

PeopleSoft®

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EnterpriseOne B73.3.1  
Service Billing  
PeopleBook

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## Service Billing Overview

You use the J.D. Edwards Service Billing system to bill your customers for services and goods rendered. Every service billing process begins with an agreement between a customer and a provider. The customer requests a product or service. Your company, as the provider, bills the customer for the product or services that you provide.

You can use the Service Billing system to:

- Account for the costs of goods and services
- Mark up the costs to account for profit
- Bill for the services and goods you provide
- Provide written proof that justifies the charges
- Create accounting entries for the services and goods

## System Integration

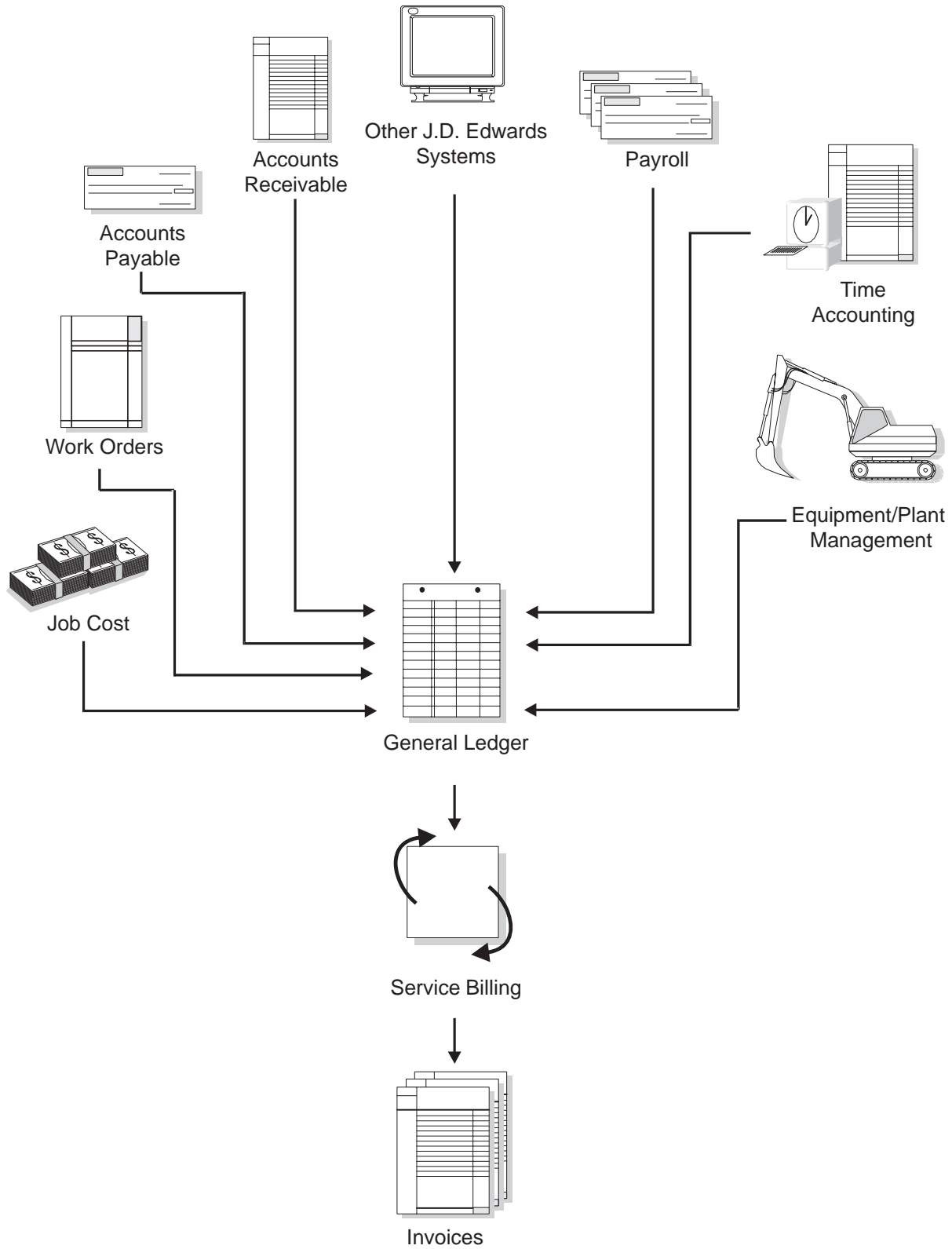
The Service Billing system can retrieve costs from any system that stores information in the Account Ledger table (F0911) within the General Accounting system. You can classify costs as either payroll based or nonpayroll based. Payroll-based costs are labor-related costs for your employees and equipment. For example, nonpayroll-based costs are for subcontractors, materials, and travel.

The stored information can include:

- Equipment operating and maintenance costs from the Equipment/Plant Management system
- Other costs, such as travel costs, that you charge directly to projects from the Accounts Payable system

The following graphic illustrates the system integration between the Service Billing system and other J.D. Edwards systems.





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## General Accounting

The Service Billing system uses the information in the Account Master table (F0901) and the transactions in the Account Ledger table (F0911) to determine whether a transaction is billable in the Service Billing system.

<b>Account Master</b>	The Billable Y/N field in the Account Master table controls whether you can bill an account through the Service Billing system.
<b>Account Ledger</b>	The Bill Code field in the Account Ledger table identifies whether the Service Billing system has processed a transaction. The following codes relate to Service Billing: <ul style="list-style-type: none"><li>• Blank = Available for processing</li><li>• N = Nonbillable because the Billable Y/N field in the Account Master table is set to N or blank</li><li>• Z = Already processed into the Billing Workfile</li></ul>

The system assigns eligibility codes to workfile transactions based on the Billable (Y/N) field in the Account Master table and on the value of the Journal Generation Control that you set up for your system constants.

For example, if the Billable (Y/N) field for an account is Y and the Journal Generation Control field is set for both revenue recognition and billing, the eligibility code for a related transaction is 0. An eligibility code of 0 indicates that the transaction is eligible for billing.

## Payroll and Time Accounting

Payroll-based costs can include the following:

- Actual amount of the employee's pay before deductions and the actual hours worked
- The marked-up labor billing distribution amount for the employee and the related hours
- Actual hours that the employee uses the equipment and the billing rate for the equipment
- Account numbers for labor and equipment distribution

You can process payroll information on a daily basis or based on your payroll cycle. The Payroll system updates the following tables:

- Employee Transactions Detail (F06116)
- Payroll Transaction History (F0618)
- Account Ledger (F0911)

The Service Billing system processes the transactions in the Payroll Transaction History table (F0618) and creates corresponding workfile transactions in the Billing Workfile (F4812). The system retrieves transactions that are identified by the following document types:

- T2 - Payroll labor distribution
- T4 - Labor billing distribution
- T5 - Equipment distribution

After the Service Billing system processes the payroll information, the system updates the transactions in the Payroll Transaction History, Employee Transactions Detail, and Account Ledger tables as processed.

### Equipment/Plant Management

Jobs, projects, and work orders often involve equipment. For example, a security guard uses a company-owned truck to patrol the grounds of an office building. The agreement between the security agency and building management contains a provision to bill an hourly rate for the time that the guard uses the truck.

The Service Billing system processes that type of transaction with document type TE from the Equipment/Plant Management system. The Equipment/Plant Management system uses the following information to process equipment transactions for service billing:

- Equipment item number to identify the equipment for the billing
- Number of hours that the employee used the equipment
- The Billable Y/N field in Equipment Rate Code Definition table (F1390) to determine whether to use the billing rental rate

### Work Orders

For some jobs, such as vehicle repairs, the provider performs the service and bills for it the same day. You can use a work order to identify such a short-term project. Work order information exists when the transaction contains a subledger number with subledger type W, and the status of the work order is billable.

Depending on how you set up the system constants for the Service Billing system, you can use the customer number in the Work Order Master table (F4801) to identify the

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customer that you bill. Other information from the work order can affect the markup, tax, and accounting rules for the transactions.

## **Job Cost**

Some services might not be associated with a work order, such as preventive maintenance performed on a routine basis. In this case, the customer information must exist in the Job (Business Unit) Master table (F0006). The Service Billing system attaches a customer number to each workfile transaction that makes up the billing detail on the invoice. The owner address number in the Job Master table identifies the customer. The Job Master table can also include the tax information for the jobs. Other information from the Job Master table can affect the markup and accounting rules for the transactions.

## **Accounts Receivable**

The Service Billing system can use the Customer Master table (F0301) to identify:

- Payment terms
- Tax explanation and rate/area
- Accounting rules

After you generate a billing, you post the invoice information to the A/R Account Ledger table (F0311). When you receive the customer's payments, you apply them to the customer's receivable account.

## **Address Book**

The Service Billing system uses the address book number in the work order or job to identify:

- The name of a party in the Address Book Master table (F0101) and Who's Who Information table (F0111), such as a person, company, or branch
- Mailing addresses for the billing in the Address Book Master and Address by Date (F0116) tables

## **Accounts Payable**

The Service Billing system accumulates cost transactions that you record in the the Accounts Payable system. Service billing uses the information in the Accounts Payable Ledger table (F0411) to identify:

- Supplier numbers
- Supplier invoice numbers
- Supplier service dates
- Actual amounts

- Responsible business units
- Work order number

## System Features

Services can require specific cost-markup rules and precise audit trails. Many services involve work that requires different combinations of time, equipment usage, and materials.

You can use the features of the Service Billing system to:

- Identify and mark up costs
- Generate invoices
- Design printed invoices to customer specifications
- Create accounting entries for billings

## Workfile Generation

With workfile generation, the system accumulates billable costs. During the generation, the system:

- Identifies the specific accounts for billing
- Updates the records in the Account Ledger table as billed or nonbilled
- Creates workfile transactions in the Billing Workfile (F4812)
- Assigns a customer number to the workfile transaction
- Marks up the source transactions
- Calculates the applicable tax amounts

## Journal Processing

The system uses journal generation programs to create:

- A/R and G/L journal transactions for billing

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## Billing

Use the Service Billing system to identify and invoice costs for the services and goods you provide. For example, you can:

- Generate invoices
- Change billing transactions on invoices
- Print the invoices

## System Management

The Service Billing system accumulates billable cost transactions based on system constants and rules you define. System constants control the global processes for the Service Billing system, such as the processing of costs, customer information, and dates. System rules define markup, accounting, retainage, and tax information. You can also design the invoice layouts the system uses to print customer invoices.

## Multicurrency Environments

You can use the multicurrency functionality in J.D. Edwards software to maintain account balances and invoices in domestic and foreign currency amounts.

When you set up your system, you define a currency for your company and for your customers and suppliers. The system recognizes the currency that you define for your company as the domestic currency. The system recognizes any customer or supplier currencies that are different from your company's currency as foreign currencies. Finally, the system determines foreign and domestic amounts based on exchange rates that you define for specific effective date ranges.

## Multicurrency for Service Billing

As you build a global customer network, you can use the J.D. Edwards Service Billing system to optimize your billing process in multicurrency environments. When you use multicurrency with the Service Billing system, you can:

- Accumulate billable costs that originate in multiple currencies, such as the costs for employees' time
- Apply markup amounts to costs in either the domestic or foreign currency
- Generate invoices for your customers in a currency (foreign) that is different than the currency (domestic) of the job or work order

The Service Billing system uses a business unit (job) or a work order as the basis for an invoice. The system recognizes the currency of the company that is responsible for the job as the domestic currency. In the case of a work order, the system recognizes the currency of the work order's charge to business unit as the domestic currency.

While the currency that you define for your customer is different than the currency you set up for your system (domestic currency), you manage the job or work order in the domestic currency. Then, when you generate an invoice for the job or work order, the system creates the invoice using the currency of the customer (foreign currency).

## Service Billing Tables

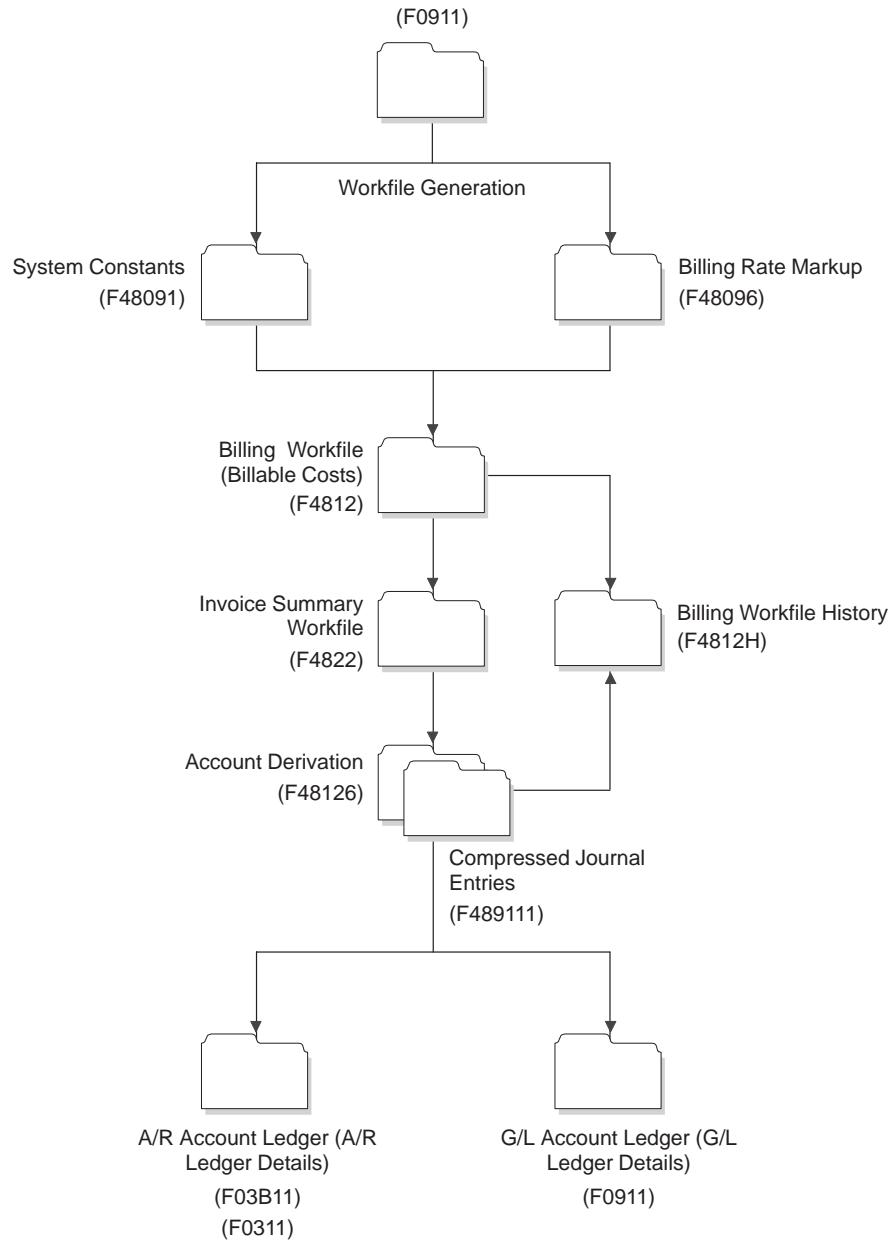
The J.D. Edwards Service Billing system stores and accesses billing information in the following tables:

<b>Billing System Constants (F48091)</b>	Controls the global processing of: <ul style="list-style-type: none"><li>• Billable costs</li><li>• Customer information</li><li>• Dates</li><li>• Invoices</li><li>• Journals</li><li>• Default markup percentage</li></ul>
<b>Billing Rate/Markup Information (F48096)</b>	Determines the transactions that the system selects to mark up. The system uses one or more of the following markup rules: <ul style="list-style-type: none"><li>• Per unit rate</li><li>• Percentage of costs</li><li>• Fixed amount added to costs</li><li>• No markup added to costs</li></ul>
<b>Billing Workfile (F4812)</b>	Stores workfile transactions as an inventory of the billable costs. The workfile transactions correspond to the cost transactions generated in other systems. This information is the starting point for the billing process. You can also use the information for printing the detail in an invoice.
<b>Billing Workfile History (F4812H)</b>	Stores historic information for workfile transactions you have processed. The information provides an audit trail of the changes related to individual workfile transactions.
<b>Account Derivation Information (F48126)</b>	Stores accounting rules that control creation of the journal entries for: <ul style="list-style-type: none"><li>• Actual revenue</li></ul>
<b>Compressed Journal Workfile (F489111)</b>	Temporarily stores a summary of the transactions in the Detail Journal Workfile, based on the business unit, object, subsidiary, and subledger, prior to creating the final journal entries.

**Invoice Summary Workfile (F4822)** Stores the information that the system uses to:

- Print invoices
- Create A/R ledger information

The following graphic illustrates the relationships among the primary tables in the Service Billing system.



# Billing





## Billing

The typical billing process includes accumulating costs, creating and printing invoices, and recording journal entries for income and receivables.

When you perform the billing process using the Service Billing system, you can:

- Accumulate billable costs from multiple systems, such as Accounts Payable, Equipment/Plant Management, and Payroll, without re-entering the cost information into the billing system
- Calculate markup amounts and taxes based on a hierarchy of multiple user defined rules
- Revise workfile transactions
- Facilitate immediate billing upon entering the costs into the system
- Print invoices to customer specifications
- Automatically create and record the journal entries for the Accounts Receivable and General Accounting systems that result from billing

The billing process consists of the following tasks:

- Accumulating costs
- Reviewing the workfile
- Revising the workfile
- Working with workfile history
- Generating invoices automatically
- Working with invoices
- Creating invoices manually
- Working with A/R and G/L entries
- Printing invoices
- Working with final invoices



### Before You Begin

- Set the journal generation control in system constants to invoicing only.

## Accumulating Costs

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From the Workfile Generation menu (G48S11), choose Generation.

Invoices are based on billable costs. The first step in the billing process is to accumulate billable costs. Billable costs are represented by source transactions that the system stores in the Account Ledger table (F0911).

Source transactions originate from multiple sources, such as the Accounts Payable, Equipment/Plant Management, and Payroll systems. You run the Generation program to accumulate the cost information from these sources.

The system might need additional information from the Payroll Transaction History (F0618) or the Employee Transactions Detail (F06116) tables to process certain source transactions.

After the system creates payroll and source transaction tables, do not change or delete any of the following transaction information:

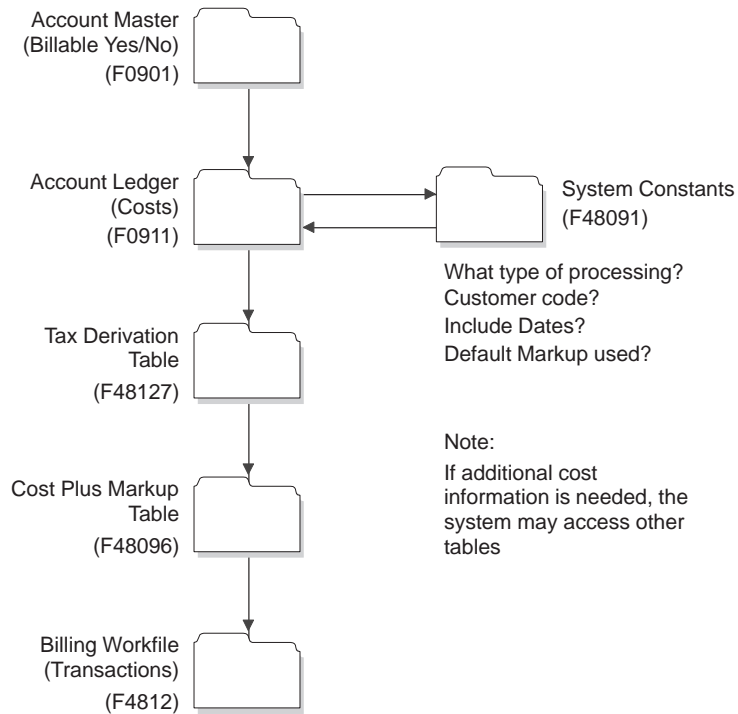
- Account number
- Dates
- Subledger information
- Employee address book number

For the system to create workfile transactions from payroll transactions, all information must be identical in the Payroll or Employee tables and Account Ledger tables.

To maintain the integrity of the original source transactions, the system creates copies of the source transactions. The copied transactions are referred to as workfile transactions and are stored in the Billing Workfile (F4812).

Workfile transactions include costs with any applicable markup, taxable amounts, and other key billing information. You base the rest of the billing process on the information stored in workfile transactions. All workfile transactions must include a customer number. The system uses the customer number to bill the transactions. You must identify a customer number on individual jobs or work orders. The address book number on the Single Business Unit form is not the customer number.

The following graphic illustrates the process the system uses to accumulate costs.



When you run the Generation program to accumulate costs, the system:

- Identifies all the unbilled source transactions in the system
- Determines whether the account for each source transaction is billable, based on the Billable (Y/N) field in the Account Master table (F0901)
- Updates the source transactions in the Account Ledger table as billed or nonbillable
- Updates the payroll transaction history and employee transaction details for all payroll-related transactions
- Calculates markup and tax amounts
- Creates copies of source transactions in the Billing Workfile
- Assigns appropriate eligibility codes to the copied transactions based on the Journal Generation Control field in the system constants and the Billable (Y/N) field in the Account Master table
- Assigns each transaction in the Billing Workfile a customer number

After you accumulate costs to generate workfile information, the system marks the source transactions in the Account Ledger table with N (nonbillable) or Z (billed) to indicate that the transactions have been included in the billing process. The next time you accumulate costs, the system generates workfile transactions for only the source transactions that have not been previously included in the workfile generation.

## Before You Begin

- Define all billable accounts in the chart of accounts.
- Set up the system constants to identify the costs that you want to accumulate.
- Define the following applicable Service Billing rules:
  - Billing Rate Markup
  - Tax Derivation
  - G/L Offset and Retainage
- Verify that you have defined a customer number for your work orders or an customer address number for your jobs.

## See Also

- *Defining Markup Rules*



## Reviewing the Workfile

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After you accumulate billable cost information, you can review the related workfile transactions to verify that the information the system retrieved from the source transactions is correct. Source transactions are the transactions that the system stores in the Account Ledger table (F0911). The system might also require other information from the originating systems to process some source transactions.

Reviewing the workfile consists of the following tasks:

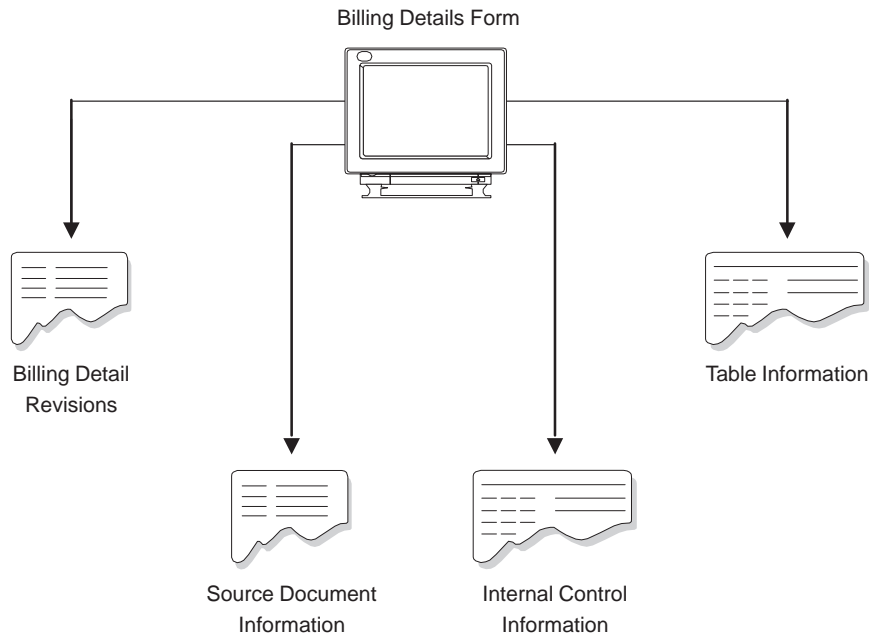
- Reviewing workfile transactions
- Reviewing transaction totals
- Verifying the customer number
- Reviewing component transactions

When you review transactions in the Billing Workfile (F4812), you should look for potential errors, such as:

- Payroll transactions charged to the incorrect work order or job
- Incorrect markup amounts (if changes are made to your markup tables since the creation of your workfile transactions)

If you work in a multi-currency environment, you can review the workfile in the domestic currency or in a foreign currency.

The following graphic illustrates the windows and forms that you can access as you review workfile transactions.



You can review the following transactions in the workfile:

**Workfile transactions**

Workfile transactions are copies of source transactions that represent the billable costs for your company. When you accumulate costs, the system copies source transactions to create workfile transactions with any applicable markup and tax amounts.

## Reviewing Workfile Transactions

To review the transactions in the Billing Workfile (F4812), you must first locate them. You can enter search criteria to control the workfile transactions that the system displays. If you specify more values in your search criteria, such as the document type, classification, account number, amount, and eligibility for processing, the system displays more specific transaction information. You can also review specific workfile transactions to verify accounting and billing information and determine whether a workfile transaction is taxable.

► **To review workfile transactions**

From the Daily Processing menu (G48S11), choose Workfile Revisions.

On Work With Billing Details

T	C	Do Ty	G/L Date	C	Hd CD	Customer	Contract Number	Business Unit	Obj Acct	Subsidiary	Sub ledge
C		R2	1/15/99			1831	101284				
C		R2	2/15/99			1831	101284				
C		R2	2/15/99			1831	101284				

1. Complete one or more of the following fields to locate workfile transactions:
  - Address Number – Job A/R
  - Billing Control ID
  - Account Number
  - Obj Acct
  - Subsidiary
  - Employee/ Supplier
  - Equipment Worked
  
2. To locate specific workfile transactions, complete the following optional fields and click Find:
  - Subledger
  - SBL Type
  - Job Type
  - Job Step
  - G/L Date

3. Review the following fields:

- T C
- Elig Code
- Tax Y/N
- Contract Number
- Currency Code – Origin

<b>Field</b>	<b>Explanation</b>
Customer	<p>The address book number to which the system posts billing and accounts receivable transactions.</p> <p>..... <i>Form-specific information</i> .....</p> <p>Enter a customer's address book number in this field to search for transactions associated with that customer.</p>
Billing Control ID	<p>The Billing Control ID is a unique number assigned to all records which will be used for billing of tenant information. The ID number is assigned automatically to the billing records through the Next Number facility.</p> <p>..... <i>Form-specific information</i> .....</p> <p>Enter the billing control ID of the billing transaction you want the system to display.</p>
Account Number	<p>An alphanumeric field that identifies a separate entity within a business for which you want to track costs. For example, a business unit might be a warehouse location, job, project, work center, branch, or plant.</p> <p>You can assign a business unit to a voucher, invoice, fixed asset, employee, and so on, for purposes of responsibility reporting. For example, the system provides reports of open accounts payable and accounts receivable by business units to track equipment by responsible department.</p> <p>Security for this field can prevent you from locating business units for which you have no authority.</p> <p>NOTE: The system uses the job number for journal entries if you do not enter a value in the AAI table.</p> <p>..... <i>Form-specific information</i> .....</p> <p>Enter a business unit in this field to search for transactions associated with that business unit.</p>

Field	Explanation
Obj Acct	The object account portion of a general ledger account. The term “object account” refers to the division of the Cost Code (for example, labor, materials, and equipment) into subcategories (for example, dividing labor into regular time, premium time, and burden). If you are using a flexible chart of accounts and the object account is set to 6 digits, J.D. Edwards recommends that you use all 6 digits. For example, entering 000456 is not the same as entering 456, because if you enter 456, the system will enter three blank spaces to fill a 6-digit object.
Subsidiary	A subdivision of an object account. Subsidiary accounts include more detailed records of the accounting activity for an object account.
Employee/ Supplier	A number that identifies an entry in the Address Book system. Use this number to identify employees, applicants, participants, customers, suppliers, tenants, and any other address book members.
Equipment Worked	The ID number of the equipment an employee used to perform a job. For example, an employee might drive a company dump truck or operate a printing press. Use this field to distribute the cost of using the equipment to the proper account in the general ledger.
Subledger	<p>A code that identifies a detailed auxiliary account within a general ledger account. A subledger can be an equipment item number or an Address Book number. If you enter a subledger, you must also specify the subledger type.</p> <p>..... <i>Form-specific information</i> .....</p> <p>Enter a work order number in this field to search for transactions associated with that work order.</p>
SBL Type	<p>A user defined code (00/ST) that is used with the Subledger field to identify the subledger type and how the system performs subledger editing. On the User Defined Codes form, the second line of the description controls how the system performs editing. This is either hard-coded or user defined. For example:</p> <ul style="list-style-type: none"> <li>A    Alphanumeric field, do not edit</li> <li>N    Numeric field, right justify and zero fill</li> <li>C    Alphanumeric field, right justify and blank fill</li> </ul>
Job Type	A user defined code (07/G) that defines the jobs within your organization. You can associate pay and benefit information with a job type and apply that information to the employees who are linked to that job type.
Job Step	A user defined code (07/GS) that designates a specific level within a particular job type. The system uses this code in conjunction with job type to determine pay rates by job in the Pay Rates table.

<b>Field</b>	<b>Explanation</b>
G/L Date	<p>A date that identifies the financial period to which the transaction is to be posted. The general accounting constants specify the date range for each financial period. You can have up to 14 periods. Generally, period 14 is used for audit adjustments.</p> <p>The system edits this field for PBCO (posted before cutoff), PYEB (prior year ending balance), and so on.</p>
T C	<p>A code that identifies the classification of a billing transaction. Valid codes are:</p> <ul style="list-style-type: none"> <li>blank Ad hoc entry in the active Billing Workfile (F4812)</li> <li>A Contract Revenue Non-T&amp; M Record</li> <li>C Contracts</li> <li>D Service Orders</li> <li>E Claims</li> <li>F Calls</li> <li>1 Labor Entry</li> <li>2 Burden Entry</li> <li>3 Equipment Entry</li> <li>4 Inventory Entry (future use)</li> <li>5 Purchasing Accounts/Payable Entry</li> <li>6 Journal Entry</li> <li>7 Manual Entry</li> <li>8 System Generated Control Record</li> <li>9 Future</li> </ul>
Elig Code	<p>A user defined code that identifies the type of processing for which a transaction in the Billing Workfile (F4812) is available. This code controls the operation at the single transaction level. Valid values include:</p> <ul style="list-style-type: none"> <li>1 Available for invoicing</li> <li>3 Non billable</li> <li>4 Available for cost only</li> </ul> <p>The system assigns eligibility codes to workfile transactions based on the Billable (Y/N) field in the Account Master table and the Journal Generation Control field you set up for your system constants. For example, if an account with a Y in the Billable (Y/N) field is processed through the billing system and the Journal Generation Control field is set for billing only, the eligibility code for the transaction is 1. An eligibility code of 1 indicates that the transaction is available for invoicing only.</p>
Tax Y/N	<p>A code that indicates whether the item is subject to sales tax when you purchase it. The system calculates tax on the item only if the supplier is also taxable.</p>
Billing Currency	<p>A code that indicates the originating currency code of the transaction.</p>
Contract Number	<p>A number that identifies an original document. This can be a voucher, an order number, an invoice, unapplied cash, a journal entry number, and so on.</p>

## Reviewing Transaction Totals

You can review the total amounts for one or more transactions. Review transaction totals so you can:

- Make projections relating to the invoice and cost totals
- Verify the accuracy between the invoice information that the system stores in the workfile and the invoice information that you print for your customers

Reviewing transaction totals consists of reviewing totals for a specific transaction.

If you find a discrepancy with the transaction totals, you should make any necessary revisions before you continue with the billing process.

**▶ To review totals for a specific transaction**

---

From the Workfile Generation menu (G48S11), choose Workfile Revisions.

On Work With Billing Details

1. Complete the steps for locating workfile transactions.

*See [Reviewing Workfile Transactions](#).*

2. Review the following field:

- Amount – Invoice

The system displays only billing amounts when the system constants are set to invoicing only.

Field	Explanation
Invoice	The invoice amount for a billing detail transaction.

## Verifying the Customer Number

You must use either a work order or a job to bill a customer. You can review specific workfile transactions to verify the customer number. You can set up your system to retrieve the customer number from the Job Cost or Work Orders systems on system constants.

► **To verify the customer number**

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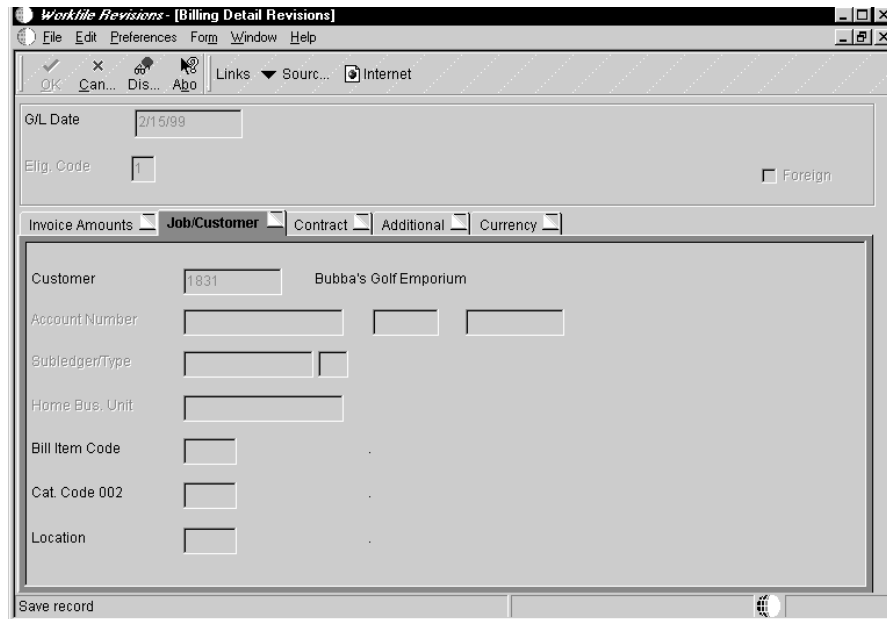
From the Daily Processing menu (G48S11), choose Workfile Revisions.

On Work With Billing Details

1. Complete the steps for reviewing workfile transactions.

*See [Reviewing Workfile Transactions](#)*

2. Choose a record and then click Select.



3. On Billing Detail Revisions, click the Job/Customer tab.
4. Confirm the Customer Number.

## Reviewing Component Transactions

A component is a type of markup. The system calculates component transactions based on amounts or units from source transactions. For example, you might include a component transaction to offset the cost of borrowing money.

You can use component transactions based on the invoice amount to apply charges in addition to the markup amount for the workfile transaction. Use a compounded component to include additional markup added to the source transaction plus additional charges added to the marked-up amount for the billing.

When a component transaction is associated with a workfile transaction, the system displays an X in the Component (C) field for that transaction.

### ► To review component transactions

From the Daily Processing menu (G48S11), choose Workfile Revisions.

On Work With Billing Details

1. Complete the steps for reviewing workfile transactions.

*See Reviewing Workfile Transactions.*

2. Verify the following field to identify the transactions with components:

- C

3. Choose a transaction and select Component Inquiry from the Row menu.

Component Code	Explanation Remark	Cost Amount	Foreign Cost Amt	Invoice Amount
DUES	Union Dues per Hour	117.25		147
FEE	Fee	117.25		147
OVH	Overhead	123.11		154

4. On Component Transaction Inquiry, verify the information in the following fields:
- Component Link
  - Cost Table
  - Invoice Table
  - Base Cost
  - Base Units
  - Base Invoice Taxable
  - Component Code
  - Cost Amount
  - Invoice Amount

<b>Field</b>	<b>Explanation</b>
Component Link	The component link field attaches the component record to its base work file record.
Cost Table	A code that identifies a component bill table to use for this Billing Rate/Markup Table entry (for World, Cost Plus Markup Table entry). The component table identifies the components and their calculation rules. These component amounts are applied as overhead to the original cost. You set up component tables on the Component Table Definition form.
Invoice Table	A code that identifies a component bill table to use for this Billing Rate/Markup Table entry (for World, Cost Plus Markup table entry). The component table identifies the components and their calculation rules. These component amounts are billed in addition to any invoice markups. You set up component tables on the Component Table Definition form.
Base Cost	A number that identifies the actual amount. Enter debits with no sign or a plus sign. Enter credits with a minus sign either before or after the amount. You can use decimals, dollar signs, and commas. The system ignores nonsignificant symbols.
Base Units	The quantity of something that is identified by a unit of measure. For example, it can be the number of barrels, boxes, cubic yards, gallons, hours, and so on.
Base Invoice Taxable	The portion of the invoice amount that is subject to tax.
Component Code	A component code identifies a provisional burden that is accounted for at the billing detail transaction level.
Cost Amount	A number that identifies the actual amount. Enter debits with no sign or a plus sign. Enter credits with a minus sign either before or after the amount. You can use decimals, dollar signs, and commas. The system ignores nonsignificant symbols.

Field	Explanation
Invoice Amount	The invoice amount for a billing detail transaction.



## Revising the Workfile

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The transactions in the Billing Workfile (F4812) are the basis for the rest of the billing process. You should make any necessary additions and revisions to the workfile transactions before you continue. Any changes that you make to a workfile transaction affect only the information in the workfile. The changes do not affect the cost (source) transactions in the Account Ledger table (F0911).

Revisions to the workfile include:

- Adding informational text that you want to print on an invoice
- Adding any G/L transactions that were omitted from the workfile without running the Generation program again
- Adding transactions directly to the workfile without entering them into the G/L first, such as transactions for expense reports that have not yet been processed in the Accounts Payable system
- Moving transaction from the active workfile to the workfile history table so that it is not included on an invoice

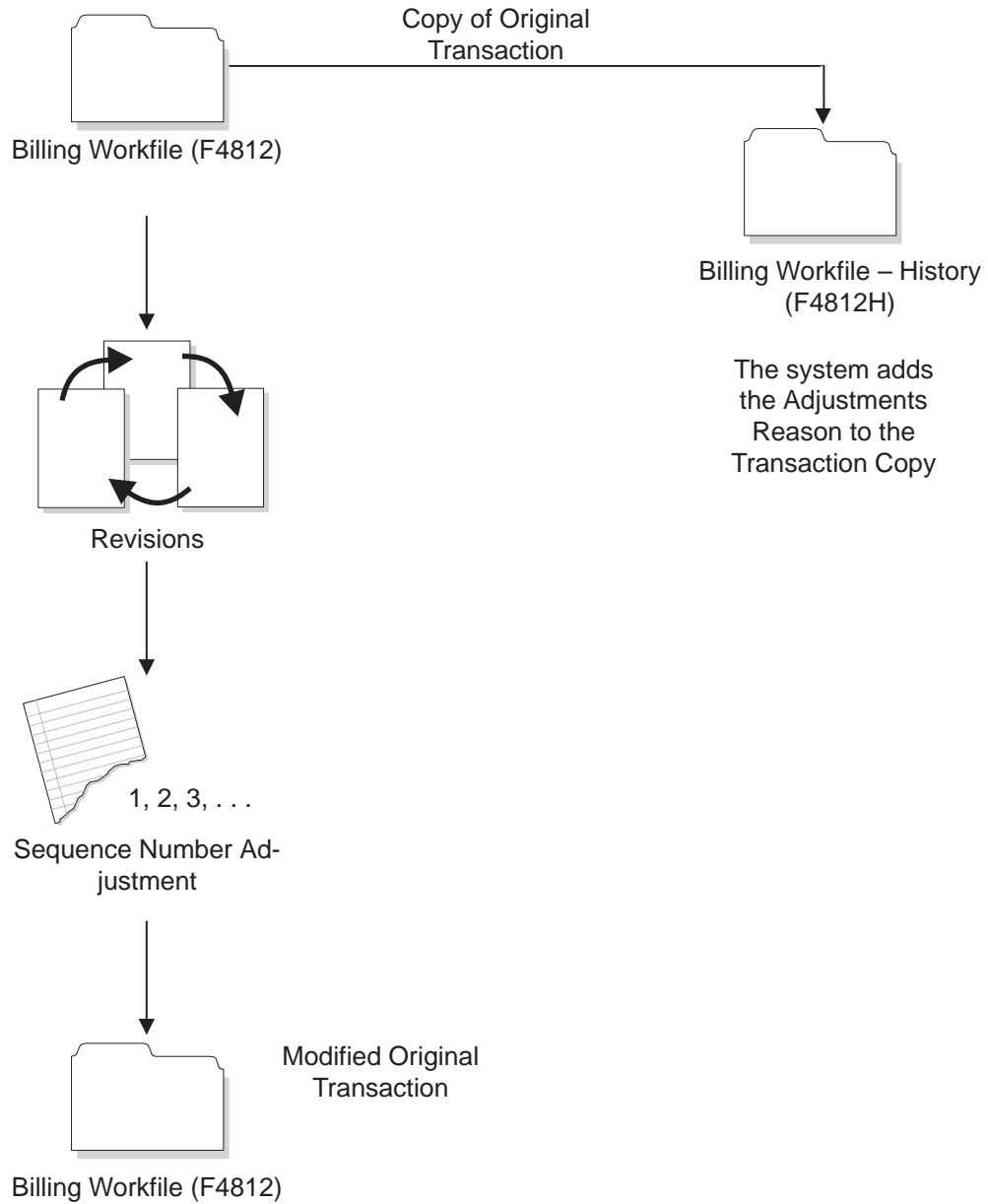
Revised transactions remain in the workfile. The system retains a copy of the transaction prior to any changes in the Billing Workfile History table (F4812H) for audit purposes.

Revising the workfile consists of the following tasks:

- Understanding workfile revisions and sequence numbers
- Adding existing G/L transactions to the workfile
- Changing the markup
- Entering ad-hoc transactions
- Assigning a hold status
- Moving a transaction to the workfile history table
- Printing workfile transactions
- Printing workfile totals

## Understanding Workfile Revisions and Sequence Numbers

As the following graphic illustrates, when you revise workfile transactions, the system assigns a series of sequence numbers to the transactions and each new revision.



The secondary sequence number tracks the number of revisions you make to a workfile transaction. You can use this number to track the progression of revisions to original workfile transactions. For example, you might revise a transaction three times. The secondary sequence number of the transaction you revise is 1. After the revision, the secondary sequence number for the transaction is 2. When you change the transaction again, the secondary sequence number is 3.

### See Also

- *Attaching Media Objects* in the *OneWorld Foundation Guide*

## Adding Existing G/L Transactions to the Workfile

You can add transactions from the Account Ledger table (F0911) to the Billing Workfile without running the Generation program. For example, you can add costs that you did not include in the workfile generation. You can also add costs that were entered in the General Accounting system after you accumulated billable costs.

You can add transactions to the workfile using the billing rate markup amount, which is based on the markup rules you define or the default markup percentage you specify in the system constants.

When you add a transaction to the workfile, the system updates the Account Ledger table to mark the transaction as billed. The system also updates the Payroll Transaction History (F0618) or Employee Transactions Detail (F06116) tables, if necessary.

### To add existing G/L transactions to the workfile

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From the Workfile Generation menu (G48S11), choose Workfile Revisions.

On Work With Billing Details

1. Complete the steps for reviewing workfile transactions.

*See Reviewing Workfile Transactions.*

Account Number	G/L Date	Explanation Alpha Name	Amount	Cur Code	Doc Number	Doc Type
5100.1360.02200	6/6/05	Digger Incorporated	67,500.00	USD	9991	PV

2. Choose G/L Transaction Selection from the Form menu.
3. On G/L Transaction Selection, complete one or more of the following fields to limit the list of transactions:
  - Account Number
  - G/L Date
  - Subledger
  - Sub Type
4. To determine from which field the records are drawn, click one of the following:
  - Payroll File
  - Item Master File (Default)

The system automatically supplies the information for these fields if you completed them on the Billing Details form.

5. Click Close to return to Work With Billing Details.
6. Complete the steps for reviewing workfile transactions.

Field	Explanation
Sub Type	<p>A user defined code (00/ST) that is used with the Subledger field to identify the subledger type and how the system performs subledger editing. On the User Defined Codes form, the second line of the description controls how the system performs editing. This is either hard-coded or user defined. For example:</p> <p>A     Alphanumeric field, do not edit  N     Numeric field, right justify and zero fill  C     Alphanumeric field, right justify and blank fill</p>

## Changing the Markup

The markup for a transaction is the increase in costs in order to account for overhead and profit. You define markup rules when you set up your system. You can also change markup information after you accumulate costs.

After you make changes to the markup, you can apply the revised markup information to the transaction, or you can reapply the markup rules you originally defined for your system on the Billing Rate Markup Table.

In addition to changing the markup through Billing Detail Revisions, you can also make changes to the Re-Apply Markup Option and Readjustment Reason fields by selecting Transaction Re-extend from the Row menu for a specific transaction.

### To change the markup

From the Workfile Generation Menu (G48S11), choose Workfile Revisions.

On Work With Billing Details

1. Complete the steps for reviewing workfile transactions.  
*See Reviewing Workfile Transactions.*
2. Choose a transaction and click Select.
3. To review the origin of the markup and tax information for the transaction, choose Table Information from the Form menu.

4. On Table Information, choose Detail Revisions from the Form menu to return to the Billing Detail Revisions form.
5. On Billing Detail Revisions, complete any combination of the following applicable fields:
  - Inv Ovr Rate/Cap
  - Inv Markup %
  - Inv Mark Up Amt
6. Click on Calculation Preview.

The system calculates the markup and displays the changes.
7. On Billing Detail Revisions, complete the following fields:
  - Re-apply Markup
  - Adjust. Reason
8. Choose OK.
9. On Transaction Re-Extension, complete the following fields:
  - Amount Re-Extension
  - Adjustment Reason Code
10. Choose Process.

## Entering Ad-Hoc Transactions

If you do not enter cost information during an accounting cycle, the transactions are not available when you accumulate costs. You can manually add transactions to the workfile on an as-needed basis for costs that are not processed during the accounting cycle. Transactions you enter into the workfile manually are referred to as ad-hoc transactions.

For example, an accounting department processes expense reports on the 15th of each month. The supervisor's expenses contain a billable cost that must be in the Billing Workfile by the 5th of the month. In this case, you enter the cost as an ad-hoc transaction to the workfile. The ad-hoc transaction is created to represent cost information that is not in the Account Ledger table and is independent of the regular accounting cycle. After you enter the ad-hoc transaction into the workfile, you can mark up the cost, enter a remark, and complete the billing process.

When you enter an ad-hoc transaction into the workfile:

- You cannot record a reason why the transaction was created.
- No source document exists to backup the transaction.
- The detail information for the costs in the general ledger and the workfile is inconsistent.



If you enter an ad-hoc transaction and then process the related source transaction through the normal accounting and billing cycles, the system creates a duplicate transaction in the workfile. To prevent this, you must manually change the eligibility code for the duplicate workfile transaction to nonbillable and remove it from the workfile.

If you do not remove the duplicate workfile transaction from the workfile, the system continues to display the transaction on the Revisions form. You might bill for the transaction in error if the eligibility code for the transaction is changed.

### ▶ To enter ad-hoc transactions

---

From Daily Processing (G48S11) choose Workfile Revisions.

On Work With Billing Details

1. Select Add.
2. On Billing Detail Entry, complete the following fields:
  - G/L Date
  - Account Number
3. Complete the following optional fields for the new transaction:
  - Subledger/Type

- Eligibility Code
  - Remark
  - Home Bus. Unit
  - Job Type
  - Job Step
4. Enter appropriate amounts in the following fields:
- Units/Rate
  - Cost Amount
  - Ovr Rate/Cap
  - Mark Up %
  - Mark Up Amount
  - Inv. Taxable Amt
  - Total Invoice
  - Discount %
  - Re-Extend Option
5. Click OK.

### See Also

- *Moving a Transaction to the Workfile History Table* for more information about changing the status of a transaction to nonbillable.

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<b>Field</b>	<b>Explanation</b>
Remark	A name or remark that describes an element in the J.D. Edwards systems.
Home Bus. Unit	The number of the business unit in which the employee generally resides.
Units/Rate	The quantity of something that is identified by a unit of measure. For example, it can be the number of barrels, boxes, cubic yards, gallons, hours, and so on.

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Field	Explanation
Ovr Rate/Cap	<p>The rate the system uses to mark up the invoice amount reflected in the billing of professional services such as draftsmen, engineers, or consultants fees. This rate does not affect the employee's paycheck.</p> <p>You can use this markup rate as an override rate or as a maximum rate. The Override Rate Calculation for the Total Invoice Markup is:</p> $(\text{Override Rate} * \text{Unit}) * (1 + \text{Markup Percent}) + \text{Markup Amount}$ <p>When a Maximum or Cap Rate is Specified:  Compare override rate with rate from cost transaction.  Use the lower rate as the override rate.</p> <p>You can set up this override or maximum unit rate on the Billing Rate/Markup Table form (for World, Cost Plus Markup Table form). Use generation type 1 to specify a table for invoice markup rates.</p> <p>With the new Service Billing and Contract Billing modules, you can mark up the revenue amount at a different rate than the invoice amount. The Independent Invoice flag in the system constants controls this function. Use generation type 2 on the markup table form to specify a markup table for revenue and invoice markup rates.</p>
Mark Up %	<p>The percentage the system uses to mark up the invoice amount reflected in the billing of professional services, such as draftsmen, engineers, or consultants fees. Enter the percentage as a whole number. For example, 50.275 percent would be entered as 50.275. This percentage rate does not affect the employee's paycheck.</p> <p>You set up this percentage on the Billing Rate/Markup Table form (for World, Cost Plus Markup Table form). Use generation type 1 to specify a table for invoice markup percentage rates.</p> <p>With the new Service Billing and Contract Billing modules, you can mark up the revenue amount at a different rate than invoice amount. The Independent Invoice flag in the system constants controls this function. Use generation type 2 on the the markup table form to specify a markup table for revenue and invoice markup rates.</p>

Field	Explanation
Mark Up Amount	<p>An amount the system uses to mark up the invoice amount reflected in the billing of professional services such as draftsmen, engineers, or consultants fees. This amount will not affect the employee's paycheck.</p> <p>You define this amount on the Billing Rate/Markup Table form (for World, Cost Plus Markup Table form). Use generation type 1 to specify a table for invoice markup amounts.</p> <p>With the new Service Billing and Contract Billing modules, you can mark up the revenue amount at a different rate than invoice amount. The Independent Invoice flag in the system constants controls this function. Use generation type 2 on the markup table form to specify a markup table for revenue and invoice markup rates.</p>
Inv. Taxable Amt	The portion of the invoice amount that is subject to tax.
Total Invoice	The invoice amount for a billing detail transaction.
Discount %	The percent of the total invoice that you will discount if the invoice is paid within the discount period. You enter the discount percent as a decimal, for example, a 2 percent discount is .02.
Re-Extend Option	<p>You re-extend a transaction when you want to change or reapply the markup for the transaction based on your specific overrides or on the information that you have defined in the markup tables. The valid values are:</p> <ol style="list-style-type: none"><li>1 Reapply the established invoice markup rates from the Billing Rate/Markup Table (for World, Cost Plus Markup Table). The revenue amount is not changed.</li><li>2 Reapply the established revenue markup rates from the Billing Rate/Markup Table. The invoice amount is not changed.</li><li>3 Use the rates or amounts entered in the Amounts/Units Information window or on the Revisions form. Do not apply the established invoice or revenue markup rates from the Billing Rate/Markup Table.</li><li>blank Reapply both the invoice and revenue markup rates using the established rates from the Billing Rate/Markup Tables.</li></ol> <p>Note: You cannot use options 1 or 2 when the Independent Invoice flag in the system constants specifies that the invoice and revenue amounts must be the same.</p>

## Assigning a Hold Status

If you are not ready to process a workfile transaction, you can put the transaction on hold. You can hold a transaction indefinitely, or you can specify a release date. When you put a workfile transaction on hold, the transaction remains in the Billing Workfile, but the system does not process it until the release date. The system stores the release date as part of the audit trail for the transaction.

### ► To assign a hold status

---

From Daily Processing (G48S11) choose Workfile Revisions.

On Work With Billing Details

1. Complete the steps for reviewing workfile transactions.

See *Reviewing Workfile Transactions*.

2. Choose a specific transaction and click Select.
3. On the Additional tab of Billing Detail Revisions, complete the following field:
  - Hold Code/Rel Date



If you assign a hold status to a workfile transaction with associated burden transactions, component transactions, or both, the system automatically assigns the hold to all the related transactions.

Field	Explanation
Hold Code/Rel Date	<p>This code identifies the type of “hold” status applied to a billing detail transaction.</p> <p>Valid alpha values are:</p> <ul style="list-style-type: none"><li>blank Not on hold.</li><li>A On hold for invoicing, revenue recognition, and cost transfers.</li><li>B On hold for invoicing and revenue recognition. Cost transfers are allowed.</li><li>I On hold for invoicing only. Revenue recognition and cost transfers are allowed.</li><li>R On hold for revenue recognition. This value applies only when the Journal Generation Control flag in the system constants is set to process revenue only.</li></ul> <p>Valid numeric values are:</p> <ul style="list-style-type: none"><li>blank Not on hold.</li><li>1 On hold for invoicing, revenue recognition, and cost transfers.</li><li>2 On hold for invoicing and revenue recognition. Cost transfers are allowed.</li><li>3 On hold for invoicing only. Revenue recognition and cost transfers are allowed.</li><li>4 On hold for revenue recognition. This value applies only when the Journal Generation Control flag in the system constants is set to process revenue only.</li></ul>

## Moving a Transaction to the Workfile History Table

You can move a transaction out of the active Billing Workfile if the transaction does not belong in the workfile. Before you can move a transaction out of the workfile, the status for the transaction must be nonbillable.

When you move a transaction to history, the system:

- Copies the transaction to the Billing Workfile History (F4812H) for audit purposes
- Removes the transaction from the active Billing Workfile (F4812)

Transactions that you move to history do not appear on the Billing Details form.

The system does not remove the original transaction from the Account Ledger table.

### To move a transaction to history

---

From the Workfile Generation menu (G48S11), choose Workfile Revisions.

### On Work With Billing Details

1. Complete the steps for reviewing workfile transactions.  
*See [Reviewing Workfile Transactions](#).*
2. Use Visual Assist to change the following field for a specific transaction to make it nonbillable and click OK:
  - Eligibility Code
3. Choose Find.
4. On Work With Billing Details, choose Delete for the workfile transaction and click OK.

## Printing Workfile Transactions

From the Workfile Generation menu (G48S11), choose Print Work File.

You can review workfile transactions online. You can also generate a report that prints a list of selected transactions. You might want to use this report for a number of reasons, including:

- As an exception report, for example, to print all of the transactions that have not been billed
- As a comparison with the detail in the general ledger

To compare the workfile transactions to the detail in the general ledger, you can review the general ledger online using Account Ledger Inquiry, or you can print the G/L by Object Account report.

If you find a discrepancy, you should make the necessary changes to the Billing Details table before you continue with the billing process.

This report includes the following columns:

- G/L Date
- Cost
- Units
- Rate
- Billed Amount
- Account Number
- Subledger
- Contract
- Job Type

- PDBA Code
- Employee/Supplier
- Equipment
- Journal Batch
- Invoice Batch
- Invoice
- Pay Item

### See Also

- *R48405, Workfile Print* in the *Reports Guide* for a report sample

## Printing Workfile Totals

This report will print the totals based on the selection criteria you entered in the detail section, and will sort by the following order:

- Currency Mode
- Domestic Currency
- Foreign Currency (if currency is on)

### To print workfile totals

---

From the Workfile Generation menu (G48S11), choose Workfile Revisions.

On Work With Billing Details

1. Complete the steps for reviewing workfile transactions.  
*See Reviewing Workfile Transactions.*
2. After completing any or all fields in the detail section, choose Totals from the Form menu.

### See Also

- *R48TW, Workfile Totals* in the *Reports Guide* for a report sample

## Processing Options for Billing Workfile Listing

Print Options

Choose one of the following:  
'0' = All Detail (default) '1' =  
One Line of Detail

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## Working with Workfile History

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For every revision of a transaction that you create as you process workfile transactions, the system stores a copy of the previous transaction. You can review this audit trail to see all the changes you have made to a transaction.

Working with the workfile history includes the following tasks:

- Reviewing transaction revisions
- Moving a transaction out of history

As you review the workfile history, you can reactivate eligible transactions. When you reactivate a transaction, you move it from history back to the active workfile. For example, if you move a transaction to history in error, the transaction is eligible to be moved back to the workfile. After you move the transaction back to the workfile, you can include the transaction on an invoice.

To maintain the integrity of the workfile, the system determines whether a transaction is eligible for reactivation based on the billing control ID number and a combination of other factors.

The following transactions are not eligible for reactivation:

- Invoiced transactions
- Voided transactions
- Transactions copied to history during the modification process

## Reviewing Transaction Revisions

For every revision of a transaction that you create as you process workfile transactions, the system stores a copy of the previous transaction. You can review this audit trail to see all the changes that you have made to a transaction. The system displays the revision history of a transaction starting with the most recent revision to the original transaction.

### To review transaction revisions

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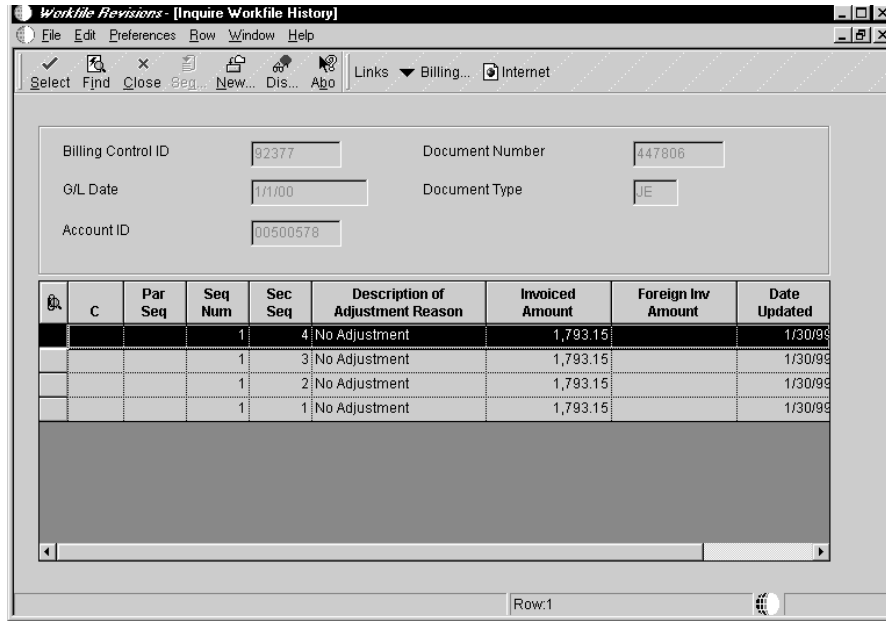
From Daily Processing (G48S11), choose Billing Details.

On Work With Billing Details

1. Complete the steps for reviewing workfile transactions.

See *Reviewing Workfile Transactions*

2. Choose Trans Inquiry from the Row menu for a specific transaction.



3. On Inquire Workfile History, review the revision history for the transaction.

## Moving a Transaction Out of History

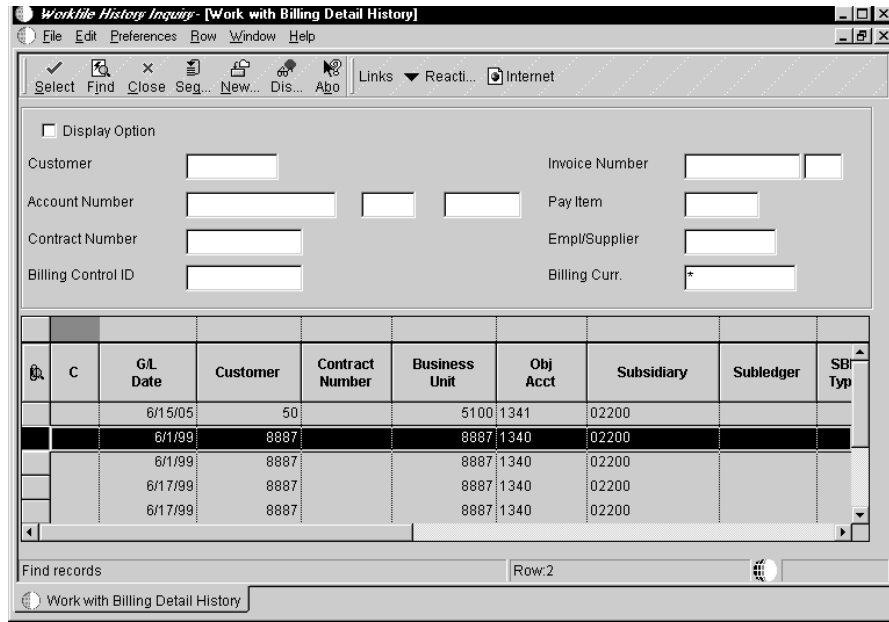
As you review the workfile history, you can move transactions that you previously assigned as nonbillable out of history. When you move a transaction out of history, you reactivate the transaction. When you reactivate a transaction, the system:

- Makes the transaction and all its associated tax and text eligible for processing
- Marks the historical transaction as reactivated
- Moves a copy of the historical transaction from the Billing Workfile History table to the Billing Workfile table

► **To move a transaction out of history**

From Daily Processing (G48S11), choose Workfile History Inquiry.

On Work With Billing Detail History



1. To locate a transaction, complete any of the following fields:

- Customer
- Account Number
- Billing Control ID
- Address Number

2. Click the transaction and choose Reactivate from the Row menu.

After you reactivate a transaction, the system continues to display the transaction on Billing Detail History until you click Find.



Reactivated transactions are nonbillable when they return to the active workfile. You must manually update the billing status before you can complete the billing process for the transaction.

## Processing Options for Detail History

DISPLAY OPTIONS:

1. Enter a '1' to display all history records (default). Enter a '2' to display only the records that are eligible for re-activation. \_\_\_\_\_
  
2. Enter a '1' to load all records that meet the search criteria. Leave blank (default) to load two pages at a time (this improves performance). \_\_\_\_\_
  
3. Enter the amount to initially display on the screen. All amounts can be accessed using the toggle function. \_\_\_\_\_
  - '1' = Base Revenue (default)
  - '2' = Base Invoice
  - '3' = Total Revenue
  - '4' = Total Invoice
  - '5' = Base Cost
  - '6' = Total Cost

## Generating Invoices Automatically

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When you accumulate costs, the system creates the workfile transactions that contain the information for creating invoices. The next step is to generate invoices.

The term invoice has two meanings in the Service Billing system:

- Information that the system generates from the workfile transactions in the Service Billing Workfile (F4812) and the summarized invoice information in the Invoice Summary Workfile (F4822).
- A copy of the invoice that you print for customers. The system prints invoices based on the invoice layouts that you define using Invoice Format Revisions.

When you generate invoices, the system assigns invoice numbers and summarizes active workfile transactions to create pay items. Pay items are the billing lines that summarize one or more workfile transactions. The pay items for a specific invoice make up the total amount of the invoice. The system stores pay item information in the Invoice Summary Workfile (F4822).

The system stores the current invoice information in the active workfile transaction to prevent workfile transactions from being assigned to more than one invoice at a time.

You can run the Invoice Generation program to generate invoices automatically, or you can create invoices manually. When you run the Invoice Generation program to create invoices automatically, the system:

- Creates a batch of invoices
- Assigns customer and invoice numbers to individual invoices
- Summarizes workfile transactions to create the pay items for invoices
- Assigns A/R information to the invoices, such as the G/L date and offset codes and retainage percent
- Updates the workfile transactions with invoice information

- Prints invoices (optional)
- Assigns A/R information to the invoices, such as the G/L date and offset codes, and retainage percent

Generating invoices automatically consists of the following tasks:

- Defining the sequence and summarization for billing
- Generating a batch of invoices

When you generate invoices automatically, the system assigns values to the following field for each transaction:

- Payment Terms - G/L Offset
- Retainage Percentage - Retainage Offset

The system determines the correct values for these fields based on the sequence and summarization key that you define for the invoice batch and on the information you define in the G/L Offset rules. For example, if your Invoice Level Summarization field is by subledger (work order), then you might define rules on the G/L Offset Table form with the valid key types subledger (work order) or work order class to locate the correct offset rule. See *Defining G/L Offset and Retainage Rules* for more information.

## Defining the Sequence and Summarization

When you generate a batch of invoices from the transactions in the Billing Workfile, the system automatically creates a new invoice for each customer. You must further define how you want the system to sequence and summarize the transaction information that appears on the invoices. To do this, you define a sequence and summarization key.

The sequence and summarization key that you define indicates divisions within generated batches of invoices and the individual invoices within a batch. You must define these divisions at the following levels:

- |                           |  |
|---------------------------|--|
| <b>Invoice level (I)</b>  | When the sequence and summarization key you define changes at the invoice level, the system creates a new invoice with a unique invoice number.  |
| <b>Pay item level (P)</b> | When the sequence and summarization key you define changes at the pay item level, the system creates a new line of billing detail for the invoice. The system assigns the new line of billing detail a unique pay item number. |

The system uses the sequence and summarization key that you define to:

- Assign invoice numbers
- Summarize transactions by invoice and pay item
- Control how the transactions appear in the A/R Account Ledger table when you create the A/R and G/L entries
- Update the workfile transaction with the applicable key information

For example, you can define a sequence and summarization key with business units (jobs) at the invoice level and with subledgers (work orders) at the pay item level.

During invoice generation, the system uses the key to:

- Create a new invoice number when the business unit (job) changes
- Create a new pay item number when the subledger (work order) changes for a business unit (job)

You can have only one customer number per invoice. The system creates a new invoice number if the customer number changes, regardless of how you set up your sequence and summarization key.

▶ **To define a sequence and summarization key**

From the Invoice Processing menu (G48S21), choose Invoice Processing.

On Service Billing Invoice Generation

Invoice Processing - [Service Billing Invoice Generation]

File Edit Preferences Form Window Help

OK Can... Dis... Ab... Links Edit In... OLE... Internet

Invoice Generation

Customer

Bill From Date

Bill Through Date

G/L Date

Invoice Date

Document Type

A/R Company

Exchange Rate Date Basis 1

Invoice/Pay Item Seq S002 Job/Object (by Customer)

Initial Invoice Version ZJDE0001 Invoice Generation

Override Invoice Print Version

1. Choose Edit Inv Seq/Sum from the Form menu.

Invoice Processing - [Work With Invoice Sequence/Summarization Table]

File Edit Preferences Row Window Help

Select Find Add Del... Close Seq... New... Dis... Ab... Links Displ... OLE... Internet

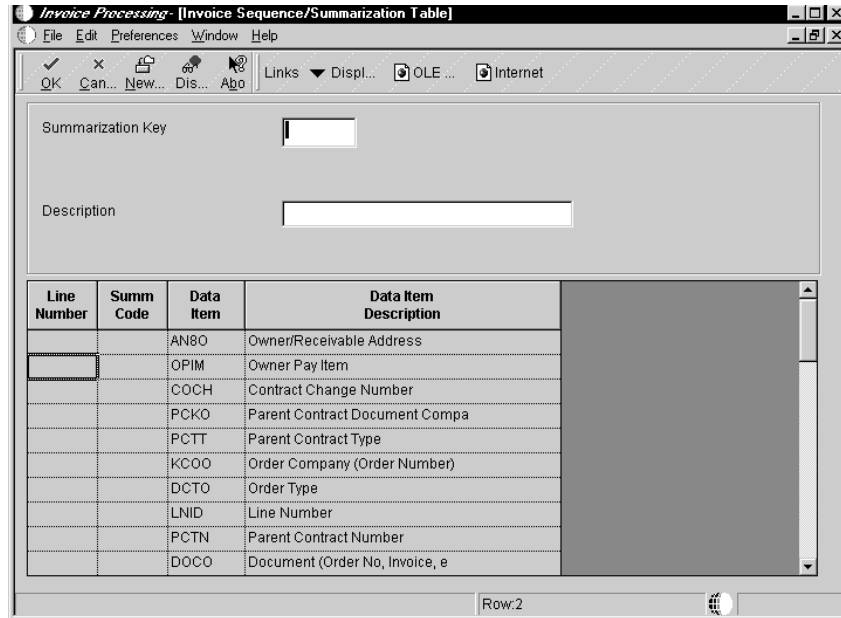
Summarization Key S001

Description

Summ Key	Description
----------	-------------

2. On Work With Invoice Sequence/Summarization Table, click Add.

3. Add a Summarization/Description with appropriate sequencing information and select OK.



4. On Invoice Sequence/Summarization Table, review the following fields:
  - Summarization Key
  - Description
  - Data Item
  - Data Item Description
5. Complete the following fields for each data item you want to include in the key:
  - Line Number
  - Summ Code

You can use as many data items as you want to sequence billing detail. The sequence numbers that you use control how the system groups billing information within the generated batch of invoices and on the invoices within the batch.

Field	Explanation
Summarization Key	The table key that identifies how the system summarized the service billing invoice. Within each table that is identified by the table key, there are multiple associated key fields to specify the level and method for sorting and summarizing the service billing detail transactions.
Description	A description, remark, name, or address.

Field	Explanation
Data Item	<p data-bbox="688 258 1354 380">For World, the RPG data name. This data field has been set up as a 10-byte field for future use. Currently, it is restricted to 4 bytes so that, when preceded by a 2-byte table prefix, the RPG data name will not exceed 6 bytes.</p> <p data-bbox="688 401 1354 680">Within the Data Dictionary, all data items are referenced by this 4-byte data name. As they are used in database tables, a 2-character prefix is added to create unique data names in each table specification (DDS). If you are adding an error message, this field must be left blank. The system assigns the error message number using next numbers. The name appears on a successful add. You should assign error message numbers greater than 5000. Special characters are not allowed as part of the data item name, with the exception of #, @, \$.</p> <p data-bbox="688 701 1354 762">You can create protected data names by using \$xxx and @xxx, where you define xxx.</p> <p data-bbox="688 783 1354 873">For OneWorld, a code that identifies and defines a unit of information. It is an 8-character, alphabetical code that does not allow blanks or special characters such as: % &amp; , . +.</p> <p data-bbox="688 894 1208 921">Create new data items using system codes 55-59.</p> <p data-bbox="688 942 997 970">The alias cannot be changed.</p>
Data Item Description	A user defined name or remark.
Line Number	To move rapidly through a long list of journal entries, enter a line number. The system shifts the information on that line to the top of the display.
Summ Code	<p data-bbox="688 1167 1338 1228">A code that identifies how the system summarizes records in the Service Billing Workfile when you generate invoices.</p> <ul data-bbox="721 1228 1224 1289" style="list-style-type: none"><li data-bbox="721 1228 1224 1255">I Summarize at the invoice number level</li><li data-bbox="721 1255 1224 1289">P Summarize at the invoice pay item level</li></ul> <p data-bbox="688 1310 1208 1362">Note: You must specify one I and one P for each sequence/summarization key.</p>

## Generating a Batch of Invoices

Run the Invoice Generation program to group workfile transactions and assign invoice numbers.

When you run the Invoice Generation program, the system creates pay item records. Pay items are the billing lines that summarize one or more workfile transactions. The pay items for a specific invoice make up the total amount of the invoice. The system stores pay item information in the Invoice Summary Workfile (F4822). The program also updates the workfile transaction records with the new invoice information and the sequence/summarization key information.

After you run the Invoice Generation program, the system generates a report that includes the following information:

- Invoice number and related pay items
- Totals by invoice
- Batch number
- Any applicable tax information
- Sequence and summarization code

### Before You Begin

- Generate workfile transactions.
- Define the sequence and summarization of the invoice information.
- Modify versions if you want to print invoices during generation.

### To generate a batch of invoices

---

From the Invoice Generation menu (G48S21), choose Invoice Generation.

On Service Billing Invoice Generation

1. Complete the following fields:
  - G/L Date
  - Document Type
  - A/R Company
  - Invoice/Pay Item Seq

2. Complete the following optional fields:
  - Bill From Date
  - Bill Through Date
  - Invoice Date
  - Initial Invoice Version
  - Exchange Rate Date Basis
3. If you want to print invoices as you generate them, enter a version number in the following field:
  - Override Invoice Print Version
4. Select OK.

After you run the generation, the system retains the values entered. If you do not change the values on this form, the system runs the program using the values you entered for the last generation.

---

<b>Field</b>	<b>Explanation</b>
G/L Date	<p>A date that identifies the financial period to which the transaction is to be posted. The general accounting constants specify the date range for each financial period. You can have up to 14 periods. Generally, period 14 is used for audit adjustments.</p> <p>The system edits this field for PBCO (posted before cutoff), PYEB (prior year ending balance), and so on.</p>
Document Type	<p>A user defined (00/DI) document type for invoice entry. Any document type set up for invoice-only entry should begin with the letter R (receivables). The default is RI, RR, or RM. Reserved document types have been defined for vouchers, invoices, receipts, and time sheets.</p> <p>The reserved document types are:</p> <ul style="list-style-type: none"><li>P_   Accounts Payable Documents</li><li>R_   Accounts Receivable Documents</li><li>T_   Payroll Documents</li><li>I_   Inventory Documents</li><li>O_   Order Processing Documents</li></ul> <p>NOTE: For invoice entry, if you are using document type DI, you must also set up document type DT in user defined codes.</p>
A/R Company	Invoice Document Company.

---

Field	Explanation
Invoice/Pay Item Seq	The table key that identifies how the system summarized the service billing invoice. Within each table that is identified by the table key, there are multiple associated key fields to specify the level and method for sorting and summarizing the service billing detail transactions.
Bill From Date	The from date used to determine if a transaction is billed. The transaction is billed if the general ledger date falls between the from date and the through date.
Bill Through Date	This field will be used in the Recurring Billing module as part of a date-oriented billing method, as opposed to period-oriented billing. This field will contain the latest date for which billings have been generated for the associated billing line.
Invoice Date	The date the invoice was printed. The system updates this date when you run the invoice print program in the Sales Order Processing System.
Initial Invoice Version	The DREAM Writer Version number for executing the Initial Invoice Generation.
Exchange Rate Date Basis	<p>A constant that controls the date that the system uses to retrieve the exchange rate.</p> <p>Valid values are:</p> <ol style="list-style-type: none"> <li>1 Use the last day of the prior month. The system determines this date based on the company date patterns.</li> <li>2 Use the date of the billable cost (source) transaction. The system determines this date based on the value of the Effective Date Basis and Labor Effective Date Basis billing constants.</li> <li>3 Use the system date. (You should only use this value if you operate in an hyper-inflationary economy.)</li> </ol> <p>Note: The Service Billing module can recognize two exchange rates; the first during the Workfile Generation process when creating the billing detail transaction and the second during the Invoice Generation process. This constant controls the Workfile Generation process. You can override this constant during Invoice Generation.</p>
Override Invoice Print Version	The DREAM Writer Version number the system uses for the Invoice Print.

**See Also**

- *Printing Invoices Automatically*
- *Understanding Invoice Format Revisions*



## Working with Invoices

---

When you generate invoices, the system creates a batch of invoice transactions and stores the information in the Invoice Summary Workfile. You can review and revise the batch of transactions to prepare it for further processing.

For example, if you print invoices for review by project managers, you can use the batch review process to make any corrections.

If you delete a batch the system does not keep an audit trail for the batch number, which comes from the Foundation Environment (system 00).

Use Batch Header Revisions from the Row menu to revise the status and current activity of a batch. For example, you might need to do this if the generation program does not complete normally due to power failure. In this case, the current activity status would prevent you from accessing the batch for further processing.

Working with invoices consists of the following tasks:

- Reviewing invoices
- Decreasing invoice amounts
- Calculating retainage amounts

### See Also

- *Adding Transactions to an Invoice* to increase the amount on an invoice

## Reviewing Invoices

When you generate invoices, the system creates a batch of invoice transactions. It also updates the workfile transaction with the following information:

- Invoice number
- Invoice date
- Pay item number
- Batch number
- Journal status

To verify the invoice information, you can review it at the following levels:

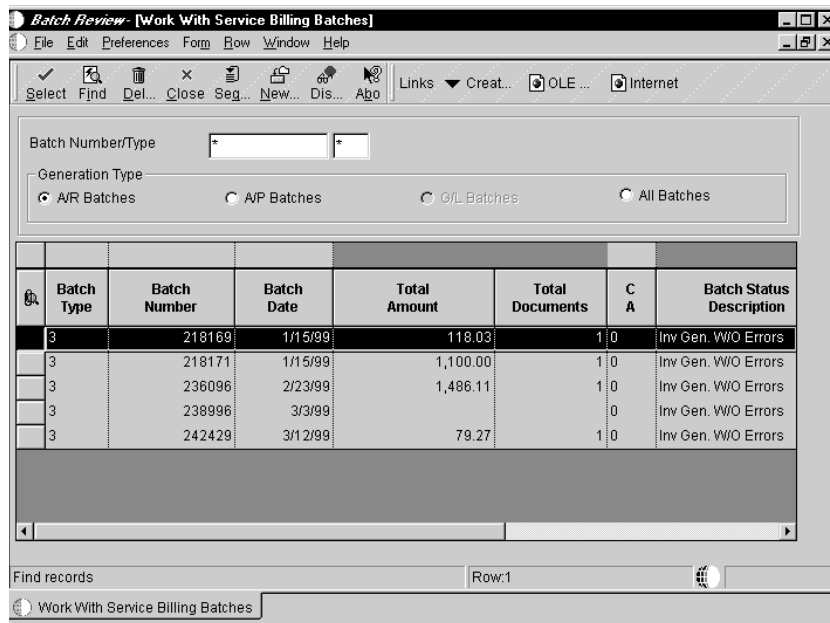
- Batch header information, including the batch status description and current activity
- Invoices for a selected batch
- Pay items for a selected invoice
- Individual workfile transactions for a selected pay item, including components

As you review the different levels of an invoice, you can revise specific information. For example, you can decrease an invoice amount or add transactions to an invoice.

### ▶ To review invoices

From the Invoice Processing menu (G48S21), choose Batch Review.

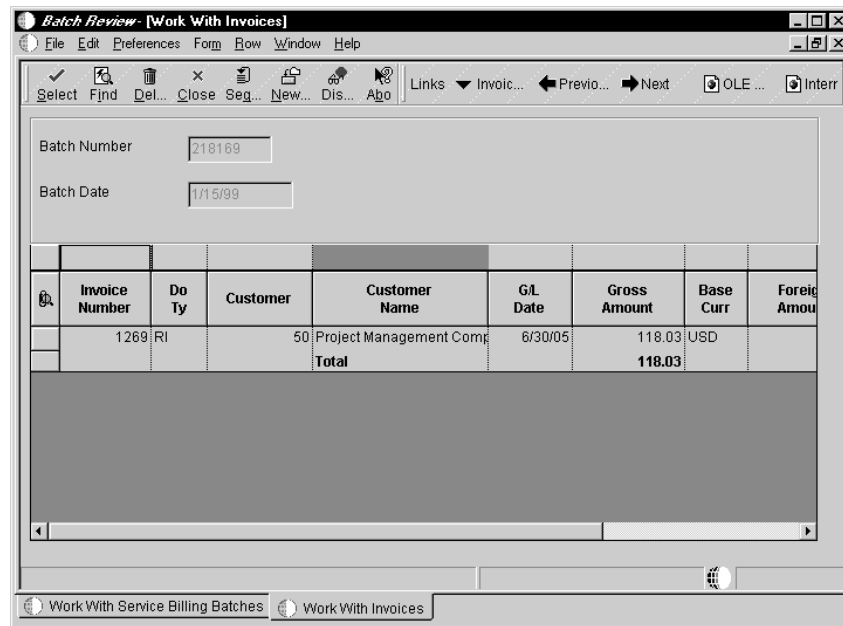
On Work With Service Billing Batches



1. To locate a batch of invoices on Service Billing Batches, complete any of the following fields:
  - Batch Number/Type
  - Batch Date
  - User ID

If you place an asterisk in the User ID field, the system displays all batches created by all users regardless of the batch activity status. The system displays the most current batch last.

2. To limit the type of batches, select from the following:
  - Generation Type
3. To limit the list of batches, complete the following optional field and click Find:
  - C A
4. Review the following fields for a batch:
  - Batch Number
  - C A
  - Batch Status Description
5. To review the invoice information for a specific batch, choose the record and click Select.



6. On Work With Invoices, review the following fields:
  - Invoice Number
  - Customer Name
  - G/L Date
7. To review the details for an invoice, choose a record and click Select.

Pay Itm	Gross Amount	Taxable Amount	Tax Amount	Percent Retainage	Retainage Amount	Discount Available
001	118.03	110.00	8.03			

8. On Service Billing Invoice Entry, review the following fields:

- Pay Itm
- Gross Amount
- Taxable Amount
- Tax Amount

9. To review the details for a specific pay item, select the record and choose Billing Detail from the Row menu.

T C	Do Ty	G/L Date	C	Hd CD	Customer	Contract Number	Business Unit	Obj Acct	Subsidiary
		6/15/05			50		5100	1341	02200

10. On Invoice Detail Revisions, review the workfile transactions that make up a pay item.

Field	Explanation
Batch Number/Type	<p>A number that identifies a group of transactions that the system processes and balances as a unit. When you enter a batch, you can either assign a batch number or let the system assign it through Next Numbers. When you change, locate, or delete a batch, you must specify the batch number.</p> <p>..... <i>Form-specific information</i> .....</p> <p>The header field identifies the number of a particular batch that you want to display.</p> <p>The detail field indicates the numbers of the individual batches that display.</p> <p>NOTE: If the OP (Option) field to the left of a batch number is highlighted, has extended text attached to it.</p>
Batch Date	<p>The date of the batch. If you leave this field blank, the system date is used.</p> <p>..... <i>Form-specific information</i> .....</p> <p>The Batch Date From/Thru fields let you select batches that were created within a specified date range.</p> <p>The Batch Date field indicates the date that the individual batches were created.</p>
User ID	<p>For World, the IBM-defined user profile.</p> <p>For OneWorld, the identification code for a user profile.</p>
Generation Type	<p>Click on one of the following options:</p> <p>A/R Batches to include those created in invoice generation</p> <p>A/P Batches to include those created in voucher generation</p> <p>G/L to include those from the G/L system</p> <p>All to include all of the above</p>

<b>Field</b>	<b>Explanation</b>
C A	<p>Identifies the processing cycle step that is currently active. This field maintains the integrity of the batch member throughout the Service Billing and Contract Billing systems. The Batch Validation form uses this field to ensure that the Batch Number selected is qualified for a particular function.</p> <p>Valid values are:</p> <ul style="list-style-type: none"> <li>0 Available</li> <li>1 Generation in process</li> <li>2 Maintenance in process</li> <li>3 Journal generation in process</li> <li>4 Batch delete in process</li> <li>5 Invoice printing in process</li> <li>6 Batch posting</li> <li>7 Selection in progress</li> <li>* Display all batches</li> </ul> <p>..... <i>Form-specific information</i> .....</p> <p>There are two Current Activity fields on this form.</p> <ul style="list-style-type: none"> <li>• Header Field – lets you display batches that are in a particular step of the invoice cycle.</li> <li>• Detail Field (CA) – indicates the current step of the invoice cycle for the individual batches that display.</li> </ul>
Batch Status Description	A user defined name or remark.
Invoice Number	<p>The original document number. This can be a voucher, an invoice, unapplied cash, a journal entry number, etc. Matching document numbers are also used to identify related documents in the Accounts Receivable and Accounts Payable systems. See matching document (DOCM). This document number (DOCO) is always the original document number, and the matching document number (DOCM) is the check, adjustment, or credit to be applied against the original document.</p> <p>For example:</p> <p>A/P Automated/Manual Payment: Original (DOCO) — Voucher; Matching Document (DOCM) — Payment</p> <p>A/R Original Invoice: Original (DOCO) — Invoice</p> <p>Receipt Application: Original (DOCO) — Invoice; Matching Document (DOCM) — Receipt</p> <p>Credit Memo/Adjustment: Original (DOCO) — Invoice; Matching Document (DOCM) — Credit Memo</p> <p>Unapplied Case: Original (DOCO) — Receipt</p>

Field	Explanation
Customer	<p>The address book number to which the system posts billing and accounts receivable transactions.</p> <p>..... <i>Form-specific information</i> .....</p> <p>Enter a customer's address book number in this field to search for transactions associated with that customer.</p>
Pay Itm	A number that identifies the pay item for an invoice. The system automatically assigns the pay item number. If an invoice has multiple pay items, the numbers are sequential.
Gross Amount	The amount that is billed for this pay item, including any applicable sales tax.
Taxable Amount	The amount on which taxes are assessed.
Tax Amount	This is the amount assessed and payable to tax authorities. It is the total of the VAT, use, and sales taxes (PST).

## Decreasing Invoice Amounts

As you review invoice information, you might need to decrease an invoice amount. You can decrease the amount of an invoice by changing the pay items or deleting the invoice.

Decreasing invoice amounts consists of the following:

- Deleting a pay item amount
- Deleting a pay item
- Deleting an invoice

### See Also

- *Adding Transactions to an Invoice* to increase the amount of an invoice

#### To delete a pay item amount

From the Invoice Processing menu (G48S21), choose Batch Review.

On Work With Service Billing Batches

1. To locate a batch of invoices on Service Billing Batches, complete the steps for reviewing invoices.

See *Reviewing Invoices* for more details.

2. On Work With Invoices, review the following fields:
  - Invoice Number
  - Customer Name
  - G/L Date
3. To review the details for an invoice, select a record and choose Select.
4. To review the details for a specific pay item on Service Billing Invoice Entry, select a record and choose Billing Detail.
5. On Invoice Detail Revisions, select the specific transaction and then choose Delete Transaction from the Row menu.
6. Click OK.



If the pay item no longer includes transactions and the gross amount field is blank, the system does not delete the pay item number.

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▶ **To delete a pay item**

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From the Invoice Processing menu (G48S21), choose Batch Review.

On Work With Service Billing Batches

1. To locate a batch of invoices on Service Billing Batches, complete the steps for reviewing invoices.

See *Reviewing Invoices* for more details.

2. To review the details for an invoice on Work With Invoices, select a batch and choose Select.
3. To review the details for a specific pay item on Service Billing Invoice Entry, select a record and choose Billing Detail.
4. On Service Billing Invoice Entry, select a specific item in the invoice, and then click Delete..
5. Click OK.

---

▶ **To delete an invoice**

---

From the Invoice Processing menu (G48S21), choose Batch Review.

On Work With Service Billing Batches

1. To locate a batch of invoices on Service Billing Batches, complete the steps for reviewing invoices.

See *Reviewing Invoices* for more details.

2. To review the details for an invoice, select a batch and choose Select.
3. To delete an invoice on Work With Invoices, select a record and click Delete.



If you delete the only remaining invoice in the batch, the system automatically deletes the batch header information without leaving an audit trail.

## Calculating Retainage Amounts

Retainage is a percentage of the invoice amount that your company is paid after the work is complete. For example, you can have a 10 percent retainage withheld on the billings to a customer. After the work is complete, the customer authorizes the payment of the amount of the invoice that was withheld.

When you enter a retainage amount or percent for an invoice amount, the system calculates the retainage and updates the pay item with the retainage amount. After the customer authorizes payment of the retainage amount, you must release the retainage.

You can change retainage amounts or percents for individual invoices on the Service Billing Invoice Entry form. For example, you might need to change a retainage amount if you have changed the retainage rules for the system, but you generated invoices prior to the change.

### ► To calculate retainage amounts

---

From Invoice Processing (G48S21), choose Batch Review.

On Batch Review

1. To locate a batch of invoices, complete any of the following fields:
  - Batch Number
  - Batch Date From
  - Batch Date Thru
  - User ID

If you place an asterisk in the User ID field, the system displays all batches created by all users regardless of the batch activity status. The system displays the most current batch last.

2. To limit the list of batches, complete the following optional fields:
  - Batch Status
  - Current Activity

3. To review the invoice information for a specific batch, choose Select.
4. On Work With Invoices, select a record and choose Select.
5. To calculate or change retainage on Service Billing Invoice Entry, complete one of the following fields:
  - Retainage Amount
  - Retainage Percent

**Batch Review - [Service Billing Invoice Entry]**

File Edit Preferences Form Row Window Help

Links Invoic... Internet

Batch Number: 218169 Company: 00050 USD

Customer: 50 Project Management Company  Foreign

Invoice Number: 1269 RI Taxable Amount: 110.00

Invoice Date: 6/30/05 Tax Amount: 8.03

G/L Date: 6/30/05 Non-Taxable Amount:

Alternate Payee: 50 Retainage Amount:

Invoice Format Version: Total Invoice Amount: 118.03

Inv Exch Rate: Invoice Type:

Pay Itm	Gross Amount	Taxable Amount	Tax Amount	Percent Retainage	Retainage Amount	Discount Available	Rat
001	118.03	110.00	8.03				DEN

Row:1

6. To change the accounting rules associated with the journal entries for retainage, complete the following field:
  - Retainage Offset

If you do not complete the Retainage Offset field to direct the system to a specific retainage account, the system uses the AAI for the Trade Accounts Receivable account.
7. Choose OK.

## See Also

See *Setting Up Automatic Accounting Instructions* in the *Accounts Receivable Guide* for more information.

## Creating Invoices Manually

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You can manually generate invoices without running the Invoice Generation program. When you generate invoices manually, you can:

- Create a new batch header or add the invoices to an existing batch
- Create invoices you want to include in a batch
- Add transactions to individual invoices in a batch
- Print invoices as you generate them

For example, you might have an existing batch which includes invoices that you have already reviewed and revised. You can add another invoice to the batch manually without having to delete and regenerate the entire batch.

Creating invoices manually consists of the following tasks:

- Creating a batch header manually
- Creating an invoice manually
- Adding transactions to an invoice
- Releasing retainage

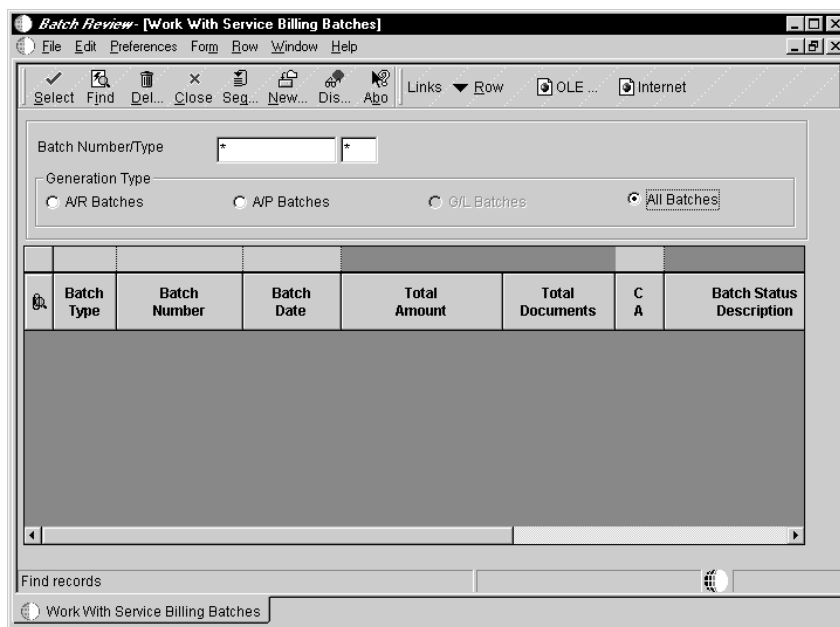
## Creating a Batch Header Manually

You can manually create a new batch header for invoices. When you create a new batch header, you can create a new batch. However, creating a new batch is optional because you can add invoices to an existing batch.

▶ **To create a batch header manually**

From the Invoice Processing menu (G48S21), choose Batch Review.

On Work With Service Billing Batches



1. Complete the following field and press Enter:
  - User ID
2. Choose Create Batch from the Form menu.

## Creating an Invoice Manually

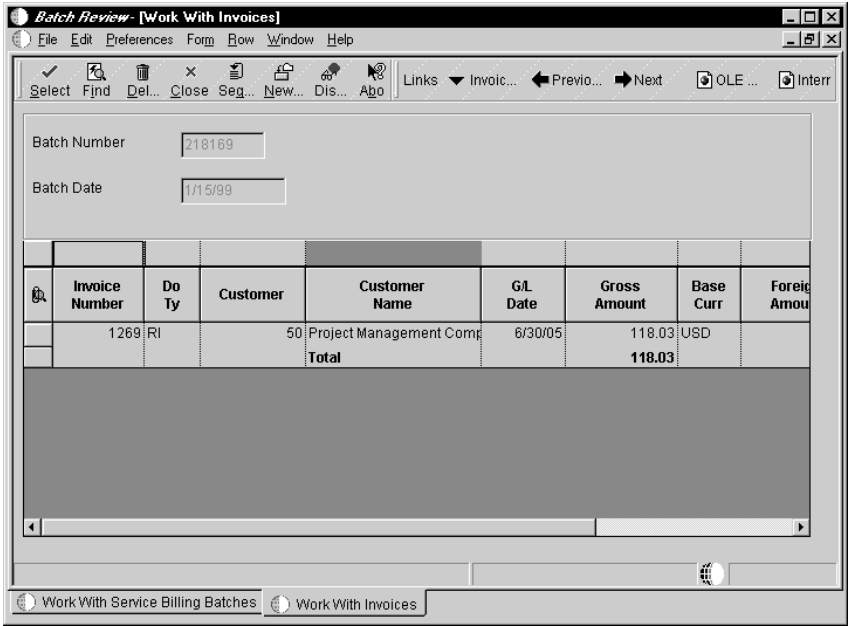
You can manually create a new invoice. You can add the invoice to an existing nbatch or to a new batch header. Creating a new invoice is optional. You can also add transactions to an existing invoice.

▶ **To create an invoice manually**

From the Invoice Processing menu (G48S21), choose Batch Review.

On Work With Service Billing Batches

1. Complete the steps for reviewing workfile transactions.  
*See Reviewing Workfile Transactions.*
2. To review the details for an invoice, select a batch and choose Select.



3. On Work With Invoices, choose Create Invoice from the Form menu.

The screenshot shows a software window titled "Invoice Processing - [Service Billing Invoice Generation]". The window has a menu bar with "File", "Edit", "Preferences", "Form", "Window", and "Help". Below the menu bar is a toolbar with buttons for "OK", "Can...", "Dis...", "Abo", "Links", "Edit In...", "OLE...", and "Internet". The main area of the window is a form titled "Invoice Generation" with the following fields:

- Customer: [Empty text box]
- Bill From Date: [Empty date box]
- Bill Through Date: [Empty date box]
- G/L Date: [Empty date box]
- Invoice Date: [Empty date box]
- Document Type: [Empty text box]
- A/R Company: [Empty text box]
- Exchange Rate Date Basis: [Text box containing "1"]
- Invoice/Pay Item Seq: [Text box containing "S002"]
- Job/Object (by Customer): [Empty text box]
- Initial Invoice Version: [Text box containing "ZJDE0001"]
- Invoice Generation: [Text box containing "Invoice Generation"]
- Override Invoice Print Version: [Empty text box with a cursor icon]

4. On Service Billing Invoice Generation, complete the following fields:
  - Customer
  - Bill From Date
  - Bill Through Date
  - Invoice Date
  - A/R Company
5. Complete the following optional fields:
  - G/L Date
  - Document Type
6. Click OK.

The new invoice appears on Invoice Entry Review without a gross amount. You can then add workfile transactions to the invoice or release retainage.

## Adding Transactions to an Invoice

The Invoice Summary Workfile might not contain all the billable amounts you have entered during the accounting cycle. To account for this, you need to:

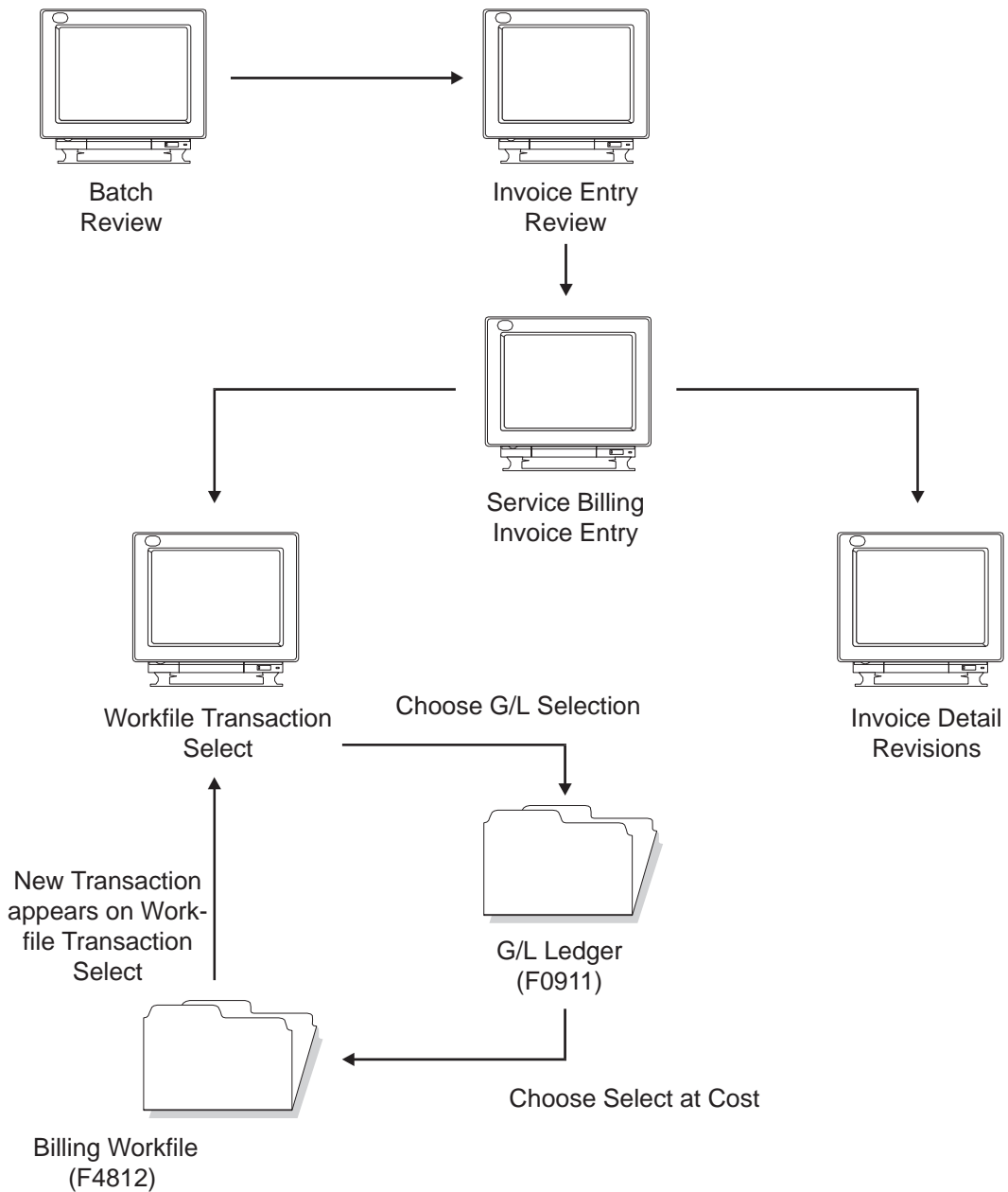
- Review the existing transactions in the Billing Workfile that are not currently in an invoice batch
- Manually add transactions that exist in the Billing Workfile
- Manually add costs that exist in the Account Ledger table and are not currently in the Billing Workfile, if necessary
- Manually add ad-hoc costs or credits to the invoice, if necessary

You can add workfile transactions to a new invoice, an existing pay item in an invoice, or a new pay item.

Adding transactions to an invoice consists of the following tasks:

- Adding transactions from the workfile
- Adding existing G/L transactions
- Adding ad-hoc transactions to an invoice

The following graphic illustrates the steps that you take to add transactions to an invoice.



### ► To add transactions from the workfile

---

From the Invoice Processing menu (G48S21), choose Batch Review.

On Work With Service Billing Batches

1. To review the invoice information for a specific batch, select the record and choose Select.

2. On Work With Invoices, review the following fields:
  - Invoice Number
  - Customer Name
  - G/L Date
3. To review the details for an invoice, select a batch and choose Select.

The screenshot shows a software window titled "Batch Review - [Service Billing Invoice Entry]". It contains a form with the following fields and values:

Batch Number	218169	Company	00050 USD
Customer	50	Project Management Company	<input type="checkbox"/> Foreign
Invoice Number	1269	Taxable Amount	110.00
Invoice Date	6/30/05	Tax Amount	8.03
G/L Date	6/30/05	Non-Taxable Amount	
Alternate Payee	50	Retainage Amount	
Invoice Format Version		Total Invoice Amount	118.03
Inv Exch Rate		Invoice Type	<input type="checkbox"/>

Below the form is a table with the following data:

Pay Item	Gross Amount	Taxable Amount	Tax Amount	Percent Retainage	Retainage Amount	Discount Available
001	118.03	110.00	8.03			

The status bar at the bottom indicates "Row:1".

4. On Service Billing Invoice Entry, select a pay item and choose Billing Selection from the Row menu.

The screenshot shows a software window titled "Batch Review - [Billing Detail Transaction Selection]". It contains a form with the following fields and values:

Customer	50	Project Management Company	Billing Control ID	
Account Number			Job Type	
Subledger	*		Job Step	
Contract Number			Employee/Supplier	*
G/L Date From		Thru	Billing Currency	*

Below the form, the following fields are populated:

Invoice Number	1269	Pay Item	001	Batch Number	218169
----------------	------	----------	-----	--------------	--------

Below the form is a table with the following headers:

T C	Do Ty	G/L Date	C	Hd CD	Customer	Contract Number	Business Unit	Obj Acct	Subsidiary
-----	-------	----------	---	-------	----------	-----------------	---------------	----------	------------

The status bar at the bottom indicates "Find records".

5. On Billing Detail Transaction Selection, select one or more transactions.
6. Choose Merge/Update Invoice from the Row menu.

The system merges the workfile transaction information into the invoice pay item.



The system prevents you from merging taxable and nontaxable transactions into the same pay item. If you merge taxable transactions into the same pay item, the transactions must have the same tax rate area and tax explanation. A blank in the Tax Rate/Area field is a valid tax code indicating that the pay item is nontaxable.

7. Choose Close.
8. On Service Billing Invoice Entry, choose Billing Detail from the Row menu to review the transaction.

### **To add existing G/L transactions**

---

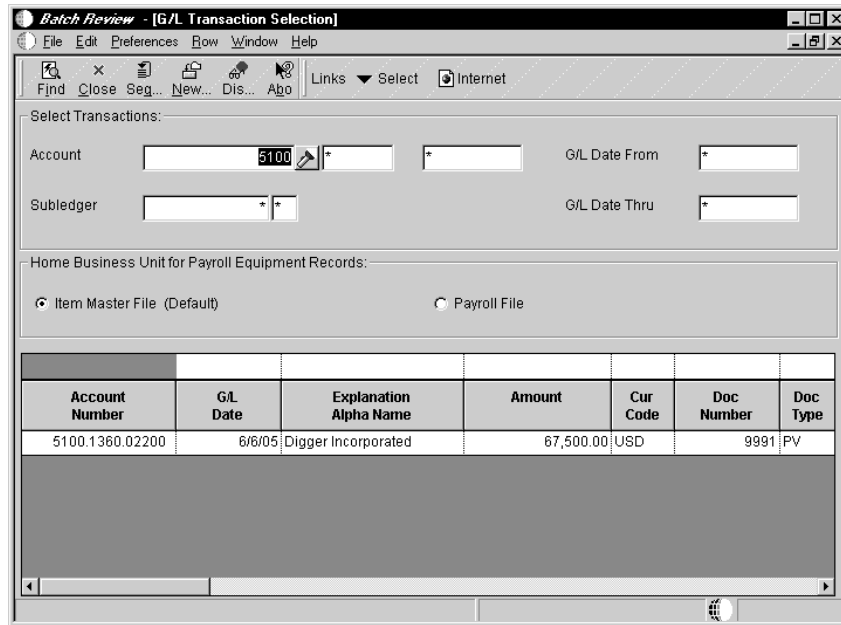
From the Invoice Processing menu (G48S21), choose Batch Review.

#### On Work With Service Billing Batches

1. Complete the steps for reviewing workfile transactions.

*See Reviewing Workfile Transactions.*

2. To review the invoice information for a specific batch, select the record and choose Select.
3. To review the details for an invoice on Work With Invoices, select a record and choose Select.
4. On Service Billing Invoice Entry, select a record and choose Billing Selection from the Row menu.
5. On Billing Detail Transaction Selection, choose G/L Selection from the Form Menu.



6. To limit the list of transactions on G/L Transaction Selection, complete one or more of the following fields:
  - Account Number
  - G/L Date From
  - G/L Date Thru
  - Subledger
  - Sub Type
7. To determine from which field the records are drawn, click one of the following:
  - Payroll File
  - Item Master File (Default)

The system processes the source transactions.

8. Select a record and use Select from the Row menu.
9. Choose Close.
10. On Billing Detail Transaction Selection, select a record and choose Select to review the transaction (optional).
11. Choose Merge/Update Invoice from the Row menu.

The system merges the workfile transaction information into the invoice pay item.



The system prevents you from merging taxable and nontaxable transactions into the same pay item. If you merge taxable transactions into the same pay item, the transactions must have the same tax rate area and tax explanation. A blank in the Tax Rate/Area field is a valid tax code indicating that the pay item is nontaxable.

12. Choose Close.
13. On Service Billing Invoice Entry, choose Billing Detail from the Row menu to review the transaction.

### **To add ad-hoc transactions to an invoice**

---

You can add transactions to an invoice on an as-needed basis. For example, you might want to add a transaction to an invoice to create a credit memo.

From the Invoice Processing menu (G48S21), choose Batch Review.

#### On Work With Service Billing Batches

1. To locate a batch of invoices on Service Billing Batches, complete the following field:
  - Batch Number/Type

If you place an asterisk in the User ID field, the system displays all batches created by all users regardless of the batch activity status. The system displays the most current batch last.

2. To limit the list of batches, complete the following optional fields and click Find:
  - Batch Date
  - User ID
  - C A
  - Batch Status Description
3. To review the invoice information for a specific batch, select the record and choose Select.
4. To review the details for an invoice on Work With Invoices, select a record and choose Select.
5. On Service Billing Invoice Entry, choose Billing Detail from the Row menu to review the details for a selected invoice.

T C	Do Ty	G/L Date	C	Hd CD	Customer	Contract Number	Business Unit	Obj Acct	Subsidiary
		6/15/05			50		5100	1341	02200

6. On Invoice Detail Revisions, select Add.



If you add transactions directly to the workfile and then process the original transaction through the normal accounting and billing cycles, the system creates a duplicate transaction.

G/L Date			
Account Number			Currency Code
Subledger/Type			
Eligibility Code		Remark	
Home Bus. Unit		Job Type	
Explanation		Job Step	
Units/Rate			
Cost Amount		Inv. Taxable Amt.	
Ovr Rate/Cap		Total Invoice	
Mark Up %		Discount %	
Mark Up Amount		Re-Extend Option	

7. On Billing Detail Entry, complete the following fields:
  - G/L Date
  - Account Number
  - Cost Amount
8. Choose OK.



Ad-hoc transactions that you add to an invoice are not represented in the Account Ledger table. After you void the invoice, the system returns the ad-hoc transactions to the workfile. Ad-hoc transactions in the workfile are eligible for processing. You must change the status of the ad-hoc transactions and remove them from the workfile to prevent billing for the transactions in error.

## Releasing Retainage

You release retainage when work is completed and the customer authorizes payment for the retained invoice amounts. When you release retainage, you manually create a pay item for the retained amount. You can add the pay item for retainage to an existing invoice or you can create an additional invoice. This retainage release invoice shows a negative amount representing the retained amounts from prior billings for your customer. You cannot release partial retained amounts.

J.D. Edwards recommends that you maintain a one-to-one relationship between your invoices and retainage release invoices. If you combine the retainage for multiple invoices on a single retainage release invoice, and you need to void one of the invoices and its retainage, you will have to void the retainage release invoice for all the invoices. Then, you must re-release retainage on the remaining invoices.

If you generate a batch of invoices that includes invoices that were created to release retainage, the total amount for the batch is reduced by the total amount of the released retainage.

▶ **To release retainage**

---

From Invoice Processing (G48S21), select Batch Review.

On Batch Review

1. Complete the steps for creating an invoice manually.

See *Creating an Invoice Manually*.

2. On Work With Invoices, select a record and choose Release Retainage from the Row menu.

The system displays Invoice History Inquiry.

3. To release retainage for the invoice on Invoice History Inquiry, select a record and choose Release Retainage from the Row menu.
4. Click OK.

The system marks each invoice with P in the Retainage Release Only field.

5. Choose Exit Program.

After you release retainage, the system updates the following fields:

- On Service Billing Invoice Entry, the released retainage amount is displayed as a negative number in the Retainage Amount field.
- On Invoice Entry Review, the Gross Amount field is blank.
- On Batch Review, the Total Amount field includes the released retainage amount.

**See Also**

- *Voiding a Final Invoice* for more information about voiding invoices with retainage



## Working with A/R and G/L Entries

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You complete the billing process by creating the following journal entries related to a batch of invoices:

- The credit for the account is specified in the account derivation rules that you define for your system. The system stores the credit entry temporarily in the Compressed Journal Entries (F489111).
- The debit for the account is specified in the G/L offset and Retainage rules you define in your Automatic Accounting Instructions (AAIs). The system stores the debit entry in the Invoice Summary Workfile (F4822).

Working with A/R and G/L entries consists of the following tasks:

- Creating preliminary A/R and G/L entries
- Reviewing preliminary A/R and G/L entries
- Creating final A/R and G/L entries
- Reviewing and posting journal entries

J.D. Edwards strongly recommends that you create and carefully review preliminary G/L entries before you create the final entries that post to the general ledger. If you post out of balance records to the general ledger, the only way to correct these balances is to void and regenerate the invoice.

### Before You Begin

- Generate invoices.
- Define account derivation rules.
- Define automatic accounting instructions.

## Creating Preliminary A/R and G/L Entries

You complete the billing process by creating journal entries. You first create preliminary A/R and G/L entries. When you create the entries, the system prints the Invoice Journal Generation report. You can also set a processing option to print the Service Billing Journal Register. You should carefully review these reports to ensure

that you do not create final journal entries that create out-of-balance records in the general ledger.

When you run Invoice Journal Generation, the system:

- Creates preliminary journal entries from the transactions in the Billing Workfile. The account derivation rules you define on the Account Derivation Table form determine which accounts the system assigns to the credit side of the journal entries.
- Updates the batch status description for the batch.
- Prints the Invoice Journal Generation report with accounting rule information and journal entry detail.
- Compresses the detail journal workfile information and stores it temporarily in the Compressed Journal Entries (F48911).
- Prints the Service Billing Journal Register with the compressed information as a summary of the journal entry detail.

### See Also

- *R48TW, Workfile Totals* in the *Reports Guide* for a report sample
- *Printing Invoices Manually* for information about locating a batch of invoices
- *Defining Account Derivation Rules*

### ► To create preliminary A/ R and G/L entries

---

From the Invoice Generation menu (G48S21), choose Invoice Journal Generation.

On Work With Batch Versions

1. Select the version you want.
2. Select from the following optional selections:
  - Data Selection Y/N
  - Data Sequencing Y/N
3. Choose Submit from the Form menu.
4. Revise the Processing Options or accept the default and click OK.
5. On Print Selection, choose from the following orientations:
  - Portrait
  - Landscape
6. Click OK.

Field	Explanation
	Turn this option on to change the data selection before submitting the report.
	Turn this option on to change the data sequencing before submitting the report.

### See Also

- *R48131, Invoice Journal Generation* in the *Reports Guide* for a report sample

## Reviewing Preliminary A/R and G/L Entries

From the Invoice Generation menu (G48S21), choose Batch Review.

When the system creates preliminary A/R and G/L entries, you can review the batch status on Batch Review to determine whether the entries were generated with errors. To verify the information for the general ledger journal before you create the final A/R and G/L entries, you can review the following reports:

- Invoice Journal Generation Report, to review the detail of all cost transactions that make up the pay items for your invoices, and the accounting rules for the transactions
- Billing Journal Register, to review journal entry details summarized by business unit, object, subsidiary, and subledger

Review the Billing Journal from menu G48S21 first for errors and warnings. You can also run the Billing Journal Register to print additional copies of the journal register after you have created preliminary G/L entries.

Use the Invoice Journal Generation Report to locate errors resulting from the account derivation rules.

If you find errors on the reports, you do not always need to delete the batch and regenerate the invoices. Once you identify the errors, you can correct them and run Invoice Journal Generation again. Common errors include:

- Incorrect dates or invalid accounts related to the general ledger
- Incorrect table types or invalid accounts related to the rules you define on the Account Derivation Table form or Automatic Accounting Instructions

### See Also

- *R48131, Invoice Journal Generation* in the *Reports Guide* for a report sample
- *R48300, Journal Register Listing* in the *Reports Guide* for a report sample

## Creating Final A/R and G/L Entries

From the Invoice Generation menu (G48S21), choose Create A/R and G/L Entries.

You complete the billing process within the billing system when you create the final A/R and G/L entries. To complete the overall invoice process, you then post the journal entries to the general ledger and accounts receivable.

When you create final A/R and G/L entries for a batch of invoices, the system:

- Changes the journal status for the related workfile transactions
- Moves the transactions out of the active Billing Workfile table (F4812) and into the Billing Workfile - History table (F4812H)
- Removes the batch header number for the invoice journals from the Service Billing system
- Deletes the records in the Compressed Journal Workfile



Before you create final A/R and G/L entries, ensure that the invoice amounts and journal transactions are correct. To make any changes after you create A/R and G/L entries, you must either void the invoices or create an adjusting invoice batch.

When you choose Create A/R and G/L Entries from the menu, the system displays processing options before submitting the job for processing. Use processing options to specify the batch of invoices for which you want to create.

### See Also

- *R48199, Create A/R Entries* in the *Reports Guide* for a report sample
- *Printing Invoices Manually* for information about locating a batch of invoices
- *Defining Account Derivation Rules*

## Processing Options for A/R and G/L Journal Generation

Batch Number

BATCH NUMBER SELECTION

1. Enter Batch Number \_\_\_\_\_

Print Report

PRINT REPORT SELECTION

2. Enter the version of the  
Invoice Journal Generation  
Report (R48131) to submit. \_\_\_\_\_

Retainage

RETAINAGE DEFAULT PROCESSING

3. Enter a Pay Status to  
default for Retainage  
records. Leave blank to  
default Pay Status "H"  
(Held). \_\_\_\_\_

4. Enter a Due Date to  
default for Retainage  
records. Leave blank to use  
the last day of the century  
year (DCYR) data item to  
derieve the Due Date.  
Century Cutoff Year (One  
World). \_\_\_\_\_

## Reviewing and Posting Journal Entries

From the Invoice Generation menu (G48S21), choose Post Invoices to G/L.

After you create the final A/R and G/L entries, you complete the overall billing process by reviewing, approving, and posting the journal entries.

The journal review and post programs are the same programs you use in the Accounts Receivable and General Accounting systems.

### See Also

- *R09801, Post Invoices to G/L Invoice Journal Generation* in the *Reports Guide* for a report sample
- *Working with Final Invoices*
- *Reviewing and Approving Invoices* in the *Accounts Receivable Guide*
- *Posting Invoices* in the *Accounts Receivable Guide*



## Printing Invoices

---

After you generate and review invoices, you can print invoices for your customers. You can use the following methods to print invoices:

### **Automatically**

You can print invoices for your customers as you generate invoices. Use this method to print invoices in a batch during invoice generation.

### **Manually**

You can print invoices after you generate them. When you use this method, you can:

- Print invoices from any existing batch
- Reprint batches that include revised invoices
- Print invoices that have completed the billing process with workfile transactions in history

You can assign an invoice version to a key type and table key combination on the Format Cross-Reference form. If invoices do not print, you can revise the cross-reference information for the key type and table key combination.

Printing invoices consists of the following tasks:

- Printing invoices automatically
- Printing invoices manually

### **See Also**

- *R48506, Invoice Print* in the *Reports Guide* for a report sample
- *Understanding Invoice Format Revisions*
- *Working with the Cross Reference Table*

## Printing Invoices Automatically

You can print invoices as you generate them. For example, you might want to print preliminary invoices for review.

### Before You Begin

- Generate workfile transactions.
- Define the sequence and summarization for the invoice information.
- Define invoice versions if you want to print the invoices during generation.

### ► To print invoices automatically

---

All invoices in this batch will be printed using the version entered in the Override Invoice Print Version.

From Invoice Processing (G48S21), choose Invoice Processing.

On Service Billing Invoice Generation

n

1. Complete the steps for generating invoices.

*See Generating Invoices Automatically.*

2. Complete the following field:
  - Override Invoice Print Version
3. Choose OK.

## Printing Invoices Manually

After you generate invoice batches, you can print the invoices. You can use the following methods to control the invoice version that the system uses to print the invoices:

- Override Format and Invoice Version fields on Service Billing Invoice Entry
- Processing Options for Invoice Print Selection
- Key Type and Table Key fields on Version Cross-Reference

You can assign an override version in Service Billing Invoice Entry if you want to print invoices using a version other than the one you specify on Version Cross-Reference. You can also use Processing Options on Invoice Print Selection. If you do not specify an override version, the system uses the key type and table key combination that you define on Version Cross-Reference to determine which invoice version to print. The system uses the following hierarchy to search for versions:

- Work order number
- Contract number
- Parent contract number
- Customer
- Job or business unit
- Job class
- Company number
- Default

You can print selected invoices rather than an entire batch. To do this, use the data selection for the Invoice Print Selection version you specify during the printing process. For example, you can limit the print selection to a business unit or an invoice number.

Printing invoices manually consists of the following tasks:

- Assigning an override invoice print version
- Locating a batch of invoices to print
- Entering a default version on Invoice Print

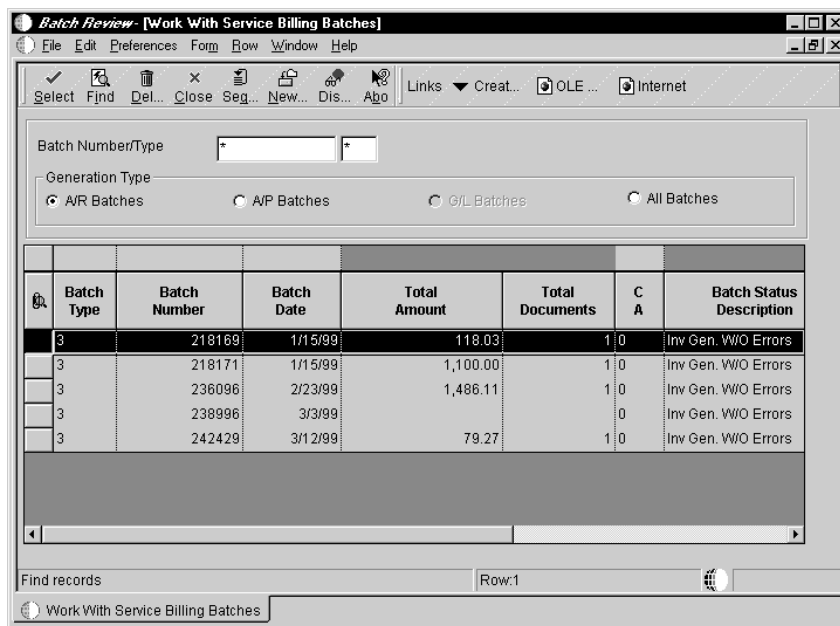
## Before You Begin

- Generate workfile transactions.
- Define invoice versions.

**▶ To assign an override invoice print version**

From Invoice Processing(G48S21), choose Batch Review.

On Work With Service Billing Batches



1. To locate a batch of invoices on Work with Service Billing Batches, complete the following field:

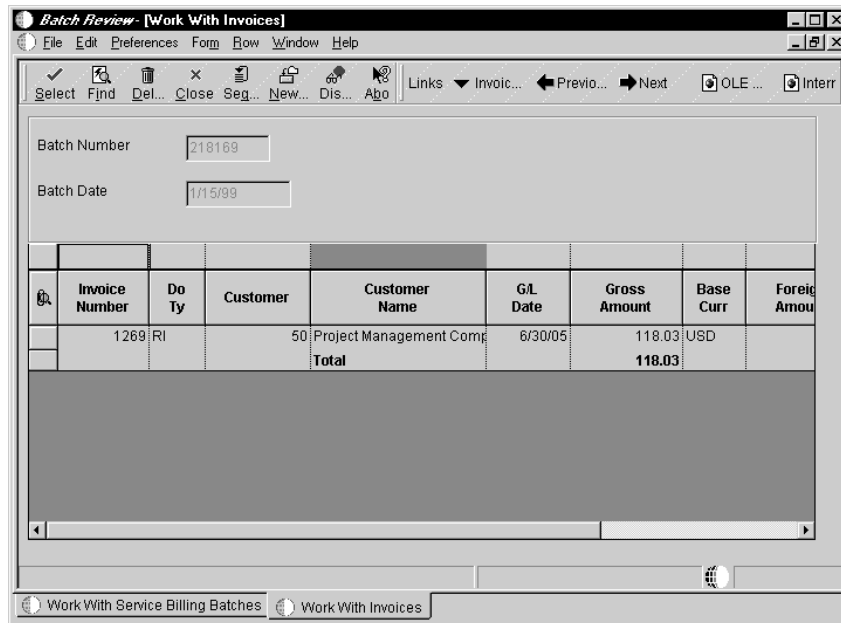
- Batch Number

If you place an asterisk in the User ID field, the system displays all batches created by all users regardless of the batch activity status. The system displays the most current batch last.

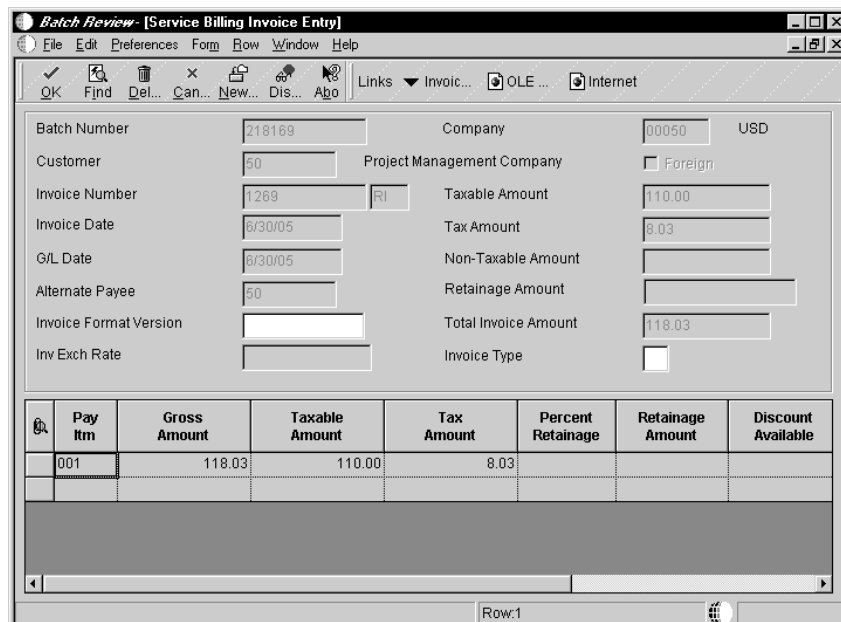
2. To limit the Generation Type, select from one of the following:

- A/R Batches
- A/P Batches
- G/L Batches
- All Batches

3. To limit the list of batches, complete the following optional fields and click Find:
  - Batch Status Description
  - C A
4. To review the invoice information for a specific invoice, select the record and choose Select.



5. On Work With Invoices, select a record and choose Select.



- To select a valid version on Service Billing Invoice Entry, click Visual Assist for the following field:
  - Invoice Format Version
- On Work With Versions, choose the invoice version that you want the system to use.

---

Field	Explanation
Invoice Format Version	<p>A code that uniquely identifies a series of formats and determines the overall layout of the invoice.</p> <p>..... <i>Form-specific information</i> .....</p> <p>A code that identifies the invoice layout that you want to override any other invoice layout previously defined for the invoice or batch.</p>

---

 **To locate a batch of invoices to print**

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From Invoice Processing (G48S21), choose Batch Review.

On Work With Service Billing Batches

- To locate a batch of invoices on Service Billing Batches, complete the following field:
  - Batch Number

If you place an asterisk in the User ID field, the system displays all batches created by all users regardless of the batch activity status. The system displays the most current batch last.
- To limit the Generation Type, select from one of the following:
  - A/R Batches
  - A/P Batches
  - G/L Batches
  - All Batches
- To limit the list of batches, complete the following optional fields and click Find:
  - Batch Status Description
  - C A
- To review the invoice information for a specific batch, select the record and choose Select.

5. On Work With Invoices, select an invoice and choose Invoice Print from the Row menu.
6. On Printer Selection, choose OK.

 **To enter a default version on Invoice Print**

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From Invoice Processing (G48S21), choose Invoice Print.

On Available Versions

1. Choose a version and select Processing Options.
2. Enter a version name in the Version field and click OK.



## Working with Final Invoices

---

After you create the A/R and G/L entries for your billings, the system moves the workfile transactions that have completed the billing process into the Billing Workfile History table. You can work with final invoices to access these transactions.

Working with final invoices includes the following tasks:

- Reviewing the billing history for transactions
- Printing invoices from history
- Voiding a final invoice

When you work with final invoices, you can review the invoices on an as-needed basis. You can reprint invoices using the transactions in the Billing Workfile History table. You can also void final invoices. When you void a final invoice, the billing transactions that were included on the invoice return to the active Billing Workfile with a status of not billed. You can then reprocess these unbilled transactions, or change them to a status of nonbillable.

### Reviewing the Billing History for Transactions

When you access the invoice history, the system displays the invoice number first. This is particularly helpful if you need to review the billing information for a specific customer. You can also review the billing detail history for transactions if the associated invoice has not been voided.

### ► To review the billing history for transactions

From the Invoice Generation menu (G48S21), choose Invoice History Inquiry.

On Invoice History Inquiry

Invoice Number	Void	Retainage Release	Customer Number	Customer Name	Invoice GL Date
3035			150	DIA Property Management Compan	4/30/05
3038			150	DIA Property Management Compan	4/30/05
3039			3003	CSC Corporation	2/28/99
3040			4253	City Light & Power	2/28/99
3041			4271	Consolidated Fuel Brokers	2/28/99

1. To locate invoices, complete one or more of the following fields:
  - Subledger
  - Account Number
  - Customer Number
  - Batch Number
  - Invoice Number
2. Click Select to review the billing detail history for the workfile transactions associated with the invoice.

Invoices that display on the Invoice History Inquiry form with R in the Retainage Release Only field do not have invoice amounts or billing detail history.

3. The system displays Work With Billing Detail History.

### See Also

- *Voiding a Final Invoice* for more information about billed transactions

## Printing Invoices from History

From Invoice Generation (G48S21), choose Invoice Print.

The system moves the workfile transactions that have completed the billing process into Billing Workfile - History. You can access these transactions from history and reprint invoices using the Invoice Print report. For example, if an invoice gets lost in the mail, but you have already completed the billing process, you can print the invoice from history.



The system does not store a copy of the printed invoice. If you change the version associated with the invoice version, the reprinted invoice will not look the same as the invoice you previously printed.

### See Also

- *Reviewing the Billing History for Transactions*
- *R48506, Invoice Print* in the *Reports Guide* for a report sample

### Processing Options for Invoice Print Selection

Version

Enter the override version of the Invoice Print to use for the invoices selected.

Version \_\_\_\_\_

Enter the override invoice type to use for the invoices selected. Enter "D" to print domestic amounts and enter "F" to print Foreign amounts.

Invoice Type \_\_\_\_\_

### Voiding a Final Invoice

After you create A/R and G/L entries, you can void invoices. When you void an invoice, the transactions that were included on the invoice return to the Service Billing Workfile with a status of not billed. You can then reprocess these transactions or change them to a nonbillable status.

Voiding final invoices consists of the following:

- Voiding a final invoice without retainage
- Voiding a final invoice with released retainage



If you have applied unposted cash receipts against a posted invoice, you must void or reverse the receipts before you void the posted invoice. If you have applied posted cash receipts against a posted invoice, you must void the cash receipts and post them to the general ledger before you void the posted invoice.

When you void an invoice, the system updates the following information:

- Line number for the journal entry in the Account Ledger table
- Detail for the invoice in the A/R Account Ledger table
- Batch header information
- Invoice information in the Invoice Summary Workfile
- Invoice information in the Billing Workfile and Billing Workfile History tables
- Accounting and internal control information that is related to the invoice, batch, sequences, and so on
- Retainage amounts withheld for the invoice



You must use the void process in the Service Billing system if you created the invoice in that system. If you void the invoice in the Accounts Receivable system, the system does not update the applicable Service Billing records.

If you void an unposted invoice, the system deletes the A/R and G/L records without creating an audit trail for the A/R and G/L transactions and the invoice number. The system does not delete the batch header. You must run the G/L Integrity program to delete the empty header.

When you void a posted invoice, the system creates adjusting A/R and G/L entries to reverse the original entries and changes the G/L batch status to Pending or Approved. You must post these adjusting entries for the batch number that the system displays in Invoice Void Window.



You cannot void an invoice that has already been voided. Voided invoices display with V in the Void field.

### See Also

- *Working with Batch Headers* in the *General Accounting Guide* for more information about deleting batch headers



### To void a final invoice without retainage

---

From the Invoice Processing menu (G48S21), choose Invoice History Inquiry.

On Invoice History Inquiry

1. To locate a specific invoice, complete one or more of the following fields:
  - Subledger
  - Account Number
  - Customer Number
  - Batch Number
  - Invoice Number
2. Choose the record for the invoice and then choose Void from the Row menu.
3. On Invoice Void Window, complete the following optional field:
  - Enter G/L Date
4. Choose Void.

The system places V in the Void field for the invoice.

Field	Explanation
Void	A code that indicates you want the system to create a void entry to reverse a transaction. Valid codes are: V Yes, create a void entry blank No, do not create a void entry  You cannot use R in this field to reverse the transaction.

---

► **To void a final invoice with released retainage**

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When you void a final invoice with released retainage, you must also void the retainage release invoice that you created to release the retainage.

### On Invoice History Inquiry

1. To locate a specific invoice, complete one or more of the following fields:
  - Account
  - Subledger
  - Account Number
  - Customer Number
  - Batch Number
  - Invoice Number
2. Review the following fields.
  - Foreign Currency Code
  - Retainage Amount (F)
3. For the invoice with retainage, choose Void from the Row menu.
4. On Invoice Void Window, complete the following optional field:
  - Invoice G/L Date
5. Choose Void from the Row menu.

The system places V in the Void field for the invoice with retainage.

6. Choose Void for the retainage release invoice.

The system displays R in the Retainage Release Only field for the retainage release invoice.

7. On Invoice Void Window, complete the following optional field:
  - G/L Date

8. Choose Void.

The system places V in the Void field for the retainage release invoice.



If you create only one retainage release invoice that releases the retainage for multiple invoices, and then void one of those invoices, you must also void the retainage release invoice. Then, you must release the retainage again for the invoices that you did not void.

### See Also

*Releasing Retainage* for more information.



# Setup





## System Setup

Before you can use the Service Billing system, you must define the constants and rules that you want the system to use during the revenue recognition and billing processes. The information that you set up in the system constants and rules determines:

- How the system uses dates to process source transactions, such as the service/tax date or G/L date, compared to the effective dates for the markup, account derivation, and tax derivation rules
- How the system uses account derivation rules to create journal entries
- How the system processes payroll transactions

Setting up the Service Billing system consists of the following tasks:

- Setting up system constants
- Defining markup rules
- Defining account derivation rules
- Defining component rules
- Assigning component information
- Defining G/L offset and retainage rules
- Defining tax derivation rules
- Setting up automatic accounting instructions
- Setting up user defined codes
- Working with the Cross-Reference table
- Understanding Invoice Format Revisions
- Understanding Multi-Currency for Service Billing



### What Do These Setup Features Do?

System Constants	Control the global processing of the following: <ul style="list-style-type: none"><li>• Billable costs</li><li>• Customer information</li><li>• Dates</li><li>• Invoices</li><li>• Journals</li><li>• Default markup</li></ul>
<b>Markup rules</b>	Define the calculation for the amount that you add to costs to account for overhead and profit.
<b>Account derivation rules</b>	Define the accounting rules that the system uses to process journal transactions for billing, revenue recognition, and reallocations.
<b>Component rules</b>	Define a type of markup that is based on amounts and units. The markup and account derivation also use this information.
<b>G/L offset and retainage rules</b>	G/L offsets identify the accounts for which the system creates the offsetting entries during the posting of A/R information.  Retainage identifies the percentage of payment for the invoice which your company is paid after the work is complete.
<b>Tax derivation rules</b>	Define the following: <ul style="list-style-type: none"><li>• The source transactions that are subject to tax</li><li>• The tax rate or geographic area with common tax rates</li></ul>
<b>Automatic accounting instructions (AAIs)</b>	Define accounting information and general ledger relationships.
<b>User defined codes</b>	Define custom codes for the system, such as condition codes and adjustment reasons.

# Setting Up System Constants

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You set up the system constants to represent your company's decisions on how source transactions and related billing are processed. The constants control how the system processes the following:

- Billable costs
- Customer information
- Dates
- Invoices
- Journals
- Default markup percentage
- Multi-currency transactions

After you set up the constants, you should not change them. The system stores the constants in the System Constants table (F48091).

## Before You Begin

- Verify that the default document type for invoices is set up on user defined codes tables 00/DT (Document Type – All Documents) and 00/DI (Document Type – Invoices Only).

### **To set up system constants**

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From the Work Order/Service Billing Setup menu (G4841), choose Service Billing Constants.

### On Service Billing Constants

Bill Burden	1	Independent Revenue/Invoice	0
Bill Unposted	1	Revenue on Contract non T & M's	0
Effective Date Basis	1	Invoice Summary Access Control	<input type="checkbox"/>
Labor Effective Basis	1	Invoice Date Override Control	1
Customer Number Basis	1	Draft/Final Invoice Gen. Control	0
Service Date Basis	0	Default Invoice Document Type	RI
Exchange Rate Date Basis	2	<input checked="" type="checkbox"/> Foreign	
Journal Generation Control	1		
Journal Reclassification Control	0		
PDDBA Code Override	1		
Default Markup Percentage	10.000		

1. To specify how you want the system to process billable costs, complete the following field:
  - Bill Unposted
2. To specify the address number that the system uses to identify customer information, complete the following field:
  - Customer Number Basis
3. To specify the dates that you want the system to use when processing workfile transactions, complete the following fields:
  - Effective Date Basis
  - Labor Effective Basis
4. To specify the default value that the system uses when workfile transactions do not meet the criteria for any other markup rules, complete the following field:
  - Default Markup Percentage
5. To specify how the system processes journal entries, complete the following field:
  - Journal Generation Control
6. To specify the date that the system uses when processing accounts receivable transactions, complete the following field:
  - Service Date Basis
7. To specify how the system processes invoices, complete the following fields:
  - Default Invoice Document Type

8. To specify how the system processes multi-currency transactions, complete the following field:
  - Exchange Rate Date Basis
9. To specify that the currency mode is foreign, click the following option:
  - Foreign

<b>Field</b>	<b>Explanation</b>
Bill Unposted	<p>A constant that controls whether the system includes unposted billable transactions from the G/L Account Ledger table during workfile generation for the Service Billing and Contract Billing systems. Valid values are:</p> <ul style="list-style-type: none"> <li>0 Only posted billable transactions in the Account Ledger are processed.</li> <li>1 Both unposted and posted entries in the Account Ledger are processed.</li> </ul> <p>NOTE: Since unposted billable transactions are subject to change or deletion, you do not include them during workfile generation. However, if there is very little time between the entry of costs and the billing of the invoice, you might find it helpful to generate workfile for unposted transactions.</p>
Customer Number Basis	<p>All workfile transactions must include a customer number to bill the transactions. You must identify a customer number on individual jobs or work orders.</p> <p>For Service Billing only, a constant that determines which customer number the system retrieves for a billing detail transaction. Valid values are:</p> <ul style="list-style-type: none"> <li>0 Owner address number from the Job Master (F0006).</li> <li>1 Customer number from the Work Order Master (F4801). If the customer number is blank, the system retrieves the owner address number from the Job Master.</li> </ul> <p>If you set this field to 0 and do not specify a customer number for the job, the system creates an invoice without a customer number.</p> <p>The address book number on the Single Business Unit form is not the customer number.</p>

<b>Field</b>	<b>Explanation</b>
Effective Date Basis	<p>A constant that determines whether the system uses the G/L date or the service/tax date from a billable source (cost) transaction as the basis for comparison with the effective dates for the tables. Valid codes are:</p> <ul style="list-style-type: none"> <li>1 G/L date</li> <li>2 Service/tax date</li> </ul> <p>NOTE: The Service Billing and Contract Billing (future) systems use tables, such as the Billing Rate/Markup Table (for World, Cost Plus Markup Table) and the Account Derivation Table, during the billing process. A range of dates can control when the table information is valid.</p>
Labor Effective Basis	<p>A constant that determines which date, from a billable source transaction originating in the Payroll system, is used as the basis for comparison with the effective dates for the tables. Valid codes are:</p> <ul style="list-style-type: none"> <li>1 G/L date</li> <li>2 Service/tax date</li> <li>3 Work date</li> <li>4 Ending date of the pay period</li> </ul> <p>If your billing process does not involve payroll, the system ignores this constant.</p> <p>NOTE: The Service Billing and Contract Billing systems use tables, such as the Billing Rate/Markup Table (for World, Cost Plus Markup Table) and the Account Derivation Table, during the billing process. A range of dates can control when the table information is valid.</p>
Default Markup Percentage	<p>The percentage you use to mark up the revenue amount reflected in the billing of professional services, such as draftsmen, engineers, or consultants fees. This percentage rate will not affect the employee's paycheck. This percentage rate is set up in the Billing Rate/Markup Table (for World, Cost Plus Markup Table) using generation type 1 to specify a table for revenue/invoice markup percentage rates.</p> <p>Enter percentages as whole numbers. For example, 50.275% would be entered as 50.275.</p> <p>..... <i>Form-specific information</i> .....</p> <p>Use this field to enter a markup percentage that the system will use as a default value when a source (cost) transaction has no associated markup table entry. If the system finds a markup table entry for the source transaction, the table entry overrides this constant.</p> <p>NOTE: If you leave this constant blank, and the system does not find a markup table entry for a source transaction, the system processes that transaction at cost (without any markup).</p>

<b>Field</b>	<b>Explanation</b>
Journal Generation Control	<p>A constant that controls the process for journal generation in the Service Billing and Contract Billing systems. Valid codes are:</p> <ul style="list-style-type: none"> <li>1     Invoicing only</li> <li>2     Revenue recognition only (future)</li> <li>3     Revenue recognition and invoicing, without requiring revenue reconciliation (future)</li> <li>4     Revenue recognition and invoicing, requiring revenue reconciliation (future)</li> </ul> <p>The following functions are also affected:</p> <ul style="list-style-type: none"> <li>• The initial value of the eligibility code (ELGC) for the billing detail transactions</li> <li>• The edit for the table type (TBTY) when you enter information on the Account Derivation Table form</li> </ul>
Service Date Basis	<p>A constant that determines whether the system uses the G/L date or the invoice date from an A/R transaction as the service/tax date. Valid codes are:</p> <ul style="list-style-type: none"> <li>0     G/L date</li> <li>1     Invoice date</li> </ul>
Default Invoice Document Type	<p>A user defined (00/DI) document type for invoice entry. Any document type set up for invoice-only entry should begin with the letter R (receivables). The default is RI, RR, or RM. Reserved document types have been defined for vouchers, invoices, receipts, and time sheets.</p> <p>The reserved document types are:</p> <ul style="list-style-type: none"> <li>P_     Accounts Payable Documents</li> <li>R_     Accounts Receivable Documents</li> <li>T_     Payroll Documents</li> <li>I_     Inventory Documents</li> <li>O_     Order Processing Documents</li> </ul> <p>NOTE: For invoice entry, if you are using document type DI, you must also set up document type DT in user defined codes.</p>

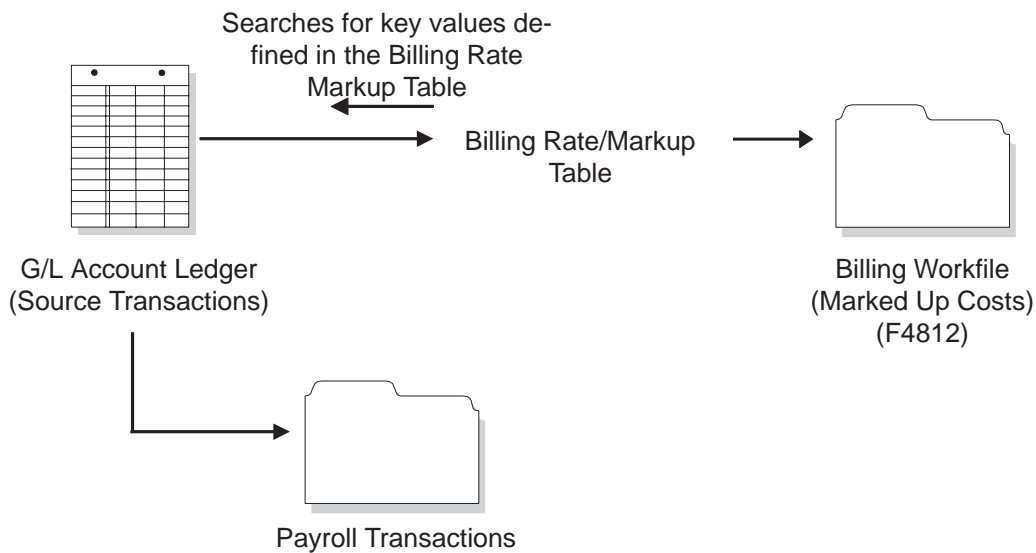
Field	Explanation
Exchange Rate Date Basis	<p>A constant that controls the date that the system uses to retrieve the exchange rate.</p> <p>Valid values are:</p> <ul style="list-style-type: none"><li>1 Use the last day of the prior month. The system determines this date based on the company date patterns.</li><li>2 Use the date of the billable cost (source) transaction. The system determines this date based on the value of the Effective Date Basis and Labor Effective Date Basis billing constants.</li><li>3 Use the system date. (You should only use this value if you operate in an hyper-inflationary economy.)</li></ul> <p>Note: The Service Billing module can recognize two exchange rates; the first during the Workfile Generation process when creating the billing detail transaction and the second during the Invoice Generation process. This constant controls the Workfile Generation process. You can override this constant during Invoice Generation.</p>
Foreign	<p>A code that specifies whether amounts are in the domestic currency of the contract or the foreign currency of the supplier.</p> <p>Valid codes are:</p> <ul style="list-style-type: none"><li>D Domestic</li><li>F Foreign</li><li>3 Foreign and Domestic</li></ul> <p>For conversions, D indicates domestic to foreign, and F indicates foreign to domestic.</p> <p>..... <i>Form-specific information</i> .....</p> <p>Choose the Foreign option to toggle between domestic amounts (no check mark) and foreign amounts (checkmark).</p>

## Defining Markup Rules

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The markup is an amount that you add to costs for overhead and profit. The system calculates markup amounts when you accumulate costs or revise workfile transactions based on the markup rules that you define when you set up the billing system.

The following graphic illustrates how the system marks up costs based on the Billing Rate/Markup Table.



When you accumulate costs or revise workfile transactions, the system marks up costs as follows:

1. Accesses the markup rules
2. Searches and selects specific source transactions that match the values you specified for the major key
3. Continues the search, narrowing the selection of source transactions based on the value you specified for the minor key
4. Calculates the markup amount for individual transactions based on the applicable markup calculation rules
5. Updates the workfile transaction with the applicable markup amount

The system stores markup information in the Billing Rate/Markup Information table (F48096).

When you define markup rules, you specify the following information:

- Major key
- Minor key
- Markup calculations
- Compound markup

You define markup rules by specifying major and minor key values. The system uses these values in combination to identify the specific markup rules that apply to individual source transactions.

When you accumulate costs or revise workfile transactions, the system matches the key values in the markup rules with the same values in the transactions. The system uses the most specific rule that it can locate to calculate the markup for a transaction.

Typically, you define general markup rules that apply to most of the source transactions that you process in the billing system. You can also define additional markup rules for the transactions that are exceptions. For example, you can define rules that specify alternative markup rates for an individual customer or work order.

If you do not want to mark up a source transaction, the system processes it at cost. To include a source transaction in the Billing Workfile at cost, you must include the following for the markup rules:

- An account range that includes the account associated with the transaction
- Blank fields for the markup calculations

If you do not include these, the system marks up the transaction using a default markup rule or the default percentage in the system constants.

The system uses default markup rules to calculate the markup amounts for transactions that do not match the key values for any specific markup rules. You can define two types of default markup rules:

- Major key
- Minor key

For a major key default markup rule, specify 9 as the key type and \*ALL as the table key. For a minor default markup rule, leave the account range blank and specify a markup calculation.

## Major Key

You must specify a major key for each markup rule that you define. A major key must include the following information:

<b>Generation type</b>	Specifies whether the markup rule applies to invoice amounts, revenue amounts, invoice amounts, or component amounts. Depending on how you set up your system constants, you might want different markup rules to apply to different amounts.
<b>Key type</b>	One of nine hard-coded values that defines the major key value for the markup rule.
<b>Table key</b>	Further defines the major key value, based on the key type.
<b>Effective dates</b>	Specifies when the markup rule is effective.

The system uses the key type and table key in combination. For example, if the key type is work order number, the table key must be a specific work order number. If you have three work orders that require different markup rules, you must set up three different markup rules, each with a work order number as the key type and a specific work order number as the table key.

### Generation Types

You can use the following generation types in combination with your system constants to define markup rules:

<b>Type 1</b>	When your system constants are set up so that invoice and revenue amounts are always the same, the markup rule applies to revenue, invoice, and component amounts.
	When your system constants are set up so that invoice and revenue amounts can be different, the markup rule applies to invoice and component amounts. It also applies to revenue amounts if no Type 2 rule exists.
<b>Type 3</b>	Regardless of how your system constants are set up, the markup rule applies to component amounts.

### Minor Key

You must specify one or more minor keys to further define each of the major keys in a markup rule. A minor key must include a range of accounts. You can further define the minor key by specifying the following information:

- Payroll information, such as job type, job step, and pay type
- Equipment information, such as number, rate, and group

You can specify a combination of payroll *or* equipment information. Payroll and equipment information are mutually exclusive.

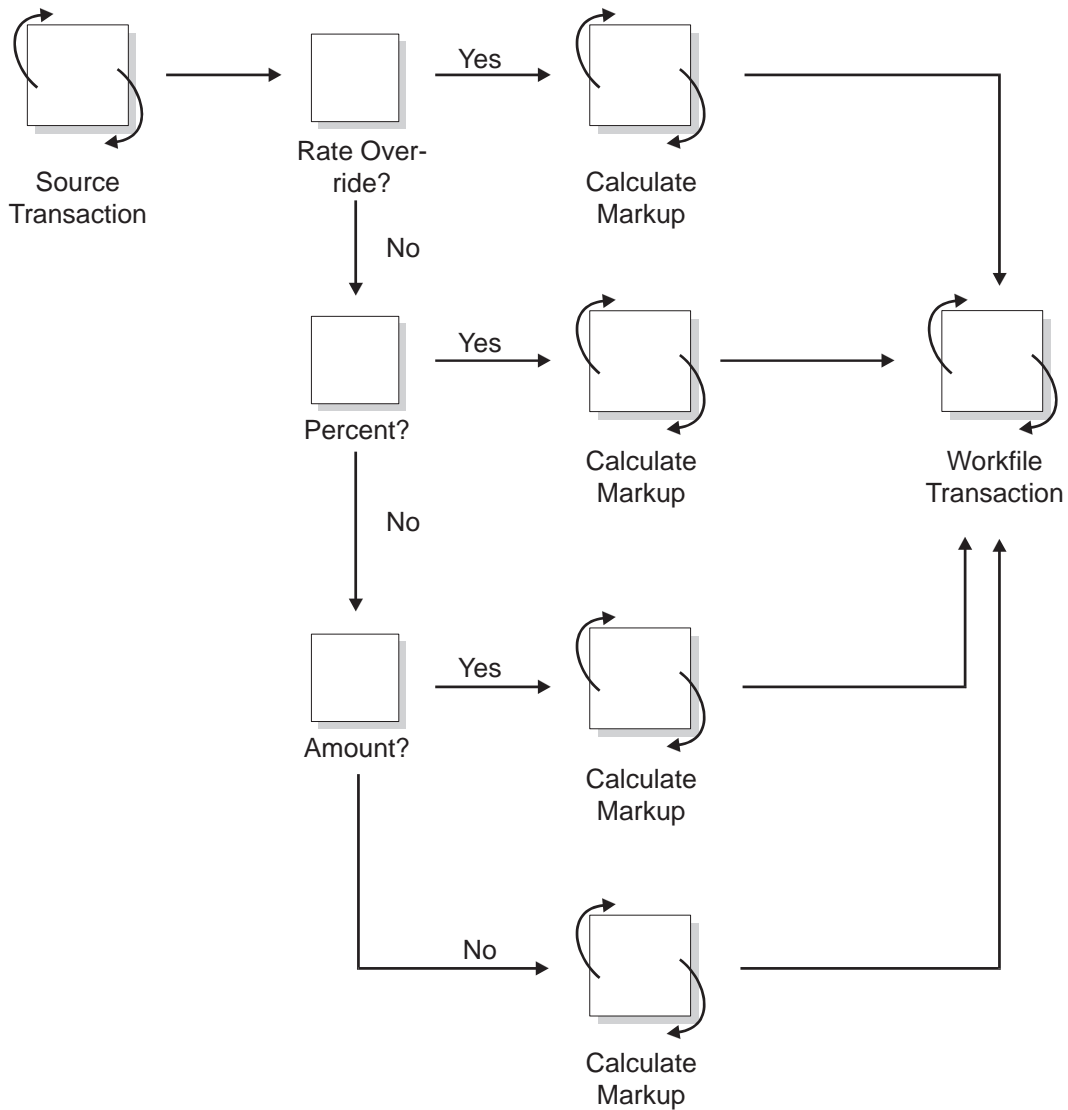
### Markup Calculations

You can relate three markup calculations to a minor key. To mark up source or workfile transactions, the system applies the following calculations for a minor key in the order shown:

1. Rate override for the units
2. Percentage markup
3. Amount markup

If you do not specify markup calculations for the minor key, the system processes the transactions at cost. If the transaction does not match the key values for any of the markup rules that you have defined, the system uses the default markup percentage in the system constants.

The following graphic illustrates how the Service Billing system applies calculations for a minor key.



### Compound Markup

A compound markup results when you relate more than one markup calculation to a minor key.

For example, a source transaction with 10 units might use a minor key with the following markup calculations:

1. Rate override of 50 dollars per unit
2. Percentage markup of 10 percent
3. Amount markup of 25 dollars

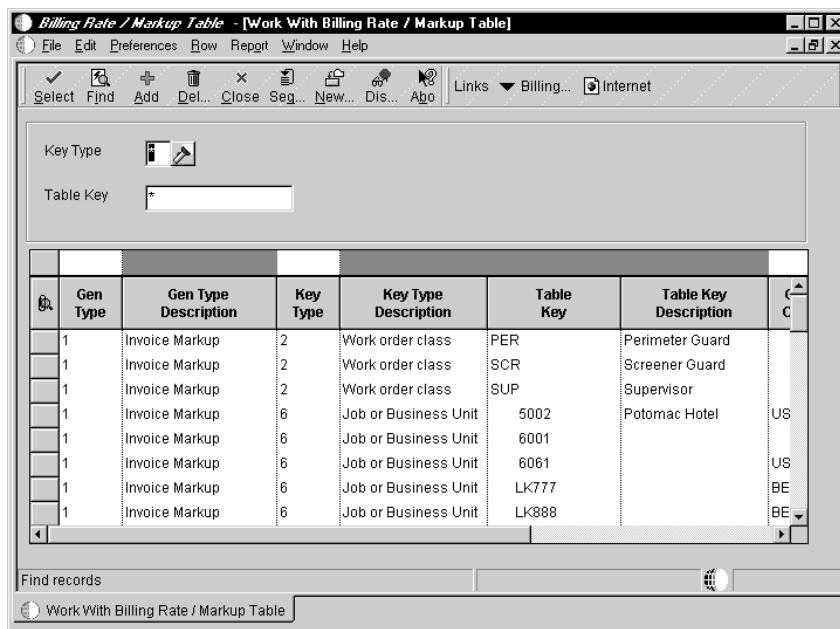
The system calculates the compounded markup amount as follows:

1. 10 units X 50 dollars = 500 dollars
2. (500 dollars X 10 percent) + 500 dollars = 550 dollars
3. 550 dollars + 25 dollars = 575 dollars

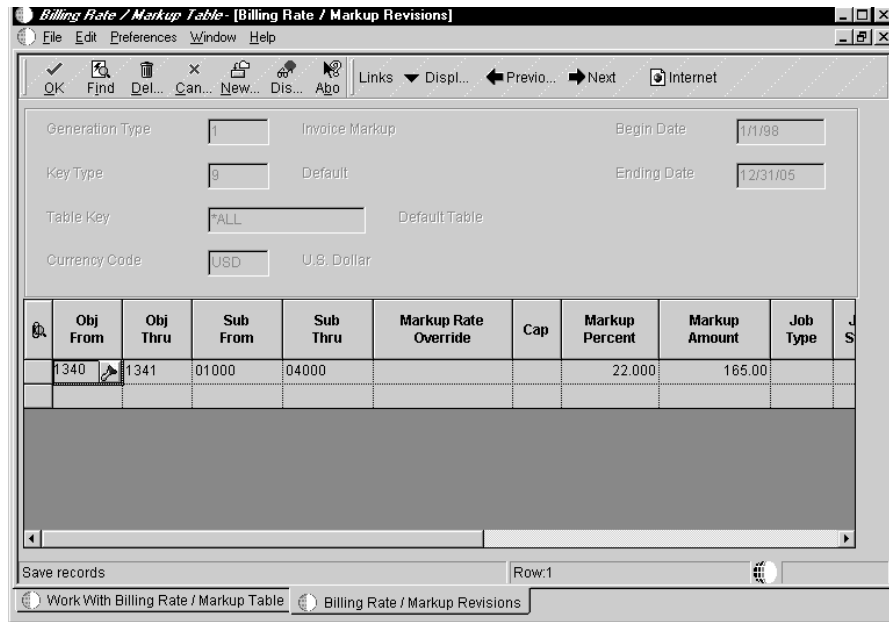
**► To define markup rules**

From the Table Information menu (G48S41), choose Billing Rate/Markup Table.

On Work With Billing Rate/Markup Table



1. Click Add.



2. To identify the major key for a markup table on Billing Rate Markup Revisions, complete the following fields.

- Generation Type
- Key Type
- Table Key
- Currency Code
- Begin Date
- Ending Date

3. To specify the account range for the table, complete the following fields:

- Obj From
- Obj Thru
- Sub From
- Sub Thru

If you leave the account ranges blank, the system applies the markup rule to all account ranges within the major key.

4. To specify markup settings, complete the following fields:

- Markup Rate Override
- Cap
- Markup Percent
- Markup Amount

5. To specify payroll information for each minor key, complete any of the following fields:
  - Employee Number
  - Home Business Unit
  - Job Step
  - Job Type
  - Pay Type
  - Cost Pool
  
6. To specify equipment information for each minor key, complete any of the following fields:
  - Rate Group
  - Rate Code
  - Equip Number

Payroll and equipment information are mutually exclusive.

7. Complete the following optional field to override the descriptions from the related source transactions and click Cancel:
  - Override Description

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<b>Field</b>	<b>Explanation</b>
Generation Type	A code the system uses to determine the applicable Billing Rate/Markup table (for World, Cost Plus Markup table) when retrieving markup rates. Valid values are: <ul style="list-style-type: none"><li>1 Invoice, revenue, and component markups are always calculated.</li><li>2 Override revenue markup is calculated if the Independent Invoice Constant is set to 1.</li><li>3 Default component markup is calculated for billing detail transactions.</li></ul>

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Field	Explanation
Key Type	<p>..... <i>Form-specific information</i> .....</p> <p>A code that the system uses in combination with the table key to locate and edit source and billing detail transactions against the various tables in the Service Billing and Contract Billing systems.</p> <p>Valid key type codes and related tables are:</p> <ul style="list-style-type: none"> <li>1 Work order number – Work Order Master (F4801)</li> <li>2 Work order class – User Defined Code (00/W7)</li> <li>5 Customer – Address Book Master (F0101)</li> <li>6 Job or business unit – Business Unit Master (F0006)</li> <li>7 Job class – User Defined Code (00/11)</li> <li>8 Company – Company Constants (F0010)</li> <li>9 Default</li> </ul> <p>When you select a key type, use the following guidelines:</p> <ul style="list-style-type: none"> <li>• You cannot use the key types for contract number (3) or parent contract number (4) with the Tax Derivation and G/L Offset &amp; Retainage tables.</li> <li>• You cannot use the key type for company (8) with the G/L Offset and Retainage tables.</li> <li>• You can use the default key type (9) with only the Account Derivation and Billing Rate/Markup tables (for World, Cost Plus Markup tables).</li> </ul>
Table Key	<p>A value that the system uses in combination with the key type to locate and edit source and billing detail transactions against the various tables in the Service Billing and Contract Billing systems.</p> <p>The value you enter in the Key Type field determines the valid values for the Table Key field. For example, if you specify the key type for work order number (1), you must enter a valid work order number from the Work Order Master (F4801) in the Table Key field.</p> <p>The key type you specify also controls the search window that you access from the Table Key field when you use field sensitive help. For example, when you select Key Type 1, you can use the field sensitive help for the Table Key field to access the Work Order Search window. With Key Type 2, you access the User Defined Codes window for work order class.</p> <p>..... <i>Form-specific information</i> .....</p> <p>The system uses the Table Key field in conjunction with the Key Type to locate the applicable Billing Rate/Markup table for each source transaction from the Account Ledger table (F0911).</p>

Field	Explanation
Currency Code	<p>A code that indicates the currency of a customer's or a supplier's transactions.</p> <p>..... <i>Form-specific information</i> .....</p> <p>Specify a currency code in conjunction with the key type, table key, and effective dates to define a major key for your markup table. The system uses the major key to search for the applicable markup table during the workfile generation and re-extension processes.</p> <p>The system retrieves default currency codes for the following key types:</p> <ul style="list-style-type: none"><li>• Company – default currency from the Company Information table (F0010)</li><li>• Customer – default currency from the Customer Information table (F0301)</li><li>• Job – default currency from the Business Unit Master table (F0006)</li><li>• Work Order – default currency from the Work Order Master table (F4801)</li></ul> <p>You must enter a currency code for the following key types:</p> <ul style="list-style-type: none"><li>• Work Order Class</li><li>• Job Class</li><li>• Default</li></ul> <p>The currency code that you specify in this field controls the decimal display on the Billing Rate/Markup Table form.</p> <p>NOTE: The currency code that you set up for the markup tables must correspond to the currency code that you set up for any related component tables.</p>
Begin Date	<p>The date on which an address, item, transaction, or table becomes active or the date from which you want transactions to appear. The system uses this field depending on the program. For example, the date you enter in this field might indicate when a change of address becomes effective, or it could be a lease effective date, a price or cost effective date, a currency effective date, a tax rate effective date, and so on.</p> <p>..... <i>Form-specific information</i> .....</p> <p>This field identifies an effective begin date for a Billing Rate/Markup Table.</p> <p>Note: The effective dates for Billing Rate/Markup tables with the same key values cannot overlap.</p>

Field	Explanation
Ending Date	<p>The date on which the item, transaction, or table becomes inactive or through which you want transactions to appear. This field is used generically throughout the system. It could be a lease effective date, a price or cost effective date, a currency effective date, a tax rate effective date, or whatever is appropriate.</p> <p>..... <i>Form-specific information</i> .....</p> <p>This field identifies an effective end date for a Billing Rate/Markup table.</p> <p>Note: The effective dates for Billing Rate/Markup tables with the same key values cannot overlap.</p>
Obj From	<p>The object account portion of a general ledger account. The term “object account” refers to the division of the Cost Code (for example, labor, materials, and equipment) into subcategories (for example, dividing labor into regular time, premium time, and burden). If you are using a flexible chart of accounts and the object account is set to 6 digits, J.D. Edwards recommends that you use all 6 digits. For example, entering 000456 is not the same as entering 456, because if you enter 456, the system will enter three blank spaces to fill a 6-digit object.</p>
Obj Thru	<p>Identifies the ending object account in a range of accounts.</p>
Sub From	<p>A subdivision of an object account. Subsidiary accounts include more detailed records of the accounting activity for an object account.</p>
Sub Thru	<p>Identifies the ending subsidiary account in a range of accounts. The system uses these accounts to determine the basis for the allocation. Only posted amounts in the account range are included. For example, from 00000000 to 99999999.</p>

<b>Field</b>	<b>Explanation</b>
Markup Rate Override	<p>The rate the system uses to mark up the revenue amount reflected in the billing of professional services, such as draftsmen, engineers, or consultants fees. This rate does not affect the employee's paycheck. You can use this markup rate as an override rate or as a maximum rate.</p> <p>The Override Rate Calculator for the Total Revenue markup is:</p> $(\text{Override Rate} * \text{Unit}) * (1 + \text{Markup \%}) + \text{Markup Amount}$ <p>When you specify a Maximum or Cap Rate, the system compares the override rate with the rate from the cost transaction and uses the lower rate as the override rate.</p> <p>You set up the override/maximum unit rate in the Billing Rate/Markup Table (for World, Cost Plus Markup Table), using generation type 1 to specify a table for revenue/invoice markup rates.</p> <p>You can mark up the revenue amount at a different rate than the invoice amount by using the Billing Rate/Markup Table (for World, Cost Plus Markup Table) with a generation type 2. The value in the Independent Revenue/Invoice field in the constants controls this function. (Not currently applicable in OneWorld.)</p> <p>..... <i>Form-specific information</i> .....</p> <p>Enter a markup rate to override an existing rate. For example, if you want a standard consulting fee to be higher than the normal hourly rate, you can type the consulting fee in this field.</p> <p>You can also use the Rate Override to indicate a maximum rate for the entry when you use it in conjunction with the C (Cap) field.</p>
Cap	<p>This flag indicates whether the associated amount is the override rate or the cap of the rate.</p> <p>Values are:</p> <ul style="list-style-type: none"> <li>blank   Override Rate.</li> <li>1       Cap of the Rate. If the cost rate is less than the cap rate, the cost rate will be used; if the cost rate is greater than the cap rate, the Cap Rate will be used.</li> </ul>

Field	Explanation
Markup Percent	<p>The percentage you use to mark up the revenue amount reflected in the billing of professional services, such as draftsmen, engineers, or consultants fees. This percentage rate will not affect the employee's paycheck. This percentage rate is set up in the Billing Rate/Markup Table (for World, Cost Plus Markup Table) using generation type 1 to specify a table for revenue/invoice markup percentage rates.</p> <p>Enter percentages as whole numbers. For example, 50.275% would be entered as 50.275.</p> <p>..... <i>Form-specific information</i> .....</p> <p>The field lets you include a markup percentage for the amount of invoicing. Enter a markup percentage for costs whose override rates should be marked up further or for direct markup of non-unit costs.</p>
Markup Amount	<p>A number that identifies the actual amount. Enter debits with no sign or a plus sign. Enter credits with a minus sign either before or after the amount. You can use decimals, dollar signs, and commas. The system ignores nonsignificant symbols.</p> <p>..... <i>Form-specific information</i> .....</p> <p>Enter an amount that should be used as a direct amount adjustment to the cost transaction.</p>
Employee Number	<p>A number that identifies an entry in the Address Book system. Use this number to identify employees, applicants, participants, customers, suppliers, tenants, and any other address book members.</p>
Home Business Unit	<p>The number of the business unit in which the employee generally resides.</p> <p>..... <i>Form-specific information</i> .....</p> <p>This field tells the system to apply the specified markup rates only to accounts (costs) with the designated home business unit within the Cost Type, Cost Code, or Job specified.</p>
Job Step	<p>A user defined code (07/GS) that designates a specific level within a particular job type. The system uses this code in conjunction with job type to determine pay rates by job in the Pay Rates table.</p>
Job Type	<p>A user defined code (07/G) that defines the jobs within your organization. You can associate pay and benefit information with a job type and apply that information to the employees who are linked to that job type.</p>
Pay Type	<p>A code that defines the type of pay, deduction, benefit, or accrual.</p> <p>Pay types are numbered from 1 to 999. Deductions and benefits are numbered from 1000 to 9999.</p>

<b>Field</b>	<b>Explanation</b>
Cost Pool	Category code 12 associated with the Business Unit Master file (F0006). This is a user defined code (system 00, type 12) for use in flex account mapping and in printing selected information on reports.
Rate Group	A user defined code (12/C0) that groups similar items for billing. If you are an Equipment Management client and you use Equipment Billing, you must use this category code for rate group purposes only.
Rate Code	<p>A user defined code (00/RC) that indicates a billing rate, such as DY for daily, MO for monthly, and WK for weekly. You can set up multiple billing rates for a piece of equipment.</p> <p>If you leave this field blank, the system searches for a valid billing rate in the following sequence:</p> <ol style="list-style-type: none"> <li>1. Account Ledger Master (F0901) – This table contains the most detailed rate information. You can assign multiple rates for a job. For example, you can set up separate rates for different equipment working conditions.</li> <li>2. Job or Business Unit Master (F0006) – This table contains less detailed rate information than the Account Ledger Master. You can only set up a single rate for a job based on this table.</li> <li>3. Rental Rules (F1302) – This table contains the least detailed rate code information. The system searches this table according to the criteria you establish when setting up the table.</li> </ol> <p>..... <i>Form-specific information</i> .....</p> <p>The code lets you apply multiple billing rates per equipment item. For example, you might want to set up a markup for the maintenance on a vehicle that is different from the markup for the cost of gasoline for that same vehicle.</p>
Equip Number	An 8–digit number that uniquely identifies an asset.
Override Description	<p>A name or remark that describes an element in the J.D. Edwards systems.</p> <p>..... <i>Form-specific information</i> .....</p> <p>A description, remark, explanation, name, or address that you want to apply to the billable detail transaction.</p>

**See Also**

- *R48096B, Billing Rate/Markup Table Listing* in the *Reports Guide* for a report sample

## Processing Options for Billing Rate/Markup Table

### Security

1. To prevent access to certain table key types, enter '1's below. Leave blank (default) to allow access to the table key types.

- a. Key Type 1 (Work Order No.): \_\_\_\_\_
- b. Key Type 2 (Work Order Class): \_\_\_\_\_
- c. Key Type 3 (Contract No.): \_\_\_\_\_
- d. Key Type 4 (Parent Contract No.): \_\_\_\_\_
- e. Key Type 5 (Customer No.): \_\_\_\_\_
- f. Key Type 6 (Job/Business Unit): \_\_\_\_\_
- g. Key Type 7 (Job Class): \_\_\_\_\_
- h. Key Type 8 (Company): \_\_\_\_\_
- i. Key Type 9 (Default for Markup Table): \_\_\_\_\_

2. To prevent access to certain table generation types, enter '1's below. Leave blank (default) to allow access to the table generation types.

- a. Generation Type 1 (Invoice, Revenue and Component Markups): \_\_\_\_\_
- b. Generation Type 2 (Revenue Markup override): \_\_\_\_\_
- c. Generation Type 3 (Component Markup override): \_\_\_\_\_



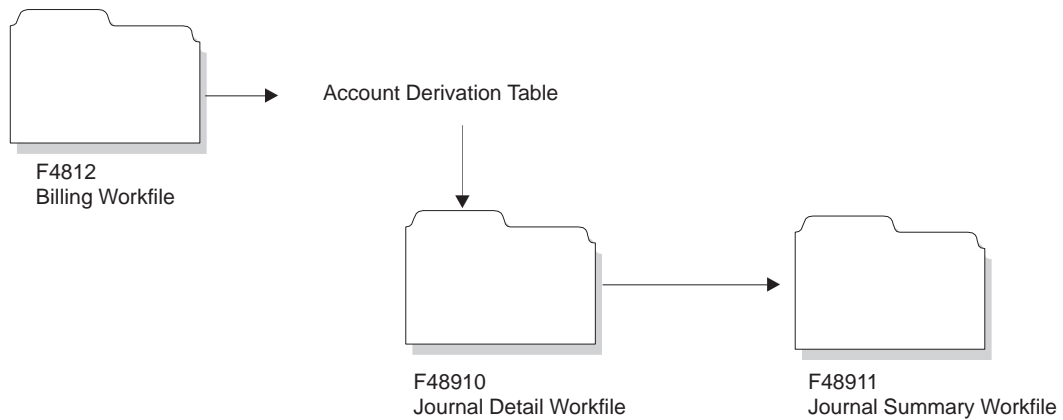
## Defining Account Derivation Rules

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The billing system accesses account derivation rules when you generate journals. You define account derivation rules to indicate to the system:

- Which workfile transactions you are generating journals for
- How you want specific transactions processed
- Where to direct the resulting journal entries

The following graphic illustrates how the system processes workfile transactions through the Account Derivation Table during journal generation.



Defining account derivation rules consists of the following tasks:

- Defining a base rule
- Defining default account derivation rules

### About Defining Account Derivation Rules

You must define separate rules with a unique combination of key values for each journal process as it relates to revenue recognition and billing.

### Table Types

The system uses table types to create journal entries based on the value you specify for the Journal Generation Control field in the system constants. The table types relate directly to the business needs of your company. When you define account derivation rules, you can specify the following table type, depending on your system constants:

- Invoicing only (3)

### Key Types and Table Keys

Key types are hard coded values that you specify in combination with table keys. The system uses the key type and table key to determine whether the account derivation rule applies to a specific transaction.

For example, if the key type is work order number, the table key must be a specific work order number. If you have three work orders that require different account derivation rules, you must set up three different account derivation rules, each with a work order number as the key type and a specific work order number as a table key. The system matches the key type and table key with the information in individual transactions and applies the correct account derivation rules.

### Types of Account Derivation Rules

You can define the following type of account derivation rule:

- Base

#### Base Rules

Base account derivation rules indicate which accounts you want the system to use when creating journal entries for the billing process. The value you choose for the Journal Generation Control field in the system constants determines the table types for the account derivation rules and the journal entries that the system creates for the base rule.

The system uses the base rule to create journals for the total of the base. You must define a base rule for every key value combination that you set up on the Account Derivation Table form.

### Before You Begin

- Set the value of the Journal Generation Control in the system constants.

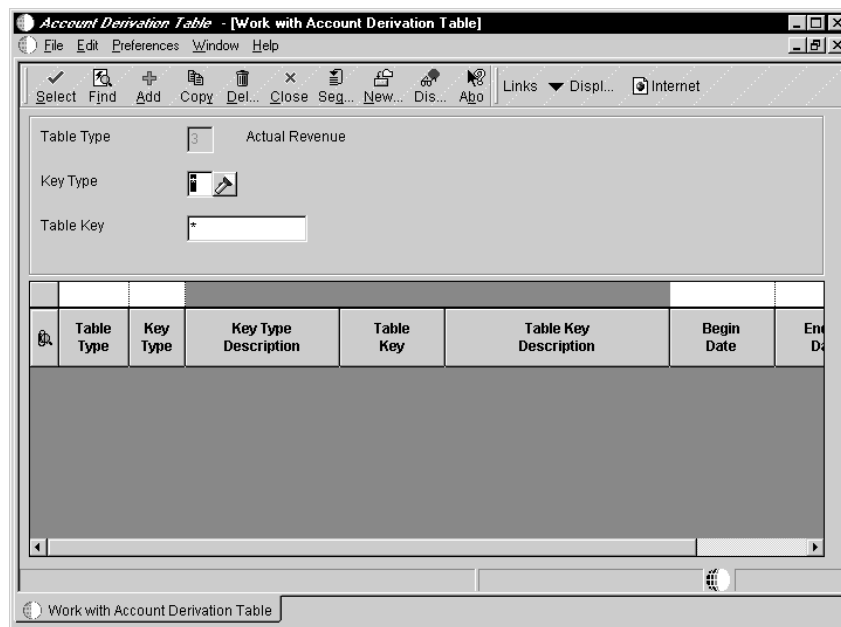
## Defining a Base Rule

The system uses the base rule to create journal entries for the total of the base and component amounts.

► **To define a base rule**

From the Table Information menu (G48S41), choose Account Derivation Table.

On Work With Account Derivation Table



1. Click Add.

Obj From	Obj Thru	Sub From	Sub Thru	Resulting BU	Resulting Obj	Resulting Sub	Resulting SBL
----------	----------	----------	----------	--------------	---------------	---------------	---------------

2. On Account Derivation Revisions, complete the following fields:
  - Table Type
  - Key Type
  - Table Key
  - Effective Start Date
  - Effective End Date
  - Obj From
  - Obj Thru
3. Complete the following optional fields:
  - Sub From
  - Sub Thru

If you leave these optional fields blank, the rule applies to all dates and subsidiaries.

4. To specify the accounts for which the system creates journal entries, complete any of the following fields:
  - Resulting BU
  - Resulting Obj
  - Resulting Sub
  - Resulting SBL
  - Subledger Type

Field	Explanation
Table Type	This field tells the system how to process the entries in this table. The Journal Generation Control Flag in the system constants controls the table setup and journal processing.
Effective Start Date	The date on which an address, item, transaction, or table becomes active or the date from which you want transactions to appear. The system uses this field depending on the program. For example, the date you enter in this field might indicate when a change of address becomes effective, or it could be a lease effective date, a price or cost effective date, a currency effective date, a tax rate effective date, and so on.
Effective End Date	The date on which the item, transaction, or table becomes inactive or through which you want transactions to appear. This field is used generically throughout the system. It could be a lease effective date, a price or cost effective date, a currency effective date, a tax rate effective date, or whatever is appropriate.
Effective Start Date	The date on which an address, item, transaction, or table becomes active or the date from which you want transactions to appear. The system uses this field depending on the program. For example, the date you enter in this field might indicate when a change of address becomes effective, or it could be a lease effective date, a price or cost effective date, a currency effective date, a tax rate effective date, and so on.
Resulting BU	<p>This field determines the business unit for the resulting transactions. You can specify a business unit or use one of the following values:</p> <p>blank — The business unit from the default revenue account in the master information for the customer.</p> <p>*SRC — The business unit from the source transaction.</p> <p>*WO — The charge-to business unit from the master information for the work order.</p> <p>*HOME — The home business unit from the source transaction. If no home business unit exists, the system uses the business unit from the source transaction.</p> <p>*PROJ — The project number from the master information for the job.</p> <p>*CO — The company number from the source transaction.</p> <p>*HOST — The host business unit from the master information for the contract.</p> <p>*EHMCU — The responsible business unit from the master information for the equipment.</p>

Field	Explanation
Resulting Obj	<p>This field determines the object account for the resulting transactions. You can use one of the following methods:</p> <ul style="list-style-type: none"><li>• Specify an object account.</li><li>• Use an asterisk (*) as a positional wildcard in a definition that relates to the source transaction. For example, the object from the source transaction is 3106. If you define the object account for the resulting transaction as 4***, the resulting object account is 4106.</li><li>• Use one of the following values:<ul style="list-style-type: none"><li>blank – The object account from the default revenue account in the master information for the customer</li><li>*SRC – The object account from the source transaction</li></ul></li></ul>
Resulting Sub	<p>This field determines the subsidiary for the resulting transactions. You can specify a subsidiary or use one of the following values:</p> <p>blank — The subsidiary from the default revenue account in the master information for the customer.</p> <p>*BLANK — The subsidiary is blank for the resulting transactions.</p> <p>*SRC — The subsidiary from the source transaction.</p> <p>*WO — The cost code (subsidiary) from the master information for the work order.</p>
Resulting SBL	<p>This field determines the subledger and subledger type for the resulting transactions. You can specify a subledger and subledger type or use one of the following values:</p> <ul style="list-style-type: none"><li>*SRC — The subledger and subledger type from the source transaction</li><li>*WO — The work order number and the subledger type W</li><li>*CUST — The address number for the customer and the subledger type A</li><li>*CC — The business unit from the source transaction and the subledger type C</li></ul>

## Defining Default Account Derivation Rules

You should create a default rule for each table type that your billing process requires. The system uses a default table to process the transactions that do not match the key values of other rules.

On Account Derivation Table, complete the steps for setting up an account derivation rule. Include the following information:

- Key Type of 9
- Table Key of \*ALL
- Effective Start Date
- Effective End Date
- Leave the From and Thru fields for the minor key blank. In this case, the system assigns \*DFT to the Object From field to indicate that all objects and subsidiaries are eligible for the table.

You should create a default rule for each table type that your billing process requires. The system uses a default table to process the transactions that do not match the key values of other rules.



If you do not define a default table, the system can create journals that do not balance.



### **To define default account derivation rules**

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From the Table Information menu (G48S41), choose Account Derivation Table.

1. On Account Derivation Table, complete the following fields:
  - Table Type
  - Key Type
  - Table Key
  - Effective Start Date
  - Effective End Date
  - Obj From
  - Obj Thru
2. Complete the following optional fields:
  - Sub From
  - Sub Thru

If you leave these optional fields blank, the rule applies to all dates and subsidiaries.

3. To specify the accounts for which the system creates journal entries, complete any of the following fields:
  - Resulting BU
  - Resulting Obj
  - Resulting Sub
  - Resulting SBL
  - Subledger Type

**See Also**

- *R48126, Account Derivation Table Listing* in the *Reports Guide* for a report sample

**Processing Options for Account Derrivation Table**

Security

1. To prevent access to certain table key types, enter '1's below. Leave blank (default) to allow access to the table key types.

- a. Key Type 1 (Work Order Number): \_\_\_\_\_
- b. Key Type 2 (Work Order Class): \_\_\_\_\_
- c. Key Type 3 (Contract Number): \_\_\_\_\_
- d. Key Type 4 (Parent Contract Number): \_\_\_\_\_
- e. Key Type 5 (Customer): \_\_\_\_\_
- f. Key Type 6 (Job/Business Unit): \_\_\_\_\_
- g. Key Type 7 (Job Class): \_\_\_\_\_
- h. Key Type 8 (Company): \_\_\_\_\_
- i. Key Type 9 (Default for Account Derivation): \_\_\_\_\_

## Defining Component Rules

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Components are a type of markup that the system calculates based on amounts and units. For example, the billing for labor might include a component to partially offset the cost of borrowing money. Component rules work in conjunction with markup rules. After you set up a component rule, you must associate it with a markup rule.

Defining component rules consists of the following tasks:

- Setting up component calculation rules
- Setting up compound components

When you accumulate costs, the system calculates the component amount using the component rules you define to create component transactions. Component transactions are always associated with a parent workfile transaction. The system assigns both transaction types the same billing control ID number and a component link number that associates each component calculation with its related workfile transaction.

You define component rules using the following information:

- A name to identify a set of component calculation rules
- An effective date range
- One or more calculation rules based on an amount, a unit rate, or both

### Compound Components

You can cross-reference component calculation rules to define compound components. For example, a 2 percent component rate might be cross-referenced to a 40 percent component rate. The system calculates the component amount for a cost of 1000 as follows:

1.  $1000 \times 2 \text{ percent} = 20$
2.  $1000 \times 40 \text{ percent} = 400$
3.  $400 \times 2 \text{ percent} = 8$

The total cost plus the component amounts are calculated as follows:

4.  $1000 + 20 + 400 + 8 = 1428$

You can include unit-based component calculation rules in a cross-reference, but you cannot use them as the basis for your cross-reference information.

## Before You Begin

- Set up the user defined code table (48/CM) with the codes that you want to use to identify individual component calculation rules on the Component Table form.

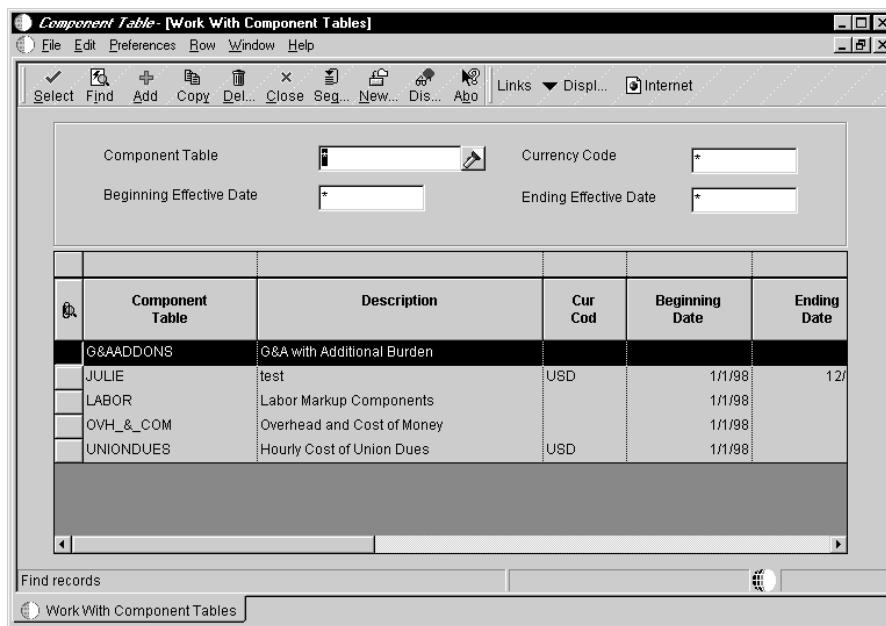
## See Also

- *Reviewing Component Transactions* for more information about components and workfile transactions
- *Adding Component Rules to Markup Rules*
- *R4860, Component Table Listing* in the *Reports Guide* for a report sample

### ▶ To set up component calculation rules

From the Table Information menu (G48S41), choose Component Tables.

On Work With Component Tables



1. Click Add.
2. On Component Table Revisions, complete the following fields to identify a specific set of component calculation rules:
  - Component Table
  - Currency Code
  - Description

- Beginning Date
  - Ending Date
3. To define one or more component calculation rules, complete the following fields:
- Component Code
  - Rate Basis
  - Component Rate

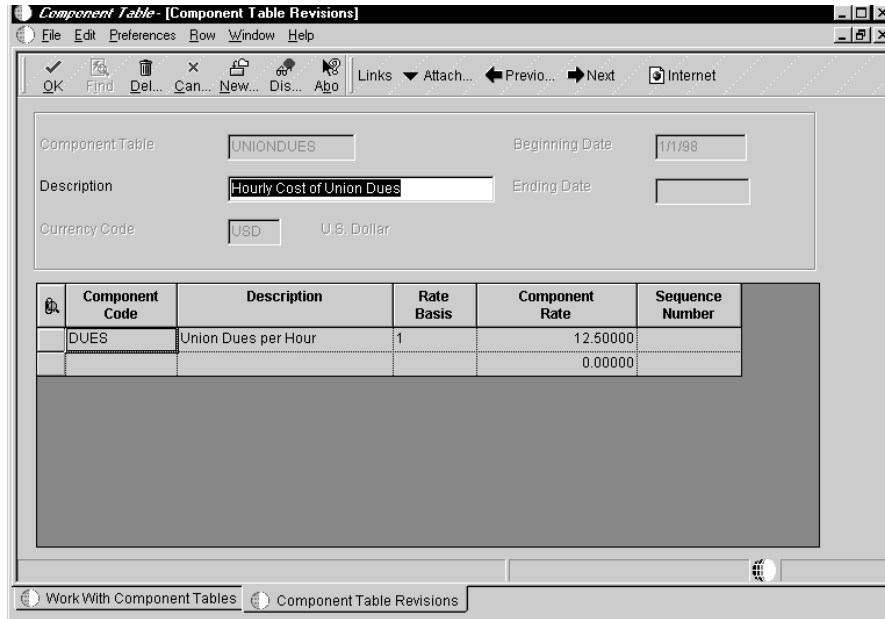
<b>Field</b>	<b>Explanation</b>
Component Table	<p>A user-specified code that identifies a set of component rules.</p> <p>If you work in a multi-currency environment, the system displays only the codes that are related to markup tables with the same currency code in the Component Table Selection window.</p>
Description	A user defined name or remark.
Component Code	A component code identifies a provisional burden that is accounted for at the billing detail transaction level.
Rate Basis	<p>A code that determines whether the calculation of the components is based on the unit(s) or amount(s) of the base billing detail transaction.</p> <p>1     Amount Basis. The number in the Component Rate field is treated as a percentage. The system calculates the component amount by multiplying the component rate percentage by the cost, invoice or revenue amount from the base billing detail transaction.</p> <p>2     Unit Basis. The number in the Component Rate field is treated as a flat amount. The system calculates the component amount by multiplying the component rate flat amount by the number of units from the base billing detail transaction.</p> <p style="text-align: center;">Note: You can enter C for 1 or U for 2.</p>
Component Rate	<p>The rate that the system applies when it creates the individual component records. This field can be either a percentage or a flat amount, depending on the value entered in the “Component Rate Basis” (UORC) field.</p> <p>If the component rate basis is units, then the component rate is a flat amount which is multiplied by the number of units from the base billing detail transaction.</p> <p>If the component rate basis is amount, then the component rate is a percentage which is multiplied by the cost, invoice, or revenue amount from the base billing detail transaction.</p>

### ► To set up compound components

From the Table Information menu (G48S41), choose Component Tables.

On Work with Component Tables

1. To locate a set of component rules, click Find.
2. Choose a specific component calculation rule and click Select.



3. On Component Table Revisions, select a component and choose Cross Reference from the Row menu.
4. On Component Cross Reference, choose each component calculation rule that you want to include in the cross-reference and select Add Cross Reference from the Row menu.

A component link number associates component calculations with its related workfile transaction.

You can include only previously defined component calculation rules in your cross-reference information.

The system marks the component calculation rules that include cross-reference information.

## Assigning Component Information

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The system processes the component information as a markup for the amounts in the source transactions. As a part of system setup, you define component rules. You then assign the component rules to the rules on the Billing Rate/Markup Table or the Account Derivation Table.

Assigning component information consists of the following tasks:

- Adding component rules to markup rules

### Before You Begin

- Define component rules. See *Defining Component Rules*.

## Adding Component Rules to Markup Rules

If you want the system to create separate workfile transactions for cost amounts and markup amounts, you can assign a component rule to a markup rule.

The system calculates the component amounts based on the following:

- Cost amount when generation type is 1 or 2 with a cost table. If both types 1 and 2 exist with a cost table, the system uses the information from the table for generation type 2 for the revenue amount.
- Invoice amount when generation type is 1 with an invoice/revenue table.
- Revenue amount when generation type is 2 with an invoice/revenue table.
- Default component information when the generation type is 3 with either a cost table or invoice/revenue table.

### **To add component rules to markup rules**

---

From the Table Information menu (G48S41), choose Billing Rate/Markup Table.

On Work with Billing Rate/Markup Table

1. Locate the markup rules to which you want to add components.

*See Defining Markup Rules.*

2. On Billing Rate/Markup Revisions, enter a 3 in the following field:
  - Generation Type
3. Complete the following fields to add a component rule:
  - Key Type
  - Table Key
  - Begin Date
  - Ending Date
  - Obj From
  - Obj Thru
  - Sub From
  - Sub Thru
4. Complete the following fields to assign the component rule to the new markup rule:
  - Cost Comp Tbl
  - Inv/Rev Comp Tbl

### **Related Tasks**

You can assign a component rule to an existing markup rule with a generation type of 1 or 2. To do this, locate the markup rule on the Billing Rate/Markup Table form. You can specify a component rule for one or more lines on the form using the Cost Table field, Invoice/Revenue Table field, or both.

### **See Also**

- *Defining Markup Rules*

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<b>Field</b>	<b>Explanation</b>
Component Cost Rate Table	A code that identifies a component bill table to use for this Billing Rate/Markup Table entry (for World, Cost Plus Markup Table entry). The component table identifies the components and their calculation rules. These component amounts are applied as overhead to the original cost. You set up component tables on the Component Table Definition form.
Component Revenue Rate Table	A code that identifies a component bill table to use for this Billing Rate/Markup Table entry (for World, Cost Plus Markup Table entry). The component table identifies the components and their calculation rules. These component amounts are recognized as revenue in addition to any revenue markups. You set up component tables on the Component Table Definition form.

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## Defining G/L Offset and Retainage Rules

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The G/L offset and Retainage Table applies only to the Service Billing system. You can define G/L offset and retainage rules to designate the following information:

- Payment terms
- G/L offset
- Retainage offset
- Retainage percentage

G/L offsets indicate the accounts in which the system creates offsetting entries during the creation of A/R and G/L journal entries.

Retainage is a percentage of the invoice pay item that your company is paid after the work is complete. When you create A/R and G/L entries, the system creates a separate journal entry for the retainage amount.

When you generate invoices, the system uses the summarized data items you specify for the sequence and summarization key to locate G/L offset, retainage, and payment terms information in the G/L Offset and Retainage Information table (F48128). Summarized data items are those data items that you use to summarize invoices at the pay item or invoice level. If you do not use the G/L Offset and Retainage Table to set up the information, the system uses the G/L offset and the payment terms in the customer master information.

When you generate invoices automatically, the system assigns values to the following fields for each transaction:

- Payment Terms
- G/L Offset
- Retainage

The system determines the correct values for these fields based on the sequence and summarization keys that you define for the invoice batch and the information that you define in the G/L offset rules. For example, if your Invoice Level Summarization field is by subledger (work order), then you might define rules on the G/L Offset Table form with the valid key types of subledger (work order) or work order class to locate the correct rule.

You do not use sequence and summarization keys to create invoices manually. If you create invoices manually, the system uses only the G/L offset information that you set up with a key type of customer and a table key of a specific customer number.

You set up the G/L Offset Table using multiple key types and table keys. The system uses these key values to associate offset and payment terms to billing detail transactions with the same values.

The system always generates invoices by customer. If your sequence and summarization key does not include customer number as a summarized data item, the system still uses the G/L offset rules that you set up using a key type of customer and a table key of a specific customer number.

The G/L Offset Table applies only to the Service Billing system.

Defining G/L offset and retainage rules consists of the following tasks:

- Defining G/L offset and retainage rules

### Before You Begin

- Define the payment terms and AAIs for the G/L offset

#### ▶ To define G/L offset and retainage rules

From the Table Information menu (G4843), choose G/L Offset Table and Retainage Table.

On Work With G/L Offset and Retainage Table

	Key Type	Table Key	Description	Pmt Trm	G/L Offset	Percent Retainage	Retn Offset
	1	65010	Security - Perimeter Guards			3.00	RETN
	1	65017	Security Services			5.00	RETN
	1	451451				2.50	RETN

1. Complete the following fields to identify the key values:

- Key Type
- Table Key

Verify that you complete the fields in the detail portion of the form when you define new G/L offset rules. You can use the fields in the header portion of the form only to locate rules that are already defined for the system.

2. Complete the following field to specify payment terms:

- Pmt Trm

3. Complete the following field to specify the G/L offset:

- G/L Offset

4. Complete the following field if you want to override the mode set in the system constants:

- F/ D

5. Complete the following field to specify the retainage rate for the table:

- Percent Retainage

6. Complete the following field to indicate the account in which the system creates offsetting entries during Create A/R:

- Retn Offset

7. Complete the following field to control how retainage is calculated with regard to VAT tax:

- R F

### See Also

- *Creating Invoices Manually*
- *Creating Invoices Automatically*

<b>Field</b>	<b>Explanation</b>										
Pmt Trm	<p>A code that indicates the default payment terms for a customer. Payment terms determine due dates and discounts, and are used as a default value when you create invoices.</p> <p>You define payment terms in the Payment Terms Revisions program (P0014). Use a blank code for the payment terms that you use most frequently. For WorldSoftware use the following:</p> <table> <tr> <td>blank</td> <td>Net 15</td> </tr> <tr> <td>1</td> <td>1/10 net 30</td> </tr> <tr> <td>2</td> <td>2/10 net 30</td> </tr> <tr> <td>N</td> <td>Net 30</td> </tr> <tr> <td>P</td> <td>Prox 25th</td> </tr> </table>	blank	Net 15	1	1/10 net 30	2	2/10 net 30	N	Net 30	P	Prox 25th
blank	Net 15										
1	1/10 net 30										
2	2/10 net 30										
N	Net 30										
P	Prox 25th										
G/L Offset	<p>The table of Automatic Accounting Instruction accounts that allows you to predefine classes of automatic offset accounts for Accounts Payable, Accounts Receivable, and other systems.</p> <p>G/L offsets might be assigned as follows:</p> <ul style="list-style-type: none"> <li>• Blank or 1210– Trade Accounts Receivable</li> <li>• RETN or 1220 – Retainages Receivable</li> <li>• EMP or 1230 – Employee Accounts Receivable</li> <li>• JIB or 1240 – JIB Receivable (See A/R Class Code – ARC)</li> <li>• Blank or 4110 – Trade Accounts Payable</li> <li>• RETN or 4120 – Retainage Payable</li> <li>• OTHR or 4230 – Other Accounts Payable (See A/P Class code – APC)</li> </ul> <p>If you leave this field blank during data entry, the system uses the default value from the Customer Master by Line of Business table (F03012) or the Supplier Master table (F0401). The post program uses the G/L Offset class to create automatic offset entries.</p> <p>NOTE: Do not use code 9999. It is reserved for the post program and indicates that offsets should not be created.</p>										
F/D	<p>A code that specifies whether amounts are in the domestic currency of the contract or the foreign currency of the supplier.</p> <p>Valid codes are:</p> <table> <tr> <td>D</td> <td>Domestic</td> </tr> <tr> <td>F</td> <td>Foreign</td> </tr> <tr> <td>3</td> <td>Foreign and Domestic</td> </tr> </table> <p>For conversions, D indicates domestic to foreign, and F indicates foreign to domestic.</p>	D	Domestic	F	Foreign	3	Foreign and Domestic				
D	Domestic										
F	Foreign										
3	Foreign and Domestic										
Percent Retainage	<p>The retainage rate for the contract. The rate is a percentage that is expressed as a whole number. For example, you enter a retainage rate of 10.5 percent as 10.5. Do not enter a retainage percent greater than 99.99 or less than zero.</p>										

<b>Field</b>	<b>Explanation</b>
Retn Offset	<p>A code that designates the offset accounts for retainage, such as RETN or 1220. You set up the code as an automatic accounting instruction.</p> <p>NOTE: Do not use code 9999. This is reserved for the post program and indicates that offsets should not be created.</p>
R F	<p>This flag controls the calculation of retainage with regard to VAT tax assignment. Valid codes are:</p> <ul style="list-style-type: none"><li>Blank The tax is computed from the total taxable amount.</li><li>1 The tax on the retainage amount is calculated and then subtracted from the total tax amount. This tax on retainage is deferred until the retainage is released.</li></ul>



## Defining Tax Derivation Rules

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The Tax Derivation Table applies only to the Service Billing system.

You define tax derivation rules to specify the tax information that you want the system to apply to workfile transactions. If you do not use the Tax Derivation Table to set up tax rules, the system uses the tax information that you specify in the job master. If you have not specified tax information in the job master, the system uses the information in the customer master.

To set up tax derivation rules, you must specify the following key information:

- Key type and table key
- Effective date range
- Object and subsidiary account ranges

When you accumulate costs or revise workfile transactions, the system applies the appropriate tax rules to each transaction based on the key information that you specify for the rule.

### Before You Begin

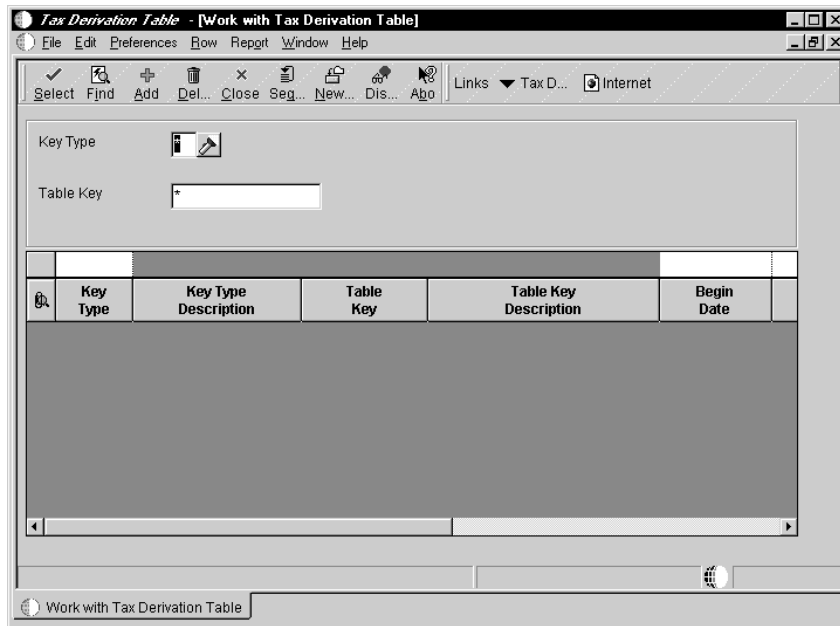
- Set up the tax rates and explanation codes. See the *Tax Reference Guide* for more information about setting up tax rates and explanation codes.

#### **To define tax derivation rules**

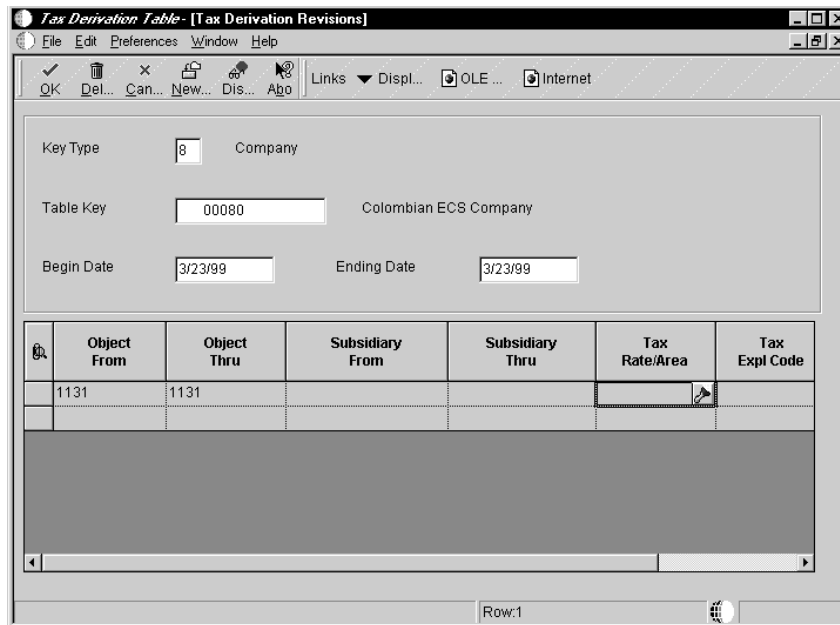
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From the Table Information menu (G48S41), choose Tax Derivation Table.

On Work With Tax Derivation Table



1. Click Add.



2. On Tax Derivation Revisions, complete the following fields:
  - Key Type
  - Table Key

- Begin Date
  - Ending Date
3. Complete the following fields to specify the account range for the rule:
- Object From
  - Object Thru
  - Subsidiary From
  - Subsidiary Thru
4. Complete the following fields to specify the tax information for the rule:
- Tax Rate/Area
  - Tax Expl Code

Field	Explanation
Tax Rate/Area	<p>A code that identifies a tax or geographic area that has common tax rates and tax distribution. The tax rate/area must be defined to include the tax authorities (for example, state, county, city, rapid transit district, or province), and their rates. To be valid, a code must be set up in the Tax Rate/Area table (F4008).</p> <p>Typically, U.S. sales and use taxes require multiple tax authorities per tax rate/area, whereas value-added tax (VAT) requires only one simple rate.</p> <p>The system uses this code to properly calculate the tax amount.</p>
Tax Expl Code	<p>A user defined code (system 00/type EX) that controls how a tax is assessed and distributed to the general ledger revenue and expense accounts.</p> <p>Do not confuse this with the taxable, non-taxable code. A single invoice can have both taxable and non-taxable items. The entire invoice, however, must have one tax explanation code.</p>

**See Also**

- *R48127, Tax Derivation Table Listing* in the *Reports Guide* for a report sample



## Setting Up Automatic Accounting Instructions

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You must set up the RC (receivables class) AAI to define the rules by which the Service Billing and Accounts Receivable systems interact. The Service Billing system uses the RC AAI (receivables class accounts) to determine the G/L account for the debit side of a journal entry for accounts receivable and retainage.

The system stores the information for AAIs in the Automatic Accounting Instructions table (F0012).

You should be thoroughly familiar with AAIs before you change them.

The Service Billing System uses the following AAI's:

<b>RC</b>	Receivables Class accounts
<b>RCxxxx</b>	Receivables where xxxx represents the G/L offset set up in the customer or offset table.

### See Also

- *Working with AAIs for General Accounting* in the *General Accounting Guide*
- *Working with AAIs for A/R* in the *Accounts Receivable Guide*



## Setting Up User Defined Codes

---

From the System Setup menu (G48S40), choose User Defined Codes. Choose the UDC from the menu that you want to set up.

To customize J.D. Edwards systems to meet the needs of your business environment, you define the codes that are valid for many of the fields in the programs.

User defined codes exist in tables based on a specific system and code type. If you use a code that is not set up in the table related to a field, the system displays an error. To work with user defined codes, you can access them through a single user defined code form. After you select a user defined code form from a menu, change the values in the System Code field and User Defined Codes field to access another user defined code table.

The system stores the information for user defined codes in the User Defined Codes table (F0005).

You should be thoroughly familiar with user defined codes before you change them.

The following user defined code is the primary code that affects processing in the Service Billing system:

- Adjustment Reasons (48/AR)

### See Also

- *Working With User Defined Codes* in the *OneWorld Foundation Guide*



## Working with the Cross Reference Table

---

If you do not specify an override version, the system uses the key type and table key combination that you define on Version Cross-Reference to determine which invoice version to print. The Table Key you enter depends on the Key Type. For example, if you enter a 1 for Work Order, you would then enter a work order number in the Table Key.

The system uses the following hierarchy to search for versions:

- Work order number
- Customer
- Job or business unit
- Company number
- Default



Work Order Class and Job Class are disabled because they are used for a different system.

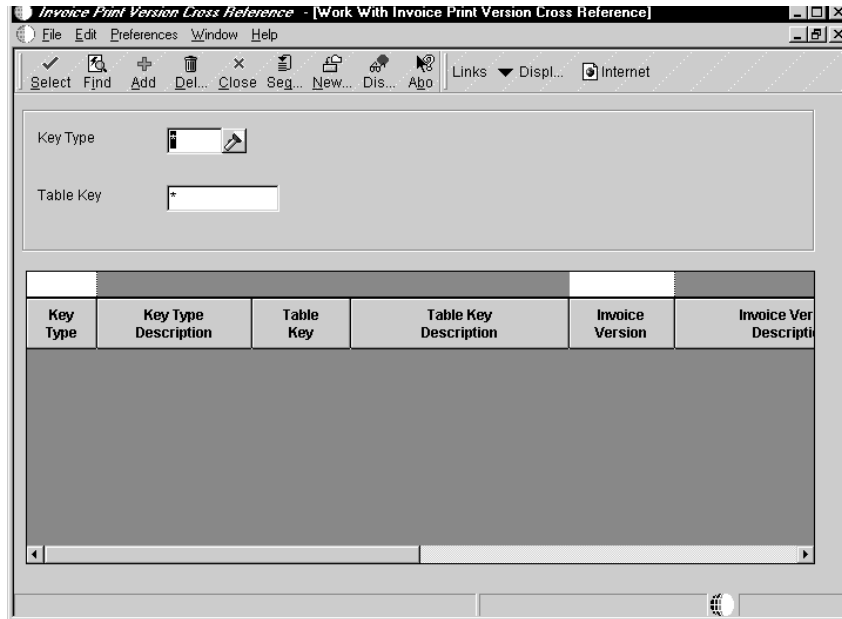


### **To add an override version in the cross reference table**

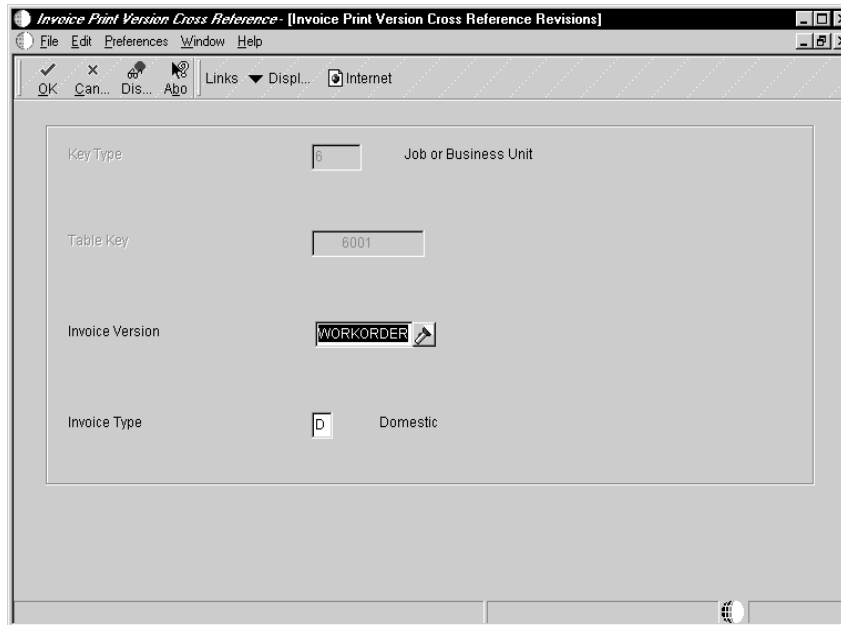
---

From System Setup (G48S40), choose Invoice Print Version Cross Reference.

On Work With Invoice Print Version Cross Reference



1. Click Add.



2. On Invoice Print Version Cross Reference Revision, use Visual Assist to complete the following fields and click OK.
  - Key Type
  - Table Key
  - Invoice Version

<b>Field</b>	<b>Explanation</b>
Invoice Version	A code that uniquely identifies a series of formats and determines the overall layout of the invoice.



## Understanding Invoice Format Revisions

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You may want to revise your invoice versions if they did not match the characteristics of your particular invoice layout. For example, you might need to move fields, create or delete constant text, and hide and show fields in the header and totals sections. Likewise, for the detail section you might want to move, hide, or show columns to meet your specifications. To do these tasks, you would first copy a Service Billing version and then make changes to that copy.

If in modifying your copied version you need to change the size of a section, you also need to change the line counting parameters for the rows in the corresponding event rule.



Do not make changes to any of the versions supplied with Service Billing. First make a copy of the template, and then make your changes to that new version.

If you need to add fields that are not included with the Service Billing versions, resequence data in the detail section, add a subsection to the detail section for subtotalling, or add calculations that are not included with the standard versions, you might need to use advanced features such as modifying event rules, adding sections, or resequencing the detail.

### See Also

- *Creating Calculation Columns* in the *Enterprise Reporting Writing Guide*
- *Modifying Properties and Objects* in the *Enterprise Reporting Writing Guide*
- *Working with Event Rules* in the *Enterprise Reporting Writing Guide*

For invoice versions, Service Billing uses the same process as the Object Librarian to check in, check out, and erase checkouts for versions. You use this tool to control the movement of versions between the workstation and the server. Invoice versions are submitted directly from the batch application.

When you check a batch version into the central objects data source (server), anyone who installs and runs the version will have the updated version. A version cannot be checked out by more than one user. The Version Detail form displays the user that has checked out a version.

### See Also

- *Checking Out or Checking In a Batch Version* in the *OneWorld Foundation Guide*
- *Erasing the Check-Out Record of a Version* in the *OneWorld Foundation Guide*

You can display a version from the Service Billing Setup (G4841)/Invoice Format Revisions (R48506) by selecting a version, clicking Advanced, checking the version out, and then clicking Design Version. This opens the version in RDA. Remember to cancel the check-out after you have viewed the version.

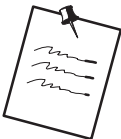
### See Also

- *Batch Versions for Reports* in the *OneWorld Foundation Guide*

### Considerations for Copying Versions

You can create a new invoice version that is not based on an existing version. For example, you might create this new version because you do not want to use copies of the supplied Service Billing versions; however, the supplied Service Billing versions are designed specifically for billing invoices in Service Billing, and should prove more than adequate for most situations. As a result, you can simply create your own versions by first copying an XJDE version. By doing this, you keep the original versions intact, using them only as templates. You can select any version to copy from the following list:

- XJDE0001 Template Version (Use this only as a template)
- XJDE0002 Invoice Version Number 2 (Can be used as is)
- XJDE0003 Invoice Version Number 3 (Can be used as is)
- XJDE0004 Invoice Version Number 4
- XJDE0005 Invoice Version Number 5



If you are billing from CSMS you will want to use XJDE0004 Invoice Version Number 4 or XJDE0005 Invoice Version Number 5.

When you copy an invoice version, like base report specifications, the specification records for that version exist only on your workstation. To make the version available to other users, you must check the version into the server. When you check in a version, Service Billing copies the version's specification records to the central objects data source (server) according to the path code of your current environment.

### See Also

- *Copying a Batch Version* in the *OneWorld Foundation Guide*

## Considerations for Modifying the Header Section

The following table lists the available fields in the header section, the source from where the field is retrieved, and the business function that is used to retrieve the field.

### See Also

- *Modifying Properties of Report Objects* in the *Enterprise Report Writing Guide*

Field	Source	Business Function Used
Business Unit Description	F0006	N48S0320
Company Address – Line 1	F0116	B0100021
Company Address – Line 2	F0116	B0100021
Company Address – Line 3	F0116	B0100021
Company Address – Line 4	F0116	B0100021
Company Address – Line 4	F0116	B0100021
Company Address – Line 5	F0116	B0100021
Company Address – Line 6	F0116	B0100021
Company Address – Line 7	F0116	B0100021
Company Name	F0116	B0100021
Company Phone Number	F0115	B0100004
Contact Name	F0111	N48S0360
Customer Address – Line 1	F0116	B0100021
Customer Address – Line 2	F0116	B0100021
Customer Address – Line 3	F0116	B0100021
Customer Address – Line 4	F0116	B0100021
Customer Address – Line 5	F0116	B0100021
Customer Address – Line 6	F0116	B0100021
Customer Address – Line 7	F0116	B0100021
Customer Name	F0116	B0100021
Customer Number	F4812/F4812H	
Customer Purchase Order Number	F4812/F4812H	
Customer Text – Line 1	F0301/F03B01 – Media Objects	SysFuc–ABGT
Customer Text – Line 2	F0301/F03B01 – Media Objects	SysFuc–ABGT
Customer Text – Line 3	F0301/F03B01 – Media Objects	SysFuc–ABGT
Document Company	F4812/F4812H	

## Service Billing

Invoice Date	F4812/F4812H	
Invoice Due Date	F4822	N48S0340
Invoice Number	F4812/F4812H	
Last Invoice Date	F0301/F03B01	N0100042
Page Number	Calculated	
Payment Terms	F0014	N48S0350
Ship to Address – Line 1	F0116	B0100021
Ship to Address – Line 2	F0116	B0100021
Ship to Address – Line 3	F0116	B0100021
Ship to Address – Line 4	F0116	B0100021
Ship to Address – Line 5	F0116	B0100021
Ship to Address – Line 6	F0116	B0100021
Ship to Address – Line 7	F0116	B0100021
Ship to Name	F0116	B0100021
Work Order Completion Date	F4801	B3100310
Work Order Number	F4812/F4812H	

### Considerations for Modifying the Detail Section

The detail section is different from both the header and totals section because it is comprised of columns only. However, not all of these columns are immediately visible.

The following table lists the available fields in the detail section, the source from where the field is retrieved, and the business function that is used to retrieve it.

#### See Also

- *Working with Objects in a Tabular Section* in the *Enterprise Report Writing Guide*
- *Modifying Properties of Report Objects* in the *Enterprise Report Writing Guide*

Field	Source	Business Function Used
Document Company	F4812/F4812H	
Document Type	F4812/F4812H	
Explanation Remark	F4812/F4812H	
General Ledger Date	F4812/F4812H	
Invoice Discount Available	F4812/F4812H	
Invoice Tax	F4812/F4812H	
Invoice Taxable Amount	F4812/F4812H	

Item Number (short)	F4812/F4812H	
Order Number	F4812/F4812H	
Pay Item	F4812/F4812H	
Total Invoiced Amount	F4812/F4812H	
Unit of Measure	F4812/F4812H	
Unit Price	F4812/F4812H	
Units	F4812/F4812H	

### Considerations for Modifying the Totals Section

In addition to the fields in the header section, the totals section includes the following fields:

- Total Invoice Amount
- Total Tax Amount
- Total Taxable Amount

The following table lists the available fields in the totals section, from the source which the field is retrieved, and the business function that is used to retrieve the field.

### See Also

- *Modifying Properties of Report Objects* in the *Enterprise Report Writing Guide*

Field	Source	Business Function Used
Business Unit Description	F0006	N48S0320
Company Address – Line 1	F0116	B0100021
Company Address – Line 2	F0116	B0100021
Company Address – Line 3	F0116	B0100021
Company Address – Line 4	F0116	B0100021
Company Address – Line 4	F0116	B0100021
Company Address – Line 5	F0116	B0100021
Company Address – Line 6	F0116	B0100021
Company Address – Line 7	F0116	B0100021
Company Name	F0116	B0100021
Company Phone Number	F0115	B0100004
Contact Name	F0111	N48S0360
Customer Address – Line 1	F0116	B0100021
Customer Address – Line 2	F0116	B0100021
Customer Address – Line 3	F0116	B0100021

## Service Billing

Customer Address – Line 4	F0116	B0100021
Customer Address – Line 5	F0116	B0100021
Customer Address – Line 6	F0116	B0100021
Customer Address – Line 7	F0116	B0100021
Customer Name	F0116	B0100021
Customer Number	F4812/F4812H	
Customer Purchase Order Number	F4812/F4812H	
Customer Text – Line 1	F0301/F03B01 – Media Objects,	SysFuc–ABGT
Customer Text – Line 2	F0301/F03B01 – Media Objects,	SysFuc–ABGT
Customer Text – Line 3	F0301/F03B01 – Media Objects,	SysFuc–ABGT
Document Company	F4812/F4812H	
Invoice Date	F4812/F4812H	
Invoice Due Date	F4822	N48S0340
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Ship to Address – Line 3	F0116	B0100021
Ship to Address – Line 4	F0116	B0100021
Ship to Address – Line 5	F0116	B0100021
Ship to Address – Line 6	F0116	B0100021
Ship to Address – Line 7	F0116	B0100021
Ship to Name	F0116	B0100021
Total Invoice Amount	Calculated	
Total Tax Amount	Calculated	
Total Taxable Amount	Calculated	
Work Order Completion Date	F4801	B3100310
Work Order Number	F4812/F4812H	

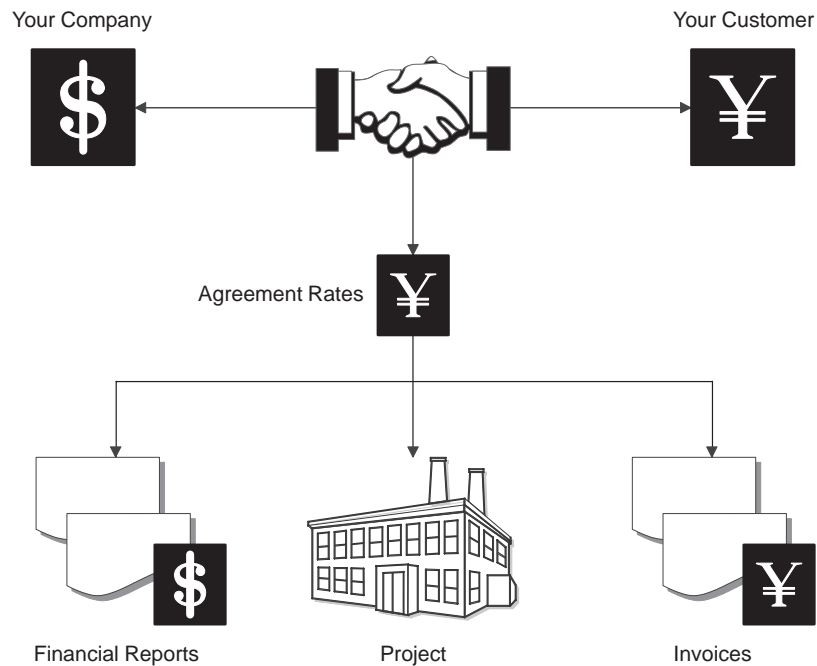
# Understanding Multi-Currency Setup for Service Billing

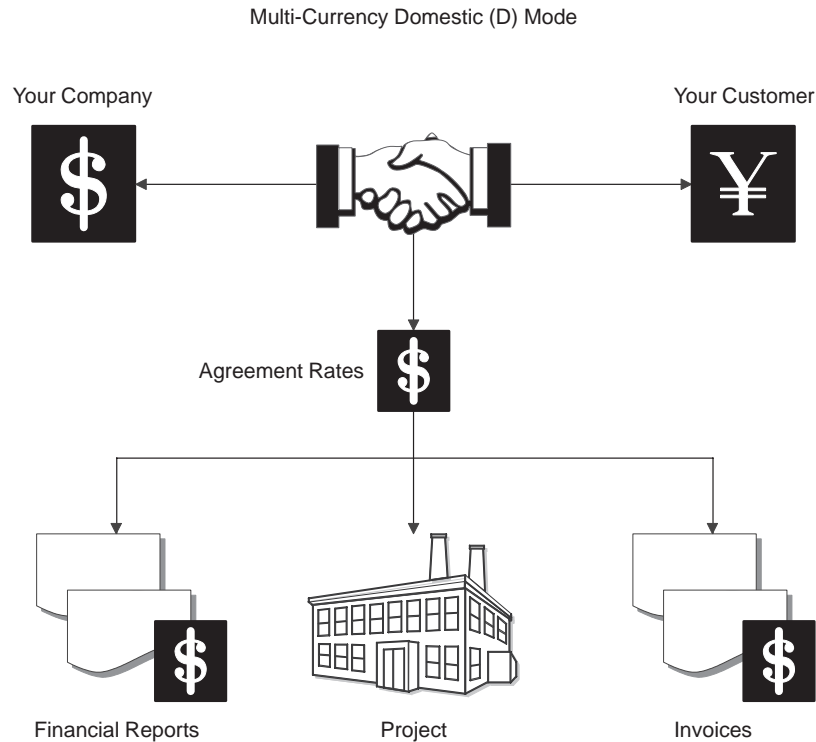
Understanding multi-currency is vital to establishing a global customer network, and the concepts presented here will help you to realize how Service Billing processes multi-currency transactions.

## Choosing Modes

In Service Billing, you must select either foreign or domestic mode. The mode manages how amounts are calculated and stored within the billing system. The mode is a global setup in your constants, and, as with all constants, it is recommended that you not change the constants after you set them up. The global setup can be overridden in the G/L Offset and Retainage table of Service Billing. If the constant is set to foreign mode but a particular job needs to be managed in the domestic currency, you can set up a G/L Offset and Retainage table for that job in the domestic mode (Service Billing only). The following graphics illustrate the foreign and domestic modes.

Multi-Currency Foreign (F) Mode





### Fixed and Non-Fixed Amounts

When Currency is on and a transaction has two currencies, amounts are calculated and stored in both currencies within the billing system. In Service Billing, the domestic amount fields are always displayed in the currency of the company to which the job belongs, and the foreign amount fields are always displayed in the customer currency. One of these currencies must be defined as fixed, based on the currency mode setup in Billing Constants. The fixed currency becomes the control currency for the workfile transactions and is system maintained. While the fixed amounts remain static, fluctuations in currency can affect the non-fixed amounts.

### Modes for Invoicing

For invoicing, your company must decide in which currency you manage billing relationships with customers. For example, your company is in the USA using the US Dollar (USD) as your domestic currency. Your sales representative signs a new project in Canada where the customer wants to receive all invoices in Canadian Dollars (CAD). Regardless of fluctuating exchange rates, the customer has agreed on rates for the particular services in CAD. In this particular example, you are probably going to be operating your billing system in a foreign mode. Conversely, if you negotiate most of your deals in USD regardless of your customers' currencies, you will probably set your billing system to the domestic mode.

### Multi-Currency Transactions

In a multi-currency environment, transactions can be created in many different currencies throughout the system. Regardless of the currency of the originating entry, the Workfile Generation or G/L Selection programs retrieve the cost amount from the AA (Actual Amount) ledger of the Account Ledger table (F0911) and place this value into the domestic cost field of the workfile.

In contrast, J.D. Edwards payroll entries are brought in from the Employee Transaction History table (F0618). The employee is paid in the currency of the home business unit. This currency is compared to the currencies of the job or work order for which you are billing and to your customer's currency. For example, assuming that the currency of the job is USD, that of the customer is French francs (FRF), and that of the home business unit is USD, then the cost amount from the F0618 is retrieved into the domestic cost amount and the foreign amount is converted. Conversely, if the home business unit is FRF, then the cost amount from the F0618 is retrieved into the foreign cost amount and the domestic amount is converted. If the home business unit currency is equal to Belgian francs (BEF) then the cost is first converted to USD and is then retrieved into the domestic cost amount and the foreign amount is converted.

After the cost amount is updated in the Billing Workfile table (F4812), the other cost amount is calculated using the exchange rate table for the date basis you specify in your Billing Constants. The program then retrieves the markup information for the record in the fixed currency as defined in the Billing Constants. Markup information is retrieved only for the fixed currency. The fixed cost amount plus the markup amount becomes the taxable amount of the transaction. The non-fixed taxable amount is calculated using the exchange rate on the fixed taxable amount. Tax and discount rates are then calculated independently for each of the currencies.

Assuming a non-payroll type entry, the equations below describe the process by which domestic and foreign amounts are calculated. (Calculations are not necessarily performed in the exact order in which they appear below.)

**Domestic Mode Calculations**

Domestic Cost Amount	+	Markup Amount	= Domestic Taxable Amount
Domestic Taxable Amount	x	Tax Rate	= Domestic Tax Amount
Domestic Taxable Amount	+	Domestic Tax Amount	= Total Domestic Invoice Amount
Domestic Taxable Amount	x	Discount Rate	= Domestic Discount Amount
Domestic Cost Amount	x	Exchange Rate	= Foreign Cost Amount
Domestic Taxable Amount	x	Exchange Rate	= Foreign Taxable Amount
Foreign Taxable Amount	x	Tax Rate	= Foreign Tax Amount
Foreign Taxable Amount	+	Foreign Tax Amount	= Total Foreign Invoice Amount
Foreign Taxable Amount	x	Discount Rate	= Foreign Discount Amount

**Foreign Mode Calculations**

Domestic Cost Amount	x	Exchange Rate	= Foreign Cost Amount
Foreign Cost Amount	+	Markup Amount	= Foreign Taxable Amount
Foreign Taxable Amount	x	Tax Rate	= Foreign Tax Amount
Foreign Taxable Amount	+	Foreign Tax Amount	= Total Foreign Invoice Amount
Foreign Taxable Amount	x	Discount Rate	= Foreign Discount Amount
Foreign Taxable Amount	x	Exchange Rate	= Domestic Taxable Amount
Domestic Taxable Amount	x	Tax Rate	= Domestic Tax Amount
Domestic Taxable Amount	+	Domestic Tax Amount	= Total Domestic Invoice Amount
Domestic Taxable Amount	x	Discount Rate	= Domestic Discount Amount

**Invoice Amount Calculations (Domestic Mode)**

		<b>Domestic</b>		<b>Foreign</b>
Cost from F0911 record ***		AA	X Exchange Rate	AA2
Markup Amount	+	<u>ADCI</u>		
Taxable Amount	=	ITXA	X Exchange Rate	CITA
(ITXA * Tax Rate) = Tax Amount	+	<u>ITAM</u>	(CITA * Tax Rate) = Tax Amount	+ <u>CITX</u>
Total Amount	=	ITOL	Total Amount	= CITL
(ITXA * Disc Rate) = Discount Amt		IDSC	(CITA * Disc Rate) = Discount Amt	CIDS
(AA/Units) = Unit Price		PRIC	(AA2/Units) = Unit Price	PRIF

**Invoice Amount Calculations (Foreign Mode)**

	<b>Domestic</b>		<b>Foreign</b>
Cost from F0911 record	AA	X Exchange Rate	AA2
		Markup Amount	+ <u>ADCI</u>
X Exchange Rate	ITXA	Taxable Amount	= CITA
(ITXA * Tax Rate) = Tax Amount	+ <u>ITAM</u>	(CITA * Tax Rate ) = Tax Amount	+ <u>CITX</u>
Total Amount	= ITOL	Total Amount	= CITL
(ITXA * Disc Rate) = Discount Amt	IDSC	(CITA * Disc Rate) = Discount Amt	CIDS
(AA/Units) = Unit Price	PRIC	(AA2/Units) = Unit Price	PRIF

\*\*\* Assumes that the home business unit of payroll transaction does not have a different currency from the job currency.

Understanding Multi-Currency Setup and Processing for Service Billing includes understanding the following functions:

- Setup of constants for multi-currency
- Setup of billing rate/markup tables for multi-currency
- Setup of components for multi-currency
- Setup of G/L offset and retainage table for multi-currency
- Setup of Invoice Print Version Cross Reference for multi-currency
- Multi-currency processing of workfile generation
- Multi-currency processing of billing revisions
- Multi-currency processing of invoice generation
- Multi-currency processing of invoice revisions
- Multi-currency processing of printing invoices
- Multi-currency processing of invoice journal generation
- Multi-currency processing of create A/R and G/L entries
- Multi-currency processing of general ledger post reports
- Multi-currency processing of invoice voids

### See Also

For a complete resource of setting up your system for multi-currency, please refer to *Multi-Currency Setup* in the *General Accounting* guide for the following tasks:

- *Activating Multi-Currency*
- *Defining Currency Codes*
- *Working with Exchange Rates*
- *Assigning a Domestic Currency to a Company*
- *Assigning Currency Codes to Monetary Accounts*
- *Assigning Currency Codes to Customers and Suppliers*
- *Setting Up AAs for Multi-Currency*

### Understanding Setup of Constants for Multi-Currency

Control Name	Value	Control Name	Value
Bill Burden	1	Independent Revenue/Invoice	0
Bill Unposted	0	Revenue on Contract non T & M's	0
Effective Date Basis	1	Invoice Summary Access Control	
Labor Effective Basis	1	Invoice Date Override Control	1
Customer Number Basis	1	Draft/Final Invoice Gen. Control	0
Service Date Basis	0	Default Invoice Document Type	R1
Exchange Rate Date Basis	1	<input checked="" type="checkbox"/> Foreign	
Journal Generation Control	1		
Journal Reclassification Control	0		
PDDBA Code Override	1		
Default Markup Percentage	10.000		

On Service Billing Constants, ensure the following two controls are set correctly:

- Exchange Rate Date Basis

This date determines which exchange rate is used for Workfile Generation and the re-extension of the workfile records.

- Foreign

This determines which currency will be fixed during the billing process. If you select this box in the constants, then the customer currency will be the fixed currency, and the business unit or company currency will be considered non-fixed. In this case, the markups will be calculated on the customer currency, and the domestic amount will be restated based on the foreign amounts calculated.

If the box is unchecked, then the domestic or company currency will be fixed for the billing process. In this case, the markups will be calculated on the company currency, and the foreign amount will be restated based on the domestic amounts calculated. This field also drives the mode that will default into the Billing Revisions form.

### Understanding Setup of Billing Rate/Markup Tables for Multi-Currency

Gen Type	Gen Type Description	Key Type	Key Type Description	Table Key	Table Key Description	Curr Code
1	Invoice Markup	2	Work order class	C01	Concourse Security	USD
1	Invoice Markup	2	Work order class	PER	Perimeter Guard	USD
1	Invoice Markup	2	Work order class	SCR	Screener Guard	USD
1	Invoice Markup	2	Work order class	SUP	Supervisor	USD
1	Invoice Markup	5	Customer	150	DIA Property Management	USD
1	Invoice Markup	6	Job or Business Unit	50	Project Management	USD

On Work With Service Billing Rate/Markup Table, ensure the following control is set correctly:

- Currency Code

On Work With Service Billing Rate/Markup Table, the currency code will control the decimal display on this screen and will be used as part of the key when this table is processed by the Workfile Generation and the re-extension functions. The Currency Code field displays only when Currency is on.

The currency code will default in for the following key types based on the following files but can be overridden when adding a new table:

<b>1-Work Order</b>	Work Order Master (F4801)
<b>3-Contract</b>	Contract Master (F5201)
<b>4-Parent Contract</b>	Contract Master (F5201)
<b>5-Customer</b>	Customer Master (F0301 or F03B01)
<b>6-Business Unit (Job)</b>	Business Unit Master (F0006)
<b>8-Company</b>	Company Master (F0010)

When Currency is on, you need to enter the currency code for the following key types:

- 2-Work Order Class (WR07)
- 7-Job Class (RP11)
- 9-Default

### Example: Billing Rate/Markup Table Processing

The table selected during the Workfile Generation and re-extension processes is determined by the mode set up in the Billing Constants or G/L Offset and Retainage table, as well as by the key fields of the Billing Rate/Markup table. Because Currency is a key field, it will be used to search for a match between the cost transaction and the Billing Rate/Markup table. This process is illustrated in the following example.

- Business Unit 1234 belongs to company 00062 with a currency code of BEF.
- Customer number 3333 has been set up with a currency of FRF.
- Customer number 3333 has been properly attached to Business Unit 1234 as the Owner.
- A transaction was posted into the billable account: 1234.1350.02200 for 300 BEF.

The following two Billing Rate/Markup tables have been set up.

#### Table 1

<b>Generation Type</b>	1
<b>Key Type</b>	5
<b>Table Key</b>	3333
<b>Currency Code</b>	FRF
<b>Date Range</b>	01/01/05 to 12/31/05
<b>Object Account Range</b>	1340 to 1399
<b>Markup Percentage</b>	150

**Table 2**

<b>Generation Type</b>	1
<b>Key Type</b>	6
<b>Table Key</b>	1234
<b>Currency Code</b>	BEF
<b>Date Range</b>	01/01/05 to 12/31/05
<b>Object Account Range</b>	1340 to 1399
<b>Markup Percentage</b>	150



If Currency is off, Currency Code is not a visible field, and the values for each of the tables would have been updated as blank during a table ADD.

NOTE: If Currency is off, Currency Code is not a visible field and the values for each of the tables would have been updated as blank during a table ADD.

If Currency had been off and currency codes had not been entered, Table 1 would have been used as the markup because currency code would not have been part of the search key. Therefore, key type 5 would have been found first in the hierarchical ordering of the remaining major keys.

If Currency was on and the system constants were set to Foreign mode, then Workfile Generation would calculate the billable amount of the transaction using Table 1, which was set up in the foreign or customer currency.

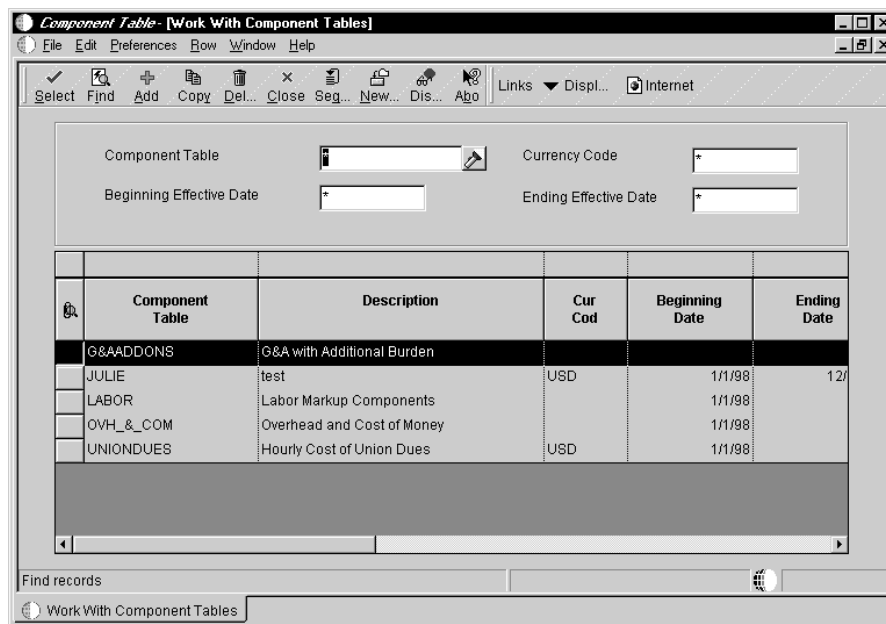
If the system constants were set to domestic mode, then Workfile Generation would calculate the billable amount of the transaction using Table 2, which was set up in the domestic or company currency.

If the currency for the table does not match the currency defined as fixed by the system constants, or is overridden in the G/L Offset and Retainage table, the table does not match. The system will search through the table hierarchy until a complete match is found. If a complete match is not found, the default markup percentage set up in the constants will be used.

When Currency is off, the Currency Code is not visible on the Billing Rate/Markup table form. Any tables added when Currency is off will have a blank value in the file record for the currency code. If Currency is then turned on and a transaction is entered with a valid currency code attached to it, the Workfile Generation program will not find a valid match to a Billing Rate/Markup table with a blank value.

The opposite is also true. If you enter a Billing Rate/Markup table with a valid currency code while Currency is on and then turn it off to enter your transactions, your Transaction Currency field is now blank and your markup tables are not blank. Again, the system will not find a match. For this reason, it is important to not change your system back and forth from Currency on and off without identifying the files that will need to be updated accordingly.

### Understanding Setup of Components for Multi-Currency



The screenshot shows a software window titled "Component Table - [Work With Component Tables]". It features a menu bar (File, Edit, Preferences, Row, Window, Help) and a toolbar with various icons. Below the toolbar are four input fields: "Component Table" (with a dropdown arrow), "Currency Code" (with a dropdown arrow), "Beginning Effective Date" (with a dropdown arrow), and "Ending Effective Date" (with a dropdown arrow). The main area contains a table with the following data:

Component Table	Description	Cur Cod	Beginning Date	Ending Date
G&AADDONS	G&A with Additional Burden			
JULIE	test	USD	1/1/98	12/31/98
LABOR	Labor Markup Components		1/1/98	
OVH_&_COM	Overhead and Cost of Money		1/1/98	
UNIONDUES	Hourly Cost of Union Dues	USD	1/1/98	

At the bottom of the window, there is a "Find records" field and a "Work With Component Tables" button.

On Work With Component Tables, the currency code must match the currency code of the Billing Rate/Markup table to which it is attached.

The currency code on the component table will control the decimal display on this screen and will be used as part of the key when this table is processed by the Workfile Generation and re-extension functions. The Currency Code field displays only when Currency is on.

### Understanding Setup of G/L Offset and Retainage Table for Multi-Currency

Table Key	Description	Pmt Trm	GL Offset	Percent Retainage	Retn Offset	R F	F/D
65010	Security - Perimeter Guards			3.00	RETN		F
65017	Security Services			5.00	RETN		F
451451				2.50	RETN		F

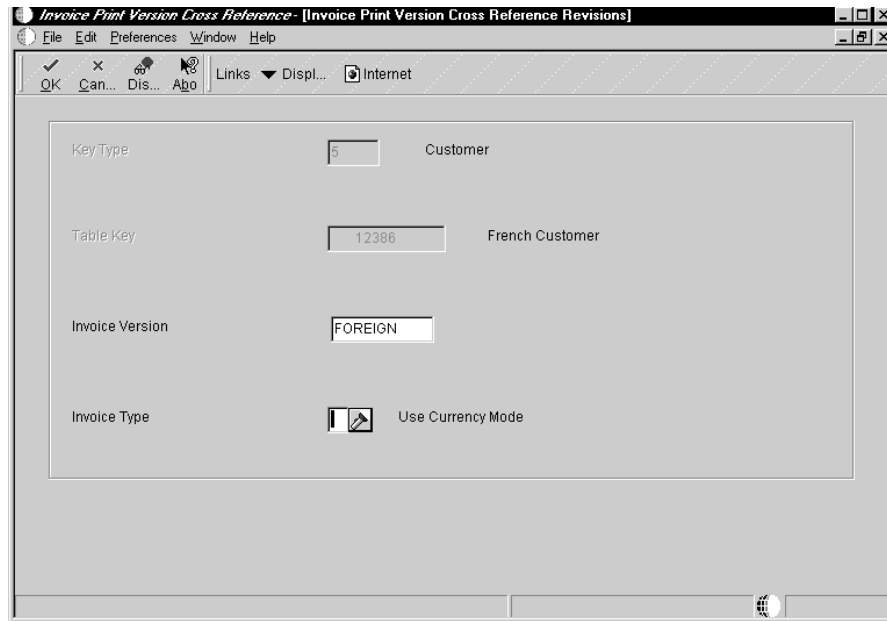
On G/L Offset and Retainage Table, ensure the following control is set correctly:

- Currency Mode - Foreign

This control determines which currency will be fixed during the billing process. If you select this box in the offset table, then the customer currency will be the fixed currency, and the business unit, or company currency, will be considered non-fixed. In this case, the billing amounts will be calculated in the customer currency, and the domestic amount will be converted based on the foreign amounts calculated.

If the box is unchecked, then the domestic or company currency will be fixed for the billing process. Markups will be calculated on the company currency, and the foreign amount will be converted based on the domestic amounts calculated. This setup overrides the mode that was set up in Billing Constants.

## Understanding Setup of Invoice Print Version Cross Reference for Multi-Currency



On Invoice Print Version Cross Reference Revisions, ensure the following control is set correctly:

- Invoice Type

This field can be used to override the currency, domestic or foreign, of the invoice format that you print. If you do not set up an override here or during the invoice processing, the invoice will be printed based on the mode identified on the Billing transactions. When setting up new invoice formats, remember that invoices might be required in domestic or foreign currencies or both.

## Understanding Multi-Currency Processing of Workfile Generation

Workfile Generation is not affected by Currency being on or off. Likewise, when you choose G/L Select from the Billing Details application, you do not have to make any setup or data selection changes for multi-currency processing. Any changes to the multi-currency processing are determined by your setup of constants, Billing/Rate Markup tables, and G/L Offset and Retainage tables.

## Understanding Multi-Currency Processing of Billing Revisions

The screenshot shows the 'Work With Billing Details' window. At the top, there is a menu bar (File, Edit, Preferences, Form, Row, Window, Help) and a toolbar with icons for Select, Find, Add, Del..., Close, Seg..., New..., Dis..., and Abo. Below the toolbar are several input fields for Customer, Account Number, Subledger, Contract Number, G/L Date From, Billing Control ID, Job Type, Job Step, Employee/Supplier, and Billing Currency. A data grid is displayed below these fields with the following columns: Invoice w/Comp, Billing Currency, Foreign Cost, Foreign Cost w/Comp, Base Foreign Invoice, Foreign Inv w/Comp, and F C. The grid contains three rows of data:

Invoice w/Comp	Billing Currency	Foreign Cost	Foreign Cost w/Comp	Base Foreign Invoice	Foreign Inv w/Comp	F C
892.04	USD					1
280.26	USD					1
373.68	USD					1

At the bottom of the window, there is a 'Find records' field and a tab labeled 'Work With Billing Details'.

On Work With Billing Details, if Currency is on, you will have both the domestic and foreign amounts available for inspection on the initial detail display. If Currency is off, you will see only the domestic amounts.



If the job and customer have the same currency code, regardless of how you set up you mode in the Billing Constants, the mode will be considered domestic throughout the billing process. From Work With Billing Details, you will see only the domestic values in the grid; the foreign amounts will be blank.

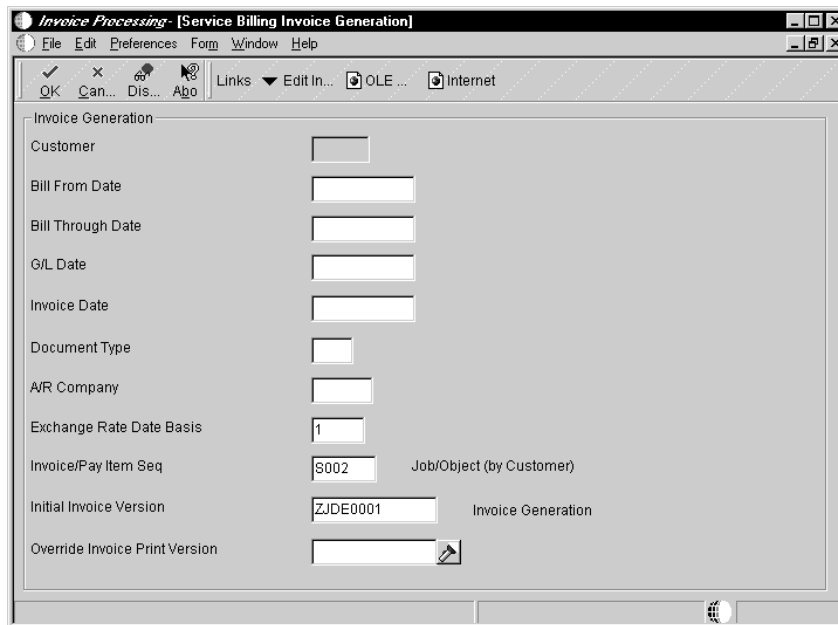
The screenshot shows the 'Billing Detail Revisions' window. It features a menu bar (File, Edit, Preferences, Form, Window, Help) and a toolbar with icons for QK, Can..., Dis..., and Abo. The window is divided into several sections:

- Top Section:** G/L Date (1/1/00), Re-apply Markup (checkbox), Calculation Preview button, Elig. Code (3), Adjust. Reason (CL), Contr. Change Order Lim. Excd. (checkbox), and Foreign (checkbox).
- Invoice Amounts Section:** Includes tabs for Job/Customer, Contract, Additional, and Currency. It contains two sub-sections:
  - Cost Information:** Units/UOM, Unit Price, and Cost Amount (1,234.56).
  - Invoice Amounts:** Inv Txbl Amt (1,671.16), Tax (121.99), and Total Invoice (1,793.15).
- Markup Information Section:** Inv Ovr Rate/Cap, Inv Markup % (22.000), and Inv Mark Up Amt (165.00).
- Tax/Discount Information Section:** Tax Y/N (Y), Tax Area/Expl (DEN, S), and Disc %/Amt.

When you select a transaction from the Work With Billing Details form, Billing Detail Revisions will default in the mode of the record that was updated based on the Billing Constants or a G/L Offset and Retainage table. You can then click on the Foreign box to see the opposite mode (foreign or domestic). Notice that you see only the markup amounts of the fixed currency in the Invoice Markup Percentage field. Amount fields are changeable only in the mode of the transaction. Cost fields cannot be updated in either currency.

In the non-fixed mode, no markup amounts are displayed, and all of the amount fields have been disabled for any changes.

### Understanding Multi-Currency Processing of Invoice Generation



On Service Billing Invoice Generation, ensure the following control is set correctly:

- Exchange Rate Date Basis

This field identifies whether you want to find the exchange rate table based on the date of the invoice or on the G/L Date as identified on this same form. If you choose to post all transactions to the last day of the month, but you change your exchange rate tables daily, you probably want to select your exchange rate tables based on the invoice date.

Conversely, if you want all currency transactions to be calculated based on the date you post, you would select to retrieve the exchange rate based on G/L date. The Exchange Rate Date Basis control is required whether you create the invoices using the batch or interactive method. If you do not make an initial selection, the default is 1 or Invoice Date. The exchange rate used for Invoice Generation is updated in the Invoice Exchange Rate field of the Billing Workfile.

The report that is produced after the batch process of Invoice Generation reflects the invoice amount in the currency of the company or in the domestic currency.

### Understanding Multi-Currency Processing of Invoice Revisions

Invoice Number	Do Ty	Customer	Customer Name	G/L Date	Gross Amount	Base Curr	Foreign Amount
1269	RI	50	Project Management Comp	6/30/05	118.03	USD	
<b>Total</b>					<b>118.03</b>		

The Total amount displayed on the Batch Review form will always be in the domestic currency. However, on Work With Invoices you will see both amounts in their respective currencies, but you will not see a total on the form.

Pay Itm	Gross Amount	Taxable Amount	Tax Amount	Percent Retainage	Retainage Amount	Discount Available
001	118.03	110.00	8.03			

On Service Billing Invoice Entry, the displayed default will be the mode in which you are running. You can click on the Foreign box to see the alternate currency. You will also see the exchange rate used for the invoice calculations for the billable amounts.

The screenshot shows a software window titled "Billing Details - [Billing Detail Revisions]". The window has a menu bar with "File", "Edit", "Preferences", "Form", "Window", and "Help". Below the menu bar is a toolbar with buttons for "OK", "Can...", "Dis...", and "Ago", along with a "Links" dropdown and "Sourc..." and "Internet" buttons. The main area contains several input fields and checkboxes. At the top, there are fields for "G/L Date" (6/19/98), "Re-Extend Option" (checkbox), "Foreign" (checkbox), "Eligibility Code" (1), "Adj Reason" (checkbox), and "No Adjustment" (checkbox). Below this is a section titled "Invoice Information" with fields for "Units/UOM", "Unit Price", "Cost Amount" (597.58), "Ovr Rate/Cap" (checkbox), "Mark Up %" (10.000), "Mark Up Amt", "Inv Tbl Amt" (657.34), "Tax", and "Total Invoice" (657.34). At the bottom, there is a "Job/Customer" section with tabs for "Contract", "Additional", and "Currency". The "Customer" field contains "6070", and the "Account Number" field contains "5002", "1366", and "02210". The "Potomac Hotel" is listed as the customer name. A status bar at the bottom left says "Display all errors currently logged" and the bottom right says "1 Error - 0 Warnings".

When you access the billing details of the transactions included in the invoice, you will be at Billing Detail Revisions. On Billing Detail Revisions, review the following fields:

- Original Exchange Rate

On the Currency tab, this rate is the one used during Workfile Generation or the most recent re-extension, if applicable.

- Invoice Exchange Rate

This rate is the one used for Invoice Generation.

- Exchange Rate Date Basis and Exchange Rate Date

These fields are updated during Workfile Generation or re-extension, and they identify the basis for the Original Exchange Rate.

During Invoice Generation, the records to be included in the invoice first have their non-fixed amounts copied to historical amount fields. Then the non-fixed amounts are recalculated using the new exchange rate selected during Invoice Generation. These non-fixed amounts are then accumulated for the Invoice Review screens. When you access an invoice to audit the individual transactions, you are seeing the recalculated amounts based on the Invoice Exchange Rate. Original amounts are stored in historical amount fields of the workfile so that if an invoice is deleted, the current non-fixed amounts can be updated from the amounts that had been copied to historical amount fields.

As with the Workfile Revisions after Workfile Generation, you can change only the amounts or markup in the mode in which the transaction was created. When you click on the Foreign box, and go to the non-fixed mode, the amount fields are disabled for entry.

During the deletion process, the non-fixed amounts are updated from the historical amount fields. This way, the transactions in the Workfile Detail Transactions table (F4812) are in the same amounts as they were prior to the Invoice Generation.

### Understanding Multi-Currency Processing of Printing Invoices

You can set up the desired Version and Invoice Type of the invoice you wish to print for your customers. You can choose from three different methods. First, on the Service Billing Entry form, you can override the Version and Invoice Type you wish to print for that one particular invoice. Second, you also can use the processing options from the Invoice Print program to override the amounts you would like to have printed on the invoice based on the data selection of your Invoice Print program version. Third, you can select a Version and Invoice Type on the Invoice Print Version Cross Reference table you set up for a particular key type and table key.

During the print process, the system will first determine whether there is an invoice type on the Invoice record. If not, the system will look to the processing options of the version of the program you are running and then it will look to the cross reference table. If it does not find an Invoice Type identified for printing, the invoice will print out based on the mode from the billing transactions. If the Type is set to D, the domestic amounts will print. If the Type is set to F, the foreign amounts will print.

### Understanding Multi-Currency Processing of Invoice Journal Generation

The reports that print out (including the Invoice Register) during Invoice Journal Generation are printed in domestic amounts, regardless of the currency mode.

### Understanding Multi-Currency Processing of Create A/R and G/L Entries

For this process, you receive the same reports that you received for the Invoice Journal Generation. These reports are created in the domestic currency, regardless of what mode you have set up for your currency processing.

When accessing the batch from the Invoice Journal Review option, you will see that the gross amounts in the domestic currency and the currency amount reflect the foreign currency of the invoice.

Pay Itm	Gross Amount	Taxable Amount	Tax Amount	Percent Retainage	Retainage Amount	Discount Available	Rat
001	1,100.00						

On Service Billing Invoice Entry, the foreign invoice defaults the view to the foreign mode, and you can change amounts by clicking on the Foreign box.

### Insert G/L distribution Screen

The G/L distribution of the record also displays in the currency that was visible on the Standard Invoice entry when the Form Exit was completed.

On both of the above reports, the Exchange Rate is that which was used during Invoice Generation to calculate the translation of amounts.

## Understanding Multi-Currency Processing of General Ledger Post Reports

When you post the transactions, the domestic amounts are posted into the AA ledger and the foreign amounts are created and then posted into the CA ledger. Both ledgers must balance for the batch to post.

## Understanding Multi-Currency Processing of Invoice Voids

Once the invoice has been created, it can be voided if no payments have been recorded against it. When the invoice is voided, the Billing Workfile Transactions are retrieved from history with the amounts that were calculated using the currency exchange rate of the last re-extension or of the original workfile generation, whichever came later.

# Appendices



## Appendix A - Searches for Markup Rules

The markup is an amount that you add to costs for overhead and profit. The system calculates markup amounts when you accumulate costs or revise workfile transactions based on the markup rules you define when you set up the Service Billing system.

You define markup rules by specifying major and minor key values. The system uses these values in combination to identify the specific markup rules that apply to individual source transactions. To identify the correct markup rules, the system:

- Accesses the markup rules
- Searches and selects specific source transactions that match the values you specified for the major key
- Continues the search, narrowing the selection of source transactions based on the value you specified for the minor key
- Calculates the markup amount for individual transactions based on the applicable markup calculation rules
- Updates the workfile transaction with the applicable markup amount

The system uses the most specific rule it can locate to calculate the markup for a transaction.

### Major Key Values

The system matches the major key information you define for a markup table to the information in billable workfile transactions.

The following table lists the searches that the system can use for a major key.

Search Level	Key Type	Searches for:	Validates against:
First	1	Work Orders	Work Order Master (F4801)
Second	2	Work Order Classes	User Defined Code (UDC 00/W7)
Third	3	Contract Numbers	Contract Billing Master (F5201)
Fourth	4	Parent Contract Numbers	Parent Contract Master (F5201)

## Service Billing

Fifth	5	Customer Numbers	Address Book Master (F0101)
Sixth	6	Job/Business Units	Job (Business Unit) Master (F0006)
Seventh	7	Job Classes	User Defined Code (UDC 00/11)
Eighth	8	Company	Company Constants (F0010)
Ninth	9	System Default.	No validation

The system uses Key Type 9 if a match is not found at any of the previous levels. The system applies the remaining eligible transactions to tables with this key type. If the system does not find a match, it uses the default markup percentage that you specify in the system constants.

## Minor Key Values

### Payroll Transactions

The system identifies payroll transactions using the T2, T4, and T5 document type coding. Having identified a T2, T4, or T5 document, the system conducts two searches for related minor key values.

### First-Level Search

At the first level of the first search, the system looks for a match with transactions that include the job type, job step, pay type, and employee number.

Search Level	Searches for:				
	JBCD (Job Type)	JBST (Job Step)	PDBA (Pay Type)		AN8 (Employee)
First	X	X	X	AND	X
Second	X	X		AND	X
Third	X		X	AND	X
Fourth	X			AND	X
Fifth		X	X	AND	X
Sixth		X		AND	X
Seventh			X	AND	X
Eighth					X

**Second-Level Search**

In the second search for payroll transactions, the system uses job type, job step, and pay type, with either the home business unit or a cost pool. Employee number, home business unit, and cost pool are mutually exclusive and are not used in the second level search.

Search Level	JBCD (Job Type)	JBST (Job Step)	PDBA (Pay Type)	HMBU (Home BU)	RP12 (Cost Pool)
First	X	X	X	X	
Second	X	X	X		X
Third	X	X	X		
Fourth	X	X		X	
Fifth	X	X			X
Sixth	X	X			
Seventh	X		X	X	
Eighth	X		X		X
Ninth	X		X		
Tenth	X			X	
Eleventh	X				X
Twelfth	X				
Thirteenth		X	X	X	
Fourteenth		X	X		X
Fifteenth		X	X		
Sixteenth		X		X	
Seventeenth		X			X
Eighteenth		X			
Nineteenth			X	X	
Twentieth			X		X
Twenty-first			X		
Twenty-second				X	
Twenty-third					X
Twenty-fourth					

### Non-Payroll Transactions for Equipment

The system identifies non-payroll equipment transactions using the TE document type code. It applies the following search criteria to transactions with the TE document type.

Search Level	Searches for:				
	ACLO (Rate Grp)	NUMB (Equipment)	ERC (Rate Code)	HMBU (Home BU)	RP12 (Cost Pool)
First		X			
Second	X		X		X
Third	X				X
Fourth			X		X
Fifth	X		X		
Sixth	X				
Seventh			X		
Eighth				X	
Ninth					X
Tenth					

### All Other Transactions

For the remaining eligible transactions (those that are not T2, T4, T5, or TE documents), the system conducts the following search for minor key values.

Search Level	Searches for:			
	AN8 (Employee)	HMBU (Home BU)	RP12 (Cost Pool)	JBST (Job Step)
First	X	X		X
Second	X		X	X
Third	X	X		
Fourth	X		X	
Fifth	X			
Sixth		X		
Seventh			X	
Eighth				X
Ninth				

**Object and Subsidiary Search**

When the system finds a match between the minor key values and the transactions being billed, it searches for a match of the object and subsidiary account information between the markup table rule and the billable transaction.

Search Level	Searches for:	
	OBJ (Object)	SUB (Subsidiary)
First	X	X
Second	X	
Third		X
Fourth		

**T2 Payroll Transactions with Equipment Information**

If a markup table rule contains information for a rate group (ACL0), equipment number (EQCG), or rate code (ERC), the T2 payroll transaction with equipment information must match the equipment information in the markup table rule. If the information does not match, the system continues to search for the correct rule. The following three examples illustrate this search:

- The markup table rule specifies an equipment number of 180, and the T2 payroll transaction contains an equipment number of 100. The system continues searching for another rule because the equipment numbers do not match.
- The markup table specifies an equipment number of 180, and the T2 payroll transaction does not contain an equipment number. The system continues searching for another rule because the equipment numbers do not match.
- The markup rule does not specify an equipment number, and the T2 payroll transaction contains an equipment number of 100. When the rule does not specify an equipment number, it applies to all T2 payroll transactions, whether they contain an equipment number. The system stops the search and uses the rule.



# Glossary



# Glossary

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**actual demand.** Actual customer orders and allocations of items/ingredients/raw materials to production or distribution.

**aggregate leadtime.** See cumulative leadtime.

**aggregate planning.** The sum of all forecasted demand (customer, distribution, manufacturing) for all items in a family for purposes of planning gross requirements.

**alternate operation.** Replacement for a normal operation or routing for an item in the manufacturing process.

**alternate routing.** A routing, less preferred than the primary routing, that results in an item identical to that produced by the primary routing.

**application.** A computer program or set of programs used to accomplish a task. In OneWorld, there are interactive applications and batch applications. Interactive applications are made up of a set of forms through which the user interacts with OneWorld. Interactive application identifiers begin with "P." For example, Address Book Revisions (P01012) is an interactive application. Batch applications run without user interaction. Reports and table conversions are examples of batch applications. Batch application identifiers begin with "R." For example, the Print Mailing Labels report (R01401) is a batch application.

**assemble-to-order product.** A product for which key components (bulk, semi-finished, intermediate, subassembly, fabricated, purchased, packaging, and so on) are planned and stocked in anticipation of a customer order. Contrast with make-to-order product.

**assembly.** A group of items or subassemblies that, when put together, constitute an end item.

**assembly inclusion rule.** A logic statement that specifies the conditions for using a part, adjusting the price or cost, performing a calculation, or using a routing operation for configured items.

**associated service type.** See linked service type.

**audit trail.** The detailed, verifiable history of a processed transaction. The history consists of the original documents, transaction entries, and posting of records and usually concludes with a report.

**automatic accounting instruction (AAI).** A code that refers to an account in the chart of accounts. AAIs define rules for programs that automatically generate journal entries, including interfaces between the Accounts Payable, Accounts Receivable, Financial Reporting, and General Accounting systems. Each system that interfaces with the General Accounting system has AAIs. For example, AAIs can direct the General Ledger Post program to post a debit to a specific expense account and a credit to a specific accounts payable account.

**availability.** For packaged product, the system checks availability. For bulk product, you can assume it is in stock and available for sale.

**backflush.** To deduct from inventory records the components or ingredients as a result of the production process. See also super backflush.

**batch bill of material.** A recipe or formula in which the quantity of each component is based on the standard batch quantity of the parent.

**batch control.** A feature that verifies the number of transactions and the total amount in each batch that you enter into the system.

**batch input.** A group of transactions loaded from an external source.

**batch job.** A task or group of tasks you submit for processing that the system treats as a single unit during processing, for example, printing reports and purging files. The system performs a batch job with little or no user interaction.

**batch processing.** A method by which the system selects jobs from the job queue, processes them, and sends output to the outqueue. Contrast with interactive processing.

**batch quantity.** See standard batch quantity.

**batch type.** A code assigned to a batch job that designates to which system the associated transactions pertain, thus controlling which records are selected for processing. For example, the Post General Journal program selects for posting only unposted transaction batches with a batch type of O.

**bill of material (BOM).** A listing of all the subassemblies and raw materials that make up a parent assembly. The BOM is used with the master

production schedule to determine the items for which purchase requisitions and production orders must be released. Display formats for bills of material include single level, multi-level, indented, planning, and costed.

**broadcast message.** 1) An e-mail message that you send to multiple recipients. 2) A message that appears on a form instead of in your mailbox.

**bucketed system.** A material requirements planning, distribution requirements planning, or other time-phased system in which all time-phased data is accumulated into time periods, or buckets. If the period of accumulation is one week, then the system is said to have weekly buckets.

**bucketless system.** A material requirements planning, distribution requirements planning, or other time-phased system in which all time-phased data is processed, stored, and displayed using dated records rather than defined time periods, or buckets.

**bulk issue.** Items issued from stores to work-in-process inventory, based on quantities estimated to cover requirements of individual work centers and production lines instead of individual job orders. A bulk issue can be used to cover a period of time or to fill a fixed-size container.

**business unit.** See facility.

**by-product.** A material of positive or negative value produced as a residual of or incidental to the production process. The ratio of by-product to primary product is usually predictable. By-products might be discarded, sold as is, or used for other purposes. See also co-product and restricted by-product.

**capacity requirements planning (CRP).** The function of establishing, measuring, and adjusting limits or levels of capacity by determining in detail how much labor and machine resources are required to accomplish the tasks of production. Open shop orders and planned orders in the Material Requirements Planning system are inputs to CRP, which “translates” these orders into hours of work by work center and by time period.

**category code.** A type of user defined code for which you can provide the title. For example, if you were adding a code that designated different sales regions, you could change category code 4 to Sales Region, and define E (East), W (West), N (North), and S (South) as the valid codes. Sometimes referred to as reporting codes. See also user defined code.

**certificate of analysis (COA).** A document that includes all of the tests performed and resulting test data for an item lot.

**chart of accounts.** The structure for general ledger accounts. The chart of accounts lists types of accounts, describes each account, and includes account numbers and posting edit codes.

**committed material.** Material on hand or on order that is assigned to specific future production or customer orders. Sometimes referred to as reserved material.

**component.** A raw material, ingredient, or subassembly that is used as an element of another assembly, process, or item. A component might be packaging material for a finished item.

**component changeout.** See component swap.

**component swap.** In Equipment/Plant Management, the substitution of an operable component for one that requires maintenance. Typically, you swap components to minimize equipment downtime while servicing one of the components.

**composite leadtime.** See cumulative leadtime.

**configuration management.** A rules-based method of ordering assemble-to-order or make-to-order products, in which characteristics of the product are defined as part of the Sales Order Entry process. Characteristics are edited using Boolean logic and then translated into the components and routing steps required to produce the product. The resulting configuration is also priced and costed, based on the characteristics defined.

**configured item segment.** A characteristic of a configured item defined during sales order entry. For example, a customer may specify a type of computer hard drive by stating the number of megabytes of the hard drive, rather than a part number.

**constants.** Parameters or codes that you set and that the system uses to standardize the processing of information by associated programs.

**consuming location.** The point on the production line where a component or subassembly is used in the production process. Consuming location is used in kanban processing.

**corrective maintenance.** Any maintenance work that falls outside the scope of preventive or predictive maintenance. Corrective maintenance can be planned, unplanned, or emergency, for example,

to respond to equipment failure. Contrast with preventive maintenance and predictive maintenance.

**corrective work order.** A work order that is used to formally request corrective maintenance, and to communicate all details pertaining to the corrective maintenance task.

**cost component.** An element of an item's cost, for example, material, labor, or overhead.

**cost rollup.** A simulated scenario in which work center rates, material costs, and labor costs are used to determine the total cost of an item.

**costed bill of material.** A bill of material that extends the quantity per of every component by the cost of the components. See also bill of material.

**co-product.** An end item produced as the result of a process. There are usually two or more co-products. See also end item and by-product.

**crew size.** The number of people required to perform an operation.

**critical path leadtime.** See cumulative leadtime.

**cross segment edit.** A logic statement that establishes the relationship between configured item segments. Cross segment edits are used to prevent ordering of configurations that cannot be produced.

**cumulative leadtime.** The longest planned length of time needed to accomplish the activity in question. For any item planned through material requirements planning, cumulative leadtime is determined by reviewing the leadtime for each bill of material path below the item. The path with the longest leadtime defines the cumulative leadtime. Sometimes referred to as critical path leadtime, aggregate leadtime, or composite leadtime.

**current cost.** The cost associated with an item at the time a parts list and routing are attached to a work order or rate schedule. Current cost is based on the latest bill of material and routing for the item.

**data dictionary.** A database table that OneWorld uses to manage the definitions, structures, and guidelines for the usage of fields, messages, and help text. J.D. Edwards has an active data dictionary, which means that it is accessed at runtime.

**database.** A continuously updated collection of all information that a system uses and stores. Databases make it possible to create, store, index, and cross-reference information online.

**date pattern.** A period of time set for each period in standard and 52-period accounting.

**default.** A code, number, or parameter that the system supplies when the user does not specify one.

**detail.** The specific information that makes up a record or transaction. Contrast with summary.

**detail area.** An area of a form that displays detailed information associated with the records or data items displayed on the form. See also grid.

**direct labor.** Labor that is applied to the product being manufactured.

**direct material.** Measurable quantities of material that becomes a part of the final product.

**dispatch list.** A list of sequenced work orders or rate schedules that contain detailed information on location, quantity, and capacity requirements. Dispatch lists are usually generated daily and are oriented by work center or line.

**effectivity date.** The date on which a component or an operation is to be added or removed from a bill of material or an assembly process. Effectivity dates are used in the planning process to create demands for the correct items. Normally, bills of material and routings provide for an effectivity start date (from) and stop date (through), signifying the beginning and end of a particular relationship. Sometimes referred to as effective date.

**electronic commerce.** See Electronic Data Interchange.

**Electronic Data Interchange (EDI).** The paperless, computer-to-computer exchange of business transactions, such as purchase orders and invoices, in a standard format with standard content.

**engineering change order (ECO).** A work order used to implement and track a change in a manufactured product. This includes changes in design, quantity of items required, and assembly or production process.

**enterprise resource planning (ERP).** A closed-loop, integrated system that enables manufacturers and distributors to coordinate all of the activities necessary to fulfill customer demand. This includes activities associated with suppliers, customers, inventory, shop floor, product costing and accounting, forecasting, and planning and scheduling.

**Enterprise Workflow Management.** A OneWorld system that provides a way of automating tasks,

such as notifying a manager that a requisition is waiting for approval, using an e-mail-based process flow across a network.

**expedite.** To process production or purchase orders in less than the normal leadtime.

**explosion.** The process of calculating the demand for the components of a parent item by multiplying the parent item requirements by the quantity per specified in the bill of material. Sometimes referred to as requirements explosion. Contrast with implosion.

**exponential smoothing.** A forecasting technique in which past observations are geometrically discounted according to their age. The heaviest weight is assigned to the most recent data. The smoothing is termed exponential because data points are weighted in accordance with an exponential function of their age.

**facility.** An entity within a business for which you want to track costs. For example, a facility might be a warehouse location, job, project, work center, or branch/plant. Sometimes referred to as a business unit.

**family.** See master planning family.

**feature.** A characteristic of a product or service, such as an option, accessory, or attachment.

**field.** 1) An area on a form that represents a particular type of information, such as name, document type, or amount. 2) A defined area within a record that contains a specific piece of information. For example, a supplier record consists of the fields Supplier Name, Address, and Telephone Number.

**file.** A set of information stored under one name. See also table.

**finished good.** See end item.

**firm planned order (FPO).** A work order that has reached a user defined status. When this status is entered in the processing options for the various manufacturing programs, messages for those orders are not exploded to the components.

**first in, first out (FIFO).** A method of inventory valuation for accounting purposes, based on the assumption that oldest inventory (first in) is the first to be used (first out). There is no relationship with the actual physical movement of specific items.

**fixed cost.** An expense that does not vary with the production volume, for example, setup cost.

**fixed order quantity.** A lot-sizing technique in MRP or inventory management whereby the system generates planned or actual orders for a predetermined quantity. If the net requirements for a period exceed the fixed order quantity, the system generates orders for multiples of the fixed order quantity.

**fixed overhead.** Manufacturing costs that continue even if products are not produced. Although fixed overhead is necessary to produce the product, it cannot be directly traced to the final product.

**fixed quantity.** A value that indicates that the amount of a component or ingredient used in the manufacturing process of an end item remains the same, regardless of the quantity of the end item produced. Contrast with variable quantity.

**forecast.** An estimate of future demand, determined by mathematical means using historical data, subjective estimates from informal sources, or a combination of both.

**forecast consumption.** The reduction of forecast demand, based on actual sales orders received or shipped, up to the forecast quantity.

**form.** The element of the OneWorld graphical user interface by which the user exchanges data with interactive applications. Forms are made up of controls, such as fields, options, and the grid. These controls allow the user to retrieve information, add and revise information, and navigate through an application to accomplish a task.

**frozen cost.** The cost of an item, operation, or process, after the frozen update program is run, that is used by the Manufacturing Accounting system.

**frozen update program.** A program that freezes the current simulated costs, thereby finalizing them for use by the Manufacturing Accounting system.

**Gantt chart.** A control chart that shows graphically the relationship between planned performance and actual performance.

**grade.** A rating assigned to an item, based on how well the item meets required specifications.

**grid.** A control that displays detail information on a form. The grid is arranged into rows, which generally represent records of data, and columns, which generally represent fields of the record. See also detail area.

**header.** Information at the beginning of a table or form. Header information is used to identify or

provide control information for the group of records that follows.

**indented bill of material.** A multi-level bill of material that lists the highest level parent items at the left margin and all the components going into the patents indented to the right of the margin. All subsequent levels of components are indented farther to the right. If a component is used in more than one parent within a given product structure, it will appear under every subassembly in which it is used.

**indented where-used.** A bill of material listing for one component, every parent item and subassembly, and the respective quantities required. Each of these parent items calls for the given component item in a bill of material table. The component item is shown closest to the left margin of the listing in the bill, with each parent indented to the right, and each of their respective parents indented even further to the right.

**ingredient.** In process manufacturing industries, the raw material or component of a recipe or formula.

**integrity test.** A process used to supplement a company's internal balancing procedures by locating and reporting balancing problems and data inconsistencies.

**interactive processing.** Processing actions that occur in response to commands that you enter directly into the system. During interactive processing, you are in direct communication with the system, and it might prompt you for additional information while processing your request. Contrast with batch processing.

**intermediate.** Material processed beyond raw material and used in higher level items. Intermediates are not stocked in inventory, sold to customers, or planned by material requirements planning.

**in-process inventory.** See work-in-process (WIP).

**item master.** A record for an item. The item master contains descriptive data and control values (leadtimes, lot sizes, and so on), and might contain data on inventory status, requirements, planned orders, and costs. Item master records are linked together by product structure records that define the bill of material for an item.

**job queue.** A group of jobs waiting to be batch processed. See also batch processing.

**Just-in-Time (JIT).** A method of manufacturing based on planned elimination of all waste and continuous improvement of productivity. The primary elements of Just-in-Time manufacturing are to have only the required inventory when needed; to improve quality to zero defects; to reduce leadtimes by reducing setup times, queue lengths, and lot sizes; to revise incrementally the operations themselves; and to keep costs to a minimum.

**kanban.** Information cards attached to a group or bin of items that travel in and out of a work center. Kanbans indicate to producing work centers what has been consumed and what needs to be produced next. Some companies use various shapes, sizes, and colors of cards for ease of recognition and to indicate an item's priority. OneWorld uses electronic kanbans.

**labor cost.** The monetary amount of labor performed during manufacturing.

**ledger type.** A code that designates a ledger used by the system for a particular purpose. For example, all transactions are recorded in the AA (actual amounts) ledger type in their domestic currency. The same transactions may also be stored in the CA (foreign currency) ledger type.

**level.** The code used for every item or assembly in a product structure to signify the relative level in which that item or assembly is used within the product structure. Normally, the end items are assigned to level 0 with the components and subassemblies of the item assigned to level 1 and so forth. The material requirements planning explosion process starts from level 0 and proceeds downward, one level at a time.

**linked service type.** A service type that is associated with a primary service type. Linked service types are cancelled and the maintenance tasks are performed when the primary service type to which they are linked comes due. You can specify whether the system generates work orders for linked service types, as well as the status the system assigns to work orders that have already been generated. Sometimes referred to as associated service types. See also primary service type and service type.

**lot.** A quantity produced together that shares the same production components. Lots are uniquely identified to allow for traceability.

**lot number control.** Assignment of unique numbers to each instance of receipt. This number carries forth into subsequent manufacturing processes. Thus, in

review of an end item lot, each lot consumed can be identified as having been used for the manufacture of the specific end item lot.

**maintenance loop.** See maintenance route.

**maintenance route.** A method of performing PMs for multiple pieces of equipment from a single preventive maintenance work order. A maintenance route includes pieces of equipment that share one or more identical maintenance tasks that can be performed at the same time for each piece of equipment. Sometimes referred to as maintenance loop.

**maintenance work order.** In J.D. Edwards systems, a term used to distinguish work orders created for the performance of equipment and plant maintenance from other work orders, such as manufacturing work orders, utility work orders, and engineering change orders.

**make-to-order product.** A product that is produced after receipt of a customer's order. The final product is usually a combination of standard purchased items and items specially designed to meet the needs of the customer. Frequently, long leadtime components are planned prior to the order arriving to reduce the delivery time to the customer. Contrast with assemble-to-order product. See also make-to-stock product.

**manufacturing and distribution planning.** Planning that includes Resource and Capacity Planning and Material Planning Operations. Resource and Capacity Planning allows you to prepare a feasible production schedule that reflects your demand forecasts and production capability. Material Planning Operations provides a short-range plan to cover material requirements that are needed to make a product.

**manufacturing calendar.** See work day calendar.

**master planning family.** Products that are grouped together for material planning purposes, based on shared characteristics.

**Master Production Scheduling (MPS).** The act of creating a master schedule. See also master schedule.

**master schedule.** A detailed statement of how many items are planned to be produced and when. The master schedule focuses on products to be made and, through the detailed planning system, identifies the resources (materials, work force, plant equipment,

and capital) needed and the timing of the need. See also material requirements planning.

**master table.** A database table used to store data and information that is permanent and necessary to the system's operation. Master tables might contain data, such as paid tax amounts, supplier names, addresses, employee information, and job information.

**material requirements planning (MRP).** A set of techniques that uses bill of material, inventory data, and the master schedule to calculate the time-phased net material requirements for every component item and subassembly. MRP suggests a replenishment plan to support the production of the quantities that are specified in the master schedule. See also master schedule.

**menu masking.** A security feature that lets you prevent individual users from accessing specified menus or menu selections.

**model work order.** In Equipment/Plant Management, a work order that functions as a template for the creation of other work orders. You can assign model work orders to service types. When the service type comes due, the system automatically generates a work order based on information from the model work order.

**net added cost.** The cost to manufacture an item at the current level in the bill of material. Thus, for manufactured parts, the net added cost includes labor, outside operations, and cost extras applicable to this level in the bill of material, but not materials (lower-level items). For purchased parts, the net added cost also includes the cost of materials.

**next numbers.** A feature used to control the automatic numbering of items such as new G/L accounts, vouchers, and addresses. Next numbers provides a method of incrementing numbers.

**nonconforming product.** Items that do not meet the requirements of a relevant specification, contract, regulation, or quality test.

**nonsignificant item numbers.** Item numbers that are assigned to each item but do not convey any information about the item. They are identifiers, not descriptors. Contrast with significant item numbers.

**operation sequence.** The sequential steps that an item follows in its flow through the plant. For instance, operation 10: cut bar stock; operation 20: grind bar stock; operation 30: shape; operation 40:

polish; operation 50: inspect and send to stock. This information is maintained in the routing table.

**operation yield.** The planned percent of output at an operation. For example, if the operation yield is 90% and 100 units are started at that operation, planned output is 90 units that will be available to the next operation.

**output queue.** See print queue.

**overlap.** The percentage by which an operation overlaps the previous operation in the sequence. For example, a 20% overlap means that a step can begin when the previous step is 80% complete.

**parameter.** A number, code, or character string you specify in association with a command or program. The computer uses parameters as additional input or to control the actions of the command or program.

**parent item.** See end item.

**parent/child relationship.** See parent/component relationship.

**parent/component relationship.** 1) In Equipment/Plant Management, the hierarchical relationship of a parent piece of equipment to its components. For example, a manufacturing line could be a parent and the machinery on the line could be components of the line. In addition, each piece of machinery could be a parent of still more components. 2) In Product Data Management, a hierarchical relationship of the components and subassemblies of a parent item to that parent item. For example, an automobile is a parent item and its components and subassemblies include: engine, frame, seats, and windows. Sometimes referred to as parent/child relationship.

**pay on consumption.** The method of incurring a liability for items received from a supplier only when the material is used in the production process.

**phantom bill of material.** A bill of material used primarily for non-stocked items that represents an item that is physically built, but rarely stocked. The item is instead used in the next step or level of manufacturing. Material requirements planning uses the phantom bill of material to explode the requirements through the phantom item to its components. See also explosion.

**planning bill of material.** An artificial grouping of items or events in bill of material format, used to facilitate master scheduling of material planning,

and forecasting. Sometimes referred to as pseudo bill of material.

**planning calendar.** See work day calendar.

**planning family.** A means of grouping end items whose similarity of design and manufacture facilitates being planned in aggregate.

**PM.** Maintenance tasks and procedures that are routine and repetitive, such as periodic lubrications and filter replacements. Preventive maintenance procedures are designed to eliminate breakdowns and the need for corrective maintenance. Contrast with corrective maintenance and predictive maintenance.

**potency.** Identifies the percent of a process item in solution. For example, 80% solution could be used in a process that called for 100%, but would require 25% more in terms of quantity to meet the requirement ( $100 / 80 = 1.25$ ).

**predictive maintenance.** A maintenance strategy that uses computerized data collection and analysis of equipment operating parameters to predict the point at which equipment is expected to fail and then schedules the appropriate procedures just before the expected equipment failure. Predictive maintenance can significantly reduce costs and equipment downtime by eliminating unnecessary preventive maintenance procedures. In addition, by predicting and averting catastrophic equipment failure, predictive maintenance reduces overall maintenance costs and allows for equipment to be operated for its full service life. Contrast with corrective maintenance and preventive maintenance.

**preference profile.** The ability to define default values for specified fields for a user defined hierarchy of items, item groups, customers, and customer groups.

**preflush.** To deduct materials from inventory when the parts list and routing are attached.

**preventive maintenance (PM).** One or more service types that are due to be performed for a piece of equipment, based on the service intervals for each service type. When you complete a preventive maintenance, a new preventive maintenance cycle begins for the service types included in the preventive maintenance.

**preventive maintenance cycle.** The sequence of events that make up a preventive maintenance task, from its definition to its completion. Because most

preventive maintenance tasks are commonly performed at scheduled intervals, parts of the preventive maintenance cycle repeat, based on those intervals.

**preventive maintenance schedule.** The combination of service types that apply to a specific piece of equipment, as well as the intervals at which each service type is scheduled to be performed.

**primary location.** The designation of a certain storage location as the standard, preferred location for an item.

**primary service type.** A service type to which you can link related service types. For example, for a particular piece of equipment, you might set up a primary service type for a 1000-hour inspection and a linked service type for a 500-hour inspection. The 1000-hour inspection includes all tasks performed at 500 hours. When a primary service type is scheduled to be performed, the system schedules the linked service type. See also linked service type.

**print queue.** A list of tables, such as reports, that you have submitted to be written to an output device, such as a printer. The computer spools the tables until it writes them. After the computer writes the table, the system removes the table identifier from the print queue.

**priority.** 1) The relative importance of jobs in a queue. 2) The sequence in which jobs should be completed.

**processing option.** A feature that allows you to direct the functions of a program. For example, processing options allow you to specify defaults for certain forms, control the format in which information prints on reports, and change how information appears on a form or in a report.

**Product Data Management (PDM).** In J.D. Edwards software, the system that enables a business to organize and maintain information about each item it manufactures. Features of this system, such as bills of material, work centers, and routings, define the relationships among components and how they can be combined to manufacture an item. PDM also provides data for other manufacturing systems including Manufacturing Accounting, Shop Floor Management, and Manufacturing and Distribution Planning.

**product family.** See master planning family.

**product line.** A group of products whose similarity in manufacturing procedures, marketing

characteristics, or specifications allow them to be aggregated for planning, marketing, and occasionally, costing. See also master planning family.

**production line.** A series of work centers or machines allocated to the production of a limited number of items with similar routings.

**projected cost.** The target expenditure in added value for material, labor, and so forth during manufacture. See also standard cost.

**pseudo bill of material.** See planning bill of material.

**purchased part.** An item bought from a supplier.

**purge.** The process of removing records or data from a system table.

**queue.** The jobs waiting to be processed at a given work center. As queues increase, so do average queue time and work-in-process inventory.

**recipe.** See bill of material.

**record.** A collection of related, consecutive fields of data that the system treats as a single unit of information.

**repetitive manufacturing.** Producing items in high-volume concentration, often with entire production lines dedicated to a family of products.

**replacement parts.** Parts that can be used as substitutes. They differ from completely interchangeable service parts in that they require some physical modification, such as cutting, drilling, and so forth, before they can replace the original part.

**replenishment point.** The location on or near the production line where additional components or subassemblies are to be delivered.

**requirements explosion.** See explosion.

**reserved material.** See committed material.

**resource requirements planning (RRP).** The process of converting the production plan into capacity needs for key resources, such as workforce, machinery, warehouse space, suppliers' capabilities, and in some cases, money. Comparison of capacity required of items in the master schedule to available capacity is usually done for each key resource.

**restricted by-product.** A restricted secondary or incidental product produced while making another product. Such by-products cannot be sold because

they are restricted from sale by government policies. The company might have to forego making a product if a restricted by-product is produced.

**revision level.** A number or letter representing the number of times a document or item has been changed.

**rollup.** See cost rollup.

**rough cut capacity planning (RCCP).** The process of converting the master schedule into capacity needs for key resources, such as workforce, machinery, warehouse space, suppliers' capabilities, and in some cases, money. Comparison of capacity required of items in the master schedule to available capacity is usually done for each key resource.

**run size.** See standard batch quantity.

**safety stock.** 1) A quantity of stock planned to be on hand to protect against fluctuations in demand or supply. 2) In Master Production Scheduling, the additional inventory or capacity planned as protection against forecast errors or short-term changes in the backlog. Overplanning can be used to create safety stock.

**scheduling workbench.** A multiple-function program that allows the sequencing of work orders, rate schedules, or both on a production line. Sequencing can be manual or automatic, based on user defined category code definition. Sequencing includes forward, finite scheduling, including the option to cross shifts or days.

**scrap.** Unusable material that results from the production process. Scrap is material outside of specifications and of such characteristics that rework is impractical.

**scrap rate.** See scrap factor.

**sequencing.** Determining the order in which a facility processes different jobs.

**serial number.** A unique number assigned to identify a specific item with a lot size of one.

**service interval.** The frequency at which a service type is to be performed. Service intervals can be based on dates, periods, or statistical units that are user defined. Examples of statistical units are hours, miles, and fuel consumption.

**service type.** An individual preventive maintenance task or procedure, such as an inspection, lubrication, or overhaul. Service types can apply to a specific piece of equipment or to a class of equipment. You can specify that service types come due based on a

predetermined service interval, or whenever the task represented by the service type becomes necessary.

**setup cost.** The labor costs associated with setting up an operation for the next product.

**shop calendar.** See work day calendar.

**Shop Floor Management.** A system that uses data from Product Data Management, Master Production Scheduling, and Material Requirements Planning to create, maintain, and communicate status on shop orders (work orders).

**shrink factor.** A percentage factor in the item master record that compensates for expected loss during the manufacturing cycle either by increasing the gross requirements or by reducing the expected completion quantity of planned and open orders. The shrink factor differs from the scrap factor in that the former affects all uses of the part and its components and the scrap factor relates to a single component. Sometimes referred to as shrinkage rate.

**shrinkage rate.** See shrink factor.

**significant item numbers.** Item numbers that are intended to convey certain information, such as the source of the part, the material in the part, the shape of the part, and so forth. Contrast with nonsignificant item numbers.

**simulated cost.** After a cost rollup, the cost of an item, operation, or process according to the current cost scenario. This cost can be finalized by running the frozen update program. You can create simulated costs for a number of cost methods, for example, standard, future, and simulated current costs. See also cost rollup.

**single level where-used list.** A type of bill of material that lists each parent in which a specific component is directly used and in what quantity it is used.

**specification.** A statement of the technical requirements of an application or item and the process involved to ensure the requirements are met.

**spool.** The function by which the system stores generated output to await processing.

**standard cost.** The expected, or target cost of an item, operation, or process. Standard costs represent only one cost method in the Product Costing system. You can also calculate, for example, future costs or current costs. However, the Manufacturing Accounting system uses only standard frozen costs.

**standard costing.** A costing method that uses cost units determined before production. For management control purposes, the system compares standard costs to actual costs and computes variances.

**standard hours.** The length of time that should be required to 1) set up a given machine or operation and 2) run one part, assembly, batch, or end product through that operation. This time is used in determining machine and labor requirements. It is also frequently used as a basis for incentive pay systems and as a basis for allocating overhead in cost accounting systems.

**subassembly.** An assembly that is used at a higher level to make up another assembly.

**substitution.** To use alternate components in production when primary items are not available.

**summary.** The presentation of data or information in a cumulative or totaled manner in which most of the details have been removed. Many systems offer forms and reports that summarize information stored in certain tables. Contrast with detail.

**super backflush.** To create backflush transactions against a work order at pay points defined in the routing. By doing so, you can relieve inventory at strategic points throughout the manufacturing process. See also backflush.

**supplier scheduling.** A process of providing suppliers with consistent shipping information and advanced demand profiles to support just-in-time production and delivery. The supplier scheduling system includes a business agreement and delivery schedule for each supplier. Supplier scheduling includes a formal priority planning system and EDI functionality to provide the supplier with valid due dates.

**supply chain.** The link from the initial raw materials to the consumption of the finished product.

**supplying location.** The location from which inventory is transferred once quantities of the item on the production line have been depleted. Used in kanban processing.

**system.** A group of related applications identified by a name and a system code. For example, the Address Book system code is 01. All applications, tables, and menus within a system can be identified by the system code.

**system code.** A code that identifies a system, for example, 01 for the Address Book system and 31 for the Shop Floor Management system.

**table.** In database environments, a two-dimensional entity made up of rows and columns. All physical data in a database are stored in tables. See also file.

**threshold percentage.** In Equipment/Plant Management, the percentage of a service interval that you define as the trigger for maintenance to be scheduled. For example, you might set up a service type to be scheduled every 100 hours with a threshold percentage of 90 percent. When the equipment accumulates 90 hours, the system schedules the maintenance.

**traceability.** The ability to trace the production history of a product for quality or warranty purposes. This is usually done through the use of lot or serial numbers to link raw materials from the supplier to the end product. Lot/serial number traceability can be a government requirement in certain regulated industries, such as the pharmaceutical or automotive industries. See also lot.

**unit cost.** The total cost of labor, material, and overhead for one unit of production.

**unit of measure.** The standard quantity by which an item is managed, such as by weight, box, package, case, each, and so forth.

**user defined code (UDC).** A code that users can define, assign code descriptions, and assign valid values. Examples of such codes are unit-of-measure codes, state names, and employee type codes.

**user defined code type.** The identifier for a table of codes with a meaning that you define for the system, such as ST for the Search Type codes table in Address Book. OneWorld provides a number of these tables and allows you to create and define tables of your own.

**value added.** Amount of increased worth of inventory through manufacturing, processing, or packaging.

**variable quantity.** A value that indicates the amount of a component or ingredient that varies based on the quantity of the end product produced. Contrast with fixed quantity.

**variance.** 1) In Product Costing and Manufacturing Accounting, the difference between two methods of costing the same item. For example, the difference between the frozen standard cost and the current

cost is an engineering variance. Frozen standard costs come from the Cost Components table, and the current costs are calculated using the current bill of material, routing, and overhead rates. 2) In Equipment/Plant Management, the difference between revenue generated by a piece of equipment and costs incurred by the equipment.

**vocabulary overrides.** A feature that you can use to override field, row, or column title text on forms and reports.

**work day calendar.** A calendar, used in planning functions, that consecutively lists only working days so that component and work order scheduling can be done based on the actual number of work days available. Sometimes referred to as planning calendar, manufacturing calendar, or shop floor calendar.

**work order life cycle.** In Equipment/Plant Management, the sequence of events through which a work order must pass to accurately communicate the progress of the maintenance tasks it represents.

**work-in-process (WIP).** One or more products in various stages of completion throughout the plant, including all material from raw material that has been released for initial processing up to completely processed material awaiting final inspection and acceptance as finished product. Sometimes referred to as in-process inventory.

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