap items that have an Ordered By Code that matches the code entered. Leave the field blank if it is NOT to be considered as a filter.	

Recap Detail Filters – with Search Company	*X(50)*
Select only those Recap items that have a Search Company that matches the code entered. Leave the field blank if it is NOT to be considered as a filter.	

Recap Detail Filters – with Lease Number	*X(20)*
Select only those Recap items that have a Lease Number that matches the code entered. Leave the field blank if it is NOT to be considered as a filter.	

✦ Recap Detail Export Data Formats

When the Recap spreadsheets are generated, the following fields are output to an Excel spreadsheet, a tab-delimited text file, or a CSV text file. The default filename for the output is **Recap_Detail.XLS.** When called from the Historic Invoice Inquiry function, the default filename is **Inv** *999999***Recap.XLS**, where *999999* is the Invoice number.

The following table defines the format for the Recap Detail output fields:

Column #	Excel Column	Field	Format
1	A	Order Number	9(10)
2	B	Order Line Number	9(3)
3	C	Client Service Rep Code	X(6)
4	D	Order Service Rep Code	X(6)
5	E	Bill Code	X(40)
6	F	WIP Task Code	X(8)
7	G	WIP Task Service/ Disbursement Flag	X(1)
8	G	Date/Time	mm/dd/yyyy hh:mm:ss
9	I	Ordered By	X(30)
10	J	Debtor/Search Name	X(40)
11	K	Lease Number	X(20)
12	L	State Code	X(2)
13	M	Location (county)	X(30)
14	N	Application Code	X(3)
15	O	Description	X(50)
16	P	Rate	-99999.99
17	Q	# of Units	-99999.99
18	R	Charge Amount	-99999.99
19	S	Allocated Tax Amount	-99999.9999
20	T	Promotional/Discounted Savings	-99999.99
21	U	Invoice Number	99999999
22	V	Invoice Date	mm/dd/yyyy
23	W	Customer Code	X(6)
24	X	3rd Party Customer Code	X(6)
25	Y	Recap ID Number	99999999-9999
26	Z	Reference 2	X(40)
27	AA	Reference 3	X(100)
28	AB	Reference 4	X(100)
29	AC	Reference 5	X(90)

30	AD	Reference 6	X(90)
31	AE	Reference 7	X(90)
32	AF	Reference 8	X(90)

9.8.5 Employee Cross Utilization Report

Chargeable and non-chargeable activity by employees is recorded as Work-In-Progress items against specific Projects. All employees belong to both a Department and a Location; and all Projects also are associated to both a Department and a Location. Generally, employees for a given department or location will perform work on projects that belong to the same department or location. However, if this is not always the case, you may want to determine how much WIP activity is being performed by employees associated to a given department or location on projects belonging to other departments or location. This is referred to as "Employee Cross Utilization".

The Employee Cross Utilization Analysis function accumulates sub-totals for the WIP recorded be employees on projects for other departments or locations for a variety of related codes, including Project, Department, Location and Employee. Analysis may be done for periods of calendar years or months, or G/L Fiscal years or periods. The number of Chargeable and non-chargeable Units and Amounts, Overhead Amount, Invoiced Amount, and Costs are tallied, and presented along with assorted totals. This may be useful to determine the cost or revenue that is earned by employees from one department when allocated to projects of another department.

Assigning Project to Departments or Locations

Projects may be assigned to a Department or Location. This is accomplished by assigning a Project Leader and/or a Project Partner to a Project. (Project Leaders and Partners are really just employees). Projects then belong to the Location and/or Department that has been assigned to the the Project Leader or Partner.

Once the analysis is generated for the specified type of period, the totals for any particular period, of the range of periods analyzed, may be displayed to the grid screen with totals, which may then be reviewed, exported, or printed as a report.

Analysis with sub-totals by assorted periods of time, are available as follows:

- ❑ by Projects for selected Location, Employee, Department, or Location

- ❑ by Locations for selected Project, Department, Leader Location or Employee

- ❑ by Employees for selected Location, Department or Project

- ❑ by Departments for selected Location, Project, Employee or Leader Department

For each of the given analysis types, a sub-totals may be broken down to the following periods:

- ❏ by Calendar Year for up to 9 year prior to a selected year

- ❏ by Calendar Months for up to 47 months prior to a selected month

- ❏ by G/L Fiscal Periods for up to 2 years worth of Fiscal Periods preceding a selected period

- ❏ by G/L Fiscal Years for up to 8 years preceding a selected Fiscal Year

For any row of data presented, (where a row represents either a Project, Location, Employee, or Department), a drill down function presents a screen displaying the accumulated totals for the item, for each of the reporting periods. Totals are displayed along with a Trend Analysis. These drill down screen data may also be exported to a spreadsheet.

The inquiry analysis is obtained using the current WIP records that are accumulated in the P/I system. For this analysis to be accurate, you must maintain at least the last ten years of historic data, purging only transactions older than ten years.

As a special feature of the Series 5 reporting function, the totals may be viewed on screen, printed or exported to an MS Excel spreadsheet.

The Employee Cross Utilization Analysis function can be invoked from either the Trx Inquiry or the Reports drop-down menu from the P/I menu.
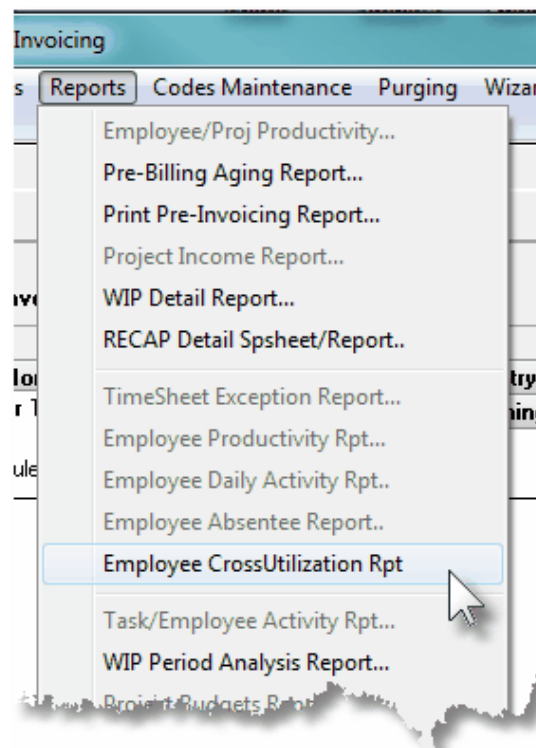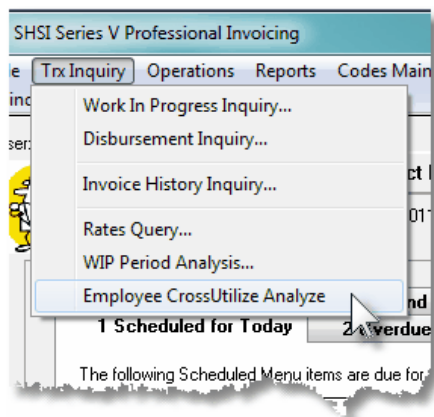
9.8.5.1   Cross Utilization Preview Grid

When the Employee Cross Utilization Analysis is generated, it's data is displayed to the screen managed using a Series 5 grid processing screen. In effect, you can view the report without having to actually print it. As an alternative, the data can also be easily exported to a spreadsheet for further analysis. If so desired, the analysis may also be printed.

Operational Warning

The analysis requires the system to read through the entire P/I WIP History file. These files may grow fairly large over time due to the number of transactions. This analyses may take some time to generate. Should you leave this function, and return, the most recent analysis that had been done will be displayed in the grid.

➡ Employee Cross Utilization "Preview" Grid

The "Fast Buttons" frame provides the push buttons to have the analysis customized, printed or exported:

"Fast Buttons"	
Print Analysis Report	To have the Cross Utilization Analysis generated and printed
(Re)Build Preview	To have the Cross Utilization Analysis generated and displayed to the preview grid
Print Preview	To have the Cross Utilization Analysis that is currently displayed in the grid printed

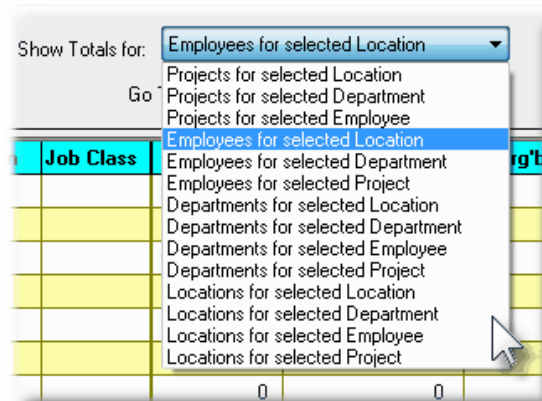|	
Export	To have the Cross Utilization Analysis totals output to a spreadsheet

Some of the special features of this "Preview" grid are as follows:

➢ If any specific reported row is double-clicked, then a "Trend Analysis Drill-Down" window 515 is displayed. For the selected P/I code, each of the totals presented in the row, will be displayed for each period that the analysis was generated along with normalized Trend Percentages. These in turn may be printed as a report, or exported to a spreadsheet. (Right-clicking the cell displays a pop-up window, from which the drill down function may also be selected).	
➢ The analysis totals have been accumulated for combinations of Projects, Employees, Departments and Locations. From the drop-down list you may choose the set of codes to be displayed. Depending on the combination of codes chosen, the applicable field is presented from which the desired code may be entered to display. ➢If listing for a particular P/I code, they may be chosen either by entering their Code, choosing it using the Lookup binoculars icon, or by having the next or previous one displayed that has totals that were accumulated. *(Click the binocular icon with the up/down arrow to display Inventory Totals that exist for the prior/next occurrence of that code on file).*	

➢ The analysis totals have been accumulated for a range of periods up to the cutoff-period. The grid displays only those totals for a selected period. To choose to display the totals for one of the other periods, select the desired one from the drop-down list provided.

For Calendar Year	2005 ▼	
Overhead $ Amt	**Unbil**	**piced**
0.00	2000	
0.00	2001	1
0.00	2002	
0.00	2003	
0.00	2004	
0.00	2005	56
0.00	2006	
0.00	2007	
	2008	
	2009	
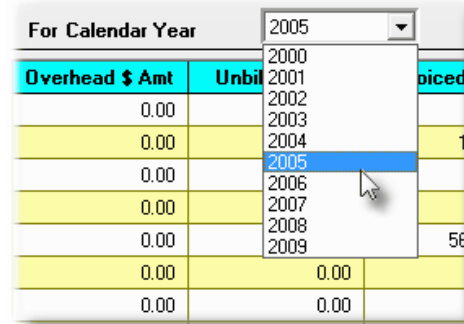
➢ When displaying Projects, Locations, Employees, or Departments for a selected code, totals are displayed below the gird. These are the sum of the amounts for all the codes being displayed, for the given selection, for the selected period.

5 Item(s) Listed	Charg'ble Units:	129	Unbilled: $	0.00	NonCharge Units:	0	Cost Amount: $	0.00
for 74 WIPs.	Charg'ble Amount: $	1,806.00	Invoiced: $	1,806.00	NonCharge Amount: $	0.00	Net Profit: $	1,806.00
	Charg'ble Overhead: $	0.00						

Totals are accumulated when the Employee's Department or Location is different from the Department or Location that a Project has been assigned to. The following table is meant to describe which fields are tested to determine whether a WIP item is included in the totals, or not, for the different combinations.

"Analysis Selection Criteria"	
Combination of Codes	*Matching Criteria*
	For Project Totals
Projects for Selected Location	For the Location associated to an Employee's WIP activity, accumulate totals of WIP that were for Projects belonging to a different Location.
Projects for Selected Department	For the Department associated to an Employee's WIP activity, accumulate totals of WIP that were for Projects belonging to a different Department.
Projects for Selected Employee	For the Employee, accumulate totals of WIP that were recorded for Projects belonging to a different Department.
	For Location Totals
Locations for Selected Location	For the Location to which Projects are assigned to, accumulate totals of WIP recorded by Employees belonging to a different Location.

Locations for Selected Department	For the Department to which Projects are assigned to, accumulate totals of WIP recorded by Employees belonging to a different Department.
Locations for Selected Employee	For the Location to which Projects are assigned to, accumulate totals of WIP recorded by Employees belonging to a different Location.
Locations for Selected Project	For the Project, accumulate totals of WIP that were recorded by Employees belonging to a different Location.
For Employee Totals	
Employees for Selected Location	For the Location to which Projects are assigned, accumulate totals of WIP recorded by Employees belonging to a different Location.
Employees for Selected Department	For the Department to which Projects are assigned, accumulate totals of WIP recorded by Employees belonging to a different Department.
Employees for Selected Project	For the Project, accumulate totals of WIP that were recorded by Employees belonging to a different Department.
For Department Totals	
Departments for Selected Location	For the Location to which Projects are assigned to, accumulate totals of WIP recorded by Employees belonging to a different Department.
Departments for Selected Department	For the Department to which Projects are assigned to, accumulate totals of WIP recorded by Employees belonging to a different Department.
Departments for Selected Employee	For the Employee, accumulate totals of WIP that were recorded for Projects belonging to a different Department.
Departments for Selected Project	For the Project, accumulate totals of WIP that were recorded by Employees belonging to a different Department.

The columns of information displayed consist of the following information, compiled from the WIP data records:

"Analysis Columns"	
Columns	**Description**
For Project Totals	
Project	The code identifying the Project Item
Description	The description of the Project
Customer	The Customer to which the Project belongs to
Leader	The Project Leader assigned to the Project
Status	The Status of the project
Location/ Department	The Location or Department that the Project belongs to
For Location Totals	
Location	The code identifying the Location
Description	The description of the Location
For Employee Totals	
Employee	The code identifying the Employee
Name	The Employee's name
Location	The Location to which the Employee is assigned to
Job Class Code	The Employee's assigned Job Class code
For Department Totals	
Department	The code identifying the Department
Name/ Description	The description of the Department
Totals Reported (for all code types)	
WIP Count	Is the # of WIP records that were processed to accumulate the totals
Chargeable Units	This is the sum of all task units recorded for Chargeable WIP items
Chargeable Amount	This is the sum of all originally entered extended $ amounts recorded for Chargeable WIP items
Overhead Amount	This is the sum of all originally entered Overhead charges $ amounts recorded for Chargeable WIP items. (These would have been automatically computed by the system)
Unbilled Amount	This is the sum of all Chargeable WIP items that have

	not yet been invoiced.
Invoiced Amount	This is the sum of all Chargeable WIP items that have been invoiced. This amount may differ from the **Chargeable Amounts** totals if any charges had been marked up or down, of if items had been written off.
NonCharge Units	This is the sum of all task units recorded for Non-Chargeable WIP items
NonCharge Amount	This is the sum of all originally entered extended $ amounts recorded for Non-Chargeable WIP items
Cost Amount	This is the sum of Costs that may have been recorded with WIP items. If Costs are captured in the P/I system, they are normally assigned by the system based on hourly rates of employees, or unit rates of tasks performed.
Profit Amount	This figure is the computed as the difference between **Invoiced Amount** and the **Cost Amount** totals. (If costs are not recorded, then this amount will be tha same as the Invoiced Amount)

9.8.5.2   Build Analysis Options

When having to generate the Analysis, Print the reports, or Export the results, the following screen is presented. It's possible to limit the amount of data that is output when generating the report or exporting.

When building the analysis tables, columns of data may be generated for either G/L Fiscal Periods and Years, or Calendar Months and Years. In each case, you may choose the period, up to which, the analysis will be tallied for.

The report generated, if archived, will be catalogued with a report name of
PI_CROSSUTILIZ.RPT.

The Print Options tab screen will be displayed, from which you can select to direct the output
to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a
PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full
details).*

When generating the report or building the analysis totals, the operator is presented with the
standard Customer Select Filters screen 151, Project Select Filters screen 142 and WIP Select
Filters screen 147. These allow you to specify selected or ranges of WIP Items, Projects,
Project Locations, Project Departments, Customers, Customer Types, Sales
Representatives, and/or only those customers and/or projects satisfying a variety of filter
criteria.

Build/Report Options Screen - Field Definitions

Employee Cross Utilization – for Period Type   *drop-down list*

Select whether totals are computed for given
Years, Months, or Periods based either on
Calendar of G/L Fiscal Periods.

Calendar Months
Calendar Years
G/L Fiscal Periods
G/L Fiscal Years

Employee Cross Utilization – for Period   *drop-down list*

Depending on the type of Period chosen you
may be able to select the ending Period which
is to be analyzed. In each case, a pre-
determined number of periods prior to the one
selected will have totals also accumulated.

Period Type	# of Periods Reported
Calendar Months	48
Calendar Years	10
Fiscal Periods	2 Fiscal Years worth
Fiscal Years	8

2009 ▼
2009
2008
2007
2006
2005
2004
2003
2002
2001
2000

Cross Utilizations – Projects Based on Leaders or Partners   *radio-buttons*

When analysis totals are generated, only those WIP items for
employees that are associated to a Location or Department
that are different from the Location or Department that the
Project belongs to are included. Projects belong to a Location
or Department based on the Location or Department that has
been assigned to it's Project Leader or Project Partner. Select
 to perform the analyses for the Projects belonging to
Departments or Locations based either on the Project Leader
or the Project Partner.

Calendar Months
Calendar Years
G/L Fiscal Periods
G/L Fiscal Years

Reporting Sets of Data   *check-boxes*

When the analysis is executed, tables are built for a number of different codes and
combinations of Projects, Locations, Employees and Departments. When the function to
have data output to a report or exported is selected, you can select the particular set of
results that is to be output. *(Selecting all of them may generated a length report, or
excessive amount of data to a spreadsheet)*

9.8.5.3   Period Trend Analysis Drill Down

From the Employee Cross Utilization Analysis preview screen, the totals displayed for each Project, Location, Employee or Department Code is that for a single selected period. If you wish to display the totals for a particular item showing each period analyzed, then double-click the row of the item of interest.

A screen will be displayed that shows the totals for each period, along with a Trend Percentage value for each period.

Trend Percentages, or index numbers, are useful in comparing data from sales over a number of years, months, or fiscal periods., since trend percentages emphasize changes that have occurred during the period. They are computed as follows:

1. A base period is selected, and each item amount on the base year column is assigned a weight of 100%

2. Then each item from the analysis for the periods after, or before, the base period is expressed as a percentage of its base period amount. To determine these percentages, the item amounts in the other periods before or after the base period are divided by the amount of the item in the base period.

➔ Employee Cross Utilization Analysis – Period Comparative Trend Screen

Cross Utilization Sub-Query --> For Employee: 703UCL - UCC-LOCAL

For Employee: **703UCL**   - **UCC-LOCAL**

Trends Computed Relative to: 2002

Reporting Data Type	2002		2003		2004		2005		2006		2007	
	Total	Trend%	Total	Trend%	Total	Trend%	Total	Trend%	Total	Trend%	Total	Trend%
WIP Items - # of Items	0	100	367	36700	0		38	3800	0		0	
Chargeable - # of Units	0	100	520	52000	0		38	3800	0		0	
Chargeable - Original $ Value	0.00	100	7,753.00	75300	0.00		960.00	96000	0.00		0.00	
Chargeable - Overhead $ Amount	0.00	100	0.00		0.00		0.00		0.00		0.00	
Chargeable - Unbilled $ Amount	0.00	100	0.00		0.00		0.00		0.00		0.00	
Chargeable - Invoiced $ Amount	0.00	100	7,753.00	75300	0.00		960.00	96000	0.00		0.00	
Non-Charge - # of Units	0	100	0		0		0		0		0	
Non-Charge - Original $ Value	0.00	100	0.00		0.00		0.00		0.00		0.00	
Costs - $ Amount	0.00	100	0.00		0.00		0.00		0.00		0.00	
Profit - $ Amount	0.00	100	0.00	75300	0.00		0.00	96000	0.00		0.00	

Print   Export   Exit

The push buttons to have the detail printed or exported:

Push Button functions	
Print	Reserved for a future enhancement
Export	To have the totals for the selected item output to a spreadsheet

⊟ Drill-Down Period Comparative Select Fields Definitions

Trends Computed Relative To	*drop-down list*
Select the period that is to be used as the "Base Period". Each total amount displayed for the base period column is assigned a weight of 100%. Amounts in other columns are then used to compute a percentage relative to the amount associated to the "Base Period".	

9.8.5.4   Exported Data Layouts

The selected period's totals for each of the Project, Location, Employee, or Department Code displayed may be exported to an Excel spreadsheet or tab-delimited file. As well, when a given Code has had it's Comparative Trend drill-down period totals displayed, these may also be exported.

The Export Options tab screen will be displayed, from which you can select to direct the output to an MS Excel spreadsheet, CSV text file, or a Tab-delimited text file. *(Refer to the*

topic titled Data Export Functions [133] *for full details).*

⮕ Employee Cross Utilization Analysis Spreadsheet Export Data Formats

If the option to Export the analysis totals is selected, the following fields are output to an Excel spreadsheet, a tab-delimited text file, or a CSV text file. The output file, by default, is named **CrossUtilize_Analysis.XLS**.   Depending on the item being displayed, data rows will represent either Projects, Locations, Employees or Department Codes.

For a the Analysis totals, the following fields are output:

Column #	Excel Column	Field	Format
1	A	Grouped by Code	X(6)
2	B	Project Code	X(6)
3	C	Description	X(30)
4	D	Customer Code	X(6)
5	E	Project Leader	X(6)
6	F	Status	X(9)
7	G	Project's Location or Department	X(6)
1	A	Grouped by Code	X(6)
2	B	Location Code	X(6)
3	C	Description	X(30)
4	D	blank	
5	E	blank	
6	F	blank	
7	G	blank	
1	A	Grouped by Code	X(6)
2	B	Employee Code	X(6)
3	C	Name	X(30)
4	D	Location Code	X(6)
5	E	Job Class Code	X(6)
6	F	blank	
7	G	blank	
1	A	Grouped by Code	X(6)

2	B	Department Code	X(2)
3	C	Description	X(30)
4	D	blank	
5	E	blank	
6	F	blank	
7	G	blank	
8	H	# of WIP Items	9,999,999
9	I	Chargeable # of Units	99,999,999
10	J	Chargeable Amount $	-999,999,999.99
11.	K	Overhead Amount $	-999,999,999.99
12	L	Unbilled Amount $	-999,999,999.99
13	M	Invoiced Amount $	-999,999,999.99
14	N	Non-Chargeable # of Units	99,999,999
15	O	Non-Chargeable Amount $	-999,999,999.99
16	P	Cost $	-999,999,999.99
17	Q	Profit $	-999,999,999.99

For an item's Comparative Trend totals is exported from the Drill-Down screens, the following fields are output. The output file, by default, is named **PI_CrossUtilize_SubQuery.XLS**.

Column #	Excel Column	Field	Format
1	A	Type of Analysis Total	X(30)
2	B	Period 1 Total	-99,999,999.99
3	C	Period 2 Total	-99,999,999.99
...	...	.....	.....
...	...	.....	.....
N	xx	Period N Total, (n=8, 10, or 24)	-99,999,999.99
N+1	xx+1	blank	
N+2	xx+2	blank	
N+3	xx+3	Period 1 Trend %	X(40)
N+3	xx+4	Period 2 Trend %	-99,999
...	...	.....	.....
...	...	.....	.....

...	yy	Period N Trend, (n=8, 10, or 48)	-99,999

9.8.6   Employee Period Activity Report

The Series 5 Professional Invoicing system provides the capability to record employee activity as weekly time-sheets. This report offers a summary of WIP activity breakdown by Employee, with the option to list each WIP item in detail. The following types of questions can be answered when this report is produced:

❑ For each Employee, which Projects did they record time against ?

❑ For each Employee, which Tasks did they perform ?

❑ For each Task, which Employees recorded time with it ?

❑ For each Project, which Employees recorded time against it ?

Some points to note when generating the Employee Activity report:

• Within the given date range selected, the system will compute total WIP units entered for each day, week, (Monday thru Sunday), month or year.

• Totals for billable WIP activity is accumulated. If it has not yet been invoiced, the initially entered amounts are used. If the WIP has been invoiced, then the Invoiced amount is used to compute the totals. If the originally amount was marked up/down, the invoiced amount would not necessarily be the same as was initially entered.

The Professional Invoicing system Employee Activity Report function provides a report with the ability to specify an assortment of different selection criteria.

✚ Accessing the Employee Activity Reporting Function

From the P/I Main menu, select
Employee Period Activity Report from
the **Reports** drop-down menu.

Employee Activity Report - Options Screen

The following screen is presented when generating the Employee Activity Report:

When selected, the operator is presented with the standard WIP Select Filters ₁₄₇ screen, the Project Select Filters ₁₄₂ screen and the Customer Select Filters ₁₅₁ screen. These allow you to specify selected or ranges of WIP Items, Projects, Project Locations, Project Departments, Customers, Customer Types, Sales Representatives, and/or only those customers and/or projects satisfying a variety of filter criteria.

If the report is generated, and archived, it will be catalogued with a report name of **EMPLY_ACTIVITY.RPT**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing ₁₅₉ for full details).*

Field Definitions

For Time-Sheet WIP Activity Dated	*radio-buttons with (mmddyy) dates*
Enter or select the date range of WIP activity that is to be used in computing the totals for the report. For the date range selected, totals will be accumulated broken down by the reporting period selected.	

Reporting Period	*radio-buttons*
Select to have the report list those employees that have a given week of time-sheet activity that either is greater than or less than the associated thresholds. You may adjust the cutoff values by clicking the up/down arrows next to the value field. You may not enter Zero has either threshold cutoff value; and the **Under Cutoff** must be less than the **Over Cutoff**.	

Analysis	*drop-down list*
Basically sub-totals are accumulated for combinations of Employee/Project, Employee/ Task, Task/Employee or Project/Employee. Depending on the desired results, select the applicable question to be answered.	

What Projects did each Employee record time against
What Tasks did each Employee perform
Which Employees performed each Task
Which Employees recorded activity to each Project

List WIP Detail ?	*check-box*
The report accumulates totals for the selected analysis in combination of Employees, Tasks and/or Projects. If you wish to also list the WIP detail contributing to the totals, set the check-box.	

Export sub-Totals to Spreadsheet ?	*check-box*
The report accumulates totals for the selected analysis in combination of Employees, Tasks and/or Projects. If you wish to have these figures exported to a spreadsheet, CSV file, or tab-delimited file, set the check-box.	

List Employees Sorted By	*radio-buttons*
Select to have Employees listed either by their Employee Code or by their Name.	

✛ Employee Activity Sub-Totals Export Data Formats

When the report is generated with the option to have the sub-totals exported, the following fields are output to an Excel spreadsheet, a tab-delimited text file, or a CSV text file. The default filename for the output is **Employee_Activity_Summary.XLSX.**

The following table defines the format for the output fields:

Column #	Excel Column	Field	Format
1	A	Employee, Task or Project Code	X(8)
2	B	Name or Description	X(24) or X(30) or X(40)
3	C	Employee, Task or Project Code	X(8)
4	D	Name or Description	X(24) or X(30) or X(40)
5	E	Period Start Date	mm/dd/yyyy
6	F	Period End Date	mm/dd/yyyy
7	G	# Chargeable Units	99,999,999
8	H	# Non-Chargeable Units	99,999,999
9	I	# Units Invoiced	99,999,999
10	J	WIP Cost Amount	-999,999,999.99
11	K	Un-Billed Chargeable Amount	-999,999,999.99
12	L	Invoiced Amount	-999,999,999.99
13	M	# of WIP Item Totalled	99,999,999

9.8.7 Time-Sheet Exceptions Report

The Series 5 Professional Invoicing system provides the capability to record employee activity as weekly time-sheets. Typically, both chargeable and non-chargeable activity that an employee performs would be recorded. Thus for a typical work week, each employee should probably accumulate 40 hours of WIP activity. The Time-Sheet Exception report is an attempt to identify those employees that either are not entering their time-sheets, not accumulating expected hours worth of time, or entering too much time.

Time-Sheet Recorded WIP

Note that WIP can be recorded in the system either from Time-Sheet Entry, as General WIP Entry, or Interfaced from User supplied data files.

The Time-Sheet Exception report only processes WIP records that were entered either using Time-Sheets or when interfaced from data files or spreadsheet. It does NOT include WIP entered from the General WIP Entry operation.

Some points to note when generating the Time-Sheet Exception report:

- Within the given date range selected, the system will compute total WIP units entered for each week, (Monday thru Sunday).

- When the total Units for the week exceeds or is less than the specified thresholds, then totals for the week, for the employee are printed.

The Professional Invoicing system Time-Sheet Exception Report function provides a report with the ability to specify an assortment of different selection criteria.

✤ Accessing the Time-Sheet Exception Reporting Function

From the P/I Main menu, select
TimeSheet Exception Report from the
Reports drop-down menu.
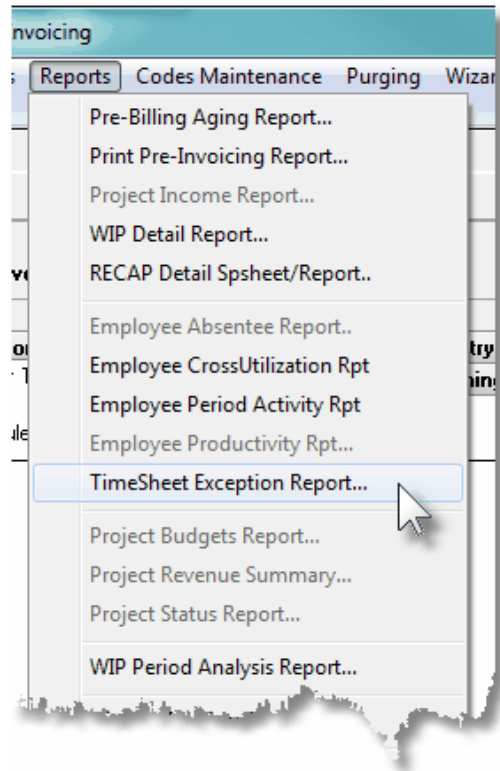
Time-Sheet Exception Report - Options Screen

The following screen is presented when generating the Time-Sheet Exception Report:

When selected, the operator is presented with the standard WIP Select Filters 147 screen, the Project Select Filters 142 screen and the Customer Select Filters 151 screen. These allow you to specify selected or ranges of WIP Items, Projects, Project Locations, Project Departments, Customers, Customer Types, Sales Representatives, and/or only those customers and/or projects satisfying a variety of filter criteria.

If the report is generated, and archived, it will be catalogued with a report name of **TSHEET_EXCEPT.RPT**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing 159 for full details).*

Field Definitions

For Time-Sheet WIP Activity Dated	*radio-buttons with (mmddyy) dates*
Enter or select the date range of WIP activity that is to be used in computing the totals for the report. For the date range selected, totals will be accumulated broken down weekly.	

List Employees with Weekly Totals	*check-box and 9(4)*
Select to have the report list those employees that have a given week of time-sheet activity that either is greater than or less than the associated thresholds. You may adjust the cutoff values by clicking the up/down arrows next to the value field. You may not enter Zero has either threshold cutoff value; and the *Under Cutoff* must be less than the *Over Cutoff*.	
Employees Grouped By	*drop-down list*
To have the Employees listed grouped by one of the available fields. A new page is started for every occurrence of the select grouping code.	none Employee's Department Employee's Location Job Classification Employee's Supervisor
List Employees Sorted By	*radio-buttons*
Select to have Employees listed either by their Employee Code or by their Name.	

9.8.8   WIP Period Analysis Report

The Professional Invoicing system records all chargeable and non-chargeable employee activity, and/or external system generated charges to the Work-In-Progress, WIP, file. These records represent a history of all activity, and is available for analysis. The WIP Period Analysis function accumulates sub-totals for the WIP for a variety of related codes, including and not limited to, Project, Task and Employee.   Analysis may be done for periods of calendar years or months, or G/L Fiscal years or periods.   The number of Chargeable and non-chargeable Units and Amounts, Overhead Amount, Invoiced Amount, and Costs are tallied, and presented along with assorted totals.

Once the analysis is generated for the specified type of period, the totals for any particular period, of the range of periods analyzed, may be displayed to the grid screen, which may then be reviewed, exported, or printed as a report.

Analysis with sub-totals by assorted periods of time, are available as follows:

- ❑ by Project
- ❑ by Task
- ❑ by Employee
- ❑ by Customer
- ❑ by Department
- ❑ by Location

- ❏ by Invoice Layout Codes

- ❏ by EDI Control Codes

- ❏ by Projects for selected Customer, Employee, Department, Task, Project Leader, EDI Code or Invoice Layout

- ❏ by Tasks for selected Project or Employee

- ❏ by Employees for selected Project or Department

- ❏ by Departments for selected Project or Leader Department

For each of the given analysis types, a sub-totals may be broken down to the following periods:

- ❏ by Calendar Year for up to 9 year prior to a selected year

- ❏ by Calendar Months for up to 47 months prior to a selected month

- ❏ by G/L Fiscal Periods for up to 2 years worth of Fiscal Periods preceding a selected period

- ❏ by G/L Fiscal Years for up to 8 years preceding a selected Fiscal Year

For any row of data presented, (where a row represents either a Project, Task, Employee, Customer, Department, Location, Invoice Layout, or EDI Code), a drill down function presents a screen displaying the accumulated totals for the item, for each of the reporting periods. Totals are displayed along with a Trend Analysis. These drill down screen data may also be exported to a spreadsheet.

The inquiry analysis is obtained using the current WIP records that are accumulated in the P/I system. For this analysis to be accurate, you must maintain at least the last ten years of historic data, purging only transactions older than ten years.

As a special feature of the Series 5 reporting function, the totals may be viewed on screen, printed or exported to an MS Excel spreadsheet.

The WIP Analysis function can be invoked from either the Trx Inquiry or the Reports drop-down menu from the P/I menu.
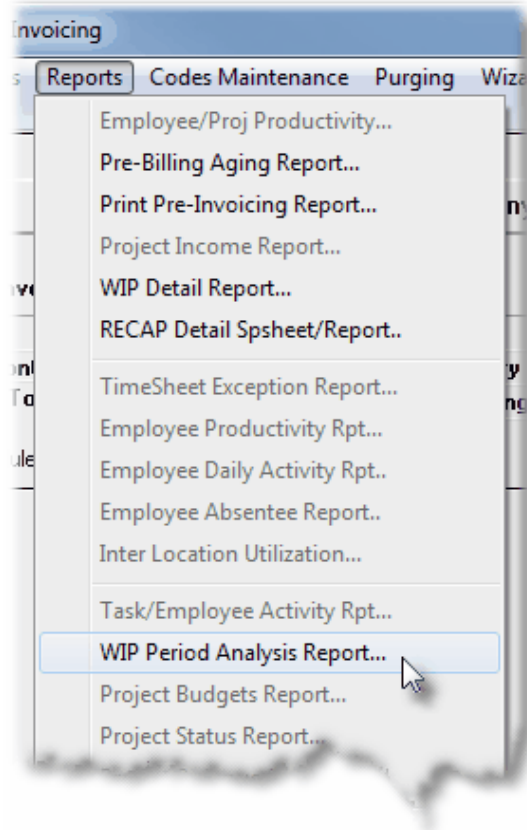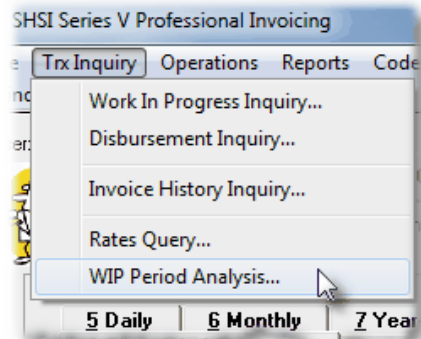
9.8.8.1   WIP Analysis Preview Grid

When the WIP Analysis is generated, it's data is displayed to the screen managed using a Series 5 grid processing screen. In effect, you can view the report without having to actually print it. As an alternative, the data can also be easily exported to a spreadsheet for further analysis. If so desired, the analysis may also be printed.

Operational Warning

The analysis requires the system to read through the entire P/I WIP History file. These files may grow fairly large over time due to the number of transactions. This analysis may take some time to generate. Should you leave this function, and return, the most recent analysis that had been done will be displayed in the grid.

➡ P/I WIP Analysis "Preview" Grid

The "Fast Buttons" frame provides the push buttons to have the analysis customized, printed or exported:

"Fast Buttons"	
Print Analysis Report	To have the WIP Analysis generated and printed
(Re)Build Preview	To have the WIP Analysis generated and displayed to the preview grid
Print Preview	To have the WIP Analysis that is currently displayed in the grid printed
Export	To have the WIP Analysis totals output to a spreadsheet

Some of the special features of this "Preview" grid are as follows:

> ➢ If any specific reported row is double-clicked, then a "Trend Analysis Drill-Down" window 515 is displayed. For

the selected P/I code, each of the totals presented in the row, will be displayed for each period that the analysis was generated along with normalized Trend Percentages. These in turn may be printed as a report, or exported to a spreadsheet. (Right-clicking the cell displays a pop-up window, from which the drill down function may also be selected).

➢ The analysis totals have been accumulated for a variety of P/I codes including Projects,Task, Employees, Departments and others. From the drop-down list, select the set of totals that are to be displayed.

➢ As well, combinations are offered whereby only those Projects, Employees or Tasks for a selected P/I codes are displayed. In these cases, a field is presented from which the applicable P/I code may be chosen.

➢ If listing for a particular P/I code, they may be chosen either by entering their Code, choosing it using the Lookup binoculars icon, or by having the next or previous one displayed that has totals that were accumulated. *(Click the binocular icon with the up/down arrow to display Totals that exist for the prior/next occurrence of that code on file).*

➢ The analysis totals have been accumulated for a range of periods up to the cutoff-period. The grid displays only those totals for a selected period. To choose to display the totals for one

of the other periods, select the desired one from the drop-down list provided.

> When displaying Projects, Task, Employees, or Departments for a selected code, totals are displayed below the gird. These are the sum of the amounts for all the codes being displayed, for the given selection, for the selected period.

The columns of information displayed consist of the following information, compiled from the WIP data records:

"Analysis Columns"	
Columns	*Description*
For Project Totals	
Project	The code identifying the Project Item
Description	The description of the Project
Customer	The Customer to which the Project belongs to
Leader	The Project Leader assigned to the Project
Status	The Status of the project
For Task Totals	
Task	The code identifying the Task
Description	The description of the Task
Units	The Units defining the activity associated to the Task. (ie., Hours)
For Employee Totals	
Employee	The code identifying the Employee
Name	The Employee's name
Job Class Code	The Employee's assigned Job Class code

For other P/I Codes types	
Code	Is the code identifying the item listed
Name/ Description	Is the assigned name or description
Totals Reported (for all code types)	
WIP Count	Is the # of WIP records that were processed to accumulate the totals
Chargeable Units	This is the sum of all task units recorded for Chargeable WIP items
Chargeable Amount	This is the sum of all originally entered extended $ amounts recorded for Chargeable WIP items
Overhead Amount	This is the sum of all originally entered Overhead charges $ amounts recorded for Chargeable WIP items. (These would have been automatically computed by the system)
Unbilled Amount	This is the sum of all Chargeable WIP items that have not yet been invoiced.
Invoiced Amount	This is the sum of all Chargeable WIP items that have been invoiced. This amount may differ from the **Chargeable Amounts** totals if any charges had been marked up or down, of if items had been written off.
NonCharge Units	This is the sum of all task units recorded for Non-Chargeable WIP items
NonCharge Amount	This is the sum of all originally entered extended $ amounts recorded for Non-Chargeable WIP items
Cost Amount	This is the sum of Costs that may have been recorded with WIP items. If Costs are captured in the P/I system, they are normally assigned by the system based on hourly rates of employees, or unit rates of tasks performed.
Profit Amount	This figure is the computed as the difference between **Invoiced Amount** and the **Cost Amount** totals. (If costs are not recorded, then this amount will be tha same as the Invoiced Amount)

9.8.8.2   Build Analysis Options

When having to generate the Analysis, Print the reports, or Export the results, the following screen is presented. It's possible to limit the amount of data that is output when generating the report or exporting.
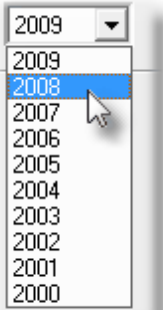
When building the analysis tables, columns of data may be generated for either G/L Fiscal Periods and Years, or Calendar Months and Years. In each case, you may choose the period, up to which, the analysis will be tallied for.

```
Print WIP Analysis Report

Report:  PI_WIPANALYSES.RPT     Generate the P/I WIP Analysis Report.  ...

 Report Options | Customer Select Filters | Project Select Filters | WIP Select Filters | Print Options |

 Specify the options for generating the WIP Analysis Inquiry/Report/Spreadsheet.

 ┌ Analysis of WIP Activity and Revenues: ────────────────────────────────────
 │
 │   For the:  [Calendar Year      ▼]   ending:  [12/31/08 ▼]   (with totals accumulated for each defined preceeding Fiscal Year)
 │
 └──────────────────────────────────────────────────────────────────────

 ┌ Report Analysis Totals for the following Sets of Data: ─────────────────────
 │  ☑ Projects            ☑ Projects grouped by Customer        ☑ Tasks grouped by Project
 │  ☑ Tasks               ☑ Projects grouped by Employee        ☑ Tasks grouped by Employee
 │  ☑ Employees           ☑ Projects grouped by Department      ☑ Employees grouped by Project
 │  ☑ Customers           ☑ Projects grouped by Task            ☑ Employees grouped by Department
 │  ☑ Departments         ☑ Projects grouped by Project Leader  ☑ Departments grouped by Project
 │  ☑ Locations           ☑ Projects grouped by EDI Codes       ☑ Departments grouped by Leader Depts.
 │  ☑ Invoice Layouts     ☑ Projects grouped by Invoice Layouts
 │  ☑ EDI Control Codes
 └──────────────────────────────────────────────────────────────────────

                        [  Next  ]        [  Cancel  ]
```

The report generated, if archived, will be catalogued with a report name of **PI_WIPANALYSES.RPT**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* *for full details).*

When generating the report or building the analysis totals, the operator is presented with the standard [Customer Select Filters screen](#) 151, [Project Select Filters screen](#) 142 and [WIP Select Filters screen](#) 147. These allow you to specify selected or ranges of WIP Items, Projects, Project Locations, Project Departments, Customers, Customer Types, Sales Representatives, and/or only those customers and/or projects satisfying a variety of filter criteria.

Build/Report Options Screen - Field Definitions

Analysis of WIP Activity – for Period Type	*drop-down list*

Select whether totals are computed for given Years, Months, or Periods based either on Calendar of G/L Fiscal Periods.

Analysis of WIP Activity – for Period	*drop-down list*

Depending on the type of Period chosen you may be able to select the ending Period which is to be analyzed. In each case, a pre-determined number of periods prior to the one selected will have totals also accumulated.

Period Type	*# of Periods Reported*
Calendar Months	48
Calendar Years	10
Fiscal Periods	2 Fiscal Years worth
Fiscal Years	8

Reporting Sets of Data	*check-boxes*

When the analysis is executed, tables are built for a number of different codes and combinations of Projects, Tasks, Employees, Customers, Departments, Invoice Layouts and EDI Codes. When the function to have data output to a report or exported is selected, you can select the particular set of results that is to be output. *(Selecting all of them may generated a length report, or excessive amount of data to a spreadsheet)*

9.8.8.3 Period Trend Analysis Drill Down

From the WIP Analysis preview screen, the totals displayed for each Project, Task, Employee, Customer, Department, Location, Invoice Layout or EDI Code is that for a single selected period. If you wish to display the totals for a particular item showing each period analyzed, then double-click the row of the item of interest.

A screen will be displayed that shows the totals for each period, along with a Trend Percentage value for each period.

Trend Percentages, or index numbers, are useful in comparing data from sales over a number of years, months, or fiscal periods., since trend percentages emphasize changes that have occurred during the period. They are computed as follows:

1. A base period is selected, and each item amount on the base year column is assigned a weight of 100%

2. Then each item from the analysis for the periods after, or before, the base period is expressed as a percentage of its base period amount. To determine these percentages, the item amounts in the other periods before or after the base period are divided by the amount of the item in the base period.

➡ P/I WIP Analysis – Period Comparative Trend Screen

WIP Analysis Sub-Query --> For Project: 10011 - BANK OF AMERICA MM OPS FARMING

For Project: **10011**   - **BANK OF AMERICA MM OPS FARMING**

Trends Computed Relative to: 2005
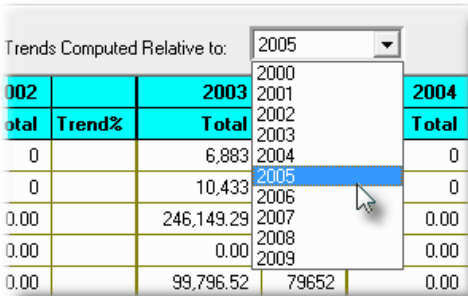
Reporting Data Type	2001		2002		2003		2004		2005		2006	
	Total	Trend%	Total	Trend%	Total	Trend%	Total	Trend%	Total	Trend%	Total	Trend%
WIP Items - # of Items	0		0		6,883	362	0		1,901	100	0	
Chargeable - # of Units	0		0		10,433	362	0		2,885	100	0	
Chargeable - Original $ Value	0.00		0.00		246,149.29	363	0.00		67,857.05	100	0.00	
Chargeable - Overhead $ Amount	0.00		0.00		0.00		0.00		0.00	100	0.00	
Chargeable - Unbilled $ Amount	0.00		0.00		99,796.52	79652	0.00		0.00	100	0.00	
Chargeable - Invoiced $ Amount	0.00		0.00		146,352.77	216	0.00		67,857.05	100	0.00	
Non-Charge - # of Units	0		0		0		0		0	100	0	
Non-Charge - Original $ Value	0.00		0.00		0.00		0.00		0.00	100	0.00	
Costs - $ Amount	0.00		0.00		0.00		0.00		0.00	100	0.00	
Profit - $ Amount	0.00		0.00		0.00	216	0.00		0.00	100	0.00	

Print   Export   Exit

The push buttons to have the detail printed or exported:

Push Button functions	
Print	Reserved for a future enhancement
Export	To have the totals for the selected item output to a spreadsheet

---

Drill-Down Period Comparative Select Fields Definitions

Trends Computed Relative To	**drop-down list**
Select the period that is to be used as the "Base Period". Each total amount displayed for the base period column is assigned a weight of 100%. Amounts in other columns are then used to compute a percentage relative to the amount associated to the "Base Period".	

9.8.8.4 Exported Data Layouts

The selected period's totals for each of the Project, Task, Employee, Customer, Department, Location, Invoice Layout or EDI Code displayed may be exported to an Excel spreadsheet or tab-delimited file. As well, when a given Code has had it's Comparative Trend drill-down period totals displayed, these may also be exported.

The Export Options tab screen will be displayed, from which you can select to direct the output to an MS Excel spreadsheet, CSV text file, or a Tab-delimited text file. *(Refer to the topic titled Data Export Functions* 133 *for full details).*

P/I WIP Analysis Spreadsheet Export Data Formats

If the option to Export the analysis totals is selected, the following fields are output to an Excel

---

spreadsheet, a tab-delimited text file, or a CSV text file. The output file, by default, is named **WIP_Analysis.XLS**. Depending on the item being displayed, data rows will represent either Projects, Tasks, Employees, Customers, Departments, Locations, Invoice Layouts or EDI Codes.

For a the WIP Analysis totals, the following fields are output:

Column #	Excel Column	Field	Format
1	A	Project Code	X(6)
2	B	Description	X(30)
3	C	Customer Code	X(6)
4	D	Project Leader	X(6)
5	E	Status	X(9)
1	A	Task Code	X(8)
2	B	Description	X(30)
3	C	Units	X(12)
4	D	blank	
5	E	blank	
1	A	Employee Code	X(6)
2	B	Name	X(30)
3	C	Job Class Code	X(6)
4	D	blank	
5	E	blank	
1	A	Customer Code	X(6)
2	B	Company Name	X(30)
3	C	City - State/Prov	X(30)
4	D	blank	
5	E	blank	
1	A	Department Code	X(2)
2	B	Description	X(30)
3	C	blank	
4	D	blank	
5	E	blank	

1	A	Location Code	X(6)
2	B	Description	X(30)
3	C	blank	
4	D	blank	
5	E	blank	
1	A	Invoice Layout Code	9(3)
2	B	Description	X(30)
3	C	Invoice Grouping	X(30)
4	D	blank	
5	E	blank	
1	A	EDI Control Code	X(6)
2	B	Description	X(30)
3	C	EDI Type	X(30)
4	D	blank	
5	E	blank	
6	F	# of WIP Items	9,999,999
7	G	Chargeable # of Units	99,999,999
8	H	Chargeable Amount $	-999,999,999.99
9.	I	Overhead Amount $	-999,999,999.99
10	J	Unbilled Amount $	-999,999,999.99
11	K	Invoiced Amount $	-999,999,999.99
12	L	Non-Chargeable # of Units	99,999,999
13	M	Non-Chargeable Amount $	-999,999,999.99
14	N	Cost $	-999,999,999.99
15	O	Profit $	-999,999,999.99

For an item's Comparative Trend totals is exported from the Drill-Down screens, the following fields are output. The output file, by default, is named **PI_WIPAnalysis_SubQuery.XLS**.

Column #	Excel Column	Field	Format

1	A	Type of Analysis Total	X(40)
2	B	Period 1 Total	-99,999,999.99
3	C	Period 2 Total	-99,999,999.99
...	...	.....	.....
...	...	.....	.....
N	xx	Period N Total, (n=8, 10, or 24)	-99,999,999.99
N+1	xx+1	blank	
N+2	xx+2	blank	
N+3	xx+3	Period 1 Trend %	X(40)
N+3	xx+4	Period 2 Trend %	-99,999
...	...	.....	.....
...	...	.....	.....
...	yy	Period N Trend, (n=8, 10, or 48)	-99,999

9.8.9   WIP Revenue Analysis Report

The Professional Invoicing system records all chargeable and non-chargeable employee activity, and/or external system generated charges to the Work-In-Progress, WIP, file. These records represent a history of all activity, and are available for analysis. Each WIP item that is invoiced is assigned a G/L account representing the P/L Income to which the revenue is to be assigned. The WIP Revenue Analysis function accumulates sub-totals for each assigned G/L Account for a variety of related codes, including and not limited to, Project, Task and Employee.   Analysis may be done for periods of calendar years or months.   The number of Chargeable and non-chargeable Units and Amounts, Overhead Amount, Invoiced Amount, and Write-Off Amounts are tallied, and presented along with assorted totals.

Once the analysis is generated for the specified type of period, the totals for the date range analyzed, may be displayed to the grid screen with totals, which may then be reviewed, exported, or printed as a report.

Analysis with sub-totals are available as follows:

- ❏ by G/L Account
- ❏ by Project for select G/L Account
- ❏ by Customer for selected G/L Account

❏ by Task for selected G/L Account

❏ by Employee for selected G/L Account

❏ by Invoice Group for selected G/L Account

❏ by EDI Control Code for selected G/L Account

❏ by Invoice Layout Codes for selected G/L Account

The inquiry analysis is obtained using the current WIP records that are accumulated in the P/I system. For this analysis to be accurate, you must maintain at least the last ten years of historic data, purging only transactions older than ten years.

As a special feature of the Series 5 reporting function, the totals may be viewed on screen, printed or exported to an MS Excel spreadsheet.

The WIP Revenue Accounts Analysis function can be invoked from either the Trx Inquiry or the Reports drop-down menu from the P/I menu.
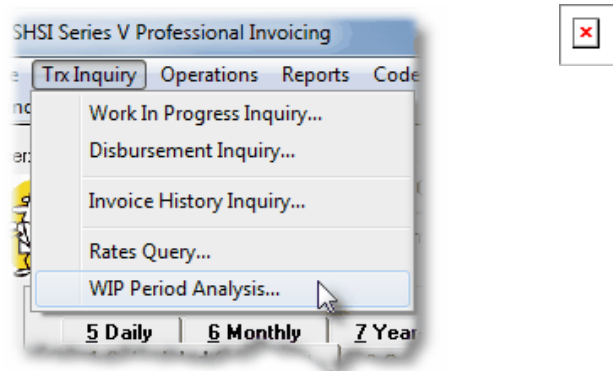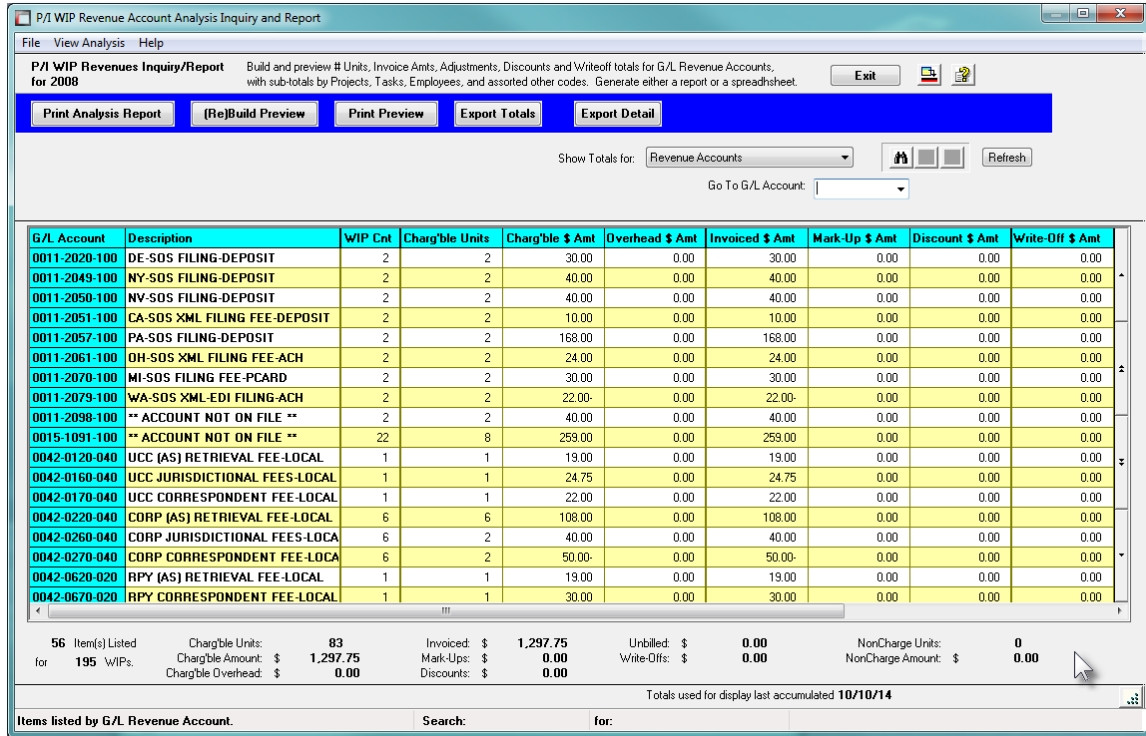
9.8.9.1 *WIP Revenue Analysis Preview Grid*

When the WIP Revenue Accounts Analysis is generated, it's data is displayed to the screen managed using a Series 5 grid processing screen. In effect, you can view the report without having to actually print it. As an alternative, the data can also be easily exported to a spreadsheet for further analysis. If so desired, the analysis may also be printed.

Operational Warning

The analysis requires the system to read through the entire P/I WIP History file. These files may grow fairly large over time due to the number of transactions. This analysis may take some time to generate. Should you leave this function, and return, the most recent analysis that had been done will be displayed in the grid.

➲ P/I WIP Revenue Accounts Analysis "Preview" Grid

The "Fast Buttons" frame provides the push buttons to have the analysis customized, printed or exported:

"Fast Buttons"	
Print Analysis Report	To have the Revenue Analysis generated and printed
(Re)Build Preview	To have the Revenue Analysis generated and displayed to the preview grid
Print Preview	To have the Revenue Analysis that is currently displayed in the grid printed
Export Totals	To have the Revenue Analysis totals output to a spreadsheet
Export Detail	To have the detail contributing to the Analysis totals output to a spreadsheet

Some of the special features of this "Preview" grid are as follows:

➤ The analysis totals have been	

accumulated for a each G/L Revenue Account that have been assigned to WIP items. From the drop-down list, select the set of totals that are to be displayed.

➢ As well, combinations are offered whereby only those Projects, Customers, Tasks, Employees, Invoice Groups, EDI Codes or Invoice Layouts for a selected G/L Account are displayed. In these cases, a field is presented from which the desired G/L Account may be chosen.

➢ If listing for a particular G/L Revenue Account, they may be chosen either by entering their account #, choosing it using the Lookup binoculars icon, or by having the next or previous one displayed that has totals that were accumulated. *(Click the binocular icon with the up/down arrow to display Totals that exist for the prior/next occurrence of that code on file).*

➢ When displaying analysis totals totals for each account, the data-set totals are displayed below the gird. These are the sum of the amounts for all the codes being displayed, or for the given account that has been selected.

The columns of information displayed consist of the following information, compiled from the WIP data records:

"Analysis Columns"	
Columns	**Description**
For Project Totals	
Project Code	The code identifying the Project Item
Description	The description of the Project
Customer	The Customer to which the Project belongs to
For Customer Totals	

Customer Code	The code assigned to the Customer
Compay Name	The company name
City - State/ Province	The city and state or province
For Task Totals	
Task	The code identifying the Task
Description	The description of the Task
Units	The Units defining the activity associated to the Task. (ie., Hours)
For Employee Totals	
Employee	The code identifying the Employee
Name	The Employee's name
Job Class Code	The Employee's assigned Job Class code
For other P/I Codes types	
Code	Is the code identifying the item listed
Name/ Description	Is the assigned name or description
Totals Reported (for all code types)	
WIP Count	Is the # of WIP records that were processed to accumulate the totals
Chargeable Units	This is the sum of all task units recorded for Chargeable WIP items
Chargeable Amount	This is the sum of all originally entered extended $ amounts recorded for Chargeable WIP items
Overhead Amount	This is the sum of all originally entered Overhead charges $ amounts recorded for Chargeable WIP items. (These would have been automatically computed by the system)
Invoiced Amount	This is the sum of all Chargeable WIP items that have been invoiced. This amount may differ from the **Chargeable Amounts** totals if any charges had been marked up or down, or if items had been written off.
Markup Amount	This is the sum of all Invoiced WIP items' marked up amounts. (ie., the sum of each WIP Invoiced Amount less the original Chargeable Amount)
Discount Amount	This is the sum of all Invoiced WIP items' discounted amounts. (ie., the sum of each WIP original Chargeable

	Amount less the Invoiced Amount)
Write-Off Amount	This is the sum of all originally entered extended $ amounts recorded for Chargeable WIP items that had been Written-Off
Unbilled Amount	This is the sum of all Chargeable WIP items that have not yet been invoiced.
NonCharge Units	This is the sum of all task units recorded for Non-Chargeable WIP items
NonCharge Amount	This is the sum of all originally entered extended $ amounts recorded for Non-Chargeable WIP items

9.8.9.2   Revenue Analysis Build Options

When having to generate the Revenue Account Analysis, Print the reports, or Export the results, the following screen is presented. It's possible to limit the amount of data that is output when generating the report or exporting.

When building the analysis tables, columns of data may be generated for either Calendar Months and Years. In each case, you may choose the period, up to which, the analysis will be tallied for.

The report generated, if archived, will be catalogued with a report name of
PI_WIPREVENUE.RPT.

The Print Options tab screen will be displayed, from which you can select to direct the output
to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a
PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full
details).*

When generating the report or building the analysis totals, the operator is presented with the
standard Customer Select Filters screen 151 , Project Select Filters screen 142 and WIP Select
Filters screen 147 . These allow you to specify selected or ranges of WIP Items, Projects,
Project Locations, Project Departments, Customers, Customer Types, Sales
Representatives, and/or only those customers and/or projects satisfying a variety of filter
criteria.

━ Build/Report Options Screen - Field Definitions

Analysis of WIP Revenue – for Period Type	*drop-down list*
Select whether totals are computed for a given Year or Month.	Calendar Month Calendar Year

Analysis of WIP Revenue – for Period	*drop-down list*
Depending on the type of Period chosen you will be able to select the year or month which is to be analyzed.	
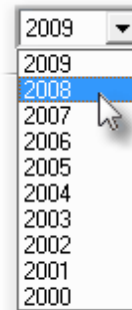
Reporting Sets of Data	*check-boxes*
When the analysis is executed, tables are built for a number of different codes and combinations of Projects, Tasks, Employees, Customers, Invoice Groups, Invoice Layouts and EDI Codes. When the function to have data output to a report or exported is selected, you can select the particular set of results that is to be output. ***(Selecting all of them may generated a length report, or excessive amount of data to a spreadsheet)***	

9.8.9.3   Exported Data Layout

The selected period's totals for each of the G/L Account, Project, Task, Employee, Customer, Invoice Group, Invoice Layout or EDI Code displayed may be exported to an Excel spreadsheet or tab-delimited file. As well, the detail contributing to the totals may also be exported.

The Export Options tab screen will be displayed, from which you can select to direct the output to an MS Excel spreadsheet, CSV text file, or a Tab-delimited text file. *(Refer to the topic titled Data Export Functions* ₁₃₃ *for full details).*

> 🔵 P/I WIP Revenue Analysis "Totals" Export Data Formats

If the option to Export the analysis totals is selected, the following fields are output to an Excel spreadsheet, a tab-delimited text file, or a CSV text file. The output file, by default, is named **WIP_Revenue_Totals.XLS**.   Depending on the item being displayed, data rows will represent either G/L Accounts, Projects, Tasks, Employees, Customers, Invoice Groups, Invoice Layouts or EDI Codes.

For a the WIP Revenue Analysis totals, the following fields are output:

Column #	Excel Column	Field	Format
1	A	G/L Account Main	9999-9999
2	B	G/L Account Profit Center	9(5)
3	C	Description	X(30)
4	D	n/a	
5	E	n/a	
6	F	n/a	
1	A	G/L Account Main	9999-9999
2	B	G/L Account Profit Center	9(5)
3	C	Description	X(30)
4	D	Project Code	X(6)
5	E	Description	X(30)
6	F	Customer Code	X(6)
1	A	G/L Account Main	9999-9999
2	B	G/L Account Profit Center	9(5)
3	C	Description	X(30)
4	D	Customer Code	X(6)
5	E	Company Name	X(30)
6	F	City - State/Province	X(30)
1	A	G/L Account Main	9999-9999
2	B	G/L Account Profit Center	9(5)
3	C	Description	X(30)
4	D	Task Code	X(10)
5	E	Description	X(30)
6	F	"S" or "D" (Service/ Disbursement)	X(1)
1	A	G/L Account Main	9999-9999
2	B	G/L Account Profit Center	9(5)
3	C	Description	X(30)

4	D	Employee Code	X(6)
5	E	Name	X(24)
6	F	Job Class	X(6)
1	A	G/L Account Main	9999-9999
2	B	G/L Account Profit Center	9(5)
3	C	Description	X(30)
4	D	Invoice Group Code	X(6)
5	E	Description	X(24)
6	F	Type	X(30)
1	A	G/L Account Main	9999-9999
2	B	G/L Account Profit Center	9(5)
3	C	Description	X(30)
4	D	Invoice Layout Code	9(3)
5	E	Description	X(24)
6	F	Type	X(30)
1	A	G/L Account Main	9999-9999
2	B	G/L Account Profit Center	9(5)
3	C	Description	X(30)
4	D	EDI Control Code	X(6)
5	E	Description	X(30)
6	F	EDI Type	X(30)
6	G	# of WIP Items	9,999,999
7	H	Chargeable # of Units	99,999,999
8	I	Chargeable Amount $	-999,999,999.99
9.	J	Overhead Amount $	-999,999,999.99
10	K	Invoiced Amount $	-999,999,999.99
11	L	Mark-Up Amount $	-999,999,999.99
12	M	Discount Amount $	-999,999,999.99
13	N	$Unbilled Amount $	99,999,999
14	O	Write-Off Amount $	-999,999,999.99

| 15 | P | Non-Chargeable # of Units | -999,999,999.99 |
| 16 | Q | Non-Chargeable Amount $ | -999,999,999.99 |

For the WIP detail contributing to the totals that is exported, the following fields are output. The output file, by default, is named **WIP_Revenue_Detail.XLS**.

Column #	Excel Column	Field	Format
1	A	GL Account # Main	9999-9999
2	B	GL Account Profit Center	9(5)
3	C	Description	X(30)
4	D	WIP Ledger Date	YYYYMMDD
5	E	Project Code	X(6)
6	F	Customer Code	X(6)
7	G	Task Code	X(10)
8	H	# of Units	99,999,999
9	I	Unit Rate	999,999.99
10	J	Total $ Amount	-99,999,999.99
11	K	Invoice Number	9(8)
12	L	Invoice Date	YYYYMMDD
13	M	Recap Order Number	9(8)
14	N	Discount $ Amount	-99,999,999.99
15	O	Write-Off $ Amount	-99,999,999.99
16	P	Make-Up $ Amount	-99,999,999.99

9.8.10 Historic Invoices Register Report

The Historic Invoices Register report provides a simple list of all the Invoices that were generated within a specific range of Dates and/or Invoice Numbers. You may choose to have the items listed sorted by Invoice #, Project Code, or Customer Code.

From the P/I Main menu, select **Historic Invoices Register** from the **Reports** drop-down menu; or select **Invoice History Inquiry** from the **Trx Inquiry** drop-down menu, then click **Print Invoice Register** from that screen's **File** drop-down menu.
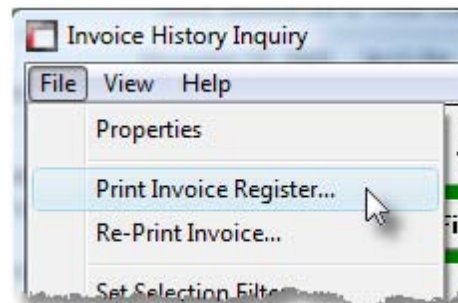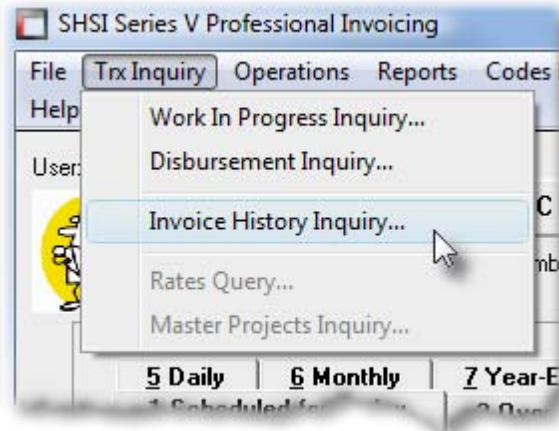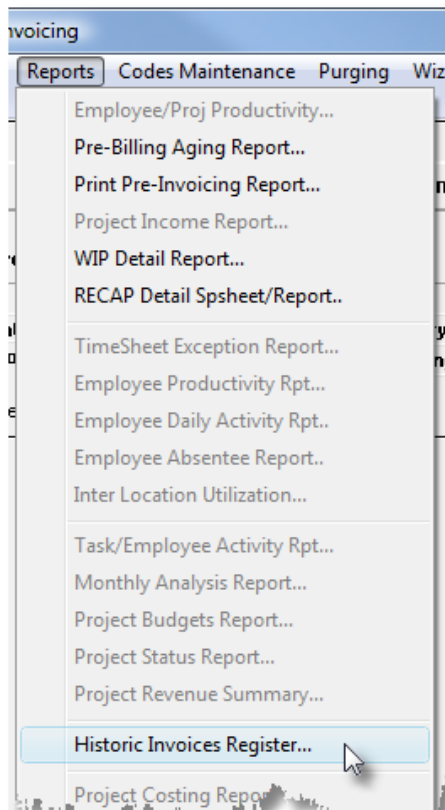
Archived Invoices or Historic Invoices

When Invoices are generated, printed and posted, they are copied to the Historic Invoices file. Over time, if the Invoice History files become exceedingly large and unruly, they may be "Archived". This process basically moves Invoices, and their associated data, for specified dates, into their corresponding "Archive" files. Invoices are archived using the Archive Historic Data function 205 provided by the P/I Menu's File drop-down menu.

This report lists those invoices that are found in the Invoice History file. An Archived Invoice History Register may be printed from the Invoice History Inquiry function 246 by selecting to **Show Archived Invoice** data records, and then selecting to Print Invoice Register from that screen's **File** drop-down menu

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⮕ Historic Invoices Register Filters Screen

The following screen is displayed for entry of a number of different options and filters that may be set to limit the records that are output to the report.

When selected, the operator is presented with the standard Project Select Filters [142] screen and the Customer Select Filters [151] screen. These allow you to specify selected or ranges of Projects, Project Locations, Project Departments, Customers, Customer Types, Sales Representatives, and/or only those customers and/or projects satisfying a variety of filter criteria.

The report generated, if archived, will be catalogued with a report name of **PINVHISTORY.RPT**.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing [159] for full details).*

Historic Invoices Register Filters Screen - Field Definition

Historic Invoice Number(s)	***radio-buttons and 9(6)***
To select All Invoices regardless of their Invoice numbers; or for only those that fall within a range of numbers. If a range is selected, enter the starting/ending Invoice numbers.	

Invoices Dated	*radio-buttons and (mmddyy)*
Select to have Invoices selected regardless of their dates; or only those for a given date range. If an inclusive range is selected, enter the starting/ending dates. Click the calendar icon for a common set of ranges to be presented.	
Include only Invoices — for Invoice Layout Code	*9(3)*
To have only those Invoices that were generated based on a particular Invoice Layout Code. *(Leave the field blank if it is not to be considered as a selection filter).*	
Invoices Sort	*drop-down list*
To have the Invoices listed sorted by one of the available fields.	Invoice # (Ascending) Project Code Customer Code

9.9 Master Code Maintenance Functions

The topics in this chapter describe functions and procedures that are a available under the **Codes Maintenance** drop down menu on the Professional Invoicing menu. These menu items are used to maintain the Master Codes used in the P/I. In particular, the function to Maintain your Projects, Employees and Task are found here.

These functions are available from the P/I Menu Bar as shown:
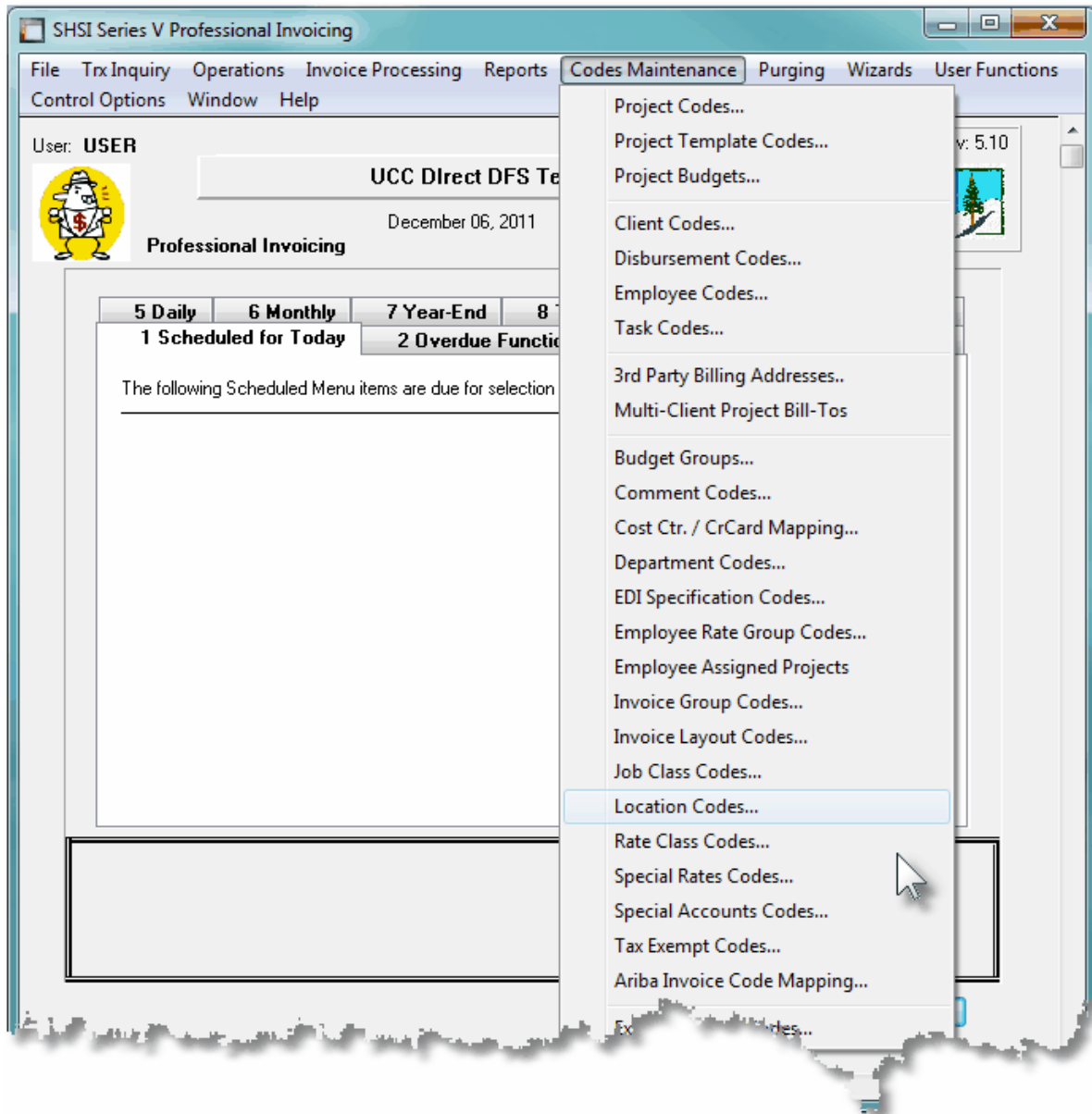
9.9.1   Project Code Maintenance

All time charges and disbursements entered into Series 5 Professional Invoicing system must be assigned to a Project. Invoices are generated for each Project in the system. You can have a number of Projects that belong to a single customer. The Client Code entered must exist as a Customer in the Accounts Receivable system, and is used for billing purposes. All invoices are eventually moved to the Accounts Receivable system.

A Project needs to be defined as being either a **chargeable** or a **nonchargeable** project. However, it is possible to enter non-chargeable time against a chargeable project. The opposite, however, is not true. If you enter chargeable time against a non-chargeable project, it will **NEVER** be invoiced. A project is defined chargeable or nonchargeable by setting one of it's billing properties.

When developing a new Project, keep in mind that the end result is the Invoice. Basically, one or more invoices are generated for a given Project. In the cases where multiple Invoices are generated, these are based all charges having some type of Billing Code. Invoices will then be generated for each Billing Code for each Project. Work In Progress activity is recorded against a Project with a variety of different Reference fields. These fields might represent a Job Number, a Contract Number.

To enhance the process of adding new Projects, a Default Project Templates may be created. Up to 999 templates may be defined. For each template, you may assign default values to those fields used for billing. When adding a new Project, the operator can then select one of the pre-defined templates, and need only to enter the Project Code, Description and related identification information.

The following functions are managed:

- Projects are added, deleted and modified
- A Project listing may be generated and printed
- Accounts may be imported/exported from/to spreadsheets
- Projects may be imported/exported from/to spreadsheets

Setup Advice

To provide a simple interface from other charge generating systems, the ability to add or update Project information from spreadsheet files exist. This feature may be used initially to load your Project information from a spreadsheet; or it may be used to update Project information on a regular basis.
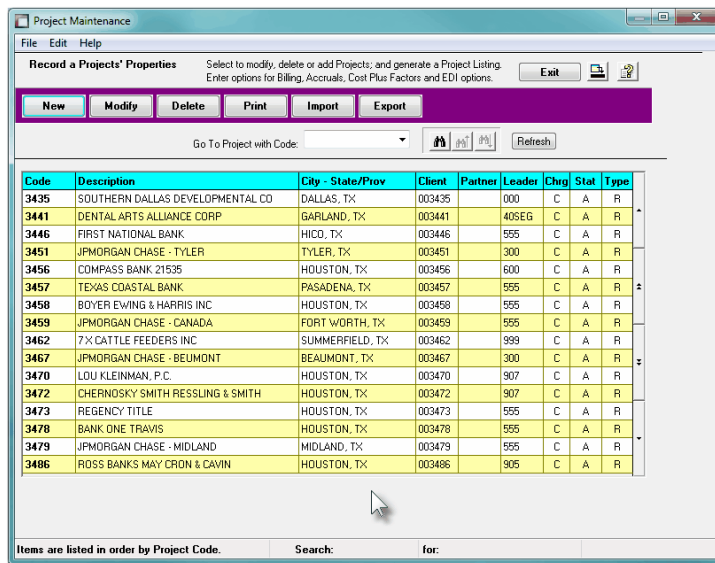
When adding a new Project, or editing an existing one, there are a number of different tabbed screens that are required. They are all important, but two of these are significant, and care must be taken with the settings that are chosen. One of these is for the general properties, or description, of the Project; and the other is to define the billing options to be applied when generating Invoices. To summarize these screens:

- General Description and Properties
- Notes that might be used to record billing or contract information
- Billing details
- G/L Accounts that are used for Revenue, or Costing
- Deposits that might be made prior to a Project being started can be entered
- For Projects that need any revenue to be Accrued, a tabbed screen is provided
- If Cost Plus Invoicing is required, you can set different percentages for each Project, (overriding the default)
- If the Project is billed using Electronic Invoices rather than paper, the type of EDI options are set

9.9.1.1   P/I Projects Maintenance Grid Screen

P/I Projects are maintained using a Series 5 grid processing screen.

P/I Projects Maintenance Grid

	"Fast Buttons"	
New	Add a new Project	
Modify	Modify the Project highlighted in the gr	
Delete	Delete the Project highlighted i the grid	
Print	Generate a report li the P/I Projects	
Import	Imports Projects fr spreadsheet	
Export	Export selected Pr to a spreadsheet	

Edit an existing Project by double-clicking it's associated row.   Standard Series 5 grid controls apply.

Deleting Projects

When a Project is deleted, any Budgets that had been set up for the Project IS NOT DELETED. You must delete these using the Project Budget Maintenance function.

9.9.1.2   Project Description Tab Screen

P/I Project - Descriptive Properties Tab Screen

The Project's Description screen is used to define the Project Code, the description, Customer Code, along with contact information, and some keywords that might be used to search for, or catalogue the project.

In particular, a given Project can be defined as being a particular type. It's important how this property is assigned.

Project Type	Description
Regular	Is a normal project
Master	Is a project for which may have sub-ordinate projects assigned to it. A Master Project can group subordinate Projects for reporting purposes in selected reporting applications. Time sheet information would not be entered for a Master Project. There is no capability to group subordinate projects charges under a Master Project's Invoice.
Sub-Ordinate	These project belong to a Master Project.
Multi-Client	Multi-Client projects are specifically set up for legal firms. Work-in-progress recorded to a multi-client project will produce multiple invoices for multiple customers.

Some points to note when setting up a project:

- The Client Code must be an Accounts Receivable Customer code
- When selecting the Project Leader, the Location associated to the Project Leader employee properties, becomes the Location for the Project
- The Keywords may be used as selection filters in all P/I Project oriented reporting applications, (or in 3rd party report writer utilities)

Setup Tip

When adding a new Project, there certainly are a lot of different fields that have to be entered. This process can be greatly simplified by using one of the pre-defined Project Templates. (A Project Template, that you must first create, has all the significant fields relating to billing already defined). You might have a different Template defined for each of the major types of Invoices that are produced; or one for a large customer that has many branches, or Projects that need to be set up.

The descriptive properties associated to each P/I Project are maintained by the following screen:

P/I Project Description Tab Screen - Field Definitions

Project Code	*X(6)*
This is the code that is used to identify the Project in the P/I system. This is the code that is entered and carried in the assorted Series 5 transactions. *(The code is alphanumeric, so if a numeric code is used, they are NOT right justified).* When adding a new project, if the F1 function key is struck, the next sequential numeric Project Number from the P/I Control properties, will automatically be assigned.	

Description	*X(40)*
The description is displayed for verification, and in the LOV when invoked.	

Client Code	*X(6)*
The project is tied to the Accounts Receivable system by way of the Client Code. Client Codes are defined in the PI/ system, but are actually just Accounts Receivable Customer codes.	

Contact	*X(30)*

This will be the name of the person, who for the customer, is the primary contact for this project. This field is used as the Attention-To name on the invoices that are generated for this project.

Phone	*X(12)*

This field is for information purposes. It is the contacts phone number.

Project Type	*radio-buttons*

Defines the type of Project.

⦿ Regular	Is a typical project. Is the default
○ Master	Is the "Father" project to a number of Sub-Ordinate projects. Master Projects don't record any WIP charges.
○ Sub-Ordinate	The Project belongs to a Master Project
○ Multi-Client	The Project records charges for a number of different Customers

Master Project	*X(6)*

When the project is defined as a Sub-Ordinate project, then a Master Project must be identified.

Partner-In-Charge	*X(6)*

The Partner-In-Charge is one of the Employee codes defined in the P/I system. It is offered as a selection filter in all P/I Project oriented reporting applications and as a code with which projects may be grouped by. When Work-In-Progress charges are entered for this project, the Partner-in-Charge code is recorded with it.

As well, Project Locations and/or Departments may be used as a selection filter. The Location and/or Department may be defined either by the Partner, or by the Project Leader.

Project Leader	*X(6)*

The Project Leader is one of the Employee codes defined in the P/I system. It is offered as a selection filter in all P/I Project oriented reporting applications and as a code with which projects may be grouped by. When Work-In-Progress charges are entered for this project, the Project Leader code is recorded with it.

As well, Project Locations and/or Departments may be used as a selection filter. The Location and/or Department may be defined either by the Partner, or by the Project Leader.

Project Period From/To	*(mmddyy)*
This is the starting and ending dates of the project. These are used for information purposes only.	
Keywords 1, 2, 3 and 4	*X(10)*
These fields are used for information purposes only. They are used as selection filters in any report offering the Project Select filters screen. They may be useful for categorizing your projects, and may be used by any 3rd party report report writer utilities as filters.	

9.9.1.3   Project Notes Tab Screen

For each Project, you may record some relevant notes. This might be information about the billing arrangements, about the contract, or used tor record milestones for review. This information may be viewed from the WIP Inquiry application or may be printed on the PreBilling report.

P/I Project - Notes Tab Screen

The notes for each P/I Project are maintained by the following screen:

P/I Project Notes Tab Screen - Field Definitions

Project Notes ?	check-box
To enable the entry of notes, the check box must be checked.	

Text Box	X(1000)
Enter up to 1000 characters of text. Lines will automatically wrap. Separate paragraphs may be separated by striking the Enter key.	

9.9.1.4   Project Billing Tab Screen
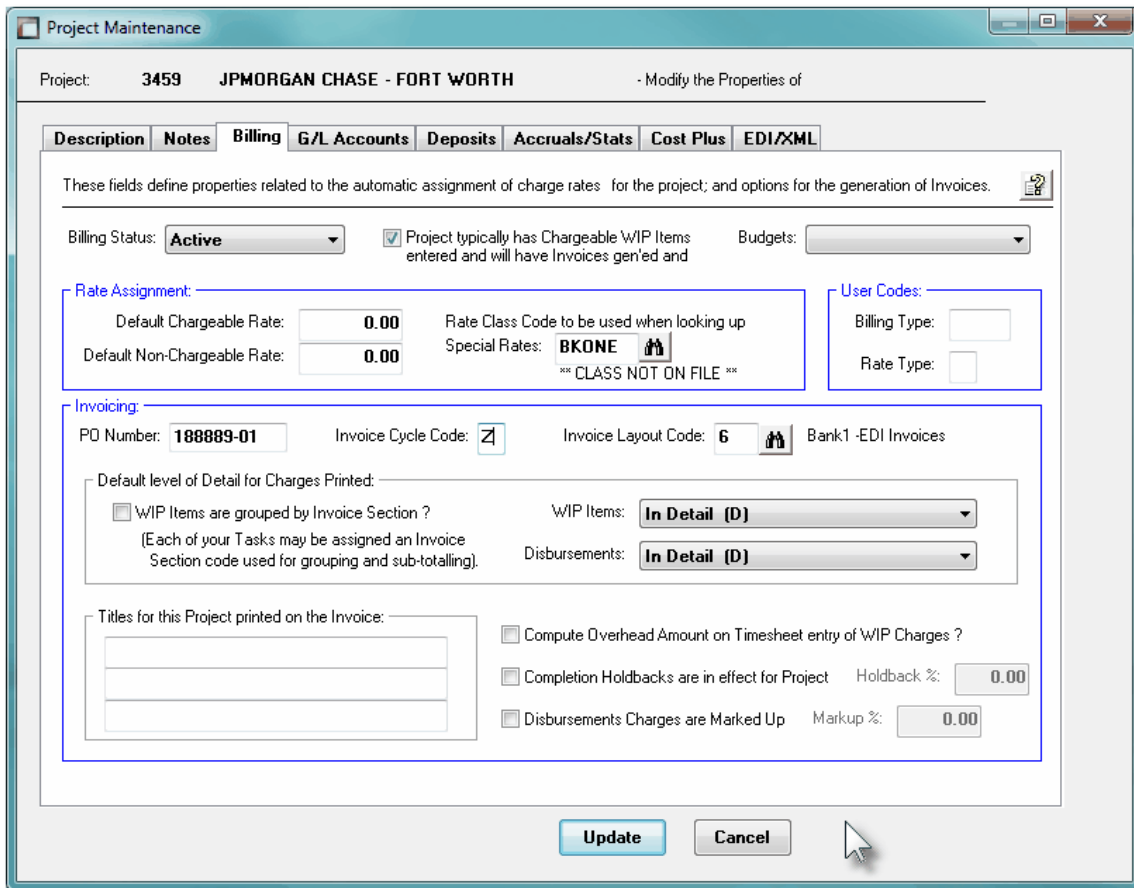
The Project Billing screen provides those fields that are used to define how the project is to be billed. It is probably the most important set of properties that can be recorded for the project. In particular the following fields are defined here:

- The Billing Status indicates whether the project is Active, On-Hold, or Closed

- A flag to indicate whether the project is billable or non-billable
- Default Chargeable and non-Chargeable rates (which may not be applicable, depending on the rules for determining rates)
- The Rate Class Code is important if you intend to the the Series 5 P/I Rate Tables
- The Invoice Layout Code.   This is probably the most significant field used to determine the type of Invoice that is generated

➲ P/I Project - Billing Properties Tab Screen

The billing properties associated to each P/I Project are maintained by the following screen:

Typically Chargeable or Non-Chargeable

It is very important to set this check-box field if the Project is a Chargeable Project.
Invoices will not be generated for non-Chargeable projects.

P/I Billing Properties Tab Screen - Field Definitions

Billing Status	*drop-list*

This Billing Status will determine the state of the project.

- Projects on Hold or Proposed will not have any items Invoiced. Time charges may still be entered though
- Inter-Departmental projects will be treated as a normal project except that any Invoice generated will not be posted as a Sale to the Accounts Receivable system. It will still be necessary to have a Customer Record defined in the A/R to provide compatibility. Group
- A Closed Project may not have any time charges entered against it.

Has Typically Chargeable WIP	*check-box*

This field dictates whether the project is a Chargeable of Non-Chargeable project. Only Chargeable project have invoice generated. Non-Chargeable projects might be used to record employee time that is never going to be invoiced.

Budgets	*drop-list*

Budgets may be defined for the Project. These are established using the Project Budgets Maintenance function 561. Multiple types of Budgets may be set up for each Project. If Budgets are used for this project, then select *As Defined*, otherwise those operations that test for and update the associated *"actual"* figures will NOT work as expected.

If budgets are to be set up, separate amounts may be specified for # of WIP Units, WIP Revenue, WIP Costs, Cost-Plus, Disbursements Revenue and Disbursements Costs.

If budgets are to be maintained by Invoice Group, a budget record will exist for each of WIP, disbursement, and cost plus items so that each can be maintained separately. The Invoice Group used is determined from the Task record. There is no Invoice Group associated to Disbursements, so the Disbursement Code is used,

If budgets are to be maintained by Budget Group, categories of budgets are defined at the Task or Employee level. Each Task record will indicate whether the budget code in the Task record or the Employee record will be used. Disbursements will use the budget code defined by the Disbursement code record.

Default Chargeable / Non-Chargeable $ Rates	*9,999.99-*

The P/I system provides for a very flexible system for determining the unit rate for activity, whether chargeable or non-chargeable. If a standard pair or rates is to be assigned to the project, then they are entered in these fields. The Chargeable rate will be used as a default for chargeable WIP items. The non-Chargeable rate for non-chargeable WIP items.

Rate Class Code	*X(6)*

Within the P/I system you may create Special Rates that are assigned using a variety of different rules. The P/I system allows you to create different sets of the Special Rates. Each set corresponds to a specific Rate Class Code. If this Project is to be used to determine it's rates using the Special Rates tables, enter the applicable Rate Class Code.

User Code - Billing Type and Rate Type	*X(4) and X(1)*

These field are offered for information purposes. You may use them as you wish. They are offered as filters in a variety of different reporting functions that are project oriented.

PO Number	*X(15)*

Record the PO number that was issued for this project by the Customer. It appears on a number of different reports, and is printed on any invoices that are generated for this project.

Invoice Cycle Code	*X(1)*

When Invoices are generated, you may specify a specific Invoice Cycle Code so that only those projects whose WIP Invoice Cycle Code matches, will have an invoice cut. This is a one character code that you assign. You might have a different code for every week, of for different types of Customers, or for different types of Invoices. You may have some projects that have a Cycle Code, and others that have no code at all.

Invoice Layout Code	*9(3)*

P/I Invoice Layouts are used to define special invoice formats, WIP item sorting and grouping options, and whether EDI Invoice can be generated. If this project needs to have it's charges invoiced in a particular manner, select the desired Invoice Layout code. By choosing a particular Layout, when invoices are generated the layout will also determine whether multiple invoices are produced for the project. If no custom layout is required, or if multiple invoices per Project is not wanted, leave this field as ZERO.

WIP Items Grouped by Invoice Section	*check-box*

This setting is used to define the format of the default Invoice that is generated for this Project, *(when no Invoice Layout is specified)*. If Tasks in the P/I system are assigned

to Invoice Groups, and this check-box is checked, then items for this project will be grouped by their Tasks Invoice Group codes.

Level of Detail Printed - WIP Items   *drop-list*

This field is used to define how the Work-In-Progress charges are printed on the system's default Invoice that is generated for this project, *(when no Invoice Layout is specified)*. You may select to have the WIP charges listed:

- In Detail
- As totals sub-totalledin Summary by Invoice Group
- As totals sub-totalled in Section Summary by Invoice Section

| In Detail (D) |
| Sub-Total by Invoice Group (S) |
| Sub-Total by Invoice Section (C) |

Level of Detail Printed - Disbursements   *drop-list*

This field is used to define the format of the Disbursement charges printed on the system's default Invoice that is generated for this project. You may select to have the charges listed:

- In Detail
- As totals sub-totalled in Disbursement Code

| In Detail (D) |
| Sub-Total by Disbursement Code (S) |

Invoice Titles   *3 lines of X(35)*

These three strings are available to be printed as a title at the start of the Work-In-Progress charges on the invoice generated for this project. *If an Invoice Layout is used for this Project, then it is possible that all lines, or only the first line or none of the lines will be printed.*

Compute Overhead Amounts on WIP Charges ?   *check-box*

A standard Overhead Amount may be automatically computed for all projects and included in all totals. Setting this field offers a way of turning on or off this feature for this project. The Overhead Amount is computed when the Time-Sheet entries are entered into the system, for Chargeable projects only. The rate is determined from the Task Code record.   Overheads may also be adjusted or suppressed by any of the "Special Rate" that are set up. Overhead amounts are not shown separately on the invoice, but are reported in the items and totals printed. If the system computes an overhead amount, the rate printed on a detailed invoice will be adjusted to include the overhead amount.

Completion Holdbacks ?   *check-box*

For this project, you may wish to have a Holdback amount automatically computed. Enter

the percentage of each invoice generated that will be withheld for this project. The amount held will be recorded as a type [H] Work-in-Progress Record. These holdback charges will remain on the system until they are selected to be billed from the WIP Billing and Invoicing application.

Holdback %	*9,999.99 %*

This is the Holdback % for this project.

Have Disbursement Charges Marked Up ?	*check-box*

If the Disbursement charges for this project are to be marked up, set the check-box. You will be able to enter the Markup % applicable to this project. *Note that when disbursement charges are entered, you will be able to override this selection.*

Markup %	*999.99- %*

A Markup % rate may be assigned to each Project and to each Disbursement type. If this field is left as zero, then the % markup will be determined from the corresponding Disbursement Code record. The % markup rate defined for the Project, if present, will always be used, overriding the % rate defined by the Disbursement Code.

9.9.1.5   Project G/L Accounts Tab Screen

The Series 5 P/I system generates G/L Distributions, as required, basically for all Costs and Revenues that are recorded against a particular account. Depending on how the system is configured and how it is used, different distributions may be written, and their respective G/L Accounts determined from a number of different sources.
The source of the G/L accounts is determined by settings in the P/I Control Preferences ₆₉₇.

When Revenue distributions are generated, the actual G/L Account to be used may be derived from one the following sources:

- The Project's properties record
- The Employee's Department properties record
- The Invoice Section Code properties record
- The Invoice Group Code properties record

Recoverable Expense distributions may be derived from either of the following sources:

- The Project's properties record
- The Disbursement Code properties record

 If Cost distributions are generated, the actual G/L Account to be used may be derived from one the following sources:
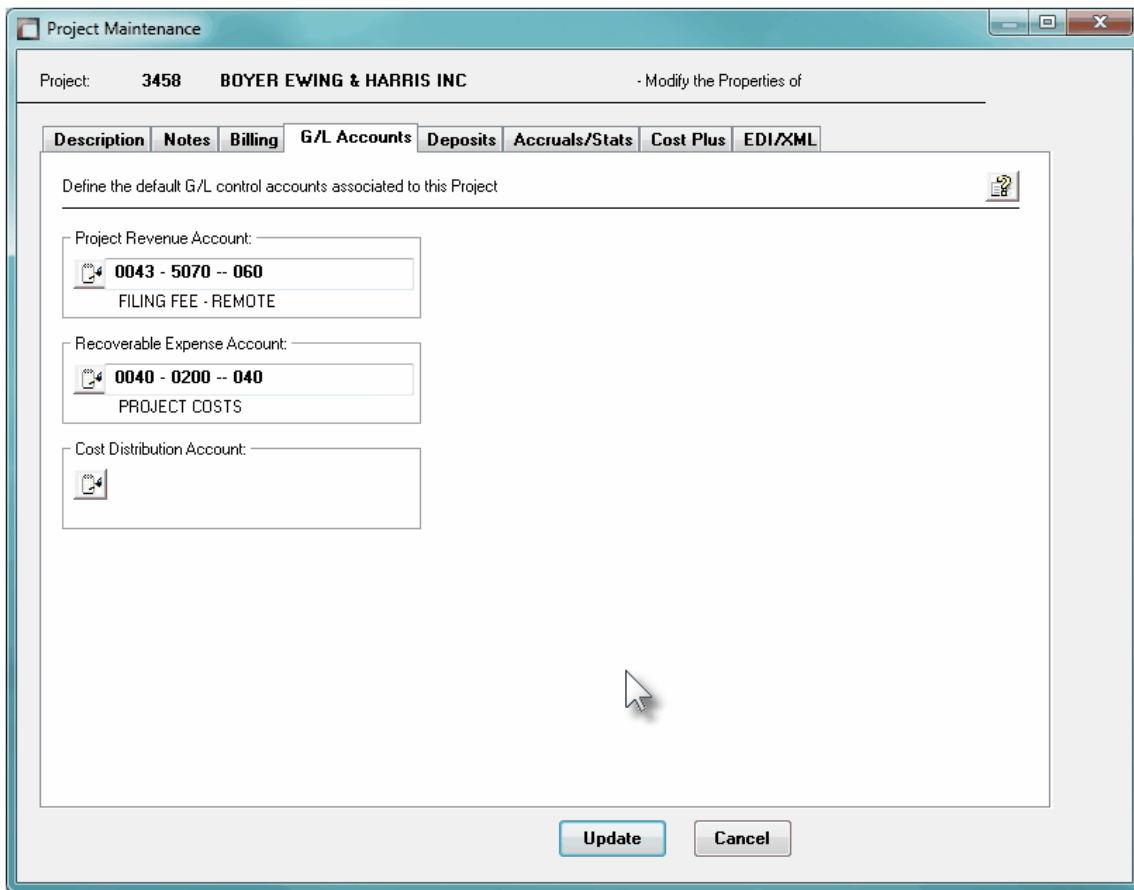
- The Project's properties record
- The Employee's properties record
- The Employee's Department properties record
- The Task properties record
- The Invoice Section Code properties record
- The Invoice Group Code properties record

If your system is configured to obtain the G/L accounts from the Project, then valid accounts must be entered using this screen.
Note that the G/L accounts used by the P/I system must be defined as valid accounts in the A/R system, (and in the G/L).

P/I Project - G/L Accounts Properties Tab Screen

The default G/L accounts associated to each P/I Project are maintained by the following screen:

G/L Accounts

Note that the G/L accounts used by the P/I system must be defined as valid accounts in the A/R system, (and in the G/L).

G/L Accounts Properties Tab Screen - Field Definitions

Project Revenue Account	*9(18) - 9(5)*

Revenue may be recorded in the General Ledger to an account associated to the Project, the Employee's Department, the Task's Invoice Section, or to the Task's Invoice Group. If your system is configured so that the Revenue Account is determined by the Project, (as determined by a property found in the PI Control Preferences ₆₉₇ and possibly overridden by the Task Code Maintenance ₅₈₃), enter the G/L Account used to record the Revenues.

Regardless of the method chosen to assign the Revenue account, the system also offers a number of ways to derive the Profit Center that is to be assigned. If you have designated that the Profit Center be derived from the Project, (as determined by a property found in the PI Control Preferences ₆₉₇), then you must enter that Profit Center in this field, (if you wish, leaving the main G/L Account portion as ZERO).

Recoverable Expense Account	*9(18) - 9(5)*

Recoverable Expenses may be recorded in the General Ledger System either to an account associated to the Disbursement or to the Project. If you have decided to use the Expense Account associated to the Project, (as determined by a property found in the PI Control Preferences ₆₉₇), enter that recoverable expense account number in this field.

Cost Distribution Account	*9(18) - 9(5)*

If your system is configured so that the Cost Account is determined by the Project, enter the G/L Account used to record the Costs.

9.9.1.6 Project Deposits Tab Screen

The Series 5 P/I system provides for the entry of a Project Deposit. This might be an deposit, or a down payment in advance to any work being performed and any invoices being generated. When the project is eventually invoiced, a credit will be shown, and the Deposit Balance on this screen automatically

P/I Project - Deposits Properties Tab Screen

The following screen is used to display Deposits that have been entered for this Project:

Entry of Deposits

A Project's Advance Deposit must be entered into the system using the Enter Open Credit Deposit function available as a menu item under the P/I menu's Operations drop-down menu.

Project Deposits Properties Tab Screen - Field Definitions

Last Deposit Received $ Amount	*$ 9,999,999.99*
When a Advanced payment Deposit is recorded for this project, it's amount is displayed in this field.	

Last Deposit Received Date	*(mmddyy)*
When a Advanced payment Deposit is recorded for this project, it's date displayed in this field.	

Accumulated Deposit Balance	*$ 9,999,999.99*
As projects with a Deposit are invoiced, any deposit on file will be shown as a Credit on the invoice. As credits are applied, this field is automatically updated.	
A/R Credit Apply-To Document Number	*9(6)*
When a deposit is entered and recorded for a Project, it must also be manually entered as a Credit in the Accounts Receivable system. The document # used in the A/R for the Credit must be entered in this field in order for the Invoice to have the correct ApplyTo when it is moved as a Sales Transaction into the A/R system.	

9.9.1.7   Project Accruals Tab Screen

The computation and generation of Project Accruals is useful for projects that continue over several financial reporting periods before actually being invoiced. If in the G/L you need to be able to record revenue to the period that the work was performed in, but the project has not actually been invoiced, you will want to generate these Income Accrual figures.

Accruals are calculated based on the outstanding Unbilled Amounts for a project. The possible Revenue Types are Work-in-Progress, Disbursements and Disbursement Markups. An accrual is generated for each applicable Revenue Account for the project. The generation of accrual information should be performed on the last day of a given month after invoices for that month have been generated and posted to the Accounts Receivable.

> **P/I Preferences for Project Accruals**
>
> If your P/I system is configured such that Revenue Distributions are generated when WIP Time charges are posted, then accruals are not applicable, (and don't really make any sense).

The accrual totals are recorded and may be seen on this Project screen.
Regardless whether accruals are applicable to the selected project, this screen also displays information relating to the last Invoice that was generated.

🔵 P/I Project - Accruals Properties Tab Screen

The following screen is used to display the Accruals summary totals, and the information about the most recently generated Invoice for the Project:

Project Accruals Properties Tab Screen - Field Definitions

Revenue Accruals are Generated for this Project ?	*check-box*
If your system is configured to generated Accruals, then select whether accruals are generated for this particular project.	
Update Customer Monthly Sales Totals with Accrual Amounts ?	*check-box*
If accruals are being generated, then you can choose whether or not, the monthly sales totals associated to this Project's Customer are updated or not. (You would set this option if you wanted the accrued revenue to show in the Customers' monthly summary totals).	
Accrual Carry-Forward $ Amount	*$ 9,999,999.99*

When accruals are computed, this field is updated. This amount is used to compute Income amounts reported on the Project Income report that might be generated. ***This field should not be edited, unless absolutely necessary.***	
from the Month Of	*drop-list*
When accruals are computed, this field is updated. ***This field should not be edited, unless absolutely necessary.***	
Prior Month's Accrual $ Amount	*$ 9,999,999.99*
When accruals are computed, this field is updated. This amount is used to compute Income amounts reported on the Project Income report that might be generated. ***This field should not be edited, unless absolutely necessary.***	
Prior Year's Ending Accrual $ Amount	*$ 9,999,999.99*
When accruals are computed, this field is updated. This amount is used to compute Income amounts reported on the Project Income report that might be generated. ***This field should not be edited, unless absolutely necessary.***	

9.9.1.8   Project Cost Plus Tab Screen

The Series 5 P/I system provides for the automatic generation of Cost Plus amounts when Invoices are generated. These fields for the project will appear only if you have selected to have Cost Plus Charges generated, (as determined by setting in the P/I Preferences [705] function). When the project is entered, these percentages will be defaulted to those percentages entered for the P/I preferences. They may, however, be changed for each Project. The factor Tasks themselves may only be changed in the P/I preferences.

P/I Preferences for Cost Plus

If your P/I system is not configured for Cost Plust computations, then this screen is not applicable.

⬤ P/I Project - Cost Plus Properties Tab Screen

The following screen is used to display the Cost Plus percentages applicable for the Project:

Project Cost Plus Properties Tab Screen - Field Definitions

Task Codes	X(8)
The tasks that are used to record Cost Plus charges are defined on a screen associated to the P/I Preferences. These tasks are fixed for all Projects.	

Cost Plus Percentage Rates	999.99- %
These are the rates to be used when computing Cost Plus charges for the project. These will default to the percentages defined by the P/I preferences, and may be changed for this project.	

9.9.1.9   Project EDI Invoice Controls Tab Screen

The Series 5 P/I system provides for the ability to generated electronic invoices. These are commonly referred to as EDI invoices.

There are a variety of different EDI invoices that may be generated. Some of these are unique to specific customer, and some are generated using specific standard formats For each of the types of EDI invoices that may be generated, the P/I system has an EDI Specifications Control code that is created. This Control Code defines the different properties associated to each type of EDI invoice.

In order for a project to have it's invoices generated as EDI invoices, this screen is used to specify the particular method. It also provides fields to display information about the most recent set of EDI invoices to be generated.

Generation of EDI Invoices

In order for a Project to generate EDI invoices, the appropriate fields must be set on this screen. **Also, the Invoice Layout that is assigned to this project must be correctly configured, and be enabled to generate EDI Invoices.**

P/I Project - EDI/XML Properties Tab Screen

The following screen is used to display the Accruals summary totals, and the information about the most recently generated Invoice for the Project:

Project EDI Invoice Properties Tab Screen - Field Definitions

Generate EDI/XML Invoices for this Project	*check-box*
If EDI Invoices are to be generated for this project, the set the check-box accordingly.	

EDI Specifications Control Code	*drop-list*
Select the EDI Control Code for the method in which invoices are to be generated. The list is built using the EDI Control Codes that have been defined to the P/I system by the EDI Specifications Codes Maintenance 608 function.	

```
ARIBA   - old Bank of America- ARIBA ED
BANK1   - JP Morgan/Chase/Bank-1 EDI
BBANDT  - BB&T Commercial
BOFA    - Bank of America - cXML
JPMORG  - JP Morgan/Chase  XML Invoices
LASALL  - La Salle Excel Workbook
LEDES   - LEDES 98b (Law Firm Billing)
NIAGRA  - First Niagra - EDI
RIEMER  - Riemer Law Firm
USBANK  - USBank VISA Paymentech
WILMT   - Wilmington Trust
```

Order Contact	*X(40)*
Used to record information about the individuals to deal with when generating and transmitting EDI sets of invoices. This field is required when generating ANSI X12 4010-810 EDI Invoices and used in the PER Admin Contact information record.	

Delivery Contact	*X(40)*
Used to record information about the individuals to deal with when generating and transmitting EDI sets of invoices. This field is required when generating ANSI X12 4010-810 EDI Invoices and used in the PER Admin Contact information record.	

Hardcopy Invoices also generated ?	*check-box*
If both EDI and paper invoices are to be generated, set this check-box. (*Be careful though, because invoices will be grouped, and their charges arranged in the order that is dictated to generated the EDI invoices. The paper invoice may not print in a desirable format*).	

Temporarily Suspend generating EDI Invoices ?	*check-box*
If you need to suspend the generations of the EDI Invoices for a particular invoice generation, set the check-box.	

9.9.1.10   Reporting and Exporting Filters

Enter topic text here.

9.9.1.11   Project Properties Export

The Series 5 system provides for the capability to export Projects data to a spreadsheet. The Spreadsheet Export function lets you output selected fields of the Projects to spreadsheet. Once output to a spreadsheet, assorted analysis can be performed, or data can be easily moved to a Microsoft Access data file.

The interface is accomplished by generating ASCII text or Excel Workbook files, which in turn

are populated. The data associated with any given field is stored in a column on the spreadsheet.   The data for a given account is stored in row. The types of text files supported include the following:

➢ **MS Excel Workbooks**

➢ **Tab Delimited Text**

➢ **Lotus Text (Comma Delimited with quotation marks)**

➢ **Slash "\" Delimited Text**

➢ **CSV Text (Comma Delimited)**

The export option presents the operator with the standard Project Select Filters ⌐142⌐ screen. This allows you to select specific or a range of Projects, Projects for selected Departments or Locations, or Projects matching a number of assorted properties. It also presents the operator with the standard Customer Select Filters ⌐151⌐ screen. This allows you to select specific or a range of Customers, Customers for selected Customer Types or Sales Representatives, or Customers matching a number of assorted properties.

Some points to note when exporting Projects:

• A heading row is output to the spreadsheet.

The standard Series 5 Export Options screen ⌐133⌐ will be displayed, from which the Type of Output, the target Folder, and the Filename may be specified. By default, the output filename is **PIPROJIN.XLS**. You may click the Browse button to locate a different folder and input file.

✛ Projects Export - Field Selection

There are many different fields that are associated to a Project. To be able to select specific fields to output would be a nice feature .... would it not.   Well, guess what, you can select the fields you want.

The following screen is displayed from which selected fields may be selected. On the left side of the screen, double click to have a particular field included, or excluded.
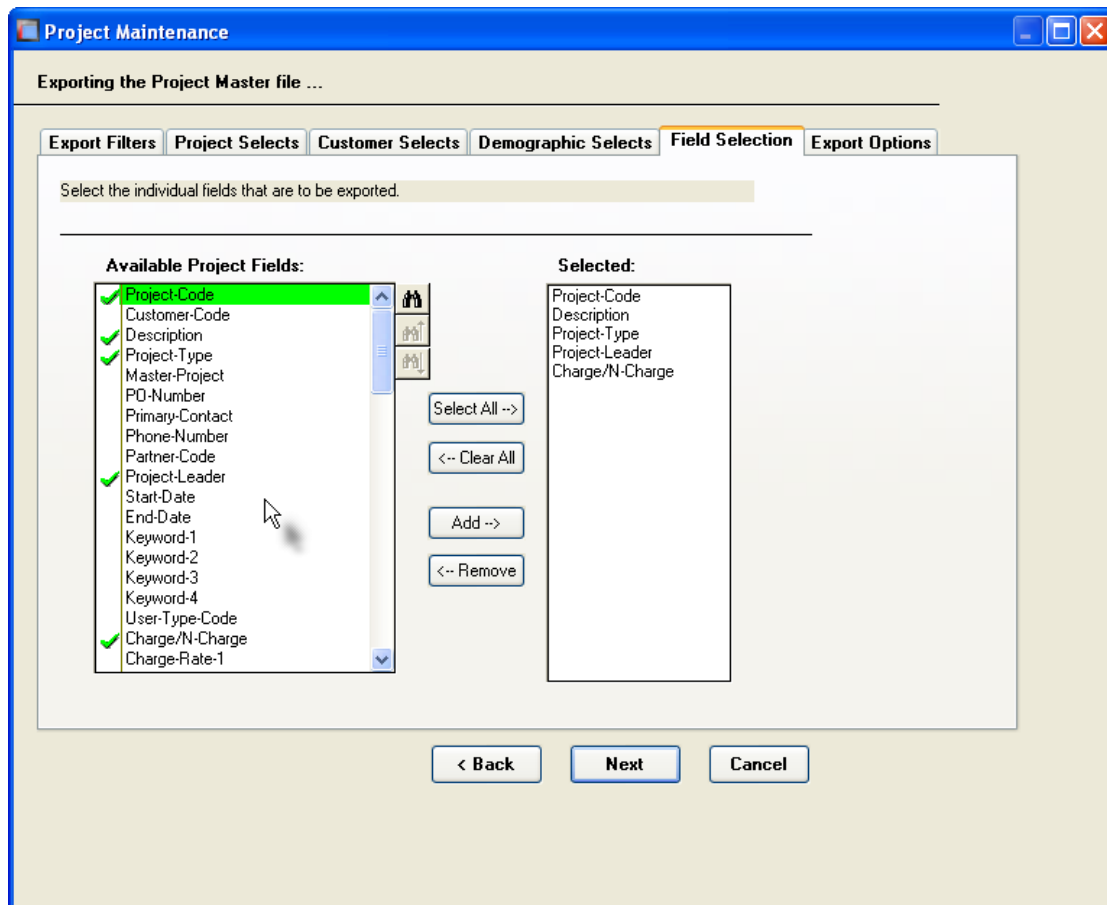
9.9.1.12   Project Data Import

The Series 5 system provides for the capability to import Project data from a spreadsheet. The Spreadsheet Import function lets you input a number of your Project properties from a spreadsheet or tab-delimited file.

The interface is accomplished by reading a selected ASCII text or Excel Workbook files, which you had created manually, or created by some other means. The data associated with any given field is loaded from a column on the spreadsheet.   The data for a given Project is loaded from a row. The types of text files supported include the following:

> ➢ **MS Excel Workbooks**

> ➢ **Tab Delimited Text**

> ➢ **Lotus Text (Comma Delimited with quotation marks)**

> ➢ **Slash "\" Delimited Text**

> ➢ **CSV Text (Comma Delimited)**

Some points to note when importng Project:

- A heading row with **PROJECT** or **Project** or **Proj** or **PROJ** in column 1 will be ignored
- Blank rows are ignored

The standard Series 5 Import Options screen 138 will be displayed, from which the Type of Input, the target Folder, and the Filename may be specified. By default, the input filename is **PIProjects_In.XLS**. You may click the Browse button to locate a different folder and input file.

Project Properties Import Data Formats

For Project data that are imported, the following fields are input from an Excel spreadsheet, a tab-delimited text file, or a CSV text file. The default filenames are either **PIProjects_In.XLS.**

Column #	Excel Column	Field	Format
1	A	Project Code	X(6)
2	B	Description	X(40)
3	C	Customer Code	X(6)
4	D	Primary Contact	X(30)
5	E	Phone Number	X(12)
6	F	Project Partner Code	X(6)
7	G	Project Leader Code	X(6)
8	H	Keyword 1	X(10)
9	I	Keyword 2	X(10)
10	J	Keyword 3	X(10)
11	K	Keyword 4	X(10)
12	L	EDI Control Code	X(6)
13	M	Invoice Layout Code	9(3)

When loading the Projects from a spreadsheet, you may also specify a pre-defined processing directive in column 1.

%%%nnn Specify a "Project Template" number code in the 1st
– column, where nnn is the Template Number. Each Project that is added will have all it's property fields set to the fields defined for the specified Project Template

%RADD% All Project codes for the rows following will be 1st deleted
   – from the system, then updated with the new fields
      provided. (Note that all data including PTD, YTD and
      Monthly statistics data is lost)

%DELE% All Project codes for the rows following will be deleted from
   – the system and not replaced. Only the Project Code
      needs to be specified in column 1 of the input
      spreadsheet.

%UPDT% A single field for the specified Project codes will be
   – updated. The field to be updated is indicated with the code
      that is read from the 2nd column in the row the %UPDT%
      directive is found. The following codes are recognized:

>   PARTNER   - for the Partner Employee Code
>   LEADER   - for the Project Leader Employee Code
>   INV-LAYOUT   - for P/I Invoice Layout Code
>   KEYWORD-1 - for the user's Keyword Code 1
>   KEYWORD-2 - for the user's Keyword Code 2
>   KEYWORD-3 - for the user's Keyword Code 3
>   KEYWORD-4 - for the user's Keyword Code 4

   In the rows following specify the Project Code in column 1,
   and the new value for the designated field in column 2 of
   the input spreadsheet

9.9.2   Project Templates Maintenance

To simplify the process of manually adding new Projects to the system, you may define a
Series 5 P/I Project Template. A Project Template is basically a record that contains many of
the same fields that are associated to a Project. Many of the properties that must be
assigned to a Project are typically the same for many Projects. (Especially those used to
define default billing and invoicing options).

Three tabbed screens are provided that are basically the same as those presented from the
Project Codes Maintenance function. These include the Description screen 535, the Billing
screen 540 and the G/L Accounts screen 545.

For each Template you may assign values that could typically be applied to groups of similar
Projects. Up to 999 Templates may be created in the system.

When a new Project is added to the system, the operator may select one of the pre-defined
Templates, and then only have to enter those properties unique to that project, such as the A/
R Customer and any Descriptions.

The Template Codes defined here are listed in the Series 5 Termplate Codes LOV Lookup 102
window.
The Template Codes Maintenance function is accessed from the P/I Main menu, by

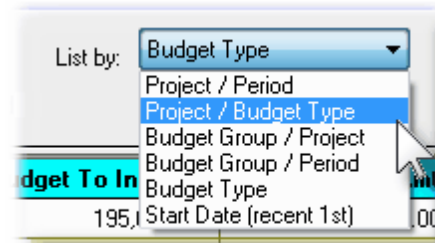selecting **Project Template Codes...** from the **Codes Maintenance** drop-down menu.

P/I Project Templates Codes Maintenance Grid

P/I Project Templates are maintained using a Series 5 grid processing screen.
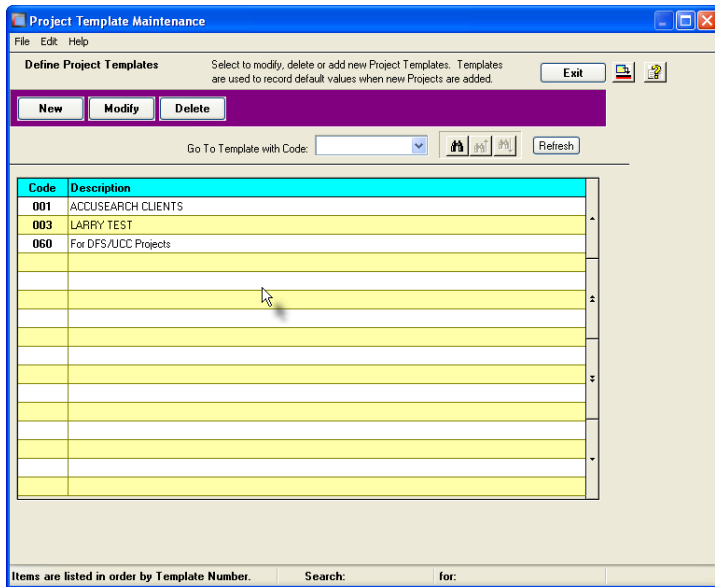
	"Fast Buttons"
New	Add a new P/I Proje Templates Code
Modify	Modify the P/I Proje Templates Code hig in the grid
Delete	Delete the P/I Proje Templates Code hig in the grid

Edit an existing P/I Project Templates Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

P/I Project Templates Code - Properties Screen

The properties for each P/I Project Templates Code are defined with the following screen:

Field Definitions

P/I Project Templates Code	*X(6)*
This is the alphanumeric code assigned to the Template. Enter this code when a new Project is added, if a Template is applicable.	

Description	*X(30)*
Is a description of the Template.	

9.9.3   Project Budgets

The Professional Invoicing system provides the opportunity to set up Budgets, to monitor anticipated Revenues, Costs and activity performed on the different projects taken on by the company. This Codes Maintenance menu item is used to define the budgets, import or export them from/to spreadsheet; or to just inquire to view budget vs actual amounts with variances.

Defining Project Budgets

Budgets may be created for each Project either as a whole, or broken down by WIP, Cost-Plus Charges and/or Disbursements. In addition, these can be further divided into Budget Groups as determined by properties associated to Task Codes and Employees.

If Budget Groups are to be utilized, they must first be defined by the Budget Group Codes Maintenance function 597, and assigned to the relevant Tasks, Employees or Disbursements depending on how activity is budgeted.

For each Budget defined, amounts may be entered for the # of WIP Units of activity, the anticipated WIP # of Units and Revenue to be earned, the Cost of WIP activity recorded, the Cost of Disbursements, and the Revenue earned from chargeable Disbursements. For each Budget defined, the system will accumulate the actual unit quantities of WIP recorded, the Cost of WIP and Disbursements entered, and Invoiced amounts of WIP and Disbursements.

Some points to note when setting up Budgets :

- A single Budget record may be created for a given Project. In this trivial case, all WIP activity, and invoice amounts for the Project can be budgeted for as single amounts.

- For a given Project, separate Budget records may be set up for WIP activity recorded, Cost-Plus charges and Disbursements independent of one another. These could be further broken down into Budget Groups. The Budget Group assigned is determined from either the Employee or the Task, depending on one of the properties associated to the Task.

- Budgets may also be created for Budget Groups as determined from Tasks and/or Employees that are totally oblivious to the Projects that associated WIP activity belongs to. This is useful if you wish the budget for certain activities performed or employees utilized by the day-to-day operations of your company.

- For each Budget record created, Actual amounts are accumulated. It is possible to have more that one type of Budget in effect for each Project.

- When a Budget record is created, it is assigned to a specific user defined date range. The system will then provide a further breakdown over the date range entered as weekly, monthly, quarterly or yearly periods; or you can choose to just have a single period for the life of the project. As Actuals are accumulated, separate totals are kept for each period.

The Project Budget Maintenance function is accessed from the P/I Main menu, by selecting **Project Budgets...** from the **Codes Maintenance** drop-down menu.

➡ P/I Project Budget Maintenance Grid

Project Budgets are maintained using a Series 5 grid processing screen.

The "Fast Buttons" frame provides the push buttons to launch the most common functions associated to the entry of Budgets.

"Fast Buttons"	
New	Add a new P/I Budget
Modify	Modify the P/I Budget highlighted in the grid
Delete	Delete the P/I Budget highlighted in the grid
Print	Print an Edit List showing the details of each P/I Budget entered
Import	Load Budgets from a spreadsheet
Export	Export Budgets to a spreadsheet

Purge	Purge those Budgets that have past their time

Edit an existing Budget by double-clicking it's associated row.   Standard Series 5 grid controls apply.

Some of the special features of this General WIP entry grid are as follows:

➢ Budgets may be listed by either selected Projects, or by selected Budget Groups. Also, regardless of Project or Group, all budgets may be listed by Type, or by their applicable Starting Dates. ➢ If listing for a particular Project or Budget Group, they may be chosen either by entering their assigned code, choosing it using the Lookup binoculars icon, or by having the next or previous code displayed that has items on file. *(Click the binocular icon with the up/down arrow to display WIP items that exist for the prior/next occurrence of that code on file).*	
➢ Depending on the **List By** selection, a field is presented, in which the operator may key in an ID #, or a Project Code. The system will attempt to read to the closest transaction for the data entered and display it in the grid.	

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

The report listing the P/I Task Codes on file, if archived, will be catalogued with a report name of **PROJ_BUGETS.LST**.

Project Budgets - Properties Screen

The properties for each Budget are defined with the following screen:

Note that when editing an existing Budget record, for each Budgeted Amount field, a sub-screen tab is presented. Clicking on these tabs displays a sub-screen showing a break-down of amount for each period of Budget Amounts, Actuals, a Variance and Variance %. As well Accumulated Totals for each of the periods is displayed.

Field Definitions

Type of Budget	*drop-list*
Select the type of Budget that is to be recorded. You may set up a single set of budgets for a Project; or you may set up multiple budgets for a project — one for each of WIP activity, Cost Plus Charges, or Disbursements. You may also set up budgets for ALL WIP associated to Employees and/or Tasks, that have been assigned a particular Budget Group, irregardless of what project their activity was recorded against. For ALL activity associated to a Project For ONLY WIP recorded to a Project For ONLY Cost-Plus Charges recorded to a Project For ONLY Disbursements recorded to a Project For ALL WIP activity recorded by Employees having an assigned Budget Group For ALL WIP activity recorded for Tasks having an assigned Budget Group	

Project	*X(6)*
When setting up a budget that is Project oriented, select the project that they are to be applied to.	

Budgets broken down by Budget Groups ?	*check-box*
For budgets that are set up for ONLY WIP, Cost-Plus or Disbursements, as an option, you may wish to break the budgets down to a lower level. That is, you can define the budgets to combinations of Budget Groups that have been assigned to Employees, Tasks or Disbursements. If this check-box is set, then the Budget Group field will be	

enabled.

As an example, when budgeting for a Project's Disbursements, you may wish to have a budget for goods that are purchased, and a separate budget for sub-contracted work performed. You would then have 2 different Budget Groups that are assigned as properties to the different Disbursement Codes that you have defined. When disbursements are entered against the project, the applicable budget's *actuals* would be updated.

In the case of WIP that is recorded, the Budget Group is determined from either the Task Code, or the Employee Code, as determined by one of the properties associated to the Task. (ie., depending on whether or not the activity is Task oriented or Employee oriented).

Budget Group	*X(6)*

For budgets that are associated to a Project, whereby they are to be broken down to a lower Budget Group level, select the Budget Group. For budgets that are for ALL WIP Activity recorded by Employees or Tasks, enter the Budget Group to which activity is recorded.

Period Sequence Count	*999*

The P/I systems may deal with Projects that span a number of years. As a result, you may wish to define separate sets of budgets for each year for a single Project. This Period Sequence Counter is basically a counter to group similar budgets that apply to the same period, and to keep the different years of budgets set separate should you wish to keep them on file for the duration of the project.

Comment	*X(40)*

This field is provided to record a brief comment about the budget. It's for information purposes only.

Budgeted Amounts – Type of Period	*radio-buttons*

When budgets are created, the Budgeted Amounts are meant to be recorded for a given time frame. The date range specified will then be broken up by the system to an equal number of periods, for which separate actuals amounts will be recorded. Select the type of period which is applicable.

- ○ Weekly
- ◉ Monthly
- ○ Quarterly
- ○ Annually
- ○ Life of the Project

Budget Periods

As WIP or Disbursement activity is recorded, the relevant *actuals* totals for each defined

Budget are updated for the particular period associated to the date of the item. If once a budget record is defined, and activity is recorded, you were to change the Type of Period, or the # of periods, then those actual figures would no longer be reliable. Once the type and # of periods are established.

YOU CAN'T JUST CHANGE THEM WITHOUT INTRODUCING PROBLEMS.

Budgeted Amounts – # of Periods	*99*

When budgets are created, the Budgeted Amounts are meant to be recorded for a given time frame. The date range specified will then be broken up by the system to an equal number of periods, for which separate actuals amounts will be recorded. Specify the number of periods. *You may only select up to 26 Periods.* If you require more periods, you will have to set up an additional Budget record, (with a different Period Sequence Counter).

Budgeted Amounts – Period Start/End Dates	*(mm/dd/yy)*

Enter the Starting and Ending dates for which the Budget figures are applicable to.

Budgeted Amounts – WIP # of Units Entered	*99,999,999-*

Enter the total # of Units of WIP activity that is to be budgeted for. This would be the sum of all types of WIP recorded against the Project. For those budgets assigned to Budget Groups associated to particular Tasks, then this amount is the # of those units.

(For Disbursement Budgets, this field is not applicable).

Budgeted Amounts – WIP # of Units Invoiced	*99,999,999-*

Enter the total # of Units of WIP activity that is expected to be invoiced. This would be the sum of all types of WIP recorded against the Project. For those budgets assigned to Budget Groups associated to particular Tasks, then this amount is the # of those units.

(For Disbursement Budgets, this field is not applicable).

Budgeted Amounts – WIP Revenue	*$ 999,999,999.99-*

Enter the total dollar value of invoiced WIP activity that is to be budgeted for. This would be the sum of all types of WIP for which invoices are generated for the Project. For those budgets assigned to Budget Groups associated to particular Tasks or Employees, then

this amount is that which is applicable to them.

(For Disbursement Budgets, this field is not applicable).

Budgeted Amounts – Disbursement Revenue	*$ 999,999,999.99-*

Enter the total dollar value of invoiced Disbursement charges that is to be budgeted for, (including any markup amount that is applied). This would be the sum of all types of Disbursements for which invoices are generated for the Project. For those budgets assigned to Budget Groups associated to particular Disbursements, then this amount is that which is applicable to them.

(For WIP or Cost-Plus Budgets, this field is not applicable).

Budgeted Amounts – WIP Costs	*$ 999,999,999.99-*

Enter the total dollar value of the costs of WIP activity that is to be budgeted for. This would be the sum of all types of chargeable and non-chargeable WIP which is recorded for the Project. For those budgets assigned to Budget Groups associated to particular Tasks or Employees, then this amount is the total costs that are applicable to them.

(For Disbursement Budgets, this field is not applicable).

Budgeted Amounts – Disbursement Costs	*$ 999,999,999.99-*

Enter the total dollar value of the costs of Disbursement charges activity that is to be budgeted for. This would be the sum of all types of chargeable and non-chargeable Disbursements which is recorded for the Project, (not including markups). For those budgets assigned to Budget Groups associated to particular Disbursements, then this amount is the total costs that are applicable to them.

(For WIP or Cost-Plus Budgets, this field is not applicable).

✚ Budgets – Import/Export Data Formats

For Budgets that are imported or exported, the following fields are input/output from/to an Excel spreadsheet, a tab-delimited text file, or a CSV text file. The default filenames are either **PI_Budgets_In.XLS** or **PI_Budgets_Out.XLS.**

Column #	*Excel Column*	*Field*	*Format*
1	A	Budget Type	PROJCT, WIP, COST+, DISBMT, EMPLEE or TASK

2	B	Project Code	X(6)
3	C	Project Description	X(40) (skipped on input)
4	D	Budget Group Code	X(6)
5	E	Group Description	X(24) (skipped on input)
6	F	Budget Sequence Counter	999
7	G	Starting Date	mm/dd/yy
8	H	Ending Date	mm/dd/yy
9	I	Sub-Period Type	WEEK, MONTH, QUARTER, YEAR or LIFE
10	J	# of Sub-Periods	99 (From 1 - 26)
11	K	Comment	X(40)
12	L	Budgeted # WIP Units to Enter	99,999,999
13	M	Budgeted # WIP Units to Invoice	99,999,999
14	N	Budgeted WIP Invoice Amount	$ 999,999,999.99-
15	O	Budgeted Disbursements Invoice Amount	$ 999,999,999.99-
16	P	Budgeted WIP Cost Amount	$ 999,999,999.99-
17	Q	Budgeted Disbursements Cost Amount	$ 999,999,999.99-
18	R	Actual # WIP Units	9,999,999
19	S	Actual WIP Invoice Amount	$ 999,999,999.99-
20	T	Actual Disbursements Invoice Amount	$ 999,999,999.99-
21	U	Actual WIP Cost Amount	$ 999,999,999.99-
22	V	Actual Disbursements Cost Amount	$ 999,999,999.99-

9.9.4   Client Codes Maintenance

P/I Clients are Accounts Receivable customers for which P/I Project activity is recorded for and eventually billed. Invoices are generated for P/I Clients and become receivables against the associated A/R Customer. The Client Code is the A/R Customer Code. When

customers are added to the A/R system, a P/I Client Code is automatically recorded in the P/I system.

The Client Code record offers properties associated to the billing process within the P/I system not provided by the A/R Customer properties records. The include the client's default Chargeable and Non-Chargeable rates, and a Rate Class Code used to identify the applicable sets of Special Rates that might apply.

The Client Codes defined here are listed in the Series 5 Client Code LOV Lookup 102 window. The Client Codes Maintenance function is accessed from the P/I Main menu, by selecting **Client Codes...** from the **Codes Maintenance** drop-down menu.

P/I Client Codes Maintenance Grid

P/I Client are maintained using a Series 5 grid processing screen.
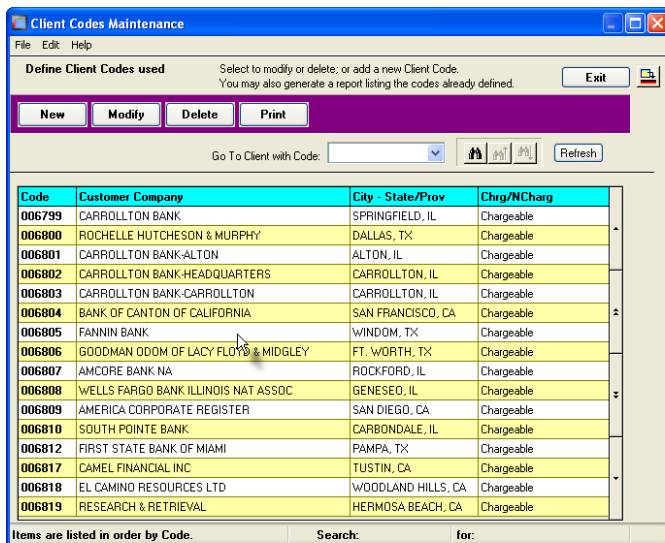
Edit an existing P/I Client Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing 159 for full details).*

The report listing the P/I Client Codes on file, if archived, will be catalogued with a report name of **PIClients.LST**.

P/I Client Code - Properties Screen

The properties for each P/I Client Code are defined with the following screen:

Field Definitions

P/I Client Code	*X(6)*
The Client Code is used to identify different clients for which Projects are defined. The Client Code assigned is just the A/R Customer Code. The Customer must exist in the A/R system prior to being assigned to a client. When charges are recorded a given P/I Task is associated with a a P/I Employee for a particular P/I Project. P/I Projects belong to a P/I Client.	

Typically Chargeable Projects ?	*check-box*
Select which rate is to be applicable for this client. The Rate Computation algorithm in P/I relies on this field as an indicator to the different sources of rates that are available. In each case there is two rates that may be recorded. Either the Chargeable Rate or the Non-Chargeable Rate. **Active Client Rates** How this option is set may be crucial. When employee activity is entered for projects associated to this Client, it determines whether or not it eventually will be invoiced or not.	

If this field is NOT checked, then all time entered for this Client's Projects will be NON-Chargeable. If it is checked, all time entered will be Chargeable. *(At the time charges are entered they may be marked as Non-Chargeable if required)*.

Default Chargeable Rate	99,999.99-

This is the Client's Chargeable Unit Rate. If the previous field is set specifying that Projects for the client are Chargeable, then this is the rate that is used as a *"Candidate Rate"* for the rate calculation algorithm.

You may recall that the same properties are associated to each P/I Project. One of the properties associated to the P/I Control Preferences, is used to indicated which sets of rates and rules take precedence; the Project, or the Client.

Default Non-Chargeable Rate	99,999.99-

This is the Client's Non-Chargeable Unit Rate. If the previous field is set specifying that Projects for the client are Non-Chargeable, then this is the rate that is used as a *"Candidiate Rate"* for the rate calculation algorithm.

Rate Class Code	X(6)

Within the P/I system you may create Special Rates that are assigned using a variety of different rules. The P/I system allows you to create different sets of the Special Rates. Each set corresponds to a specific Rate Class Code. If this Client is to be used to determine it's rates using the Special Rates tables, enter the applicable Rate Class Code.

The system needs to decide whether to use the Rate Class Code from the Project Code or the Client Code. The same logic is in effect as for determining the Active Rate. This choice is also controlled from the property associated to the P/I Control Preferences, as to which sets of rates and rules take precedence; the Project, or the Client.

9.9.5 Disbursement Codes Maintenance

Disbursements are basically third party expenses that are incurred during the activity of completing a Project. These expenses are recorded to a Project using a Disbursement Code.

Some of the properties associated to the Disbursement Code are as follows:

- A Markup % may be specified. When the Project is invoiced, the cost of the expense is marked up by the given percentage
- A Recoverable G/L Expense Account may be assigned. Based on a property found in the P/I Control Preferences, the G/L account used to record the recoverable charges is derived either from the Disbursement Code, or the Project
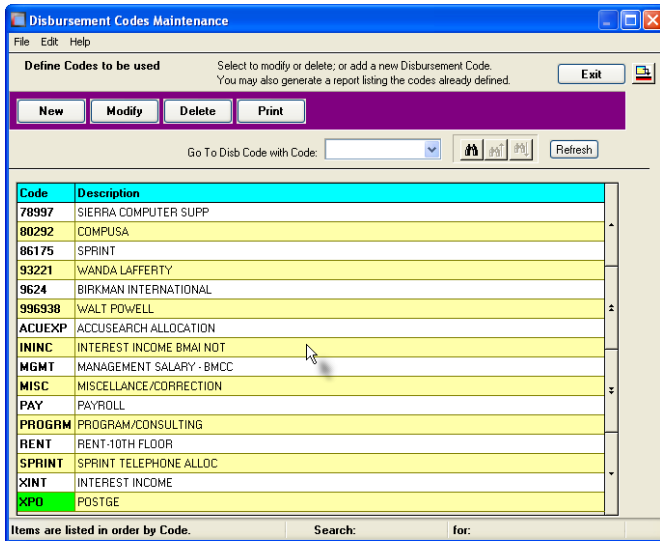
- Budgets may be established for each Project, for each Disbursement Code, for each Project, or for a particular Budget Group

The Disbursement Codes defined here are listed in the Series 5 Disbursement Code LOV Lookup 102 window.

The Disbursement Codes Maintenance function is accessed from the P/I Main menu, by selecting **Disbursement Codes...** from the **Codes Maintenance** drop-down menu.

⊙ Disbursements Codes Maintenance Grid

Disbursements are maintained using a Series 5 grid processing screen.

	"Fast Buttons"
New	Add a new Disburse Code
Modify	Modify the Disburse Code highlighted in
Delete	Delete the Disburse Code highlighted in
Print	Generate a report lis Disbursements Cod already on file

Edit an existing Disbursements Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing 159 for full details).*

The report listing the Disbursements Codes on file, if archived, will be catalogued with a report name of **DISBCODES.LST**.

⊙ Disbursements Code - Properties Screen

The properties for each Disbursements Code are defined with the following screen:

Field Definitions

Disbursements Code	*X(6)*
This is the alphanumeric code assigned to the Disbursement. Enter this code when a Disbursement code needs to be used within the Professional Invoicing system.	

Description	*X(24)*
Is a description of the Disbursement. This is printed on most reports, and is displayed to most screens where the code is utilized.	

Default Markup %	*99.999 %*
A Markup % rate may be assigned to each Project and to each Disbursement type. If this field is left as zero, then the % markup will be determined from the Project, if defined. The % markup rate defined for the Project Code, if present, will always be used, overriding the % rate defined here by the Disbursement Code. A Markup will only be computed if the option to do so, is set for the particular Project.	

Charges are Taxable	*check-box*
Set this check-box if this Disbursement's charges at to contribute to the Taxable Total of invoices generated for Projects where is recorded.	

Recoverable G/L Expense Account	*9(18)-9(5)*
Recoverable Expenses may be recorded in the General Ledger System either to an account associated to the Disbursement or to the Project. If you have decided to use the Expense Account associated to the Disbursement Code , (as determined by a property found in the PI Control Preferences ⌊697⌋), enter that recoverable expense account number in this field.	

Budget Group	*X(6)*
Budgets, if used, are defined at the Project level. It's possible to break down budgets even further, for a Project, into what is referred to as a Budget Group, or by Invoice Groups. The level of budgeting is determined for a Project by one of it's properties set up in Project Codes Maintenance ⌊540⌋. If that option is set to ***For Defined Budget Groups***, then budgets for the Project will be kept for pre-defined Budget Group codes. If this is the case, then the Budget Code to use is derived, for Disbursement charges, from the code entered here.	

9.9.6   Employee Codes Maintenance

All time charges entered into Series 5 Professional Invoicing system must be associated to a Project and must have a valid Employee Code. The Employee Code may be used to define an individual person, or it could also represent a machine for which billable, or non-billable, activity could be recorded for a project.

The Employee Code is used throughout the P/I system. Some of the noteworthy properties are as follows :

- One property field of the Employee code is the Job Class Code. It is used to identify the type of Job or Position the employee has within the company. Within the system, it is used as the basis of a number of different analysis reporting functions.

- Each Employee may be assigned an Employee Rate Group Code. Rate Groups are used to identify groups of employees that might fall within a unique set that have charge-out rates that are derived in a unique way. Within the Series 5 Professional Invoicing system Special Rate tables may be defined that are used to assign billing rates based on Employee Rate Groups.

- Throughout the PI system with respect to WIP items, there are references to Invoice Groups. Invoice Groups are a convenient way of grouping activities, either associated to employees or to tasks, that are treated in the same way for assorted
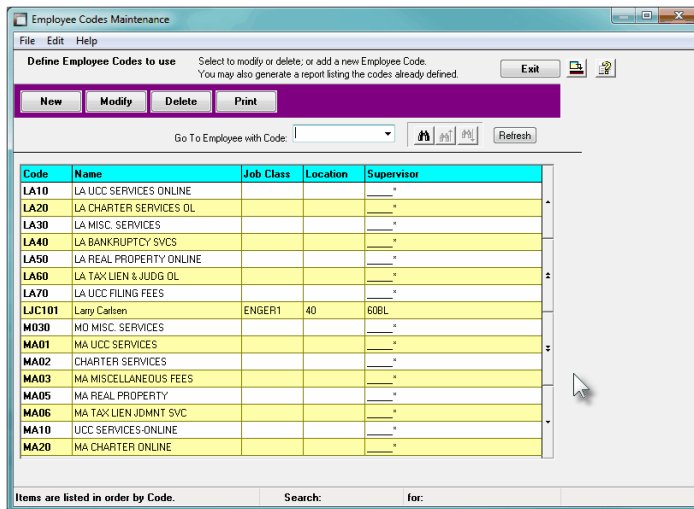
processes. When time-sheet information is recorded for this employee for a particular Task, that Task has, as a property, an Invoice Group Source that is used to specify whether the Task Invoice Group Code or the Employee Invoice Group Code is assigned to the WIP record generated. Invoice Groups might be used by the system to define how items are presented on the Invoice, to keep track of Budgets, to allocate special charge-out rates, or to assign G/L Revenue account numbers. It is important to plan ahead the use of Invoice Groups on your system.

The Employee Codes defined here are listed in the Series 5 Employee Code LOV Lookup 102 window.

The Employee Codes Maintenance function is accessed from the P/I Main menu, by selecting **Employee Codes...** from the **Codes Maintenance** drop-down menu.

Employee Codes Maintenance Grid

Employee are maintained using a Series 5 grid processing screen.

"Fast Buttons"		
New	Add a new Employee (	
Modify	Modify the Employee (highlighted in the grid	
Delete	Delete the Employee (highlighted in the grid	
Print	Generate a report listin Employee Codes alrea file	

Edit an existing Employee Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

The report listing the Employee Codes on file, if archived, will be catalogued with a report name of **PIEMPLOYEE.LST**.

Employee Code - Properties Screen

The properties for each Employee Code are defined with the following screen:

Field Definitions

Employee Code	X(6)
This is the alphanumeric code assigned to the Employee. Enter this code when an Employee code needs to be used within the Professional Invoicing system.	

Name	X(24)
Is the Employee's name.	

Email Address	X(60)
Is the Employee's address. The P/I system provides the functionality to generate and email blank spreadsheets to employees that may be completed and re-emailed back. These emails may be read, and the associated time-sheet information recorded in the system. This is the email address that will be used. *(See the topics titled* Email Blank Employee Timesheets 299 *and* Load Timesheets from Employee Emails 305 *for more information).*	

Person or Machine	*radio-buttons*
Select whether this Employee Code is either a real person or a machine.　If you need to record charges for activity performed by a machine, it still must be entered with an Employee Code.　Indicate here whether this employee is actually for a person or a machine.　The Inter-Location Utilization report differentiates between people and machines and charges entered for machines do not contribute to Cost Plus computations.	

Department	*X(2)*
Assign each employee to a Department.　This is especially important if you wish to have Revenue Accounts or Profit Centers assigned based on the Department that employees are assigned too.　Also, the Inter-Department Revenue Analysis provides a information as to which employees performed billable work on Projects that are allocated to other Departments.	

Job Class	*X(6)*
The Job Class is assigned to identify the job group this employee belongs to.　This is printed on a number of reports and is used as a basis of analysis for a couple of Employee reports.	

Location	*X(6)*
The Location Code for employees is used as a selection parameter for the generation of a number of different P/I system reports.　Locations differ from Departments.　The Location is meant to be a geographical separation, whereas Departments designate divisions within a specific Location.	

Supervisor	*X(6)*
The Supervisor must be a valid Employee Code.　It is used for information purposes only.	

Rate Group	*X(6)*
Special Rates may be defined for a variety of combinations of codes associated to a WIP item.　These include Employees, Employee Rate Groups, Tasks and Invoice Groups.　If a set of rates are created for an Employee Rate Group, then this field is used to identify the Rate Group for this employee.	

Invoice Group	*X(6)*
Tasks can be grouped by assigning them a common Invoice Group Code.　If the **Invoice Groups Assigned to WIP** property for a particular Task designates it to be	

derived from the Employee, then this field holds the particular Invoice Group Code.

Invoice Groups might be used by the system to define how items are presented on the Invoice, to keep track of Budgets, to allocate special charge-out rates, or to assign G/L Revenue account numbers. It is important to plan ahead the use of Invoice Groups on your system.

If invoices for a Project need to be generated with their WIP items grouped by Invoice Group, then it's this code that is used for the sort. This option is determined as one of the properties associated to the Project.

Budget Group	*X(6)*

Budgets, if used, are normally defined at the Project level. It's possible to break down budgets even further, for a Project, into what is referred to as a Budget Groups. The level of budgeting is determined by the existence of a defined Budget record created from the Project Budgets Maintenance [561] function. If this is the case, then the Budget Code to use is derived either from the Task Record, or the Employee Record, (as determined by a setting associated to the Task).

If Budgets have been established for Budget Groups based on groups of Employees, then that Budget Group code needs to be entered into this field.

> **Budgeting for Employees and/or Projects**
>
> Budget may be established for Projects broken down by Budget Groups, or specifically for Employees grouped by Budget Groups regardless of Projects; or both. Depending on the level of budgeting desired, assign a Budget group accordingly.

Unit Cost Rate	*99,999.99-*

If Costs are computed, and derived from the Employee, then enter the Unit Cost Rate in this field, associated to the employee.

Cost Distribution Account	*9(18) - 9(5)*

The Costs of Work-In-Progress activity may be recorded in the General Ledger System to an account that is derived from a number of different sources. If the system has determined that Costs for a specific Employee are to be charged to a specific G/L Cost Account, enter that cost account number in this field.

Mandatory Time Sheet Entry	*check-box*

Reserved for a future enhancement.

Load Time Sheets from Email	*check-box*

The P/I system provides the functionality to generate and email blank spreadsheets to employees that may be completed and re-emailed back. These emails may be read, and the associated time-sheet information recorded in the system. Set the check-box if this employee is to receive these emails. If this flag is NOT set, then blank email timesheets will NOT be emailed to this employee. *(See the topics titled* Email Blank Employee Timesheets 299 *and* Load Timesheets from Employee Emails 305 *for more information).*

9.9.7   Task Codes Maintenance

All time charges entered into Series 5 Professional Invoicing system must be associated to a Project and must have a valid Task Code. The Task Code is used to define an activity or function which is to be entered either as a chargeable or non-chargeable event.

> **Defining Task Codes**
>
> Note that a Task need not be restricted to employee hours, but can also be used to input other unrelated amounts of activity, (i.e. # of megabytes of disk storage or pages printed, or hours usage of a production machine).

Task codes are defined as being either a **chargeable** or a **nonchargeable**. That is, the activity associated to the task will eventually either be invoiced or not. In each case, there is both a Chargeable and a Non-Chargeable rate that may be assigned for the task.

The Task Code is used throughout the P/I system. Some of the noteworthy properties are as follows :

- Depending on the types of invoices that are generated, the task's description may be used in the description field printed on Invoices.

- The task may define a rate and an overhead percentage. When an overhead is calculated, it is carried through the system up to invoicing. On the invoice, overhead will be accumulated and listed as a single item.

- Tasks are associated to Invoice Groups, (which may also be referred to as a Task Group). Invoice Groups are significant in that the PI system may be configured to determine Unit Rates, Budget Groups and the assignment of Revenue Accounts based on Invoice Groups. It is important to plan ahead the use of Invoice Groups by the system.

- When billable activity is recorded, for certain customers where applicable, taxes will be computed when invoices are generated. One property of the task is whether or not it is a taxable activity or not. It's possible that activity for the task may be taxable in some jurisdictions but not in others. In these cases, a Tax Group may be assigned to the task. The Tax Exempt Codes Maintenance function 680 is used to defined which tax Groups are taxable or not, for each of the Tax Codes defined in

the Accounts Receivable system.

- You may use the P/I system to keep track of non-billable activity that your employees spend time on. You would then want to create some Tasks such as **ADMIN**, **PROFDEV**, **SICK** and **TRAVEL** that would be non-chargeable tasks, and the Rate-1 and Rate-2 fields would be left zero since the costs would relate to the employee.

- Throughout the P/I system with respect to WIP items, there are references to Invoice Groups. Invoice Groups are a convenient way of grouping activities, either associated to employees or to tasks, that are treated in the same way for assorted processes. One property of each task is used to indicated that when the task is assigned to WIP activity is the Invoice Group assigned from the task itself, or from the employee.

- Chargeable and non-chargeable rates, revenue accounts, costing rates, cost distribution accounts, and budgets may all be assigned to a given task. The algorithms used in determining the rates and accounts assigned to WIP activity can be tailored meeting a variety of situations, using control properties associated to the task and found in the P/I system's Control Preferences 697. It is important to understand the different settings when establishing the task codes being used.

The Task Codes defined here are listed in the Series 5 P/I Task Code LOV Lookup 102 window.
The Task Codes Maintenance function is accessed from the P/I Main menu, by selecting **Task Codes...** from the **Codes Maintenance** drop-down menu.

P/I Task Codes Maintenance Grid

P/I Task are maintained using a Series 5 grid processing screen.

"Fast Buttons"	
New	Add a new P/I Task C
Modify	Modify the P/I Task C highlighted in the grid
Delete	Delete the P/I Task C highlighted in the grid
Print	Generate a report list Task Codes already
Import	Load Tasks from a spreadsheet
Export	Export Tasks to a sp

Edit an existing P/I Task Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

The report listing the P/I Task Codes on file, if archived, will be catalogued with a report name of **PI_TASKS.LST**.

↪ P/I Task Code - Properties Screen

The properties for each P/I Task Code are defined with the following screen:

Field Definitions

P/I Task Code	X(10)
This is the alphanumeric code assigned to the Task. When Time-Sheets are entered or WIP charges recorded, a particular activity identified by a Task Code, is performed by an Employee for a particular Project. this is the code that is entered. Note that the Task Code is alphanumeric. It can include numbers, alphabetic characters or other special characters, but should not contain any embedded spaces.	

Description	X(100)
Is a description of the Task. This is printed on most reports, and is displayed to most screens where the Task Code is utilized.	

Display Units	X(12)
The Display Units is printed on detailed invoices, and displayed when time-sheet entries	

are entered. Because the entries made on a time-sheet could be time, materials or services, the unit value is not limited to hours. Therefore the Task Display Units field allows you to enter your own terminology for the units that a particular Task is expressed in.

For instance, you might use a Task code having the Task Description Travel Allowance and the Task Units of Miles. A word processing service bureau might use the Task Description of **Pages printed** and the Display Units **pages**.

Commission Code	*X(6)*

This field is reserved for a future enhancement. It is used to define a Commission Code that will be used to determine commissions earned associated to WIP activity performed on Projects. The Commission Code is recorded within the WIP record and is available for 3rd party reporting.

Extended Description Comments Code	*X(8)*

The P/I system offers the capability to define Comments. (Using the Comment Code Maintenance function 599). These comments provide for up to 1000 characters of text to be recorded. This field provides a way of entering a more complete description of the Task than offered by the 40 character description field. If this task is used for a Project, that makes use of an Invoice Layout that has the option to Print Task Code Comment Descriptions, the text for this Comment Code is printed on the Invoice.

Foreign/Domestic Flag	*radio-buttons*

This is provided for information purposes only. When time charges are entered, this flag does get recorded with the WIP item that is generated. It could be used as a filter when used by a third party report writer.

- ◉ Foreign
- ○ Domestic

Type of Activity - Service or Disbursement	*radio-buttons*

This field is used to indicate whether the activity associated to this task is considered to be a Service or a Disbursement. Normally this would be set as a Service. However where WIP activity is imported from other user developed applications, these may be considered to be either Services or Disbursements. (Normally Disbursements would be entered using the Disbursements Entry operation, however where WIP activity is imported from other user developed applications, the WIP could be considered to be either Services or Disbursements).

- ◉ A Service
- ○ A Disbursement

When invoices are generated, for a specific Invoice Layout, the WIP activity will be grouped as either a Service or a Disbursement.

Chargeable Unit Rate	*99,999.99-*

This is the rate that is used in computing the value of chargeable activity recorded with this task. Depending on how rates are computed, this amount may, or may not actually ever be used. *(Refer to the topic titled Assignment of Unit Rates* 70 *in this documentation for a description of how unit rates are derived).*

Non-Chargeable Unit Rate	*99,999.99-*

This is the rate that is used in computing the value of non-chargeable activity recorded with this task. Depending on how rates are computed, this amount may, or may not actually ever be used. *(Refer to the topic titled Assignment of Unit Rates* 70 *in this documentation for a description of how unit rates are derived).*

Overhead Charges %	*999.99- %*

A standard Overhead Amount may be automatically computed for all time charges entered for a given Project and included in all totals. *(The option to have Overhead computed is determined as a property associated to each Project).* This field defines the percentage factor used in the computation. The Overhead Amount is computed when the Time-Sheet activity are entered into the system, for Chargeable Projects only. Overheads may also be adjusted or suppressed by any of the **Special Rates** that are set up. Overhead amounts are not shown separately on the invoice, but are reported in the items and totals printed. If the system computes an overhead amount, the rate printed on a detailed invoice will be adjusted to include the overhead amount.

Chargeable/Non-Chargeable Flag	*radio-buttons*

Selected whether the activity represented by this task is either chargeable or non-chargeable. Chargeable activity will be eventually billed to the customer.

- ◉ Chargeable
- ○ Non-Chargeable

G/L Revenue Account Source	*drop-list*

Normally, the G/L Revenue Account assigned to WIP charges is determined by a property defined by the PI Control Preferences. If you need to change that rule for this particular Task, select from which P/I source that G/L account is to be obtained.

Control Properties Default
Employee's Department
Invoice Section
Invoice Group
Project

For example, some tasks that was related to employee driven activity, should probably record revenue earned as determined from the Employee's Department; but if the task was related to activity associated to a a machine of some type, the revenue account would be determined from an Invoice Section or Group, (which is like a Task Group).

G/L Accounts Profit Center Override Source	*drop-list*

When G/L Revenue and/or Cost accounts are assigned to WIP charges, they may be derived from a number of different sources. As a property defined by the PI Control Preferences, the Profit Center assigned to these G/L accounts may be overridden.

If for this particular task, a different Profit Center source should be used, it may be specified here.

```
No Override
Control Properties Default
Employee's Department
Employee's Location
```

Taxable Status (or Tax Group)	*drop-list*

For the trivial cases, select Yes or No to indicate if this Task is one that charges recorded against are to be considered as Taxable or not.   If charges associated to the task are taxable in some jurisdictions but not in others, select one of the Tax Group Codes so the system can determine if it's taxable or not. The Tax Code Exempt Maintenance application |680|, described later in this chapter, defines whether or not the Tax Jurisdiction Code is taxable or not for particular A/R Tax Codes.

```
Yes, ALL Tax Groups
No, Never Taxable
Group A
Group B
Group C
Group D
Group E
Group F
Group G
Group H
Group I
Group J
Group K
Group L
Group M
Group P
Group Q
```

Invoice Section Code	*X(10)*

For those Projects where invoices are to be generated such that charges are grouped by Invoice Sections, this field defines that group for the Task associated to the charges. (These codes are also used as the sorting sequence on the invoice).   Enter the Invoice Group Code for which items entered with this Task are to be grouped under. This field differs from the Invoice Group defined below, in that this defines the section, and the Task Invoice Group defines the group under the section.

> **Invoice Groups and Sections**
>
> Invoice Sections are just Invoice Groups, but are used for the purpose of grouping items together on invoices that are generated and printed.

Invoice Groups Assigned From Source	*radio-buttons*

Throughout the P/I system with respect to WIP items, there are references to Invoice Groups. Invoice Groups are a convenient way of grouping activities, either associated to employees or to tasks, that are treated in the same way for assorted processes.

◉ From Task Codes Properties
○ From Employee Properties

This selection is used to specify which Invoice Group Code is to be assigned to the WIP record generated from time-sheet entries. ***"Should the Invoice Group be associated to the Task, or should it be associated to the Employee ? "*** .

Invoice Group Code	*X(10)*

Tasks can be grouped by assigning them a common Invoice Group Code. This field holds the particular Invoice Group Code for this Task. If the **Invoice Groups Assigned to WIP** property, was set to From Employee, then this field will not be used and could be left blank.

Invoice Groups might be used by the system to define how items are presented on the Invoice, to allocate special charge-out rates, or to assign G/L Revenue account numbers. It is important to plan ahead the use of Invoice Groups on your system.

If invoices for a Project need to be generated with their WIP items grouped by Invoice Group, then it's this code that is used for the sort. This option is determined as one of the properties associated to the Project.

Budget Groups Assigned From Source	*radio-buttons*

Budgets, if used, are normally defined at the Project level. It's possible to break down budgets even further, for a Project, into what is referred to as a Budget Groups. The level of budgeting is determined by the existence of a defined Budget record created from the Project Budgets Maintenance 561 function. If this is the case, then the Budget Code to use is derived either from the Task Record, or the Employee Record. Whether it be Task or Employee, it is determined by this selection.

◉ From Task Codes Properties
○ From Employee Properties

This selection is used to specify how Budgets, if used, are accumulated. ***"Have Budgets been established for activity based on sets of Employees, or from groups of Tasks ? "*** .

Budget Group Code	*X(6)*

If Budgets have been established for Budget Groups based on groups of Tasks, then that Budget Group code needs to be entered into this field.

Budgeting for Tasks and/or Projects

Budget may be established for Projects broken down by Budget Groups, or specifically for Tasks grouped by Budget Groups regardless of Projects; or both. Depending on the level of budgeting desired, assign a Budget group accordingly.

Costing - Rates Derived From Source	*radio-buttons*

Costing in the P/I system is determined from one of the properties defined from the P/I Control Preferences. The system will attempt to compute a cost that is associated to every time-charge entered against a Project. When this task is used for a WIP entry, if the Unit Cost Rate should be computed for the activity, then set From Task radio button. If the cost is supposed to computed based on the employee's cost rate, set the From Employee radio-button.

⦿ From Task Codes Properties
◯ From Employee Properties

Costing - Unit Cost Rate	*99,999.99-*

If Costs are computed, and derived from the Task, then enter the Unit Cost Rate in this field.

Costing - G/L Cost Account Source	*drop-list*

Normally, the G/L Costs Account assigned to WIP charges is determined by a property defined by the PI Control Preferences. If you need to change that rule for this particular Task, select from which P/I source that G/L account is to be obtained.

Control Properties Default
Employee Properties
Employee's Department
Invoice Section Properties
Invoice Group Properties
Project Properties
Task Properties

Costing - G/L Cost Account	*9(18) - 9(5)*

The Costs of Work-In-Progress activity may be recorded in the General Ledger System to an account that is derived from a number of different sources. If the system has determined that Costs for a specific Task are to be charged to a specific G/L Cost Account, enter that cost account number in this field.

✦ Task Codes – Import/Export Data Formats

For Task Codes that are imported or exported, the following fields are input/output from/

to an Excel spreadsheet, a tab-delimited text file, or a CSV text file. The default filenames are either **PI_Tasks_In.XLS** or **PI_Tasks_Out.XLS.**

Column #	Excel Column	Field	Format
1	A	Task Code	X(10)
2	B	Description	X(100)
3	C	Units	X(12)
4	D	Comment Code	X(8)
5	E	Commission Code	X(6)
6	F	Service/Disbursement Flag	X(1) - [S] or [D]
7	G	Chargeable Unit Rate	9,999.99-
8	H	Non-Chargeable Unit Rate	9,999.99-
9	I	Taxable Group/Flag	X(1)
10	J	Overhead %	999.99- %
11	K	Foreign/Domestic Flag	X(1) - [F] or [D]
12	L	Chargeable Flag	X(1) - [C] or [N]
13	M	Revenue Source Flag	X(1)
14	N	Profit Center Source Flag	X(1)
15	O	Invoice Section Code	X(10)
16	P	Invoice Group Code Source Flag	X(1)
17	Q	Invoice Group Code	X(10)
18	R	Budget Source Source Flag	X(1)
19	S	Budget Group Code	X(6)
20	T	Employee/Task Costing Flag	X(1)
21	U	Task Unit Cost Rate	99,999.99-
22	V	Cost Distributions Source Flag	X(1)
23	W	* Cost Account - Main Segment 1	9(i)
24	X	* Cost Account - Main Segment 2	9(j)
25	Y	Cost Account - Profit Center	9(5)
26	Z	Last Date Used **(Only on Export)**	YYYY/MM/DD

* Each segment of the G/L Account's Main number is output into it's own
column.

9.9.8   3rd Party Bill Codes Maintenance

The Series 5 Professional Invoicing system provides the ability to accumulate charges
against a given Project, hence Customer, and have related invoices generated that are sent
to a 3rd party company.

Currently in the P/I system, 3rd Party billing information may be entered either manually using
this maintenance function, or it is loaded from user supplied Recap Detail interface files. Both
the Generalized WIP/Recap Interface 312 and the Timesheet WIP/Recap Interface 329
functions will automatically identify when 3rd party charges are loaded, and if supplied, record
or refresh the 3rd Party Billing address information.

Some of the features associated to the 3rd Party Billing in the P/I are as follows:

- When the charges for a Project are billed, items are grouped by, and a separate
invoice created for, the six character Bill-To Code.

- Projects that require 3rd Party Billing must have been assigned an Invoice Layout
with the Invoice Generation Type 655 property set to **"L"**.

- This 3rd Party Billing scheme was devised to produce invoices for legal firms
utilizing LEDES 1998B formatting.

- When 3rd Party Invoices are printed 2 copies are printed. One copy is addressed to
the Customer associated to the Project. The second copy is addressed to the 3rd
party specified in the 3rd Party Code record. In each case, on the invoice, either of
the following messages is printed.

    o **FOR PROFESSIONAL SERVICES RENDERED on your behalf by:** *Project's*
    Customer Name

    o **FOR PROFESSIONAL SERVICES RENDERED for your client:** *3rd Party*
    Bill-To Company Name

- Invoices are issued on behave of the Customer that is associated to the Project.
The invoices are still Receivables to that customer, even though a copy of the
invoices is also issued to a 3rd party.

- When these invoices are interfaced to the A/R system as Sales transactions, the
reference is recorded as follows:

    3B:*PPPP/BBBBBBBBBB/3rd Party Bill-To Company Name*
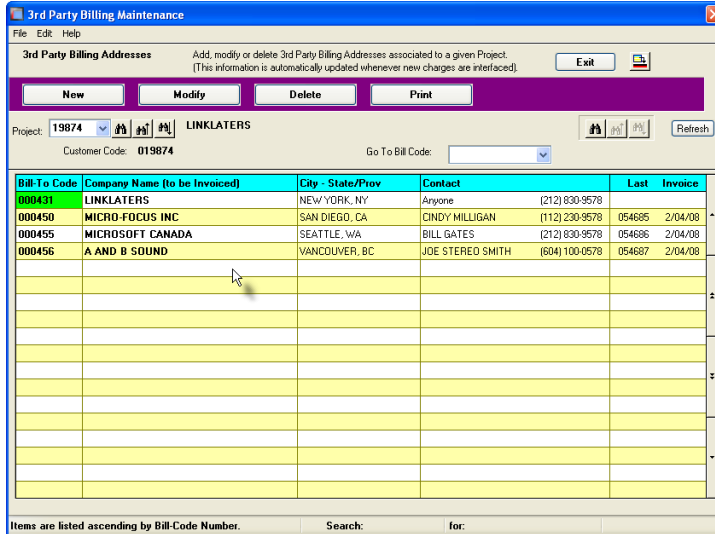
    where: **PPPP** are characters 3 thru 6 of the 3rd Party Bill-To Code

    BBBBBBBBBB from the WIP's Referenced assumed to be the
customer's billing reference code

The 3rd Party Bill Codes Maintenance function is accessed from the P/I Main menu, by selecting **3rd Party Billing Addresses...** from the **Codes Maintenance** drop-down menu.

3rd Party Bill Codes Maintenance Grid

3rd Party Bill Codes are maintained using a Series 5 grid processing screen.

	"Fast Buttons"	
New	Add a new 3rd Party Code	
Modify	Modify the 3rd Party Code highlighted in the grid	
Delete	Delete the 3rd Party Code highlighted in the grid	
Print	Generate a report listing the 3rd Party Bill Codes already on file	

After selecting the applicable Project, edit an existing 3rd Party Bill Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

Some of the special features of this "Inquiry" grid are as follows:

> ➢ A given Project may be chosen either by entering their Project Code, choosing it using the Lookup binoculars icon, or by having the next or previous Project displayed that has Bill-To Codes defined. *(Click the binocular icon with the up/down arrow to display transactions that exist for the prior/next occurrence of that code on file).*

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

The report listing the 3rd Party Bill Codes on file, if archived, will be catalogued with a report name of **3RDPTY_BILL.LST**.

3rd Party Bill Code - Properties Screen

The properties for each 3rd Party Bill Code are defined with the following screen:

Field Definitions

Project Code	X(6)
Select the P/I Project Code for which 3rd Party Billing Code, and contact properties, are	

to be defined for. Invoices are generated for the Client that is associated to the Project.

3rd Party Bill Code	X(6)
This is the alphanumeric code assigned to the 3rd Party Billing Code. This code is normally assigned when 3rd Party charges are loaded from user interfaced Recap Detail charges.	

Company Name	X(150)
This is the Company Name for which charges are accumulated on behalf of the Customer associated to the specified Project. A copy of the invoices that are generated, is also issued to this company.	

Company Address and Contact Information	
This is the address of the 3rd Party Bill-To Company. An invoice will be generated and sent to this address.	

9.9.9   Multi-Client Bill-To Codes Maintenance

The Series 5 Professional Invoicing system provides the ability to accumulate charges against a given Project, hence Customer, and have related invoices generated that are sent directly to different associated customers. This might be the case where charges are recorded to a particular Project that is perhaps a head office. The charges are really associated to branch offices that are set up in the P/I system as separate customers. Invoices are generated, sent to the branch offices, and recorded as receivables in the Series 5 Accounts Receivable system, against the branch's customer codes.

Some of the features associated to the Multi-Client Project Billing in the P/I are as follows:

- When the charges for a Project are billed, WIP items are grouped by a Billing Code (derived from the WIP Reference field), and a separate invoice is created.

- Projects that require Multi-Client Project Billing must have been assigned an Invoice Layout with the Invoice Generation Type [655] property set to **"W"**.

- This 3rd Party Billing scheme was devised to produce invoices for charges incurred by a number of branch offices associated to a large head office.

- When 3rd Party Invoices are generated, the Customer used is that define as the subordinate Client Bill-To.

The Multi-Client Project Bill-To Codes Maintenance function is accessed from the P/I Main menu, by selecting **Multi-Client Project Bill-To...** from the **Codes Maintenance** drop-down menu.

Multi-Client Project Bill-To Codes Maintenance Grid

Multi-Client Project Bill-To Codes are maintained using a Series 5 grid processing screen.

"Fast Buttons"	
New	Add a new Multi-Clie... Project Bill-To Code
Modify	Modify the Multi-Clie... Project Bill-To Code highlighted in the grid
Delete	Delete the Multi-Clie... Project Bill-To Code highlighted in the grid
Print	Generate a report lis... the Multi-Client Proje... Bill-To Codes alread... file

After selecting the applicable Project, edit an existing Multi-Client Project Bill-To Code by double-clicking it's associated row. Standard Series 5 grid controls apply.

Some of the special features of this "Inquiry" grid are as follows:

> A given Project may be chosen either by entering their Project Code, choosing it using the Lookup binoculars icon, or by having the next or previous Project displayed that has Bill-To Codes defined. *(Click the binocular icon with the up/down arrow to display transactions that exist for the prior/next occurrence of that code on file).*

> The option to **List By** provides the option to browse through the Bill-Tos associated to the selected Project either by the Bill-To Codes, or the Customer Codes.

> ➢ Selecting by Customer Code (All Customers), lists all Bill-To's on file regardless of which Customer they belong to.

List by:	Project/Customer Code ▼
Go To Bill Code:	9502 ▼

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

The report listing the Multi-Client Project Bill-To Codes on file, if archived, will be catalogued with a report name of **PROJ_BILLTO.LST**.

➡ Multi-Client Project Bill-To Code - Properties Screen

The properties for each Multi-Client Project Bill-To Code are defined with the following screen:

Project Bill-To Customer Maintenance

Project Code: **16616**   - Modify the Properties of

For Projects marked as "Mulit-Client", designate the Customer for each Bill Code that will be assigned when associated WIP items are Invoiced. (The Bill Code is defined by the WIP's Reference 1 data field).

Project Code: **16616** 🔍   **BANC OF AMERICA LEASING AND CAPITAL,LLC**   Billing Status: **Active**

Customer: **016616 BANC OF AMERICA LEASING AND CAPTIAL, LLC**

HUNT VALLEY, MD

Bill Code: **110-7073**   **SANDY BUONAIUTO**   (401) 278-7394
sandra.g.buonaiuto@bankofamerica.com

Bill-To Customer:

006084 🔍   **LASALLE NATIONAL BANK**   Contact: **JOHN Q SMITH**

Email: **larryc@sentinel-hill.com**

ABN AMRO SERVICES COMPANY
EXPENSE DISBURSEMENT ACCOUNT   Phone: **604**   **925-6101**
CHICAGO, IL

Last Invoiced Issued:

Invoice #:   for: $ Dated:

(0   Invoices have been issued for this Project Bill-To Customer totalling $ 0.00   )

Update   **Cancel**

▬ Field Definitions

Project Code	*X(6)*

Select the P/I Project Code for which Multi-Client Project Bill-Toing Code, and contact properties, are to be defined for. Invoices are generated for the Client that is associated to the Project.

Multi-Client Project Bill-To Code	*X(20)*

This is the alphanumeric code which is found in WIP charges that is used to identify the branch, or sub-ordinate client, that the charges originated for. This code is normally assigned when charges are loaded from user interfaced Recap Detail charges.

Bill-To Customer Code	*X(6)*

Each Bill Code can be linked to a Customer Code that has been already established in the Series 5 Accounts Receivable system. Enter that Customer Code. When Invoices are generated for the selected Project, they are addressed to this Customer. When the Invoices are interfaced to Accounts Receivable, they are receivables to this Customer.

Contact Information	

This is the contact information for the customer. If the associated invoices are automatically emailed, these fields define the email recipient's name and address.

9.9.10   Budget Group Codes Maintenance

The Series 5 Professional Invoicing system offers the ability to define Budgets for both revenues and costs associated to activity charged against all projects.

Budgets may be maintained for each Project separately. You can set up a single Budget for the Project, where all WIP, Disbursements, and Cost Plus charges are totalled and tracked as a unit; or you can divide it up so that separate Budgets are maintained for WIP, Disbursements and Cost Plus charges. When multiple budgets are defined for a Project, it can be broken down into a user defined Budget Group, or to an Invoice Group and/or a Disbursement Code. How a Project is budgeted is determined by a property associated to each Project. You may have no Budgets for a Project at all.

If Budgets are to be maintained by user defined Budget Groups, then you can set up your own categories of budgets, which are associated to Tasks, Employees, and Disbursements. Each Task record has a property used to indicate whether the budget codes associated to the Task record or to the Employee record will be used. Disbursements will use the budget code defined by the Disbursement code record.

If you wish to create your own Categories of budgets, you will need to establish Budget Group Codes. You will then assign Budget Groups to Employees, Tasks and/or Disbursements in the system. When building your budgets for each Project, you would then set up a WIP, a Disbursement and a Cost Plus Budget for each of the Budget Groups you created.

The Budget Group Codes defined here are listed in the Series 5 Budget Code LOV Lookup 102 window.

The Budget Group Codes Maintenance function is accessed from the P/I Main menu, by selecting **Budget Groups...** from the **Codes Maintenance** drop-down menu.

⊙ Budget Group Codes Maintenance Grid

Budget Groups are maintained using a Series 5 grid processing screen.
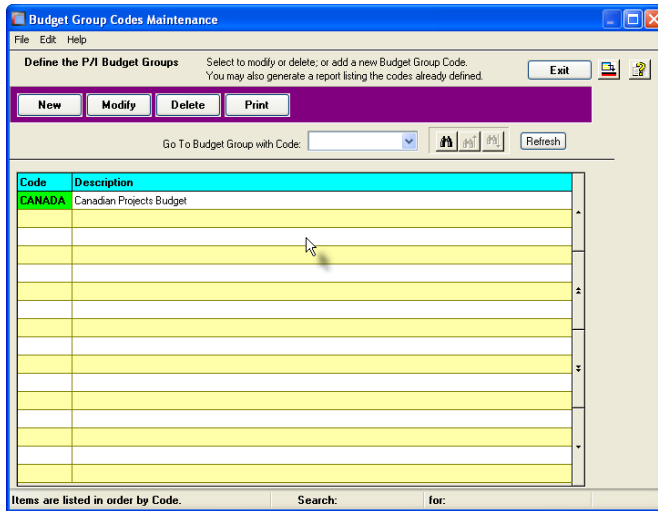
	"Fast Buttons"
New	Add a new Budget Gr... Code
Modify	Modify the Budget Gr... Code highlighted in th...
Delete	Delete the Budget Gr... Code highlighted in th...
Print	Generate a report list... Budget Group Codes... on file

Edit an existing Budget Groups Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing 159 for full details).*

The report listing the Budget Group Codes on file, if archived, will be catalogued with a report name of **PI_BUDCODE.LST**.

⊙ Budget Groups Code - Properties Screen

The properties for each Budget Group Code are defined with the following screen:

 Field Definitions

Budget Groups Code	*X(6)*
This is the alphanumeric code assigned to the Budget. Enter this code when a Budget code needs to be used within the Professional Invoicing system.	

Description	*X(24)*
Is a description of the Budget. This is printed on most, and is displayed to most screens where the Budget Code is utilized.	

9.9.11   Comment Codes Maintenance

Pre-defined Comments may be defined for use in the Professional Invoicing system.
Comment Codes with free flowing text of 50 character lines for a total of up to 1000
characters, may be created.

Text Codes may be assigned as follows:
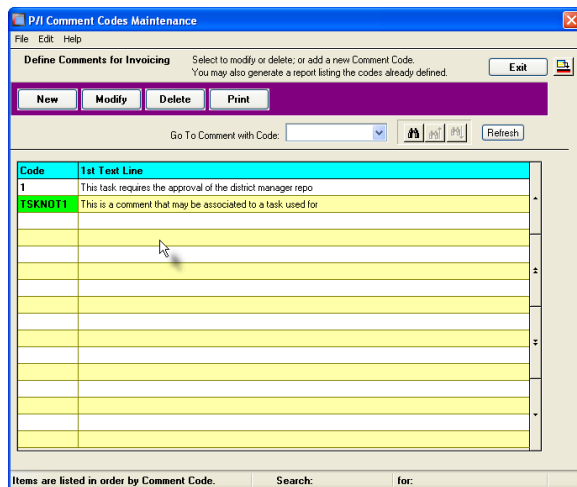
- To Project records as notes to explain details relating to billing or contractual agreements. These are printed on the Pre-Billing report, and available for display from the WIP Billing and Project Inquiry operations.

- To Task records as Invoicing Notes, to provided additional explanation of activity being charged. These notes are printed on detailed invoices as determined by a property associated to the Invoice Layouts assigned to a Project.

The Comment Codes defined here are listed in the Series 5 Comment Code LOV Lookup 102 window.

The Comment Codes Maintenance function is accessed from the P/I Main menu, by selecting **Comment Codes...** from the **Codes Maintenance** drop-down menu.

➡ Comment Codes Grid

Comment Codes are maintained using a Series 5 grid processing screen.

"Fast Buttons"	
New	Add a new Comment
Modify	Modify the Comment highlighted in the grid
Delete	Delete the Comment highlighted in the grid
Print	Generate a report listing the Comment Codes on file

Edit an existing Comment by double-clicking it's associated row. Standard Series 5 grid controls apply.

➡ Comment Code - Properties

The properties for each Comment are defined with the following screen:

P/I Comment Codes Maintenance

Comment Code: TSKNOT1   - Modify the Properties of

Comments are free formatted text that are used to provide extended description to Inventory Items.
They are printed on Picking Tickets and Invoices for those items where they are defined.

Comment Code: TSKNOT

Comment:
```
This is a comment that may be associated to
a task used for explaining, in detail, work
associated to a given Task.

It may be printed on Invoices that are generated
in detail.
```

[Update] [Cancel]

Field Definitions

Comment Code	X(6)
This is the code used to identify this Comment.	

Comment	X(1000)
Enter the text of the comment. Lines of text will automatically wrap at the right edge of the field. You may press the Enter key to force a new line. Each line can contain up to 50 characters. The entire comment may only contain up to 1,000 characters of text.	

9.9.12 Cost Ctr CrCard Mapping Maintenance

The Cost Center / Credit Card Mapping function is used to define credit card numbers to be used for invoicing projects that have been set up to be paid using Paymentech.   Cost Center

codes that have been assigned to specific WIP items are basically tied to a particular credit card for payment. This function maintains these mappings. The Cost Center to Credit Card mapping information may be built from spreadsheet. In this case the client would provide a file with the pertinent information.

Security Issues
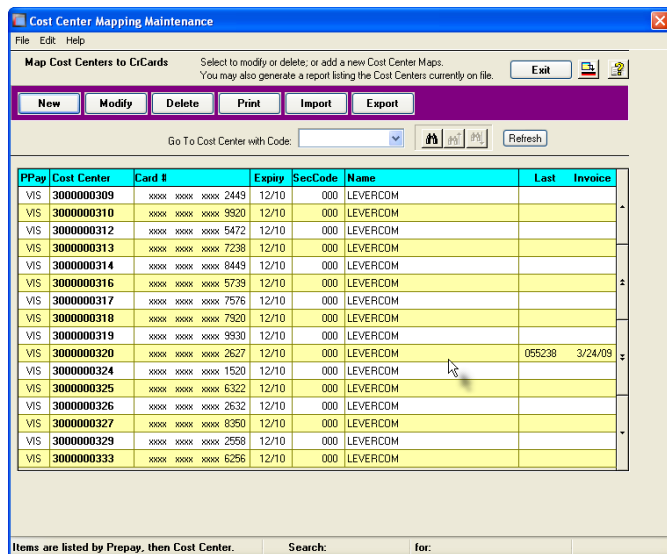
To ensure the security around the use and storage of Credit Cards in the P/I System, the following precautions have been implemented:

- Credit Card Numbers, when stored within all data records are encrypted
- When Credit Card Numbers are presented on screens or reports the first 12 digits are replaced with asterisk characters
- The Cost Ctr Credit Card Mapping file is also encrypted
- When Invoices are interfaced to A/R, the first 12 digits of the credit card number are replaced with asterisk characters

---

The Cost Center / Credit Card Mapping Maintenance function is accessed from the P/I Main menu, by selecting **Cost Ctr. / CrCard Mapping...** from the **Codes Maintenance** drop-down menu.

🔵 Cost Center / Credit Card Maintenance Grid

Cost Center to Credit Card mappings are maintained using a Series 5 grid processing screen.

	"Fast Buttons"	
New	Add a new Cost Cen Credit Card Mapping	
Modify	Modify the Cost Cent Credit Card Mapping highlighted in the grid	
Delete	Delete the Cost Cent Credit Card Mapping highlighted in the grid	
Print	Generate a report list Cost Center Mapping on file	

Edit an existing Cost Center / Credit Card Mapping by double-clicking it's associated row. Standard Series 5 grid controls apply.
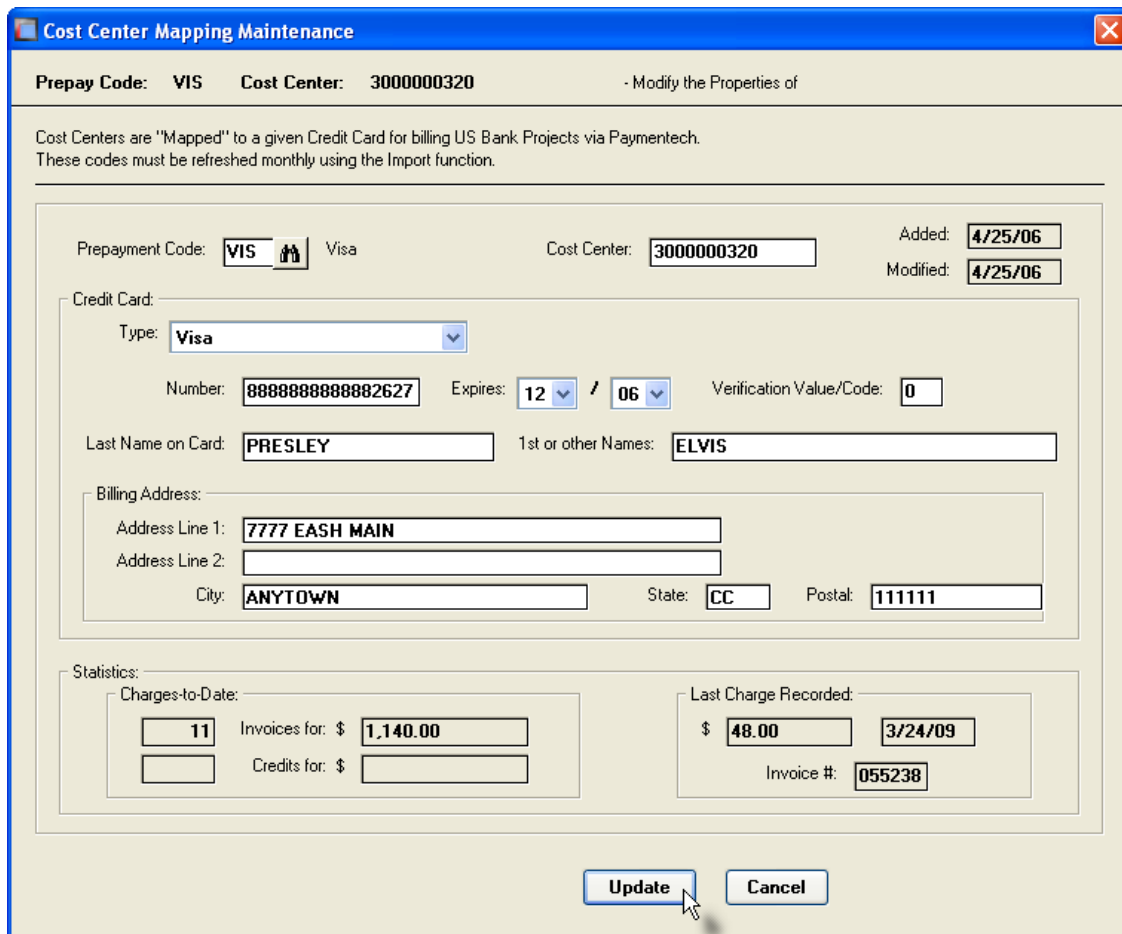
The Print Options tab screen will be displayed, from which you can select to direct the output

to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

The report listing the Cost Center / Credit Card on file, if archived, will be catalogued with a report name of **PPAYCCR_MAP.LST**.

⊙ Cost Center / Credit Card Mapping - Properties Screen

The properties for each Cost Center / Credit Card Mapping are defined with the following screen:

▬ Field Definitions

Prepayment Code	X(3)
This is the A/R system's Prepayment Code that is associated to the Credit Card. When invoices generated that are paid by credit card, they are interfaced to the Accounts	

Receivable system as Prepaid Sales Transactions. The Prepayment code defines the G//L Cash account to which the cash receipt amount is recorded to.

Cost Center Code	*X(15)*

For charges that are loaded into the P/I system that are to be billed and paid using credit cards, a Cost Center Code must be provided. The system assigns the credit card number as determined by the Cost Center Code.

Credit Card - Type	*drop-list*

Select the type of card.

Credit Card - Number & Expiry	*9(18)*

Enter the credit card # without any spaces.

Credit Card - Verification Code	*X(4)*

The authorization code, found on the back of the card, is not used.   Reserved for future use.

Credit Card - Last Name & Other Names	*X(15) & X(30)*

Enter the names on the card.

Credit Card - Billing Address	*2 x X(30) and X(20)*

Enter the billing address for the card holder.

✤ Cost Center / Credit Card Mapping Import/Export Data Formats

When the Credit Card Mapping information is imported or exported, the following fields are input/output from/to an Excel spreadsheet, a tab-delimited text file, or a CSV text file. The default filenames are either **PI_CCMaps_In.XLS** or **PI_CCMaps_Out.XLS.**

Column #	*Excel Column*	*Field*	*Format*
1	A	Prepay Code	X(3)
2	B	Cost Center Mapping Code	X(15)

3	C	Card Type (MC, VI, AX)	X(2)
4	D	Card Number	9(18)
5	E	Card Security Code	9(3)
6	F	Card Expiry Month	9(2)
7	G	Card Expiry Year	9(2)
8	H	Card Holder Last Name	X(15)
9	I	Card Holder 1st Name	X(30)
10	J	Billing Address Line 1	X(30)
11	K	Billing Address Line 2	X(30)
12	L	Billing Address City	X(20)
13	M	Billing Address State/Prov	X(2)
14	N	Billing Address Postal/ZIP	X(10)

9.9.13 Department Codes Maintenance

Department Codes are used to associate employees to specific areas of the company that might generated revenue that is to be recorded to the G/L system using a common account.

The Series 5 P/I system provides the ability to establish special billing rates and/or the definition of special G/L Revenue accounts that may be assigned. As defined by properties in the P/I Control Preferences, or for the Tasks, the following may be assigned:

- Revenue and Costing Accounts may be determined from the Employee's Department code
- Revenue and Costing Account Profit Center codes may be determined from the Employee's Department code

The Department Codes defined here are listed in the Series 5 Department Code LOV Lookup
[102] window.
The Department Codes Maintenance function is accessed from the P/I Main menu, by selecting **Department Codes...** from the **Codes Maintenance** drop-down menu.

⊙ Department Codes Maintenance Grid

Department Codes are maintained using a Series 5 grid processing screen.
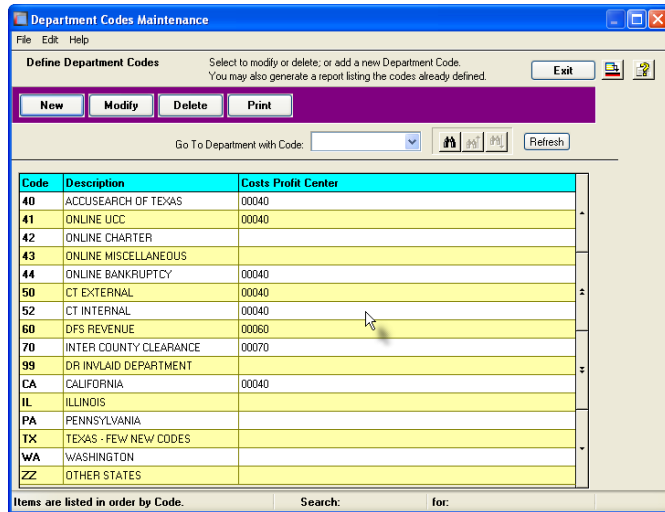
"Fast Buttons"	
New	Add a new Departme
Modify	Modify the Departme highlighted in the gric
Delete	Delete the Departme highlighted in the gric
Print	Generate a report list Department Codes a file

Edit an existing Department Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* [159] *for full details).*

The report listing the Department Codes on file, if archived, will be catalogued with a report name of **PI_DEPTS.LST**.

Department Code - Properties Screen

The properties for each Department Code are defined with the following screen:

Field Definitions

Department Code	X(2)
This is the alphanumeric code assigned to the Department. Enter this code as one of the properties associated to each P/I Employee when they are added to the system.	

Description	X(24)
Is a description of the Department. This is printed on most reports, and is displayed to most screens where the Department Code is utilized.	

Department Revenue Account	9(18) - 9(5)
There are a number of different ways that you can record revenue, derived from P/I, that is recorded into the General Ledger System. If you have decided that all Revenue for a specific Employee's Department is to be charged to a specific G/L Revenue Account, (as determined by a property in the P/I Control Preferences 697 or the Task Code 583), enter that revenue account number in this field.	

Cost Distribution Account	9(18) - 9(5)

The Costs of Work-In-Progress activity may be recorded in the General Ledger System to an account that is derived from a number of different sources. If the system has determined that Costs for a specific Employee's Department are to be charged to a specific G/L Cost Account, enter that cost account number in this field.

Profit Center Override	9(5)

Regardless of the method used to obtain the G/L Revenue Account, you may also choose from different ways of having the Profit Center portion assigned. (As determined by a property in the P/I Control Preferences 697). If you have decided that all Revenue and/or Cost and/or Recoverable Expense distributions for a specific Employee's Department be charged to a specific Profit Center, enter the desired Profit Center number here.

9.9.14 EDI Specifications Codes Maintenance

The Series 5 P/I system provides for the ability to generated electronic invoices. These are commonly referred to as EDI invoices.

There are a variety of different EDI invoices that may be generated. Some of these are unique to specific customer, and some are generated using specific standard formats For each of the types of EDI invoices that may be generated, the P/I system has an EDI Specifications Control code that is created. This Control Code defines the different properties associated to each type of EDI invoice.

In order for a particular project to have it's invoices generated as EDI invoices, it must select as one of it's properties, one of the codes defined by this function.

> **Generation of EDI Invoices**
>
> In order for a Project to generate EDI invoices, it must reference one of the codes set up here. **Also, the Invoice Layout that is assigned to that project must be correctly configured, and be enabled to generate EDI Invoices.**

The following types of electronic invoice are supported by the P/I system

- ANSI X12 4010-810 Invoice EDI formatted Invoices
- Ariba EDI, cXML and CSV Invoices
- Tab-Delimited ASCII Text - customized for a specific customer
- Excel Worksheet - customized for a not to be identified specific customer
- Dual Worksheet Excel Workbook - uses 1 worksheet for a summary, and the 2nd worksheet listing charges detail
- Paymentech "120-Byte Batch Processing" and "Orbital Gateway XML" Invoices

- LEDES 98b and 2000S XML - for use by law firms
- Customized PDF Invoices automatically emailed with a report detailing charges
- Customized Character-Delimited ASCII Text Invoices

And a number of customized formats for specific customers invoiced using the P/I system

9.9.14.1 EDI Controls Maintenance Grid Screen

The "Electronic Invoices" that may be generated in the P/I system are maintained using a Series 5 grid processing screen.

> ➡ EDI "Electronic" Invoices Controls Maintenance Grid

	"Fast Buttons"	
New	Add a new EDI Co...	
Modify	Modify the EDI Cor... highlighted in the g...	
Delete	Delete the EDI Cor... highlighted i the gri...	
Print	Generate a report ... the P/I EDI Control...	
Import	Imports EDI Contr... a spreadsheet	
Export	Export selected EL... Controls to a sprea...	

Edit an existing EDI Control Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

9.9.14.2 EDI Controls Properties Screen

When adding a new EDI Control Code it is important that you have determined all the appropriate control parameters. Also, it is important that for the applicable Projects, both the EDI Control, and the correct Invoice Layout Code has been assigned.

Each type of EDI Control has different types of control properties. However, they do have some common attributes. These include the following:

- Next Interchange Number — A unique counter used to identify the set of Invoice being generated

- Data File Rootname — Is embedded within the name of the data file created
- Data File Directory Path — is the directory where the EDI file is created

What is common is that these Electronic Invoices are actually data files. It is important that you create the applicable data directories prior to adding any of the Control records

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Warning

Once you establish the Type of EDI Control, you will not be able to change it; so get it right the first time.

⊕ EDI Control - Add Properties Tab Screen

When adding a new EDI Control Code, those fields that are common to all types of EDI methods are displayed. Once a type is selected, then fields relating to that type will be displayed. The following EDI Control screen fields are common to all types:

Note that the bottom half of the properties screen will be different for each type of EDI Control that is available. A description of each type can be found in the topics following this one.

⊟ EDI Control Properties Tab Screen - Field Definitions

Control Code	X(6)
This is the code that is used to identify the EDI Control in the P/I system. This is the code that is entered and carried in the assorted Series 5 transactions.	
Description	X(30)

The description is displayed for verification, and in the LOV when invoked.

Type	*drop-list*

The different types of EDI formats are presented in a drop-down list. Select the type to be used.

Next EDI Interchange Number	*9(9)*

Every time a set of these EDI Invoices are generated, they will be assigned a unique counter. This defines the next number that is assigned. In some cases, the Interchange Number is embedded in the control records associated to an EDI file. A summary of the last 12 sets of EDI Invoices that were generated is kept on file. Eash set can be identified using the Interchange Number.

Automatically Suppress ZERO value WIP	*check-box*

When invoices are selected to be invoiced by the Generalized Select for Billing Operation ⌐385⌐, or when Invoices are Generated ⌐422⌐, (prior to being output to their respective EDI file sets), if this field is checked, then when a WIP item that has a ZERO charge amount is encountered, it will be suppressed from being output. It will also be automatically marked as a "Written-Off" WIP Item.

Present this EDI Code to the E-Billing Wizard	*check-box*

If this EDI Code is to be used by the E-Billing Wizard ⌐380⌐, then set this check-box so it will then be presented as a radio-button on the P/I E-Billing Interface menu ⌐203⌐ screen.

Datafile Root Name	*X(8)*

The name of the EDI file that is created will be made up of the Root Name and the Next Interchange Number.

Data Directory Path	*X(100)*

This is the full path to the directory where the EDI file will be created. This could be on a different server, or defined with a mapped drive, or defined with AcuServer.

You may click on the **Browse** button to locate the desired directory. Only those folders which are descendants of the root directory, of that which is defined by the Directory Path field, can be displayed. So if you wish to choose a folder on your "C" drive, enter **C:** in the Directory Path before clicking the "Browse" button. Setting the Directory Path blank, or to a path that does not have a drive letter designation, would result in only being able to browse descendants of the user's default working directory.

9.9.14.3 About Ariba cXML Invoices

Ariba is a company that provides 3rd party automated sourcing and procurement services. Ariba provides B2B services linking customers and suppliers. As a Supplier, you can submit electronic invoices through Ariba's network, that will be automatically verified, and distributed to the appropriate companies. To make use of these types of EDI Invoices, you must be a registered Ariba Supplier. You may visit www.ariba.com for more information.

Ariba provides support for a number of different formats in which invoices may be submitted. One such format is cXML, (commerce eXtensible Markup Language). cXML is an open versatile language for the transaction requirements of E-commerce solutions.

Information Standards for cXML

Specifications for cXML is available as a PDF at http://xml.cxml.org/current/cXMLUsersGuide.pdf

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With respect to the P/I system, there are number of points that must be noted when generating cXML Invoices for submission to Ariba:

- A separate cXML file is needed for each Invoice that is generated
- A separate invoice is generated for each P/I Project
- Each Invoice generated is for a specific Bill Code that is derived from the WIP charges Reference 1 field
- The Bill Code recorded in the <Description> segment of the <Distribution> tag is the Bill Code that was assigned to the Invoice
- Individual items on the invoice are built directly from each Recap charge record
- There is only one Recap charge record for each WIP record
- A segment of each P/I Task Code must be mapped directly to pre-arranged Reference ID codes.
- In the cXML files, Credit charges must be recorded with # of Units > ZERO and the Unit Rate < ZERO
- In the cXML files, within any descriptive text there cannot be any trailing spaces and the "**&**" character is illegal
- In the cXML files, leading Zeros and commas are not allowed in numeric fields

Projects that generate cXML invoices must have Invoice Layouts defined as follows:

Field	Setting
Multiple Invoices for Project ?	Yes
Separate Invoices by	B - Project / Reference 1
Invoice WIP Print Option	Reference 1 with Tax
Flag Group Consolidation	Must be NONE
Limit # of Items per Invoice	9,999
Calculate Allocated Tax to WIP	Computed for each WIP/Recap for EDI
Enable the generation of EDI or XML	Yes

⊙ EDI Control - Ariba cXML Properties Sub-Screen

When submitting EDI invoices to Ariba using cXML, there are a number of control codes that are required. These are used to identify the sender and related contract codes and security codes. These codes must be obtained from Ariba, and defined to the P/I system.

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cXML Formats

Although cXML Invoices has a well defined format of all its data tags, depending on the customer, there are a number of variations. Currently the Series 5 has formats compatible for Bank of America, and for JP Morgan Chase. If cXML is required for another customer, the applicable software routine will have to be revised.

The difference primarily deals with the information that is provided in the **<Distribution>** set of tags for each **<InvoiceItem>**. Be sure to select the correct company in the relevant XML Output Control Options field.

The descriptive properties associated to each EDI Control Code for cXML invoices are maintained by the following screen:

Ariba cXML EDI Controls Screen - Field Definitions

Header From-Identity	*X(6)*
This code is inserted in the Header to provide authentication information. It identifies the originator of the cXML request. This code is provided by Ariba. When submitting files for testing, "**-T**" must be appended to the code.	

Header To-Identity	*X(40)*
This code is inserted in the Header to provide authentication information. It identifies the destination of the cXML request. This code is provided by Ariba. When submitting files for testing, "**-T**" must be appended to the code.	

Header Sender-Identity	*X(6)*
This code is inserted in the Header to provide authentication information. It allows the receiving party party to authenticate the party who establishes the connecton. It will typically be the same as the Header From Identity field. This code is provided by Ariba. When submitting files for testing, "**-T**" must be appended to the code.	

Master Agreement-ID	*X(15)*
This code is inserted within the InvoiceDetailOrder section. This code defines a reference to an earlier Master Agreement document known to the invoiced organization's system. This code is provided by the customer or by Ariba.	

Supplier Secret	*X(30)*
This code is inserted in the Header to provide authentication information. It is used in the cXML's Credential's SharedSecret element. It is used as the Sender's password that the Requester can recognize. This code is provided by Ariba.	

Remit-To Identifier	*X(12)*
This code is inserted in the InvoicePartner section of the Header to provide contact information. It is used in the cXML's remitTo element. The assigned is either a Remit-To address, or a prearranged code.	

Detail <Distribution> Tags for:	*radio-buttons*
The cXML specifications have slight variations depending on the customer. The system currently supports cXML for Bank of America and JP Morgan Chase.	

○ JP Morgan Chase
○ Bank of America
○ Generic

The following variations are dealt with:

- Bank of America requires the invoiceID in the **<InvoiceDetailRequestHeader** to have a 5 digit Bill Code appended to the Inv# and Customer Code fields, whereas the Generic and JP Morgan just has the Inv# and Customer Code.

  <InvoiceDetailRequestHeader invoiceID='99999999-XXXXXX-BBBBB' ....>

- Each charge item that is submitted on an invoice must have a valid Reference code. These codes are set up by the master agreements made with Ariba and are validated when the EDI files are sent to Ariba. These codes are assigned to the **<SupplierPartID>** segment within the **<InvoiceDetailItemReference>** tag. All WIP charges recorded in the P/I system have task codes assigned. These tasks are basically the supplier part codes. However the P/I Task Codes are not necessarily the codes that are used to valid the charges with Ariba. There is a lookup function that is invoked that maps a segment of the Task Code to the Supplier Part Reference Line of the master agreement. Depending on the pre-arranged contract, either characters 5-7 or 5-8 are used in the lookup function to get the correct part ID Reference code. JP Morgan uses characters 5-7. Bank of America uses 5-8. *(If the lookup fails because a Supplier Part Reference was not established for the given P/I Task code, the system will insert a code of 999999),*

- To define the billing period, JP Morgan uses their own Extrinsic defined tags

  <Extrinsic name="BillingStartDate">*2008-11-01***</Extrinsic>**

  <Extrinsic name="BillingEndtDate">*2008-11-30***</Extrinsic>**

  Whereas Generic and Bank of America uses the cXML standard

  <Period StartDate = *"2008-10-01T12:00:00-00:00"*

  EndDate = *"2008-10-31T12:00:00-00:00"* **/>**

- JP Morgan and Bank of America each use a specific **<InvoicePartner><Contact role="soldTo"><Name>** address tag; whereas the Generic format uses the Invoice's Customer name and address for both the soldTo and the shipTo clauses. All formats use the Invoice's Customer name and address for the shipTo clause.

- Bank of America requires Tax Amounts in the **<Tax>...</Tax>** tags to be output within the **<InvoiceDetailItem>....</InvoiceDetailItem>** section of the invoice

information. As a result, then within the **<InvoiceDetailRequestHeader ....>** tag, the **<InvoiceDetailLineIndicator** tag needs to have the **isTaxInLine="yes"** phrase as follows:

<InvoiceDetailLineIndicator isAccountingInLine="yes" isTaxInLine="yes"/>

- JP Morgan requires that as part of the **<Distribution>** tag set, a Legal Entity and a Business Unit be specified. Based on the Cost Center, that is provided in the WIP charge's Reference 1 field, a table is looked up to derive the Legal Entity code, and the Business Unit Code. These are used to populate the appropriate **<Distribution>** tags for each **<InvoiceDetailItem>**

Deployment Mode	*radio-buttons*

Select whether files being transmitted are for testing or for production. Normally test files are sent only when setting up the contracts with Ariba. Normally, this setting should be set for Production.

- ⦿ For Production
- ○ For Testing

9.9.14.4 About Ariba CSV Invoices

Ariba is a company that provides 3rd party automated sourcing and procurement services. Ariba provides B2B services linking customers and suppliers. As a Supplier, you can submit electronic invoices through Ariba's network, that will be automatically verified, and distributed to the appropriate companies. To make use of these types of EDI Invoices, you must be a registered Ariba Supplier. You may visit www.ariba.com for more information.

Ariba provides support for a number of different formats in which invoices may be submitted. One such format is a CSV, (comma sepearated values) text file.

Information Standards for Ariba's CSV format

Search the Ariba website at http://ariba.com for further information on the specific format.

With respect to the P/I system, there are number of points that must be noted when generating CSV Invoices for submission to Ariba:

- A separate CSV file is needed for each Invoice that is generated
- A separate invoice is generated for each P/I Project
- Each line item on the Invoice represents a sub-total of PI WIP charge items for a given "Supplier ID" at a particular rate. (All WIP items with the given Supplier ID having the same unit rate are totalled and presented as an invoice line item).

- The Supplier ID is determined by examining the PI Task Code and locating the rightmost 3 digit number.
- The Supplier ID is used as the search key in the Ariba Code Mapping file to determine the Ariba Line Number and Task Description. (see the discussion on Ariba Invoice Code Mapping Maintenance 683).
- Individual items on the invoice are built directly from each PI Invoice line item
- Currently taxes are not charged.
-

Projects that generate Ariba CSV invoices must have Invoice Layouts defined as follows:

Field	Setting
Multiple Invoices for Project ?	Yes
Separate Invoices by	T - Project (Task/Rate Sub-Totals)
Invoices Sorted by	Project Code
Invoice WIP Print Option	n/a - Task or Employee Name
Flag Group Consolidation	Must be NONE
Limit # of Items per Invoice	1,000
Calculate Allocated Tax to WIP	n/a
Enable the generation of EDI or XML	Yes

➡ EDI Control - Ariba CSV Properties Sub-Screen

When submitting EDI invoices to Ariba using CSV, there are a number of control codes that are required. These are used to identify the sender and related contract codes and security codes. These codes must be obtained from Ariba, and defined to the P/I system.

The descriptive properties associated to each EDI Control Code for Ariba CSV invoices are maintained by the following screen:

Ariba cXML EDI Controls Screen - Field Definitions

Master Agreement-ID	X(8)
This code is the Ariba Contract Number. It will be inserted in column "**C**" (the one with a heading of **contracNumber**). This code is provided by the customer or by Ariba.	

Remit-To Address Identifier	X(8)
This code is the Ariba Remit-To address Id. It will be inserted in column "**M**" (the one with a heading of **remitToAddressID**). This code is provided by the customer or by Ariba.	

Ship-To Address Identifier	X(8)
This code is the Ariba Ship-To address Id. It will be inserted in column "**T**" (the one with a heading of **shipToAddressID**). This code is provided by the customer or by Ariba.	

Empty CSV Headings Template	*X(30)*
Specify the name of the file that holds the headings, and standard values for assorted columns of information that needs to be recorded to the CSV invoice file. The file must be a CSV file and located in the directory where the CSV invoice files are to be generated.	

9.9.14.5 About Ariba EDI Invoices

This topic is not yet completed.

9.9.14.6 About PDF Invoices

PDF Documents have now become an acceptable standard when it comes to having them emailed. It can be easily viewed and printed by a variety of utilities, without it being altered. The Series 5 offers the ability to generate any of it's applications forms or reports as PDF files.

With more and customers making use of the internet, and email capabilities, it is only natural to be able to have your invoices generated and automatically emailed to your customers. To take advantage of this capability, you need only to create a type **PDF-Emailed** EDI Specification record with the appropriate properties, and assign it to those Projects for which PDF Invoices are to be generated and automatically emailed.

About Generating PDF Invoices

The Series 5 system generates PDF documents by first outputting the report, or form, as an Microsoft Word document. It issues a request to Word to have the document saved as a PDF document. This capability only is available to users that have Office 2007, or later, installed on their client.

With respect to the P/I system, there are number of points that must be noted when generating PDF Invoices that are automatically emailed:

- A separate PDF document is created for each Invoice that is generated
- As an option, a Detailed Recap Report is also generated as a PDF file
- When generating PDF documents, you must be executing on a Windows client PC, that has Office 2007, or later, installed.
- To have the Invoices automatically emailed, you must have Outlook running
- The email address to which the Invoice is emailed must be defined in the Customer master properties record
- The message within the body of the email is obtained from a text file named in the EDI Specs Control Properties, that must be located in the same directory where the PDF documents are created
- The PDF documents, along with their Recap Reports, are stored and kept on the system in the designated directory

Projects that generate PDF invoices must have Invoice Layouts defined as follows:

Field	Setting
Multiple Invoices for Project ?	Yes
Separate Invoices by	any setting
Invoice WIP Print Option	any setting
Flag Group Consolidation	any setting
Limit # of Items per Invoice	any setting
Calculate Allocated Tax to WIP	any setting
Enable the generation of EDI or XML	Yes

➔ EDI Control - PDF Invoices Properties Sub-Screen

When having PDF Invoices generated, there are a number of control codes that are required. These are used to identify the email sender and provide the optional names of the MS Word Templates that may be invoked to format both the Invoice and the Recap Report.

MS Word Templates for Invoices

As these Invoices are actually generated as MS Word documents, you may define a page template. Use MS Word to build your template. Make sure that the text of the Invoice align correctly, and that any watermarks or graphics do not compete with the text of the invoice. (You should use a test form when constructing the template). The template must be stored on each user's PC, that will actually generate the invoices, in their **C:\Documents and Settings\<PC UserName> \Application Data\Microsoft\Templates"** directory.

A variable must be added to the Runtime Configuration file 736 that specifies the name of the template. It needs to be defined as follows:

     MSWORD-PI-INV-SPECS LANDSCAPE "Courier New" 8 "My-PI-Invoice-Template"

If you wish to assign a different Template, than that defined in the Configuration file, you may specify its name as one of the EDI control properties. (Separate Templates are provided for the Invoice and for the Recap Report). Contact your system or accounting manager to have this capability set up.

The descriptive properties associated to each EDI Control Code for PDF invoices are maintained by the following screen:

PDF Invoices Controls Screen - Field Definitions

Generate Invoices as MS Word Documents instead of PDF's ?	*check-box*
Have the invoices generated as MS Word Documents instead of PDF's. *You would normally not set this check-box. You would set this ONLY if your MS Word editor did not have the ability to "Save-As" a PDF document; or if you were doing testing on the time required to produce these types of invoices.*	

Generate a Recap Detail Report ?	*check-box*
Have a Detail Recap record generated with each Invoice. This is a report that lists the Recap Detail associated to the charges that make up the invoice. This report is generated as a separate document, and will be emailed with the invoice.	

MS Word - Invoice Template	*X(25)*

By default, the invoice will be generated using the template that is defined for PI Invoices found in the runtime Configuration file.   If for the invoices associated to this EDI Control, you wish to use a different template, enter it's filename in this field. Leaving it blank, then the system uses the default.

MS Word - Recap Report Template	*X(25)*

By default, the Recap Report will be generated using the template that is defined for generic Series 5 reports found in the runtime Configuration file.   If for the Recap Reports associated to the invoices of this EDI Control, you wish to use a different template, enter it's filename in this field. Leaving it blank, then the system uses the default.

Generation of Recap Reports and/or Email of Invoices	*radio-buttons*

Normally, each Invoice is generated with it's corresponding Recap Report as PDF documents, and emailed at the same time. As an option, you may now break this process into two steps. The 1st step is to have the PDF Invoice generated. The 2nd step is to have the Recap Report generated and both it and the Invoice are emailed. The 2nd step is performed by launching a separate menu item, once all PDF Invoices are generated in the 1st step. (Or as referred to the "After Hours" Operation).

You might choose the "After Hours" option if you find that the time required to generate the Recap Reports is so long that it is impacting the daily production of invoices. Now you could start the 2nd pass after hours.

As an additional option, you may choose to have the Recap Report generated from the 2nd pass, but the Invoice and the Recap Report is NOT emailed.

Generation of Recap reports and/or the Emailing of Invoices to Customers:
- ◉ Performed as a Separate 'After Hours' Operation
- ◯ When Invoices are first generated   ◯ 'After Hours' but NOT Emailed

If you have selected to *Perform the Generation of Recap Reports and Emailing 'After Hours'*, then when after the invoices are printed, (after the **Print/Post Finals** push-button function is finished), a list of those PDF Invoices are kept by the system. To perform the 2nd step of generating each invoice's Recap Report, and having it and the invoice emailed, perform the following steps:

- Select **Invoice Processing** from the main PI Menu screen's menu-bar

- Select **Email EDI Gen'ed PDF Invoices**
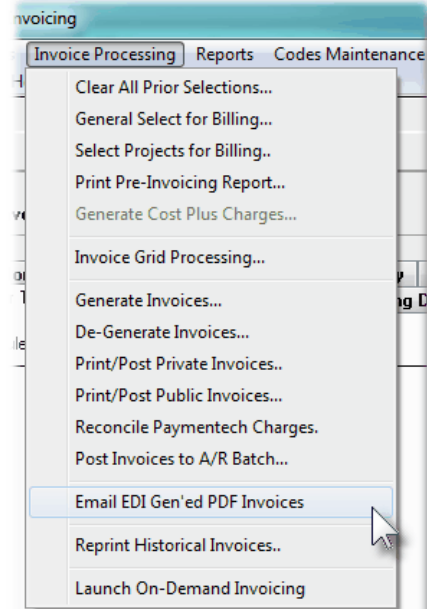
Email's Message Text File Name	**X(25)**

When the Invoice, and Recap Report, is emailed to the customer, they are attached to the email. The actual email message will be loaded from the text file specified by this field. This text file must be located in the same folder as where the PDF Invoices are created, and must not exceed 8192 characters in size.

If you wish to specify a Subject for the emails that are sent, enter it as the 1st line of this file prefixed by the word **SUBJECT:** The maximum length of the Subject line is 140 characters. Within the Subject line you may insert pseudo variables **%%TO-CO-CODE %%**, or **%FROM-COMPANY%%** or the string **99999999**.

These variables or string will be replaced as follows:

String	*Replaced by*
%%TO-CO-CODE%%	The Customer's Company Code
%%FROM-COMPANY%%	Your Company Name (Defined in the Series 5 Company System)
99999999	The Invoice Number

Note that if you use the browse button to locate this file, the Data File Directory Path that is used to designate where the PDF Invoices are to be created, will also be updated.

Email Senders Name	**X(20)**

If the PDF Invoice is emailed, this will be set as the Senders Name in the email.

Email Senders Name and Email Address	*X(120)*

If the PDF Invoice is emailed, this will be set as the Senders Name and Email Address in the email.

9.9.14.7 About Excel Workbook Invoices

This topic is not yet completed.

9.9.14.8 About ANSI X12 4010-810 EDI Invoices

This topic is not yet completed.

9.9.14.9 About Tab-Delimited Text Invoices

Enter topic text here.

9.9.14.10 About LEDES 98b Invoices

LEDES (Legal Electronic Data Exchange Standard) is a file format intended to be used by the legal industry for the electronic exchange of information. It's primary use is for the exchange of billing information. You may visit www.ledes.org and select "Format Specifications" from the menu on the left for more information.

Information Standards for LEDES 98B

Specifications for LEDES98B is available at at http://ledes.org

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With respect to the P/I system, there are number of points that must be noted when generating LEDES98B Invoices for submission to applicable customers:

- All records must be delimited by the "[ ]" characters. <CR><LF> may be appended for readability, but are ignored.
- All fields must be delimited by the "|" character.
- All fields in the specifications are required. Where data is not available, it may be left as "null". (Ie., "Field-2||Field-3[]"
- Leading and trailing spaces in alphanumeric fields are OK
- All dates must be in the format of YYYYMMDD
- Spaces are not permitted in numeric fields, and negative numbers are represented with a "-" sign as the 1st character of the field. Leading ZEROS are acceptable, but for negative numbers must be to the right of the "-".
- The first record is a Version Header and is mandatory
- The 2nd record is a Header record that defines the names of each of the fields in a given record

Projects that generate LEDES98B invoices must have Invoice Layouts defined as follows:

Field	*Setting*

Multiple Invoices for Project ?	Yes
Separate Invoices by	L - WIP Reference 1
Invoice WIP Print Option	Task or Employee Name
Flag Group Consolidation	Must be NONE
Limit # of Items per Invoice	none
Calculate Allocated Tax to WIP	not computed
Enable the generation of EDI or XML	Yes

➡ EDI Control - LEDES Properties Sub-Screen

When generating LEDES invoices, the customer's Taxpayer ID must be listed in the body. This code must be obtained from the customer, and defined to the P/I system within the EDI Control Specs record.

The descriptive properties associated to each LEDES98B Control Code invoices are maintained by the following screen:

⊖ LEDES98b Controls Screen - Field Definitions

Consolidate to a Single LEDES Charge	*check-box*

The definition for LEDES invoices allows for multiple charges per invoice. In the P/I system, individual charges are are grouped by the WIP record's Reference 1 field, containing a common billing code, assigned to a single invoice. There may be multiple charges per invoice.

If the customer can only handle a single charge per invoice, then this check box may be set to have the system consolidate all the charges of an invoice to a single charge when the LEDES98b output. The detail contributing to the invoice within the P/I system is still available both to the ASOW inquiry, the printed hardcopy invoice, and the P/I Historic Invoice Inquiry functions.

Setting the Consolidation option

If the option to have charges consolidated to a single charge is selected, then the following detail fields are set as follows:

LINE-ITEM-NUMBER-UNITS –	Computed as the Sum-of-all-Units
LINE-ITEM-TOTAL –	Computed as the Sum-of-all-Charges
LINE-ITEM-DATE –	Set to the date of the most recent charge on the invoice
LINE-ITEM-DESCRIPTION –	"***Search Name: *** NOT PROVIDED *** - CTLS Monthly Charges***"
LINE-ITEM-UNIT-COST –	Computed as the Sum-of-all-Charges divided by Sum-of-all-Units
TIMEKEEPER-NAME –	The Recap's Ordered-By field from the 1st charge belonging to the Invoice
CLIENT-MATTER-ID –	The Recap's Billing Code field from the 1st charge belonging to the Invoice

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Sending Law Firm Taxpayer ID	*X(40)*

This field is moved to the LAW_FIRM_ID field.

Line Item Expense Code	*X(10)*

This field is moved to the LINE_ITEM_EXPENSE_CODE field.

Version/Customized For:	*radio-buttons*

The LEDES98b specifications have slight variations depending on the customer. The system currently supports the standard LEDES specifications, and that as implemented for the companies indicated.

◉ Standard
○ Kilpatrick Stockton
○ CitiGroup (NY)
○ Morgan Stanley Real Estate
○ Merrill Lynch

The following variations for Kilpatrick Stockton are dealt with:

- The **[Law Firm Matter Id]** is obtained starting from character position 18 of the Invoice Reference, instead of from character position 8.

- The **[Invoice Description]** field contains the following string:

  TRANSACTIONAL SERVICES - *Search Company Name - Activity Description - Search State*

- **[Line Item Number of Units]** is always set to 1

- **[Line Item Unit Cost]** is always set to the same value as **[Line Item Total]** field

- **[Line Item Description]** and **[Timekeeper Name]** fields are always blank

9.9.14.11 About LEDES 2000s XML Invoices

LEDES (Legal Electronic Data Exchange Standard) is a file format intended to be used by the legal industry for the electronic exchange of information. It's primary use is for the exchange of billing information. You may visit www.ledes.org and select "Format Specifications" from the menu on the left for more information.

Information Standards for LEDES 2000S
Specifications for LEDES 2000 is available at at http://ledes.org/ledes2000.aspx

With respect to the P/I system, there are number of points that must be noted when generating LEDES 2000 Invoices for submission to applicable customers:

- There is one Recap record for each WIP charge record.
- The **<Firm>** tag's **<Tax-ID>** and **<Firm-ID>** fields are loaded from the corresponding

LEDES 2000 Control property screen's fields.

- The **<Client>** tag's **<Contact_First & Last_Name>** fields is loaded from the Customer record's primary contact.
- The **<Matter>** tag's **<Cl_Matter_ID>** field is loaded from the Invoice Bill Code, (which is the WIP's Reference field).
- The **<Matter>** tag's **<Matter_Name>** field is loaded from the Invoice Attention-To field, (which is the WIP's Reference 2 field).
- The **<Fee>** tag's **<Charge_Desc>** field is loaded from the Recap's Search Name field.
- The **<Fee>** tag's **<Acca_Task>** field is loaded from the WIP's P/I Task code field.
- The **<Fee>** tag's **<Acca_Activity>** field is loaded from the Recap's Activity Description field.
-
- Leading and trailing spaces in alphanumeric fields are OK, (but they are removed in the generated file)
- All dates must be in the format of YYYYMMDD
- Spaces are not permitted in numeric fields, and negative numbers are represented with a "-" sign as the 1st character of the field. Leading ZEROS are acceptable, but for negative numbers must be to the right of the "-".

Projects that generate LEDES 2000 invoices must have Invoice Layouts defined as follows:

Field	*Setting*
Multiple Invoices for Project ?	Yes
Separate Invoices by	L - WIP Reference 1
Invoice WIP Print Option	Task or Employee Name
Flag Group Consolidation	Must be NONE
Limit # of Items per Invoice	none
Calculate Allocated Tax to WIP	not computed
Enable the generation of EDI or XML	Yes

⊕ EDI Control - LEDES 2000 Properties Sub-Screen

When generating LEDES 2000 invoices, the customer's Taxpayer ID must be listed in the body.   This code must be obtained from the customer, and defined to the P/I system within the EDI Control Specs record.

The descriptive properties associated to each LEDES 2000 Control Code invoices are maintained by the following screen:

LEDES 2000 Controls Screen - Field Definitions

Your FIrm's Tax ID	*X(40)*
This field is moved to the **<firm> .... <lf_tax_id>** tag field.	

Your Firm's LEDES ID Code	*X(10)*
This field is moved to the **<firm> .... <lf_id>** tag field.	

Your Firm's Company Name	*X(30)*
This field is moved to the **<firm> .... <lf_id>** tag field.	

9.9.14.12 About Paymentech CrCard Invoices

The Paymentech format was developed for merchants and vendors who want to use Paymentech payment processing services. This format was designed to give great flexibility to users when transmitting data by using extension and product records related to specific methods of payments and products. Files are generated as the "120-Byte Batched Format".

This format allows merchants to use only the records that are needed for their business. Multiple merchant divisions and transaction types (authorizations, refunds, sales/deposits, pre-notes, ACH debits, ACH credits, etc.) can be sent within a single submission. (The format contains several layers of record count and dollar amount verification to ensure proper data validation.) It is batch oriented. It also supports the sending of name and address information, which is required from all merchants and vendors for the proper processing of some products. Paymentech accepts files at any time, 24 hours per day, every day of the year.

You may visit www.paymentech.com for more information, or if available refer to the PDF document named **Batch_Processing_Specs.pdf**.

Information Standards for Paymentech

Specifications for Batch processing for Paymentech is available at at http://www.paymentech.com

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With respect to the P/I system, there are number of points that must be noted when generating Visa charged Invoices for submission to applicable customers:

- All fields are required
- All alpha characters should be in capital letters
- The format of files generated is for Procurement Level 3 for VISA
- For each P/I WIP charge there is one Recap record
- Paymentech charges are derived using information from the Recap records, and the Invoice Item records
- Reference 1 defines the Recap Cost Center that is used to identify the Credit Card Number

Projects that generate Paymentech CrCard Batched invoices must have Invoice Layouts defined as follows:

Field	Setting
Multiple Invoices for Project ?	Yes
Separate Invoices by	U - WIP Reference 1 (US Bank)
Invoice WIP Print Option	Reference 1 with Tax
Flag Group Consolidation	Must be NONE
Limit # of Items per Invoice	none
Calculate Allocated Tax to WIP	not applicable
Limit the $ Value of an Invoice	$ 4,500
Enable the generation of EDI or XML	Yes

⊙ EDI Control - Paymentech Visa Charge Properties Sub-Screen

When generating Paymentech invoices, the Header ID codes and passwords must be passed, using those assigned for the contract.   These codes must be obtained from Paymentech, and defined to the P/I system within the EDI Control Specs record.

The descriptive properties associated to each Paymentech Control Code invoices are maintained by the following screen:

⊟ Paymentech Visa Card Controls Screen - Field Definitions

Consolidate to a Single Credit Card Charge	*check-box*
The definition for Paymentech Visa card charged invoices allows for multiple charges per invoice. However, Paymentech charges a fee for every charge submitted. In the P/I system, individual charges are grouped by the WIP record's Reference 1 field, containing	

a common billing code, assigned to a single invoice. This Bill code is used in the P/I system to determine the credit card number. (See the topic titled Cost Center Credit Card Mapping 601). There may be multiple charges per invoice.

If you wish to reduce the fees paid to Paymentech, then set this check box to have the system consolidate all the charges of an invoice to a single charge when the output file is generated. The detail contributing to the invoice within the P/I system is still available both to the ASOW inquiry, the printed hardcopy invoice, and the P/I Historic Invoice Inquiry functions.

Setting the Consolidation option

If the option to have charges consolidated to a single charge is selected, then the following detail fields are set as follows:

PP1-Item-Quantity –	Computed as the Sum-of-all-Units
PP2-Item-Extended-Amount –	Computed as the Sum-of-all-Charges
PL2-Invoice-Sales-Tax-Amt –	Computed as the Sum-of-all-Allocated-Tax-Charges
PP2-Item-Commodity-code –	"*CTLS MONTHLY CHARGES*"
PP2-Item-Unit-Cost –	Computed as the Sum-of-all-Charges divided by Sum-of-all-Units
S-Merchant-Order-Identifier –	The first 8 bytes stores the lowest RECAP-DETAIL-WIP-ID of the items on the invoice
PL3-Item-Description –	*"** ASSORTED **"* (replacing RECAP-SEARCH-NAME)
PL3-Product-Code –	*"** ASSORTED **"* (replacing RECAP-REFERENCE-2)
PL2-Customer-Reference-Id –	*"** ASSORTED **"* (replacing RECAP-REFERENCE-3)

A/R Prepayment Code	*X(3)*

When the invoice is posted to the Accounts Receivable system, it will be recorded as a Prepaid Sales transaction. Prepayment Codes are used to identify the method of payment, and the G/L Cash Account number to which the payment amount will be recorded to. These codes are defined in the Prepayment Code Maintenance routine of the Accounts Receivable System.

Cardholder's Statement - Merchant Name	X(12)
This field would be moved into the Merchant Descriptor record's Item-Description field. This record is not being used at this time.	
Cardholder's Statement - Service Provided	*X(9)*
This field would be moved into the Merchant Descriptor record's Name field. This record is not being used at this time. However, if the literal *TEST* is entered into this field, a series of 4 different Visa Card numbers will be inserted, instead of the ones assigned to the invoice.	
Header Codes - Presenter ID & Password	*9(6) & X(8)*
This Presenter ID is a 6 digit numeric number assigned by Paymentech. The password is an 8 character code, also assigned by Paymentech. These are moved to the PID Batch Header record.	
Header Codes - Submitter ID & Password	*9(6) & X(8)*
Assigned by Paymentech. These are moved to the "PID" Batch Header record.	
Merchant Division Number	*9(10)*
Assigned by Paymentech. This is moved to the first field, Division Number, of the "S" Detail record.	

Paymentech Records - Field Assignments

A variety of different records potentially may be output to be submitted to Paymentech. For the P/I system, the following records are output:

Record ID Prefix	Record Name	Comment	
PID=	Batch Header Record		
M	Merchant Descriptor	Not used by the P/I system	

S	Detail WIP Item with Action Code "DC" (or "RF" for refunds)	1 set of PP1/ PP2 records for each P/I WIP Charge	For each Invoice
PPC-001	Procurement Level 2 Customer Reference/Sales Tax		
PP0-001	Procurement Level 3 Visa Charge Record 1		
PP1-002	Procurement Level 3 Visa Detail Record 1		
PP2-002	Procurement Level 3 Visa Detail Record 2		
LA	Card Holder Bill-To Address		
B RECS=	Batch Totals		
T RECS=	Totals		
PID=	Trailer		

9.9.14.13 About Paymentech XML Invoices

Chase Paymentech Solutions, LLC., offers a Batched XML Interface for merchants and vendors who want to use their payment processing services. This format was designed to give great flexibility to users when transmitting data by using extension and product records related to specific methods of payments and products. Files are generated as XML files and is referred to as the Orbital Gateway Batch XML Interface.

The implementation used in Series 5 generates XML files for submission into the **Orbital Gateway Batch SFTP Internet Interface through the Salem platform.** The Salem platform, sometimes referred to as the Stratus, is targeted to "Card-Not-Present" and larger customers. The other platform is the Tampa or (PNS) platform that is NOT used in Series 5.

Requests for customer payment is done utilizing Customer Profiles. Cardholder information is stored in Chase Paymentech's Orbital Gateway. Rather than maintaining, and passing, credit card information, a token customer reference code is passed.

You may visit www.chasepaymentech.com/payment-gateway/ for more information, or if available refer to the PDF document named **Orbital_Gateway_Batch_XML_Specification.pdf**.

Information Standards for Chase Paymentech

Specifications for Batch processing for the Orbital Gateway is available at at http://www.chasepaymentech.com/payment-gateway/

With respect to the P/I system, there are number of points that must be noted when generating Visa charged Invoices for submission to applicable customers:

- The values of all XML tags must be left justified without leading spaces or ZEROS
- A maximum of 999,999 charges per file can be processed
- The format of files generated is for Procurement Level 3 for VISA
- For each P/I WIP charge there is one Recap record
- Paymentech charges are derived using information from the Recap records, and the Invoice Item records
- Reference 1 defines the Recap Cost Center that is used to identify the Credit Card Number

Projects that generate LEDES98B invoices must have Invoice Layouts defined as follows:

Field	*Setting*
Multiple Invoices for Project ?	Yes
Separate Invoices by	U - WIP Reference 1 (US Bank)
Invoice WIP Print Option	Reference 1 with Tax
Flag Group Consolidation	Must be NONE
Limit # of Items per Invoice	none
Calculate Allocated Tax to WIP	not applicable
Limit the $ Value of an Invoice	none
Enable the generation of EDI or XML	Yes

⊙ EDI Control - Chase Paymentech XML Properties Sub-Screen

When generating Paymentech XML invoices, the Header ID codes and passwords must be passed, using those assigned for the contract.   These codes must be obtained from Chase Paymentech, and defined to the P/I system within the EDI Control Specs record.

The descriptive properties associated to each Paymentech XML Control Code invoices are maintained by the following screen:

Chase Paymentech XML Controls Screen - Field Definitions

Merchant ID	9(12)
This is the Gateway Merchant Account Number that is assigned by Chase Paymentech. This account number must match that of your host platform. When transmitting XML files to Salem, this is a 6-digit Salem Division Number.	

Merchant Name	X(12)
This field is used for information purposes only, and is otherwise not being used.	

Commodity Code	X(12)
The Commodity Code is used to classify the item that was purchased; and is required for charges to VISA. When submitting charges using Level 2 Line Item Detail, this string is	

passed in the **<PC3LineItem>** tag. Accepted values of this field are defined by VISA.

SFTP User ID & Password	*X(15) & X(15)*

Assigned by Chase Paymentech. These fields are output to the **<userID>** and **<password>** tags found at the beginning of the **<batchFileID>** set of tags.

➖ Chase Paymentech Records - XML Tags Assignments

A variety of different tag sets potentially may be output to be submitted to Chase Paymentech for processing. For the P/I system, the following request elementsrecords are output:

Tag Set	Comment	
<?xml version="1.0" encoding="utf-8"?> <transRequest........>	File Header Request Elements	
<batchFileID> <userID> ....</userID> <fileDateTime> ....</fileDateTime> <fileID> ....</fileID> <version> ....</version></batchFileID>	Holds information about the company submitting files to Chase Paymentech	
<newOrder BatchRequestNo="nnnnnn"> <industryType> ....</industryType> <bin> ....</bin> <cardBrand> ....</cardBrand> <useCustomerRefNum> .....</useCustomerRefNum> <PC3Core> <PC3FreightAmt>> ....</PC3DiscAmt> <PC3LineItemCount>> ....</PC3LineItemCount> <PC3LineItemArray>		New Order Request Elements (For each Invoice)
<PC3LineItem> <PC3DtlIndex> .....</PC3DtlIndex> <PC3DtlDesc> ......</PC3DtlDesc> <PC3DtlProdCd> ...</PC3DtlProdCd>	Level 3 Detail Line Items (one for each P/I WIP	

```
         <PC3DtlQty>  .........</          Charge )
PC3DtlQty>
         <PC3DtlUOM> .......</
PC3DtlUOM>
         <PC3DtlTaxAmt> ...</
PC3DiscAmt>
                . . . . . . .
                . . . . . . .
         <PC3DtlUnitCost> ...</
PC3DtlUnitCost>
         <PC3DtlDebitInd> ....</
PC3DtlDebitInd>
            </PC3LineItem>
```

```
     <PC3LineItemArray>
   </PC3Core>
   <retryTrace> .......................</retryTrace>
   <sDMerchantName> ..........</sDMerchantName>
  </newOrder>
```

```
<endOfDay BatchRequest="nnn">       Batch Close Request
   <bin> ....................</bin>       Elements
   <merchantID> .......<merchantID>
   <terminalID> ..........</amount>
<endOfDay .......>
```

```
</transRequest>
```

9.9.14.14 Custom Character-Delimited Text Invoices

This type of EDI Layout is designed for specific customers to which assorted character-delimited EDI Invoice files are to be generated.

Customized EDI Layouts

Unless a given customer's definition matches that of any of those currently offered, it will be necessary to have Sentinel Hill Software Inc. revise the P/I System for the desired field layouts.

For each customer requiring customized EDI Invoices that are output as a specific character delimited ASCII text, a customized format is offered.
In each case, the fields of data presented might be thought of as a column of information, separated by a designated character.

Currently the following formats are offered:

Customer	Field Delimiter	Notes
Goodwin & Procter, LLP	" | "	• A custom format made up of an Invoice Summary Line, (indicated by the "#" character, and Detail lines as needed, (indicated by the "D" character. • There are NO headers
Mayer, Brown, Rowe & Maw, LLP	" | "	• A custom format made up of an Invoice Summary Line, (indicated by the "#" character, and Detail lines as needed, (indicated by the "D" character. • There are NO headers
Masuda, Funai, Eifert & Mitchel, Ltd.	" | "	• Is a a custom variation of the LEDES 98b format, with only a limited # of fields being output • There is a one header line output.
Proskauer & Rose,LLP	" ~ "	• Is a totally unique custom format consisting of a single text line for each invoice. • There are NO headers
Sidley & Austin, LLP	" , "	• Is a totally unique custom format. • For each set of invoices generated, there is both an Invoices Summary file and a Invoices Detail file. • The Invoices Summary file provides a sub-total of invoices for each Customer, and a Grand Total line. • The Detail file lists each charge for the Invoices generated. • For each file, there are headers
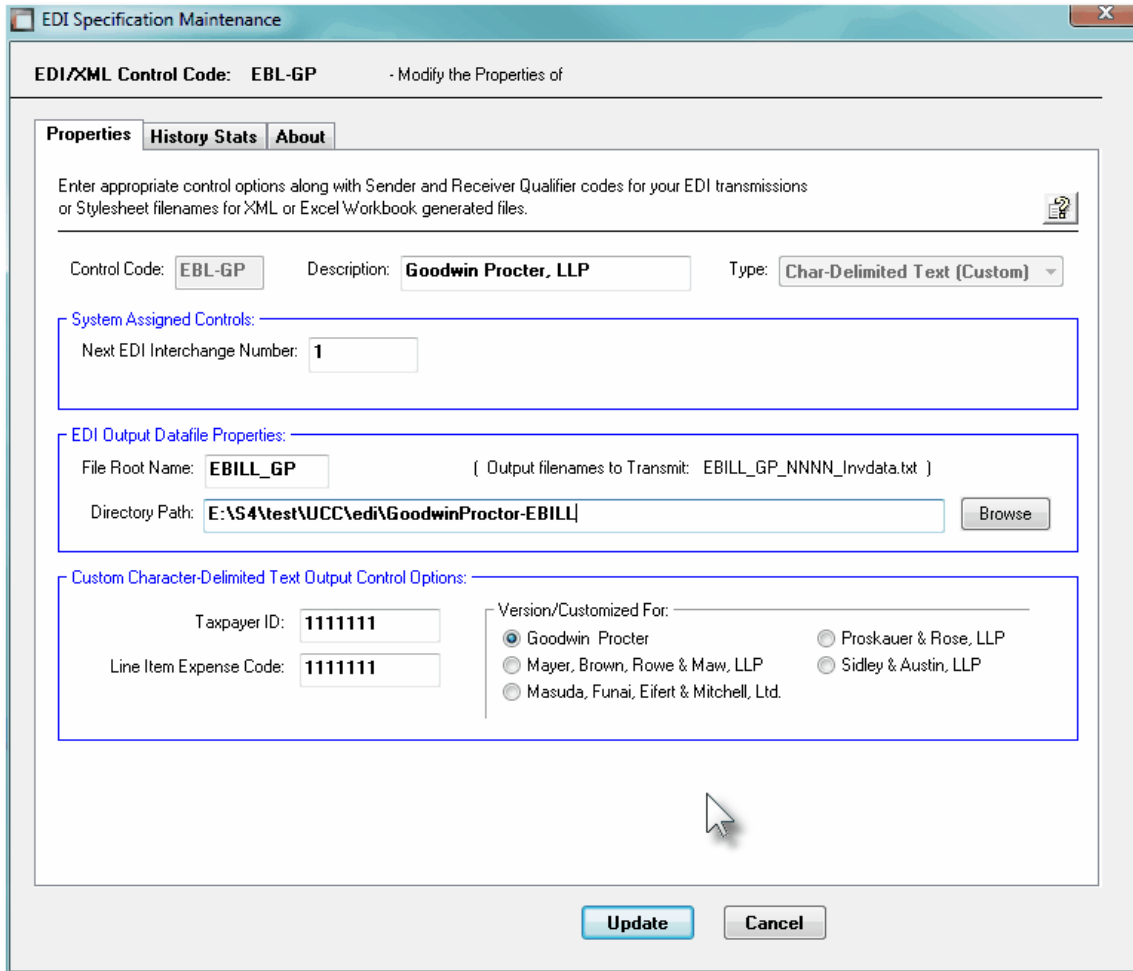
Projects that generate these Custom Formatted ASCII Text invoices must have Invoice Layouts defined as follows:

Field	Setting
Multiple Invoices for Project ?	Yes
Separate Invoices by	L - WIP Reference 1
Invoice WIP Print Option	Task or Employee Name
Flag Group Consolidation	Must be NONE
Limit # of Items per Invoice	none
Calculate Allocated Tax to WIP	not computed

Enable the generation of EDI or XML	Yes

● EDI Control - Custom Character Delimited Format Properties Sub-Screen

The descriptive properties associated to each of these Custom Control Code invoices are maintained by the following screen:

━ Custom Character Delimited Controls Screen - Field Definitions

Taxpayer ID	*X(12)*
This field is provided to enter a unique Tax ID code if required by the customized layout	

Line Item Expense Code	*X(12)*
This field is provided to enter a unique Line Item Expense Code if required by the customized layout	

Version/Customized For:	*radio-buttons*

Different layout are set up for different companies. Select the Company for which the EDI Control Code is being defined for.

⦿	Goodwin Procter, LLP
◯	Mayer, Brown, Rowe & Maw, LLP
◯	Masuda, Funai, Eifert & Mitchell, Ltd.
◯	Proskauer & Rose, LLP
◯	Sidley & Austin, LLP

9.9.14.15 About BB & T Invoices

This topic is not yet completed.

9.9.14.16 About LaSalle Excel Invoices

This topic is not yet completed.

9.9.14.17 About Riemer Invoices

This topic is not yet completed.

9.9.14.18 About Wilmington Trust Invoices

This is a custom EDI file, that is developed specifically for Wilmington Trust.   Each invoice generates a single Excel worksheet, itemizing the detail charges on each row.

Blank Excel Spreadsheet

Each Invoice generated produces a separate Excel spreadsheet. Initially, a blank spreadsheet, that has been formatted with the appropriate codes, is used when recording the individual charges. At the time of this writing, it resides on the Plano Management PC in **P:\ausi_data\edi\wilmington** named **Blank_WILMTRST_Invoice.xls**.

With respect to the P/I system, there are number of points that must be noted when generating the Wilmington Trust Invoices:

- When generating Invoices, P/I should be executed as a FAT client on a PC system, so the Excel spreadsheet will be created directly into Excel
- A separate invoice is generated for each P/I Project
- Each PI invoice line item record is a sub-total of all the WIP charges having the same Bill-Code found in the Reference-1 field
- Each Bill-Code represents one of their approximately 75 lenders, each with a unique Cost Center #.
- Individual items on the EDI invoice are built directly from each PI Invoice line item

record, which is a sub-totalling line.
- There is only one Recap charge record for each WIP record, (*although they are not used to build the EDI invoice*).
- The last 4 digits of the Bill-Code, found in the WIP's Reference field, is used as the Cost Centre which is appended to "**01013686302**" which is output to column H of the spreadsheet.

Projects that generate Wilmington Trust invoices must have Invoice Layouts defined as follows:

Field	*Setting*
Multiple Invoice, EDI or Grouped SubTotals ?	Yes
Separate Invoices by	B - Project / Reference 1
Invoice WIP Print Option	Reference 1 with Tax
Flag Group Consolidation	Regardless of Flag, sub-total by Reference Bill-Code
Limit # of Items per Invoice	No limit
Calculate Allocated Tax to WIP	Computed and printed as a Sub-Total in own Tax column
Enable the generation of EDI or XML	Yes

⊕ EDI Control - Wilmington Trust Properties Sub-Screen

When submitting EDI invoices to Wilmington Trust, there are no special properties, other than the default root name of the Excel spreadsheet, and the directory path where it is created. The following screen is displayed:

9.9.15 Employee Rate-Group Codes Maintenance

The Professional Invoicing Employee Rate-Group Codes are used to categorize and group employees, or machines, that will be recording activity to different Projects.

The Series 5 P/I system provides the ability to establish special billing rates and/or the definition of special G/L Revenue accounts that may be assigned. These Special Rates [671] and Special Accounts [677] may be created for groups of employees belonging to specific Employee Rate-Groups.

The Employee Rate-Group Codes defined here are listed in the Series 5 Employee Rate-Group Code LOV Lookup [102] window.
The Employee Rate-Group Codes Maintenance function is accessed from the P/I Main menu, by selecting **Employee Rate-Group Codes...** from the **Codes Maintenance** drop-down menu.

⊙ Employee Rate-Group Codes Maintenance Grid

Employee Rate-Group Codes are maintained using a Series 5 grid processing screen.
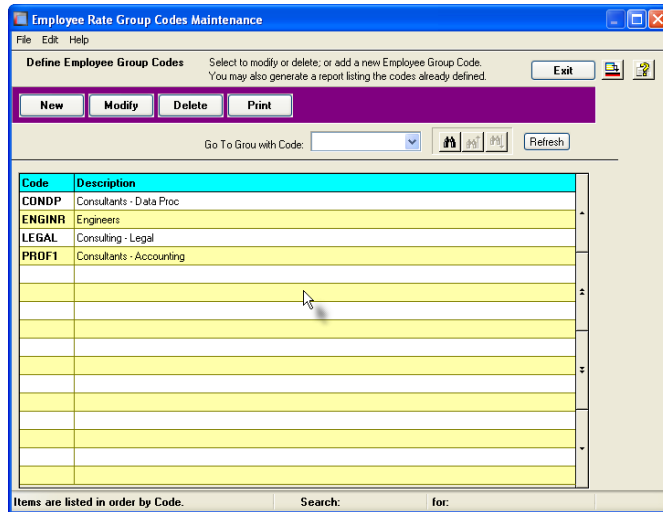
	"Fast Buttons"
New	Add a new Employee Group Code
Modify	Modify the Employee Group Code highlighted grid
Delete	Delete the Employee Group Code highlighted grid
Print	Generate a report list Employee Rate-Group already on file

Edit an existing Employee Rate-Group Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

The report listing the Employee Rate-Group Codes on file, if archived, will be catalogued with a report name of **PI_EMPGROUP.LST**.

Employee Rate-Group Code - Properties Screen

The properties for each Employee Rate-Group Code are defined with the following screen:

Field Definitions

Employee Rate-Group Code	X(6)
This is the alphanumeric code assigned to the Employee Rate-Group. Enter this code when a Employee Rate-Group code needs to be used within the Professional Invoicing system.	

Description	X(24)
Is a description of the Employee Rate-Group. This is printed on most reports, and is displayed to most screens where the Employee Rate-Group Code is utilized.	

9.9.16   Assign Valid Projects to Employees

The Series 5 Professional Invoicing system provides the ability to accumulate charges against a given Project. These are typically recorded as WIP items using the Employee Timesheet Entry [263] operation. If you have a lot of Projects and/or Tasks, and wish to either streamline the time entry function, or restrict which Projects and Tasks an employee can record time against, you may set up those Projects using this maintenance routine. Should

you have employees that need the ability to enter time-sheet activity over the internet, assigning Projects and Tasks to those employees makes it easier for them, as the assigned Projects and Tasks will be presented to them in a drop-down list.

Some of the features associated to the assignment of Projects and Tasks to Employees in the P/I system are as follows:

- One or more Projects may be assigned to each Employee

- Optionally, up to 50 Tasks may be assigned to each Project that is assigned to an Employee.

- The assignment of a Project to an Employee can be either indefinite, or up until a specific date.

- If any Projects are assigned to an Employee, then when time-sheets are entered, only those assigned Projects may be selected. They are presented in a drop-down list.

The Series 5 Professional Invoicing system offers a function that will generate a spreadsheet for each employee pre-listing potential time sheet activity to be recorded. A number of standard entries are created assigned to a specific administrative Project, but as well, entries for the Projects and Tasks that are defined by this maintenance function are also created. This time-sheet spreadsheet is then automatically emailed to each employee. The spreadsheet may then be edited as required, and emailed back. An associated function, that may be executed, will read the returned emails from employees containing the completed time-sheet spreadsheet as an attachment. *(See the topics titled* Email Blank Employee Timesheets 299 *and* Load Timesheets from Employee Emails 305 *for more information).*

The Employee Assigned Projects Maintenance function is accessed from the P/I Main menu, by selecting **Employee Assigned Projects...** from the **Codes Maintenance** drop-down menu.

Employee Assigned Projects Maintenance Grid

The Assignment of Projects to Employees is a function maintained using a Series 5 grid processing screen.

"Fast Buttons"	
New	Add a new Project to Employee
Modify	Modify the properties the Employee assign Project that is highlig in the grid
Delete	Delete the Employee assigned Project tha highlighted in the grid
Print	Generate a report lis the Projects that hav been assigned to Employees
Import	Load Assigned Emp Projects from a spreadsheet
Export	Export Assigned Employee Projects t spreadsheet

After selecting the applicable Employee, or Project, edit an existing assignment by double-clicking it's associated row.   Standard Series 5 grid controls apply.

Some of the special features of this "Inquiry" grid are as follows:

➢ A given Employee or Project may be chosen either by entering their Employee or Project Code, choosing it using the Lookup binoculars icon, or by having the next or previous code displayed that has an assignment defined. *(Click the binocular icon with the up/down arrow to display transactions that exist for the prior/ next occurrence of that code on file)*.	
➢ The option to **List By** provides the ability to browse through the assignments either showing	

Projects associated to a selected Employee, or showing those Employees to which a selected Project has been assigned to.	List by: Employee / Project ▼ - Employee / Project Project / Employee
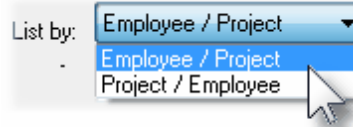
The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

The report listing the Projects and Tasks that have been assigned to each Employee on file, if archived, will be catalogued with a report name of **VALID_EMPLPROJ.LST**.

◉ Employee Assigned Projects - Properties Screen

The properties for each Project that has been assigned to an Employee are defined with the following screen:

Employee Assigned Projects Maintenance

Employee Code: **100CCR**   **for Project:**   **101341**   - Modify the Properties of

For a given Employee, select those Projects, (and as an option Tasks), that he/she are allowed to record WIP activity against in their timesheets. Up to 50 Tasks may be assigned to each Project.

Employee Code: **100CCR** 🔍   **CTY COURT RECORDS-REMOTE**

Project Code: **101341** 🔍   **DEWEY BALLANTINE**   Billing Status: **Active**
    Customer: **101341**   **DEWEY BALLANTINE**
       LOS ANGELES, CA   (213) 626-3399

Enable Use of this Project:
- ◯ Always
- ⦿ Up Until and Including   **7/31/11** 📅

Tasks Used with this Project:
- ◯ Any Task may be Used
- ⦿ Only Selected Tasks

☐ Restricted Use of this Project, and Tasks, is applicable ONLY for Web based Timesheet entry

Tasks to be Used with this Project by this Employee (Max of 50):

Task	Description	Use Cnt	Last Used
A101A	PMSA UCC Filing/No Search/No N	0	
A101T	PMSA Base Filing Pkg/New Acct-	0	
A102	PMSA Base Filing Package	1	7/15/11
A103A	Signed PMSA / No Search / No N	0	
A104	New Acct. PMSA Filing Package	0	
A106	PMSA Filing Pkg. With Personal	0	

Employee/Project Usage Stats:
   Last Useage: **7/15/11**
   Last Useage WEB:
     WIP Count: **1**

[**Update**]   [**Cancel**]

Field Definitions

Employee Code	*X(6)*

Select the P/I Employee Code to which Projects are to be assigned.

Project Code	*X(6)*

Select the P/I Project Code to be assigned to the selected Employee. When entering time-sheets for this employee, this Project will be presented in a drop-down list.

Enable Use of Project	*radio-buttons & mm/dd/yy*

If you wish to specify a Date Limit up to which this Project may be recorded on the employee's time sheets, click the appropriate button, and enter a date. When entering the time-sheet, the WIP Transaction Date is tested against the cut-off date entered here.

Task Used with this Project	*radio-buttons*

If you wish to assign specific Task Codes that are permitted to be entered on the employee's time sheets when the associated Project is selected, set the *Only Selected Tasks* radio-button. Then double-click in the drop-list table to choose up to 50 Task Codes that apply.

Restricted Use ONLY for Web Entered Time-sheets	*check-box*

If you wish to limit the use of this Project, and Tasks, by this Employee ONLY when Time-Sheets are entered through the company's web-site, set this check-box. If not checked then the use of this Project and Tasks is valid both for Website entry, and normal terminal Time-Sheet entry.

Task to be Used with Project by the Employee	*table*

To add or remove Tasks that are to be the only ones that can be recorded against the selected Employee and Project, double-click any part of the table. A Select Task(s) window 150 will be displayed from which specific Tasks may be chosen. Only up to 50 Tasks may be selected. When entering time-sheets for this employee, selected Tasks will be presented in a drop-down list.

9.9.17 Invoice Group Codes Maintenance

The Professional Invoicing Invoice Group Codes are used to categorize and group tasks that will be recording activity to different Projects.

For a given Task Code, it might be associated to a particular Invoice Group, and an Invoice Section. When generating invoices for a particular Invoice Layout, items may be grouped and listed with sub-totals for an Invoice Section. Invoice Sections are just Invoice Groups that are used as a means for providing two levels of grouping on Invoices.

The Series 5 P/I system provides the ability to establish special billing rates and/or the definition of special G/L Revenue accounts that may be assigned. These Special Rates [671] and Special Accounts [677] may be created for groups of Task belonging to specific Invoice Groups.

Invoice Groups may be used within the Professional Invoicing system assigned to the following codes and/or are used as follows:

- Invoice Section Codes and Invoice Group Codes are assigned to each P/I Task code
- Invoice Group Codes may be assigned to P/I Employee codes
- Special Rates may be created for Invoice Groups
- When the G/L Revenue account is assigned to chargeable WIP items, it could be derived either from the Invoice Section or the Invoice Group
- When the G/L Cost account is assigned to WIP items, it could be derived either from the Invoice Section or the Invoice Group
- Invoices may be generated with sub-totals for charges for Tasks associated to Invoice Sections and Invoice Groups
- Project Budgets may be maintained for each Invoice Group

The Invoice Group Codes defined here are listed in the Series 5 Invoice Group Code LOV Lookup [102] window.
The Invoice Group Codes Maintenance function is accessed from the P/I Main menu, by selecting **Invoice Group Codes...** from the **Codes Maintenance** drop-down menu.

> ⮕ Invoice Group Codes Maintenance Grid

Invoice Group Codes are maintained using a Series 5 grid processing screen.
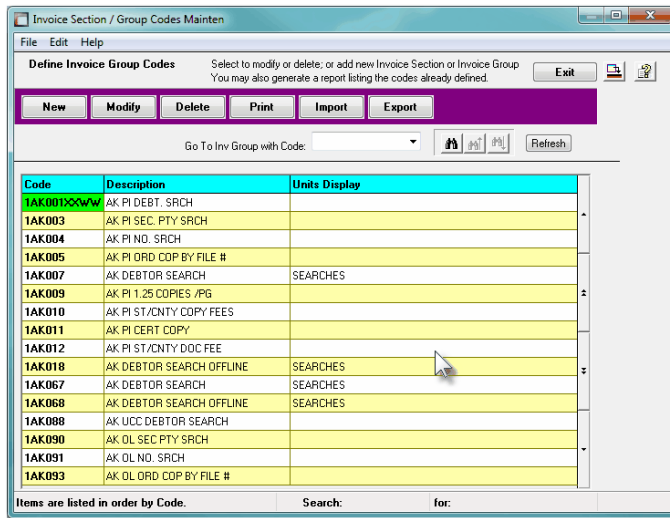
"Fast Buttons"	
New	Add a new Invoice Gr Code
Modify	Modify the Invoice Gr highlighted in the grid
Delete	Delete the Invoice Gr Code highlighted in th
Print	Generate a report list Invoice Group Codes on file
Import	Load Invoice Group (from a spreadsheet
Export	Ouptut Invoice Group to a spreadsheet

Edit an existing Invoice Group Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

The report listing the Invoice Group Codes on file, if archived, will be catalogued with a report name of **PI_INV_GROUP.LST**.

Invoice Group Code - Properties Screen

The properties for each Invoice Group Code are defined with the following screen:

Field Definitions

Invoice Group Code	X(10)
This is the alphanumeric code assigned to the Invoice Group. Enter this code when an Invoice Group code needs to be used within the Professional Invoicing system. Note that Invoice Groups are also used to define any Invoice Sections that are utilized. **_(They are stored as Invoice Groups, but where reference, are treated as an Invoice Section)._**	

Description	X(24)
Is a description of the Invoice Group. This is printed on most reports, and is displayed to most screens where the Invoice Group Code is utilized. Invoices may be generated using a variety of different formats. Depending on the sorting and/or grouping option for a particular Invoice Layout, items are grouped by Invoice Section or Invoice Group Codes. This description will appear as invoice section sub-headings where applicable.	

Invoice Group Display Units	X(14)
Depending on the sorting and/or grouping option for a particular Invoice Layout, items are	

grouped by Invoice Section or Invoice Group Codes. This description will appear as the literal following any units totals that are reported on invoices where applicable.

Invoice Group Revenue Account   *9(18) - 9(5)*

The Revenue associated to Work-In-Progress activity may be recorded in the General Ledger System to an account that is derived from a number of different sources. If the system has determined that Revenue for a specific set of tasks, or an Invoice Group, are to be charged to a specific G/L Cost Account, enter that cost account number in this field.

Cost Distribution Account   *9(18) - 9(5)*

The Costs of Work-In-Progress activity may be recorded in the General Ledger System to an account that is derived from a number of different sources. If the system has determined that Costs for a specific Invoice Group are to be charged to a specific G/L Cost Account, enter that cost account number in this field.

✤ Invoice Group Codes Import/Export Data Formats

For Invoice Group Codes that are imported or exported, the following fields are input/output from/to an Excel spreadsheet, a tab-delimited text file, or a CSV text file. The default filenames are either **PI_InvGroups_In.XLS** or **PI_InvGroups_Out.XLS.**

Column #	*Excel Column*	*Field*	*Format*
1	A	Task Code	X(10)
2	B	Description	X(24)
3	C	Display Units	X(14)
4	D	* Revenue Account - Main Segment 1	9(i)
5	E	* Revenue Account - Main Segment 2	9(i)
6	F	Revenue Account - Profit Center	9(5)
7	G	* Cost Account - Main Segment 1	9(i)
8	H	* Cost Account - Main Segment 2	9(j)
9	I	Cost Account - Profit Center	9(5)

* Each segment of the G/L Account's Main number is output into it's own column.

9.9.18   Invoice Layout Codes Maintenance

The Series 5 P/I system provides the capability to have Invoices generated using a variety of different formats, and sub-totalling options. The assorted rules for defining how these variations of invoices are built are defined in an Invoice Layout record.   In order to apply any of the special rules for invoicing, you must set up a Layout and assign it to those P/I Projects for which it is to apply.   If you do not assign an Invoice Layout to a Project then a default set of rules will be applied when it's invoices are created and printed.

Using Invoice Layouts

For those customers who have Projects that generate EDI invoices, or that have peculiar sorting, or that have multiple Invoices generated for each Project, it is important that the correct settings are made, and that the Invoice Layout is defined in the Project's properties.
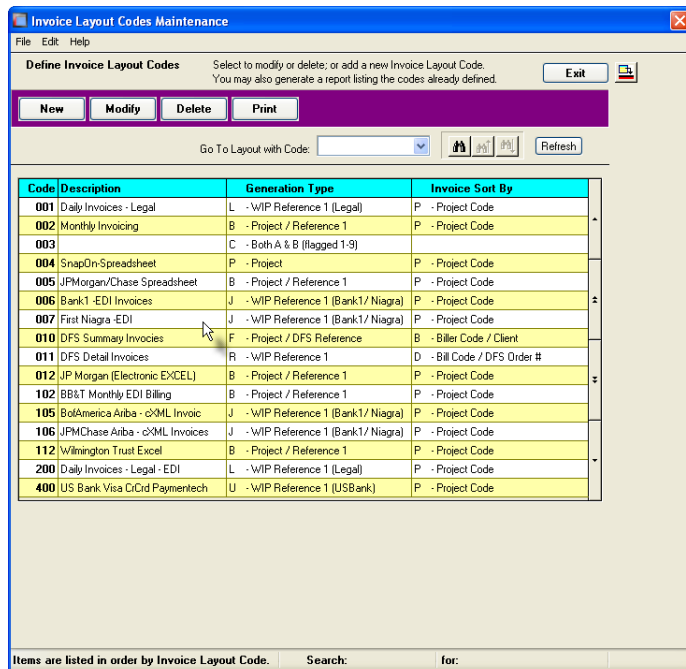
For Projects that have invoices generated as EDI invoices, a Layout must still also be defined.

A given Layout is also required to define the properties associated to On-Demand Invoices. An Invoice Layout is assigned to each On-Demand Control Set. All requests for On-Demand Invoices that are serviced by that Control Set will be automatically generated based on the rules defined by the assigned Layout, *(even if it is different from the Layout assigned to the Project).*

9.9.18.1 Invoice Layouts Grid Screen

Invoice Layouts are maintained using a Series 5 grid processing screen.

Edit an existing Layout Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

9.9.18.2 Invoice Layouts Properties Screen

The Invoice Layout is used to define how the Customer Invoices are generated for each Project. Assigning the correct properties is critical to having the invoices prepared to suite the requirements of the customer's payable departments.

The Invoice Layout dictates the following characteristics of invoices:

- For a given Project, whether multiple Invoices are created. (ie., separate invoices for work performed by each Employee, Department, Task Types, or Reference Billing Codes)
- When printed, how the Invoices are sorted
- The title(s) that are printed
- How detail charges are printed. (ie., in detail, or grouped, or sub-totalled, or summarized)
- What type of description is printed. (ie., Employee name, task description, the WIP Reference, or combinations of)
- Whether there is a limit to the number of charges that can be listed on a single invoice
- How tax is computed and presented

- Whether or not a paper, or an electronic Invoice, (EDI), is generated
- Whether each Invoice is generated as a separate document, or one document is generated containing all invoices produced from the Invoicing Wizard or the Print/Post Final Invoices function

Some points to note when setting up an Invoice Layout:

- The most critical property associated to an Invoice Layout is to define how invoices are generated. That is whether Multiple Invoices per Project are generated, whether EDI invoices are generated, and whether or not charges are sub-totaled or consolidated.
- Whether Invoices are generated separately or as a Set
- If EDI Invoices are required for a Project, an Invoice Layout must be set up, along with an EDI Specification.

The properties associated to each Invoice Layout are maintained by a screen that offers two tabbed sub-screens.

Invoice Layout - Generation and Output Options Screen

The properties associated to each Invoice Layout with respect to the generation and output of Invoices is offered in the following screen:

Invoice Layout Generation and Output Properties Screen - Field Definitions

Invoice Layout Code	*999*
This is the code that is used to identify the Invoice Layout. This is the code that is entered and carried in the assorted Series 5 data records.	

Description	*X(30)*
The description is displayed for verification, and in the LOV when invoked.	

Build Multiple Invoices, ... For this Project ?	*check-box*
Set this check-box if defining a Layout to be used for invoices with the following features:	

- Multiple Invoices are generated for a single Project
- EDI Invoices are generated as well, or instead of paper invoices
- The Layout is used for defining properties of On-Demand Invoices
- WIP charges are grouped and/or sub-totalled by a Billing Code associated to the Reference

(Setting this check box enables the drop-down list, from which the applicable Generation Type must be selected).

For a Given Project, Separate Invoices for Each   *drop-down list*

This property is used to determined the type of invoices that are to be generated. In particular, this defines whether or not multiple invoices are generated for a single Project, and what criteria is used in grouping and printing the charges.

Even if a single invoice is generated for each Project, you may need to select the appropriate Generation Type code.

```
P - Project
E - Employee
D - Department
I - Invoice Group
S - Invoice Section
A - WIP Reference 1 / WIP Date
B - Project / Reference 1
C - Both A & B (flagged 1-9)
F - Project Reference 1 / Desc
J - WIP Reference 1 (Bank 1/Niagra)
U - WIP Reference 1 (US Bank)
L - WIP Reference 1 (Legal)
W - WIP Reference 1 (Multi-Client)
T - Project (Task/Rate Sub-Totals)
O - On-Demand by Order# / WIP Desc
```

Invoices Sorted By   *drop-down list*

This property determines the order in which the invoices are generated and printed. They may be sorted based on a variety of different fields. *(WIP items are sorted based on this selection when they are selected to be billed, therefore this option must be established before the billing process)*

```
Project Code
Project Description
Biller Code / Client Name
Project Leader
UCC'S ACC #
Biller Code / DFS Order #
```

Note on Sorting

Notice that the sort options are associated to the Invoice layout. You may assign different Layouts to different Projects, and it is possible that for a given invoice run, different types of invoices will be printed. This sort option is meant to be applied to all Projects that used the same Invoice Layout. Keep in mind that for a given Project, depending on the Layout Type, multiple invoices could be generated.

If you wish to make sure that only those invoices for Projects associated to particular Layouts are generated together, you could enter an Invoice Layout code on the Project Selects filter screen of the Generate Invoices function.

Enable generation of EDI or XML Invoices   *check-box*

If invoices produced as defined by this Layout are to be generated as data files, for EDI or XML, set this check-box.

Warning

If an EDI Control Specification has been assigned to a Project, but this check-box is not set, an EDI/XML file WILL NOT BE CREATED. This check-box must be set.

Invoices are Generated As ?	*radio-buttons*

The Invoices that are generated, when invoked using this Wizard, may be created as individual documents, or as a single document holding all invoices. It depends whether the invoices are to be emailed individually to each Customer, or just printed as a set, and distributed using traditional "snail" mail.

- ◉ As a Set Within a Single File
- ○ Each as a Separate Document

The same option is offered with each Invoicing Wizard Control Code. If defined there, then the rule associated to the Invoice Wizard is employed.

Invoices are Output To, or Created As	*radio-buttons*

When the Invoices associated to this Invoice Layout are produced, they can be output as a PDF, an MS Word document that is automatically printed, or not; or as an ASCII text file.   If the previous setting was for "**A set Within a Single File**", then they may also just be output directly to a selected Series 5 printer queue. Set the radio-button for the desired results.

Output To, or Created As:
- ○ PDF Document(s)
- ○ Specified Printer Queue
- ○ not applicable
- ○ MS Word 2003 Document(s)
- ○ MS Word 2003 (Printed)
- ◉ MS Word 2007/2010 Document(s)
- ○ MS Word 2007/2010 (Printed)

MS Word Template File Override	*X(30)*

When invoices are to be output as MS Word or PDF documents as "A Separate Document", you may define the name of the MS Word Template that is to be applied when the invoice document is created. If left blank, then the template that is defined by the MSWORD-PI-INV-SPECS variable, found in the runtime configuration file, is used.

Have Invoice(s) Archived ?	*check-box*

If the generated Invoices are to be also saved as a Series 5 "Archive", then set the check-box. Note that if this option is selected, then a separate Archive file will be produced for each invoice.

Email Invoices to Eligible Customers ?	*check-box*

When generating Invoices as PDF or MS Word Documents, as an option, you may also have each one emailed to the customer. Note that they will be emailed only if an email address is provided for the Customer, and the Customer has it's applicable property set to allow emails to be sent.

Output Invoice Index Info File ?	*check-box*

As an option, when generating Invoices as PDF or MS Word Documents, a text file will be generated for each invoice. This will contain a list of the Billing Order Number and Order Lines that individual charges were originally associated with.

Output Folder for Invoice	*X(120)*

When generating Invoices as PDF or MS Word Documents, this is the directory in which those invoice documents will be created.

Output Filename(s) Prefix	*X(10)*

When generating Invoices as as PDF or MS Word Documents, they will be assigned filenames in the following formats:

PPPPPPPPPP_99999999_CCCCCC.INV.EXT

Where the following codes are used:

PPPPPPPPP - is the Prefix that is defined by the field
P
99999999   - is the Invoice Number
CCCCCC   - is the Customer Code
.EXT   - is the extension as determined by the type of file.
                      (ie., .PDF, .DOC or .DOCX)

If the Prefix field is left blank, then the system assigns a prefix of the letter "**I**"

When an Index Info file is also created with each invoice, it will have the following name:.

PPPPPPPPPP_99999999_CCCCCC-Idx.TXT

🔵 Invoice Layout - Formatting of Detail/Summary Charges Options Screen

The properties associated to each Invoice Layout with respect to how detail or summary charges are output within the body of the Invoices is offered in the following screen:

Invoice Layout Formatting of Detail/Summary Charges Properties Screen - Field Definitions

WIP Detail Items Descriptive Text	*drop-down list*
For invoices that are printed with the WIP detail to be listed, this option indicates what text is to be printed. *(Note that this option is not applicable to EDI generated invoices).*	

Print WIP Task Description Override Option	*check-box*
This property is applicable when invoices are printed in detail, with the Task Description being output for each charge. If this check-box is set and the WIP item's Task	

Description Override field had been populated with text, then it will be printed instead of the Task Description.

For Detail Formats, Also Print the Following   *check-boxes*

For invoices that are printed with the WIP detail to be listed, this option indicates what text, in addition to that selected in the previous option, is to be printed. The selected fields are printed on extra lines for each detail WIP charge printed. *(Note that this option is not applicable to EDI generated invoices).*

Type "B" or "C" Flagged Group Consolidation   *radio-buttons*

These radio-buttons are offered only when the Layout is defined for Generation Types "B" or "C".

WIP charges may be recorded into the P/I system with a Consolidation Flag. This is a 1 character field that can take a value of **D**, **F**, or a number from **1, ... 9**.   Depending on the options specified, all WIP charges may be grouped and sub-totalled by their Consolidation Flag. All WIP having the same Consolidation Flag are grouped together.

As an additional option, the WIP within each Group will be sorted by the WIP Reference field. In some cases, the Reference field holds an individuals's name, or a Billing-Code. All charges with the same Reference field would be sub-totalled and printed as one line on the invoice.

⊙ None	No consolidation is performed. Each WIP charge is printed in detail
○ Sum items within a Group printed as a total	All the charges with the same Consolidation Flag are sub-totalled and printed as one line.
○ WIP for a Group are sub-totalled by Reference	All the charges with the same Consolidation Flag are sub-totalled by their WIP Reference field. An additional sub-total is printed for each Consolidation Group.
○ Sub-Total by Reference Bill-Code	All the charges with the same Bill-Code, that is determined from the WIP's Reference field, are sub-totalled and printed. When selected, you must also specify which portion of the Reference field is to be used as the Bill-Code. (The Consolidation Flag is not used in this case).

Consolidation Flags in the Configuration File

Using type B or C Invoice Layouts with Consolidation Flags requires the definition of up to 9

variables in the runtimes Configuration file. Each variable is associated to the 9 numeric values that the Consolidation Flag may take. The variable is defined as follows:

PI-INV-DESCn <flag> <description text>

where:

- **n** is the value 1 - 9;
- **<flag>** will be either an A or a B indicating the Generation Type rule to be used, (or ignored for the B layouts);
- **<description text>** will be printed as the description on the invoice for the consolidated total of all items flagged with **n**.

Portion of WIP Reference used as the Bill Code	*radio-buttons*

These radio-buttons are offered only when the Layout is defined for Generation Types "B" or "C", and when the option to sub-total WIP by the Reference Bill-Code has been chosen. Select which portion of the WIP's Reference field is to be used as the Bill-Code.

- ● Entire String
- ○ The first 10 characters
- ○ The trailing 4 characters

Calculate/Print Allocated Tax to WIP	*drop-down list*

If the invoices are to be generated and printed so that tax is computed for each section, when using Generation Types A, B, C or J, this option indicates how the amounts are presented.

```
Not computed
Computed and printed as a Section Sub-Total line
Computed and printed as a Sub-Total in own Tax column
Computed for each WIP/Recap for EDI or total of Invoice
Computed for each WIP/Recap not included in Sub-Totals
```

Project Titles Printed in the Invoice Header	*drop-down list*

Select the the title to be printed at the top of the invoice between the address and the detail charges.   *(Note that this option is not applicable to EDI generated invoices).*

```
Project Description
Title Line 1
Project Desc & 3 Titles
Reference 1
none
```

Bottom of Invoice Comment	*X(35)*

A brief message that will be printed at the bottom of the invoice following the WIP and Disbursement charges.

Limit the # of Line Items per Invoice	*check-box - 9(4)*
For some variations of P/I Invoices, there may be a limit to the number of line items that can be processed. This is the case for a number of different EDI types of invoices, (presumably being processed by ancient EDI systems developed by low-life wanna-be programmers in the 1980's). If this is the case, then set this check-box, and enter the maximum number of charges that can be recorded. If there are more WIP items to be billed than specified here, the system will generate additional invoices as needed.	

Limit the $ Value of an Invoice	*check-box - $ 999,999*
For some variations of P/I Invoices, there may be a maximum $ dollar value limit that an invoice may have, that can be processed. This is the case for a number of different EDI types of invoices. If this is the case, then set this check-box, and enter the maximum $ value an invoice may have. If there are more WIP item charges to be billed than specified here, the system will generate additional invoices as needed.	

9.9.19   Job Class Codes Maintenance

The Professional Invoicing Job Class Codes are used to categorize and group employees, or machines, that will be recording activity to different Projects.

The Series 5 P/I system provides the ability to establish special billing rates and/or the definition of special G/L Revenue accounts that may be assigned. These Special Rates [671] and Special Accounts [677] may be created for groups of employees belonging to specific Job Classes.

The Job Class Codes defined here are listed in the Series 5 Job Class Code LOV Lookup [102] window.
The Job Class Codes Maintenance function is accessed from the P/I Main menu, by selecting **Job Class Codes...** from the **Codes Maintenance** drop-down menu.

Job Class Codes Maintenance Grid

Job Class Codes are maintained using a Series 5 grid processing screen.
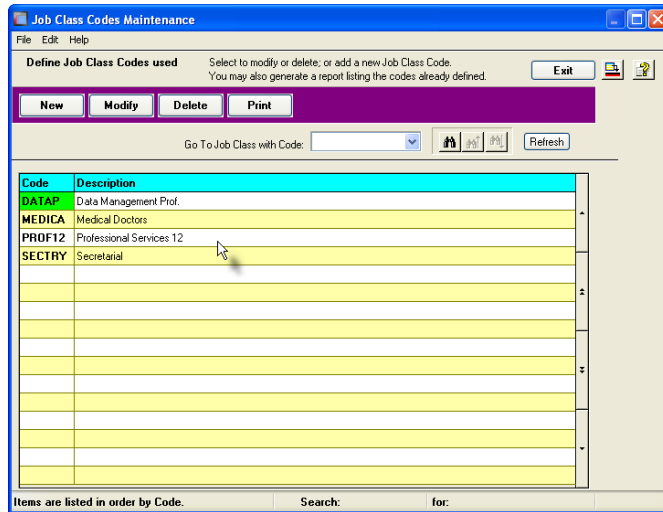
"Fast Buttons"	
New	Add a new Job Class
Modify	Modify the Job Class highlighted in the grid
Delete	Delete the Job Class highlighted in the grid
Print	Generate a report list Job Class Codes alre file

Edit an existing Job Class Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

The report listing the Job Class Codes on file, if archived, will be catalogued with a report name of **JOB_CLASS.LST**.

◯ Job Class Code - Properties Screen

The properties for each Job Class Code are defined with the following screen:

Field Definitions

Job Class Code	X(6)
This is the alphanumeric code assigned to the Job Class. Enter this code when a Job Class code needs to be used within the Professional Invoicing system.	

Description	X(24)
Is a description of the Job Class. This is printed on most reports, and is displayed to most screens where the Job Class Code is utilized.	

9.9.20   Location Codes Maintenance

The Professional Invoicing Location Codes are used to categorize and group employees by location.

The Series 5 P/I system provides the ability to establish special billing rates and/or the definition of special G/L Revenue accounts that may be assigned. These Special Rates 671 and Special Accounts 677 may be created for groups of employees belonging to specific
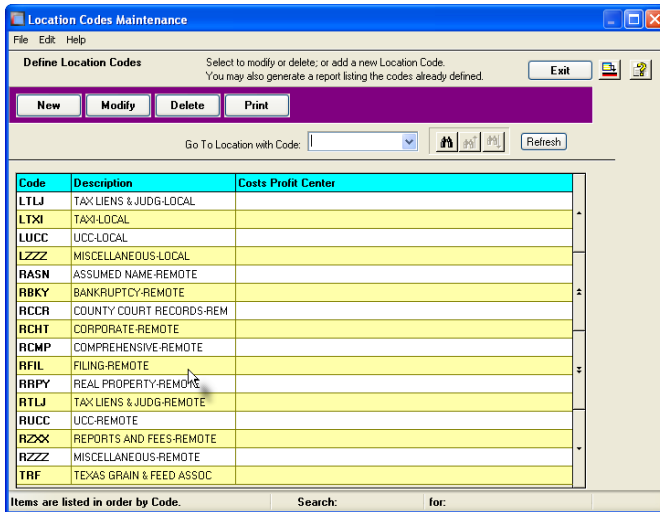
Locations.

The Location Codes defined here are listed in the Series 5 Location Code LOV Lookup 102 window.
The Location Codes Maintenance function is accessed from the P/I Main menu, by selecting **Location Codes...** from the **Codes Maintenance** drop-down menu.

Location Codes Maintenance Grid

Location Codes are maintained using a Series 5 grid processing screen.

Edit an existing Location Code by double-clicking it's associated row. Standard Series 5 grid controls apply.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing 159 for full details).*

The report listing the Location Codes on file, if archived, will be catalogued with a report name of **PI_LOCATIONS.LST**.

Location Code - Properties Screen

The properties for each Location Code are defined with the following screen:

Field Definitions

Location Code	X(6)
This is the alphanumeric code assigned to the Location. Enter this code when a Location code needs to be used within the Professional Invoicing system.	

Description	X(24)
Is a description of the Location. This is printed on most reports, and is displayed to most screens where the Location Code is utilized.	

Profit Center Override	9(5)
Is a description of the Location. This is printed on most reports, and is displayed to most screens where the Location Code is utilized.	

9.9.21   Rate Class Codes Maintenance

The Professional Invoicing Rate Class Codes are used to categorize and group employees, or machines, that will be recording activity to different Projects.

The Series 5 P/I system provides the ability to establish special billing rates, costing rates and/or the definition of special G/L Revenue accounts that may be assigned. These Special Rates [671] and Special Accounts [677] may be created for specific Employees, Tasks, Employee Groups, Invoice Groups, or combinations of these codes.

Using Special Rates, unique cost or billing rates may be created which differ from the standards, as determined by either the Client, Project, Employee or Task records. You will need to establish Special Rates if you wish to define separate billing rates for specific employees. There are four main types of Special Billing Rates which you may define. Task Group, Employee Group, Employee and Employee/Task; and two types of Special Cost Rates: Employee & Task. Depending on the combination of Employee and Task entered on a time-sheet, for a given Project, the Special Rates tables will be examined for an entry which matches the combination. If it exists, that rate is used; if not, the billing rate determined from either the Client, the Project or the Task Record or the cost rate from either the Task or Employee Record will be used.

Additional Special Rate/Cost modifiers allows, the billing rate or cost derived to be adjusted by a given percentage for a specific task.

For a given Project, Special Rates will be looked up using a Rate Class code. Every project must have a Rate Class code defined if it is to make use of the Special Rates tables. A Rate Class might be considered as a column of rates found in an X/Y matrix of special rates.

The Rate Class Codes defined here are listed in the Series 5 Rate Class Code LOV Lookup [102] window.

The Rate Class Codes Maintenance function is accessed from the P/I Main menu, by selecting **Rate Class Codes...** from the **Codes Maintenance** drop-down menu.

  ⊕   Rate Class Codes Maintenance Grid

Rate Class Codes are maintained using a Series 5 grid processing screen.
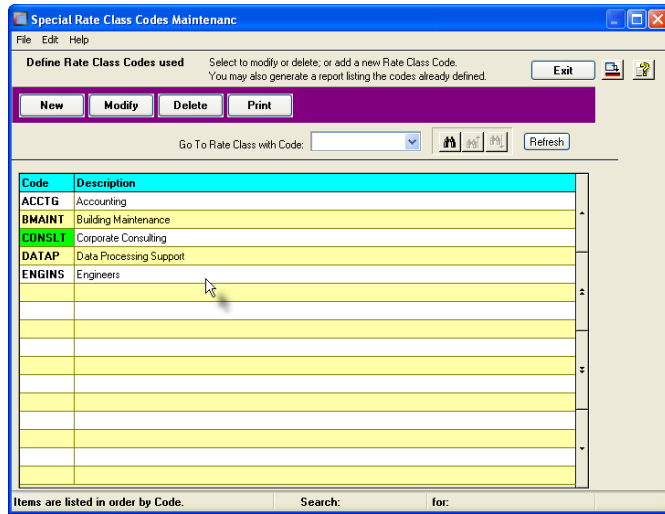
"Fast Buttons"	
New	Add a new Rate Clas
Modify	Modify the Rate Clas highlighted in the grid
Delete	Delete the Rate Clas highlighted in the grid
Print	Generate a report list Rate Class Codes al file

Edit an existing Rate Class Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing 159 for full details).*

The report listing the Rate Class Codes on file, if archived, will be catalogued with a report name of **RATE_CLASS.LST**.

Rate Class Code - Properties Screen

The properties for each Rate Class Code are defined with the following screen:

Field Definitions

Rate Class Code	X(6)
This is the alphanumeric code assigned to the Rate Class. Enter this code when a Rate Class code needs to be used within the Professional Invoicing system.	

Description	X(24)
Is a description of the Rate Class. This is printed on most reports, and is displayed to most screens where the Rate Class Code is utilized.	

9.9.22 Special Rates Maintenance

The Professional Invoicing Special Rates are used to define sets of chargeable and non-chargeable rates for special cases. Using Special Rates you may set up either cost or billing rates which differ from the standard defaults provided from either the Client, Project, Employee or Task property records.

Depending on the combination of Employee and Task for charges recorded for a given

Project, the Special Rates tables will be examined for an entry which matches the combination. If a Special Rate has been set up, then that rate is used. If not, then the billing Chargeable Rate determined from either the Client, the Project or the Task properties record, (or the cost rate from either the Task or Employee Record), will be assigned.

There are five main types of Special Billing Rates which can be defined:

- Tasks % Markups on Default Chargeable Rate
- Invoice Groups (Task Groups)
- Employees
- Employee Rate Groups
- Combination of Employee and Task

Three types of Special Costing Rates can be defined:

- Employees
- Employee % Markups on Default Cost Rate
- Tasks

For the Special Chargeable Rates defined, an Overhead percentage may also be specified.

Employee Chargeout Rates

The Employee Codes properties does not offer a Chargeable Rate field. If each employee is to be charged out at a special individual rate, then a Special Rate must be created either directly for that employee. If a group of employees are all charged out at the same rate, then an Employee Rate Group should be defined, assigned to each employee, and a Special Rate for the group set up.

One of the properties that may be define for a given Project is it's Rate Class Code. If Charge-out Rates, or Costing Rates for activity recorded for a given Project are to be established based on the Special Rates defined by this function, then a Rate Class must be assigned to that Project. All Special Rates are set up for a specific Rate Class. In this fashion, then it is possible to set up entirely different sets of charge out, or cost rates, that may be assigned to different Projects. Testing for the occurrence of Special Rates is always carried out using a Rate Class code. A Rate Class might be considered logically to be similar to a column of rates found in an spreadsheet matrix.

The Special Rates Codes Maintenance function is accessed from the P/I Main menu, by selecting **Special Rates Codes...** from the **Codes Maintenance** drop-down menu.

Special Rates Codes Maintenance Grid

Special Rates Codes are maintained using a Series 5 grid processing screen.

	"Fast Buttons"	
New	Add a new Special R Code	
Modify	Modify the Special R Code highlighted in t	
Delete	Delete the Special R Code highlighted in t	
Print	Generate a report lis Special Rates Code on file	

Edit an existing Special Rates Code by double-clicking it's associated row. Standard Series 5 grid controls apply.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing [159] for full details).*

The report listing the Special Rates Codes on file, if archived, will be catalogued with a report name of **PI_RATES.LST**.

🔵 Special Rates Code - Properties Screens

The properties for each Special Rate for Chargeable rates are basically defined with the following screen. (Depending on the Rate Type selected, slightly different codes fields will be presented):

The properties for each Special Rate for Costing rates are basically defined with the following screen. (Depending on the Rate Type selected, slightly different codes fields will be presented):

Special Rates Maintenance

P/I Special Rate Type: TC   - Modify the Properties of

Special unit Cost or Charge-Out rates can be defined to override the defaults provided by the Project, Employee or Task. Rates can be set up based on Employee, Employee Group, Invoice Group, Task or combination of Task/Employee.

Unit Rate Type:	Task Cost - [TC]	
Rate Class:	100	Base Special Rates
For Task:	A900	Special Project
Unit Cost Rate:	55.00	

Update   Cancel

Field Definitions

Unit Rate Type	*drop-list*
Select type of rate that is to be established. Special Rates may be created for either Tasks, Employees, Employee Groups, Invoice Groups, or even a combination of Employee and Task. Depending on the Rate Type selected, different sub-screen of fields will be presented.	**Employee Chargeout - [EM]** Employee Rate-Group Chargeout - [EG] Employee / Task Chargeout - [ET] Task Invoice-Group Chargeout - [TG] Task % Markup on Default Chargeout - [TP] Employee Cost - [EC] Task Cost - [TC] Task % Markup on Default Cost - [CP]

Rate Class	*X(6)*
Enter the Rate Class to which the special rate entry is to belong to. The Rate Class may be considered as a group or a column of information in a rate table. When charges are	

entered for a given Project, the Rate Class for the Project is used to examine (or look-up in the rate table), for special rates belonging to that Rate Class. It is possible to have only a single Rate Class in the system, although all Projects would then have to share the same set of Special Rates.

Employee Code	*X(6)*

Enter the Employee for which the special rate is being defined for.

For *Employee Charge-out* rates, an expiry date may also be entered. There may be more than one rate set up for a given employee, as long as they have different In Effect Until dates. When attempting to assign rates, the system reads through the possible rates for the employee until one is found where the Charge Date is earlier or equal to the Effective Date.

Employee Rate Group	*X(6)*

Enter the Employee Rate Group for which the special rate is being defined for. Each Employee, as one of it's properties, may be assigned to a particular Employee Rate Group.   The rate defined would then apply to all employees belonging to the Rate Group.

Task Code	*X(10)*

Enter the Task for which the special rate is being defined for.

Invoice Group	*X(10)*

Enter the Invoice Group for which the special rate is being defined for.

System Derived Rate % Adjustment	*9,999.99- %*

These fields are presented for the *Task % Markup on Default Charge-out* Rate Types.

Enter the Chargeable and the Non-Chargeable Unit Rate % factor. The amounts are entered as percentage values. *(For example, enter 300.00 to modify the system derived rate by 300% so a rate of $15 would be adjusted to $45)*

Cost Plus Adjustment	*radio-buttons*

These fields are presented for the *Task % Markup on Default Charge-out* Rate Types.

If making use of Cost Plus factors, you may select

an Adjustment factor. When an adjustment is selected, the amount of the WIP item contributing to the Cost Plus amounts will be adjust by ½ or 2/3 depending on the selection. For example if a rate adjustment was defined for an "Overtime Test" at 200.00% (double time), but only the regular time could be used in the Cost Plus factors, then click the **Contribute 50% of total WIP** radio button.

Unit Rates - Chargeable and Non-Chargeable	$ 99,999.99-
These fields are presented for those Rate Types defined for charge-out rates. Enter the Chargeable and the Non-Chargeable Rates for the selected rate type. Depending on whether the system deems the WIP activity to be chargeable or non-chargeable, the applicable rate will be assigned. *(Refer to the topic on Assignment of Rates* 70 *for further discussion as to how rates are assigned).*	
Overhead - Computed with a % Rate	*99,999.99- % and check-box*
These fields are presented for those Rate Types defined for charge-out rates. As determined by a property associated to each Project, Overhead amounts may be computed based on a percentage defined for each Task. If when this special rate is deemed applicable, the Overhead % rate will be overridden; or, can be disabled entirely.	
Unit Cost Rate	*$ 9,999.99-*
This field is presented for Rate Types defined for *Employee Cost* or *Task Cost* rates. Enter the Costing Rate for the selected rate type.	
System Derived Unit Cost % Adjustment	*9,999.99- %*
This field is presented for the *Task % Markup on Default Cost* Rate Types. Enter the Unit Cost Rate % factor. The amount is entered as percentage value. *(For example, enter 50.00 to modify the system derived cost rate by 50% so a rate of $40 would be adjusted to $20).*	

9.9.23   Special Accounts Maintenance
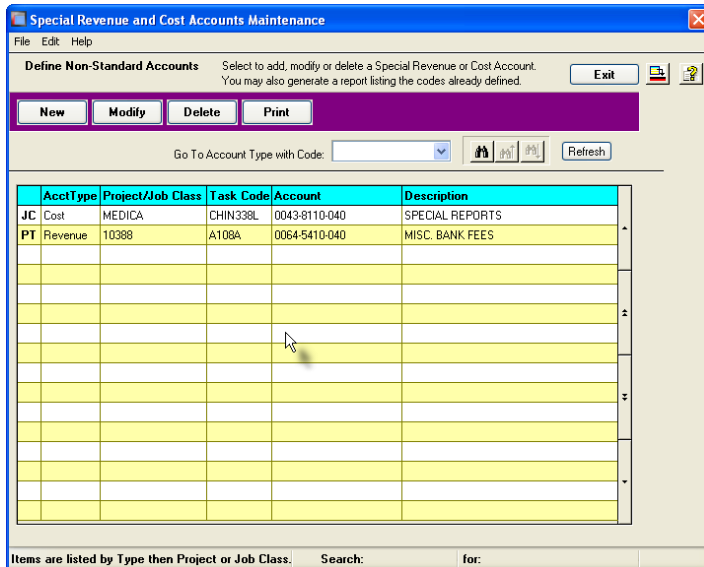
The Professional Invoicing Special Accounts are used to define the Revenue account or the Cost account that should be applied when the default account using the standard methods,

cannot apply.   Special Revenue Accounts may be created for combinations of Project and Tasks, whereas Special Costing Accounts may be created for combinations of Employee Job Codes and Tasks.

The Special Accounts Codes Maintenance function is accessed from the P/I Main menu, by selecting **Special Accounts Codes...** from the **Codes Maintenance** drop-down menu.

Special Accounts Codes Maintenance Grid

Special Accounts Codes are maintained using a Series 5 grid processing screen.

	"Fast Buttons"	
New	Add a new Special Accounts Code	
Modify	Modify the Special Accounts Code highli in the grid	
Delete	Delete the Special Accounts Code highli in the grid	
Print	Generate a report list Special Accounts Cc already on file	

Edit an existing Special Accounts Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled* Report Generation and Printing 159 *for full details).*

The report listing the Special Accounts Codes on file, if archived, will be catalogued with a report name of **SPEC_ACCT.LST**.

Special Accounts Code - Properties Screen

The properties for each Special Accounts Code are defined with the following screen. (For Cost Accounts,

Special Revenue and Cost Accounts Maintenance

P/I Special Revenue Account: - Modify the Properties of

Special Revenue Accounts may be established for each combination of Project and Task.
Special Cost Accounts may be established for each combination of Employee Job Class and Task.

Type: Revenue Account

For Project: 10388   VENTURE TITLE COMPANY

For Task: A108A   Signed-Blanket Reinstatement

Revenue Account:
0064 - 5410 -- 040
MISC. BANK FEES

Update   Cancel

Field Definitions

Type	drop-list
Select type of Account that is to be established. Special Accounts may be created for either Revenues or Costs accounts. Depending on the Account Type selected, different sub-screen of fields will be presented.	Revenue Account Cost Account
For Project	*X(6)*
This field is presented for the ***Revenue Accounts***. Enter the Project Code for which the special account is being defined for.	
For Job Class	*X(6)*

This field is presented for the *Cost Accounts*. Enter the Employee Job Class for which the special account is being defined for.

For Task	*X(10)*

Enter the Task Code for which the special account is being defined for.

Revenue Account or Cost Account	*9(18)-9(5)*

Enter the G/L Revenue account that is to be assigned to WIP activity recorded for the specified combination of Project and Task Codes; or enter the G/L Costing account that is to be assigned to WIP activity recorded for employees belonging to the specified combination of Job Class and Task Codes.

9.9.24 Tax Exempt Codes Maintenance

This maintenance function is used to create sets of rules as to whether or not chargeable activity is taxable, or not, for Customers whose have been assigned specific A/R Tax Codes. For each of the Tax Codes defined, up to 15 logical Tax Groups may be established. Each Tax Group is then flagged to indicate whether tax should be computed or not. (The Tax Groups are labeled alphabetically from A to Q).

One of the properties defined for each Task Code record is used to indicate whether charges recorded for it is taxable or not, and/or whether it should belong to one of the Tax Groups. With this feature, you effectively will be able to specify that certain Tasks are taxable in some jurisdictions, but not in others, by assigning a Tax Group to each jurisdiction.

The Tax Exempt Codes Maintenance function is accessed from the P/I Main menu, by selecting **Tax Exempt Codes...** from the **Codes Maintenance** drop-down menu.

> ⊙ Tax Exempt Codes Maintenance Grid

Tax Exempt Codes are maintained using a Series 5 grid processing screen.

	"Fast Buttons"	
New	Add a new Tax Exem	
Modify	Modify the Tax Exem highlighted in the gric	
Delete	Delete the Tax Exem highlighted in the gric	
Print	Generate a report list Tax Exempt Codes ɛ file	

Edit an existing Tax Exempt Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

The report listing the Tax Exempt Codes on file, if archived, will be catalogued with a report name of **PITAX_EXMPT.LST**.

Tax Exempt Code - Properties Screen

The properties for each Tax Exemption Code are defined with the following screen:

Field Definitions

Tax Code	X(6)
This is the A/R Tax Code for which the Tax Exemption Groups are to be set up for. This code must already have been defined in the Accounts Receivable system as a valid Tax Code.	

Type	radio-buttons
Used for information purposes to record whether the selected Tax Code is for a State tax or a Municipal tax.	

Comment	X(24)
May be used to record a brief description to describe this particular Tax Code.	

Tax Groups - Taxable Status	15 check-boxes
Labeled from A to Q, (with no N or O). Each check-box represents one of the 15 logic Tax Groups that may be defined. Set the check-mark if the given Tax Group is taxable.	

Taxable Status

Task Codes may be assigned to one of the logic Tax Groups that are established. When charges are invoiced, the following steps are followed to determine if they are taxable or not:

1) If the Task is flagged as being Non-Taxable, no taxes are computed.

2) If the Task is flagged as Taxable for All Tax Groups, then taxes are computed.

3) If the Task has been assigned to a particular Tax Group then the following tests are done

- The applicable Tax Code is obtained from the Customer's properties record
- The Tax Exempt Code record is loaded
- If the Tax Group associated to the Task is checked then taxes are computed.

9.9.25   Ariba Invoice Code Mapping Maintenance

When electronic invoices are generated and sent to Ariba for processing and distribution to applicable customers, the individual charges must refer to an arranged upon set of reference codes and distribution codes. This maintenance routine is used to defines three types of codes that are established for a customers' contract with Ariba. A different set of Reference Codes must be defined for each contract that is established with Ariba. In the P/I system, each contract will be associated to the EDI Control Code that is set up for the different customers. Currently the following types of invoices are generated for the customers indicated:

Customer	*FIle Type*	*Mapping*
Bank of America	cXML	Supplier Part Id (substring of PI Task code) ➔ Line Number Reference ID
JP Morgan Chase	cXML	WIP Bill Code ➔ Legal Entity & Business Unit Codes
Sun Trust	CSV	Supplier Part Id (substring of PI Task code) ➔ Line Number Reference ID

1) For Bank of America, the Reference Codes are derived from the P/I system's Task Codes. (Actually only a segment of the Task Code is actually used).

When these cXML invoice files are generated, a segment of the Task Code, (characters 5 - 8), is used as the key to read the Mapped record, to determine the Line Reference number, **nnnn**, that is inserted as the argument to the
<InvoiceDetailItemReference lineNumber=nnnn> .... </

InvoiceDetailItemReference> tag.

The segment of the Task Code used, **xxxx**, is inserted in the
<ItemID><SupplierPartID>xxxx</SupplierPartID></ItemID> tag.

2) For JP Morgan Chase, the Legal Entity and Business Unit codes associated to the Cost Center, (as determined by the WIP Bill Code)

When these cXML invoice files are generated, the WIP's Bill Code, **cccccc**, (which is the customer's cost center), is used as the key to read the Mapped record, to determine the Legal Entity, **llllll**, and Business Unit, **bbbbb**, codes. These are inserted into tags found within the **<Distribution>.....</Distribution>** tag set as follows:

```
    <Distribution>
            <Accounting name="DistributionCharge">
                <AccountingSegment
id="Company:CostCenter:AccountNumber">
                    <Name xml:lang="en-US">Reference ID</Name><Description
xml:lang="en-US">cccccc</Description>
                </AccountingSegment>
                <AccountingSegment id="100">
                    <Name xml:lang="en-US">Split Percentage</
Name><Description xml:lang="en-US">Percentage</Description>
                </AccountingSegment>
                <AccountingSegment id="bbbbbb">
                    <Name xml:lang="en-US">Business Unit</Name><Description
xml:lang="en-US">CostCenter.UniqueName</Description>
                </AccountingSegment>
                <AccountingSegment id="llllll">
                    <Name xml:lang="en-US">Legal Entity</Name><Description
xml:lang="en-US">Company.UniqueName</Description>
                </AccountingSegment>
            </Accounting>
            <Charge>..............</Charge>              (is the Charge amount to be
distributed)
    </Distribution>
    <Extrinsic name="legalEntity">llllll</Extrinsic>
    <Extrinsic name="businessUnit">bbbbbb</Extrinsic>
```


3) For Sun Trust, the Reference Codes are derived from the P/I system's Task Codes. (Actually only a segment of the Task Code is actually used).
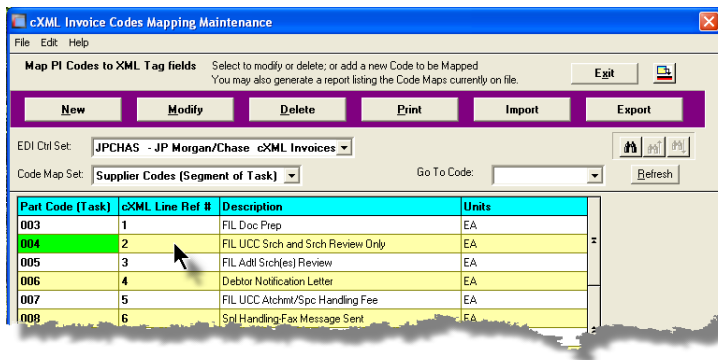
When these CSV invoice files are generated, a segment of the Task Code, (the rightmost 3 digit numeric), is used as the key to read the Mapped record, to determine the Line Reference number, **nnnn**,. The resulting code and description is recorded in columns "AR" and "AS" of the resulting CSV file. These columns have headings of **InvoiceLineID** and **ItemDescription**.

The segment of the Task Code used, **xxx**, is recorded in column "AT" with the of heading **SupplierPartID**.

This maintenance routine provides functions to Import and Export the mapping codes from/to spreadsheet to make it easier to update.

Task/Ariba Reference Codes Grid
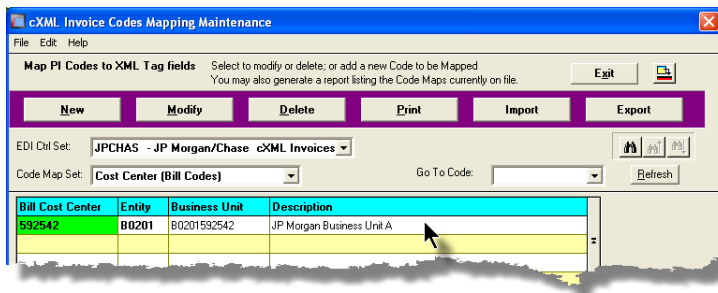
The Mapped Reference Codes are maintained using a Series 5 grid processing screen.

or for the Cost Center mapping:

"Fast Buttons"		
New	Add a new Map Co
Modify	Modify the Map Co highlighted in the g
Delete	Delete the Map Co highlighted in the g
Print	Generate a report the Map Code on fi
Import	Imports the Map C from a spreadshee
Export	Exports the Map C spreadsheet

Edit an existing Department by double-clicking it's associated row.   Standard Series 5 grid controls apply.

Task/Ariba Mapping Screens

The mapping for each Bank of America or Sun Trust PI Task to an Ariba cXMLLine Reference is defined with the following screen:

The mapping for each of JP Morgan's Cost Center to the Ariba cXML Legal Entity and Business Unit codes is defined with the following screen:

Supplier Codes Mapping Screen Field Definitions

EDI Control Set	*X(6)*

The Line Reference Codes are assigned to each customer at the time the contract is established with Ariba. They are tied to a particular EDI Control Code that you would have already set up for Ariba cXML or CSV Invoices using the EDI Specifications Maintenance function [612].

Supplier (Task Code Segment)	*X(12)*

This field is the portion of the P/I Task Code that is used as the key to lookup the Line Reference Code. Depending on the selected customer, this is either the Task code, or a portion of it.

XML Line Reference Code	*X(8)*

This is code or number that is inserted as the argument in the **<InvoiceDetailItemReference lineNumber=nnnn>** tag of the cXML invoice.

Part or Task Description	*X(40)*

The description of the part of the task be billed that may be recorded in the CSV or cXML invoice.

Units of Measure	*X(6)*

Used to record the Units of Measure. Strictly for information purposes.

Cost Center Codes Mapping Screen Field Definitions

EDI Control Set	*X(6)*

The Line Reference Codes are assigned to each customer at the time the contract is established with Ariba. They are tied to a particular EDI Control Code that you would have already set up for Ariba cXML Invoices using the EDI Specifications Maintenance function [612].

Cost Center (WIP Bill Code)	*X(12)*

This field is the portion of the P/I Task Code that is used as the key to lookup the Line Reference Code. This is either the Task code, or a portion of it.

JP Morgan Chase Legal Entity Code	*X(8)*

This is the Legal Entity code that is inserted as the argument in the

<AccountingSegment id="lllllll">

<Name xml:lang="en-US">Legal Entity</Name>
<Description xml:lang="en-US">Company.UniqueName</Description>

tag of the cXML invoice.

JP Morgan Chase Business Unit Code	*X(15)*

This is the Business Unit code that is inserted as the argument in the

<AccountingSegment id="bbbbbbbbbb">

<Name xml:lang="en-US">Business Unit</Name>
<Description xml:lang="en-US">CostCenter.UniqueName</Description>

tag of the cXML invoice.

Description	*X(40)*

A description. Strictly for information purposes.

✛ Ariba Line Mapping Codes – Import/Export Data Formats

For the mapping of Ariba Line #, (contract task codes), that are imported or exported, the following fields are input/output from/to an Excel spreadsheet, a tab-delimited text file, or a CSV text file. The default filenames are either **PI_AribaTaskPart_Maps_In.XLS** or **PI_AribaTaskPart_Maps_Out.XLS.** The standard Series 5 Import/Export screens will be presented when the specific function is launched. The layout of the columns on the spreadsheet are defined with the following table:

Column #	*Excel Column*	*Field*	*Format*
1	A	Supplier's Part # Code	X(8)
2	B	Ariba's Line Reference #	X(8)
3	C	Description	X(40)

4	D	Units	X(6)

When importing the Codes from a spreadsheet, you may also specify a pre-defined processing directive in column 1.

%RADD% All codes for the rows following will be 1st deleted from the
– system, then updated with the new fields provided.

%DELE% All codes for the rows following will be deleted from the
– system and not replaced. Only the Supplier Part # Code needs to be specified in column 1 of the input spreadsheet.

✦ JP Morgan cXML Line Mapping Codes – Import/Export Data Formats

For the mapping of the Bill Codes used by JP Morgan, that are imported or exported, the following fields are input/output from/to an Excel spreadsheet, a tab-delimited text file, or a CSV text file. The default filenames are either **PI_XMLBillCode_Maps_In.XLS** or **PI_XMLBillCode_Maps_Out.XLS.** The standard Series 5 Import/Export screens will be presented when the specific function is launched. The layout of the columns on the spreadsheet are defined with the following table:

Column #	Excel Column	Field	Format
1	A	Cost Center Bill Code	X(12)
2	B	Business Unit Code	X(15)
3	C	Legal Entity Code	X(8)
4	D	not used	
5	E	not used	
6	F	Description	X(40)

When importing the Codes from a spreadsheet, you may also specify a pre-defined processing directive in column 1.

%RADD% All codes for the rows following will be 1st deleted from the
– system, then updated with the new fields provided.

%DELE% All codes for the rows following will be deleted from the
– system and not replaced. Only the Cost Center Bill Code

needs to be specified in column 1 of the input spreadsheet.

9.10   Purging

The topics in this chapter describe functions and procedures that are a available under the **Purging** drop down menu on the Professional Invoicing menu. These menu items are used to remove old history records to free up disk space and overhead in the related data files.

These functions are available from the P/I Menu Bar as shown:

9.10.1   Purge Archived WIP History

Enter topic text here.

9.10.2   Purge Archived Disbursement History

Enter topic text here.

9.10.3   Purge Archived Invoice History

Once P/I Invoices have been generated, printed and posted to A/R, they will be recorded in the P/I system as Historic Invoices. Their respective data records, along with the WIP and Recap Detail records, are available for display, and to be reprinted if necessary. These will remain in the system until they are archived. Once archived, they will remain in the system until purged.

Accessing the function to purge the "Archived" Invoice History files, can be done either directly from the , or from the P/I's Menu's **Purging** drop-down menu:
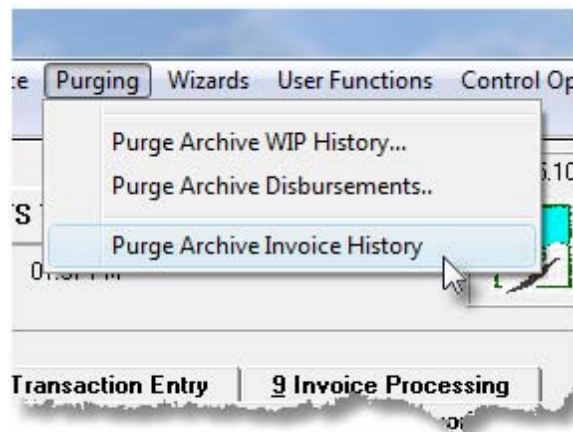
➡ Purge Invoice History - Options Screen

The following screen is displayed offering a variety of filters for the purge function:

When having the archived history records purged, the operator is also presented with the standard and

[Demographic Selects screen](#) 156. These allow you to specify selected or ranges of Projects, Project Locations, Project Departments, Customers, Customer Types, Sales Representatives, and/or only those customers and/or projects satisfying a variety of filter criteria.

━ Purge Archived Invoice History Filter Options Screen - Field Definition

Historic Invoice Number(s)	*radio-buttons and 9(6)*
To select All Invoices regardless of their Invoice numbers; or for only those that fall within a range of numbers. If a range is selected, enter the starting/ending Invoice numbers.	

For the 12 Periods — in Intervals of	*radio-buttons and (mmddyy)*
Totals are accumulated for up to 12 periods, of either Months, Quarters or Years. Based on the selection, the system will default the From/To dates displayed. *(If a different date range is selected, the 12 periods tallied for will commence from the Starting Date ending up to the ending date, or up to the end of the 12th period, which ever is earliest).*	

Include only Invoices — for Invoice Layout Code	*9(3)*
To have only those Invoices that were generated based on a particular Invoice Layout Code. *(Leave the field blank if it is not to be considered as a selection filter).*	

9.11   Control Option Functions

The topics in this chapter describe functions and procedures that are a available under the **Control Options** drop down menu on the Professional Invoicing menu. These menu

items are used to set up control options, and user access rights to the application.

These functions are available from the P/I Menu Bar as shown:
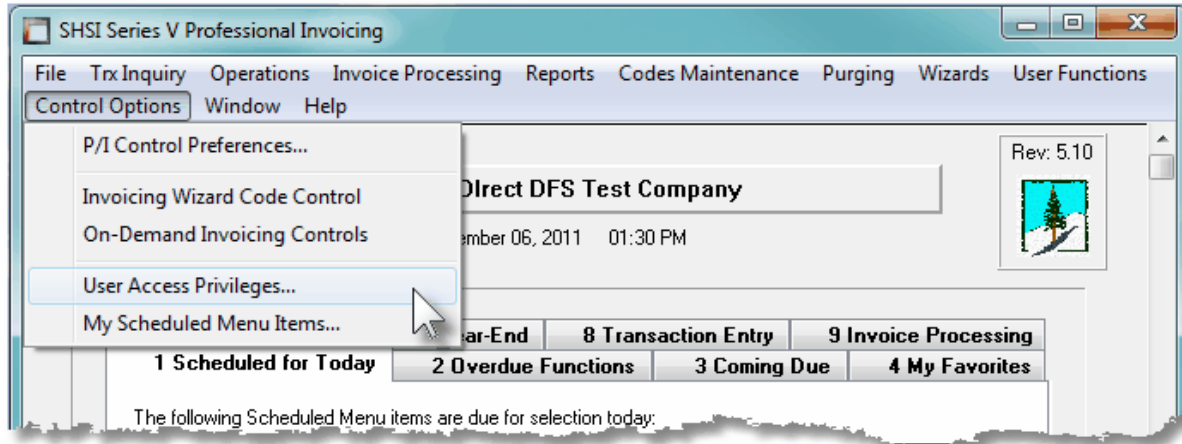
9.11.1 P/I Control Preferences

The P/I Control Preference function governs the overall structure of the P/I system for the specific Company System that your are signed on with. Failure to set the correct options could result in incorrect usage of the P/I, unwanted allocation of revenue, or invoices printed in the wrong format, or the disabling a feature that you might like to make use of.

― Accessing the P/I Control Properties for the first time

When setting up the system for the first time, a message will be displayed advising you that the PI Control is not available. Click the **Yes** button. You will then be advised of an Error 35. At this point you need to click the **Yes** button again to proceed.
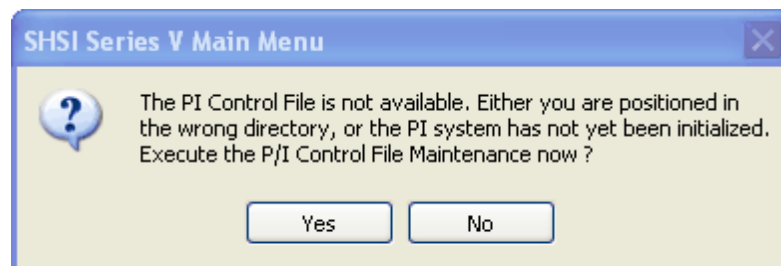
The P/I system preferences window will be displayed. There are a number of different categories of options, each grouped in a tabbed sub-screen. As you finish editing each screen, click the **Next >** button at the bottom.

Setup Tip

As you may not have actually entered any Master Code records that may be referenced in these screens, just enter any value. (Particularly in the Accounts fields). You can also come back to edit the Control Preferences later.

Once your P/I Control Preferences is established, the system can then be used.

9.11.1.1   General Tab Screen

Defines the properties for basic Professional Invoicing processing.

Field Definitions

Next System Assigned - Time Sheet Number	9(6)

An employee's activity, or a machine's usage, may be recorded in a Time Sheet as billable or non-billable hours. Time sheets are assigned a unique number. This field holds the next number that will be assigned.

Next System Assigned - Project Code Number	9(6)

Project Codes may be numeric or alphanumeric. If using numeric codes, when a new project is added to the system, the operator can strike the F1 function key to have the Next Numeric Project Code automatically assigned. At that point this field will be incremented.

Next System Assigned - Recap Detail Number	9(8)

Recap Detail are records that provide extended information about WIP charges. (They may be entered manually in the Generalized WIP Entry function, of can be interfaced from 3rd party systems). Recap records are assigned a unique number. If entered by hand, this field hold the next number to be assigned.

Generate Detail Work-In-Progress Distributions	check-box

When Chargeable Time-Sheet entries are entered and posted in the P/I the amount is recorded to a G/L Work-In-Progress account. If a separate journal entry is to be made for each time-sheet or invoice, then set this check-box, otherwise a total distribution is recorded for every date. You should typically have this field checked.

Generate Detail Revenue Distributions	check-box

When Chargeable Time-Sheet entries are entered and posted in the P/I, or when Invoices are generated and posted to A/R, the amount is recorded to a G/L Revenue account. A separate journal entry will be made for each time-sheet and/or invoice if this check-box is set; otherwise a total distribution is recorded for every date. You should typically have this field checked.

Generate Revenue Distributions with Sub-Ledger Project Codes	check-box

When activity is entered to employee's Time Sheets, a Sub-Ledger Project code my be assigned. If this check-box is selected, then the Sub-ledger Project will be recorded with any Revenue distributions that are generated. The sub-ledger Code is carried forward to the General Ledger system with the journal entry that is recorded there.

Generate Cost Distributions with Sub-Ledger Project Codes	check-box

When activity is entered to employee's Time Sheets, a Sub-Ledger Project code my be assigned. If this check-box is selected, then the Sub-ledger Project will be recorded with any Cost distributions that are generated. The sub-ledger Code is carried forward to the General Ledger system with the journal entry that is recorded there.

Next System Assigned Invoice Number	9(8)

Invoice numbers are automatically assigned when Invoices are generated. This field holds the next number to be assigned. You need to be careful about the assignment of Invoice numbers. Invoices derived from the Customer Order Entry system, the P/I system, Class Registration system, and perhaps others, all end up being recorded in the Accounts Receivable system. **You must ensure that the Invoice numbers from the different systems do not conflict. You need to pre-assign ranges of numbers to each system.**

Default "Labor" & "Disbursement" Charges Section Headings	X(40)

A number of different Invoice Layouts may be generated. On the standard default format, charges are listed under two main categories - Labor and Disbursements. These fields will be used as the titles for each of these sections.

Default Print Queue for P/I	X(20)

Select the Series 5 Printer Queue that would be used to typically print the reports generated for this Professional Invoicing system. When any of the reporting functions are executed, this printer will be displayed as the default, unless overridden by the user's assigned Printer Queue. Print Queues are defined by a System Maintenance function. (Refer to the Systems Management Help if required).

On-Demand Invoicing Sales Batch Prefix & Next Number	X(2) - 9(4)

The PI system provides for the automatic generation of Invoices when requested by live telephone or service desk agents. Once generated and/or delivered via email to the agent, the Invoices are then automatically posted to an Accounts Receivable Sales Batch. A new Sales Batch is created each day On-Demand invoices are generated. The Sales Batch Code assigned can be constructed either using defined codes in each On-Demand Control Set, or from the codes defined by these fields.

The Sales Batch code is constructed as **PP9999**, where **PP** is the 2 character Prefix entered, and **9999** is a number that is assigned and incremented for each new batch created.

9.11.1.2 Rates and Revenue Tab Screen

Defines the properties for those functions that determine the Unit Rate and the Revenue Account to be assigned to WIP charges in the Professional Invoicing system.

 Field Definitions

WIP Rate - Rate Select Basis	radio-buttons
When time sheet information is entered, the system automatically determines whether the resulting WIP item will be chargeable or non-chargeable, and which Special Rate Class is to be used. This information may be stored in either the Client or the Project	

master records. Setting this option indicates to the system from which source the defaults are determined from. This field is critical in that it governs the process which is used to calculate charge-out rates, and whether the time entered is to be invoiced or not.

⦿ From Project	Click the applicable button for the desired results
○ From Client	

WIP Rate - Rates Selection Precedence	**radio-buttons**

When time sheet information is entered, the system will attempt to automatically determine the default charge-out rate. Default rates may be determined from the Project record or the Task record. The system searches each possible source, and uses the last non-zero value found. Selecting Projects over Tasks, the system will first look to the Task, and then to the Project, thus Project has a priority over the Task). Select Tasks over Projects to have the system first look at the Project, and then the Task.   Note that after either of these rates are selected, it is still possible that the PI Special Rates table would be examined, and the final rate derived from there.

⦿ Projects over Tasks	Click the applicable button for the desired results
○ Tasks over Projects	

WIP Rate - Special Rates Class Selection Precedence	**radio-buttons**

When time sheet information is entered, after a default rate is determined, the Special Rates tables are examined. Special Rates are available based on Employee Codes and Task Codes. You may specify the priority in which rates are evaluated. (Keep in mind that the last rate tested is actually the highest priority). Select Employee Groups over Tasks, the system will first test for a Task Group rate, then an Employee Group rate, then a Task Group (or referred to as an Invoice Group).   Select Task/Inv Group over Employee and the order tested is Employee Group, Employee followed by Task Group.

⦿ Employee Groups over Tasks	Click the applicable button for the desired results
○ Task/Inv Group over Employees	

WIP Revenue Distributions Generated	**radio-buttons**

A/R Revenue distributions may be generated either when WIP activity is entered into the PI system as either Time Sheets are General WIP entry, or after Invoices have been generated and posted in the Accounts Receivable system.

⦿ When WIP charges are entered into PI	Click the applicable button for the desired results
○ When Invoices are Posted in A/R	

Project Revenue Accruals - Generate   check-box

Project Revenue Accruals may be generated on the system as a means to carry forward outstanding unbilled charges forward through the G/L accounting periods. You would execute this process on the last day of each month (or shortly there after). Each time it is run, the current month and year is saved in this field. It may be edited to force subsequent runs on different months, although this would be discouraged. Each time the Accruals are generated it will use the next month following the date defined here.

Project Revenue Accruals - Update A/R Customer Monthly Totals   check-box

In order to correctly maintain monthly client revenue figures, when accruals are generated, the monthly sales figures associated with the Customer record in the A/R will be updated. To disable or enable this feature set the check-box accordingly.

Accounts Derived From   radio-buttons

When time sheet information is entered, the system will attempt to automatically determine the default revenue account to be used for the revenue earned. Default accounts may be determined from the Project record, the Invoice Section record, the Invoice Group, or for the Employee's Department. Click the appropriate radio button for the preferred revenue account source. Note that Non-Recoverable Disbursement accounts are defined by each Disbursement Code; and Disbursement Markup revenue is defined by a single account defined in the Control options.

⦿ Project ◯ Employee's Department ◯ Invoice Section ◯ Invoice Group	Click the applicable button for the desired results

Accounts Profit Center Override From   radio-buttons

After the system determines the revenue account or the recoverable expense account from the basic rules defined, the profit center may then be set according to the Employee's Department, or Location record or the Project revenue account field may be used. If no value exists (i.e. zero) or this field is blank, the original profit center will be used.

⦿ No Override ◯ Project ◯ Employee's Department ◯ Employee's Location	Click the applicable button for the desired results

Recoverable Expense Account Derived From   radio-buttons

When recoverable disbursement charges are entered, the system will automatically assign the Recoverable Expense account to be used for when the item is invoiced. This account may be specified with either the Project record or the Disbursement Code record.

⊙ Project	Click the applicable button for the desired results
○ Disbursement Type	

9.11.1.3 Costing Tab Screen

Defines the properties associated to generating Cost Distributions for activity performed and recorded in the P/I system.

▬ Field Definitions

Record Cost Amounts for Work-In-Progress	*check-box*
The For those systems requiring WIP Costing to be implemented, set the check box. When Costing is turned on, Cost amounts for all time-sheet entries are computed and recorded; G/L Cost Distributions may be generated; and the total Cost associated to each Invoice is passed on to the Accounts Receivable system with each Sales Transaction. The G/L Cost Distributions are generated only when the [D] option is specified.	

Generate G/L Cost Distributions for Work-In-Progress	*check-box*
For those systems with Costing turned on, if G/L Cost Distributions are also to be generated when WIP charges are posted to the system, set the check-box	

Cost Distribution Accounts Derived from	*radio-buttons*
For those systems with Costing turned on, the system will attempt to automatically assign the Cost account to each WIP item entered via time sheets. You may select to have the Cost account derived from a number of different sources bases on how you want costs recorded in the G/L system.	

⦿ Project	Click the applicable button for the desired results
○ Invoice Section	
○ Invoice Group	
○ Task	
○ Employee's Department	
○ Employee	

Cost Accounts Profit Center Override From	*radio-buttons*
For those systems with Costing turned on, after the system determines the G/L Cost account or the Recoverable Expense account from the basic rules defined, the profit center may then be set according to either the employee's Department, the employee's Location record or the Project Revenue's account. If no value exists from the specified source, (i.e. has a value of Zero or this field is blank), the original profit center will be used.	

⦿ Project	Click the applicable button for the desired results
○ Employee's Department	
○ Employee's Location	

Username of the Individual Allowed to View WIP Cost Amounts	*X(16)*
For those systems with Costing turned on, then the costs associated to Work-In-Progress activity will be determined and recorded with each WIP item on file. In some cases, sensitive labor costs may be displayed or listed in assorted reports. If a Username is entered in this field, then Cost figures will be presented only to that user. (Note that the USERNAME entered in this field will be the only person that will be allowed to change this field in the future).	

9.11.1.4 Default G/L Accounts Tab Screen

Defines the defaults for the significant G/L Accounts used in the P/I processing

Field Definitions

Work-In-Progress Control Account	*9(18) - 9(5)*
The Work-in-Progress Account is a G/L account defined within the A/R which is used to accumulate the total of all chargeable time entered into the system. It is debited when time is entered and credited when that time is invoiced, written off or marked up/down. If the option to **Generate Detailed WIP Distributions** is set, a separate entry is made for each time-sheet, otherwise a single entry is made for the batch of time-sheets entered.	

Unearned Revenue Account ..... **or** **Invoiced Revenue Holding Account**	*9(18) - 9(5)*

Depending on whether the option to record revenue distribution at the time it is entered into the PI system, or when posted in A/R, this field will be labeled as **Invoiced Revenue Holding Account** or **Unearned Revenue Account**.

For systems recording Revenue Distributions at the time WIP charges are entered into the system, the Invoiced Revenue Holding account is debited when Invoices are generated and credited when the invoices are posted in the Accounts Receivable system.

For systems recording revenue when Invoices are posted in the Accounts Receivable system, the Unearned Revenue Account is a G/L account defined within the A/R which is used to accumulate the total of all potential (or unearned) revenue entered as chargeable time into the system. It is credited when time is entered and debited when that time is invoiced, written off or marked up/down. The account is also used when the project revenue accruals are generated.

Deferred Income Account	*9(18) - 9(5)*

The Deferred Income Account is a G/L account defined within the A/R which is used to accumulate the total of all Project Deposits that have been recorded as computed when Project Revenue Accruals are generated. The profit center for this account will be determined from the Revenue account for the associated Project.

Holdback Receivables Accounts	*9(18) - 9(5)*

The Holdback Revenue Account is a G/L account defined within the A/R which is used to accumulate the total of all Holdbacks generated for those Projects using the Holdback option. Holdbacks are automatically generated when invoices are generated

Disbursements Markup Account	*9(18) - 9(5)*

The Disbursement Markup Account is a G/L account defined within the A/R which is used to accumulate the total of all revenue derived as a result of marking up recoverable expenses billed to a client. The profit center for this account will be determined from the Recoverable Expense account for the associated disbursement.

Suspense Revenue Account	*9(18) - 9(5)*

The Suspense Revenue Account is a G/L account defined within the A/R which is used to accumulate the total of all Manual Invoices entered into the system. It is credited when the invoice is entered, and debited when items are marked as belonging to the invoice.

Suspense Credit Account	*9(18) - 9(5)*

The Suspense Credit Account is a G/L account defined within the A/R which is used to accumulate the total of all credit notes entered into the system. It is credited when the Credit Note is entered, and debited when invoiced items are marked down as a result of

the credit note.

Costs Accumulated Account	9(18) - 9(5)

The Cost Accumulated Account is a G/L account defined within the A/R which is used to accumulate the total of all WIP costs calculated via time-sheet entry.

9.11.1.5 Cost Plus Control Tab Screen

Defines the Cost Plus percentages, formulas, and Task Codes used to record them as used in the P/I system in the P/I system.

Field Definitions

Enable Cost Plus Invoicing ?	*check-box*

The Professional Invoicing system has, as an option, the capability to automatically compute and charge out Cost Plus amounts. These are computed when Invoices are generated and recorded as charges against special Cost-Plus Tasks. Amounts are computed based on pre-defined custom formulas. Should you wish to take advantage of this feature, set the check-box.

Cost Plus Task Codes	*X(10)*

Each Cost Plus Factor is actually just a P/I Task Code. The task must already be defined using the Task code Maintenance function. Each cost plus factor will be the same for the entire system, although the percentages may vary from project to project.

Cost Plus Description	*X(60)*

The Professional Invoicing system supports the use of multiple A/R Revenue accounts. If you intend on having multiple revenue accounts, or are using the Series 5 Customer Order Processing system, then set this check-box as checked. If left unchecked, then all revenue amounts for Sales Transactions will be recorded to the Default Sales Revenue account specified.

Cost Plus Default Percentage	*99.9 %*

The percentage value entered will be used as the default for the given Cost Plus Factor. When assigned to a given Project, this percentage value may be changed for that particular Project.

Cost Plus Calculation Formula	*radio-button*

The manner of calculating the cost plus factors will vary from installation to installation. Each user of the Professional Invoicing package will be assigned a calculation number which will be customized to their exact specifications. Two formulas for the computation of Cost Plus Amount are defined. Select the desired function. *(Contact the Sentinel Hill Software help desk if you need to have a customized formula developed).*

Default "Cost Plus" Section Heading for Invoices	*X(30)*

On the invoice, all the information calculated for the cost plus factors will be summarized using the description you enter in this field, such as "Cost Plus Amounts". This phrase

will appear on the heading before all the Cost Plus Factors are printed.	
Generate Project Accruals for Un-Billed Cost Plus Charges ?	*check-box*
If the Professional Invoicing system should generate Revenue Accruals, set the check-box depending whether of not Un-BIlled Cost Plus charges are to be accrued or not.	

9.11.2   Invoice Wizard Codes Maintenance

The Professional Invoicing Invoice Wizard is a program that automates the basic processes associated to the invoicing cycle.   It steps through each of the operational functions offered by the P/I system to load interfaced external data, selects items to be billed, generates and prints invoices, and posts them to the Accounts Receivable system.

The Invoice Wizard Codes are set up to define the options associated to these invoicing related operations. Each Wizard Code is established to represent a unique set of options. Typically each Wizard Code would perhaps represent charges accumulated for a different branch office. Each office is then dealt with separately, having their accumulated activity loaded, billed, invoices printed, and moved to A/R.

When the Invoicing Wizard is launched as an operation, it will attempt to process each Invoicing Wizard code that has been defined.   A given Wizard code, or branch office set of files, is processed if the associated interface files are found in it's designated directory folder. (The interface files must be first installed into the their respective folders and have a predefined filename). For further discussion refer to the topic under the Operational Functions chapter titled <u>Interface/Invoicing Wizard</u> ⌐340⌐.

The Invoice Wizard Codes Maintenance function is accessed from the P/I Main menu, by selecting **Invoicing Wizard Code Control...** from the **Codes Maintenance** drop-down menu.

🔵 Invoice Wizard Codes Maintenance Grid

Invoice Wizard Codes are maintained using a Series 5 grid processing screen.
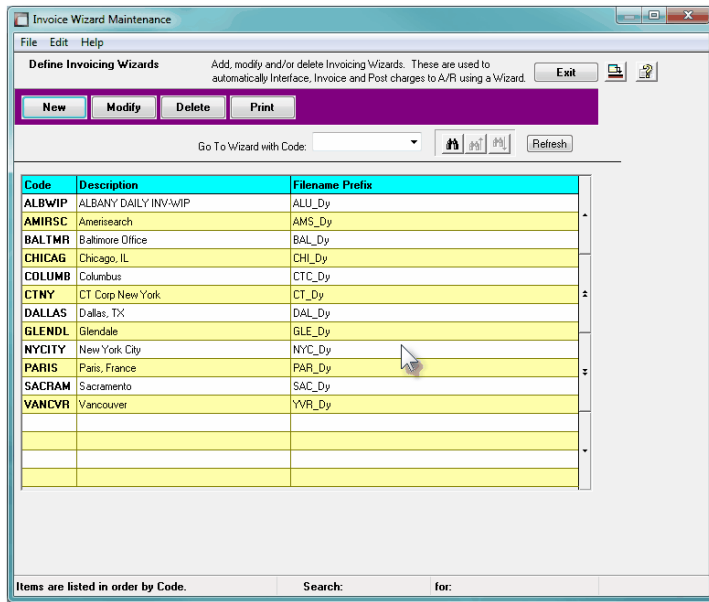
"Fast Buttons"	
New	Add a new Invoice Wizard Code
Modify	Modify the Invoice Wizard Code high in the grid
Delete	Delete the Invoice Wizard Code high in the grid
Print	Generate a report the Invoice Wizar Codes already on

Edit an existing Invoice Wizard Code by double-clicking it's associated row.   Standard Series 5 grid controls apply.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing* 159 *for full details).*

The report listing the Invoice Wizard Codes on file, if archived, will be catalogued with a report name of **INVWIZ_LOG.LST**.

Invoice Wizard Code - Properties Screen

The properties for each Invoice Wizard Code are defined with the following screen:

Field Definitions

Invoice Wizard Code	*X(6)*
This is the alphanumeric code assigned to the Invoice Wizard. The Invoicing Wizard Operation automatically processes each Wizard Code in the alphabetic order based on the code.	

Description	*X(40)*
Is a description of the Invoice Wizard. This is displayed as the Wizard processes each code and is printed on the execution log. It would typically be the name of the office or the set of charges being interfaced and invoiced.	

Print Queue for Execution Statistics	*X(20)*
When the Invoicing Wizard it executed, statistics are accumulated and printed as a report. Select the Series 5 Printer Queue to which this report will be output to as a	

default.

Invoice Wizard Code - Interfacing Options Screen

The properties associated to the Data Interfacing process for each Invoice Wizard Code are defined with the following screen

Field Definitions

Types of Charges To Load	radio-buttons

The first step processed by the Wizard is the loading of the charges that were generated from an external source. There are two types of data that is loaded; standard WIP charges information and Recap Detail. Recap detail provides extended information pertaining to each WIP charge. Select the applicable option for the types of data to be

loaded by the Wizard.

Interface Input File – Folder	**X(70)**

Specify the name of the folder where the external interface data has been stored. This is the folder where the Wizard will attempt to locate files having the expected filenames associated to the Wizard Code being set up.

You may click on the **Browse** button to locate the desired directory. Only those folders which are descendants of the root directory, of that which is defined by the From Folder field, can be displayed. So if you wish to choose a folder on your "C" drive, enter **C:** in the From Folder field before clicking the "Browse" button. Setting the From Folder field blank, or to a path that does not have a drive letter designation, would result in only being able to browse descendants of the user's default working directory.

Interface Input File – File Name Prefix	**X(10)**

Specify the base name of the external interface files to be loaded. The Invoicing Wizard uses the Name Prefix to build the names of the files that are to be loaded.

The Invoicing Wizard loads basic WIP charge records for the Wizard Code, and Recap supporting records.   Each Wizard Code represents the charges, say for a particular office. The File Name Prefix is used to identify the interface files for each office. The Recap data is loaded from one file identified with a specific name. (If there are more than one sets of files for multiple offices, or multiple Wizard Codes, to be loaded, the Recaps are still loaded from only one file).

For each Wizard Code, when the Invoicing Wizard is executed, there are two types of WIP charges files that are loaded. These are referred to as Remote charges and Local charges. Hence for each Wizard Code there potentially are 4 interface files that could be processed.

The following filenames are expected for the Recap detail record files:

UDS_DyRecap**yymmddR**_**hhmmss**.dat

UDS _DyRecap**yymmddL**_**hhmmss**.dat

The following filenames are expected for the WIP charges record files:

PPPPPP_DyInvoice**yymmddR**_**hhmmss**.dat

PPPPPP_DyInvoice**yymmddL**_**hhmmss**.dat

Where: **PPPPPP**   - Is the File Name Prefix associated to the Wizard Code
            yymmdd   - Is the date the interface files were created
            hhmmss   - Is the time the interface files were created
            R or L   - Indicates the files as being either the Remote or Local charges

When the Invoicing Wizard is executed, it first attempts to find the earliest pair of Remote and Local Recap files in the selected directory. Once these are found it uses the date and time stamp embedded within the filename, along with the File Name Prefix, to form

the WIP charges filenames.

Local and Remote Interface Data Files

With any given interface set of files, all "Local" files have the same date/time stamp. All "Remote" files have the same date/time stamp. These time stamps may not necessarily be the same for the "Local" and "Remote" files.

Interface Exception Report – Destination	*radio-buttons*
When the Invoicing Wizard it executed, for the particular set of data, an exception report is generated. Select the reporting output option for this report.	

Interface Exception Report – Print Queue	*X(20)*
When the Invoicing Wizard it executed, for the particular set of data, an exception report is generated. Select the Series 5 Printer Queue to which this report will be output to as a default.	

⟳ Invoice Wizard Code - Invoicing Options Screen

The properties associated to the Invoicing process for each Invoice Wizard Code are defined with the following screen:

Invoice Wizard Maintenance

Invoice Wizard: **BALTMR**   **Baltimore Office**   - Modify the Properties of

Properties | Interface Options | **Invoicing Options**

Options to automate the Generation, Printing and Posting of Invoices; and when applicable, default settings for On-Demand Invoicing.
(Similar to the "Invoicing Options" used in the "Generate Invoices" and "Invoices Print/Post" operations.)

Invoices are Generated ONLY for Projects with:

Invoice Cycle Code: [ ]   Invoice Layout Code: **1** Daily Invoices - Legal

Invoices are Generated:
- ( ) As Defined by the Specified Invoice Layout   (•) As a Set Within a Single File   ( ) Each as a Separate Document

Output To, or Created As:
- ( ) PDF Document(s)   (•) MS Word 2003 Document(s)
- ( ) MS Word 2003 (Printed)
- ( ) Specified Printer Queue ( ) MS Word 2007/2010 Document(s)   [✓] Have a text version of Invoice(s) Archived ?
- ( ) not applicable   ( ) MS Word 2007/2010 (Printed)   [ ] Email Invoices to Eligible Customers ?
                                                                      [ ] Output an Invoice Index Info File ?

Output Filename(s) Prefix: [ ]

Invoice Postings to Accounts Receivable:

The A/R Sales Batch Code will automatically be assigned   A/R Control Account:
as the next Numeric Code from the A/R Control preferences. **0003 - 0100 -- 040**
                                                             ACCOUNTS RECEIVABLE

Update   **Cancel**

Field Definitions

Projects Invoiced with – Invoice Cycle Code	*X(1)*
The second major function processed by the Wizard is the generation of invoices. Invoices are generated for P/I Projects. Each Project has defined as one of it's properties, an Invoice Cycle Code. For this Wizard Code, you may specify the Invoicing Cycle Code to be used as a filter to select the Projects that are invoiced.	

Projects Invoiced with – Invoice Layout Code	*9(3)*
Invoices are generated for P/I Projects. Each Project has defined as one of it's properties, an Invoice Layout Code. For this Wizard Code, you may specify the Invoicing Layout Code to be used as a filter to select the Projects that are invoiced.	

Invoices are Generated As ?	*radio-buttons*
The Invoices that are generated, when invoked using this Wizard, may be created as	

individual documents, or as a single document holding all invoices. It depends whether the invoices are to be emailed individually to each Customer, or just printed as a set, and distributed using traditional "snail" mail. The same options are provided with the affiliated Invoice Layout, thus you may choose to just default the options to that Layout.

Invoices are Output To, or Created As	*radio-buttons*

When the Invoices associated to the charges that are interfaced are produced, they can be output as a PDF, an MS Word document that is automatically printed, or not; or as an ASCII text file.   If the previous setting was for "**A set Within a Single File**", then they may also just be output directly to a selected Series 5 printer queue. Set the radio-button for the desired results.

Invoice Printing – Archived Option	*check-box*

If the generated Invoices are to be also saved as a Series 5 "Archive", then set the check-box. Note that if Separate Documents are chosen in the preceding option, a separate Archive file will be produced for each invoice.

Email Invoices to Eligible Customers	*check-box*

When generating Invoices as Separate Documents, then as an option, you may also have each one emailed to the customer. Note that they will be emailed only if an email address is provided for the Customer, and the Customer has it's applicable property set to allow emails to be sent.

Output Invoice Index Info File	*check-box*

As an option, when generating Invoices as Separate Documents, a text file will be generated for each invoice. This will contain a list of the Billing Order Number and Order Lines that individual charges were originally associated with.

Output Folder for Separate Document Invoices	*X(120)*

When generating Invoices as Separate Documents, this is the directory in which those invoice documents will be created.

Output Filename(s) Prefix	*X(10)*

When generating Invoices as as PDF or MS Word Documents, they will be assigned filenames in the following formats:

PPPPPPPPPP_99999999_CCCCCC.INV.EXT

Where the following codes are used:

PPPPPPPPP - is the Prefix that is defined by the field
P
99999999   - is the Invoice Number
CCCCCC   - is the Customer Code
.EXT   - is the extension as determined by the type of file.
(ie., .PDF, .DOC or .DOCX)

If the Prefix field is left blank, then the system assigns a prefix of the letter "I"

When an Index Info file is also created with each invoice, it will have the following name:.

PPPPPPPPPP_99999999_CCCCCC-Idx.TXT

A/R Control Account	9(18)-9(5)

Once the Invoices are printed, they will automatically be interfaced to the Accounts Receivable system.   An A/R Control account is automatically assigned to the resulting Sales transactions. The G/L account entered is assigned.

9.11.3 On-Demand Invoicing Controls

The Series 5 Professional Invoicing system provides support for On-Demand Invoicing.

Traditionally, work-in-progress activity is recorded using batched interface or employee time-sheet entry. Invoices are then generated and printed for all those chargeable projects with billable activity.

With On-Demand Invoicing, billable activity is generated immediately after a customer's interaction with a web-site or telephone sales agent. These charges are then grouped as a packet of information in a file, and delivered to an accounting server to be deposited to a pre-designated directory. The Series 5 Professional Invoicing system's On-Demand Servicing function detects the presence of this file, reads the data, generates the invoice, delivers it back to the requesting agent or system, and posts it into the Accounts Receivable system. The process is accomplished typically all in a time-frame of less than 10 seconds.

On Demand Control Sets are used to define the options associated to these invoicing related operations. Each On Demand Control Set could be established to represent a unique set of options perhaps representing charges accumulated for different branch offices, geographic regions, or sales agents. Invoices associated to each Control Set is then dealt with separately, having their accumulated activity loaded, billed, invoices generated, and moved to A/R.

When the On-Demand Servicing function is launched as an operation, it may be configured to service all Control Sets, a group of Control Sets, or individually selected Control Sets. (Note that one of the properties associated to a Control Set is a character string that is used as a prefix to the filenames that contain the packet of charges belonging to each On-Demand Invoice that is to be generated). You could start multiple instances of the On-Demand Servicing function, where each one is looking for On-Demand Invoice requests. Each On-Demand charges packet file must be created in the designated folder and have a predefined filename). For further discussion, refer to the topic under the Invoice Processing Functions chapter titled Launch On-Demand Invoicing 340.

The On-Demand Invoice Control Sets Maintenance function is accessed from the P/I Main menu, by selecting **On-Demand Invoicing Controls...** from the **Control Options** drop-down menu.

⊙ On-Demand Invoice Control Set Maintenance Grid

On-Demand Control Set Codes are maintained using a Series 5 grid processing screen.
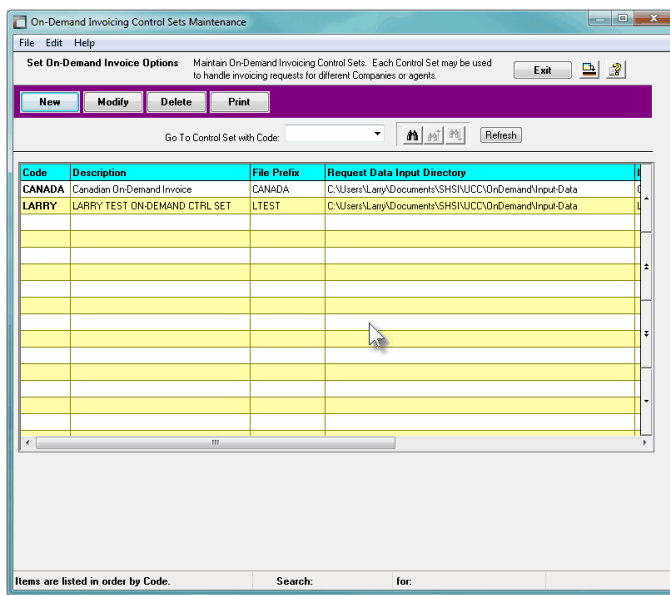
"Fast Buttons"	
New	Add a new On-Demand Control Set
Modify	Modify the On-Demand Control Set highlighted in the grid
Delete	Delete the On-Demand Control Set highlighted in the grid
Print	Generate a report listing the On-Demand Control Sets already on file

Edit an existing On-Demand Control Set Code by double-clicking it's associated row. Standard Series 5 grid controls apply.

The Print Options tab screen will be displayed, from which you can select to direct the output to be displayed to the screen, archived, printed, saved as an MS Word document, saved as a PDF, and/or emailed. *(Refer to the topic titled Report Generation and Printing 159 for full details).*

The report listing the On-Demand Control Set Codes on file, if archived, will be catalogued with a report name of **DEMANDINVCTRL.LST**.

➡ On-Demand Control Set Code - Interfacing Options Screen

The properties associated to the Data Interfacing process for each On-Demand Control Set Code are defined with the following screen

➖ Field Definitions

On-Demand Control Set Code	*X(6)*
This is the alphanumeric code assigned to the On-Demand Control Set. When the On-Demand Servicing function is launched, each Control Set will be presented with the option to be included for processing.	

Description	*X(40)*
Is a description of the On-Demand Control Set. This is displayed when the On-Demand	

Servicing function is launched. It would typically be the name of the office or the set of charges being interfaced and invoiced.

Service Launch Group	*99*

When the On-Demand Servicing function is launched, the operator may choose to have ALL Control Sets, a Selected Control Set, or all those that have been assigned to a specific Launch Group serviced. If you wish to have a sub-set of your On-Demand Control Set requests serviced by a given instance of the On-Demand Service, assign a common Launch Group Number to those Control Sets.

Requests/Interface Input File – Folder	*X(120)*

Specify the name of the folder where the charges packet files are deposited when an On-Demand Invoice is requested to be generated. This is the system directory/folder where the servicing routine will attempt to locate files having the expected filenames associated to the Control Set being set up.

You may click on the **Browse** button to locate the desired directory. Only those folders which are descendants of the root directory, of that which is defined by the From Folder field, can be displayed. So if you wish to choose a folder on your "C" drive, enter **C:** in the From Folder field before clicking the "Browse" button. Setting the From Folder field blank, or to a path that does not have a drive letter designation, would result in only being able to browse descendants of the user's default working directory.

Requests/Interface Input File – Input File Prefix	*X(10)*

Specify the base name of the On-Demand Request charges files to be loaded. The servicing routine uses the Name Prefix to build the names of the files that are to be loaded.

The On-Demand Servicing routine loads the basic WIP charge records for the given Control Set, along with the Recap supporting records. These need to be provided, each in their own file. Each Control Set Code represents the charges, say for a particular office. The File Name Prefix is used to identify the interface files for each office.

The trigger that is used to signal the On-Demand servicing routine is the arrival of a new Recap data file in the designated input folder.

The following filenames are expected to be assigned to the WIP charges and the Recap detail files:

> *PPPPPPPPPP_AAAAAA_NNNNNN_yymmdd_hmmss*_ODBWIP.dat

> *PPPPPPPPPP_AAAAAA_NNNNNN_yymmdd_hmmss*_ODBRcp.dat

Where: *PPPPPPPPPP* - Is the File Name Prefix associated to the Control Set Code
        AAAAAA - Is the code identifying the Agent or Web Site requesting an

invoice

NNNNNN	- Is a user defined request number
yymmdd	- Is the date the request was made
hhmmss	- Is the time the request was made

When the On-Demand Service is executed, the trigger that is used to signal the request for an invoice to be generated is the arrival of a new Recap data file in the designated input folder. The routine will always attempt to find the earliest pair of WIP and Recap files in the selected directory based on the create dates of the files. When a request is identified and being processed, the Recap file will be renamed with a **.gen** extension. Once finished, both the WIP and the Recap files are deleted.

WIP and Recap files as Request Triggers

When a pair of files are created, or deposited, into the designated input directory, it is critical that the WIP file be placed in first. If the Recap file is deposited or created first, errors may be generated, and the invoice WILL NOT BE GENERATED.

Interface Exception Report – Destination	***radio-buttons***
When the WIP and Recap records for an On-Demand invoice is being read, if problems are encountered or undefined task codes or project codes are read, an Exception report will be generated. Specify how this report is to be output.	

Interface Exception Report – Print Queue	***X(20)***
When an Exception Report is generated and the option to have it printed is selected, identify the Series 5 Printer Queue to which this report will be output to.	

Interface Exception Report – Email Option	***check-box***
When an Exception Report is generated you may specify, as an option, to have the report emailed to the requesting agent. (The Agents name and email address is provided in the 1st record read from the input Recap file).	
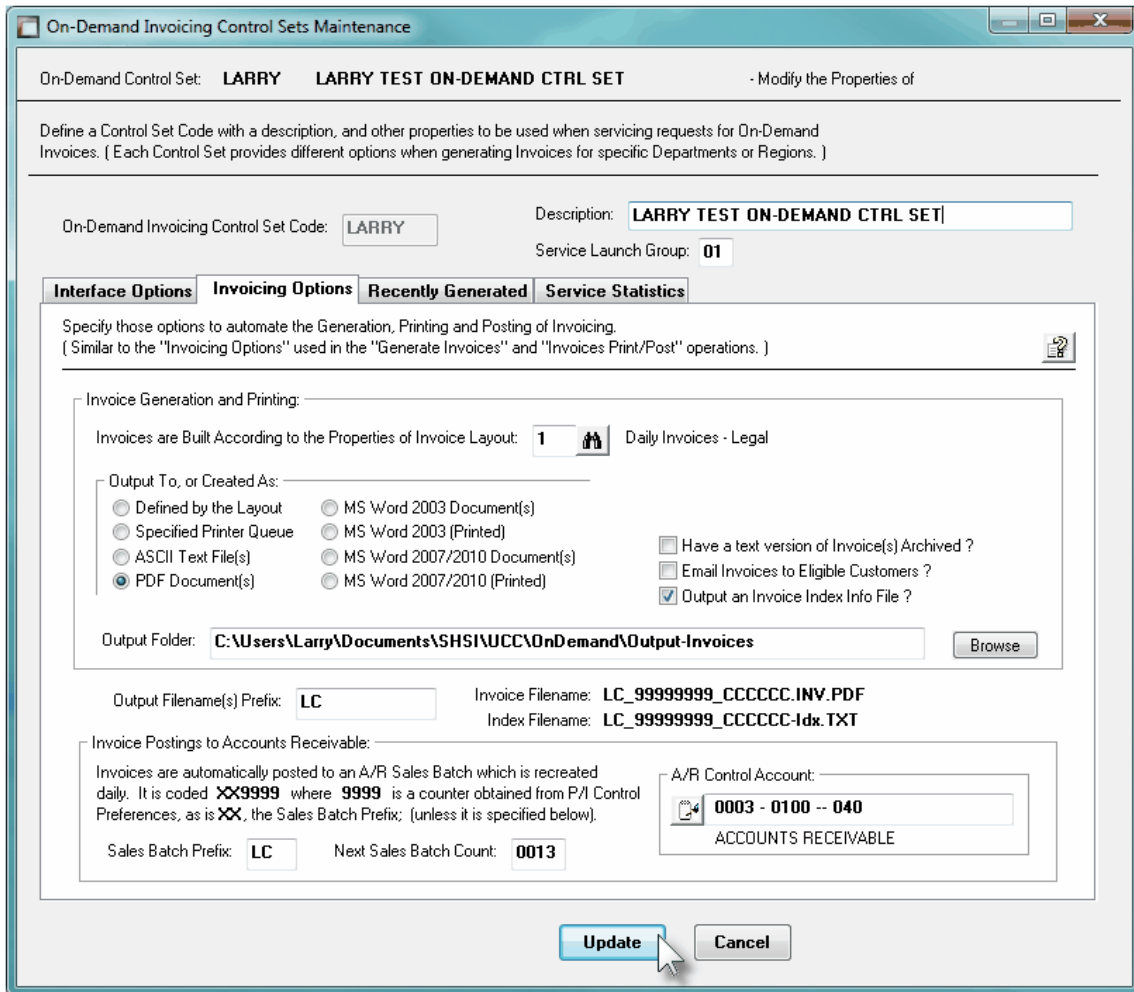
Interface Exception Report – Email Address	***X(120)***

When an Exception Report is generated you may specify, as an option, to have the report emailed to the requesting agent. You may also request to have a copy of the email sent to the email address specified by this field.

➲ On-Demand Control Set Code - Invoicing Options Screen

The properties associated to the Invoicing process for each On-Demand Control Set Code are defined with the following screen:

⬛ Field Definitions

Invoices are Built based on Invoice Layout Code	*9(3)*

When an On-Demand Invoice is processed, regardless of the Invoice Layout defined for the Project associated to the input data, the system will use the properties for this Invoice Layout specified for the Control Set.

Invoices are Output To, or Created As	*radio-buttons*

When the On-Demand Invoice is produced, it can be output as a PDF, an MS Word document that is automatically printed, or not; or as an ASCII text file.

Output To, or Created As:
- ○ Defined by the Layout   ○ MS Word 2003 Document(s)
- ○ Specified Printer Queue   ○ MS Word 2003 (Printed)
- ○ ASCII Text File(s)   ○ MS Word 2007/2010 Document(s)
- ● PDF Document(s)   ○ MS Word 2007/2010 (Printed)

The specified Invoice Layout also has most of the properties with respect to generating On-Demand Invoices. If you wish to just you the options associated to the Invoice Layout, the click the Defined the the Layout radio-button.
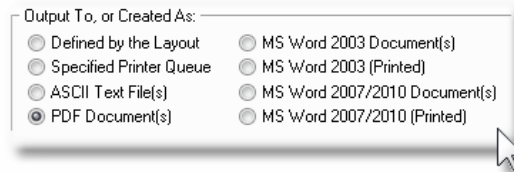
If the Invoice is just to be printed, click the Specified Printer Queue. You will be prompted for the appropriate Series 5 Printer Queue.

Have Invoice(s) Archived	*check-box*

If the generated Invoices are to be also saved as a Series 5 "Archive", then set the check-box. Note that if this option is selected, then a separate Archive file will be produced for each invoice.

Email Invoices to Eligible Customers	*check-box*

When generating Invoices as PDF or MS Word Documents, as an option, you may also have each one emailed to the customer. Note that they will be emailed only if an email address is provided for the Customer, and the Customer has it's applicable property set to allow emails to be sent.

Output Invoice Index Info File	*check-box*

As an option, when generating Invoices as PDF or MS Word Documents, a text file will be generated for each invoice. This will contain a list of the Billing Order Number and Order Lines that individual charges were originally associated with.

Output Folder for Invoices	*X(120)*

When generating Invoices as PDF or MS Word Documents, this is the directory in which those invoice documents will be created.

Output Filename(s) Prefix	*X(10)*

When generating Invoices as as PDF or MS Word Documents, they will be assigned filenames in the following formats:

> ***PPPPPPPPPP_99999999_CCCCCC*.INV.*EXT***

Where the following codes are used:

> ***PPPPPPPPP*** - is the Prefix that is defined by the field
> ***P***
> ***99999999*** - is the Invoice Number
> ***CCCCCC*** - is the Customer Code
> ***.EXT*** - is the extension as determined by the type of file.
> (ie., .PDF, .DOC or .DOCX)

If the Prefix field is left blank, then the system assigns a prefix of the letter "**I**"

When an Index Info file is also created with each invoice, it will have the following name:.

> ***PPPPPPPPPP_99999999_CCCCCC-Idx*.TXT**

On-Demand Invoice Sales Batch Prefix & Next Number	*X(2) - 9(4)*

Once an invoice is generated and written to the designated output folder, and/or delivered via email to the agent, the Invoice is then automatically posted to an Accounts Receivable Sales Batch. A new Sales Batch is created each date On-Demand invoices are generated. The Sales Batch Code assigned can be constructed either using defined codes here in each On-Demand Control Set, or from the settings defined in the P/I Control Preferences. (Leave the Prefix field blank to force the system to use the codes defined by the P/I Control Preferences).

The Sales Batch code is constructed as **PP9999**, where **PP** is the 2 character Prefix entered, and **9999** is a number that is assigned and incremented for each new batch created.

A/R Control Account	*9(18)-9(5)*

Once the Invoices are printed, they will automatically be interfaced to the Accounts Receivable system. An A/R Control account is automatically assigned to the resulting Sales transactions. The G/L account entered here is assigned.

⊙ On-Demand Control Set Code - Recently Generated Invoices Screen

For each Control Set, a list of the 50 most recently generated Invoices is kept. They are displayed in the following screen.:

➲ On-Demand Control Set Code - Service Statistics Screen

Statistics are accumulated for the On-Demand Invoices that are generated for each Control Set. The following screen is displayed, from which you may choose to display statistics accumulated for the last 60 Hours, Days, Weeks or Months. (As well, a list is displayed showing each period, with the associated statistic).

Statistics recorded include the # of Invoices generated, the Average Wait Time for a request to be serviced, and the Average # of Seconds it took the system to process the request and generate the invoices.

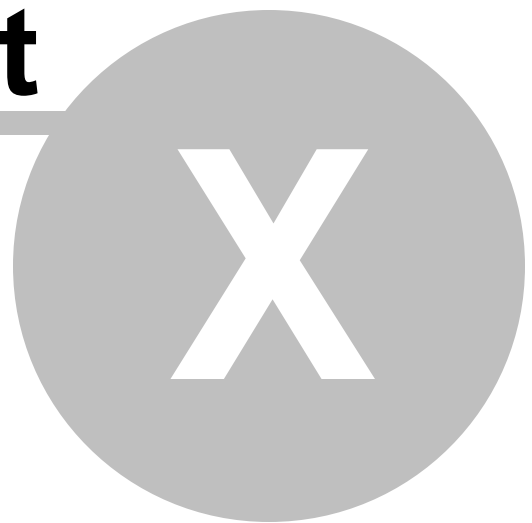## Field Definitions

Show	radio-button
Choose which set of statistics are to be displayed in the bar chart.	

For Intervals of	radio-button
Choose the Period Interval for which accumulated statistics are to be displayed.	

Part

X

10   Appendix

10.1   P/I Data Files

The Series 5 system provides for a reasonably flexible approach to defining where your data files are kept on your system. Your System's Manager will have established how this is configured. *If you are accessing this documentation to figure that out, please refer to the help for "Professional Invoicing Systems Management".*

Regardless whether processing under UNIX, or MS Windows, the structures of the file system will be similar, and the name of the files are the same. Remember that UNIX filenames are case sensitive.

10.1.1   Data Directory Structure

Each Company maintained on your system will have a directory structure that is separate from one another.

**Important Note**

The Series 5 system allows you to maintain accounting files for a number of different companies systems. The data files for each of these companies should be kept in a separate directory structure.

  🔵 Sample Directory Structure under Windows

This tree diagram shows the structure for 3 Companies defined in this system, one of which has been expanded for this display.
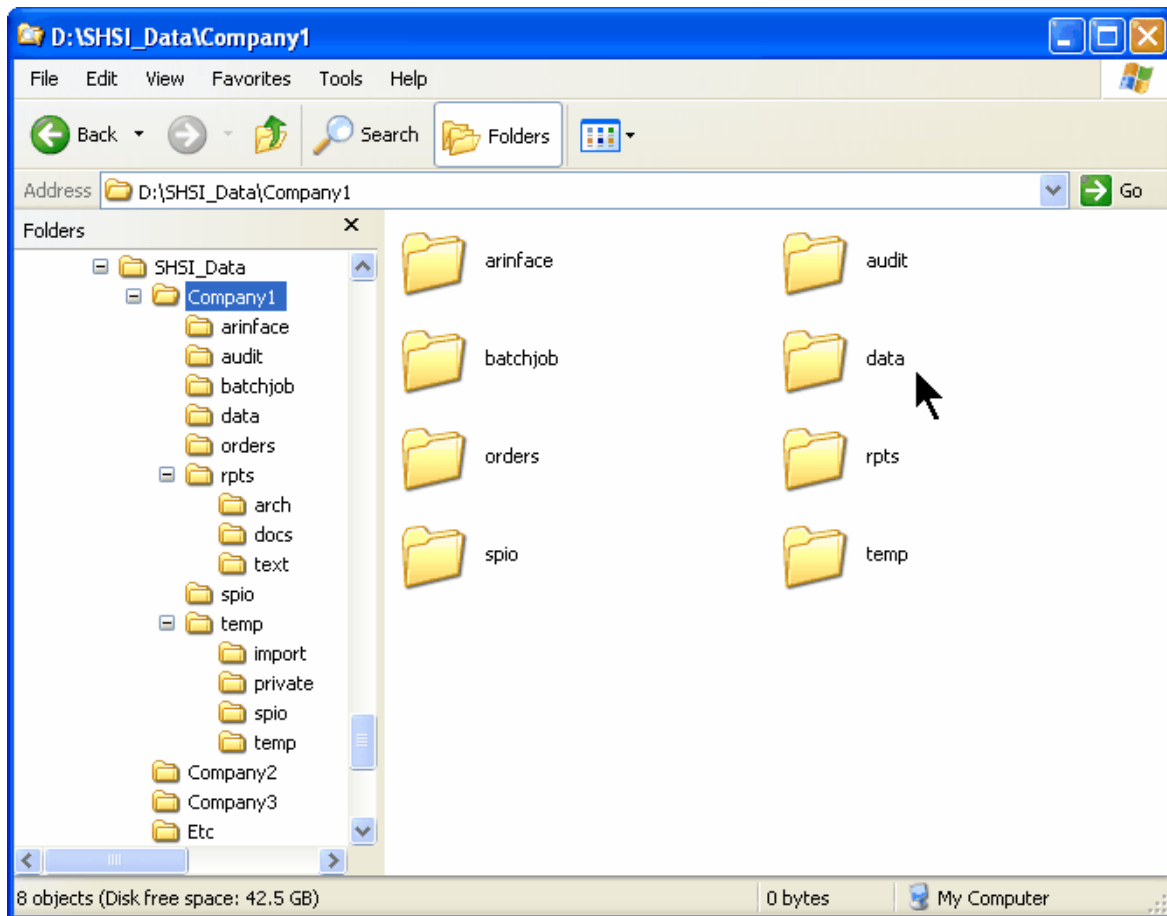
- ❖ Structures for 3 companies are shown under the SHSI_Data folder. **Company1**, **Compan2** and **Company3**

- ❖ The Series 5 Control files are stored in the **d:\SHSI_Data\etc** sub-folder.

- ❖ The actual accounting data files are stored in the **data** sub-folder within each **Companyi** directory

- ❖ Archived reports are stored in the **rpts\arch** sub-folder

Edit an existing Company by double-clicking it associated row.   Standard Series 5 grid controls apply.

10.1.2 P/I System Control Files

These files are used to hold the information to manage your Professional Invoicing data files. They may be be found in the directory specified for the associated company system. There is only one of each of the following files.

P/I System Control files

Filename	Description
ARPASSFL.*XXX*	Used as a record to pass assorted fields within the A/R system. In some cases, data is passed from other subsidiary systems to the A/R system.
ARCNTROL.*XXX*	Set up in the A/R system, holds the Control properties information also used for the P/I system
CODSELCT.*XXX*	Used by those applications that offer record filtering screens. If a set of random codes are selected as filters, they are stored temporarily in this file.
COSTCNTL.*XXX*	Holds the definitions for the Cost Plus options for the P/I system
DEMCNTRL.*XXX*	Holds the definitions of the A/R Demographic Codes as used by the P/I system
FLEXCTRL.*XXX*	Holds the definition of the G/L Account Number.
PICNTROL.*XXX*	Holds the Control properties information for the P/I system
RECENTS.*XXX*	A number of maintenance and processing functions remembers the most recently accessed codes. These are stored in this file.
USERACC5.*XXX*	Holds the access rights of all users to all Series 5 systems.

Please Take Notice

The actual extension of the filenames listed will be that defined in the properties for your particular Company System.

10.1.3 P/I Company Data Files

These files are used to hold the master codes and transaction records used by the P/I application. They may be be found in the directory specified for the associated company system.

➡ P/I System Data files

Filename	*Description*
ACCRUWRK.*XXX*	A temporary work file that is built when the Generate Accrual function is executed.
BASEUNIT.*XXX*	Holds Monthly Base Units when the Employee Monthly Productivity report is generated.
COSTCTRMAP.*XXX*	Holds the master Cost Center / Credit Card mapping records that might be defined, used for invoices submitted to Paymentech. *(This file is encrypted).*
COSTPLUS.*XXX*	This file hold the Cost Plus Transactions that get generated from the Cost Plus function. These records remain on the system until they are posted.
DFLTPROJ.*XXX*	Holds the Default Project Template records that might be defined in the P/I system.
DISBRMNT.*XXX*	Hold the P/I Disbursement Charges records. They will remain on the system until moved to the associated archives file.
DISBRMNTARCH.*XXX*	Hold the archived P/I Disbursement Charges records.
EDISPECS.*XXX*	Holds the master EDI Control Specifications records that might be defined.
GENWIPTX.*XXX*	Hold the General WIP Transaction records that have been entered, or interfaced into the P/I system. They will remain on the system until they are posted to the WIP file.
INVLYOUT.*XXX*	Holds the master P/I Invoice Layout Codes records.
INVWIPWK.*XXX*	This is a temporary work file that is created to sort WIP items in preparation for invoicing.
PIBUDGET.*XXX*	Holds Budgets that might have been set up in the P/I system.
PICODESV.*XXX*	Holds most of the master codes records that are used in the P/I system. Each of the different types of codes has a common prefix in the records defined as follows:

	? TBBG - Budget Group Codes ? TBDC - Disbursement Codes ? TBEM - Employee Codes ? DEPT - Employee Department Codes ? TBEG - Employee Groups Codes ? TBJC - Employee Job Class Codes ? TBIG - Invoice Group Codes ? TBLO - Location Codes ? TBCL - P/I Client Property Codes ? TBRC - P/I Rate Class Codes ? TBTA - Task Codes ? TBTX - Tax Exempt Codes
PICOMMNT.*XXX*	Holds the P/I Comments that might be defined associated to Task Codes.
PIINVOICE.*XXX*	Holds the P/I Invoice Header records. These are copied to the Invoice History file after being posted to Accounts Receivable.
PIINVOICPVT.*XXX*	Holds any "Private" P/I Invoice Header records. If executing as a thin-client on a UNIX system, this file is stored in the directory defined by the Series 5 Company System's Temporary Folder. On windows servers systems, is stored in the operators C:\Documents and Settings\USER\My Documents\SHSI
PIMASTER.*XXX*	Projects may be defined as Master Projects. This record holds the list of Subordinate Projects that are associated to any Master Project. (Up to 24 Subordinate projects may be defined).
PINVDST.*XXX*	This file holds the Revenue Distribution records associated with each P/I Invoice. These records are deleted when invoices are posted to the A/R.
PINVHIST.*XXX*	Holds the Historic P/I Invoice Header records. They will remain on the system until moved to the associated archives file. *(This file may become very large over time, and as such, should be created as a Type 4 or 5 Vision file).*
PINVHISTARCH.*XXX*	Hold the archived P/I Invoice History records. *(This file may become very large over time, and as such, should be created as a Type 4 or 5 Vision file).*
PINVITEM.*XXX*	Holds the P/I Invoice Item records. They will remain on the system until moved to the

	associated archives file. *(This file may become very large over time, and as such, should be created as a Type 4 or 5 Vision file).*
PINVITEMARCH.*XXX*	Hold the archived P/I Invoice Items records.
PINVSELC.*XXX*	This file holds pointer keys to those WIP and Disbursement records that have been selected fro billing. This file is used when Invoices are generated, and is deleted once invoices are posted to the A/R system.
PINZWIZARD.*XXX*	Holds the master PI Invoicing Wizard records. For each Invoicing Wizard, holds parameters used for Interfacing WIP charges, Generating Invoices, and Posting them to the A/R system.
PIPROJCT.*XXX*	Holds the master Project records.
PIRATES.*XXX*	Holds the master P/I Special Rates records.
PIREVENU.*XXX*	Holds the master P/I Special Revenue Accounts records.
PIRPTCTL.*XXX*	These records hold the Tasks that are used for the Employee Absentee Analysis function.
PITIMTRX.*XXX*	This file holds the Employee Time Sheet Transaction records.
PITIMLOCAL.*XXX*	Holds any "Private" Time Sheet records. If executing as a thin-client on a UNIX system, this file is stored in the directory defined by the Series 5 Company System's Temporary Folder. On windows servers systems, is stored in the operators C:\Documents and Settings\USER\My Documents\SHSI
PROJBILLTO.*XXX*	Holds the master Project Bill-To records, and the 3rd Party Billing records.
PROJEDIOP.*XXX*	Holds the master Project EDI definitions' records. One record exists for each Project defined to produce EDI invoices.
PRPITIME.*XXX*	Holds the records created from the Payroll system that are employee time distributions that end up as P/I WIP transactions.
RECAPDET.*XXX*	Hold the Recap Detail records. These are data records that are interfaced form a 3rd party system

	to provide additional information to with WIP charge. They will remain on the system until moved to the associated archives file. *(This file may become very large over time, and as such, should be created as a Type 4 or 5 Vision file).*
RECAPDETARCH.*XXX*	Hold the archived Recap Detail Items records. *(This file may become very large over time, and as such, should be created as a Type 4 or 5 Vision file).*
TMDWKnnn.*XXX*	Holds the Time Entry Distribution work records. These are totals of distributions used during the Time Sheet batch posting function for systems that generated distributions when time sheets are entered.
WIPRECRD.*XXX*	Holds the Work-In-Progress records. They will remain on the system until moved to the associated archives file. *(This file may become very large over time, and as such, should be created as a Type 4 or 5 Vision file).*
WIPRECRDARCH.*XXX*	Hold the archived WIP records. *(This file may become very large over time, and as such, should be created as a Type 4 or 5 Vision file).*

10.1.4   Email Message Text Files

These files are used to hold the text or HTML for the email messages that are sent from assorted functions in the Series 5 systems. They must be located in the sub-directory named **Email-Templates** found in the *System Generated and Archived Reports* directory associated to each applicable Series 5 company system.

> ➡ P/I System Control files

	Filename	*Application Function*	*Email Subject/ Attachment*
A/P	AP_PositivePay_EmailMessage.TXT	Generate Fraud Interface File	Summary of A/P Checks Generated

A/P	APApproveNew_EmailMessage.TXT	Payment Approval Status Report	Request Managers to approve payment with scanned image of Invoice and PO
A/P	APApproveRemind_EmailMessage.TXT	Payment Approval Status Report	Reminder to Approve Payment with scanned image of Invoice and PO
A/P	AP_PymtAdvice_EmailMessage.TXT	ACH Direct Deposit Payments	Notify Suppliers of an ACH Direct Deposit with a Payment Advice Notice
OP	Quote_EmailMessage.TXT	Quotation Entry and Editing	A Quote for purchase of goods
P/I	DBAgent_Inv_EmailMessage.TXT	On-Demand Invoicing	PDF Invoice sent to the Agent
P/I	DBCust_Inv_EmailMessage.TXT	On-Demand Invoicing	PDF Invoice sent to the Customer
P/I	EReq_Invoice_EmailMessage.TXT	E-Request Server	ASOW Single Invoice Reprint request
P/I	EReq_InvsRprint_EmailMessage.TXT	E-Request Server	ASOW Multiple Invoices Reprint request
P/I	EReq_MultInvSp_EmailMessage.TXT	E-Request Server	ASOW Multiple Recap Spreadsheets request
P/I	EReq_RecapRpt_EmailMessage.TXT	E-Request Server	ASOW Requested Recap Report
P/I	EReq_RecSpsheet_EmailMessage.TXT	E-Request Server	ASOW Single Recap Spreadsheet request
P/I	WIZ_Invoice_EmailMessage.TXT	Daily Interface/Invoicing Wizard	PDF Invoices created from the Invoicing Wizard
P/I	ODB_ExceptRpt_EmailMessage.TXT	On-Demand Invoicing	Exception Report for On-Demand Trigger File errors
P/I	OverDue_Invoice_EmailMessage.TXT	Reprint Historic/Overdue Invoices	PDF Invoices sent to the Customer
PO	BuyerNotify_EmailMessage.TXT	PO Receivings Entry	The Buyer for a PO is notified of the receipt of goods
PO	PO_RFQ_EmailMessage.TXT	Requisition/RFQ Entry	Request-for-Quote sent to Suppliers
PO	PurchaseOrder_EmailMessage.TXT	PO Query and Printing	Purchase Order sent to Suppliers

PO	Requisition_EmailMessage.TXT	Requisition/RFQ Entry	Request Managers to Approve the issuing of a PO
W/M	WebUserPword_EmailMessage.TXT	Web Users Maintenance	New Web User's assigned Password
W/M	ForgotPword_EmailMessage.TXT	Account-Status-On-Web Service	ASOW Requested Forgotten Password

Please Take Notice

On Unix systems, the file names are case sensitive. On all operating systems, the Pseudo Variables must be capitalized.

You may enter any number of pre-defined pseudo variables, that when the associated email is generated, will be replaced with specific text strings. These are defined as follows:

Pseudo Variable	Replacement Text
%%GEN-DATE%%	Date and Time an Invoice was generated.
%%DOC-NUMBER%%	Document Number of the attached document (typically an Invoice #)
%%DOC-TYPE%%	The Type of Document (ie., Invoice, Credit)
%%RECIPIENT-NAME%%	The email Recipient's name
%%RECIPIENT-EMAIL%%	The email Recipient's email address
%%COMPANY-CODE%%	The Customer Code for which the attachment is applicable to.
%%COMPANY-NAME%%	The Customer's Company Name for which the attachment is applicable
%%ATTENTION-TO%%	The attached Invoice Attention-To individual
%%ADDRESS-LINE-1%%	The attached Invoice Address Line 1
%%ADDRESS-LINE-2%%	The attached Invoice Address Line 2
%%ADDRESS-LINE-3%%	The attached Invoice Address Line 3
%%CITY-STATE%%	The attached Invoice Address State code

%%COUNTRY%%	The attached Invoice Address Country
%%MY-STRING-1%%	These strings are applicable to the given topic of the email as follows:
%%MY-STRING-2%%	
%%MY-STRING-3%%	STRING-1 - A/P Fraud Interface Check Count STRING-1 - ASOW E-Request Invoice - Type of Docume STRING-1 - ASOW Forgot Password - Web-User ID Cod
%%MY-STRING-4%%	STRING-2 - ASOW Forgot Password - Password STRING-1&2 - ASOW Multiple Invoice Recap Report - Start/
%%MY-STRING-5%%	STRING-1 - All PI Invoices - Customer's Membership ID C STRING-2 - Overdue Invoice - # of Overdue Days STRING-3 - Overdue Invoice - # of Invoices that have bee STRING-1 - New Web User's Password - Web User ID C STRING-2 - New Web User's Password - Password STRING-3 - New Web User's Password - Password Expi

10.2   System Operational Variables

Some aspects of the Series 5 P/I system can be controlled through runtime configuration variables. This mechanism provides a great deal of flexibility, because these variables can be modified by each site as well as directly by an AcuGT program.

Configuration variables are maintained in a runtime configuration file. This standard text file can be modified by the host system's text editor. Each entry in the runtime configuration file consists of a single line. All entries start with a keyword, followed by one or more spaces or tabs, and then one or more values.

These variables may also be defined in each operators' execution environment. On both UNIX and Windows systems, these would be defined as environment variables.

10.2.1   Environment Variables

The following variables may be defined for the operator's environment. Under UNIX, these may be seen by entering the shell **env** command. Under Windows, these may be seen by entering the DOS **set** command.

Variable	*Description*	*Description*
APPDATA	C:\Documents and Settings \xxxxxx\Application Data	The 1st 2 characters are used to determine the users' Home Drive on their PC. (Is set up by Windows)

SHSI_USER_ NAME	SHSI5.LARRY	The default Signon User code used when signing onto the system from a client PC.
USERNAME	SHSI	The Windows client signon name. Used to determine the operators actual "/My Documents" folder pathname. (Is set up by Windows)
S5_DIR	D:\S5	Required ONLY by the user building the Series 5 executables

10.2.2 Configuration Variables

The following variables may be defined in the runtime configuration file. These variables can only be defined or updated by your Systems Manager, or support staff from Sentinel Hill Software Inc.

Processing Tip

If you need to maintain different sets of operating environments on your system, you may do so by setting up different runtime configuration files. In this case, the different environments would execute totally independent of one another. In particular, the two variables that would provide total independence are **SHSI_CTRL_PATH** and **CODE-PREFIX**.

■ Control and File Management Variables

The following variables are used to define the location of different sets of files used by the Series 5 applications. (Those in red are critical to proper execution)

Variable	Default or Sample Argument	Description
ACURUN_NAME	wrun32	The name of the AcuGT runtime. Used to build the command line for Background Job Execution
ccc_SPIO_PATH	d:\acctg\comp \spiodir	The default directory used for import/export for Series 5 Company System ccc. This is also used as the directory where the form letters for A/R Dunning Letters are stored.
ccc_ORTXT_PATH	d:\acctg\comp \txtorders	The default directory used for importing O/P Text Orders for Series 5 Company System ccc
ccc_TRXTXT_PATH	d:\acctg\comp \trxinput	The default directory used for importing A/R and A/P transactions for Series 5 Company System ccc
ccc_IMAUDIT_PATH	d:\acctg\comp \imaudit	The default directory used for maintaining O/P Inventory Audit files for Series 5 Company System ccc
ccc_DUNLETTER_ PATH	d:\S5\dun- templates	The default directory used for maintaining A/R Dunning Letter template files for Series 5

		Company System ccc
CODE_PREFIX	d:\S5\bin\runs	The directory path in which the executable programs reside.
IAMESS_x1	"OK to Sell Text line 1"	Lines of text displayed in O/P when an item is out of stock, and operator is prompted. These are the 3 lines used in the prompt. The x is used to allow for different sets of texts for different Inventory Activity Codes that may have been set up for the Inventory Item in question. • A - Active • F - Forecasted • O - Obsolete • F - Planned • D - Discontinued • C - Cancelled • I - Needs Information • S - Suppressed
IAMESS_x2	"OK to Sell Text line 2"	see above
IAMESS_x3	"OK to Sell Text line 3"	see above
HELP_PREFIX	d:\S5\bin\help	The directory path in which the Help files reside.
IMAGE_PREFIX	d:\S5\bin \images	The directory path in which all bitmapped images are stored.
LAUNCH_BCKGRND_CMD	wrun32 -d -c d:\s5\etc\cblcfgui	This is the shell command that is used to execute jobs submitted for execution in the Background Job Processor
m-THIN-DRIVE-MAP	/user/larry/data	On thin client systems, when attempting to print to, or save text export to a file on mapped drive M, (which is mapped to a directory on the UNIX server), then the file will actually be written to the directory path specified as the argument
MANIFEST_IN_PATH	d:\acct\comp \manif-dir	
PI-INV-DESC**N**	B Software Development	Defines the Invoice Layout Generation Type and Descriptive text printed on P/I Invoices for charges that are sub-totalled by their WIP Consolidation Flag when set to **N**, (where **N** = 1, ... 9)
SHSI_ACUCON-EREQUEST-MODE	1, 2, 3, or 4	Used to determine how E-Requests are handled by the Web Management system: ➢ 1 - Use AcuConnect on a remote server ➢ 2 - Use AcuConnect initiated from the E-Request Server program running on the PC ➢ 3 - Don't use AcuConnect at all.

		Process requests directly from the E-Request Server program on the PC ➢ 4 - Use AcuConnect only for requests that don't generate MS Word or Excel documents
SHSI_CTRL_PATH		The Series 5 applications are controlled using a number of system files. These files are stored in the directory path defined here.
SHSI_JOBQ_PATH		When functions are set up to be executed in the Background or Night Job Processor, information about the job is stored in a file that is written in the directory path defined here.
SHSI_REMOTE	BRANCH10	If entering A/P Transactions in a remote branch where the Batch file is to be transmitted to head office, this is the 8 character branch code embedded in the A/P Batch's created by field.
SORT_DIR	c:\windows\temp	The directory path in which temporary sort files are created used by the system. On FAT systems, this path should be on the users PC. On THIN systems, it should be on the UNIX server.
WIN32_NATIVECTLS	1 or 0	Set to 1 to enable the workstation's theme in how the Windows controls are displayed. This is only available to Windows XP, Windows Vista and Windows 7 using Acu-GT 8.1 or later.
V-VERSION	3	The default Revision of the type of AcuGT files to be used. Must be set to 3

⊟ Mail Management Control Variables

The following variables are used to define to define Forms that may be printed. The argument strings are printer command strings that are unique to the given types of printers.

Variable	*Default or Sample Argument*	*Description*
DOS_MAIL_CMD	d:\s5\util\DOSEMAIL	%RECEIVER_NAME% %RECEIVER_ADDRESS% %SENDER_NAME% %SENDER_ADDRESS%

		SUBJECT% %MESSAGE_FILE% %ATTACHMENT% %ATTACHMENT2% The shell command that is executed on Windows systems to have email sent using a mail program other that MS Outlook, (or other MS mail programs). In the Series 5 system, is used to access a 3rd party utility to send email to Lotus Notes users. Each pseudo variable will be replaced with the applicable string, or path.
DOS_MAIL_PATH		The directory path in which the temporary mail messages are created on the Windows PC when mail is sent using the DOS_MAIL_CMD
UNIX_MAIL_CMD		The shell command that is executed on UNIX systems to have email sent
UNIX_MAIL_PATH		The directory path in which the temporary mail messages are created on the UNIX server when mail is sent using the UNIX_MAIL_CMD.
WEB_EDOCS_DIRECTORY	d:\s5\WEB-Etmp	The directory path in which temporary files are created used to send attachments as emails on MS Windows platforms.

▬ Printer Control Variables

The following variables are used to define to define Forms that may be printed. The argument strings are printer command strings that are unique to the given types of printers.

Variable	*Default or Sample Argument*	*Description*
<my queue name 1>	PRINTER1 -P SPOOLER	Defines a Series 5 Print Queue named **PRINTER1** that is designated as a Windows printer. When the runtime opens a file assigned to "*-P SPOOLER*, it automatically initiates a job with the Windows spooler and constructs print pages in accordance with the program. The runtime uses the default printer and font. If the user looks for the job in the spooler, it is named with the current title of the AcuGT-GT window. *Note that you must also set up a Printer Queue named* **PRINTER1** *using the Printer Queue Maintenance function found on the Main Menu under System Maintenance on the menu bar.*
<my queue name 2>	LARRYPRIN	Defines a Series 5 Print Queue named

	TER2 -P SPOOLER-DIRECT	**LARRYPRINTER2.** You would define the queue with ***-P SPOOLER-DIRECT*** if a Series 5 form was to be assigned to this printer output, or if the application formatted the printout with embedded control codes. In this case, the print job to be sent to the printer via the Windows spooler, but the program does not use the spooler to format the pages. You must use embedded control codes to handle formatting (much as you would under UNIX if you used the UNIX spooler).
\<my queue name 3\>		

The following variables are used to identify the default settings for the different types of special forms that may be printed. Each variable must have 3 arguments, as follows, providing the Queue Name, the Create Option, and the Target output:

      \<ccccc\>-FORM-Q   \<Queue-Name\>   \<Create-Option\>   \<Output-Target\>
where:

    \<ccccc\> is the Series 5 Company System code to which the variable is to be applied to

    \<Queue-Name\> is one of the Series 5 Queues that has been defined

    \<Create-Option\> is either **RECREATE**, **APPEND** or **DISTINCT**

    \<Output-Target\> is one of the following:

PRINTER	- Output to the selected Printer Queue
PRINT	- Output to the selected Printer Queue
ARCHIVE	- Output only as Archived
DISK	- Output only as Archived
PRINT&ARCHIVE	- Output to the selected Printer Queue and have Archived
BOTH	- Output to the selected Printer Queue and have Archived
BROWSE	- Output to the Series 5 Browser
ASCIIDISK	- Output to disk as an ASCII Text document
WORDDISK	- Output to disk as an MS Word document
PRINT&WORD	- Output to disk as an MS Word document and to selected Printer
ARCHIVE&WORD	- Output to disk as an MS Word document and have Archived

	WORD2003 - Output to disk as an MS Word 2003 document **PRINT&WORD2003** - Output to disk as an MS Word 2003 document and to the selected Printer **ARCHIVE&WORD2003** - Output to disk as an MS Word 2003 document and have Archived **WORD2007** - Output to disk as an MS Word 2003 document **PRINT&WORD2007** - Output to disk as an MS Word 2003 document and to the selected Printer **ARCHIVE&WORD2007** - Output to disk as an MS Word 2003 document and have Archived **PDFDISK** - Output to disk as a PDF document **PRINT&PDF** - Output to disk as a PDF document and to the selected Printer Queue **ARCHIVE&PDF** - Output to disk as a PDF document and have Archived	
ccc-OP-INVOICE-Q	\<my queue name> RECREATE BOTH	Print Queue used for O/P Invoices
ccc-OP-INV-REPRINT-Q	\<my queue name> RECREATE PRINT	Print Queue used for O/P Reprinted Invoices
ccc-OP-POS-INVOICE-Q	\<my queue name> RECREATE BOTH	Print Queue used for O/P Point-of-Sales Invoices
ccc-OP-QUOTE-PRINT-Q	\<my queue name> RECREATE ARCHIVE&PDF	Print Queue used for O/P Customer Quotes
ccc-xxx-PACKSLIPS-Q	\<my queue name> RECREATE BOTH	Print Queue used for O/P Packing Slips for Location xxx
ccc-xxx-PICKS-Q	\<my queue name> RECREATE BOTH	Print Queue used for O/P Pick Tickets for Location xxx
ccc-xxx-QPICKS-Q	\<my queue name> RECREATE	Print Queue used for O/P QuickPick Ticket for Location xxx for

	BOTH	
ccc-AP-CHECK-Q	\<my queue name\> RECREATE BOTH	Print Queue used for A/P Checks
ccc-AP-QUICK-CHECK-Q	\<my queue name\> RECREATE BOTH	Print Queue used for A/P Quick Checks
ccc-AR-STATEMENT-Q	\<my queue name\> RECREATE DISK	Print Queue used for A/R Statements
ccc-PI-INVOICE-Q	\<my queue name\> RECREATE PRINT&WORD	Print Queue used for PI Invoices
ccc-PI-INV-REPRINT-Q	\<my queue name\> RECREATE ARCHIVE&WORD	Print Queue used for PI Reprinted Invoices
ccc-PURCHASE-ORDER-Q	\<my queue name\> RECREATE ARCHIVE&WORD2007	Print Queue used for PO Purchase Orders
ccc-PO-REQUISITION-Q	\<my queue name\> RECREATE ARCHIVE&WORD	Print Queue used for PO Requisitions
ccc-QI-INVOICE-Q	\<my queue name\> RECREATE PDFDISK	Print Queue used for QI Invoices
ccc-QI-INV-REPRINT-Q	\<my queue name\> RECREATE ARCHIVE&WORD	Print Queue used for QI Reprinted Invoices
FMnnn-DESC	For Dual Page Dunning Letters	Report Print Form # nnn - The description of the form displayed on the print options screen
FMnnn-INIT	\<text string\>	Report Print Form # nnn - Printer command string

		to Initialize print job
FMnnn-RESET	<text string>	Report Print Form # nnn - Printer command to reset printer
FMnnn-SELECT-TRAY-1	<text string>	Report Print Form # nnn - Printer command string to select paper from tray 1
FMnnn-SELECT-TRAY-2	<text string>	Report Print Form # nnn - Printer command string to select paper from tray 2
FMnnn-SELECT-TRAY-3	<text string>	Report Print Form # nnn - Printer command string to select paper from tray 3
FMnnn-ODD-PAGE-HEAD	<text string>	Report Print Form # nnn - Printer command string for odd page headers
FMnnn-ODD-PAGE-FOOT	<text string>	Report Print Form # nnn - Printer command string for odd page footers
FMnnn-EVEN-PAGE-HEAD	<text string>	Report Print Form # nnn - Printer command string for even page headers
FMnnn-EVEN-PAGE-FOOT	<text string>	Report Print Form # nnn - Printer command string for even page footers
FMnnn-RPT-DATE-LINE	<text string>	Report Print Form # nnn - Printer command string for report date line
FMnnn-RPT-TITLE	<text string>	Report Print Form # nnn - Printer command string for report title line
FMnnn-RPT-LEGENDS	<text string>	Report Print Form # nnn - Printer command string for report legends lines
FMnnn-RPT-HEADERS	<text string>	Report Print Form # nnn - Printer command string for report headers lines
FMnnn-USER-CODE-1	Lii <text string>	Report Print Form # nnn - Printer command string for User defined action at Line ii
FMnnn-USER-CODE-2	Lii <text string>	Report Print Form # nnn - Printer command string for User defined action at Line ii
FMnnn-USER-CODE-3	Lii <text string>	Report Print Form # nnn - Printer command string for User defined action at Line ii
FMnnn-USER-CODE-4	Lii <text string>	Report Print Form # nnn - Printer command string for User defined action at Line ii
FMnnn-USER-CODE-5	Lii <text string>	Report Print Form # nnn - Printer command string for User defined action at Line ii
FMnnn-USER-CODE-6	Lii <text string>	Report Print Form # nnn - Printer command string for User defined action at Line ii
FMnnn-USER-CODE-7	Lii <text string>	Report Print Form # nnn - Printer command string for User defined action at Line ii
FMnnn-USER-CODE-8	Lii <text string>	Report Print Form # nnn - Printer command string for User defined action at Line ii
FMnnn-USER-CODE-9	Lii <text string>	Report Print Form # nnn - Printer command string for User defined action at Line ii
FMnnn-USER-CODE-10	Lii <text string>	Report Print Form # nnn - Printer command string for User defined action at Line ii

MSWORD-DEFAULT-SPECS	"LANDSCAPE" "Courier New" 8	Defined specifications for outputting Series 5 reports to an MS Word Document Arguments are: <Orientation> <Font> <Fontsize> <Template-Name> • The font must be defined on the clients PC • Orientation must be LANDSCAPE or PORTRAIT • The Template is an MS Word defined template and must be stored in MS Word's Template directory
MSWORD-AR-STMT-SPECS	LANDSCAPE "Courier New" 8	Defined specifications for outputting A/R Statements to an MS Word Document
MSWORD-CS-INV-SPECS	PORTRAIT "Courier New" 8 Invoice-Template	Defined specifications for outputting Cement Shipment Invoices to an MS Word Document
MSWORD-DUNSTMT-SPECS	LANDSCAPE "Arial" 10 Letter-Template	Defined specifications for outputting A/R Dunning Letters to an MS Word Document
MSWORD-GL-FINS-SPECS	LANDSCAPE "Courier New" 8	Defined specifications for outputting G/L Financial Statements to an MS Word Document
MSWORD-OP-FINS-SPECS	PORTRAIT "Courier New" 8 Invoice-Template	Defined specifications for outputting O/P Invoices to an MS Word Document
MSWORD-OP-QUOTE-SPECS	PORTRAIT "Courier New" 10 Quotes-Template	Defined specifications for outputting O/P Quotes to an MS Word Document
MSWORD-PAKSLIP-SPECS	LANDSCAPE "Courier New" 8 Pack-Template	Defined specifications for outputting O/P Packing Slips to an MS Word Document
MSWORD-PI-INV-SPECS	PORTRAIT "Courier New" 8 Invoice-	Defined specifications for outputting P/I Invoices to an MS Word Document

	Template	
MSWORD-PO-FORMS-SPECS	PORTRAIT "Courier New" 10 purchase_order.dot	Defined specifications for outputting P/O Purchase Orders to an MS Word Document
MSWORD-PO-REQS-SPECS	PORTRAIT "Courier New" 10 requisition.dot	Defined specifications for outputting P/O Requisitions to an MS Word Document
MSWORD-QI-INV-SPECS	PORTRAIT "Courier New" 8 Misc-Invoice-Template	Defined specifications for outputting Q/I Miscellaneous Invoices to an MS Word Document
MSWORD-WEB-RPT-SPECS	LANDSCAPE "Courier New" 7	Defined specifications for outputting E-Request server reports to an MS Word Document
XXX-BITMAP	Row Column Pixel-Height Pixel-Width Filename	For Series 5 Printer Queue XXX Outputs the speciifed bitmap file to the given row/column of the page at the specifed pixel Height/Width on every page of the report.
SHSI-RPT-DESTINATION	4	Sets the default output target selection for all reports generated in Series 5 that are not programatically targeted. The argument is an integer digit representing the desired target as follows: 1 - To the printer 2 - Archived 3 - Both the printer & Archived 4 - to be Browsed Only 8 - to disk as an ASCII file 17 - To disk as an MS Word 2003 document 19 - To disk as an MS Word 2003 document & Archived 26 - To disk as an MS Word 2007 document 30 - To disk as an MS Word 2007 document & Archived 35 - To disk as an MS Word 2007 saved as a PDF file You would typically have the argument set to either 1, 2 or 4.

▬ Web Server Control and File Management Variables

The following variables are used to define the location of different sets of files used by the Series 5 CGI service routines executing on a Web Server.

Variable	Default or Sample Argument	Description
CODE-PREFIX	/web/..../shweb/ acubin	The directory path in which the executable CGI programs reside.
SHSI-WEB-LOG-FILE	/web/..../shweb/ acutemp	The full path and filename which is used to log messages, generated by the system, by CGI service routines executing on a Web server.
SHSI-WEB-TRACE-MODE	0 or 1	If = 1, then messages are output to the execution error log file. Should be set to zero unless specifically need to debug the execution of CGI service routines.
WEB-COMPANY-1	40	The Series 5 Company code assigned to Web Company 1 (Code embedded in Web Page ID codes)
WEB-COMPANY-2	50	The Series 5 Company code assigned to Web Company 2
WEB-COMPANY-3	SHSI	The Series 5 Company code assigned to Web Company 3
WEB-COMPANY-4	PCA	The Series 5 Company code assigned to Web Company 4
WEB-COMPANY-5	AUSI	The Series 5 Company code assigned to Web Company 4
WEB-OP-LOCATION-1	10	The Inventory Warehouse Location code for orders submitted over the Web for Company 1
WEB-OP-LOCATION-2	20	The Inventory Warehouse Location code for orders submitted over the Web for Company 2
WEB-OP-LOCATION-3	30	The Inventory Warehouse Location code for orders submitted over the Web for Company 3
WEB-OP-LOCATION-4	40	The Inventory Warehouse Location code for orders submitted over the Web for Company 4
WEB-OP-LOCATION-5	EAST	The Inventory Warehouse Location code for orders submitted over the Web for Company 5

WEB-EDOCS-DIRECTORY	/web/..../shweb/ acutemp	The directory path in which temporary files are created used to send attachments as emails on UNIX web servers.
WEB-MGMT-CTRL-PATH	@accserver:/acctg/ shsi_ctrl	For CGI service routines on a Web server, defines the directory path of the location where the Series 5 control files reside.

10.3 Runtime Error Codes

These Unfortunately things don't always operate the way they should. For a variety of reasons, the application will on occasion generate some nasty looking error codes and messages.

These can be divided up into three categories of errors:

❑ Application generated Errors

❑ Microsoft Word or Excel generated Errors

Generally when an error occurs the application that was executing will bomb out. Any of these errors should be immediately reported to you System Manager, or to Sentinel Hill Software's support team.

When reporting an error, please attempt to record the following bits of information:

• What application you were executing

• What menu item you were executing

• What screen was being displayed just before the error was reported

• What field or control your mouse was position on when the error occurred

• What key or control was struck or clicked when the error occurred

• If possible, identify the Transaction record, or Master Code record that was being operated on at the time

• The error code, along with the accompanying descriptive text, if any.

Please Take Note

If it is at all possible, you should get a screen shot of your screen with the error message displayed. This would greatly assist in identifying the cause of the error.

10.3.1   Application Error Codes

Here is a description of the assorted errors generated from the application that will cause it to terminate abnormally.

Error Code	Message	Possible Problem
24	Disk full for Indexed file WRITE	There is not enough disk space allocated to the data folder the data file resides in
30-XX	Hardware Error Failure	There is a serious hardware failure. The secondary code value xx is set by the operating system.
34	Disk full for Sequential file WRITE	There is not enough disk space allocated to the data folder the data file resides in
35	File not found for Open	The application attempted to open a file that could not be found. Contact your Systems Manager or Sentinel Hill Software support for assistance.
37-07	User does not have permission to access file	The user does not appropriate access rights to open the file
37-XX	System failure on opening a file	The application attempted to open the file in the wrong mode
37-99	Windows runtime not network enabled	Non-Networked runtime attempted to open a file on a remote system
39-XX	File Mismatch on OPEN	An older version of the file was being accessed, or application programming error.The secondary code value xx indicates the type of mismatch.
41	File Already Open	An application programming error. Contact Sentinel Hill Software support.
42	File Not Open	An application programming error. Contact Sentinel Hill Software support.
47-XX	File not opened in the correct mode	An application programming error. Contact Sentinel Hill Software support.
48-XX	File not opened in the correct mode	An application programming error. Contact Sentinel Hill Software support.
49-XX	File not opened in the correct mode	An application programming error. Contact Sentinel Hill Software support.

94-10	Too many files opened by process	The max number of files has been reached. The configuration variable MAX-FILES should be increased.
98	The file has become corrupt	The file has become corrupt for some reason. You must use the AcuGT's **vutil** utility to rebuild the file. Contact your Systems Manager or Sentinel Hill Software support for assistance. (From a DOS or UNIX prompt you will need to issue the command **vutil32 -rebuild filename**).
9C	Max number of locks specified.	The max number of files that can be locked has been reached. Either the configuration variable MAX-LOCKS should be increased, or an application programming error has caused the problem. (By default MAX-LOCKS is the same as MAX-FILES)
9D-XX	Internal error from host file system	An internal error has occurred when attempting to access a file over the network using AcuGT's Acuserver running on the primary server. The most likely problem is that the host server network is down, or the host server file server process has failed. Contact your Systems Manager. The xx is the host system's error code.

10.3.2 Microsoft Utility Errors

TheSeries 5 systems internally makes calls to Microsoft's Word and Excel utilities. On occasion, these utilities will report an error which causes the application to abort. Here are the documented errors that have been encountered to date.

From	*Message*	*Possible Problem*
Word	Unable to satisfy the requested call	When attempting to print a document directly from Word, and a problem exists on the network, or the remote printer is probably not turned on.
Excel	Class is not licensed for use (error 800A03EC)	When outputting a string to a spreadsheet there was a "=", "+", or "-" character in the 1st character of the string. Excel thinks this is the start of an equation that does not make sense. If possible insert the "'" , (single quote), character as the 1st character of the string being output.

10.4 Series 5 Encryption

In a number Series 5 systems, there is sensitive data that is maintained in different data files. These might include credit card numbers, personal information, and passwords. An

encryption algorithm has been developed to ensure that these particular bits of information cannot be obtained using indirect methods.

A generic encryption routine has been introduced into the Series 5 Accounting system. This is a subroutine that will either encrypt or decrypt a given string of alphanumeric characters of up to 30 bytes in size. The encryption method employed, is based on a Vigenere Cipher algorithm. A generalized discussion of this algorithm, and others, can be found on pages 335 et ff, in "Algorithms In C" by Robert Sedgewick, (1990 – Addison-Wesley Publishing, Inc.).

Some of the properties of this implementation:

- A Cipher Key is employed, using a 6 digit number based on one of the properties associated to the record in which the encrypted string is to be generated. (Such as an Invoice #, or Order #, or Voucher #)

- A repeating Key String of characters and numbers is used along with 3 different lookup tables

- The repeating Key String is built dynamically based on the Cipher Key

- The lookup tables are built dynamically from the repeating Key String based on the remainder of the Cipher Key / 97

- Only Upper/Lower alphabet characters, numeric digits and the SPACE character are converted

	Fields Encrypted	*Data Records*
Professional Invoicing System		
	Credit Card Numbers	• Cost Center / Credit Card Mappings • Invoice Header • Invoice Header History
Customer Order Processing		
	Credit Card Numbers	• Order Headers • Order Header History • Invoice History
Web Management System		
	Passwords	• Web Users Properties
	Secret Question Answers	• Web Users Properties

10.5 Frequently Asked Questions

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