Infor VISUAL System-wide User's Guide

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Chapter 1: About This Guide

This guide covers features that affect multiple areas of VISUAL. The chapters are:

Application Global Maintenance – This chapter describes how to set up basic default information that applies to your entire enterprise. If you have multiple accounting entities and sites, the information you set up in Application Global Maintenance applies to all of your accounting entities and sites.

Accounting Entity Maintenance – This chapter describes how to set up accounting entities.

Site Maintenance – This chapter describes how to set up sites.

Costing – This chapter discusses the impact of using the various costing methods.

Document Maintenance – This chapter describes how to add documents and URLs to your database that you can reference in other records.

Message Maintenance – This chapter describes how to use the messaging system.

Employee Maintenance – This chapter describes how to set up employee records in your database.

Workflow – This chapter describes how to set up workflows. Workflows are a set of predefined conditions that you can use to guide users through specific business tasks.

Allocation Utilities – This chapter describes how to use the Allocation Utilities to perform soft allocations of supply quantities to customer order demand in a "batch mode.

Data Interchange – This chapter describes how to use Electronic Data Interchange, an optional module that imports and exports data into and out of VISUAL.

Prerequisite Knowledge

You should be familiar with the information in the *Infor VISUAL Concepts and Common Features Guide*.

Related Information

These guides contain information related to this guide:

- *Infor VISUAL Sales User's Guide*
- *Infor VISUAL Purchasing User's Guide*
- *Infor VISUAL Inventory User's Guide*
- *Infor VISUAL Manufacturing User's Guide*

Chapter 2: Application Global Maintenance

This chapter describes these topics:

Topics

What Is Application Global Maintenance?

Use Application Global Maintenance to set up information about your tenant or "corporate parent." Each database can have only one tenant. Most of the information you define in Application Global Maintenance applies to all accounting entities and sites in your database. You can override some information you define in Application Global Maintenance in Accounting Entity Maintenance or Site Maintenance.

Information defined at the tenant level includes:

- Certain application-wide information, such as purchase quote type, the default directory for documents, and interface theme
- Common codes, such as Honorifics, Packaging Types, Carriers, Workflow Codes, Commodity Codes, and Units of Measure

Accessing Application Global Maintenance

Use Application Global Maintenance to define the tenant. To access Application Global Maintenance, select **Admin**, **Application Global Maintenance**.

Specifying General Information

Use the General tab to specify this information:

- Corporate address
- Barcode transaction system time limit
- Number of recently used files to display in the File menu of certain windows
- Purchase quote type
- Synchronizer records setting

To specify information on the General tab:

1   Click the **General** tab.

2   In the address fields, specify your company's corporate name and address.

    If you have multiple accounting entities or multiple sites, you can specify different addresses for your accounting entities in Accounting Entity Maintenance and for your sites in Site Maintenance.

    If you have one accounting entity and one site, specify the company address in Application Global Maintenance. The address information in Accounting Entity Maintenance and Site Maintenance is not used in a single accounting entity, single site database.

3   If you are licensed to use the Barcode Transaction System, in the Barcode Transmission System section specify the number of minutes to wait for a response from the system before the current transaction is cleared.

4   To specify the number of recently accessed records to display, click the **Recent File List Limit** arrow and select the number of records you would like to add to the File menu.

    You can choose to list up to 9 records.The recently used files list is used in these applications:

- Customer Maintenance
- Sales Order Entry
- Sales Order Management Window
- Purchase Order Entry
- Purchase Order Management Window
- Part Maintenance
- Vendor Maintenance

    The recently used records setting you specify is applied to all of the applications that support the recently used file list. You cannot use the recently used records feature in only some of the applications. If you specify a number in the Recently Used Records field, then all of the applications that support the feature will display a list of recently used records.

    Recently used records will be tracked and displayed on the File menu after you specify a setting in the Recent File List Limit field.

    To de-activate the feature, specify 0 in the Recent File List Limit field.

5   In the Purchase Quote Type section, specify how to enter quantities in vendor quotes. Click one of these options:

Quantity-break tables – To specify a default price that applies to quantities from 1 to the quantity you specify in the first quantity break, click this option.

For example, presume you specified this vendor pricing information:

	Quantity	Price
Default		$50
Break 1	25	$40
Break 2	50	$30
Break 3	100	$20

If you ordered a quantity between 1 and 24, the vendor would charge $50 per unit. If you ordered a quantity between 25 and 49, the vendor would charge you $40 per unit. If you ordered a quantity between 50 and 99, the vendor would charge you $30 per unit. If you ordered a quantity of 100 or more, then vendor would charge you $20 per unit.

Up-to-Quantity – To specify a default price that applies to quantities greater than the largest up-to quantity you specify, click this option.

For example, presume you specified this vendor pricing information:

	Quantity	Price
Up to 1	25	$50
Up to 2	50	$40
Up to 3	100	$30
Default		$20

If you ordered a quantity between 1 and 25, the vendor would charge $50 per unit. If you ordered a quantity between 26 and 50, the vendor would charge $40 per unit. If you ordered a quantity between 51 and 100, the vendor would charge $30 per unit. For all quantities 101 and above, the vendor would charge the default price of $20 per unit.

6   To create Synchronizer Records for your warehouse management system, select the **Create Synchronizer Records** check box.

7   To display the Financial menus, select the Financial Interface in Use check box. If you are licensed to use VISUAL Financials, you can access the applications from the financial menus. To hide Financial menus, clear the check box.

8   In the Default Oldest Open Invoice section, specify a default setting for defining the oldest past due customer invoice. The system uses this information to help determine if the customer has an unpaid invoice that exceeds the receivable aging threshold that you specify in Customer Maintenance. The setting you specify in Application Global Maintenance is applied to any new customers you create. You can override the setting in Customer Maintenance. Click one of these options:

Determined by Invoice Date – To use the date of the invoice to identify the oldest past due invoice, click this option.

Determined by Due Date – To use the date that the full amount of the invoice is due to identify the oldest past due invoice, click this option.

9   Click the **Save** button.

Specifying Scheduling Information

Use the Scheduling tab to define the standard workday and shift information for your enterprise.

If you have multiple sites, you can define scheduling information specific to the sites in Site Maintenance. If you choose not to define calendars specific to your sites, the schedule you specify here is used instead.

If you are licensed to use a single site, the scheduling information you define in Application Global Maintenance is used. Any scheduling information defined in Site Maintenance is ignored.

For both single site and multi-site users, you can define schedules for your shop resources in Shop Resource Maintenance.

To define the standard shop calendar:

1   Click the **Scheduling** tab.

2   Enter the starting time for the first shift for each day of the week in the 1st Shift Start field.

By default, the first shift is presumed to start in the morning (AM).

3   For each day that has 1st Shift Start, specify the length in hours of the first, second, and third shifts. If a shift is not worked, enter a 0.

The totals of the three shifts cannot exceed 24 hours.

First Shift is the period of hours starting at the 1st Shift Start time and ending after the specified number of hours in the shift. Second shift follows immediately after the first shift and ends after the specified number of hours. Third shift is immediately after the second shift; it ends after the specified number of hours.

For example, if you specify a shift start of 7:00:00 AM, a first shift length of 8 hours, a second shift length of 8 hours, and a third shift length of 4 hours, first shift is 7:00 AM to 3:00 PM, second shift is 3:00 PM to 11:00 PM, and third shift begins at 11:00 PM and runs until 3:00 AM.

4   Click **Save**.

Deleting Calendar Selections

To clear a line on your Standard Shop Calendar:

1   Select the line to clear.

2   Click the **Delete Selections** button.

An X is displayed in the row header to indicate that you have marked the entry for deletion.

3   Click **Save**. The information in the row is cleared.

Specifying Calendar Exceptions

In some instances, you may need to change a normal shift day, such as for a holiday. Use Calendar Exceptions to define changes to the standard schedule.

If you have multiple sites, you can import the calendar exceptions in Application Global Maintenance into the calendar exceptions you define in Site Maintenance.

1 Select **Maintain**, **Calendar Exceptions**.

2 Click **Insert**.

3 Specify the start date and end date for the exception. For example, if the resource will not be available on January 1, 2012, enter 1/1/12 for the start and end date.

4 Specify the time that the First shift starts.

5 Enter the shift duration for the exception. If the shift is not to work at all, specify zero (0) in that shift's column.

The scheduler uses the information to adjust the normal weekly calendar setting for the date of the exception, thereby giving an accurate estimation of resource availability.

6 Click **Save**.

You can modify and add information to the Shop Calendar and Exception Days Table at any time. The changes take effect the next time you run the Global Scheduler.

Deleting Calendar Exceptions

To delete an exception:

1 Highlight the exception line and click **Delete**.

An X is displayed to indicate that the row is marked for deletion.

2 Click **Save**.

The exception is removed from the table.

Specifying Default Information

Use the Defaults tab to specify certain application-wide information, including:

- Trace ID information
- How to use customer pricing in shipping entry
- Default Document Maintenance options
- Password requirements in Workflow
- PLM connection settings
- Where to store macros

To specify information on the Defaults tab:

1   Click the **Defaults** tab.

2   If you use trace IDs in labor transactions and service receipts, select the **Only Trace Qty from Preceding Operation** check box to force users to enter trace IDs sequentially at every labor transaction or service receipt. Clear this check box if you do not want to force users to enter trace IDs sequentially.

3   Use the Customer Price Effectivity in Shipping section to specify how the customer-specific pricing information should be used when shipping an order to the customer. In Customer Maintenance, you specify pricing information for each part the customer buys in the part pricing table. When you specify the pricing information, you specify dates that the pricing is effective. Click one of these options to specify how to use the part pricing information:

Always Require Price in Table – If you require that a unit price be specified in the customer's part pricing table, click this option.

Use price on Order Line if Price is Not in Table – To use the price specified in the customer order if no price exists in the customer's part pricing table, click this option.

Warn if Price is Not in Table, Use Price on Order Line – To display a warning if no price exists in the customer's part pricing table, click this option. If you continue with the shipment, the price specified in the customer order is used.

The setting you specify in Application Global Maintenance is the default setting. You can override the setting for individual parts in Part Maintenance.

4   In the Documents section, specify the default email information to use in Document Maintenance:

Allow Emailing Associated Documents (default) – Use this check box to specify the default setting for the Allow Emailing check box in Document Maintenance. If you select the **Allow Emailing Associated Documents (default)** check box, the Allow Emailing check box in Document Maintenance is selected by default. If you clear the **Allow Emailing Associated Documents (default)** check box, the Allow Emailing check box in Document Maintenance is cleared by default. You can override the default setting in Document Maintenance.

5   To require the use of passwords for secured fields when working with workflows, select the **Passwords Required for Secured Fields** check box.

6   In the Terms section, specify this information:

Default Terms – Select the terms to use as the default for new customer and vendor records. The terms that you select are also used as the default terms on transactions when another source of terms definitions, such as a customer or vendor record, cannot be found. If you leave this field blank, then Due on Receipt is used as the default terms.

You cannot specify terms with specific date definitions or installments. These types of terms are not displayed when you click the **Terms** browse button.

Due on Receipt ID – If you have set up more than one terms ID as due on receipt, use this field to specify the terms ID to use as the default Due on Receipt ID. Terms are designated as due on receipt if these conditions are met:

- The Discount type and Net type are Age of Invoice
- The Discount days and Net days are 0
- The Discount % is 0
- The freight terms are billed

When you click the browse button, only the terms that meet the criteria for due on receipt are displayed.

The terms that you select are used on transactions when default terms have not been defined on the customer or vendor record and the Default Terms field in Application Global Maintenance is blank.

If you leave this field blank, then the first terms ID in the database that meets the criteria for due on receipt is used as the default.

If you specify a default Due on Receipt terms ID, it is used on all AP and AR memos. If you do not specify a default Due on Receipt terms ID, then the first terms ID in the database that meets the criteria for due on receipt is used.

7   If VISUAL is integrated to Infor PLM, you can directly access PLM from Part Maintenance. Use the PLM Integration section to specify default PLM access information for all sites in your database. You can override the information you specify in Application Global Maintenance for each of your sites in Site Maintenance. Specify this information:

Login URL – Specify the external launch URL for Web PLM.

Enable – To allow direct access to PLM for all sites by default, select this check box. To prevent direct access to PLM for all sites by default, clear this check box.

8   In the Macros section, specify how to store macros and where to read macros. Macros can be stored and read from the workstation or from the database.

To store macros in and read them from the database, select the Store Macros in Database check box. After you select the check box, these conditions apply:

- When a user runs a macro, the macro is read from the database.
- Any macros created after the check box is selected are stored in the database.

To store macros on and read them from the workstation, clear the check box. After you clear the check box, these conditions apply:

- When a user runs a macro, the macro is read from the workstation.
- Any macros created after the check box is selected are stored on the workstation.

You cannot read certain macros from the database and other macros from the workstation. If you previously stored macros on the workstation but now store them in the database, you can load your existing macros from the workstation to the database. Similarly, if you previously stored macros in the database but now store them on the workstation, you can load your existing macros from the database onto the workstation. See "Storing Macros" on page 4–28 in the Concepts and Common Features guide.

9   Click **Save**.

Specifying System-wide Codes

Use the options in the Maintain menu to specify common codes used throughout your enterprise.

Working with Table Maintenance

These codes are available from the Table Maintenance section of the Maintain menu:

SIC Table – Standard Industrial Classification codes classify various companies by the products they produce.

AIC Table – You can use AIC codes (Another Industrial Codes) as an alternative to SIC codes.

Ship Via Table – Ship Via codes represent the various methods you use to ship product to your customers.

FOB Point Table – FOB (Free On Board) codes determine at what point in the shipping process the customer must take responsibility for shipping fees for the goods your company is shipping.

States and Provinces – The system includes the abbreviations for the 50 United States and the Canadian provinces.

Countries – Countries with whom you do business.

Territory Table – Territory codes represent the various geographical regions in which your company conducts business.

Commodity Table – Commodity codes represent the class of materials used by your company.

Honorific Table – Honorifics precede an individual's name. Examples include Mrs., Mr., and Dr.

Entering Information into Code Tables

To enter codes:

1   Select **Maintain**, **Table Maintenance**, then select the option for the code you are entering. For example, to enter SIC Codes, select **Maintain**, **Table Maintenance**, **SIC Table**.

2   Click **Insert**.

3   Specify the code.

4   For all tables except the Honorific table, enter a description of the code. The Honorific table does not include a description field.

5   Click **Save**.

Specifying FOB Point Codes in a Multi-site Database

In a multi-site database, one site can purchase materials from another site. When you enter the purchase order, the FOB code you use indicates which site owns the materials while they are in transit. The code you use determines when financial transactions associated with shipping occur.

To specify the in-transit owner, click the Intransit arrow and select one of these options:

Shipping – The site shipping the materials owns the materials while they are in transit.

Receiving – The site the materials are being shipped to owns the materials while they are in transit.

If you leave the Intransit field blank, then neither site owns the materials while they are in transit. The shipping site no longer owns the materials as soon as they are shipped. The receiving site assumes ownership of the parts as soon as they are received.

Specifying User Dimensions

If you use dimensional reporting, you can attach user dimensions for commodity codes and for territory codes.

Commodity code user dimensions can be used in these transactions:

- Receivable Invoice
- Shipment
- Payable Invoice
- Purchase Receipts
- Inventory Adjustments
- Work Order Issues
- Work Order Labor
- Work Order Service
- Work Order Finished Goods

Territory code user dimensions can be used in these transactions:

- Receivable Invoice
- Shipment

You can set up different user dimensions for each code. Use the User Dimensions dialog box to specify which user dimensions to associate with a particular code. Use the User Dimensions Priorities dialog box available in the Accounting Window to determine when the warehouse user dimension IDs should be used. See "Cost Centers" on page 2-1 in the General Ledger guide.

To associate user dimensions with codes:

1 From the Commodity Code table or the Territory table, click **User Dimensions...**.

2 In the left pane, each user dimension group is listed. Expand the list under the user dimension group to view the transactions in which code user dimensions can be used.

To assign the same dimensions to all transaction types, click the name of the dimension group in the left pane. All Subledgers is inserted in the Subledger field.

To assign dimensions to a particular transaction type, select the appropriate transaction type. The transaction type is inserted in the Subledger field.

3   Click **Insert**.

4   Specify this information:

Valid From – Specify the date the dimension assignment becomes effective.

Debit Dimension – Double-click the browse button and select the dimension to use for account debits.

Credit Dimension – Double-click the browse button and select the dimension to use for account credits.

5   Click **Save**.

Deleting Information from Code Tables

To delete codes from tables:

1   Select **Maintain**, **Table Maintenance**, then select the option for the code you are deleting.

2   Select the line to delete.

3   Click **Delete**.

An X is displayed in the row header indicating you have marked it for deletion.

4   Click **Save**.

Working with Reasons Maintenance

You can define these codes in the Reasons Maintenance section of the Maintain menu:

RMA – A Return Material Authorization (RMA) is a document that controls the return of some part or parts previously sold and shipped to a customer. Use RMA Reason Codes to specify why a customer is returning a part.

Adjustment Reason Table – Use Adjustment Reasons to specify why you are making an adjustment.

Issue/Return/Transfer Reasons – Use Issue/Return/Transfer reasons to specify why you are moving inventory.

Deviation Reasons – Use Deviation Reason codes to specify why the quantity used is different from the quantity completed. To set the requirement for Deviation Reason, refer to Site Maintenance.

Inspection Reasons – Use Inspection reasons to specify why parts and materials are inspected.

Entering Information Into Reason Tables

To enter reason codes:

1   Select **Maintain**, **Reasons Maintenance**, then select the option for the code you are entering. For example, to enter RMA Reasons Codes, select, **Maintain**, **Reasons Maintenance**, **RMA Reasons**.

2   Click **Insert**.

3   Specify the code.

4   Specify a description of the code.

5   If you are specifying Issue/Return/Transfer reason codes, click the I**ssue/Return/Transfer** arrow and select the types of transactions to which the reason code applies. You can select a single type of transaction (for example, Returns only) or any combination of transactions.

6   Click **Save**.

Deleting Information From Reason Tables

To delete codes from tables:

1   Select **Maintain**, **Reasons Maintenance**, then select the option for the code you are deleting.

2   Select the line to delete.

3   Click **Delete**.

An X is displayed in the row header indicating you have marked it for deletion.

4   Click **Save**.

Working With Accounting Maintenance

These codes are available from the Reasons Maintenance section of the Maintain menu:

Department Table – Departments represent the individual areas you use in your manufacturing facility.

Terms Table – Terms describe the payment arrangements you use.

Entering Information Into the Department Maintenance Table

To enter department codes:

1   Select **Maintain**, **Accounting Maintenance**, **Department Table**.

2   Click the **Insert** button.

3 Specify this information:

ID – Specify the ID for the department.

Description – Specify the description of the department.

4 Click **Save**.

Specifying User Dimensions

If you are using user dimensions, assign a user dimension to your department IDs. To assign a user dimension:

1 Select the department to which you are assigning user dimensions.

2 Click **User Dimensions**.

3 In the left pane, each user dimension group is listed. Expand the list under the user dimension group to view the transactions in which this record is used.

To assign the same dimensions to all transaction types, click the name of the dimension group in the left pane. All Subledgers is inserted in the Subledger field.

To assign dimensions to a particular transaction type, select the appropriate transaction type. The transaction type is inserted in the Subledger field.

4 Click **Insert**.

5 Specify this information:

Valid From – Specify the date the dimension assignment becomes effective.

Debit Dimension – Double-click the browse button and select the dimension to use for account debits.

Credit Dimension – Double-click the browse button and select the dimension to use for account credits.

6 Click **Save**.

Deleting Information From the Department Maintenance Table

To delete codes from tables:

1 Select **Maintain**, **Accounting Maintenance**, **Department Maintenance**.

2 Select the department to delete.

3 Click **Delete**.

An X is displayed in the row header indicating you have marked it for deletion.

4 Click **Save**.

Note: The department is not deleted from the database until you click *Save*.

Entering Information into the Terms Table

Note: If you use Infor VISUAL Financials Global Edition, this menu selection is not available. You must define terms in VISUAL Financials Global Edition. Refer to the VISUAL Financials Global Edition online help.

Use Terms Maintenance to define the payment terms you use when you invoice customers and when vendors invoice you. Terms are used in several windows, including Customer Maintenance, Customer Order Entry, the Estimating Window, Receivable Invoice Entry, Vendor Maintenance, Purchase Order Entry, and Payable Invoice Entry.

To add terms:

1 Select **Maintain**, **Accounting Maintenance**, **Terms Table**.

2 Click **Insert**.

3 In the Discount Terms section, specify this information:

Type – Click the **Type** arrow and select the type of discount term you are entering.

You can select:

Age of Invoice – If discounts are based on a specific number of days from the invoice date, select the **Age of Invoice** option. If you select Age of Invoice, you must specify the number of days you will offer the discount and the discount percentage.

Day of month – If discounts apply only if payment is received before the next occurrence of the day of month you specify, select the **Day of month** option. If you select Day of Month, you must specify the day of the month to use and the discount percentage.

Specified Date – If discounts apply only if payment is received before a specific date, select the **Specified Date** option. If you select Specified Date, you must specify the fixed date to use and the discount percentage.

Invoice age, day of month – If discounts are based on a combination of a specific Invoice age and day of the month, select the **Invoice age, day of month** option. If you select Invoice age, day of month, you must specify the number of months and day of the month to use and the discount percentage.

EOM, no of days – If discounts are based on a specific day of the month but several months from the invoice date, select the **EOM, no. of days** option. If you select EOM, no. of days, you must specify the number of months to allow, the day of the month on which the discount will end, and the discount percentage.

For example, if you select EOM, no. of days and specify:

Months = 2

Day of Month = 7

Discount % = 2.00

This discount rule is applied:

2% if paid on or before the 7th day of the month, 2 months from the invoice date.

If the invoice date is May 10th, 2011, the discount is applied until July 7th, 2011.

4 In the Net section, specify this information:

Type – Click the **Type** arrow and select the type of term you are entering.

You can select:

Age of Invoice – If payment terms are based on a specific number of days from the invoice date, select the **Age of Invoice** option. If you select Age of Invoice, then you must also specify a number the days to use.

Day of month – If payment terms are based on receiving payment before the next occurrence of the day of month you specify, select the **Day of month** option. If you select Day of Month, you must specify the day of the month to use.

Specified Date – If payment terms are based on receiving payment before a specified date, select the **Specified Date** option. If you select Specified Date, you must specify the fixed date to use.

Invoice age, day of month – If payment terms are based on a combination of a specific Invoice age and day of the month, select the **Invoice age, day of month** option. If you select Invoice age, day of month, you must specify the number of months and day of the month to use.

EOM, no of days – If payment terms are based on a specific day of the month but several months from the invoice date, select the **EOM, no. of days** option. If you select EOM, no. of days, you must specify the number of months to allow and the day of the month on which the payment is due.

For example, if you select EOM, no. of days and specify:

Months = 3

Day of Month = 2

This payment rule is applied:

Payment is due on or before the 2nd day of the month, 3 months form the invoice date.

If the invoice date is May 10th, 2011, the payment rule is applied until August 2nd, 2011.

Installments – If payment terms are based on installments, select **Installment**.

5 In the Freight Terms section, specify when freight charges are applied. Select one of these options:

Prepaid – If freight must be paid before shipment, select the **Prepaid** option.

Billed – If freight charges are to be included in the invoice, select the **Billed** option.

Collect – If the shipping company collects the freight charges, select the **Collect** option.

6 In the Discount Basis section, specify the amount on which the discount is calculated on Receivable Invoices. Select one of these options:

Goods only – If discount is calculated only on goods, excluding all freight charges and tax amount, select the **Goods only** option.

Goods plus Freight – If discount is calculated on goods and freight, excluding tax amount, select the **Goods plus Freight** option.

Goods, Freight and Tax – If discount is calculated on the entire invoice amount, which includes tax and freight, select the **Goods, Freight and Tax** option.

7   If you selected Installments in the Net Type field, click the Installment tab to specify installment information.

   a   In the Period type section, specify whether the installments will be based on days, weeks, or months. When you select an option, the period column in the installment table is changed to match your selection. For example, if you select weeks as the period type, the N.Weeks label is inserted in the installment table.

   b   Click the **Insert** button and specify:

       N. Inst – The number of the installments in sequential order is inserted.

       % Inst. – Specify the percentage of the total due for the installment.

       N. [Period] – Specify when the installment is due. For example, if you selected Days as the Period Type and specified 10 in the N.Days column, then the installment is due 10 days after the invoice date.

   c   Repeat step b to enter additional installments. The total of all installments must equal 100%.

   d   If you are working with installments and the payment is due at the end of the month, select the **Due Date at the End of the Month** check box in the Installments section.

   e   If you enabled VAT and you want to include the VAT amount on the first installment, select the **VAT Amount on First Installment** check box in the Installments section.

8   To generate a Term ID and Description based on the terms you specified, click **Gen ID and Desc**. Typically, the any discount percentage associated with the term is listed first followed by the net due information. For example, if you created a term that offered a 1.5% discount if paid by 10 days after the invoice date with the net amount due in 30 days, the term ID would be 1.5%10Net30.

   You can also specify your own ID and description.

9   Click **Save**.

Discontinuing Use of a Term

To discontinue the use of a term without deleting the term from your database, clear the **Active** check box. The term will no longer be available for selection.

Deleting Terms

You can delete a term from the database if it is not used on any other record. To delete terms:

1   Select the term ID.

2   Click **Delete**.

3   The system prompts you to confirm your deletion. Click **Yes**.

The Term ID you selected is deleted.

4   To close the Terms Maintenance dialog box, click **Close**.

Specifying Customer Order Acknowledgment Codes

When customers send orders to their suppliers electronically, they often require a return document verifying the receipt and acceptance of the order. In Electronic Data Interchange (EDI), this document is called the Order Acknowledgment, typically referred to as the 855 X12 Transaction or the Purchase Order Response Message in EDIFACT.

To specify Customer Order Acknowledgment codes:

1   Select **Maintain**, **CO Acknowledgments Codes**.

X12 are shown in the dialog box by default. You can delete these codes.

2   Click **Insert**.

3   Specify this information:

Code – Specify a unique alpha-numeric identifier for the code.

Description – Specify a description of the code.

4   Click **Save**.

Deleting Customer Order Acknowledgment Codes

To delete Customer Order Acknowledgment codes:

1   Select the code to delete.

2   Click **Delete**.

An X is displayed in the row header, indicating that you have marked it for deletion.

3   Click **Save**.

The code is removed from your database.

Entering Harmonization Codes

Use Harmonized Tariff Schedule (HTS) codes when shipping to and receiving from international locations.

To enter Harmonization codes:

1 Select **Maintain**, **Harmonization Codes**.

2 Click **Insert**.

3 Specify this information:

HTS Code – Specify a unique identifier for the code.

Description – Specify a description for this code.

Duty % – Specify the duty percentage for this code.

4 To specify duty percentages by country, click **Duty by Country**.

    a Click **Insert**.

    b Specify this information:

        Country of Origin – Specify the country that has a specific duty percentage.

        Duty % – Specify the duty percentage.

    c Click **Save**.

5 Click **Save**.

Deleting Harmonization Codes

To delete a harmonized tariff code:

1 Select the code to delete.

2 Click **Delete**.

An X is displayed in the row header, indicating that you have marked it for deletion.

3 Click **Save**.

The code is removed from your database.

Entering National Motor Freight Codes

National Motor Freight Codes (NMFC) are a measure of the difficulty of transporting a product.

To specify NMFC:

1 Select **Maintain**, **National Motor Freight Codes**.

2 Click **Insert**.

3 Specify this information:

ID – Specify a unique ID for the code.

Article – Specify the NMFC article classification.

Sub – Specify the sub-classification of the article.

Truck Load Class – Specify the class for a full truck load (5 characters maximum).

Less Than Truck Load Class – Specify the class for a partial truck load.

Hazardous – To indicate that the material is hazardous, select the check box.

Description – A description of the types of parts to be transported under this code (250 characters maximum).

4 Click **Save**.

Deleting National Motor Freight Codes

To delete NMFCs:

1 Select the code you to delete.

2 Click Delete.

An X is displayed on the row header, indicating that you have marked it for deletion.

3 Click **Save**.

The code is removed from your database.

Entering Transaction Categories

Note: This table is available only if you use Infor VISUAL Financials Global Edition.

Use transaction categories to extend the posting account and its segments. Transaction categories are used to generate balance transactions below the posting account level, and further classify transactions against a posting level account.

To specify transaction categories:

1 Select **Maintain**, **Transaction Categories**.

2 Click **Insert**.

3 Specify this information:

Code – Specify the code to use.

Description – Specify a description of the code.

4 Click **Save**.

Deleting Transaction Categories

To delete Transaction Category codes:

1 Select the code to delete.

2 Click the **Delete** button.

An X is displayed in the row header, indicating that you have marked it for deletion.

3 Click **Save**.

The code is removed from your database.

Specifying Workflow Codes

Use the Workflow Codes dialog box to customize the text that is displayed when you use workflow codes. You cannot add or delete codes, just change the text that appears.

To change Workflow Code text:

1 Select **Maintain**, **Workflow Codes**.

2 Click in the Text column for the code to change and specify new text.

3 Click **Save**.

Bid Rate Maintenance

Use the dialogs in the Bid Rate Maintenance menu to perform these tasks:

• Create bid rate categories
• Create bid rate groups
• Add bid rate categories to bid rate groups

Use bid rate categories and groups in the estimating process. Usually, bid rate categories and groups are used when you develop quotes outside of VISUAL in Excel and import them into Quick Quote. You can use categories and groups to develop high-level costs that are not necessarily the same as the cost to run a particular resource or to acquire a particular raw material. You can specify bid rate categories for resources in Shop Resource Maintenance. Specify bid rate categories for parts in Part Maintenance.

When you use Quick Quote to create a quote in the Estimating Window, the bid rate category for each part and resource is displayed.

Creating Bid Rate Categories

To create bid rate categories:

1   Select **Admin**, **Application Global Maintenance**.

2   Select **Maintain**, **Bid Rate Maintenance**, **Bid Rate Categories**.

3   Click **Insert**.

4   Specify an ID and a description.

5   Click **Save**.

Creating Bid Rate Groups

To create bid rate groups:

1   Select **Admin**, **Application Global Maintenance**.

2   Select **Maintain**, **Bid Rate Maintenance**, **Bid Rate Groups**.

3   Click **Insert**.

4   Specify an ID and a description.

5   Click **Save**.

Adding Bid Rate Categories to Bid Rate Groups

To add bid rate categories to bid rate groups:

1   Select **Admin**, **Application Global Maintenance**.

2   Select **Maintain**, **Bid Rate Maintenance**, **Bid Rate Group Categories**.

3   In the Bid Rate Group field, select the group to which you are adding categories.

4   Click **Insert**.

5   Double-click the category ID browse button and select the category.

6   Click **Save**.

Entering Packaging Type Codes

Packaging type codes define the dimensions of the packaging you use. Assign a default packaging code to a part in Part Maintenance.

To specify Packaging Type codes:

1   Select **Maintain**, **Packaging Types**.

2   Click **Insert**.

3   In the Code column, specify the code to use for this package type.

4 Specify the **Length**, **Width**, and **Height** of the package.

5 Click **Save**.

Deleting Packaging Type Codes

To delete Packaging Type codes:

1 Select the code to delete.

2 Click the **Delete** button.

An X is displayed in the row header, indicating you have marked it for deletion.

3 Click **Save**.

The code is removed from your database.

Entering Carriers

Use the Carriers dialog box to specify the commercial carriers you use when shipping and receiving materials.

To specify carriers:

1 Select **Maintain**, **Carriers**.

2 Click **Insert**.

3 Specify this information:

ID – Specify a unique identifier for the carrier.

Name – Specify the name of the carrier.

Shipper ID – Specify the identification of the shipper as assigned by the carrier.

Default Route – Specify the default routing information.

Default Shipper Instructions – Specify the standard instructions from the shipper to the carrier.

Default COD Fee – Specify the standard fee the carrier charges for collecting COD payments.

Address fields – Specify the carrier's address.

VAT Registration – Specify the registration number of the shipper.

Parcel ID – Specify a Parcel ID for this carrier. This ID is used to help identify the carrier for the UPS Connect interface.

Web URL – Specify the carrier's web address.

4 Click **Save**.

Deleting Carrier Codes

To delete Carrier codes:

1 Select the code to delete.

2 Click **Delete**.

An X is displayed in the row header, indicating that you have marked it for deletion.

3 Click **Save**.

The code is removed from your database.

Specifying Other Default Information

In addition to system-wide codes, you can specify this default information:

- Default login profile
- Export formats used for electronic payments
- Address layouts
- Revision numbering information
- .NET configuration information

You can also monitor reporting service print jobs.

The system administrator can set up this information:

- Report format overrides
- BOD maintenance information
- VISUAL reporting data.

Refer to the *Infor VISUAL System Administrator's User Guide* for the procedures a system administrator can perform.

Specifying a Default Sign In Profile

Use the Default Sign In Profile function to set default sign in information for the work station. If you specify a default database, user ID and password, work station users will automatically be signed in when they access VISUAL. This is typically used only when executing a single program from a desktop icon, such as Barcode Labor Entry. This allows you to give access to specific applications on the shop floor and not require the personnel to sign in with a password. For system security purposes, it is highly recommended that you do not specify complete default sign in information.

You can also specify a portion of the sign in information, such as database ID and User ID. If you specify a portion of the sign in information, users are prompted to provide the remaining information when they access the system.

To set up default sign in information:

1 Select **Maintain**, **Default Sign In Profile**.

2 Specify this information:

Database – Specify the default database name. Leave this field blank to prompt users to specify a database name when they access the system.

User ID – Specify the default user ID. Leave this field blank to prompt users to specify a user ID when they access the system.

Password – Specify the password associated with the user ID you specified. For security purposes, the characters you type are replaced with asterisks. Leave this field blank to prompt users to specify a password when they access the system.

Repeat Password – Re-type the password. For security purposes, the characters you type are replaced with asterisks.

3 Click **Ok**.

If you specified information in each of the fields, a dialog box is displayed informing you that the information you specified will take effect the next time the system is accessed. Click **Ok** to exit the dialog box.

If you specified information in only some of the fields, a dialog box is displayed informing you that users will be prompted to supply the missing information the next time the system is accessed. Click **Yes** to exit the dialog box.

Creating Export Formats

Use the Export Formats dialog box to edit and create export format field definitions.

1 Select **Maintain**, **Export Formats**.

2 Click the **Type** arrow and select a format. You can select:

- ESL
- Intrastat
- Payment
- Payment/XML
- VAT

3 Specify a unique identifier for this export format in the Export ID field.

4 Click the **Context** arrow and select a Context for this format. You can select:

File Footer – The File Footer contains batch total summary type information. Banks use this information to determine if they have successfully processed the file (i.e. have not missed any transactions).

File Header – The File header contains information about the company sending the file to the bank or payment processing facility.

Header – Header information is the "check" that has been created. Checks (cheques if international) contain the payment summary information to send to the vendor. It contains the vendor's name, the payment date, and the total amount paid. The payment total is a summary of all invoices paid to a particular vendor.

Line Item – Line items contain the remittance information supporting the payment total—for example, Invoice ID, Invoice Date, and Reference.

5 Click **Insert** to add format definition information in the line item table.

These columns are shown in the line item table:

Start At – This is the starting position in the data for this field. Zero is the first byte. Use this to sequence the data fields.

Abut Previous – Select this check box if the starting position in the data for this field is one byte after the last byte of the previous field.

Data Expression – You can specify any legal SQLWindows (SAL) expression. The exporter requires the data type returned to be type String.

Supported Element – A "Y" is displayed in this column if the SQLWindows expression you entered in the Data Expression column is a supported expression.

Data Length – Use this field only when the expression refers to the data variable directly without conversion. Specify the length of data in bytes not including quotes and commas.

Data Type – Use this field only when the expression refers to the data variable directly without conversion. Select one of these types:

C – Character

N – Number (decimal)

D – Date

T – Time

I – Integer

Data Scale – Use this type only when the expression refers to the data variable directly without conversion. Specify the scale for the decimal number type.

Quote Data – Specify whether quotation marks are placed around data. Select one of these values:

D – To place double quotation marks (") around data elements, select this option.

S – To place single quotation marks (') around data elements, select this option.

X – To place no quotation marks around data elements, select this option.

Text Qualifier – Specify the character that designates data as text.

Comma Separate – To separate data fields with commas, select this check box.

Field Delimiter – To separate data fields with a character of your choosing, specify the character in this field.

Terminate Record – If you select this check box, a CRLF (0x0d, 0x0a) is added after this field, if it is not the last data field in the record. Note, however, that the last data field in the record is automatically followed by CRLF. The prior rule prevents two consecutive record terminators.

6   Click **Save**.

Creating XML Payment Export Formats

You can create an AP export file format in XML. Use the Payment/XML format to export payments to Single Euro Payment Area (SEPA)-compliant file transfer systems. You can create an export format to use with release version 4.0 for SEPA Credit Transfers. For more information, refer to http://www.europeanpaymentscouncil.eu/content.cfm?page=sct_2010_rulebook.

You can also use XML file format to create a custom export file format.

You should have an understanding of XML before setting up export file formats.

To create a simple XML payment export format:

1 Click the Type arrow and select Payment/XML.

2 Specify an Export ID.

3 Click the Insert button

4 Specify this information:

Seq No – Specify a sequence number for the line. The sequence number indicates the order of the lines in the XML document. The line with the lowest number is inserted in the document first. You can specify a negative number.

Indent Level – Specify an indent number for the line. Indent numbers identify how the lines are grouped together.

Element – Specify the name of the element. The element is the tag name. You do not have to specify the starting tag or ending tag.

Value – Specify the value to use for the element. Click the arrow to select from common database fields. You can also specify your own value.

Is An Attribute? – If the line in an attribute to the element, select the **Is An Attribute** check box. If you designate an attribute, you should sequence the line so that it is immediately after the element with which it is associated. You should specify the same indent level.

5 Repeat steps 2 and 3 to insert additional lines.

6 Click **Save**.

For example, presume you entered these lines:

Seq	Indent	Tag	Tag Value	Is an Attribute?
1	0	Payment		N
2	1	Code	SEPA	N
3	2	Amount	AMOUNT (selected from drop-down menu)	N
4	2	CurrencyID	CURRENCY_ID (selected from drop-down menu)	Y

This XML code would be generated:

```
<Payment>
    <Code>SEPA</Code>
        <Amount CurrencyID="USD">1234.00</Amount>
```

The USD currency ID and 1234.00 values are extracted from the database.

Building Payment/XML Formats with the Context Menu

You can build more complex Payment/XML formats using built-in macros and the Context menu. The Context menu inserts standard elements into the XML file. You can use each context once in each Export ID. The macros and contexts indicate how the information is linked together.

1   Specify an Export ID in the Export ID field.

1   Build the File Header. Click the **Context** arrow and select File Header.

The system inserts the doctype and root elements. The system inserts the standard xml version identification information in the Value field associated with the doctype element. Enter a value for the root element. The root element is the first tag in the XML file.

2   Click the **Insert** button and specify any other elements you would like to use in the file header.

3   At the point where you would like to include the Header context information, click the **Insert** button and specify %HEADER% in the Element column. This indicates that the system will look for the Header context information. If you create additional lines after the %HEADER% line, the system will insert those lines after it inserts the entire Header.

4   Click **Save**.

5   Build the Header context information. Specify the same Export ID as you entered in step 1, then click the **Context** arrow and select Header.

6   Click the **Insert** button and specify the elements and attributes to use for the document header.

7   At the point where you would like to include the LIne Item context information, click the **Insert** button and specify %LINEITEM% in the Element column. This indicates that the system will look for the Line Item information. If you create additional lines after the %LINEITEM% line, the system will insert those lines after it inserts the entire Line Item context information.

8   Click **Save**.

9   Build the Line Item context information. Specify the same Export ID as you entered in Step 1, then click the **Context** arrow and select Line Item.

10   Click the **Insert** button and specify the elements and attributes to use for the line items.

11   Click **Save**.

The system links together the information you built for the File Header, Header, and Line Item contexts.

Complex Expressions

You can combine simple calls for data from the database with expressions that convert the data to a different format or prompt the system to choose between two values. You can use these expressions:

@FORMATNUMBER – Use this expression to change the format of a number. You can specify the number of decimal places and the separator characters you use. To use the expression, specify the number you would like to convert, then specify the format. For example:

@FORMATNUMBER (1235,99, "#,##0") would convert 1235,99 to 1,235.

@FORMATDATE – Use this expression to change the format of a date. To use the expression, specify the date you would like to convert, then specify the format. For example:

@FORMATDATE (2010-07-14, "mm/dd/yyyy") would convert 2010-07-14 to 07/14/2010.

@UTCDATE – Use this expression to change the format of a date into universal time coordinate (UTC) format. To use the expression, specify the date you would like to convert, specify if you would like to show the time, and specify if you would like to show the duration. To specify whether or not to show the time or offset, use True to show the time or offset and False to not show the time or offset. For example,

@UTCDATE (2010-07-14, TRUE, FALSE) would convert 2010-07-14 to 2010-07-14T16.25.54.18z. If you specified @UTCDATE (2010-07-14, TRUE, TRUE), the date would convert to 2010-07-14T16:25:54.18Z-04:00.

@ROUND – Use this expression to round a fractional number to a specific number of decimal places. To use this expression, specify the number you would like to round followed by the precision and scale. Precision is the number of digits in the number; scale is the number of digits after the decimal point. For example:

@ROUND (6543.1267, 6, 2) will convert 6543.1267 to 6543.13. If you specified @ROUND (6543.1267, 5, 2), 6543.1267 would be converted to 6543.1 Since the number is limited to 5 digits in the definition, the system would only include one digit after the decimal point.

@LOOKUP – Use this expression to retrieve a cross-referenced value from the database. To use the expression, specify the key, table, keyfield, and datafield. For example,

@LOOKUP ('CURRENCY_ID', 'CURRENCY', 'ID', 'ISO_CODE') would retrieve the ISO code for the currency ID.

@SQL – Use this expression to execute a simple select SQL statement against the database. For example:

@SQL ('SELECT COMPANY_NAME FROM APPLICATION_GLOBAL') would retrieve the company_name data from the application_global table.

@IF – Use this expression to ask the system to return one of two values based on the result of a test you specify. To use this expression, specify a test (for example, 1<2), the value the system returns if the test is true, and the value the system returns if the test is false. For example,

@IF (1>2, '1 is greater than 2', '1 is not greater than 2,') would return 1 is not greater than 2. The system would evaluate the test, 1>2, determine that the test is false (1 is less than 2), and return the value you specified for a false test, 1 is not greater than 2.

Concatenation

You can join simple expressions or string values and simple expressions together using a concatenation operator. The concatenation operator is a double pipe: ||. For example:

VEND_BANK_CITY || ',' || VEND_BANK_STATE || VEND_BANK_ZIPCODE would produce the vendor bank's city, state and zip code in this format: Boston, MA 02123. In this example, the comma is a string value and the references to database columns are simple expressions.

Other Functions

You may find these functions useful in your export file formats:

SalDateCurrent() – Use this function to return the current date and time. You can use this function in conjunction with a complex expression to specify a format for the data. For example:

@UTCDATE (SalDateCurrent(), TRUE, FALSE) would return the current date expressed in UTC format without offset. For example, 2010-07-14T14:58:27.68Z.

SalStrLeftX(string, length) – Use this function to return a portion of the string value you specify. For example:

SalStrLeftX (DESCRIPTION, 40) would return the first 40 characters in the DESCRIPTION database column.

SalStrTrimX (string) – Use this function to remove all blanks from the string value. For example:

SalStrTrimX (COMPANY_NAME) would return MajesticManufacturingCompany instead of Majestic Manufacturing Company.

SalStrScan (string 1, string2) – Use this function to find the value you specify for string2 in string1. For example:

SalStrScan (VENDOR_NAME, 'Steel') would return vendor names that included the word 'steel' .

SalNumberAbs (number) – Use this function to return the absolute number.

Using the SQL Dialog Box

After you specify your export file format, click the SQL button. The system constructs a SQL statement that you can use to add the export file format to your database. Copy the SQL statement from the dialog box and paste it into SQLTalk or other database management tool.

Deleting Export Formats

To delete Export Formats:

1   Click the **Type** arrow and select the type of format to delete.

2   Click the **Export ID** arrow and select the format to delete.

3   If you created contexts for the export ID, click the Context arrow and select the context to delete. If you created multiple contexts, you must delete each context one by one to delete the entire Export ID.

4   Click **Delete**.

5   Click **Yes** in the dialog box.

The Export Format is deleted.

To delete lines from an Export Format:

1   Click the **Type** arrow and select the type to modify.

2 Click the **Export ID** arrow and select the format to modify.

3 Click the row header to select the line to delete.

4 Click **Delete**.

An X is displayed in the row header indicating you have marked it for deletion.

5 Click **Save**.

The line you selected is removed from the Export Format.

Entering Address Layouts

Multiple address layouts are supported for use throughout VISUAL. You define address layouts by country. When you select the country in a window such as Customer Maintenance, the Country ID, name and address layout update to the country's associated address layout. If you do not define a custom layout for a particular country, the default layout is used.

Country Address Layout IDs correspond to their country descriptions. If you use the same country description with multiple Country IDs, you can use the same layout with more than one country. If a country has multiple Country IDs with unique country descriptions, you can have multiple layouts for that country. However, it is recommended that you maintain only one address layout per country by making it flexible enough to accommodate all potential formats for the country.

Note: If you type in a free-form description in the Country field and that description does not exist in the Countries table, the country description is created but it is not added to the Country table. To use the layout, users must manually specify it in the country description field in a maintenance window, such as Customer Maintenance.

Address layouts can be up to five lines and are made up of labels and data fields. The labels are displayed to the left of the data fields, and you can define one label for each line. You can use up to seven data fields. You can place any of the fields on any of the lines in any order.

Users can enter alphanumeric text into the any of the data fields. Field #9 uses the codes you defined in the States and Province table.

To define an address layout:

1 Select **Admin**, **Application Global Maintenance**.

2 Select **Maintain**, **Address Setup**.

The default address layout is the conventional US address layout.

3 To create a layout, specify an ID in the Country field. The ID must be the same as the Country for which this address layout is intended. For example, an address layout ID of **Spain** is required for an entity with a Country ID of Spain.

To modify an existing address layout, click the Country arrow and select the layout to edit.

4 Specify this information:

Field # – The number of the field is inserted. This information is read-only.

Type – The type of field is inserted. An L indicates that the field is a label field. An F indicates that the field is a data field. This information is read-only.

Title – For label fields, specify the text to use as the label. You can specify text for a label field only. You cannot specify text for data fields.

Line # – Specify on which line the label field or data field is displayed. You can specify numbers 1 through 5.

Position # – If you are inserting more than one data field on a line, use the Position # column to indicate the order of the data fields. For example, in the default layout, fields 8, 9, and 10 are each on line 3. The Position # column indicates the order that these three fields are displayed. Field 8 is displayed first, followed by Field 9, followed by Field 10.

The position # column does not apply to field labels.

Visible – To display the field in the layout, select this check box. To hide the field, clear this check box.

% – Specify the percentage of the field to display. For example, to extend the length of a field, enter a value greater than the current value. 999 is the maximum percent value you can enter.

5   Click **Save**.

The layout shows your changes.

6   Click the **Close** button.

Deleting Address Layouts

To delete Address layouts:

1   Click the Country arrow and select the layout to delete.

2   Click **Delete**.

3   Click **Yes** in the prompt dialog box.

4   Click **Save**.

The layout is removed.

Copying Address Layouts

You can copy an existing address layout to create a new address layout. To copy an address layout:

1   Click the **Country** arrow and select the layout to copy.

2   Click **Copy**.

3   In the Copy To field, specify the new Country ID in the Copy To field.

4   Edit the layout as needed.

5   Click **Save**.

Using Custom Address Layouts

1 Open a window where you enter addresses. For example, open Customer Maintenance.

2 In the Country field of the address section, specify the Country ID that matches the Address Layout ID to use. For example, if this is for the UK layout, specify ᴜᴋ.

The address layout is changed

3 Enter the address information.

Click **Save**.

Maintaining Revision Numbering

Use Revision Numbering Maintenance to create revision stages and numbering profiles to use with parts and other revision-controlled objects.

1 Select **Maintain**, **Revision Numbering**.

By default, the DESIGN, MANUAL, PILOT, and RELEASE stages are supplied.

2 To add a stage, click **Insert**.

3 Specify this information:

Stage – Specify a name for the revision stage. The stages listed in this table are available in Part Maintenance and other applications where you can assign a stage to an object.

Profile – From the Profile drop-down list, select a numbering profile for this stage. You can select:

> **User Numbering** – To assign each revision number based on your numbering preferences, select this option. When users specify a stage with the user numbering profile, a revision number is automatically assigned to the record.
>
> If you specify this option, the fields in the lower half of the dialog box become available.
>
> **Manual** – To manually specify each revision number, select this option. When users specify a stage with a manual numbering profile, they are required to specify a revision number before they can save the record.
>
> **None** – If you do not require a revision number to be entered, select this option. When users specify a stage with None as the numbering profile, they can save the record without specifying a revision number.

Note: You cannot change the profile of a revision stage with a history.

Description – Enter a description for the revision stage into the Description field.

4 If you select the User Numbering profile option, specify the revision numbers to use. You can manually enter revision numbers or specify basic information and generate the revision numbers.

To manually enter revision numbers, click **Insert** and specify the revision number to use. To specify a second number after the first revision number, click **Insert** again. To specify a second number before the first revision number, click **Insert Before**.

To generate revision IDs, use the fields in the Generate Revision ID's section. You can generate number-based IDs or letter-based IDs. To generate IDs:

Starting Number – To generate number-based IDs, specify the first revision number to use.

Ending Number – To generate number-based IDs, specify the last revision number. When you generate the revision IDs, revisions IDs between the starting number and ending number you specify are created.

Alphanumeric Prefix/Starting Letters – The label for this field changes depending on whether you are generating number-based revision IDs or letter-based revision IDs.

If you are generating number-based IDs, the label for this field is Alphanumeric Prefix. To attach a prefix to the revision, specify the characters in this field.

If you are generating letter-based IDs, the label for this field is Starting Letters. Specify the first letter or letters to use.

Alphanumeric Suffix/Ending Letter(s) – The label for this field changes depending on whether you are generating number-based revision IDs or letter-based revision IDs.

If you are generating number-based IDs, the label for this field is Alphanumeric Suffix. To attach a suffix to the revision, specify the characters in this field.

If you are generating letter-based IDs, the label for this field is Ending Letters. Specify the last letter or letters to use. When you generate the revision IDs, revisions IDs between the starting letters and ending letters you specify are created.

If you enter more than one letter in the Starting Letters and Ending Letters fields, the first letter you enter is treated like a prefix. For example, if you enter AA in the Starting Letters field and BZ in the Ending Letters field, the IDs AA, AB, AC, and so on are generated through ID BZ.

Omit Letters – If you are generating letter-based IDs, you can specify letters to omit from the IDS you generate. Specify the letters to omit. Use a comma to separate lists of letters.

This field is not available if you are generating numbers-based IDs.

5   Click **Generate**. The number of revision IDs to be created is displayed. Click **Yes** to generate the IDs. The IDs are inserted in the table. You can edit the generated IDs as necessary.

6   Click **Save**.

If you are using generated IDs, the revision IDs are entered in order when you create a revision. If you have used all of the generated revision IDs, you are warned when you try to create a revision.

Verifying VISUAL .NET Configuration Settings

If you use VISUAL Financials Global Edition or VISUAL Time & Attendance, use the .NET Configuration Settings dialog to administer the connection to the .NET databases and executable. This configuration must be specified correctly for you to drill from the Document Lifecycle viewer to VISUAL Financials Global Edition. It is also used to write certain information to your .NET databases.

To verify these settings:

1   Select **Admin**, **Application Global Maintenance**.

2 Select **Maintain**, **VISUAL .NET Configuration**.

3 If you have registered your VISUAL Manufacturing database and added it to your topology in the VISUAL for .NET Database Utility, then information about the instance group and instance name is displayed. Review this information to ensure that it is accurate. If no information is displayed in these fields, ensure that you have properly registered your VISUAL Manufacturing database in the .NET Database Utility.

4 In the Install Path field, specify the location of LSA.exe.

5 Click **Save**.

Monitoring Reporting Service Print Jobs

If you have set up the VISUAL Reporting Service (VRPTSVC.EXE) to automatically run print jobs based on a schedule, use the Report Service Configurations dialog to monitor print jobs. You can review current Report Service print jobs, activate and deactivate them, and delete them.

The system administrator can control access to this dialog.

Reviewing Reporting Service Print Job Configurations

To review the print job configurations:

1 Select **Maintain**, **Report Service Configurations**.

2 Review this information:

Report Type – The type of report that the service runs is displayed. For example, if a user has set up a print job for work order travellers, then Work Order Traveller is displayed.

Site ID – If applicable, the ID of the site where the report is run. Certain reports must be run one site at a time.

User ID – The ID of the user who scheduled the reporting service to run the report is displayed.

Enabled – If the reporting service configuration is currently active, this check box is selected. If the configuration is current inactive, this check box is cleared.

Last Run – The date and time that the service ran the configuration is displayed.

Printer – The printer where the service sent the print job is displayed.

3 To reread configuration information from the database, click **Refresh**.

Deactivating Reporting Service Print Job Configurations

To deactivate a reporting service print job configuration:

1 Select **Maintain**, **Report Service Configurations**.

2 Clear the **Enabled** check box.

3 Click **Save**.

If you are deactivating more than one print job, you must click save after each time you clear the Enabled check box.

Deleting Reporting Service Print Job Configurations

To delete a reporting service print job configuration:

1 Select **Maintain**, **Report Service Configurations**.

2 Select the configuration to delete.

3 Click **Delete**. An X is displayed in the row header, indicating that the row will be deleted.

4 To complete the deletion, click **Save**. To cancel the deletion and retain the configuration in your database, click Delete again. The X is removed from the row header.

Setting Preferences

Use the Program Preferences dialog box to specify the tab that is displayed when you access Application Global Maintenance and to specify your preferred customer order entry and purchase order entry program.

You can access purchase order entry and customer order entry from several windows in the system. For example, you can open Purchase Order Entry from the Manufacturing Window. When you open Purchase Order Entry from the Manufacturing Window, the program you specify as the preferred purchase order entry program is opened.

To set program preferences:

1 Select **Options**, **Preferences**.

2 Specify this information:

Default Tab – Click the arrow and select the tab to display when you first open Application Global Maintenance.

Preferred C/O Entry Program – Click the arrow and select the program you prefer to use for Customer Order entry. Select either the **Customer Order Entry** program or the **Order Management** program.

Preferred P/O Entry Program – Click the arrow and select the program you prefer to use for Purchase Order entry. Select either the **Purchase Order Entry** program or the **Purchase Management Window**.

3 Click **Done**.

Chapter 3: Accounting Entity Maintenance

This chapter describes these topics:

Topics

What is Accounting Entity Maintenance?

Use Accounting Entity Maintenance to define information about your accounting entities. An accounting entity is an independent financial entity within your company. The accounting entity is the "middle level" of the organizational structure. Each accounting entity is summarized to the Tenant level. Information defined at the accounting entity level includes:

• Costing information, such as the costing method, POC revenue recognition method, and burden basis

• Default VAT information

• Default Intrastat information

• Payment information, such as Next Payment Batch Sequence # and withholding information

• Default Order Management information, such as whether WIP/VAS is enabled, how the date of the oldest outstanding invoice is determined, and allocation information

Information you define at the accounting entity level applies to each of the sites that belong to the entity.

Accessing Accounting Entity Maintenance

To access Accounting Entity Maintenance, select **Admin**, **Accounting Entity Maintenance**.

Defining Accounting Entities

If you upgraded from a previous version, you defined one accounting entity ID during the upgrade process.

If you have not exceeded the maximum number of accounting entities allowed by your license, you can create additional accounting entities.

1   To create an accounting entity ID:

2   Click the New button.

3   In the Entity ID field, specify the accounting entity ID. We recommend that you **do not** use single quotations ('), forward slashes (/), or commas (,) in your entity ID. Using these characters may cause issues with integrations to other products through Infor ION.

4   Click **Save**.

Use the tabs to define additional information about the accounting entity.

Specifying Information on the General Tab

Specify this information on the General tab:

*   The entity's address
*   The entity's tax ID number
*   The default language ID for menus
*   The effective exchange rate date

To specify information on the General tab:

1   Click the **General** tab.

2   In the address section, specify the entity's address.

    If you are licensed to use one entity and one site, define the address in Application Global Maintenance. The address information specified in Accounting Entity Maintenance is not used in a single entity, single site database.

3   In the Tax ID field, specify the entity's tax ID number.

4   In the Language section, click the arrow and select USA. This field enables menus when you build a baseline database. The field does not control the translations used in the interface. See "Translations" on page 6–1 in the System Administration guide.

5   In the Effective Exchange Rate Date section, specify which date should be used to determine the exchange rate to apply to a transaction. Select one of these options:

    Use System Date – Select this option to use the date that you entered the transaction to determine the exchange rate.

    Use Transaction Date – Select this option to use the date of the transaction to determine the exchange rate. Because you can specify a date on a transaction, the date of the transaction is not necessarily the same as the current date. This is the default setting.

After you enter a transaction for this entity, these options are not available.

6 Click **Save**.

Specifying information on the Costing tab

See "Manufacturing Costing" on page 5–1 in this guide.

Using the VAT Tab

Value-Added Tax (VAT) is a tax on consumed goods. While the total tax amount is ultimately paid by the customer who purchases the final product, a portion of the tax is collected any time goods or services are purchased.

For example, if a company buys two raw materials for the manufacture of a product, the company would pay VAT on the raw materials. When the final product is sold, the company is reimbursed for the taxes paid on the raw materials.

VAT is not typically paid on exports.

To activate the fields on the VAT tab, click the Value Added Tax Support Enabled check box.

Specifying General VAT Information

Specify this information on the VAT tab:

Use VAT Books to generate invoice numbers – To use the invoice and memo numbering information set up in VAT Books, select this check box. To use the auto-numbering scheme set up in Accounts Payable Invoices and Accounts Payable Receivables, clear this check box.

Calculate VAT on Freight – To apply VAT to freight charges, select this check box. To omit freight charges from VAT calculations, clear this check box.

VAT Categories Required – To require users to specify a VAT category when VAT is applied to a transaction, select this check box. To allow users to apply VAT to transactions without specifying a VAT category, clear this check box. VAT categories identify the type of item being taxed: material, service, or other.

VAT Registration – Specify the VAT number of your company.

Next VAT Sequence # – Specify the next number to use for VAT reporting.

VAT Receivables Export ID – Specify the Receivables Export ID if you are generating reports to file.

VAT Payables Export ID – Specify the Payables Export ID if you are generating reports to file.

Setting Up VAT Books

VAT Books control the numbering sequence of all invoices and memos created when VAT is enabled. In the European Community, there may be more than one "VAT book" or numbering sequence in use at any one time. With VAT enabled, more than one automatic number sequence can exist for invoices and memos.

Use VAT Book Setup to specify numbering sequences. You can set up numbering sequences for Accounts Payable Invoices, Accounts Payable Memos, Accounts Receivable Invoices, and Accounts Receivable Memos. After you set up numbering sequences in VAT Book Setup, you can assign the accounts receivable sequences to customers and accounts payable sequences to vendors.

When you generate invoices for your customers, the invoice number is determined by the VAT Book code you assigned to the customer for invoices. If you issue a memo to a customer, the memo number is determined by the VAT book code you assigned to the customer for memos.

If you create an invoice or memo manually, you must specify a VAT book code. If you create an invoice or memo manually, the VAT book code you specify does not need to match the VAT book code you specified on the customer or vendor record.

VAT codes are also used in VAT reports and Intrastat reports.

To set up a VAT Book:

1   Click **VAT Book Setup**.

2   Click **Insert**.

3   In the table, specify this information:

   Code – Specify an identifying code for the VAT Book.

   Year – Specify the year this VAT Book code is active. The current year is inserted when you create a line in the table, but you can specify a different year.

   Description – Specify a description of the VAT Book.

4   In the Current Posting Date field, specify the date that transactions using the VAT Book code are posted. This field is optional.

   Posting dates used on VAT transactions must be sequential. For example, if you generated invoice 101 and 102, the posting date on invoice 102 must be equal to or later than the posting date on invoice 101.

   If multiple users enter VAT transactions, you can specify a date in the Current Posting Date field to ensure that posting dates on transactions are entered correctly.

5   In the VAT Code Type section, specify the types of transactions to associate with the VAT book code. Select one or more of these check boxes:

   •   A/R Invoices
   •   A/R Memos
   •   A/P Invoices
   •   A/P Memos

6   In the Sequence Numbers section, specify this information:

   Start Number – Specify the first number to use.

Next Sequential Number – Specify the second number to use.

Alphanumeric Prefix – Specify the alphanumeric characters to use before the sequence number. This field is optional.

Alphanumeric Suffix – Specify the alphanumeric characters to use after the sequence number. This field is optional.

Number of Decimal Places – Specify the maximum number of digits to use in the ID.

Show Leading Zeros – To display placeholder zeroes in the ID, select this check box. For example, if you specified 4 in the Number of Decimal Places field and selected this check box, 0001 is used as the ID instead of 1.

7   In the Report Type field, click the arrow and specify the type of report to associate with the VAT book code. Specify EC (European Community) or IT (Italy).

8   Click **Save**.

Setting Up VAT Percentages and G/L Accounts

You can set up VAT tax percentages and associated G/L accounts in the VAT section.

1   Click **VAT Setup**.

2   Click **Insert**.

3   In the table, specify this information:

Code – Specify the VAT code.

Description – Specify a description of the code.

4   In the Effective Date field, specify the date that the VAT code becomes effective.

5   In the VAT Type field, specify the type of VAT code. Select one of these options:

Default VAT – Use this option to set up VAT codes to use between countries that are not both in the European Commission.

Intra-Euro VAT – Use this option to set up VAT codes between two countries in the European Commission. Use this type to create VAT codes if vendors are not required to apply VAT for transactions. You can specify Intra-Euro VAT codes on Vendor records and purchase orders, and accounts payable invoices.

6   If you selected Default VAT in the VAT Type field, specify this information:

Tax Percent – Specify the VAT percentage.

Tax G/L Account ID – Specify the G/L account to be posted for this tax.

Recoverable Tax Percent – Specify the percent of recoverable tax. This pertains only to payable taxes.

Tax Rcv G/L Account ID – Specify the G/L account to be posted for this tax. This account receives a debit entry for recoverable tax amounts.

7   If you selected Euro VAT in the Vat Type field, specify this information:

Recoverable Tax Percent – Specify the percent of recoverable tax. This pertains only to payable taxes.

Tax Rcv G/L Account ID – Specify the G/L account to be posted for this tax. When a payable transaction is processed, this account receives a debit entry for recoverable tax amounts.

Intra-Euro Tax Percent – Specify the Intra-Euro VAT percentage. For Intra-Euro VAT codes, this value typically equals the value that you specified in the Recoverable Tax Percent field.

Intra-Euro Debit Tax G/L Acct ID – Specify the account to use to process any differences between the recoverable tax percentage and the Intra-Euro tax percentage. Since these two percentages are typically equal, transactions against this account should be minimal.

Intra-Euro Credit Tax G/L Acct – Specify the account to credit when a payable transaction is processed. If the recoverable tax percentage is equal to the Intra-Euro tax percentage, you can enter the same account in this field as you entered in the Tax Rcv G/L Account ID.

8 Click **Save**.

Specifying VAT Categories

VAT categories identify the type of item being taxed: material, service, or other. If you have selected the VAT Categories Required check box, users are required to select a VAT category for all VAT-related transactions.

To specify a VAT category:

1 Click **VAT Category Setup**.

2 Click **Insert**.

3 Specify this information:

ID – Specify the category ID.

Type – Specify the type of item associated with this category. Click the arrow and specify one of these options:

M – Select **M** if this category is for a material.

S – Select **S** if this category is for a service.

O – Select **O** if this category is for other items.

Description – Specify a description of the VAT category.

4 Click **Save**.

Using the Intrastat Tab

Intrastat is an optional feature. You must have the correct serial number to enable Intrastat. If you have questions, please contact Infor Customer Support.

Intrastat is a European Community term that refers to the tracking statistics of goods manufactured and distributed to and from EC member countries. Intrastat is intended to eliminate customer declarations for distributors of goods who import and export within the EC.

Intrastat applies to the importation and exportation of goods. It does not apply to goods shipped within a given member country. Only VAT registered companies are required to provide Intrastat information.

Intrastat requires that goods sold and manufactured in the EC be tracked so that their origin and destination is recorded in a permanent way. Periodically, each manufacturer and distributor of goods must report the items they sold and distributed, where they were manufactured or obtained, and where they were sent, including intermediate distribution points.

Use the VISUAL Intrastat feature to report the appropriate information to the country in which the manufacturer operates. You can also record supporting data on which the reports are based. The exact form and format of these reports varies from country to country. You may need edit these reports.

Specifying Intrastat Settings

To specify Intrastat settings:

1   Click the **Intrastat** tab.

2   In the Intrastat section, specify this information:

Intrastat Enabled – Select this check box to enable the Intrastat features. When you select this check box, the remaining fields on the tab become available.

Review Intrastat before Saving Transaction – To be prompted to view Intrastat information prior to saving any transaction, select this check box.

Country ID – Specify the Country ID of your company.

Branch ID – Specify Branch ID of your company.

Next Sequence # – Specify the next number for Intrastat report.

3   In the Report section, specify the formats of the Arrival report and the Dispatch report. The options for the reports are the same. To specify the Arrival report format, click **Arrival Format**. To specify the Dispatch report format, click **Dispatch Format**.

4   Specify this information:

Show – Select the data to show on the report. You can select **Tariff Code**, **Excise Price**, **Region, Country**, **Port of Arrival**, **Port of Transshipment**, and **Siret Number**.

You cannot generate a report until all of the Intrastat line items you have selected are present.

Export ID – Specify an Export ID to generate reports to file.

5   Click **Ok** to exit the dialog box.

6   In the Frequency section, specify how often the reports are generated. Click **Monthly**, **Quarterly** or **Yearly**.

7 Click the **Save** button.

Specifying Additional Intrastat Report Information

Use the Additional Intrastat Maintenance window to specify additional Intrastat information to show on your reports.

Note: You must select the *Intrastat Enabled* check box on the Intrastat tab to display Additional Intrastat Maintenance window.

To set up additional Intrastat information:

1 Select **Inventory**, **Intrastat Maintenance**.

2 In the header, specify the filters for the table. Specify these filters:

Site ID – If you are licensed to use multiple sites, click the Site ID arrow and select the site ID to view in the table. If you are licensed to use a single site, this field is unavailable.

Movement Type – Select the movement to view in the table. Click Dispatch or Arrival.

Date Range – Use the calendar buttons to specify the time period to view in the table.

3 To add a new transaction using the criteria you specified in the header, click the **Insert Row** button.

4 Specify this information:

Reference – Specify a short description or reference code for the transaction.

Movement Date – Specify the date the movement takes place.

Tariff Code / Commodity Code – Double-click the browse button and select the Tariff or Commodity code.

Excise Price – Specify the excise charge.

Delivery Terms – Click the arrow and select the delivery terms for this transaction.

Nature of Trans – Double-click the browse button and select the type of transaction.

Mode of Transport – Double-click the browse button and select the type of transportation used.

Net Mass – Specify the weight of the shipment.

Supplement Unit – Specify the number of units.

To Country – Click the browse button and select the country to which the shipment is going.

Orig Country – Click the browse button and select the country from where the goods originally came.

From Country – Click the browse button and select the country from which this shipment is shipped.

Region – Click the browse button and select the region of the country from which this shipment is shipped.

Port of Arrival – Click the browse button and select the port in which this shipment will first arrive in the country.

Port of Transshipment – Click the browse button and select the intermediate country used between shipping and receiving.

Number of consignments – Specify the number of agents selling items in the shipment for the shipper.

5 Click the **Save** toolbar button.

Specifying ESL Information

A European Sales List (ESL) is a VAT report that is based on goods reported under Intrastat. Specify this ESL information:

ESL Export ID – Specify an ESL Export ID to generate reports to file.

Next Sequence # – Specify the next number for the ESL report.

Frequency – Specify how often to generate the report. Click one of these options: **Monthly**, **Quarterly**, or **Yearly**.

Click **Save**.

Entering Intrastat Codes

Use the buttons at the bottom of the Intrastat tab to specify codes used in Intrastat transactions. You can specify these codes:

Port of Arrival – This identifies the place where the goods are received.

Nature of Transaction – This identifies the type of transaction, such as transfer of ownership or return of goods.

Tariff – This identifies the tariff applied to the transaction. This code is for identification purposes only. It does not actually apply the tariff rate.

Country – This identifies the countries used in Intrastat transactions.

Port of Transshipment – This identifies the place where goods are shipped.

Mode of Transport – This identifies the methods used to transport goods.

Region – This identifies regions where your warehouses are located.

For all code types except Country, you specify a code and a description. For the Country code type, you specify an ID, description, whether Intrastat is required for the country, and the Intrastat country ID.

To specify Port of Arrival, Nature of Transaction, Tariff, Port of Transshipment, Mode of Transport, and Region codes:

1   Click the button that corresponds to the code you are entering. For example, click **Port of Arrival** to enter Port of Arrival codes.

2   Click **Insert**.

3   Specify this information:

   Code – Specify a code.

   Description – Specify a description for the code.

4   Click **Save**.

Specifying Country Codes

To specify a country code:

1   Click **Countries**. A list of ISO codes is displayed.

2   Specify this information:

   Intrastat Required – Select this check box to require Intrastat to be used with the country ID.

   Intrastat Country – Specify the country ID to use with Intrastat.

3   Click **Save**.

Using the Payment Tab

Use the Payment tab to specify default information for electronic payments you make to vendors. electronic payments made to vendors. You can specify this information on the Payment tab:

- Batch number information
- Withholding information
- Cash variance information
- Source of commission payments

To specify electronic payment settings:

1   Click the Payment tab.

2   In the Next Payment Batch Sequence # field, specify the next batch number to use for payments.

3   If you withhold tax from your vendor payments, select the Withholding Enabled check box. Then, specify this information:

   Next Sequence # – Enter the next sequential number to use for reporting.

   Social Security No. – Enter the company's or individual's social security number.

   Summary Export ID – Enter an Export ID for monthly summary reports.

   Certificate Export ID – Enter an Export ID for tax certificates.

4   In the Cash Variance section, specify this information:

Number / **Percent** – Select whether to calculate cash variances by numbers or percentages.

Minimum – Enter the smallest number or percent to report.

Maximum – Enter the largest number or percent to report.

5   In the Pay Commission By section, specify the basis for commissions you pay to your sales force. Click one of these options:

Cash Receipt – Click this option to generate commissions when you receive payment from the customer.

Invoice/Invoice Date – Click this option to generate commissions based on the accounts receivable invoice.

6   Click **Save** to save the information.

Using the Order Management Tab

Use the Order Mgt tab to specify default information for your customer order management. In the Order Mgt tab, you can:

- Enable WIP/VAS. WIP/VAS (work in process/value-added service) is typically used in conjunction with VISUAL DCMS.
- Specify allocation behavior
- Specify the default shipping weight unit of measure
- Specify the default back order fill rate
- Specify order management codes

To specify this information:

1   Click the **Order Mgt** tab.

2   Select the **WIP/VAS Enabled** check box to enable WIP/VAS functions.

Parts that make up an order may require extra services before they are shipped to a customer or transferred to another warehouse. For example, parts in an order may require price tag printing and application. These activities are work in process (WIP) activities.

In certain cases, employees in the distribution center may need to provide additional services before a product is shipped. These activities are value-added services (VAS).

Note: You cannot use WIP/VAS if you do not have an Order Management enabled serial number.

3   Specify allocation settings. Depending on your selections, certain options become available or unavailable. Select from these options:

Allocations Require Warehouse/Location – To allow users to allocate supply and assign demand without specifying a warehouse or a location, clear this check box. To require supply allocations and demand assignments to have a warehouse ID and location ID before they can be linked to transactions, select this check box. When you select this check box:

- You must supply a Warehouse ID for purchase and customer orders before you save the order.

- You can enter a new work order and add material requirements and operations, but you cannot allocate work order quantities to demand or allocate supply to material requirements.

This setting does not apply to interbranch transfers (IBTs).

When you select the Allocations Require Warehouse/Location check box, the Auto Allocate check box and the Requirement Allocation Level options become available.

Requirement Allocation Level – These options become active when you select the Allocations Require Warehouse/Location check box. Use the requirement allocation level to determine if materials must be allocated to work orders before the work order can be firmed or released. Click one of these options:

Full – Click this option to require all materials to be allocated to the work order before the work order can be firmed or released.

Partial – Click this option to optionally allow required materials to be allocated to a work order before the work order can be firmed or released. When you click this option, a work order can be released without materials allocated.

None – Click this option if you do not require materials to be allocated to a work order before it can be released.

Auto Allocate – To automatically allocate supply to demand, select this check box. You cannot select the Auto Allocate option unless you have selected the Allocations Require Warehouse/Location option.

Customer Order Allocation – When you select the Auto Allocate option, the Customer Order Allocation Level section becomes active. Use the customer order allocation level to determine if materials must be allocated to customer orders before the orders can be placed. Click one of these options:

Full – Click this option to require all materials to be allocated to customer orders before the orders can be placed.

Partial – Click this option to optionally allow required materials to be allocated to customer orders before the orders can be placed. When you click this option, a customer order can be placed without materials allocated.

None – Click this option if you do not require materials to be allocated to a customer order before it can be placed.

4   In the Default Shipping Weight UM field, click the browse button and specify the unit of measure to use for weight shipment in the Order Management Window.

5   In the Default Back Order Fill Rate field, specify the default fill rate to use for customer back orders.

The back order fill rate is a number between 0 and 100 that indicates the minimum percentage of available stock that must be allocated to the customer if a back order balance remains on a customer order. For example, an order fill rate of 100 for a C/O line for 1,000 back-ordered parts, produces a minimum fill rate quantity of 1,000; an order fill rate of 80 for a C/O line of 1,000 produces a minimum fill rate quantity of 800. For more information on Customer fill rates, refer to the "Shipping Entry" chapter.

6   Click the **Save** button.

Maintaining Order Management Codes

Use the buttons in the Maintenance section to access these Order Management codes:

• Priority Codes

• Customer Order Types

• WIP/VAS Codes

• Customer Types

• HTS Codes

• Part Alias Types

The codes you specify in the Order Management tab apply to all of your accounting entities, not just the selected accounting entity.

Specifying Priority Codes

Use priority codes to determine what percentage of available stock can be used to fill a customer order. Assign a priority code to a customer in Customer Maintenance.

To set up priority codes:

1 Click **Priority Codes**.

2 Click **Insert**.

3 Specify this information:

Priority Code – Specify a code.

SKU Rate – Specify the percentage of available stock that can be allocated to a customer with this code. Specify a number between 0 and 100.

Description – Specify a description of the code.

4 Click **Save**.

Entering Customer Order Types

Use customer order types to classify the orders you place in the Order Management window.

To specify customer order types:

1 Click **Customer Order Types**.

2 Click **Insert**.

3 Specify this information:

Order Type – Specify the order type.

Description – Specify a description of the order type.

4 Click **Save**.

Specifying WIP/VAS IDs

Your license key governs your access to WIP/VAS functionality. Contact your Infor Global Solutions sales associate for more information.

Note: Before you can enter WIP/VAS information, you must select the **WIP/VAS Enabled** check box. If WIP/VAS is not enabled, none of the WIP/VAS features apply to allocation and the features for maintaining and using WIP/VAS are not visible.

WIP/VAS (Work In Process/Value Added Services) are customization services that you perform on inventory. While not completely manufacturing in nature, WIP/VAS requires the management of inventory moving in and out of service sections in a warehouse. WIP/VAS starts during order entry, when a customer requests one of these specialized services. WIP/VAS is only for warehouses or distribution centers with the capability to manage the services. WIP/VAS specifications are also available at the customer order line level.

Use the WIP/VAS dialog box to specify the WIP/VAS tasks that can be performed on inventory.

To specify WIP/VAS tasks:

1   Click **WIP/VAS**.

2   Click **Insert**.

3   Specify this information:

   WIP/VAS ID – Specify an ID for the WIP/VAS you perform on a part.

   Description – Specify a description of the ID.

   Unit Price – Specify the price per unit for the WIP/VAS activity.

4   Click **Save**.

Entering Customer Types

The customer types dialog box becomes available when you select the **Allocation Require Warehouse/Location** check box.

Customers have different order requirements. Some customers may have complex order fulfillment schedules to which they must adhere. Others may have specific allocation needs at one warehouse, or various warehouses scattered across the country. Assign ranks to customers according to the degree of their order fulfillment requirements.

Assign types to customers in Customer Maintenance.

To specify customer types:

1   Click **Customer Types...**.

2   Click **Insert**.

3   Specify this information:

   Type – Specify the ID for this customer type.

   Description – Specify a description for this customer type.

Priority – Specify the priority for this customer type. The priority is used to sort customers during the allocation process. The lower the number, the higher the priority of customer.

Allocation Fence – Specify a numeric allocation fence for this priority. An Allocation Fence is used to determine which orders are considered by the Allocation Utility. If an order's required ship date is outside the allocation fence, the order is ignored during the allocation process.

Reallocate – To remove existing allocations when the Allocation Utility is run a second time, select the **Reallocate** check box. To retain existing allocations when the Allocation Utility is run a second time, clear this check box.

Auto Allocate – To automatically create allocations for this customer type, select the **Auto Allocate** check box.

Allocation Level – Click the arrow and specify the allocation level to use. You can select:

> **None** – No allocation is made.

> **Partial Allocation** – This selection allows you to allocate supply to the work order requirement, but makes allocation optional.

> **Full Allocation** – This selection requires you to make sure that work order requirements have allocated supply before you firm or release the requirement.

4 Click **Save**.

Entering Harmonized Tariff Schedule (HTS) Codes

Use HTS codes when shipping to and receiving from international locations.

To enter Harmonization codes:

1 Select **Maintain**, **Harmonization Codes**.

2 Click **Insert**.

3 Specify this information:

HTS Code – Specify a unique identifier for the code.

Description – Specify a description for this code.

Duty % – Specify the duty percentage for this code.

4 To specify duty percentages by country, click **Duty by Country**.

a Click **Insert**.

b Specify this information:

Country of Origin – Specify the country that has a specific duty percentage.

Duty % – Specify the duty percentage.

c Click **Save**.

5 Click **Save**.

Specifying Part Alias Types

Part aliases are alternate names for part IDs. Use Part Alias types to classify the alternate names you use.

To specify part alias types:

1   Click **Part Alias Types...**.

2   Click the **Insert** button.

3   Specify this information:

Part Alias Type – Specify the part alias type.

Description – Specify a description of the part alias type.

Using the Defaults Tab

Use the Defaults tab to specify requisition approval group names, how purchase requisition approval tasks are generated, and requisition rejection codes.

To specify this information:

1   Click the **Defaults** tab.

2   In each of the Approval Label fields, specify the label to display on the Approval tab of the Purchase Requisition Entry window.

3   To generate all purchase requisition approval tasks for groups simultaneously, select the **Generate All Tasks Simultaneously** check box. To generate approval tasks in sequential order, clear the check box. When you clear the check box, the first group must approve the purchase requisition before the second group's approval tasks are generated.

4   To require users to enter passwords for fields you have secured, select the **Passwords Required for Secured Fields** check box.

5   To create one batch per transaction when you post to the general ledger, select the **Create Financial Batches with Only One Transaction** check box. If you post multiple transactions to the general ledger at the same time, a batch is created for each transaction. Clear this check box to create one batch for all transactions in the posting.

6   In the AP/AR Cash Management section, specify the default bank accounts to use for this entity. You can override the defaults on individual transactions. Specify this information:

Cash Receipt Default Bank Acct – Click the browse button and select the default account to use for cash receipts. You can select any bank account associated with the current entity.

Cash Payment Default Bank Acct – Click the browse button and select the default account to use for payments. You can select any bank account associated with the current entity.

7   In the Customer Balance Method section, specify how to calculate the customer's open balance. Click one of these options:

Orders, uninvoiced shipments and unpaid invoices – Click this option to calculate the customer's open balance as the total of open order lines, uninvoiced shipments, and unpaid invoices. An order line is considered open if the line status is Released, Firmed, or On Hold. An order line is also considered open if the line status is Inherit and the header status of the order is Released, Firmed, or On Hold.

Uninvoiced shipments and unpaid invoices – Click this option to calculate the customer's open balance as the total of uninvoiced shipments and unpaid invoices. Open customer order lines are excluded from the calculation.

Unpaid A/R Invoices – Click this option to calculate the customer's open balance as the total of unpaid accounts receivable invoices only.

8   Click **Save**.

Specifying Task Rejection Codes

Before creating any purchase requisitions, add the rejection codes to use to your database. Rejection codes help you classify rejected purchase requisition tasks.

Purchase Requisition Entry and ECN Entry share a common Rejection Code table. This feature is available from both the ECN tab in Site Maintenance and the Default tab in Accounting Entity Maintenance.

1   Click **Rejection Codes**.

2   Click **Insert**.

3   Specify this information:

Code – Specify an identifier for the rejection code.

Description – Specify a description for this code.

4   Click **Save**.

Chapter 4: Site Maintenance

This chapter describes these topics:

Topics

What are Sites?

Sites are specific physical locations that have their own parts, services, shop resources, and warehouses. Database users and employees are assigned to specific sites. Most of the transactions you enter are at the site level.

If you are licensed to use multiple sites, you can set up different information for each site. If you are licensed to use a single site, then you can set up information for your single site in Site Maintenance.

To set up basic information about sites, use Site Maintenance. You can:

- Create sites
- Set up general information, such as the site address, default packlist status, repetitive manufacturing information, part location on the fly information, part warehouse on the fly information, and issue negative information
- Set up scheduling information
- Set up shipment tracking information, such as shipment reason codes, default shipping label information, and the partial shipments with pre-invoiced orders setting
- Set up ECN information
- Set up inventory and labor defaults, inspections defaults, and default project warehouse information
- Assign existing parts, services, and shop resources to the site
- Maintain calendar exceptions

If you are licensed to use multiple sites, the system administrator can assign the site to database users. Assigned sites are referred to as *allowable sites*. Database users can choose which of their allowable sites they want to use. The sites database users choose to use are referred to as *viewable sites.* If you are licensed to use a single site, all users should be assigned to the single site.

If you are licensed to use multiple sites, you also assign sites to employees in Employee Maintenance. Employees can enter labor tickets for any site they are allowed to use. If you are licensed to use a single site, all employees should be assigned to the single site.

Accessing Site Maintenance

To access Site Maintenance, select **Admin**, **Site Maintenance**.

Creating a Site

Each site belongs to an accounting entity. Accounting entities can have multiple sites, but each site can belong to only one entity.

If you upgraded from a previous version, you defined one accounting entity ID for each of your financial entities during the upgrade process. Each financial entity ID becomes a site ID in the upgraded database.

If you have not exceeded the maximum number of sites allowed by your license, you can create additional sites.

Before you can create a site, you must define its parent accounting entity. The accounting entity must have an entity currency assigned to it.

To create a site:

1 Click **New**.

2 Click the **Entity ID** arrow and select the parent accounting entity for the site you are creating.

3 In the Site ID field, specify a Site ID. We recommend that you **do not** use single quotations ('), forward slashes (/), or commas (,) in your site ID. Using these characters may result in reduced site selection functionality in reports and cause issues with integrations to other products through Infor10 Ion.

4 Click **Save**.

Specifying General Site Information

Use the General tab to define basic information about your site.

1 Click the **General** tab.

2 Specify the site's address in the address fields.

If you are licensed to use a single site, the address you define in Application Global Maintenance is used in the system. You do not have to specify a site address.

3 In the Packlists section, specify the default status for this site's packlists. Specify one of these values:

S – (Shipped) Packlists are not invoiced or shipped.

1, 2, or 3 Review – Packlists must be reviewed.

A – Approved for Invoicing.

4 In the Repetitive section, specify information to use in the Material Planning Window. Specify this information:

Demand Fence 1 and 2 – Demand fences are used in conjunction with MRP. The values you specify in this section are used to order parts if the part has an order policy of Master Schedule, and the demand fence is not defined on the part's record or on the product code for the part. The value is in days.

Use Fence 1 as MRP Frozen Period – To prevent planned orders from being created during the demand fence period, select this check box. When you select this check box, planned orders cannot be created within the demand fence time period. Planned orders are generated after the time specified in demand fence 1 elapses. By using a frozen demand fence, you can prevent planned order from being generated in a time frame that is too short to actually supply the product.

Clear this check box to allow planned orders to be generated at any time.

5 In the Part Location on the Fly section, select one of these options:

Not Allowed – Select this option to prevent part locations from being assigned on the fly. You can only use existing part/location associations. You cannot create new part/location associations or unique warehouse locations at the time of transaction. With this setting, you must establish part/location associations using the Part Maintenance window or the Part Location Creator.

Assign Existing Location to Part – Select this option to allow users to assign an existing warehouse location to a part (an association that previously did not exist) at the time of a transaction. The warehouse location and part must already exist.

Create New Location and Assign to Part – Select this option to allow users to create a new warehouse location and assign it to a part, thereby creating a valid part/location association at the time of the transaction. The warehouse must already exist.

The part location on the fly setting applies to transactions created using:

- Inventory Transaction Entry (VMINVMNT.EXE)

  This applies when you receive, issue, adjust, and transfer (only in To Warehouse Locations) part quantities and must specify a warehouse location into which you are receiving, transferring, issuing, or adjusting.

- Purchase Receipt Entry (VMRCVMNT.EXE)

  This applies when you are receiving a purchase order quantity at a warehouse and can specify a location within the warehouse at the time of receipt.

- Shipping Entry (VMSHPENT.EXE) (returns only)

  This applies when you are receiving a returned customer shipment at a warehouse and can specify a location within the warehouse at the time of return receipt.

- Physical Inventory Count (VMPHYINV.EXE)

  This applies when you are conducting part counts and recounts within warehouses and can specify a location.

- Interbranch Transfer Shipping Entry (VMIBTSHP.EXE)

  This applies when you are shipping an IBT from one warehouse (From Whse ID) location to another (To Whse ID) and can specify from which location to ship the parts.

- Interbranch Transfer Receipts Entry (VMIBTRCV.EXE)

  This applies when you are receiving an IBT into a warehouse location (To Whse ID) and can specify into which location to receive the transfer.

  When you create a new part/location association, you are prompted to specify a Hold Reason ID, Description, and a Status for the part in the new Warehouse Location.

6   In the Part Warehouse on the Fly section, select the Prevent Warning Message to prevent a warning message from displaying when you create a new Part Location on the fly. This check box is not available if you selected the Not Allowed option in the Part/Location on the Fly section.

7   In the Issue Negative section, select from these combinations:

Warehouse cleared, Location cleared – Use this combination to prevent both locations and warehouses from reaching a negative quantity.

Warehouse selected, Location selected – Select both check boxes to allow individual warehouse locations to reach a negative quantity and to allow the warehouse to reach a negative quantity as well. The system behaves in the same manner as it does if you select only the Warehouse check box.

Warehouse cleared, Location selected – Use this combination to allow warehouse locations to reach a negative quantity, but to prevent the warehouse from reaching a negative quantity. If you select this combination, a particular warehouse location can reach a negative quantity provided that the material is available in another location in the warehouse.

Warehouse selected, Location cleared – If you select this combination, neither warehouses nor locations are allowed to reach a negative quantity.

Auto Issue locations are exempt and are allowed to reach negative quantities regardless of the setting.

Allocations are not considered. The system only considers quantity on hand when determining whether the location reaches a negative quantity.

8   Select the **Allocate Negative** check box to allocate demand even though it may cause a negative balance.

9   Use the Prevent Negative Backdating check box to determine how to examine current inventory when a backdated inventory transaction is generated in Inventory Transaction Entry, Shipping Entry, Receiving Entry, or IBT Shipping Entry. If you select this check box, then the quantity you had on hand on the date of the transaction is used to determine inventory levels. If you did not have sufficient quantity on the date of the transaction, then the transaction cannot be completed. For example, say you enter an adjust out inventory transaction on January 5 for 10 units, but you specify January 3 as the transaction date. If you only had 8 units in your inventory on January 3, then you are prevented from completing the backdated transaction if you select the Prevent Negative Backdating check box.

If you clear the Prevent Negative Backdating check box, then the quantity you have on hand on the date you enter the transaction is used to determine inventory levels. For example, say you enter an adjust out inventory transaction on January 5 for 10 units, but you specify January 3 as the transaction date. If you have 10 units on hand on January 5, then you can complete the transaction, even if you did not have 10 units on hand on January 3. When you clear the Prevent Negative Backdating check box, you can generate negative inventory balances for past dates, even though you do not allow negative inventory balances for current dates.

10   If VISUAL is integrated to Infor Quality Management®, select the Enable check box in the Infor Quality Management Interface section. Specify this information:

Always Use/Query Use – After an ECN is ready to be implemented, you click the Start button in ECN Entry. These options determine the result of clicking the Start button. If you click Always Use, then IQM is always launched when you click the Start button in ECN Entry. If you click Query

Use, then you are prompted to choose to open the appropriate IQM maintenance window or to open the appropriate VISUAL maintenance window. For example, if the ECN is for a document, you can choose to open IQM Document Maintenance or VISUAL Document Maintenance.

Application Path – Specify the default URL for IQM. This is the URL you access to sign into IQM.

Configuration – Specify the IQM configuration to sign into.

Use VE User – To pass the currently signed in VISUAL user ID to the IQM sign in window, select this check box. If the user is already signed into IQM, then IQM can be accessed directly from VISUAL. The user does not have to sign into IQM again. If the user is not currently signed into IQM, then the user ID is passed to the IQM sign in window. The user must supply a password. To require users to always sign into IQM, clear this check box.

11 Click **Save**.

Specifying Site Scheduling Information

Use the Scheduling tab to define the default shop calendar for the site. The weekly shop calendar defines standard workday and shift information for your plant. The Global Scheduler uses this information when producing a shop schedule. You can define calendars specific to a particular schedule or individual shop resource. Where neither of these are defined, the calendar specified here is used. This calendar should therefore define the default work week. Exceptions for holidays and different work center schedules are handled elsewhere.

If you are licensed to use a single site, set up scheduling information in Application Global Maintenance.

1 Click the **Scheduling** tab.

2 In the Production Schedule section, click Define Production Schedule and specify this information:

ID – Specify an ID for the production schedule.

Description – Specify a description for the production schedule.

Note: You can also specify a default production schedule ID for the site when you access the Global Scheduler. If you have not yet defined the default production schedule ID for a site, when you access the Global Scheduler you will be prompted to define the ID and description for each site that does not have a default production schedule ID.

3 In the table, specify this information:

1st Shift Start – Enter the starting time for the first shift for each day of the week. By default, the first shift starts in the morning (AM).

Shift 1, Shift 2, Shift 3 – For each day that has at least one shift, specify the length in hours of each shift. If a shift is not worked, enter a 0.

The totals of the three shifts cannot exceed 24 hours.

First Shift is the period of hours starting at the 1st Shift Start time and ending after the specified number of hours in the shift. Second shift follows immediately after the first shift and ends after the specified number of hours. Third shift is immediately after the second shift; it ends after the specified number of hours.

For example, if you specify a shift start of 7:00:00 AM, a first shift length of 8 hours, a second shift length of 8 hours, and a third shift length of 4 hours, first shift is 7:00 AM to 3:00 PM, second shift is 3:00 PM to 11:00 PM, and third shift begins at 11:00 PM and runs until 3:00 AM.

4 Use the check boxes to define scheduling parameters. The selections you make apply to all schedules for the site. Select one or more of these options:

Treat All Release Dates as Hard in All Schedules – To schedule all work orders based on their hard release dates, select this check box. If you select this check box, the Concurrent Scheduler schedules no activity on any work orders in any schedule before the work order's hard release date, which you specify when you create the work order. If you select this check box, the Treat release date as hard check box on individual work orders is not available.

To decide whether to treat the release date as hard on a work order by work order basis, clear this check box. When you clear this check box, the Treat release date as hard check box becomes available on individual work orders. If you clear the Treat release date as hard check box on an individual work order, the release date is disregarded, and the work order is scheduled as time and materials allow.

Use All Supply Before Applying Lead-time in Material Checks – To consider material supply beyond work orders' required dates, select this check box. When you select this check box, the scheduler ignores a work order's required date when locating material supply. When sufficient supply is located, the work order is scheduled. If sufficient supply cannot be located, then the material's lead time is used to determine when the work order can be scheduled.

If you select this check box, then all parts in the site will use all supply before applying lead time. You cannot override the setting on the part record.

To consider material supply only up to the work order's required date, clear this check box. When you clear this check box, the scheduler does not look beyond the required date for supply when there is insufficient supply at the required date. In this case, it applies the part's or requirement's lead time to determine if sufficient supply can be obtained by the required date, or to determine when it can obtain sufficient supply.

If you clear the check box in Site Maintenance, you can specify on a part-by-part basis which setting to use. In Part Maintenance, use the Supply Before Leadtime check box specify whether or not to use the work order's required date when assessing supply.

The Concurrent Scheduler considers purchase orders, purchase order delivery schedules, Coproducts, work orders, and, if netting planned orders, planned orders, as supply.

Use Global Calendar and Exceptions for Fabricated Parts – To take calendar exceptions into account when calculating availability dates for your fabricated parts, select this check box. By using this setting you can specify the dates you do not want to use in calculations. Clear the check box to ignore calendar exceptions.

Use Global Calendar and Exceptions for Release Dates – To take calendar exceptions into account when calculating release dates, select this check box. By using this setting you can specify the dates you do not want to use in calculations. Clear the check box to ignore calendar exceptions.

Allow Scheduling of What-if Work Orders – To allow marking unreleased work orders as what-if work orders, select this check box. By using this setting, you can mark an unreleased work order as a what-if work order and specify a probability percentage of the order becoming a firmed/released order. Enabling this setting also allows you to specify whether the Concurrent Scheduler will schedule what-if work orders that meet a specified probability threshold. This allows you to schedule the what-if work orders without needing to change them to a firmed/released status. Clear the check box to disallow marking an unreleased work order as what-if and prevent the scheduling of what-if work orders.

Freeze Prioritized Operations – To enable the Freeze Prioritized Operations pre-pass when running the Concurrent Scheduler against the site's production schedule, select this check box. This setting allows you to place and freeze operations that have been prioritized by assigning them dispatch sequences in VISUAL Shop Floor. When this setting is not checked, the dispatch sequence in VISUAL Shop Floor is only used to control the sequence operations are presented in when looking to see what to work on next in Shop Floor. When this setting is checked, the Freeze Prioritized Operations pre-pass will be executed when running the Concurrent Scheduler against the site's production schedule. The Freeze Prioritized Operations pre-pass will place and freeze prioritized operations based upon the dispatch sequences assigned to them in VISUAL Shop Floor. For more information on the Freeze Prioritized Operations pre-pass, refer to the Freeze Prioritized Operations section found in Chapter 6: Concurrent Scheduler and Scheduling Window of the Infor VISUAL Manufacturing User's Guide. The Freeze Prioritized Operations setting only applies to a Site ID's production schedule. The pre-pass is not run when scheduling what-if schedules. Clear the check box to disable the Freeze Prioritized Operations pre-pass when running the Concurrent Scheduler. If existing scheduling information exists for prioritized operations, then when you clear the check box, you will be prompted with a message informing you that disabling the setting will cause all frozen dates for prioritized operations to be cleared. You must answer Yes to this prompt if you want to continue with disabling the setting.

5   In the Scheduling Notch size section, specify the notch size for the schedule. To set the notch size to one second, select the One second check box. When you select this option, the In Minutes field is unavailable. To set the notch size in minutes, clear the One second check box, then specify a notch size in the In minutes field. You can specify any whole number from 1 to 6; for example, specify 2 for a notch size of two minutes. You can also specify 10 for a notch size of 10 minutes.

6   Click **Save**.

Specifying Calendar Exceptions

In some instances, you may need to change a normal shift day. In these cases, you can define an exception for the calendar. For example, use the exception table to define holidays.

If you have multiple sites, you can import the calendar exceptions in Application Global Maintenance into the calendar exceptions you define in Site Maintenance.

1   Select **Maintain**, **Calendar Exceptions**.

2   In the Site ID field, click the arrow and select the site for which you are defining calendar exceptions.

3   Click **Insert**.

4 Specify the start date and end date for the exception. For example, if the resource will not be available on January 1, 2012, enter 1/1/12 for the start and end date.

5 Specify the time that the First shift starts.

6 Enter the shift duration for the exception. If the shift is not to work at all, specify zero (0) in that shift's column.

The scheduler uses the information you enter here to adjust the normal weekly calendar setting for the date of the exception, thereby giving an accurate estimation of resource availability.

7 Click **Save**.

You can modify and add information to the Shop Calendar and Exception Days Table at any time. The changes take effect the next time you run the Global Scheduler.

Copying Global Exceptions

You can copy the calendar exceptions set up in Application Global Maintenance to the site. To copy calendar exceptions:

1 In the Site ID field, click the arrow and select the site for which you are defining calendar exceptions.

2 Click **Copy from global exceptions**.

3 Click **Save**.

Specifying Shipment Tracking Information

Shipment Tracking is primarily for European users who need to be able to produce appropriate shipping documentation for materials that they may be holding off-site, are in transit to some other location—a customer or another warehouse—or that they are returning to a vendor.

To specify shipment tracking information:

1 Click the **Shipment Trk** tab.

2 To enable the shipment tracking function, select the **Shipment tracking enabled** check box. When you select this check box, you can print transportation document in these applications:

- Shipping Entry
- Service Dispatch Entry
- Interbranch Transfer Entry
- Interbranch Shipping Entry

When you select this check box, the Shipment Reason Codes section Maintenance section become available.

Clear the check box if you do not use shipment tracking.

3 If you selected the Shipment tracking enabled check box, specify this information:

Shipment Reason Codes – This section is available only if you select the Shipment tracking enabled check box. Click one option:

> **Required** – Select this option if users must supply a reason code to print a transportation document.

> **Optional** – Select this option if users can print a transportation document without supplying a reason code.

Maintenance – Click Ship Reason Codes... to define reason codes for your shipping documents. Specify this information:

> **Shipment Type** – Click the arrow and select one of these types:

> **Shipment** – Select this option to classify the shipment as a shipment of goods to an outside location.

> **Inventory Transfer** – Select this option to classify the shipment as a transfer of inventory between locations.

> **Service Dispatch** – Select this option to classify the shipment as a service dispatch.

> **Purchase Return** – Select this option to classify the shipment as a purchase return.

> **Reason Code** – Specify a unique reason code ID.

> **GL Account ID** – Specify an account ledger to assign to this Ship Reason Code.

> **Default Warehouse ID** – Specify the ID for the warehouse to use for this code.

4   In the Default Shipping Label field, click the Default Shipping Label browse button and select the default label format.

5   To allow the deletion of packlists with ship dates in closed or locked periods, select the **Allow Deletion of Packlists in Closed or Locked Periods** check box. When you select this check box, any packlist can be deleted provided that no invoices have been created for the packlist. Clear the check box to allow packlists to be deleted only if the ship date is in an open period.

6   In the Partial Shipments with Pre-invoiced Orders section, select one option:

Create memo with excess balance – Select this option if you would like to create a memo for any excess amount from pre-invoices or progress billings when customer orders are partially shipped. For example, if the customer has been pre-invoiced for $300 for a certain quantity of a part, and you have shipped $200 worth, then the system generates a memo worth $100 for the customer's account.

Retain excess balance for future shipments – Select this option if you would like to retain the excess amount that a customer has been pre-invoiced or has been progress billed. The system behaves differently depending on if you pre-invoice the customer or progress bill the customer.

If you progress bill the customer, the system considers the amount to apply on a line-by-line basis. For example, if the customer has a progress billing invoice for $300 for a certain quantity of a part on line 1 of the customer order, and you have shipped $200 worth, then the system retains the $100 to apply to a future shipment of the same part on line 1 of the customer order.

If you create the pre-invoice in Accounts Receivable Invoice Entry, then the grand total of the customer order is considered when the system determines the amount to refund or apply to a future shipment. The individual lines are not considered.

If you close the customer order or a line short prior to consuming all of a pre-invoice amount, the user must manually generate a memo to offset the remaining balance of the pre-invoice.

If you select this option, certain options may be disabled in Invoice Forms. If at least one customer order has been partially shipped and has a pre-invoice applied to it, the system disables the Create A/R Invoices, Combine All Packlists for an Order on One Invoice, and Combine All Packlists for a Customer on One Invoice options. You can re-activate these options by generating invoices for pre-invoiced orders with partial shipments. To identify these orders, print the List of Pre-Invoiced Orders with Partial Shipments report. Then, use the Generate/Print One Invoice option available on the File menu to generate an invoice for each order in the List of Pre-Invoiced Orders with Partial Shipments report. After you generate each invoice, the system reactivates the Create A/R Invoices, Combine All Packlists for an Order on One Invoice, and Combine All Packlists for a Customer on One Invoice options.

7   Click **Save**.

Specifying ECN Information

If you use Engineering Change Notices (ECNs) to control changes in your manufacturing processes, use the ECN tab to specify settings for ECN control.

1   Click the **ECN** tab.

2   Specify these settings:

Modify ECNs with an on-hold status – To allow users to modify ECNs with an on-hold status, select this check box. Clear this check box to prevent users from modifying ECNs with an on-hold status.

Passwords required for secured fields – To require users to enter a password when they enter data or change the status of secured fields, select this check box. This functionality provides you with electronic signature capability. To allow users to modify secured fields without entering a password, clear this check box.

Generate all tasks simultaneously – To generate tasks for members of all of your ECN teams at the same time when you change the ECN's status from Undefined, select this check box. Clear this check box to generate tasks for only the first non-completed team. For example, Implementation team members will not receive tasks until Authorization team members have all signed off on their tasks.

Lock new engineering change notifications – To automatically lock all new ECNs, select this check box.

Allow application of ECN to unreported ops/reqs to in-process work orders – To apply ECNs to work order that are already in process, select this check box. ECNs will be applied provided that labor has not already been reported or material issued to the operations and requirements affected by the ECN. For example: you have an engineering master with operations A, B, and C. You enter an ECN that affects operation B.

In one work order based on the engineering master, a labor ticket has already been entered against operation B. In this case, the ECN would not be applied to the work order. In another work order based on the engineering master, labor had been reported to operation A but not to operation B. In this case, the ECN would be applied.

If the ECN update has any impact on a requirement or operation that has actual labor or material issues, the work order will not be updated. For example, if an ECN changes a quantity per on a leg header card, the work order will not be updated If labor or materials have been applied under the leg.

If you select this check box, ECNs will not be applied to split work orders or work orders with active demand supply links.

Clear the check box if you do not want the system to apply ECNs to any in-process work order.

One active ECN per part – Select this check box to allow only one active ECN per part master. Clear this check box to allow multiple ECNs to be applied to a single part master.

One active ECN per document – Select this check box to allow only one active ECN per document. Clear this check box to allow multiple ECNs to be applied to a document.

One active ECN per work order – Select this check box to allow only one active ECN per work order. Clear this check box to allow multiple ECNs to be applied to a work order.

One active ECN per engineering master – Select this check box to allow only one active ECN per engineering master. Clear this check box to allow multiple ECNs to be applied to an engineering master.

One Active ECN per project – Select this check box to allow only one active ECN per project. Clear this check box to allow multiple ECNs to be applied to a project.

3   Click **Save**.

Entering and Deleting Maintenance Codes

Use the buttons in the Maintenance section to access these ECN codes:

- Types
- Dispositions
- Reasons
- Rejection Codes

Entering Maintenance Codes

Note: Use the same method to enter and delete information for all ECN maintenance dialog boxes.

To enter ECN maintenance codes:

1   Click the button for the maintenance code to enter. For example, to enter Disposition codes, click the **Dispositions** button.

2   Click **Insert**.

3   Enter the code and a description for that code.

4   Click **Save**.

Deleting Maintenance Codes

To delete maintenance codes:

1   Open the maintenance table that contains the code to delete.

2   Select the line item to delete.

3   Click **Delete**.

    An X is displayed in the row header indicating you have marked it for deletion.

4   Click **Save**.

Specifying Defaults

The settings you specify on this tab apply to several areas of your site.

1   Click the **Defaults** tab.

2   In the Inventory/Labor section, select these options:

Autogen Labor During Receipt – Select this check box to backflush labor when you receive a work order into inventory or when you ship a customer order that is linked to a work order.

If you clear this check box, then backflushing is triggered in labor entry only. If you clear this check box, then the last operation in a work order must not use an auto-reporting resource. You cannot manually report labor to an auto-reporting resource.

Default Employee – If you selected the Autogen Labor During Receipt check box, specify the ID of the employee to use on labor tickets that are generated when you ship a customer order that is linked to a work order.

Backflush Subordinate Legs – Select this option to backflush labor to subordinate legs. In addition to selecting this check box, you must also specify an auto-reporting resource on the last operation in the leg to initiate the backflush of legs.

Generate Labor Tickets During Backflush – Select this check box to generate labor tickets for operations that have been backflushed. The costs that are specified on the Costs tab of the operation are used to determine the labor costs.

Clear this check box if you do not want to generate labor tickets for backflushed operations. If you clear this check box, then backflushed operations do not have any labor costs.

Require Issue Reason for All Issues – To require reason codes for every material issue you enter, select this check box.

Require Issue Reason for All Issue Returns – To require reason codes for every material return you enter, select this check box.

Percent complete – To report quantities based on percentage complete instead of quantity complete, select this check box. If you select this check box, then quantities for all run operations that you create for this site are reported as a percentage. These changes are made:

• In Labor Ticket Entry, Qty Remaining and Qty Completed labels are replaced with Percent Remaining and Percent Completed labels.

• In Wedge Barcode Labor Entry, Op Qty Completed, Op Qty Remaining, and Op Qty Remaining labels are replaced with Op Prcnt Complete, Op Prcnt Remaining, and Percent Completed prompts.

• In ALTS, the Quantity Completed prompt is replaced by a Percent Completed prompt.

If you clear this check box, you can set up whether to report labor quantities as percentages on individual work orders or operations.

Require Deviation Reason for Deviated Quantities – To require reason codes for every deviation quantity you enter during labor ticket entry, select this check box.

Require Adjustment Reason for All Adjust Ins – To require reason codes for all of your inventory adjust ins, select this check box.

Require Adjustment Reason for All Adjust Outs – To require reason codes for all of your inventory adjust outs, select this check box.

Require Transfer Reason for All Transfers – To require reason codes for all inventory transfer transactions, select this check box.

Quantity Complete by Hours – To automatically calculate quantity complete or percentage of completion based on the hours reported on the labor ticket, select this check box.

If you report labor based on quantity complete, then this calculation is made to determine the quantity completed during the labor ticket:

(hours reported on ticket/total estimated hours for operation) * operation quantity

If you report labor based on percentage complete, then this calculation is made to determine the percentage:

(hours reported on ticket/estimated hours for operation) * 100

The operation is automatically closed when the quantity or percentage complete equals or exceeds the operation quantity.

If you select the Quantity Complete by Hours check box in Site Maintenance, then all run type labor transactions in the site are automatically calculated.

Max Percent Completed – If you selected the Quantity Complete by Hours check box, use this field to specify the maximum percentage that can be calculated automatically. When the percentage complete meets the threshold that you specify, automatic calculation of quantity complete is stopped. The operation remains on your schedule until the operation is manually closed. This formula is used to calculate the number of hours for the operation that remain on your schedule:

((100 - value specified in Max Percent Completed field)/100) * total hours required for the operation

If you specify a value in this field, then automatic calculation of labor on all operations in the site will stop at the value that you specify.

3   If you are licensed to use WIP inventory tracking, specify the defaults for new move requests:

Default Matl WIP Delivery Type – Specify the default delivery type to use on move requests that are created in Inventory Transaction Entry. Select Drop Only if the material will be used immediately. Select WIP Inventory if the material will be stored in a WIP location. If you do not want to set a default value, leave this field blank.

Default Labor WIP Delivery Type – Specify the default delivery type to use on move requests that are created in Labor Ticket Entry. Select Drop Only if the material will be used immediately. Select WIP Inventory if the material will be stored in a WIP location. If you do not want to set a default value, leave this field blank.

Default Matl Move Request Status – Specify the default status of move requests that are created in Inventory Transaction Entry. Select one of these options, or leave the field blank if you do not want to set a default value:

Pending – The parts in the move request are waiting to be loaded or picked. If you choose not to use the Loading status for any move requests, you can also use the pending status to indicate that the order is being loaded.

Loading – The parts in the move request are being loaded or picked.

Ready for Pickup – The parts in the move request are ready to be delivered by shop floor personnel.

Default Labor Move Request Status – Specify the default status of move requests that are created in Labor Ticket Entry. Select one of these options, or leave the field blank if you do not want to set a default value:

Pending – The parts in the move request are waiting to be loaded or picked. If you choose not to use the Loading status for any move requests, you can also use the pending status to indicate that the order is being loaded.

Loading – The parts in the move request are being loaded or picked.

Ready for Pickup – The parts in the move request are ready to be delivered by shop floor personnel.

4   If you are integrated with Infor Quality Management, specify settings in the Inspections section. Select these options:

Require Completed Inspections on Labor Tickets – To require users to select the Quality Data Collection Complete check box in the Labor Ticket Entry window before they can save the labor ticket, select the Require Complete Inspections on Labor Tickets check box.

Require Completed Inspections for Return/Release – To require users to select the Quality Data Collection Complete check box in the Receiving Inspection dialog box of the Purchase Receipt Entry window, select the Require Completed Inspections for Return/Release check box.

5   If you are licensed to use Projects functionality, in the Projects section specify the default warehouse to use as the basis for your project warehouses.

6   You can specify a default internal customer ID to use when this site buys items from another site. Click the **Default Internal Customer ID** browse button and select the customer ID to use.

You can override the default setting on the purchase order.

7   In Vendor Maintenance, you can set up a list of buyers who are not allowed to purchase materials from a particular vendor. These buyers are excluded buyers. If you create a purchasing document for that vendor, you cannot specify an excluded buyer in the Buyer ID field. In the Vendor Exclusion Mode section, specify the purchasing information an excluded buyer can access. Click one of these options:

Exclude buyers from using vendor – Click this option to prevent the use of an excluded buyer on a purchasing document. If the excluded buyer is a user, the buyer can still create and edit purchasing documents, but cannot be the buyer specified on the document.

Exclude users and buyers from using vendor – If an excluded buyer is also a database user, click this option to prevent the buyer from creating any purchasing documents for vendors that the buyers are not allowed to use. Users can still view purchasing documents from any vendor. To prevent excluded buyers from editing purchasing documents for vendors they are not allowed to use, select the **Read only mode for excluded vendor documents**.

8   In the Auto Issue Method section, click one of these options:

Based on Operation Qty Complete – Click this option to auto-issue material requirements incrementally based on the quantity or percent completed on each labor ticket. For example, presume that the operation is for a quantity of 5 and the Qty Per for the material requirement is 1. If a quantity of 2 is completed on a labor ticket, then 2 units of the material requirement are issued (presuming that there is no fixed scrap or deviated quantity). If an operation is closed before all quantities are completed, then the material requirement is also closed short.

Based on the Full Requirement Qty on First Labor Ticket – Click this option to auto-issue the full material requirement quantity after the first labor ticket is reported for the operation. If you backflush labor without creating labor tickets, then the full material requirement is issued after the first quantity is backflushed.

Depending on how you set up Preferences Maintenance, the issued quantity can include fixed scrap and extra materials for deviated quantities that are reported on the first labor ticket.

If a labor ticket has already been created for the operation or a quantity has already been backflushed, then additional material is not issued. For example, if you created a labor ticket for an operation and then increased the quantity of the material requirement, the additional requirement will not be issued.

Note: If operations are in process when you select this auto-issue method, additional materials are not issued to any in-process operation. To complete material issues for in-process operations, you must manually issue the materials.

Based on Full Remaining Req Qty on Run Complete – When you use this option, materials are issued in proportion to the quantity or percent complete on the operation until the Run Complete labor ticket is saved to the operation. When the Run Complete labor ticket is saved, all remaining material requirements are issued to the operation, even if the operation is closed short. If you backflush labor during the shipment of customer orders, then the full remaining quantity of a material requirement is issued when the full quantity of the order line has been shipped or when the line is closed short.

Depending on how you set up Preferences Maintenance, this quantity can include fixed scrap and extra materials for deviated quantities.

For more information on setting up auto-issue parts, see "Auto-issue Parts" on page 3–21 in the Inventory guide.

9 If you are integrated to Infor PLM, you can directly access PLM from Part Maintenance. Use the PLM Integration section to specify PLM access information for the site. You can use the default connection information specified in Application Global Maintenance, or you can specify site-specific connection information in Site Maintenance. Specify this information:

Login URL – If this site uses a unique URL to access PLM, specify the external launch URL for Web PLM in this field. If this site uses the default URL specified in Application Global Maintenance, leave this field blank.

Enable – Specify whether you can directly access PLM from Part Maintenance when viewing a part for this site. Specify one of these options:

Default – Specify Default to use the enable setting specified in Application Global Maintenance. If you specify Default and the Enable check box is selected in Application Global Maintenance, then you can access PLM from Part Maintenance when viewing parts for this site. If you specified a URL in Site Maintenance, then that URL is used to access PLM. If you left the Login URL in Site Maintenance blank, then the URL specified in Application Global Maintenance is used to access PLM. If you specify Default and the Enable check box is cleared in Application Global Maintenance, then you cannot access PLM when viewing parts for this site, regardless if you have specified a URL in either Site Maintenance or Application Global Maintenance.

No – Specify No if you cannot access PLM in Part Maintenance when viewing parts for this site. If you specify this option, you cannot access PLM when viewing parts for this site even if you specify a Login URL in Site Maintenance or Application Global Maintenance.

Yes – Specify Yes if you can access PLM in Part Maintenance when viewing parts for this site. If you specify this option and you specify a login URL in Site Maintenance, then the URL you specify in Site Maintenance is used to access PLM. If you specify this option and you leave the Login URL field blank in Site Maintenance, then the login URL specified in Application Global Maintenance is used to access PLM.

10 Click **Save**.

Using the APS Tab

This tab is displayed only if you are licensed to use VISUAL APS.

Use the APS tab to specify default file information to use with the information that you import with the APS Import Utility and export with the APS Export Utility.

Assigning Import File Paths

Set these Import File Paths:

- Customer Order
- Inventory
- Work Order

- Labor
- Purchase Order
- Master Schedule
- Part
- Resource

To assign import file paths:

1 Click the **APS** tab.

2 Click a **Path / File** button. For example, to assign the Customer Order file path, click the **Customer Order Path / File** button.

3 Navigate to the folder where you keep the import file, select it and click **Open**.

The path and name you selected appears in the path field.

4 Click the **Save** toolbar button.

Assigning Export File Paths

To assign export file paths:

1 Click the **APS** tab.

2 Click the **Export Paths / Files** button.

3 Click the appropriate button for the export path to assign.

4 Navigate to the folder where you keep the import file, select it and click **Open**.

The path and name you selected appears in the path field.

5 Click the **Save** toolbar button.

Assigning APS Import Default IDs

To assign import IDs:

1 Click the **APS** tab.

2 Click the **APS Import Defaults** button.

The APS Defaults dialog box appears.

3 Click the appropriate browse button for the ID to set.

4 Select the ID to use and click the **OK** button.

5 Cick **OK** in the APS Defaults dialog box and click the **Save** toolbar button.

Setting File Styles

To set file styles:

1   Click the **APS** tab.

2   To surround strings with quotation marks, select the **Quoted Strings** check box.

3   To trim the leading and trailing spaces from the text strings it imports, select the **Trim Trailing and Leading Spaces From Strings** check box.

4   To assume that periods in numbers are decimal points, select the **Implied Decimal Points On Numbers** check box.

5   Click in the **Field Delimiter** arrow and select the identifier to use between fields.

You can select:

Asterisk – *

Tilde – ~

Comma – *,*

Tab – An invisible tab character.

Null (Fixed Length) – Fields in the import file must be the same length as specified by the database.

6   Click the **Record Delimiter** arrow and select the identifier to use between records.

You can select:

Newline – To display each record on a new line, select the **Newline** option.

Null (Fixed Length) – Records in the import file must be the same length as specified by the database.

7   Click the **Save** toolbar button.

Assigning Existing Parts, Resources, Services, and Employees to Sites

If you are licensed to use multiple sites, you can assign existing parts, shop resources, services, and employees to your sites in the Site Maintenance window. Parts, resources, and services must be assigned to a site before they can be used in transactions for that site. Employees must be assigned to a site before they can be used in a labor ticket.

If you are licensed to use a single site, all parts, shop resources, and services automatically exist in your single site.

The SYSADM user can also assign database users to sites. For more information, refer to the "User Management" chapter in the System Administrator guide.

Adding Parts to a Site

To add existing parts to a site:

1   Select **Maintain**, **Site Parts**.

2   Click the **Site ID** arrow and select the site to which you are adding parts.

3   Click the **Add to Site** check box for the parts to add to the site. To add all parts to the site, click **Select All for Add**. To clear all selections in the Add to Site column, click **Unselect All for Add**.

4   Click **Save** to add the parts to the site. After you click save, the Exists in Site check box is selected for the parts you added.

   After you add parts to the site, you can modify certain part information in Part Maintenance at the site level.

Adding Services to a Site

To add existing parts to a site:

1   Select **Maintain**, **Site Services**.

2   Click the **Site ID** arrow and select the site to which you are adding services.

3   Click the **Add to Site** check box for the services to add to the site. To add all services to the site, click **Select All for Add**. To clear all selections in the Add to Site column, click **Unselect All for Add**.

4   Click **Save** to add the services to the site. After you click save, the **Exists in Site** check box is selected for the services you added.

   After you add services to the site, you can modify certain service information in Outside Service Maintenance.

Adding Shop Resources to a Site

To add existing shop resources to a site:

1   Select **Maintain**, **Site Resources**.

2   Click the **Site ID** arrow and select the site to which you are adding shop resources.

3   Click the **Add to Site** check box for the shop resources to add to the site. If you choose to add a shop resource group ID, you are asked if you want to add the resources that are members of the group to the site. Click **Yes** to add the group members.

   To add all shop resources to the site, click **Select All for Add**.

   To clear all selections in the Add to Site column, click **Unselect All for Add**.

4   Click **Save** to add the shop resources to the site. After you click save, the Exists in Site check box is selected for the shop resources you added.

After you add shop resources to the site, you can modify certain shop resource information in Shop Resource Maintenance.

Adding Employees to a Site

To add existing employees to a site:

1   Select **Maintain**, **Site Employees**.

2   Click the **Site ID** arrow and select the site to which you are adding employees.

3   To add employees to the site, click **Add to Site**.

   To add all employees, click **Select All for Add**.

   To clear all selections in the Add to Site column, click **Unselect All for Add**.

4   Click **Save**. After you click save, the **Exists in Site** check box is selected for the employees you added.

If you are licensed to use multiple sites, then each employee's pay rate is maintained at the site level. After you add employees to your sites in Site Maintenance, access Employee Maintenance to define the pay rate for each employee at each site. For more information, refer to "Assigning Employees to Sites" on page 7-11 in this guide.

You can also add employees to sites in Employee Maintenance.

Setting Service Charge Defaults

Use the Service Charge Defaults dialog box to set up the service charges you use. If you are licensed to use multiple sites, maintain this information by site.

To set up service charge defaults:

1 If you are licensed to use multiple sites, click the **Site ID** arrow and select the site for which you are setting up service charge defaults. If you are licensed to use a single site, this field is unavailable.

2 Select **Maintain**, **Service Charge Defaults**.

3 Specify this information:

ID – Specify a unique identifier for the service charge in the ID field.

Description – Specify a description of this service charge in the Description field.

Unit Price – Specify the service charge per unit.

Trade Discount % – Specify the discount available for this service.

Commission % – Specify the commission rate paid to the sales representative for this service.

Product Code – Specify the product code to which this service charge applies.

Commodity Code – Specify the commodity code to which this service applies.

Sales Tax Grp ID – Specify the sales tax group to apply to this service charge.

Revenue Account ID – Specify the account where the service charge is posted.

Active – To make this service charge available for use, select this check box.

4 To include this service charge for Intrastat calculations, select the **Include for Intrastat** check box.

5 To include any comments or specifications for this service charge, click in the Specifications text box and enter the comments.

6 Click **Save**.

Deactivating Service Charges

If you no longer use a service charge, you can deactivate it. When a service charge is deactivated, users cannot specify it on any new records or transactions. Inactive service charges are not displayed in service charge drop-down lists or browse tables, and users cannot manually specify an inactive service charge in a Service Charge field. Inactive service charges used on existing records are not removed.

To delete service charge codes:

1 Select **Maintain**, **Service Charge Defaults**.

2 Select the ID of the service charge to be deactivated.

3   Clear the **Active** check box.

4   Click **Save**.

Deleting Service Charge Codes

To delete service charge codes:

1   Click the browse button and select the ID to delete.

2   Click **Delete**.

3   In the confirmation dialog box, click **Yes**.

The service charge is deleted from your database.

Chapter 5: Document Maintenance

This chapter includes this information:

What is Document Maintenance?

Sometimes you may have a single document that you associate with several items. For other documents, you may want to associate several documents to one item. Use Document Maintenance to associate your documents with records in VISUAL.

By having a single window in which you can set up all of your documents and using a reference from the appropriate areas in VISUAL, you can better manage your documentation.

Planning Document Storage

Documents can be stored in centralized directories by reference type, site, entity, tenant, or globally. Use the Document Folder feature to designate the storage folder for documents at each level. See "Maintaining Document Folders" on page 5-5.

If you set up specific directories for sites and reference types, we recommend that you use drag-and-drop to add new documents and use the Document ID browse in the Document Reference dialog to attach existing documents to records. This prevents you from accidentally overriding the site and reference type checks that are in place when you: add new documents using drag-and-drop or attach existing documents using Document ID browse in the Document Reference dialog.

This table describes how to achieve centralized directories for each level:

Document Storage Level	How to store a document at this storage level
Reference Type	For directories by reference type, specify a directory unique for each site or tenant reference type such as, C:\Infor\VISUAL\Docs\SiteABC\ReferenceType1 and C:\Infor\VISUAL\Docs\SiteABC\ReferenceType2.
Site	For a site-level directory not subdivided by reference type, specify the same directory for all of the site's reference types.
Entity	For an entity-level folder structure not subdivided by site, specify the same directories for all of the entity's child sites. You can still use reference types. For example, you could create a directory called C:\Infor\VISUAL\Attachments\EntityA\APInvoices and assign the directory to the AP Invoice reference type in each of the entity's child sites.
Tenant	For tenant-level folders, specify ** Tenant ** in the Site ID field. You can specify which sites have access to tenant-level documents on a document-by-document basis.
Global	For a global document folder, create a folder and then specify it in the Global Document Path.

Referencing Documents at the Tenant-level and the Site-level

When you attach documents in maintenance windows, the level of the maintenance window must match the level of the document. For example, Vendor Maintenance is a tenant-level application, because you cannot specify a site. If you attach an existing document to a Vendor Maintenance record, you can only attach tenant-level documents. While you can use Document Maintenance to create a site-specific vendor document, you cannot use this document in Vendor Maintenance. Site-specific documents can only be used in site-specific maintenance windows such as WIP Maintenance.

Similarly, when you create a new document attachment through a maintenance window, the level of the new document matches the level of the maintenance window. For example, if you create a new document in Purchase Order Entry, the document is created in the site that you selected in the purchase order header. If you create a new document in Customer Maintenance, the document is created at the tenant level.

Many of the document reference-enabled windows allow document creation at the site level. This table shows the windows where tenant level documents and document references are made:

Windows	Tenant-Level
Customer Maintenance	Tenant
Vendor Maintenance	Tenant

Opening the Document Maintenance Window

Select **Admin**, **Document Maintenance**.

Setting Up Document Categories

Use Document Categories to specify what type of document you are entering. For example, to reference Material Specification Documents, you could enter a category named Material Specs.

To set up document categories:

1   Click the **Document Category** button on the toolbar.

2   Click **Insert**.

     The next available row appears highlighted and the cursor appears in the ID column

3   Enter a suitable identification for this category.

4   Press the TAB key and enter a description for this category.

5   Click **Save**.

6   Click **Close**.

Maintaining Document Folders

Use document folders to manage where your documents are stored. You can set up document folders in a variety of ways. See "Planning Document Storage" on page 5-2.

Document file paths can be up to 255 characters long, except for the Global Document path which is up to 128 characters long.

To maintain document folders:

1 In the Document Maintenance window, select **Maintain**, **Document Folders**.

2 Specify the Global Document Path by either clicking on the browse folder button, or manually typing the global document path.

   If paths by Site and Reference Type are not specified, the Global Document Path is the default path for storing documents.

3 To set up paths for site-level documents, select the site from the Site ID drop-down list. To set up paths for tenant-level documents, select ** Tenant ** from the Site ID drop-down list. If you are licensed to use a single-site, this field is unavailable.

4 Click the **Insert Row** toolbar button.

5 Click in the Reference Type column of the new row and select from the **Reference Type** drop-down list.

6 Click in the Path column of the new row and either manually type the reference type's document path, or double-click the Path column's directory browse button and select the path.

7 Click **Save** to set the default file path for your selected Site and Reference Type combination.

Maintaining Default Reference Types

Use default reference types to define how your documents are stored.

When a user drags-and-drops a new document onto a program's main window or a Document Reference dialog, these settings determine the default reference type. For example, if you specify Customer as the default reference type for Customer Order documents, then new documents that are drag-and-dropped onto the Customer Order Entry window have a Customer reference type. You can change the reference for new dragged-and-dropped documents in the Document Reference dialog or in the New Document dialog. The General reference type is used when no default reference type exists.

To maintain default reference types:

1   In the Document Maintenance window, select **Maintain**, **Default Reference Types**.

2   In the Site ID field, specify the site where you are setting up default reference types. Select **** Tenant **** to set up default references for tenant-level documents. If you are licensed to use a single-site, this field is unavailable.

3   Click the **Insert Row** toolbar button.

4   Click in the Document Type column of the new row and select the **Document Type** from the drop-down list.

5   Click in the Default Reference Type column of the new row and select the **Default Reference Type** from the drop-down list.

This table lists what Reference types are available based on the selected Document Type:

Document Type	Default Reference Type
AP Invoice	• AP Invoice • General • Vendor
AR Invoice	• AR Invoice • Customer • General
Cash Application	• AR Invoice • General
Customer	• Customer • General
Customer Order	• Customer • Customer Order • General
Engineering Change Notice	• Engineering Change Notice • General

Document Type	Default Reference Type
Equipment	• Equipment • General
Estimating	• Customer • Estimating • General
General Journal	• General • General Journal
Operation	• General • Operation • Shop Resource • Work Order
Part	• General • Part
Project (Only available when you are licensed for a project database.)	• General • Project
Purchase Contract	• General • Purchase Contract
Purchase Order	• General • Purchase Order • Vendor
Receiver (Used when adding documents in Purchase Receipt Entry and Receiving Inspection)	• General • Purchase Order • Receiver • Vendor
Requisition	• General • Requisition • Vendor
RFQ	• General • RFQ
RMA	• Customer • General • RMA
Service	• General • Service

Document Type	Default Reference Type
Shipper	• Customer • General • Shipper
Shop Resource	• General • Shop Resource
Trace	• General • Trace
Vendor	• General • Vendor
Work Order	• General • Part • Work Order

6 Click **Save**.

Adding Documents

You can add documents by specifying a file location (for example, c:/Infor ERP VISUAL Enterprise/ Part123Schematic.doc) or a URL address (for example, file://///mycompanyserver/ Part123schematic.doc). Using a URL address can be helpful if you share documents with Microsoft Sharepoint or other similar document sharing systems.

If you add documents with a URL address, you cannot print the document using the print associated documents feature found in applications such as Customer Order Entry, Print Work Order Travellers, Customer Maintenance, Part Maintenance, and Vendor Maintenance. If you would like to be able to print the documents that you associate with records in these applications, specify a file location instead of a URL.

The system does not validate the existence of the URL you provide. Make sure you enter the URL correctly.

For physical file locations, you can specify a default Global Document Path for the file location in Document Folder Maintenance. You can also specify a file location based on Site ID and Reference Type.

Adding a Document

To add a document:

1   In the Document Maintenance window, use the Site ID field to specify where the document can be used. To use the document in a particular site, select the site from the drop-down list. To use this document at the tenant level, select ** Tenant ** from the drop-down list. When you add a document at the tenant level, the document is available to all sites by default. If you are licensed to use a single site, this field is unavailable.

2   Click the **Reference Type** arrow and select the type of document from the list. You cannot remove or add Reference Types from the drop-down list. General is the default reference type.

By selecting an appropriate reference type, you can control the documents that appear in the various windows and thereby limit the documents from which your users can select. For example, if you select Part for all of your part documents and your user is referencing a document in the Part Maintenance window, that user will only be able to select a part document. You can reference General type documents from within any module.

You can select AP Invoice, AR Invoice, Customer, Customer Order, Email Attachments, Engineering Change Notice, Equipment, Estimating, General, General Journal, Operation, Part, Project, Purchase Contract, Purchase Order, Receiver, RFQ, RMA, Requisition, Service, Shipper, Shop Resource, Trace, Vendor, Work Order, or Work Flow.

After you select a reference type, the Document Path field is updated. If a path is specified for the reference type and site in the Document Path Maintenance dialog, then that path is displayed in the Document Path field. If a path has not been specified for the reference type and site, then the global document path is displayed. If the global document path has not been specified, then the directory where you store your VISUAL executables is displayed.

3   To add the document, perform one of these actions:

- Drag-and-drop the document onto the Document Maintenance window. The document is copied into the directory that is displayed in the Document Path field.

- Click the Document Path field button and navigate to the file. Click **Open**. The document is stored in the directory to which you navigated. It is not copied to any default directories that you have set up.

- Specify a URL in the Document Path field. When you specify a URL with a valid protocol, the system selects the URL check box. The system recognizes these protocols:

  http://

  https://

  file:// – Use this protocol to reference a file on Microsoft Sharepoint only.

  file:///// – Use this protocol to reference a file on a web server.

  The system inserts the name of the file in the Document ID field.

4   In the Description field, specify a description for this document.

5   Click the **Document Category** drop-down button and select the category from the list.

6   If this document is under ECN Revision Control, select the **ECN Rev Control** check box, which also deactivates the Stage and Revision fields. If the document is not under ECN Revision Control, you can specify a stage and revision level for the document.

7   To allow the emailing of this document to customers or vendors, select the **Allow Emailing** check box.

8   Click **Save** on the toolbar.

After you save the document, you can click the Document Link field to open the document. If you provided a URL with the http:// or https:// protocol, the system opens the document in a web browser. If you provided a URL with the file:// or file:///// protocol, the system opens the document in the application in which it was created. If you provided a physical document location, the system also opens the document in the application in which it was created.

Setting Allowable Sites for Tenant Documents

When you create a tenant-level document, the document is made available to all sites by default. Use the Allowable Sites dialog to specify which sites can use a tenant-level document.

To set allowable sites for tenant level documents:

1   In the Document Maintenance window, select **Tenant** as the Site ID.

2   Click the **Document ID** browse button and select a document from the list.

3   Select **Maintain**, **Allowable Sites**. Your allowable sites are displayed.

4   To allow the document to be used in a site, select the check box in the **Allowable** column. To prevent the document from being used in a site, clear the Allowable check box.

5   Click **Save**.

Editing Document References

You can edit your document references without having to make the changes everywhere you have used that reference. For example, if you have widely used a material spec and you change the location on the document to which the specification refers, make a single change in the Document Maintenance window instead of changing the reference everywhere you have used it.

To edit document references:

1   In the Document Maintenance window, select the site where the document is used. Select **
    Tenant ** to edit a tenant-level reference.

    If you select a site in the Site ID field, documents that belong to the site are displayed in the Documents browse. Tenant-level documents are also displayed if the site is allowed to use them.

2   Make changes.

    You can change the selected site only if there are no references to the document, or if the document is a tenant document that only references one site and you are selecting that site.

    You can change unreferenced documents from site level to tenant level, or tenant level to site level. If you change a document from site to tenant level the document is added to all allowable sites.

3   Click **Save** on the toolbar.

Viewing Where Documents are Used

After you have used Document References in various modules, you can use the Where Used function to view a list of where you have used a particular document reference.

To view a where used list:

1   In the Document Maintenance window, select the document reference to view.

2   From the Info menu, select the **Where Used** option.

    Note: If you have a large list of documents and you want to view a particular reference, click the *Search* button and enter the appropriate information.

3   When you have finished, click **Close**

Deleting Document References

Note: After you have used document references, you cannot delete the reference from the Document Maintenance window without first removing the reference from records.

To delete document references.

1   Open the Document Maintenance window.

2   Click the **Document ID** button and select the reference to delete.

3 Click the **Delete** button on the toolbar.

You are prompted to confirm the deletion of the reference.

4 Click **Yes**.

The document reference is removed from your database.

If a reference to the document exists, you are prompted that you cannot delete the reference. Click **OK** and remove the reference before continuing.

Copying and Moving Documents

Use the Copy/Move Documents window to copy or move documents from one folder to another. You can keep or delete the original documents.

To copy and move documents:

1 In the Document Maintenance window, select **Maintain**, **Copy/Move Documents**.

2 Specify the **New Path for all Copied Documents** by either clicking the browse folder button, or manually typing the path.

The selected files will be copied to the path specified.

3 By default, all documents are displayed. To filter the documents in the table, specify information in these fields:

Site ID - To view documents created for a particular site, select that site from the Site ID list. To view documents created at the tenant level, select ** Tenant **. To view the documents created for all sites including the tenant, select **All**.

Reference Type - To view documents with a particular reference type, select that type from the list. To view the documents created for all reference types, select **All**.

4 Select these check boxes as is appropriate for each document record:

Copy to New Path – Select this check box to copy the selected document from the original path to the new path. To copy all documents to the new path, click the **Copy Select All** button.

Delete from Original Path - Select this check box to delete the document from the original path after it has been copied. Clear this check box if you want to retain a copy of the document at its original path after a copy has been created at the new path. This check box can only be used if the Copy to New Path check box is selected. To select this check box for all documents that you are copying to a new path, click the **Delete Select All** button

5 Click **Save**. For the documents that you copied, the Original Path column is updated with the file path that you specified in the New Path for all Copied Documents field.

Printing Document Listings

The Document Listing Report lists documents on a site and reference type basis.

To print a list of your documents:

1   From the Document Maintenance window, click **Print** on the toolbar.

2   To view documents added to a particular site, select the site from Site ID drop-down list. To view documents added at the tenant level, select ** Tenant ** from the Site ID drop-down list. To view all documents, select ** All **.

  Note: If you select a site, the report shows only documents specifically added to the site. It does not show tenant level documents that the are allowed to be used in the site.

3   Click **Starting Doc ID** and select the document with which to start this report.

4   Click **Ending Doc ID** and select the document with which to end this report.

5   To limit this report based on Reference Types, select each reference type to include in the report.

  Note: As you select each reference type, it appears highlighted. To clear a selection, click it a second time.

6   In the Sequence section, select the sort order for the report.

  You can select **Document ID** or **Reference Type**.

7   Click the **Print To** arrow and select the output for the report.

  Select **Print** to send this report to your printer.

  Select **View** to view the report on your screen.

  Select **File** to copy this report to a comma-delimited file. You are prompted for a file name.

  Select **E-mail** to send a copy of this report to an email recipient. If you select to email the report, an rtf (rich text format) file is created and attached to a Microsoft Outlook email. If you selected the **PDF Format** check box, a PDF is created and attached to the email

8   To print a list of only the documents you have used for references, select the **Print Linked References** check box.

9   Click **OK**.

Referencing Documents

You can make as many references to as many documents as you need. Referencing also allows you to make changes in one place instead of making many of the same changes in different places.

You can create documents or reference existing documents in applications. The application determines the type of document that you can create or reference. For example, in Customer Maintenance you can create or reference documents with the type of Customer or General. You cannot create or reference documents with the type of Part.

This table shows the applications where you can create or reference documents, the document types that you can create or reference, and whether documents can be attached to the header, line, or both:

Application	Document Types	Attachment Level
A/P Invoice Entry	A/P Invoice General Vendor	Header and Line
A/R Invoice Entry	A/R Invoice Customer General	Header and Line
Cash Application	A/R Invoice Customer General	Line
Collections Window	A/R Invoice General	Line
Customer Maintenance	Customer General	Header
Customer Order Entry	Customer Customer Order General	Header and Line
Engineering Change Notices Entry	Engineering Change Notice General	Header and Line
Equipment Maintenance	Equipment General	Header
Estimating Window	Customer Estimating General	Header and Line
General Journal Entry	General General Journal	Header and Line

Application	Document Types	Attachment Level
Manufacturing Window - Header card	General Part Work Order	Header
Manufacturing Window - Operation Card	General Operation Service Shop Resource Work Order	Header
Manufacturing Window - Material Requirement Card	General Part Work Order	Header
Order Management Window	Customer Customer Order General	Header and Line
Outside Service Maintenance	General Service	Header
Part Maintenance	General Part	Header
Part Trace Maintenance	General Trace	Line
Payment Entry	A/P Invoice General Vendor	Line
Progress Billing Entry	Customer Customer Order General	Header and Line
Project Billing Entry	Customer Customer Order General	Header and Line
Project Maintenance	General Project	Header
Project Window - Header Card	General Part Work Order	Header

Application	Document Types	Attachment Level
Project Window - WBS Task Card	General Operation Service Shop Resource Work Order	Header
Project Window - Leg/Detail	General Part Work Order	Header
Purchase Order Entry	General Purchase Order Vendor	Header and Line
Purchase Receipt Entry	General Purchase Order Receiver Vendor	Header and Line
Purchase Requisition Entry	General Requisition Vendor	Header and Line
Receiving Inspection	General Purchase Order Receiver Vendor	Receiver Lines in Inspection
RMA Entry	General RMA	Header and Lines
Vendor Maintenance	General Vendor	Header
Vendor RFQ Entry	General RFQ	Header and Line
WIP Maintenance	A/P Invoice General	Header

Referencing Existing Documents

To reference a document:

1 Open the appropriate program.

For example, if you are adding document references to a part, open the Part Maintenance window.

2 Select the item to which you are adding document references.

Using the part example, select the appropriate part in the Part Maintenance window.

Note: If the Site ID is Tenant in the Part Maintenance window, the Document Reference option is not available.

In some cases, such as the Customer Maintenance window, there may not be a Site ID value, in which case ** Tenant ** is displayed in the Document Reference dialog. If this is the case, then the document reference becomes a tenant-level document for multi-site databases, or the one available Site ID for single-site databases.

3 Open the Document Reference dialog. You can open the dialog by:

- Clicking the **Documents** toolbar button to attach a document to the record. If the record has a table, you can attach a document to an individual line by selecting the line and clicking the Line Documents toolbar button.

- Selecting **Edit**, **Document Reference** to attach a document to the record. If the record has a table, you can attach a document to an individual line by selecting the line, then selecting **Edit**, **Line Document Reference**.

- For Customer Maintenance, Part Maintenance, Part Trace Maintenance, and Vendor Maintenance, selecting **Maintain**, **Document Reference**.

- For the Manufacturing Window, in the Header Card, click the **Doc Ref** button. In all other cards, select **Edit**, **Document Reference**.

- For Customer Inquiry or Vendor Inquiry, selecting **Info**, **Document Reference** or **Info**, **Document Line Reference**.

4 Click **Insert**.

5 Specify a Document ID by performing one of these actions:

- Clicking the **Document ID** browse button and select a document from the list.

   A list of valid document attachments is displayed. The list is filtered to display documents that have a valid reference type for the current application. If you are working in a tenant-level application, the list is filtered to show tenant-level documents. If you are working in a site-level application, the list is filtered to show site-level documents and tenant-level documents that the site is allowed to use. Select the **All Reference Types** check box to display all of the reference types for your selected site-level or tenant-level.

- Specifying the Document ID directly in the Document ID column. If you specify a Document ID that is not the correct type of document reference, you are notified that the document cannot be added due to its type or that it cannot find the Document ID. If you specify a Document ID that does not exist, then you are prompted to create the document. See "Creating Document References in Maintenance Windows" on page 5-21.

6 Click **Save**.

Manually Inserting a New Document in the Document Reference Dialog

Use this procedure to manually create a document reference. To create a reference by dragging-and-dropping a document onto the Document Reference dialog, see "Using Drag-and-Drop to Associate Documents" on page 5–20 in this guide. To create a reference by dragging-and-dropping a document onto a maintenance window, see "Dragging and Dropping Documents onto Maintenance Windows" on page 5–21 in this guide.

To create a new document reference:

1 From the Document Reference dialog, click the **Insert** button.

2 Type a new Document ID in the Document ID field.

3 Press **Tab**.

4 The system asks if you would like to create a new document. Click **Yes**.

5 The Document ID that you specified in the Document ID field is displayed.

   In the Site ID field, the site where you are adding the document is displayed. If you accessed the Document Reference dialog from a tenant-level application, then the document is added at the tenant level. ** Tenant ** is displayed in the Site ID field.

   Specify this information:

   Description – Specify a description of the Document ID.

   Reference Type – Click the arrow and select the type of document. This limits the applications where you can use the document. Select General to make the document available in all applications that allow document references.

   Document Category – Click the arrow and select the category for the document.

   URL – If the document path is a URL, select the URL button. When you select the URL button, the system deactivates the Document Path browse button.

   Document Path – If the document is a URL, specify the URL in the Document Path field. If the document is not a URL, click the browse button and navigate to the path of the document.

6 Click **Save**. If the document meets one of these criteria, a message is displayed:

   • The document does not exist in the designated Document Path. In the message, click **Ok** and then specify the correct Document Path.

   • The Document ID that you specified does not match the document name. In the message, click **Yes** to update the Document ID that you specified with the name of the document that you are attaching. Click **No** to specify a different document path.

7 Optionally, open the new Document ID in Document Maintenance to assign Stage and Revision information or to select it for ECN Revision control.

Using Drag-and-Drop to Associate Documents

Use this functionality to create a new document or new document reference in the Document Reference table.

To use drag-and-drop:

1 Access the Document Reference dialog. See "Referencing Documents" on page 5-15.

2 Open Windows Explorer or Microsoft Outlook to locate the document you want to add as a reference.

3 Select the file to add as a reference, drag the file to the Document Reference table, and release the mouse button to drop the file on the table.

When you drop a file on the table one of these messages may be displayed:

- Message dialog indicating that links to the files you dragged will be created.To create a copy of the file in the assigned directory, click **Yes**. If you do not want to create the document reference, click **No**.If you click **Yes**, the information is added to the table. **Note:** The copied document is referenced, and not the original file. Additionally, a copy of a dragged email or email attachment is stored in the user's local configuration directory or the **Start in** directory listed in the client icon properties.

- Message dialog indicating that the document already exists in another site. To make the document available to other sites, click **Yes**. The site-level document becomes a tenant-level document that is located in the original site directory. If you do not want to create the document reference for other sites, click **No**.

- Message dialog indicating that the document has an apostrophe in the name and cannot be copied. Click **Ok**.

- Message dialog indicating that the document cannot be copied because it is locked by an active ECN (Engineering Change Notice). Click **Ok**.

- Message dialog indicating that you must correct the Site ID or the Reference Type. You can do this by either changing the Site ID to Tenant, or by adding the Site ID to the allowed sites for the Tenant, or correcting the reference type.

- If the document already exists in the file path specified in the Document File Path column, specify the action to take:
    - **Copy and Replace** – Replace the existing document with a copy of the document being dragged and dropped.
    - **Don't copy** – No document copy will occur and the document path will remain unchanged. The file currently in the destination folder will be attached.
    - **Copy, but keep both files** – The file currently in the destination folder will be renamed to <document_name(#)>.
    - **Copy, but rename the file and Document ID to** – The file that you are attaching and the document ID is updated to the name that you specify.
    - **Do this for all conflicts** - Select this check box to apply your selected copy option to all similar copy issues. This check box is only displayed when multiple documents are begin dragged and dropped.

4 Optionally, specify a description and change the reference type. Click **Save**.

Creating Document References in Maintenance Windows

Dragged-and-dropped documents are stored based on this storage hierarchy. If a directory exists for tenant, site, or reference type documents, the document is stored there. If no such directory exists then the document is stored in the global document path as defined in the Document Folder Maintenance window. If folders do not exist at either of those storage hierarchy levels, then the documents are stored in the VISUAL executable directory.

You can add a document reference to a maintenance window by:

- Dragging and dropping the document onto one of these maintenance windows: Customer Maintenance, Part Maintenance, Vendor Maintenance or WIP Maintenance.
- Dragging and dropping the document onto a maintenance window's Document Reference dialog.
- Specifying a new Document ID in a maintenance window's Document Reference dialog.

Dragging and Dropping Documents onto Maintenance Windows

You can create document references to maintenance windows using the drag-and-drop method.

The document level, site-level or tenant-level, is determined by the window onto which you are dragging and dropping the document. The document's reference type is determined by the settings specified in the Document Maintenance window's Default Reference Type Maintenance dialog. The document's path is determined by the settings specified in the Document Maintenance window's Document Folder Maintenance dialog.

Dragging and dropping a new document is different than adding an existing document as a new reference for a record. New documents are created based on their default reference type. You can override the reference type default in the New Document dialog. New documents are assigned to a site or tenant; the site when it is specified in the maintenance window, or the tenant when the site is not specified in the maintenance window. Adding an existing document as a new reference for a record differs from adding a new document. An existing document must have a valid reference type for the application, which may differ from the default, and it must also be valid for the site or tenant specified in the maintenance window.

To drag-and-drop documents onto maintenance windows:

1 Access the maintenance window to which you are creating the referenced document.

2 Select the item. For example in Part Maintenance select the part.

3 Locate the document you want referenced in the maintenance window.

4 Click and hold the mouse button down to select the document, drag the mouse onto the maintenance window, and then release the mouse button to create a reference to the document. One of these dialogs is displayed:

- If the document has not yet been created as a reference and does not exist in the file location defined for the document type, a dialog is displayed that lists the number of documents and document references that will be created. Click **Yes** to create the document and reference. **Note**: A copy of a dragged email or email attachment is stored in the user's local configuration directory or the **Start in** directory listed in the client icon properties.

- If the document exists in the file location defined for the document type, a dialog is displayed that lists copy options. Click one of these options, and then click **Ok**:

  - **Copy and Replace** – Replace the existing document with a copy of the document being dragged and dropped.

  - **Don't copy** – No document copy will occur and the document path will remain unchanged. The file currently in the destination folder will be attached.

  - **Copy, but keep both files** – The file currently in the destination folder will be renamed to <document_name(#)>.

  - **Copy, but rename the file and Document ID to** – The file that you are attaching and the document ID is updated to the name that you specify.

  - **Do this for all conflicts** - Select this check box to apply your selected copy option to all similar copy issues. This check box is only displayed when multiple documents are begin dragged and dropped.

5   If the document is not yet a document reference, the New Document dialog is displayed. Specify this information:

Description – Specify a description of the Document ID.

Reference Type – Click the arrow and select the type of document. This limits the applications where you can use the document. Select General to make the document available in all applications that allow document references.

Document Category – Click the arrow and select the category for the document.

URL – If the document path is a URL, select the URL button. When you select the URL button, the system deactivates the Document Path browse button.

6   Click **Save**.

Viewing Attached Documents

The Documents button on the toolbar indicates whether documents are attached to the record.

 – No documents are attached.

 – Documents are attached.

To view an attached document, click the Documents toolbar button and double-click the document to view it.

You can view documents in any application where you can attach them.

You can view existing document attachments in these applications, but you cannot add new attachments:

- Customer Inquiry
- Material Planning Window
- Vendor Inquiry

Chapter 6: Message Maintenance

This chapter includes this information:

What is Message Maintenance?

Use Message Maintenance to create and maintain records of specific events and to notify you when the event has occurred. Messages can be sent in these ways:

- Pop up messages that appear on your computer screen
- Email to specified people
- Printed notification to your printer
- SQL statements and queries

This feature is helpful to:

- Track certain events over a period of time
- Receive immediate notification when an event has occurred.

Setting Events

An event is a point in time at which a specified action occurs to a database record. Use Message Maintenance to specify the event to track and to formulate the message sent when the event occurs. For example, you can receive an alert when the status of a customer order changes. You can set up and change how the event is processed.

To set up events:

1 Select **Admin**, **Message Maintenance**.

2 Specify the event information:

ID – Specify a unique numeric identifier for this event.

Class – The class is the event that triggers the message. Click the **Class** arrow and select one of these options:

Status change – The status value of the record has changed. For example, a customer order has changed from Firm to Released.

Line item change – Information on a line item of the document has changed.

Operation change – Information on an operation of a work order or master has changed.

Requirement change – Information on a requirement of a work order or master has changed.

Update – An update of an existing record has occurred.

Insert – A new record has been created.

Delete – An existing record has been deleted.

Query – The event is based on a user-defined query.

Deadline Event – The event is based on a user-defined query executed on a specific date.

Recurring Event – The event is based on a user-defined query executed on a specific date and then once a day from that time onwards.

Action – Click the **Action** arrow and select the action taken when the event is triggered. Select one of these actions:

E-mail – An email is sent to the specified recipients.

Hold – The event is held for manual processing. You can use process these events in the Process Events dialog box.

Print – A message is sent to the printer specified to the printer set up as the recipient.

Popup – A pop-up message is displayed on the specified recipient's screen.

Execute – A query defined in the Message tab is executed.

Status – Click the **Status** arrow and select the status for the event. Select one of these statuses:

Active – This event is active. When the event is triggered, the action specified in the Action field occurs.

Completed – The event meets the conditions you specify in the Frequency section, but it has not processed.

Suspend – The event is temporarily suspended, preventing the event from being triggered.

Canceled – The event no longer occurs. Use this status as an alternative to deleting the event. If you select the Canceled status instead of deleting the event, a record of the event is retained.

3   Specify Document information:

Type – Click the **Type** arrow and select the type of record to monitor.

You can select these types:

• All	• A/R Invoice
• Customer Order	• A/P Invoice
• Purchase Order	• Quotation
• Work Order	• Part
• Engineering Master	• Unplanned Maintenance
• Shipment	• Engineering Change
• Receipt	• Requisition
• Service Dispatch	

Base, **Lot**, & **Split IDs** – To track changes to a specific record, specify the record ID. For engineering masters, quote masters, and work orders only, enter a Lot ID and a Split ID in the Lot ID and Split ID fields. For all other record types, specify the ID in the Base ID field.

4   In the Frequency section, specify the number of times the event should be processed. Click one of these options:

Permanent – Click this option to process the event each time it is triggered.

Repeat xx Times – Click this option to process the event a specified number of times. Enter a value in the Times field.

Do Until xx – Select this option to process the event each time it is triggered until the specified date. Specify the date in the Date field.

Do On – If you selected Deadline Event or Recurring Event in the Class field, the Do On option is displayed and selected. Specify the date of the deadline or the date the recurring event occurs.

5   Specify the delivery details for the message. Specify this information:

Sender – Specify the user who sends the message. The current user's ID is inserted by default.

Recipient – Specify the mail recipient who is to receive the message. You can click the Browse button to the right of the field to select a user from your mail application. To send this email to multiple addresses, separate each name with a semicolon.

If you selected Print in the Action field, click the Browse button to select the printer where the message is sent.

Subject – Specify the subject of the message. This appears on the pop up, eemailmail message, or printed document. This field is optional.

6   Click the **Message** tab and enter a descriptive message for the triggered event.

If you are including a database query in the Query tab, use placeholders to specify where the data from the database should display in the message. For most data, use %1 for the first placeholder, %2 for the second placeholder, and so on. For binary data, use %L1, %L2, and so on. Typically, fields that accommodate a large amount of text, such as notations and specifications, are binary data.

7   Click the **Query** tab and enter a valid SQL query that you can use as a triggering test.

8   Click the **Tokens** tab and enter a query that fills in the placeholder tokens that may appear in the descriptive messages.

You can use these Tokens:

%TRIGGER_DATE – Date event was triggered.

%TRIGGER_DATETIME – Date and time the event was triggered.

% TRIGGER_TIME – Time the event was triggered.

%USER – User ID that triggered the event.

%ID – Document ID that triggered the event.

%TYPE – Document type that triggered the event.

%BASE_ID – Document base ID that triggered the event.

%LOT_ID – Document lot ID that triggered the event.

%SPLIT_ID – Document split ID that triggered the event.

%EVMNT – Event ID that was triggered.

9   Click the **Save** toolbar button.

Event Samples

These samples show how to use the Message, Query, and Tokens tabs to write messages that include information from the database.

Creating a Message with Database Information

This example creates a message with database information when a new customer order has been created. Specify Insert in the Class field and Customer Order in the Class field. Set up the remainder of the event trigger as you see fit.

Enter this text in the Message tab:

```
A new customer order %ID Customer ID %1 PO# %2 Ship Date %3 has been
created. Please have it shipped.
```

Enter this text in the Query tab:

```
select customer_id, customer_po_ref, desired_ship_date from
customer_order where ID=%ID
```

Enter this text in the Tokens tab:

```
%ID
```

In the Message tab, the %ID indicates that the %ID token is used in the message. If you use a token in the message, you must list it in the Token tab.

The %1, %2, and %3 in the message are the placeholders for the three pieces of information you are extracting from the database with the query in the Query tab.

The results output may look like this:

A new customer order 1234 Customer ID 4567 Ship Date 06/03/2001 has been created. Please have it shipped.

Creating Deadline Recurring Events

This example creates an event with a deadline.

1   Specify this information from the Message Maintenance window:

Class: Deadline event

Action: Popup

Status: Active

Type: Customer order

Base ID: CO-001

2   Enter a deadline date in the Do On field.

3   In the Message Tab enter:

```
Customer order %ID Desired ship date %1 needs immediate attention as of
%2.
```

4   In the Query Tab enter:

```
select id from customer_order where id=%BASE_ID

and status not in('C','X')

and desired_ship_date<=SYSDATE INTO %BASE_ID
```

5   In the Tokens Tab enter:

```
select desired_ship_date,SYSDATETIME from customer_order

where id=%BASE_ID
```

6   Click **Save**.

7   Create order CO-001 in Customer Order Entry with the Desired ship date set to the deadline date you entered in the Message Maintenance window.

Enter any part, quantity, vendor, and price.

8   Save the customer order.

9   In the Message Maintenance window, click the **Process Events** toolbar button.

10   In the Process Events dialog box, Click the **Generate Deadline/Recurring Events** button.

The message is generated. If the system date is after the desired ship date, the message is generated every time you sign in.

Setting Event Detection Preferences

Use the Preferences dialog to specify how events are detected.

1   Select **Options**, **Preferences**.

2   To specify which tab is displayed when you access Message Maintenance, click the **Default Tab** arrow and select the tab.

3   Click an event detection option:

Process detected events – Click this option to process messages when they are triggered.

Place detected events on hold – Click this option to hold messages when they are triggered. You can process the messages at a later time.

Disable event processing – Click this option to diable event processing.

4   In the Minutes field, specify how often to check for new events.

5   Select these options:

Combine Messages if More Than – Select this check box to combine messages. Messages are not sent until the specified number of messages have been generated.

Eliminate Duplicates Created Within – Select the check box to remove duplicate messages if they are created within a specified amount of time. Enter the number of minutes in the field.

This is helpful if you make several changes to a document and save after each change. If you select this option, only one message is sent for the changes instead of one message for each change.

Limit Processing Time Slice to – The system processes as many events as possible within the time limits you set in the field. The remaining events remain in the queue until the next time VISUAL checks for detected events.

6   Click **Ok**.

Processing Events

All message events are shown in the Process Events dialog box. From this dialog box, you can delete, print, and mail event messages.

Manually Processing Events

You can manually process events that have not yet been processed.

1   Click the **Process Events** toolbar button.

2   Click the **Status** arrow and select the status of the events to show in the dialog box.

3   Select the event to process.

The message for the event is shown in the text box.

To select all of the events in the table, click the **Select All** button.

4   Process the event.

To delete the event, click the **Delete** button.

To Print the event, click **Print**.

To email the event, click **Mail**.

If you click **Mail**, your mail application dialog box appears. Enter or select the recipient of the message, then send the message.

5   To trigger the processing of the event, click **Ok**.

Fixing Query Error Events

If, during the processing of events, you discover that you have errors, you can correct those errors by correcting the appropriate SQL Statement in the Message maintenance window.

After you have fixed the erroneous SQL Statement, return to the Process Events dialog box to execute the event with the error that you just corrected.

1 Click the **Process Events** toolbar button.

The Process Events dialog box appears.

2 Click the Status arrow and select **Error** from the list.

3 In the table, select the event that you just corrected.

A dialog box is displayed, asking you if you want to execute the displayed query.

4 To execute the query with your recent changes, click **Yes**.

5 To execute the query with your recent changes, click **Save**.

The event is reprocessed with your changes.

6 Click **Ok**.

To see if the message has been processed correctly, open the Process Events dialog box again and look for the event you corrected in the Completed events table.

Chapter 7: Employees and Buyers

This chapter includes this information:

What is Employee Maintenance?

Use Employee Maintenance to:

- Create employee records
- Set up earning codes
- Set up indirect codes
- Set up shift definitions
- Assign employees to sites

Employee IDs are used on Labor Tickets. If you use the actual or average costing method, the pay rate you specify is used to determine labor costs.

Employees are different from users. A user can sign into the database. An employee cannot sign into the database unless you associate a user ID with the employee.

Starting Employee Maintenance

Select **Admin**, **Employee Maintenance**.

Defining Codes and Shifts

Use the options available on the Edit menu to set up earning codes, indirect codes, and shifts. You use earning codes and shift IDs on the employee record. You use indirect codes in Labor Ticket Entry when the work performed cannot be charged to a particular work order.

You must create earning codes before you can create an employee record.

Defining Earning Codes

Earning codes classify the work done by your employees. Earning codes are used on labor tickets and for payroll processing.

To define an earning code:

1 Select **Edit**, **Earning Codes**.

2 Click **Insert**.

3 Specify an ID and a description for the earning code.

4 Click **Save**.

Deleting Earning Codes

To delete an Earning Code, highlight the earning code and click **Delete**. Click **Save**.

Defining Indirect Codes

Indirect labor codes specify the accounts to which labor not associated with a work order is charged.

To define an indirect code:

1 Select **Edit**, **Indirect Codes**.

2 Click **Insert**.

3 Specify this information:

Indirect ID – Enter a unique identifier for this code.

If you are using Barcode Labor Ticket Entry, specify indirect labor codes using UPPERCASE alphanumeric characters only. Barcode scanning devices cannot read indirect codes than contain lowercase characters.

Description – Specify a description of the indirect code.

G/L Account ID – Click the browse button and select the account to which this indirect labor type is charged.

Code – Specify the type of indirect labor. You can choose:

M – Miscellaneous

V – Vacation

H – Holiday

S – Sick

Active – The Active check box will default to checked.

4   Click **Save**.

Deleting Indirect Codes

To delete an Indirect ID:

1   Select the ID to delete.

2   Click **Delete**.

3   Click **Save**.

The code is deleted.

Inactivating Indirect Codes

Inactivating an indirect code will prevent users from using that ID for labor transactions from the point of inactivation forward while maintaining the integrity of historical transactional data. An indirect code cannot be inactivated if it is currently in use as the default or meal/break indirect id. To inactivate an code:

1   Click in the row header for the code you want to inactive
The row appears highlighted.

2   Uncheck the Active check box.

3   Click OK.

The code will no longer be available for future use.

Copying Indirect Code Information

To copy information from one indirect code to a new line:

1   Select the information to copy and click **Copy**.

2   Click **Insert**.

3   Click **Paste**.

All information except the indirect code is copied to the new line.

4   Enter the unique identifier for this new earning code in Indirect Code column.

5   Click **Save**.

Defining Shifts

Before you can assign employees to shifts, you must first define the Shift IDs. Shift IDs define the break, lunch, and grace periods for a given shift.

You can break down Shift schedules by activities that occur during the shift. These activities include allowed clock-in and clock-out grace periods, between-job lag times, and break times.

To define shifts:

1   Select **Edit**, **Shift Definition**.

2   In the Shift ID field, specify a unique identifier for this shift.

3   In the Description field, specify a description of the shift ID.

4   In the Allowed Clock In/Out Grace Periods section, specify this information:

Minutes before start of shift – Specify the grace period before the start of the shift. If employees clock in during the grace period, their clock in time is adjusted to the start time of the shift.

If the start of the shift is 7:00 AM and the grace period is 5 minutes, employees clocking in between 6:55 and 7:00 will have a clock in time of 7:00. If they clock in at 6:54 or earlier, the actual clock in time is used.

Minutes after start of shift – Specify the grace period after the start of the shift. If employees clock in during the grace period, their clock in time is adjusted to the start time of the shift.

If the start of the shift is 7:00 AM and the grace period is 5 minutes, employees clocking in between 7:00 and 7:05 will have a clock in time of 7:00. If they clock in at 7:06 or later, the actual clock in time is used.

Minutes before end of shift – Specify the grace period before the end of the shift. If employees clock out during the grace period, their clock out time is adjusted to the end time of the shift.

If the end of the shift is 4:00 p.m. and the grace period is 5 minutes, employees clocking out between 3:55 and 4:00 will have a clock out time of 4:00. If they clock out at 4:54 or earlier, then the actual clock out time is used.

Minutes after end of shift – Specify the grace period after the end of the shift. If employees clock out during the grace period, their clock out time is adjusted to the end time of the shift.

If the end of the shift is 4:00 p.m. and the grace period is 5 minutes, employees clocking out between 4:00 and 4:05 will have a clock out time of 4:00. If they clock out at 4:06 or later, then the actual clock out time is used.

Between Job Lag Time – Specify the amount of time allowed between jobs. If employees exceed the amount of lag time between jobs, the time is charged to an indirect ID.

For example, presume you specify 5 in this field. If an employee clocks out of the first job at 2:00, then clocks into the next job at 2:04, then no lag time is charged to an indirect ID. The four minutes are posted to the second job. If the employee clocks in to the next job at 2:06, then six minutes are charged to an indirect ID.

Minutes Before/After Breaks – Specify the grace period before and after breaks. If employees clock in during the grace period before a break, their time is adjusted to the start of the break. If employees clock out during the grace period after a break, their time is adjusted to the end of the break.

5   In the Break/Meal Indirect ID field, specify the active indirect labor ID to use when a break or lunch period is deducted from time posted to the job.

6   Click **Save**.

7   To define the duration of the shift, break times, and meal times, click the **Edit Shift Codes** button. The ID Of the shift is inserted in the Shift ID field.

8   Specify this information:

Day – Click the arrow and select the day of the week for which you are defining the shift times. If every day has the same shift schedule, select **Every Day**.

If each day has a different schedule, you must define the shift for each day. You can also use **Mon thru Fri** to define the shifts for Monday through Friday, and **Sat, Sun** to define the code for the weekend.

Description – Specify a description of the shift schedule.

Shift – Use the Start and End fields to specify the duration of the shift.

Meal and Breaks fields – Use the Start and End fields to specify when the break starts and when the break ends. If employees are paid during the break, select the Paid check box. If employees are not paid during the break, clear the Paid check box. If employees must manually clock in and out for the break, select the Manual Clock In/Out check box. If employees are clocked in and out of breaks automatically, clear the Manual Clock In/Out check box.

Paid breaks Charged to Indirect – To charge paid breaks to an indirect ID, select the **Paid Breaks Charged to Indirect** check box. Specify the indirect ID in the Shift Definition dialog box.

Periods Per Hour – The system inserts 60. You cannot change this value. The system rounds clock in and clock out times to the nearest minute.

9   Click **Save**.

10 Click **Close** to return to the Shift Definition Dialog box.

Creating Employee Records

Before you can create an employee record, you must first create Departments and Earning Codes. Create Departments in Application Global Maintenance. Create Earning Codes in the Earning Codes dialog box available on the Edit menu.

To create an employee record.

1   In the header, specify this information:

Employee ID – Specify a unique identifier for the employee. To make complying with the European Union GDPR rules easier, we recommend that you do not use personal information, such as a name, for the ID. See "Individual Privacy" on page 4–1 in the system administrator's guide.

First/MI/Last – Specify the employee's name in these fields.

Type – Click an option to specify how an employee is paid. Click either **Hourly** or **Salary**.

Pay Rate – This field is available only if you are licensed to use a single site. If you are licensed to use multiple sites, define the employee's pay rate in t.he Sites dialog box. For more information, refer to "Assigning Employees to Sites" on page 7-11 in this guide.

If you are licensed to use a single site, specify the employee's pay rate in Pay Rate field. If you selected Hourly in the Type section, then specify the employee's hourly rate. If you selected Salary, then specify the employee's yearly salary.

The pay rate is not displayed anywhere else in the system. The pay rate is used to calculate labor costs for labor tickets entered by this employee.

Department – Click the browse button and select the default department for the employee. You can override the default department on the labor ticket.

Maintain departments in Application Global Maintenance.

Earning Code – Click the arrow and select the default Earning Code for the employee. You can override the earning code on the labor ticket.

Default Shift ID – Click the browse button and select the default shift for this employee. The employee can work during a different shift.

Cost Category – If you are licensed to use Projects/A&D, click the browse button and select the default labor cost category for this employee. If you are not licensed to use Projects/A&D, this field is not available.

User ID – To associate this employee with a User ID, click the arrow and select the user ID. The employee can sign into the database using the User ID you specify.

Email Address – Specify the employee's email address.

2   In the address section, specify the employee's address.

3   If this is a current employee, select the **Active** check box. If this is not an active employee, clear the Active check box. Inactive employees cannot be selected on labor tickets.

4   Click the **Save** toolbar button.

Adding a Picture

You can add a picture of the employee to the employee record. Depending on your settings in Preferences Maintenance, you can display the picture directly on the Employee Maintenance window.

To add a picture:

1   In the Employee ID field, specify the ID of the employee.

2   Select **Edit**, **Picture/Object...**.

3   Click **Paste From**.

4   Navigate to the file containing the picture, and then click **Open**. The picture is imported.

5   Click **Save and Close**.

If you display the picture directly in the Employee Maintenance window, you can click the picture to open the Picture/Object dialog box. If a picture has not been added to the employee record, then you must select **Edit**, **Picture/Object...** to access the Picture/Object dialog.

Displaying the Picture in the Employee Maintenance Window

To display the picture in the Employee Maintenance window, set up the ShowPicture preference setting.

To set up the preference:

1   Select **Admin**, **Preferences Maintenance**.

2   Click **Insert**.

3   Specify this information:

   Section – Specify **EmployeeMaintenance**.

   Entry – Specify **ShowPicture**.

   Value – Specify **Y**.

4   Click **Save**.

Editing Employee Information

You can edit employee information using Employee Maintenance.

1   Click the **Employee ID** browse button and select the employee record to edit.

2   Make the changes to the employee information.

   You can change any field in the Employee Maintenance window except the Employee ID; changing the Employee ID creates a new employee.

3   Click the **Save** toolbar button.

Deleting Employee Information

> **Caution:** Deleting an employee record permanently removes the information from the database. You cannot recover deleted employee information. You cannot delete an employee that has associated information.

1   Click the **Employee ID** arrow and select the employee record to delete from the list that appears.

2   Click the **Delete** toolbar button.

A dialog box appears prompting you to confirm the deletion.

3   Click **Yes** to continue, or **No** to cancel the deletion.

The employee record is removed from your database.

Assigning Employees to Sites

This procedure applies to users licensed to use multiple sites only.

Use the Allowable Sites function to assign the employee to sites and to specify the employee's pay rate in each site.

Employees can enter labor tickets for any site to which they are assigned. If employees are not Use assigned to a site, they cannot enter labor tickets for that site.

When employees use Labor Ticket Entry, they can only select work orders associated with the sites to which they are assigned. They cannot select a work order form a site to which they are not assigned.

You can also assign employees to sites in Site Maintenance.

To assign an employee to a site:

1   Click the browse button and select the employee to assign to sites.

2   Select **Edit**, **Allowable Sites**.

3   Click the **Assigned** check box next to each site the employee is allowed to use.

4   Click the **Default** check box next to the employee's default site. When you specify this employee in Labor Ticket Entry, the default site is inserted in the Site ID field. You can override this site with any of the employee's assigned sites. Specifying a default site is not required.

5   For each site the employee is assigned to, specify the pay rate. The currency of the site is inserted in the Currency ID field. If you clicked the Hourly option in the Type section for this employee, specify the pay rate per hour. If you clicked the Salary option in the Type section for this employee, specify the pay rate per year.

6   Click **Save**.

When you select an employee ID in Labor Ticket Entry, the Site ID drop-down list shows only those sites assigned to the employee. When you browse for work orders, only the work orders associated with the Site ID selected in the Site ID field are displayed.

Assigning User Dimensions to Employees

If you employ User Dimensions, specify the dimensions to associate with the employee.

You can use employee user dimensions in these transactions:

• Work Order - Issue

• Work Order - Labor

• Work Order - Service

• Indirect Labor

To specify user dimensions:

1 Click the **Employee ID** browse button and select the employee for whom you are assigning dimensions.

2 Select **Edit**, **User Dimensions**.

3 In the left pane, each user dimension group is listed. Expand the list under the user dimension group to view the transactions in which this record is used.

To assign the same dimensions to all transaction types, click the name of the dimension group in the left pane. All Subledgers is inserted in the Subledger field.

To assign dimensions to a particular transaction type, select the appropriate transaction type. The transaction type is inserted in the Subledger field.

4 Click **Insert**.

5 Specify this information:

Valid From – Specify the date the dimension assignment becomes effective.

Debit Dimension – Double-click the browse button and select the dimension to use for account debits.

Credit Dimension – Double-click the browse button and select the dimension to use for account credits.

6 Click **Save**.

Printing Employee Information

There are a number of options available for outputting employee information. By using the Print command, you can output a complete listing of employee information.

1   Select the **Print** toolbar button.

If necessary, you can change the printer setup from the print dialog box by selecting the **Print Setup** button.

2   Click the **Starting Employee ID** button to select the employee with which to begin the report.

Click the **Ending Employee ID** button to select the employee with which to end the report. Leaving these fields blank to include all employees in the report.

3   Select how to output the report:

Print – Select this to view a print preferences dialog box after clicking **Ok**.

View – Select this to view the report on your screen after clicking **Ok**.

File – Select this to save the report to a file after clicking **Ok**.

E-mail – To email the report, select this option. Your report is generated in a Rich Text Format (.RTF) and attached it to a Microsoft Outlook email message. To attach a PDF of the report, select the PDF button.

4   To print barcode for your employees, select the **Print Barcode** check box and select a barcode type for your report.

Code39 – This barcode type, also known as Code 3 of 9, contains variable length, discrete symbology. You must have a Code 39 barcode font installed to view the barcode. If you do not have the Code 39 font installed, then the alphanumeric ID is displayed instead with a prefix and suffix. This pattern is used: *%ID%*.

QR Code – This is a two-dimensional or matrix barcode. QR stands for quick response.

5   To include inactive employees in the report, select the **Print Inactive Employees** check box.

6   Click **Ok**.

If you selected **Print**, a print dialog box appears allowing you to select print ranges and setup your printer output.

If you selected **View**, VISUAL uses the built-in employee report and the report appears in the report viewer.

If you selected **File**, the Print To File dialog box appears prompting you to enter the name of the file to use for the report. Specify the full path and name to use for the output file. A comma separated value (csv) file is created.

If you selected **E-Mail**, the report is created in rtf format—or PDF if you selected the PDF check box—and attached it to a Microsoft Outlook email message. For more information on addressing and sending the email, refer to your Microsoft Outlook user documentation.

7   Enter the recipient's name and the message and click **Send**.

Buyer Maintenance

Use the Buyer Maintenance dialog to specify the names of individuals who make purchases. By default, the database users are inserted into this table. You can insert additional names. If you insert an additional name in this dialog box, the name is NOT added to your list of database users.

When you enter a transaction that includes a buyer, you can click a browse button to select a buyer from the list. You can also enter a new buyer directly in the Buyer ID field in a transaction window. If you specify a new buyer ID in a transaction window, the buyer name is added to the Buyer Maintenance table.

You can attach user dimensions to buyers.

To add a buyer:

1   Select **Admin**, **Buyer Maintenance**.

2   Click **Insert**.

3   Specify an ID and Name for the buyer.

4   Click **Save**.

Deleting a Buyer ID

You can delete a buyer ID only if it is not used in a transaction.

To delete a buyer ID:

1   Select the row that contains the buyer ID to delete.

2   Click **Delete**.

3   Click **Save**.

If the ID you selected is used in a transaction, you are informed that the buyer ID cannot be deleted.

Specifying User Dimensions

If you use user dimensions, you can attach dimension codes to buyers. To attach dimension codes:

1   Select the buyer to whom you are assigning user dimensions.

2   Click **User Dimensions**.

3   In the left pane, each user dimension group is listed. Expand the list under the user dimension group to view the transactions in which this record is used.

   To assign the same dimensions to all transaction types, click the name of the dimension group in the left pane. All Subledgers is inserted in the Subledger field.

   To assign dimensions to a particular transaction type, select the appropriate transaction type. The transaction type is inserted in the Subledger field.

4 Click **Insert**.

5 Specify this information:

Valid From – Specify the date the dimension assignment becomes effective.

Debit Dimension – Double-click the browse button and select the dimension to use for account debits.

Credit Dimension – Double-click the browse button and select the dimension to use for account credits.

6 Click **Save**.

Chapter 8: Workflow

This chapter includes this information:

What is Workflow?

Use Workflow to create predefined conditions and rules for guiding users through specific tasks within applications, such as Purchase Order Entry and Customer Order Entry. Embedded into the logic of VISUAL, Workflow works behind the scenes. When you activate a workflow, all the areas of VISUAL, as defined in the workflow, must behave in accordance with the workflow and its set of rules.

Using a workflow-based approach can help you achieve these goals:

• Streamline repeatable processes.

• Define a rule and condition based environment. Because individuals or their knowledge of processes should not determine process flows.

• Minimize operational errors.

Using the Workflow Designer, you can assign the *steps* necessary to complete tasks and define the *rules* that govern those steps. The Designer saves the workflows you create as templates that VISUAL uses to create Workflow IDs.

Common workflows contain:

• Process Definition

• A graphical representation of the flow of business information

• System of controls, monitors, and management tools to help automate certain aspects of your business process.

What can Workflow do for you?

• Provide a graphical representation of your processes.

• Graphically create and display the flow of work and tasks.

• Embed business logic into process—in the form of rules.

• Build rules for exception handling.

• Track the status of process steps.

• Involve third party applications to perform tasks.

• Inform users of new tasks or warn them of late tasks.

• Connect to Task Maintenance functionality.

Preliminary Requirements

Before using Workflow, you should be familiar with VISUAL applications, such as Task Maintenance and Document Maintenance. You must also know how to add users and create user groups.

Refer to these sections:

• For information on using Task Maintenance, refer to the "Engineering Change Notices" chapter.

• For information on adding documents in Document Maintenance, refer to the "Document Maintenance" chapter.

• For information on setting up groups for tasks and authorizations, refer to the *Infor VISUAL System Administrator's Guide*.

•   For information on adding new users, refer to the *Infor VISUAL System Administrator's Guide*.

Workflow and Double-byte Characters

Workflow does not support the use of double-byte characters. This includes all aspects of the workflow itself, such as rules and properties, and the VISUAL records on which the workflow is run. For example, if you set up a workflow to run on parts in Part Maintenance, then all Part IDs must use single-byte characters. Otherwise, the workflow will not be triggered.

Starting Workflow

To start the Workflow Designer:

1   Select **Admin**, **Workflow Designer**.

The Workflow Designer window opens with the Open Existing Workflow dialog.

2   Do one of these:

•   To open an existing Workflow template, refer to the "Opening and Existing Workflow Template" section.

•   To create a new Workflow template, refer to the "Creating a New Workflow Template" section.

Creating a New Workflow Template

Use workflow templates to specify the application where you will use the workflow.

To create a new Workflow template:

1   In the Open Existing Workflow dialog, click the **New** button.

2   In the Type list, select one of these types:

Master – This feature is not available at this time.

Predefined – Starts with an empty template.

User Defined – This feature is not available at this time.

3   In the Application Area list, select the application area (for example, A/P Invoice Entry or Cash Book) where you are creating a workflow.

4   In the Template Name field, type the name for this template.

5   In the Usage list, select one of these:

All Documents – VISUAL applies this template each time you create a workflow.

Single Document – VISUAL uses this template for a specific document. For example, you can create a custom template for a specific purchase order or quote.

6   Do one of these actions:

•   If you selected **All Documents** in the Usage list, go to the next step.

•   If you selected **Single Document** in the Usage list, type the exact document ID (for example, specify a specific order ID if you are creating a workflow for a particular purchase order) then click **OK**.

Note: The Associated DB Table field is "view only" and lists the database tables associated with the application that you selected in the Application Area list.

7   In the Status list, select one of these options:

Active – The template is active within the VISUAL logic. When a template is active, the application you selected in the Application Area list (for example, A/P Invoice Entry or Cash Book) behaves in accordance with the workflow and its set of rules.

Inactive – The template is not active within the logic.

8   Click **Ok**.

9   To build a workflow, refer to the "Building Workflow Templates" section later in this chapter.

Opening an Existing Workflow Template

To open an existing Workflow template:

1   In the Open Existing Workflow dialog, click the Application Area arrow and select the application area.

2   Click the **Template Name** button and select the template to open.

3   Click **Ok**.

The Work Area appears with the selected template.

Understanding Workflow Components

There are four components of the Workflow Designer window:

- The **Menu Bar** contains a comprehensive navigation system giving you access to Workflow Designer functionality.
- The **Main Toolbar** provides you shortcuts to several of the most common functions of Workflow.
- The **Vertical Toolbar** gives you the tools you need to build your workflows.
- The **Work Area** is where you will build, manipulate, and view your workflows. You may want to think of the work area as a canvas or pasteboard.

Note: All the Workflow components described in this section are available in Workflow Designer. Workflow Tracker has limited functionality.

Menu Bar

The menu bar options are alternatives to the Workflow toolbars, and includes features that are not included on the toolbars. The menu bar includes these menus:

File Menu

The File menu contains commands for manipulating files within Workflow. You can select these menu options:

Save – Saves the current workflow to your database. You can also click the **Save File** button on the toolbar or press CTRL+S.

Save As – Allows you to save the current workflow with a new name or in a different location.

New... – Opens a new workflow. You can also click the **New File** button on the toolbar or press CTRL+N.

Delete – Deletes the current workflow. You can also right-click in the work area and select **Delete Workflow** from the menu.

Refresh – Updates the information in the current workflow.

Open... – Opens a previously saved workflow. You can also click the **Open File** button on the toolbar or press CTRL+O.

Close – Closes the current workflow.

Import – Allows you to import workflows from other VISUAL users.

Export – Allows you to export the workflow to other VISUAL users.

Print Diagram – Prints the current workflow to a selected printer. You can also click the **Print** button on the toolbar or press CTRL+P.

Print Details – Opens the Print Workflow dialog where you can print, email, or view workflow reports.

Print Setup – Allows you to set up default print options for printing a workflow file.

Print Preview – Allows you to view the workflow before printing.

Exit – Closes the current workflow.

Sales – Allows you to open the Sales modules.

Inventory – Allows you to access modules in the Inventory application.

Purchasing – Allows you to access modules in the Purchasing application.

Scheduling – Allows you to access modules in the Scheduling application.

Eng/Mfg – Allows you to access modules in the Engineering/Manufacturing application.

EqMnt – Allows you to access modules in the Equipment Maintenance application.

Edit Menu

The Edit menu contains commands for editing files in Workflow.

Undo – Allows you to reverse previous actions. You can also click the **Undo** button on the toolbar or press CTRL+Z.

Redo – Allows you to reverse previous actions. You can also click the **Redo** button on the toolbar or press CTRL+Y.

Cut – Deletes the selected object from the work area and moves it to the Clipboard. You can also click the **Cut** button on the toolbar or press CTRL+X.

Copy – Copies the selected object to the Clipboard. You can also click the **Copy** button on the toolbar or press CTRL+C.

Paste – Pastes an object from the Clipboard to the work area. You can also click the **Paste** button on the toolbar or press CTRL+V.

Clear – Deletes the selected object from the work area. You can also press the **DELETE** key.

Select All – Selects all objects in the work area. You can also press CTRL+A.

Change Shape Color – Opens the color palette where you can select basic colors or create custom colors for shapes in the work area.

Edit Label – Opens the Shape Label editor where you can change the name of the selected object.

Edit Properties... – Opens the selected object's properties dialog.

Workflow Properties – Opens the Workflow Properties dialog where you can edit the properties of the current workflow. For more information, refer to the "Using the Workflow Properties dialog" section later in this chapter.

View Menu

The View menu allows you to hide or show the Personal Toolbar, and cycle through open workflows.

Personal Toolbar – Hides or shows the personal toolbar. A check mark indicates that the personal toolbar will appear in the Workflow window.

To hide the personal toolbar, remove the check mark by selecting **Personal Toolbar** on the View menu.

Back – Allows you to cycle through open workflows similar to a Web browser. You can also press **Back** button or press CTRL+B.

Forward – Allows you to cycle through open workflows similar to a Web browser. Displays the workflow you were using before you selected Back. You can also click the **Forward** button or press CTRL+F.

Help Menu

The Help menu contains commands for accessing the Workflow help system.

Using the Main Toolbar

The Main toolbar contains shortcuts to the most commonly used functions of Workflow.

⬜ – Use the **New File** button to open the Create New Workflow dialog.

📂 – Use the **Open File** button to open the Open Existing Workflow dialog.

💾 – Use the **Save File** button to save the current workflow to your database.

✳ - Use the Gatekeeper button to open the Gatekeeper window displaying the rules where VISUAL encounters processes awaiting action.

🖨 – Use the **Print** button to print a copy of the current workflow to your printer.

📋 – Use the **Copy** button to copy the selected object to the Clipboard.

✂ – Use the **Cut** button to delete the selected object from the work space.

📋 – Use the **Paste** button to paste an object from the Clipboard to the work area.

↩ ↪ – Use the **Undo** and **Redo** buttons to cycle through your changes.

⬅ ➡ – Use the **Back** and **Forward** buttons to cycle through the open workflows.

🟨 – Use the **Align Left** button to align selected objects on the left.

– Use the **Align Right** button to align selected objects on the right.

– Use the **Align Top** button to align selected objects on the top.

– Use the **Align Bottom** button to align selected objects on the bottom.

– Use the **Align Vertically** button to align selected objects on the vertical center axis.

– Use the **Align Horizontal** button to align selected objects on the horizontal center axis.

– Use the **Copy Size** button to resize selected objects to the size of the object you selected first.

– Use the **Sticky Palette** button to paste multiple copies of a selected object onto the work area.

– Use the **Font Size** list box to select the font size of text in the work area.

– Use the **View Size** drop-down box to change the magnification of the workflow in the Workflow window.

Using the Vertical Toolbar
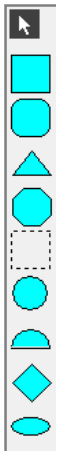
The vertical toolbar allows you to add traditional logic diagram objects to the work area. Each object contains assignable properties that define the rules and conditions of the workflow.

Using the Status Area

At the bottom of the work area, you can view details of the currently open workflow template (in Workflow Designer) or workflow document (in Workflow Tracker). The status area displays workflow template information in this format: *Type:Application Area:Template Name:Document ID*. This is the same information displayed in the Workflow Properties dialog.

Using the Work Area

The work area provides standard graphics tools for creating workflow diagrams that define the flow of work and tasks that must be completed. Each object within the workflow contains assignable properties used to define the rules and conditions of the workflow.

Adding Objects to the Work Area

The vertical toolbar contains objects that represent steps or tasks in a workflow. To add properties to the step, you need to edit the properties dialog as explained in the "Building Workflow Templates" section later in this chapter.

To add an object to the work area:

1   On the vertical toolbar, select the object to add to the work area.

2   Click anywhere in the work area to add the selected object.

Deleting Objects from the Work Area

To delete objects from the work area::

• Right-click the object to delete; then select **Delete** from the menu.
• Select the objects to delete; then click the **Cut** button on the main toolbar.
• Select the objects to delete; then click **Clear** on the Edit menu.
• Select the objects to delete; then press the **Delete** key.

Rotating Objects in the Work Area

To rotate objects in the work area:

1   Select an item in the work area.

2   Do one of these actions:

    • Right-click the object to rotate; then select **Rotate clockwise 90degs** from the menu.

- Right-click the object to rotate; then select **Rotate counterclockwise 90degs** from the menu.

Moving Objects in the Work Area

To move objects in the work area:

1   On the vertical toolbar, select the cursor icon.

2   Drag the workflow step to a new location in the work area.

Selecting Multiple Objects in the Work Area

To select multiple objects in the work area:

1   On the vertical toolbar, select the cursor icon.

2   Do one of these actions:

- Press the CTRL key and click the objects to select them.
- Drag the cursor to create a rectangle around the objects. The rectangle must enclose all objects completely to select them.
- On the Edit menu, click **Select All** to delete all objects in the work area.

Resizing Objects in the Work Area

To resize objects in the work area:

1   Select an item in the work area.

2   Do one or more of these actions:

- To resize an item, click and drag one of the corners or edge handles.
- To resize an item while keeping the current proportions, click and drag a corner handle.

Aligning Objects in the Work Area

To align objects in the work area:

1   On the vertical toolbar, select the cursor icon.

2   Select the first object. All other objects you select will align to this object.

3   Press the CTRL key and select each additional object to align.

4   On the Main toolbar, click one of the object alignment buttons:

Align Left, Align Right, Align Top, Align Bottom, Align Vertically, Align Horizontal.

Making Multiple Objects the Same Size

To make multiple objects the same size:

1 On the vertical toolbar, select the cursor icon.

2 Select the first object. The first object controls how all the other selections will be resized.

3 Press the CTRL key and select the objects to resize.

4 On the main toolbar, click the **Copy Size** button.

Changing the Text Font Size

To change the text font size:

1 On the vertical toolbar, select the cursor icon.

2 Select the object or rule line for which you want to change the label font size.

3 On the main toolbar, a font size from the Font Size list box.

Changing the View Setting

If you are working with a large workflow that does not fit in the Workflow window, use the View Size list box to change the view setting.

Adding Rule Lines to the Work Area

In a workflow, the graphical representation of a rule is a line connecting two steps. To add properties to the rule, edit the properties dialog as explained in the "Building Workflow Templates" section later in this chapter.

To add a rule line to the work area:

1 Right-click a step to select it.

2 While holding down the right mouse button, drag the cursor onto a second step.

A dotted line is displayed that indicates that Workflow is ready to create the rule.

3 Release the mouse button to create the rule.

A solid line is displayed.

Adding Control Points to Rule Lines

To add control points to rule lines:

1 Right-click the rule line to which you are adding a control point; then select **Add Control Point** from the menu.

A control point appears on the rule line.

2 To reshape the rule line, drag the control point to a new position in the work area.

Converting Lines to Curves

To convert rule lines to curves:

1 Right-click the rule line to which you are adding a curve; then select **Add Control Point** from the menu.

A control point appears on the rule line.

2 Right-click the rule line again; then select **Curve** from the menu.

The rule line appears as a curve.

3 To reshape the rule curve, drag the control point to a new position in the work area.

Note: You can add more control points to reshape the curve.

Deleting Control Points

To delete a control point:

1 Right-click the rule line to delete; then select **Delete Control Point** from the menu.

Workflow deletes the control point from the rule line. If the rule line has more than one control point, VISUAL deletes the control you most recently added.

2 To reshape the rule line, drag the control point to a new position in the work area.

Using the Dotted Box

The dotted box is an organizational tool that lets you define and label sections of the work area. You cannot add properties to a dotted box.

To use the dotted box:

1 On the vertical toolbar, select the dashed box icon.

2 Click anywhere in the work area to add the selected item.

3 Move and resize the box to best suit your needs.

4   To add a label, right click the box.

5   In the Enter new label field, specify a name for the box.

6   Click **OK** to save the label or click **Cancel** to return to the work area without adding a label.

Printing the Work Area

To print the work area, do one of these actions:

• On the main toolbar, click the **Print** button.

• On the File menu, click **Print Diagram**.

Using the Print Details Menu

To use the Print Details menu:

1   On the File menu, select **Print Details**.

2   In the Print Workflow dialog, specify this information:

Application Area – Select the application for which you want to print a workflow.

Template Name – Select the workflow template to print.

Ref ID – Select the reference ID of the workflow to print. To print a range of workflows, add a beginning reference ID and an ending reference ID.

3   Click the **Print Setup** button to open the Printer dialog where you select a printer and set up printer properties.

4   In the list box at the bottom of the Print Workflow dialog, select one of these options:

Print – Prints the workflow to the selected printer.

View – Displays the workflow.

File – Save the workflow to a file.

E-Mail – Send the workflow using your electronic mail program.

5   Click **Ok** or click **Cancel** to close the Print Workflow dialog without printing a workflow.

Exporting Workflows

Use the Export menu to save the currently open workflow (including all step and rule properties) to a file on your computer. The exported file will have a .dia file extension.

To export a workflow:

1   If necessary, open Workflow.

2   On the File menu, select **Export**.

3   In the Export File window, select a location to save the file, type a file name; then click the Save button.

Importing Workflows

Use the Import menu to open a workflow file that has been previously exported.

To import a workflow:

1   If necessary, open Workflow.

2   On the File menu, select **Import**.

3   In the Warning message, do one of these actions:

- Click **Yes** to save the open workflow document before importing a new document.
- Click **No** to import a workflow document without saving the open document.
- Click **Cancel** to return to the open workflow document without importing a document.

4   In the Create New Workflow dialog, specify this information:

Type – Select **Predefined**.

Application Area – Select the application area of the workflow to import. The application area you select must be the same as the application area of the file you are importing.

Template Name – Type the name to use for this template.

Usage – Select **All Documents** to apply this template each time you create a workflow or **Single Document** to use this template for a specific document.

Document ID – If you selected **All Documents** in the Usage list, go to the next step. If you selected **Single Document** in the Usage list, type the exact document ID then click the **OK** button.

Note: The Associated DB Table field is "view only" and lists the database associated with the application that you selected in the Application Area field.

Status – Select **Active** to make the template available or **Inactive** to not make the template available at this time.

5   Click **Ok**.

6   In the Select an Import File window, select the file to import; then click the **Open** button.

The imported workflow appears in the work area.

Using Right-click Menus

Right-click menus allow you to open properties dialogs, delete items, and manage objects in the work area.

To use right-click menus:

1   Right-click the work area, rule, or step.

A menu appears.

2   Select an item from the menu.

For example, to access the properties of an object in the work area, right-click the object and select **Properties**. The Properties dialog appears.

Building Workflow Templates

A workflow template is basically a diagram that organizes a business process into actions and paths, with *Steps* representing actions and *Rules* representing paths. For each step and rule you define properties, including statements and conditions. The properties of the action determine the tasks to be completed. The properties of the path define the path of the flow.

After you create and save a template, you can change the status from inactive to active. When a template is active, VISUAL starts a workflow each time a document (for example, a purchase order or work order) is saved and meets the conditions specified in the template.

To build a workflow template, refer to these sections:

- Working with Steps
- Working with Rules
- Working with Statements

Working with Steps

When working with step properties, you may want to take some time to investigate and think about what you want to achieve with the step. Some of the things you may want to consider are:

• What are you attempting to do with this step?

• What conditions do you want met?

• Are there any errors on which you want to halt the process? Do you want to notify the user on these errors but allow a continuation of the process?

• Are there any documents you want attached to this step of the process?

• Are there any people you want to notify at this step?

• Are there any programs or commands you want to run when the user reaches this step?

Because what happens on one step or rule can effect other steps, you may also want to consider what happens on prior and subsequent rules and steps.

Adding Properties to a Step

To add properties to a step:

1 Right-click the step to which you are adding properties.

2 Select **Properties**

Note: This read-only information appears in the dialog status section: Status, Started on, Last notified, and Completed. For more information on status fields, refer to the "Viewing Status Information" section later in this chapter.

3 In the Label field, specify a name for the step. You may want to consider using a name indicative of what you are attempting to accomplish on this step.

4 To re-evaluate the workflow each time a document (for example, a Purchase Order or Purchase Requisition) is saved, select a re-evaluation method from the Re-evaluation list. You can select one of these options:

Never – VISUAL never re-evaluates the workflow.

and restart workflow here – When re-evaluating, VISUAL undoes all previously completed steps in the workflow and restarts the workflow at the current step.

This function is necessary if the information in a workflow document (for example, a customer order) changes frequently.

and continue where left off – VISUAL re-starts the workflow from the "start" step and checks the properties of each rule and step in the workflow to make sure conditions have not changed since the last time the document was saved. If a condition has changed, the workflow proceeds down the appropriate path.

When re-evaluating a workflow, VISUAL also checks the evaluation sequence in the Rule Properties dialog.

For more information on evaluations, refer to the "Working with Evaluations" section later in this chapter.

Note: You must consider all possible conditions or the workflow may not complete the intended business process.

5 If this is the first step in the workflow, select the **Start Workflow Here** check box.

6 To evaluate this step periodically, select the **Evaluate on Timer** check box. The system evaluates the step based on the interval you set in Preference Maintenance. For example, if you specified 15 in Preferences Maintenance, the system would evaluate the step every 15 minutes.

To set up the interval to use in Preferences Maintenance:

a Select **Admin**, **Preferences Maintenance**.

b If the Preferences table does not contain a Workflow section and DetectMinutes entry, click Insert Row and specify this information:

Section – Workflow

Entry – DetectMinutes

Value – Specify the frequency in minutes with which the system should evaluate the work flow step. You can specify a value between 1 and 60.

c Click **Save**.

Clear the check box to check to see if the step needs to be when the user saves the type of document governed by the workflow.

7 In the Notifications section, specify this information:

E-mail Address – Click the **E-mail Address** button and select the address of the person who receives an email notification. You can also specify an email address using your keyboard.

E-mail Subject – VISUAL populates the subject line of the notification email with the Workflow ID ($WrkID) and Step number ($WrkStep).

For example, **Workflow Notification 9030/ Step 3**.

To change the format of the subject line, click in the E-mail Subject field and specify the information.

E-mail Body – Workflow populates the body space of the notification email with this information:

• Workflow Type ($WrkType)
• Workflow Name ($WrkName)
• Workflow ID ($WrkID)
• Workflow Step ($WrkStep)

For example, **Workflow $WrkType / $WrkName / $WrkID is at step $WrkStep**.

E-mail Attachments – To attach a document to your email, click the **Attachments** button to open the Email Attachments dialog where you can select a file.

Note: The VE Programs Link and Documents buttons are reserved for future use.

Execute Command – To open a program file (for example, an Excel spreadsheet) when the notification takes place, click the **Execute Command** button and select the action from the dialog.

To open an VISUAL executable and sign in with the user's ID and password, specify this information:

```
${VE:program}
```

where program is the name of the executable you would like to open. For example, if you would like to open Customer Order Entry, specify this information:

```
${VE.VMORDENT.EXE}
```

8   You can use workflow rules to identify errors in a process. For example, if you require an expiration date on all quotes, you can set up a workflow rule that tests for the existence of an expiration date. See "Working with Rules" on page 8–22 in this guide.

Use the VE Program Action area to specify the actions that occur when the rule that is immediately before the step is used to identify an error, and the error conditions have been met.

Return error – Select this check box to indicate that an error has occurred. When an error occurs, the user cannot save the document that triggered the error.

Stop here if error – If you selected the **Return error** check box, select the **Stop here if error** check box to stop the workflow. Clear the Stop here if error check box to continue the workflow.

Return message – If you selected the **Return error** check box, select this check box to display a message in the error dialog. Specify the text in the Message field. If you selected the **Return error** check box, we recommend that you also select the Return message check box and specify text. If you do not select the Return message check box, then <null> is displayed in the error dialog.

9   To attach any documents to this step, click the **Document Reference** button and select the documents. For more information on Document Referencing, refer to the "Referencing a Document" section later in this chapter.

10 Click **Ok**.

Referencing Documents

Use the Workflow Document Reference dialog to add supportive documentation, such as instructions, specifications, or CAD drawings, to a workflow step.

To reference documents in a workflow, you must first add the document in Document Maintenance. See "Document Maintenance" on page 5–1 in this guide

1   In the Step Properties dialog, click the **Document Reference** button.

2   In the Workflow Document Reference dialog, click the **Insert** button.

3   Specify the ID of the document to reference or double-click the Document ID column heading to open the List Documents dialog where you can select a Document ID.

4   Click **Save**.

Viewing Status Information

The Step Properties dialog The Status, Started on, Last notified, and Completed fields are read only and display information only when the step has been triggered in a workflow. You can use the information in these fields when creating workflow statements. For more information on workflow statements, refer to the "Working with Statements" section later in this chapter.

The status area displays these fields:

Status – A workflow step is either In Process or Complete.

Started On – The date when VISUAL first evaluated this step. This date does not change.

Last notified – The date when VISUAL last evaluated the step. This date changes each time VISUAL evaluates the step.

Completed – The date when VISUAL completed the step.

Deleting Steps

To delete steps, select the step, then right-click and select **Delete** from the right-click menu.

Note: The workflow program does not display a confirmation message when you delete a step. You can undo a deletion.

Working with Rules

Rules determine the path of the workflow. Using the Rule Properties dialog, you can set up approval tasks (which appear in Task Maintenance application) for a specific user or a group of users. These users must sign off electronically on the activity before the workflow proceeds to the next step.

You can also assign Authorizations to restrict the enactment of a workflow step to a specific user or group of users.

Adding Rule Properties

To add rule properties:

1   If necessary, create a rule line.

2   Right-click the rule to which you want to add or edit properties.

3   Select **Properties**

The Rule Properties dialog appears.

4   In the Label field, specify a name for the rule.

You may want to consider using a name indicative of what you are attempting to accomplish with this rule.

5   In the Description field, specify a description for the rule.

If you are editing a rule property, the Status, Completed By, and Date/Time fields appear populated.

6   In the Evaluation Sequence field, specify a number to indicate the sequence that VISUAL uses to re-evaluate a workflow path. VISUAL re-evaluates workflow paths sequentially, beginning with 1.

For more information on evaluations, refer to the "Working with Evaluation Sequences" section later in this chapter.

7   To use this Rule for assigning tasks, click the **Approval** button and set up the Task Notification list for this rule. For more information on setting up approvals, refer to the "Working with Tasks" section later in this chapter.

To set up rule statements, click the **Insert** button and set up the Rules statements to use.

For more information on setting up Rule Statements, refer to the "Working with Statements" section later in this chapter.

8   If you have specified rule statements and want to include Authorizations, click the **Authorization** button and set up the Authorization Users for this Rule.

For more information on authorizations, refer to the "Working with Authorizations" section later in this chapter.

9   When you have finished setting up the rule, click **Ok**.

Working with Evaluation Sequences

Using the Re-evaluation list in the Step Properties dialog, you can allow VISUAL to restart a workflow each time a document (for example, a Purchase Order or Purchase Requisition) is saved. Because a workflow step may have multiple paths, you can define the sequence in which VISUAL evaluates each path. The value in the Evaluation Sequence field determines the evaluation order, starting with Sequence 1 and ending with Sequence 3.
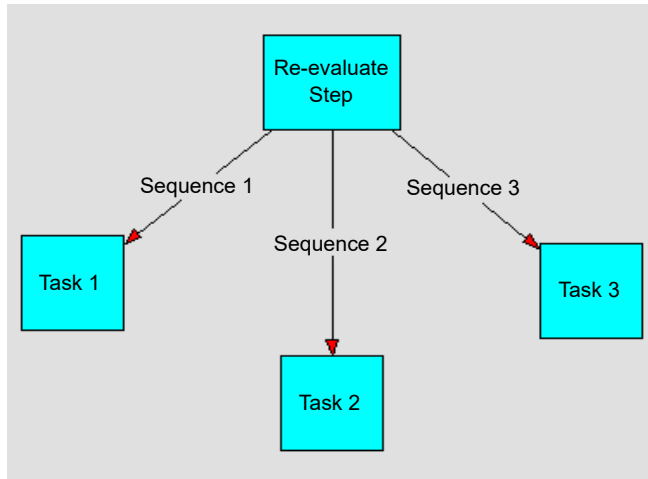
Working with Tasks

The Task List Notification dialog allows you to identify a group of users responsible for approving the activity before the workflow proceeds to the next step.

For each member of the Task List Notification, Workflow generates a task notification in the Task Maintenance window, Outlook, or both. For more information, refer to "Selecting Workflow Preferences" on page 8-32 in this guide.

To set up a task list:

1   In the Rule Properties dialog, click the **Tasks** button.

The Task List Notification dialog appears.

2   Click the **Insert** button.

The User/Group ID arrow appears.

3   Click the arrow and select a user or User Group.

Note: When you select a group, all members of that group appear on separate lines in the Task List Notification dialog.

4   To allow sign off privileges for a user, select the **Signoff** check box. You can give more than one user signoff privileges.

When you select the Signoff check box, VISUAL creates a task for each user.

5   To specify that a user is the leader, select the **Leader** check box.

Note: You can only have one leader within your user list: if you change the leader, Workflow automatically clears the original leader's check box.

6   In the Task Specification field, specify a description of the task for this step.

The description you specify in this field also appears in the Specification column in Task Maintenance.

7   When you have finished adding users to this step's task list, click **Save**.

Deleting Users from Task Lists

To remove users from a task list:

1   From the Rule dialog, click **Approvals**.

2   Click the row header for the user to remove.

The row appears highlighted.

3   Click **Delete**.

4   Click **Save**.

Workflow and Outlook Tasks

To receive workflow tasks from another user, you must grant that user permission to write to your Outlook Tasks folder.

To grant permission:

1   In Microsoft Outlook, display **Tasks**.

2   Right-click the Tasks folder and select **Properties**.

3   Click the **Permissions** tab.

4   Click **Add....**

5   Specify the user who should have write-access to your Tasks folder.

6   In the Write section, select the **Create Items** and **Edit Own** check boxes. See the Outlook online help for information about other permission levels.

7   Click **Ok**.

Working with Authorizations

The Authorization dialog allows you to restrict the enactment of a workflow step to a specific user or users only.

To set up authorization lists:

1 After clicking **Authorization**, the Authorization dialog appears.

2 Click the **Insert** button.

The User/Group ID arrow appears.

3 Click the arrow and select a User or User Group from the list.

Note: If you select a group, the names of all the members of that group appear in the list.

4 Click **Save**.

Working with Statements

Statements are conditions that trigger actions. They can range from simple one-line statements to more complex multi-line statements.

To set up statements:

1 Click the **Insert** button:

2 In the Table column, click the arrow and select the data table to use for this statement.

The Table column lists all the data tables associated with the application for which you are creating a workflow. It also contains two "non-standard tables" named Workflow_Rule and Workflow_Step that allow you to create statements for the condition of a rule or step.

3 Click in the Column column, click the arrow; then select the column you want to use for this statement.

The Column column lists all the columns associated with the table you select in the Table column. If you select Workflow_Rule the list displays Label, Status, and Time Complete. If you select Workflow_Step, the list displays Action, Label, Status, Time_Started, Time_Complete, and Time_Notified. For more information, refer to the "Using the Workflow_Step Column" and "Using the Workflow_Rule Column" sections later in this chapter.

4 If your statement requires an operator, click in the Operator column, click the arrow; then select an operator value. Select one of these options:

+ – Add (Column value + Operator value)

- – Subtract (Column value – Operator value)

* – Multiply (Column value * Operator value)

/ – Divide (Column value / Operator value)

5 If your statement requires an operator value, specify a value in the <Operator> value column header or double-click the column header and select a value.

6 Click in the Comparison column, click the arrow; then select the comparison function to use for this statement. Select one of these options:

< – Less than (Column value + Operator value < Comparison value)

> – Greater than (Column value + Operator value, Comparison value)

= – Equal to (Column value + Operator value = Comparison value)

>= – Greater than or equal to (Column value + Operator value >= Comparison value)

<= – Less than or equal to (Column value + Operator value <= Comparison value)

!= – Not equal to (Column value + Operator value != Comparison value)

in – In (Column value + Operator value **in** Comparison value)

not in – Not in (Column value + Operator value not in Comparison value)

like – Like (Column value + Operator value **like** Comparison value)

not like – Not like (Column value + Operator value not like Comparison value)

between – Between two values (Column value + Operator value *between* Comparison value)

not between – Not between (Column value + Operator value not between comparison values)

7   Click in the Value column and specify the value to use for this statement. When creating statements that require status values, double-click the column header to view a browse list of acceptable values.

8   To combine two statements or compare more than one value, click in the Logical column and select one of these options:

Or – If one or more conditions or other conditions must exist before statement can be true, select the **Or** option. For example, if you have a two line statement the first line OR the second line can be true for the whole statement to be true.

And – If multiple conditions must exist before the statement can be true, select the **And** option. For example, if you have a two line statement, both lines must be true before the whole statement can be true.

And any – If the first line and ANY of the subsequent lines must exist before the statement can be true, select the **And Any** option.

Or any – If the first line OR any of the subsequent lines must exist before the statement can be true, select the **Or Any** option.

Next Line – Use the Next Line option to consider one database column in relation to a second database column to determine the records to select. For example, to create a statement that selects parts with a unit price (part.unit_price) that is greater than or equal to 20% more than the wholesale unit cost (part.whsale_unit_cost), you would specify these two lines:

+PART	UNIT_PRICE			>=		Next line
+PART	WHSALE_UNIT_COST	*	1.2			

You can combine more than one Next Line statement. For example, to create a statement that selects parts with a unit price greater than or equal to 20% of the wholesale unit cost but less than or equal to 50% of the wholesale unit cost, you would specify these two lines:

Table	Column	Operator	\<Operator\> Value	Comparison	\<Comparison\> Value	Logical
+PART	UNIT_PRICE			>=		Next line
+PART	WHSALE_UNIT_COST	*	1.2			And
+PART	UNIT_PRICE			<=		Next line
+PART	WHSALE_UNIT_COST	*	1.5			

You can also create Next Line statements that search for information across two different database tables. For example, to search for all part IDs that have been used in customer order lines, you would specify these lines:

Table	Column	Operator	\<Operator\> Value	Comparison	\<Comparison\> Value	Logical
+PART	ID			in	""	Next line
+CUST_ORDER_LINE	PART_ID					

9   When you have finished setting up your statement, click **Ok**.

Using the Workflow Rule Table

In a typical workflow, you create statements for tables within an application (for example, PURCHASE_ORDER for the Purchase Order application). However, some workflows require that you create a statement for the condition of a specific rule or step. To allow the creation of rule and step statements, Workflow provides non-database tables, such as Workflow_Rule and Workflow_Step. These tables allow you to create statements for status and time conditions. For example, you can set a time condition for a step that must be completed by a specific date.

Creating a Workflow Rule/Step Label Statement

A statement containing a Label value affects the current rule. The trigger for the Label value is the name of the current rule in the Label field.

For example, the label name of this rule is "PO, $10000."

To create a Workflow Rule/Statement Label statement:

1   If necessary open a Rule Properties dialog.

2   Click the **Insert** button.

3   In the Table column, click the arrow and select either   **Workflow_Rule** or **Workflow_Step**.

4   Click in the Column column, click the arrow and select **Label**.

5   If the statement requires a value in the <Operator> Value or <Comparison> Value column, specify the label name of the current rule.

6   For more information on completing workflow statements, refer to the "Working with Statements" section.

Creating a Workflow Rule/Step Status Statement

A statement containing a Status value affects the current rule. The trigger for Status is the value in the Status field. The Status field is read-only and displays "Complete" when VISUAL has completed the current rule or "InProcess" when VISUAL has started, but not completed, the current rule.

To create a Workflow_Rule Status statement:

1   If necessary open a Rule Properties dialog.

2   Click the **Insert** button.

3   In the Table column, click the arrow and select either   **Workflow_Rule** or **Workflow_Step**

4   Click in the Column column, click the arrow; then select **Status**.

5   If the statement requires a value in the <Operator> Value or <Comparison> Value column, specify one of these values:

InProcess – The statement requires that the status of the current rule is in process. The **InProcess** value is case and space sensitive.

Complete – The statement requires that the status of the current rule is complete. The **Complete** value is case sensitive.

6   For more information on completing workflow statements, refer to the "Working with Statements" section.

Creating a Workflow Step Time Started Statement

A statement containing a Time Started value affects the previous step. To calculate this value, Workflow looks at the Started on section in the previous Step Properties dialog.

To create a Workflow_Step Time Started statement:

1   If necessary open a Step Properties dialog.

2   Click the **Insert** button.

3   In the Table column, click the arrow; then select **Workflow_Step**.

4   Click in the Column column , click the arrow, then select **Time_Started**.

5   If the statement requires a value in the <Operator> Value or <Comparison> Value column, double-click the column's header.

6   In the Offset section, select the time for your operator value; then click the **OK** button.

7   For more information on completing workflow statements, refer to the "Working with Statements" section.

Creating a Workflow Step Time Last Notified Statement

A statement containing a Time Notified value affects the previous step. To calculate this value, VISUAL looks at the Last Notified field in the Step Properties dialog of the previous step.

To create a Workflow_Step Time Notified statement:

1   If necessary open a Step Properties dialog.

2   Click the **Insert** button.

3   In the Table column, click the arrow and select **Workflow_Step**.

4   Click in the Column column, click the arrow; then select **Time_Notified**.

5   If the statement requires a value in the <Operator> Value or <Comparison> Value column, double-click the column's header.

6   In the Offset section, select the time for your operator value; then click **OK**.

7   For more information on completing workflow statements, refer to the "Working with Statements" section.

Creating a Workflow Rule Time Complete Statement

A statement containing a Time Complete value affects the current rule. The trigger for the Time Complete value is the date in the Date/Time field of the current rule.

To create a Workflow_Rule Time Complete statement:

1   If necessary open a Rule Properties dialog.

2   Click the **Insert** button.

3   In the Table column, click the arrow and select either **Workflow_Rule** or **Workflow_Step**.

4   Click in the Column column, click the arrow; then select **Time_Complete**.

5   If the statement requires a value in the <Operator> Value or <Comparison> Value column, double-click the column's header.

   The calendar dialog appears.

6   In the Offset section, select the time for your operator value; then click the **OK** button.

7   For more information on completing workflow statements, refer to the "Working with Statements" section.

Viewing Workflow Status Codes

The Workflow Status Codes window displays a list of database tables, status column names, and status values. This window also displays the actual text that appears in status fields. For example, the Status field in Purchase Order Entry displays values such as **Firmed**, **Released**, and **Hold**. The corresponding status values in the Purchase_Order database table are **F**, **R**, and **H**.

Use the Workflow Status Codes window as a reference when creating Workflow statements that require condition comparisons on status columns.

Opening the Workflow Status Codes Window

To open the Workflow Status Codes window:

1   On the Admin menu, select **Application Global Maintenance**.

2   On the Maintain menu, select **Workflow Codes**.

   The Workflow Status Codes window appears.

   This information is shown in the Workflow Status Codes Window:

   Language – Click the arrow to view a list all supported languages in the system.

   Status Text – The actual text that appears in the status field of a particular application. For example, when the value "C" appears in the STATUS column of the PURCHASE_ORDER table, the status field in Purchase Order Entry displays "Closed." You can edit status text for any language except USA.

Status Value – The actual value that appears in the status column of the database table. You cannot edit this field.

Table Name – The name of the database table.

Column Name – The name of the status column in the corresponding database table.

Changing Status Text Language

You can edit definitions in the Status Text column to support other languages. You cannot edit definitions for the USA language code.

To change the status text language:

1 In the Status Text column, change the text from English to another supported language.

2 Click the **Copy to Language ID** button.

3 In the Copy to Language ID list, select the ID of the language to copy the status definition.

4 Click **Ok**.

Selecting Workflow Preferences

To access the Workflow Preferences dialog, select **Preferences** from the Options menu.

You can select these preferences for Workflow:

Rotation Angle – Specify the angle to which you want to rotate the Workflow window.

Delete on right-click menu – To display the delete command on the right-click menu, select the **Delete** on Right-click menu check box.

Logging Level – Specify the number of "undo" levels to track. The greater the quantity of undo levels, the greater the memory usage.

Make Tasks in – Click the arrow and select where to make your Workflow tasks. You can select:

> **VISUAL Task List** – To create tasks only in VISUAL's task list, select the **VISUAL Task List** option.

> **Outlook** – If you use Microsoft® Office Outlook® and want to create tasks only for Outlook, select the **Outlook** option.

> **Both** – To create tasks in VISUAL's task list and in Outlook, select the **Both** option.

ECN and Purchase Requisitions Tasks – Click the arrow and select where to create your Engineering Change Notice and Purchase Requisition tasks. You can select:

• Task Table Only

• Outlook and Task Table

In the E-mail Settings (SMTP) section, set this outgoing email server information:

Auto Discover – To detect your settings, select the **Auto Discover** check box. If you select this setting, you do not need to make any other settings.

Server Name – Specify the name of your outgoing email server.

Email Address – Specify the email address to use as a From email address.

MS Exchange User Name – If you are using MS Exchange, specify the User Name.

Display Name – Specify a From name.

Logging Workflow Timer Events

If you would like to keep a record of all workflow timer events, you can enable the WORKFLOW.LOG file.

1 Select **Admin**, **Preferences Maintenance**.

2 Find the LogWorkflowEvents entry in the Workflow section. If it does not exist, click the Insert button and add the entry to the preferences table.

3 In the Value field, specify Y.

The system records workflow timer events in the WORKFLOW.LOG file. The system stores the file in the same directory as your VISUAL executables.

Using the Workflow Tracker

Workflow Tracker is primarily a view only application that allows you to monitor the status of workflow documents. Each step section in the work area displays a color-coded border to indicate where the workflow started, which steps have been completed, and the current step.

With the appropriate permissions, you can manually complete a step in the process or print workflow reports.

Opening Workflow Tracker

You can start the Workflow Tracker from the Admin menu of the main menu or click the Workflow Tracker button in any document that has an associated workflow.

Note: A highlighted Workflow Tracker button indicates that the document has an associated workflow. A shaded button indicates there is no associated workflow.

To start the Workflow Tracker from an application (for example, Purchase Requisition Entry or Purchase Order Entry) that has a workflow document in process, do one of these actions:

• Click the **Workflow Tracker** button on the main toolbar of the application.

• On the Info menu, click **Workflow**.

To start the Workflow Tracker from the main window:

1 On the Admin menu of the main window, click **Workflow Tracker**.

2 Click the **Application Area** arrow and select the application area where you created the template.

3 Click the **Document ID** button and select the workflow to open.

VISUAL creates a unique workflow document is for every enactment of the workflow.

4 Click **Ok**.

The workflow you selected appears in the Workflow Tracker window.

Understanding Color Codes in Workflow Tracker

The color of each step in the workflow shows the status of the step:

Blue – A blue dash outline indicates the starting workflow step.

Black – A black dash outline indicates a completed workflow step.

Yellow – A yellow dash outline indicates the current workflow step.

Viewing Rule Status Information

To view the status of a workflow rule:

1   Right-click the rule for which you want to view status information.

The Rule Properties dialog appears.

2   View status information in these fields:

Status – Indicates whether the task or authorization is complete or in process.

Completed by – Indicates who completed the task or authorization.

Date/Time – Indicates when the task or authorization was completed.

Viewing Step Status Information

To view the status of a workflow step:

1   Right-click the step for which you want to view status information.

The Step Properties dialog appears.

2   View status information in these fields:

Status – Indicates whether the workflow step is complete or in process.

Started On – The date when VISUAL first evaluated this step. This date does not change.

Last notified – The date when VISUAL last evaluated the step. This date changes each time VISUAL evaluates the step.

Completed – The date when VISUAL completed the step.

Marking a Step Done

With appropriate permissions, you can manually override an authorization. For example, when a rule requires the authorization of a user who is on vacation, you can mark the step done so that the workflow can continue to the next step.

To mark a step done:

1   Right-click the rule to authorize.

2   In the menu, select **Mark Done**.

The workflow continues to the next step.

Marking a Step Undone

With appropriate permissions, you can revert the state of an authorization to an undone condition.

To mark a step undone:

1   Right-click the rule to authorize.

2   In the menu, select **Mark Undone**.

The workflow reverts to an undone condition.

Printing a Workflow Tracker Diagram

To print a Workflow Tracker diagram, do one of these actions:

•   On the Main toolbar, click **Print**.
•   On the File menu, select **Print**.

Using the Workflow Gatekeeper

While the Workflow Tracker shows you what is occurring within the confines of a specific workflow, the Gatekeeper allows you to view all of the related processes as they relate to the current Workflow Template. For example, if you are viewing a workflow that incorporates Purchase Orders, you can use the Gatekeeper to view all of the rules within the workflow and all of your processes at that rule awaiting action—too many purchase orders at one rule may indicate a bottleneck.

This allows you to view what steps have and have not been completed, thus indicating where possible bottlenecks may be occurring. This allows management to view the overall effectiveness of the workflow as it relates to VISUAL as a whole and helps in the design of more efficient workflows.

To start and use the Gatekeeper:

1   Open the Workflow Tracker or Workflow Designer and select the Template Name and Document ID in the Open Existing Workflow dialog.

The Workflow Tracker opens populated with the document you selected.

2   Click the **Gatekeeper** toolbar button.

The Gatekeeper window opens populated with the rules at which VISUAL encounters processes awaiting action.

A graphical representation of the number of records awaiting at each rule appears in the Gatekeeper.

Note: If you have a wide range of records, you can use the Bar Scale to change the graphical representation.

3   To view the records at a specific rule, double-click the rule in which you are interested.

The Bottleneck List window appears populated with the records at the rule you selected.

4   To view the document on a line in the table, double-click the line in which you are interested.

VISUAL populates the Workflow Tracker window with the document you selected.

5   To close the Bottleneck List window, click **OK**.

6   To close the Gatekeeper window, click **OK**.

Chapter 9: Allocation Utilities

This chapter includes this information:

What is the Allocation Utility?

The Allocation Utility performs soft allocations of supply quantities to customer order demand in a "batch mode." Use the Allocation Utility to establish allocations, or "links," of supply to customer orders by part and/or warehouse and decrease the time you would normally spend in Customer Order Entry looking for suitable links of supply for customer orders, one line at a time.

Allocation is by site.

Allocation Processing

The Allocation Utility performs allocations in two modes: by part and by warehouse. Allocation by part commits supply to demand irrespective of warehouse; allocation by warehouse commits supply to demand from the same warehouse.

De-allocation

Before creating new allocations, you can remove existing allocations. Permission to do this, to "de-allocate," is controlled first by the REALLOCATE setting on the demand/supply link record.

If REALLOCATE is set to **No** on the link, the Allocation Utility does not de-allocate the link.

If REALLOCATE is set to **Yes** on the link record, the Allocation Utility references the customer REALLOCATE setting.

This allows a given allocation to be "fixed" by the user, regardless of the customer setting.

During the entering of Customer Types in Accounting Entity Maintenance, you can specify, per type, if reallocation is a default setting. In Customer Maintenance, when you select a Customer Type for a customer, this default carries over to the customer. You can, however, override this setting by selecting or clearing the Reallocate check box as appropriate.

Note: The REALLOCATE function does remove the allocation, but it puts it back, together with any new allocations, when the allocation utility is run. To fully remove an allocation, you must manually remove the allocation.

Sequencing

The first step in performing allocations is the proper sequencing of supply and demand. The first material available to the Allocation Utility is on-hand inventory. After the inventory has been committed, the Allocation Utility sequences future supply orders by due date. Relevant supply order types include purchase orders, work orders, work order coproducts, IBTs, and possibly planned orders.

The first set of demand orders the Allocation Utility considers are back orders sequenced by rank and due date. It sequences other demand orders by rank (priority) according to customer type and due date. **The Allocation Utility considers only customer orders as demand.**

Behind the Scenes of the Allocation Process

Allocation is done by site. The Allocation utility allocates supply to demand in three passes:

1   It attempts to allocate on hand inventory to demand orders in rank (priority), due date order.

If supply is sufficient and committed to all demand orders, allocation is complete. If not, pass 2 and 3 are still available.

2   Allocate on hand inventory to demand in rank, due date order, up to the fill rate on the order.

3   Allocate remaining on hand inventory and future supply orders to demand orders in rank, due date order until supply runs out.

Orders that received fill rate allocation in pass two are eligible to receive future supply allocation in this pass.

The Allocation Utility only considers demand orders that have a ship date within the allocation fence.

During allocation by warehouse, the Allocation Utility disregards any orders that do not have Warehouse IDs.

Setting Up and Running the Allocation Utility

To set up and run the allocation preferences:

1   From the Admin menu, select the **Allocation Utilities**. option.

2   If you are licensed to use multiple sites, click the **Site ID** arrow and select the site to use. If you are licensed to use a single site, this field is unavailable.

3   To allocate for a range of parts, click the appropriate browse button and select the Starting and Ending Part IDs to use.

4   To allocate for a range of warehouses, click the appropriate browse button and select the Starting and Ending Warehouse IDs to use.

Note: By entering only a Starting ID, VISUAL ignores all parts prior to that ID and includes the ID and all those after it. By entering only and Ending ID, VISUAL includes all parts up to and including the ID, and ignores all parts after it.

5   In the Options for allocating inventory section, select these options:

Allocate On-hold Inventory – To allocate inventory that is currently on-hold, select the **Allocate On-Hold Inventory** check box. Classify parts as on-hold in Warehouse Maintenance.

Allocate Unavailable Inventory – To allocate inventory that is currently unavailable, select the **Allocate Unavailable Inventory** check box. Classify parts as unavailable in Warehouse Maintenance.

Reevaluate Partial Allocations – To reevaluate those demands to which it has already made partial allocations, select the **Reevaluate Partial Allocations** check box.

6   In the Options for Allocating Future Supply section, select these options:

Allocate Future Supply Orders – To consider supply orders to be received in the future as it allocates supply to customer order demand, select the **Allocate Future Supply Orders** check box.

Relevant supply order types include purchase orders, work orders, work order coproducts, interbranch transfers, and possibly planned orders.

If you select the Allocate Future Supply Orders check box, you can select where to assign the allocation:

Allocate Unreleased Orders – To allocate unreleased work order quantities to customer order demand, select the **Allocate Unreleased Orders** check box.

Allocate Firmed Orders – To allocate firmed work order quantities to customer order demand, select the **Allocate Firmed Orders** check box.

7   Click the **Run** toolbar button.

As the Utility carries out your allocation instructions, a progress dialog box appears.

Note: To stop the allocation before it has finished, click the **Cancel** button.

If the allocation session is successful, a message appears.

8   Click **Ok**.

9   When you have finished allocating, select **Exit** from the File menu.

Understanding Allocation

This example illustrates how the Allocation Utility allocates supply to a customer order for which there is insufficient stock of on-hand inventory to satisfy demand.

Example scenario:

- There is, at the time of order, a quantity of 383 in Warehouse MMC-MAIN.
- There is a purchase order for 300 of the same parts due in on 1/10/2008.
- There is an unreleased work order for 5,000 due to reach released status on 1/11/2008.
- No quantity of this part is on hold or unavailable in warehouse MMC-MAIN.

You would set up the allocation utility as follows:

By selecting the same Starting and Ending Part IDs, VISUAL will allocate supply only for the part you select.

By selecting the same Starting and Ending Warehouse IDs, VISUAL will allocate supplies from within that warehouse.

Because all of the check boxes in the Options for Allocating Inventory section are clear, VISUAL will only use available supplies for current demand.

Because all of the check boxes in the Options for Allocating Future Supply sections are selected, VISUAL will try to use orders you expect to receive in the future for demand you expect to need in the future.

When you run the Allocation Utility, these actions are performed:

On the first pass, the Allocation Utility allocates the 383 parts in inventory in MMC-MAIN to the customer order according to the customer's priority and the due date of the order. Because this is the only order for this part, all 383 parts are allocated to this order. The customer's priority and fill rate mean nothing.

On the second pass, nothing occurs because this is the only customer order for this part.

On the third pass, the Allocation utility checks future supply for quantities to allocate to the customer order. It looks for the earliest date. In the case of unreleased or firmed work orders, the release date, or in the case of purchase orders, the receive date.

Finding the purchase order with a release date of 1/10/2008, it allocates the purchase order quantity of 300 to the customer order. Continuing to look, it finds the unreleased work order with a release date of 1/11/2008 and an order quantity of 5,000, and allocates the remainder to the customer order.

When you open the customer order after running the Allocation utility, "Multiple Links" appears in the Supply Type column indicting that VISUAL obtained supply for this customer order from more than one source. In this case, VISUAL obtained supply from inventory, a purchase order, and an unreleased work order.

In the Customer Order entry window, highlight the order line and select the **Assign Supply to Customer Order Line** option from the Edit menu. The Supply Links dialog box appears with the three links of supply the Allocation Utility created appearing in the line item table. See"Customer Order Entry" on page 7-1 in the Sales guide.

Chapter 10: Data Interchange

This chapter includes this information:

What is Data Interchange?

Electronic Data Interchange (EDI) is an optional module that imports and exports data into and out of VISUAL. The import and export occurs using VISUAL's Data Interchange (.VDI) files. There are two executables that perform this function. VMDIGEN.exe, the Generate Data Import Layouts window, defines the .VDI file layouts. VMDIXCHG.exe, the Data Import Utility Exchange window, performs the import or export of data.

If you have the line **EDI Menus=Yes ("Y" or "1" also apply)** in Preferences Maintenance, the system displays an EDI menu in the main toolbar. You can open all three EDI applications from this menu.

What is EDI?

EDI is the electronic exchange of business documents in a predefined standard format. As a key component of Electronic Commerce, EDI controls costs, improves quality, increases efficiency, and gains strategic advantage.

The American National Standards Institute (ANSI) sets the standards for EDI in the United States. The United Nations standards body, UN/EDIFACT, sets the international standards for EDI. The ANSI accredited standards committee, X12, is the U.S. representative to the United Nations standards body. The ASC X12 standards specify the format and data content of electronic business transactions. Through the use of the standard, all organizations can enjoy the efficiencies of a common interchange language.

What is Electronic Commerce?

Electronic commerce is a general term that refers to the use of computer and telecommunications technologies to support trading in goods and services. Some technologies such as EDI, electronic mail, and electronic funds transfer are already widely used. Some of them (including EDI) require agreements between trading partners (buyers and suppliers) in order to govern the electronic trading relationship.

Electronic commerce technologies can be used in any environment where documents are exchanged between organizations, including procurement/purchasing, finance, trade and transport, health, law and revenue/tax collection.

The potential benefits for both suppliers and buyers include reduced paperwork and administrative lead times, more timely business transactions, quicker and easier access to information, and reduced need to re-key information into computers. These benefits allow agencies to adopt more efficient purchasing practices such as Just-In-Time, Quick Response, and Direct Store Delivery.

What is Integration?

An ideal extension of EDI-capability is to provide a seamless solution between the EDI translation software and another major application that can utilize incoming data and/or produce outgoing data, such as VISUAL. The "sharing" of data between applications is called Integration. The obvious benefit of integration is the elimination of redundant data entry. Other benefits include the reduction of errors due to re-keying, and the reduction of personnel that are necessary for data entry.

The Data Import Utility provides integration capability between VISUAL and your EDI software.

You can directly integrate this information through the Data Import Utility:

• Actual Demand Information (Inbound Customer Orders (CPO))

• Planning or Forecasting Information (Inbound Master Scheduler/Customer Forecast (PLN))

• Actual Cash Receipt information (Inbound Cash Receipts for Invoices (CSH))

• Purchase Receipt Acknowledgement (RCA)

• Outbound Customer Order and Customer Order Change Acknowledgments (ACK)

• Actual Shipment Information (Outbound Advance Ship Notice (ASN))

• Actual Accounts Receivable Information (Outbound Invoices (INV))

• Vendor Purchase Order Information (Outbound Purchase Orders (VPO))

• Warehouse Shipment Advice (WSA)

Integration Requirements

Integration between an EDI translator and VISUAL usually requires the use of integration "maps." Both the translation software and VISUAL often require maps that format the data that is brought into or extracted from the database.

There are many commercially available EDI communication software products that will allow you to build maps in that software to produce the file formats readable by VISUAL's data integration module. Integration with those products is available from our Professional Services Organization as well as from some of our channel partners.

In order to integrate your EDI data with VISUAL, you must determine which fields VMDIXCHG populates (inbound data) and from which it extracts (outbound data). To do this, use the the Data Import Utility Generate Layouts window to define the file layout and select the fields for each record type.

EDI Requirements

Translation software is required, which has its own hardware requirements. The Data Import Utility module from Infor Global Solutions is required for integration.

Communication requirements include an Async/Bysync Hayes® compatible modem as well as a method of transferring data (not provided by Infor Global Solutions), either a Value Added Network (VAN) account, direct connection to a trading partner, or Internet access.

In the interest of a timely and cost-effective implementation, Infor Global Solutions will help determine your EDI implementation requirements by conducting a needs assessment, assisting with an EDI software purchase, and providing services and support.

Starting the Generate the Data Import Layouts Window

> **Caution:** The data you are exporting may be sensitive; therefore, you may want to limit accessibility to VMDIGEN.exe. Use Security Maintenance to control user access.

You need to define the .VDI file formats using the Generate Data Import Layouts window before the Data Import Utility can support any import or export activity. Because the necessary data in any given application depends on the destination or source, the Data Import Utility requires you to indicate exactly which data elements it will use. While you are responsible for specifying the elements of each table, the Data Import Utility controls the sequence of the elements in the file layout.

To start the Generate Data Import Layouts window:

Select **Data Import Generate** from the EDI menu.

Inbound & Outbound Layout Process Overview

Inbound Layout

Once you know the data fields you are importing, use the Generate Data Import window to define a .VDI file layout to match the data with the proper VE fields. After you complete this, the Data Import Exchange window expects to import a file that matches the layout.

Outbound Layout

Use the EDI implementation guide from your trading partner or sample EDI data to determine which data fields you need to extract from your database in order to create the necessary EDI file. Then use the Data Import Generate Layouts window to select the fields, design the exported file layout, and record definitions. Finally, use the EDI mapping software to translate the data into the EDI software for transmission to your trading partner.

Considerations Before Creating Data Imports Layouts

This section contains some basic information about creating Data Import layouts. After this section, specific instructions for creating layouts of each type appear.

Accessing Layouts

The Key/Version and Description buttons allow you to select a layout from the list of existing layouts. Once you have created and saved a layout, you can access it using either of these buttons.

File Types

Outbound files can have a file type of either Single or Multiple; Inbound files may only have a File Type of Single. For this type, the Multiple radio button is unavailable.

Record and File Naming

The Multiple file type writes each record type to a separate file. VISUAL imports and exports Header tab fields as records beginning with the letters HDR.; the .VDI file name ends in the letter H. For example, ACK0001H.VDI contains the HDR records exported for layout 0001. Header Special Detail tab fields are records beginning with the letters SDL; the .VDI file name ends in the letter D. The Line Item tab fields are records beginning with the letters LIN; .VDI file name ends in the letter L. The Sub Line Item tab fields are records beginning with the letters SUB; .VDI file name ends in the letter S. The Additional Line Item tab fields are records beginning with the letters ASL; .VDI file name ends in the letter A.

Tab Access

All 5 tabs described above are available to the **ASN** and **WSA** keys. The **ACK**, **CPO**, and **VPO** keys allow you access to the Header, Line Item, and Sub Line Item tabs. The **CSH**, **INV**, and **RCA** keys allow you access to the Header and Line Item tabs. The **PLN** key allows you access to the Header tab.

File Styles

Fixed File Style

A fixed file indicates that the data in the .VDI file(s) will always occupy the same "fixed" space for each field and record. For example, if you have selected the Part ID in the Line Item tab of your VMDIGEN layout, and the layout shows the Part ID as being 30 characters long at position 25, then each time you export the Part ID for the LIN records of this layout, it will begin at position 25 and will take up 30 character positions. Typically, the Data Import Exchange module blank fills the unused portion of any alphanumeric fields and zero fills the unused portion of any decimal or number fields.

Fixed Style and Newline

If you select Fixed as the File Style, you can also choose from the Record drop-down list. For example, if you want fields in the records to appear in fixed positions (per layout) and each record to appear on its own line, you would choose Fixed as the file type and then Newline from the record drop-down list. For Fixed layouts for which you have selected nothing from the record drop-down, VISUAL normally imports or exports all records on the same line.

Delimited File Style

If you select Delimited as the style, you also need to select a delimiter for the end of each record, and the character VISUAL should use to separate each field in the record. For example, if you have selected the Part ID in the Line Item tab of your Delimited VMDIGEN layout, and Newline is your record type, Comma your field delimiter, your data would be:

LIN,02001,1,PRODUCT_P,55

LIN,02001,2,PRODUCT_Q,18

Immediately after the last bit of data in the Part ID field would be a comma, followed by the start of the next field. At the end of each record, VISUAL starts a new line for the next record. In the example above, 02001 is the Customer Order ID, followed by the Line Number, the Part ID, and the Quantity. The example uses Newline as the record delimiter, so each LIN record appears on its own line. The Delimited style does not blank-fill or zero-fill the unused portion of any exported fields – only the actual data is exported (and VISUAL only expects to find the actual data in the VDI file you are importing).

Accessibility to Buttons and Boxes

For keys ASN, ACK, INV, RCA, VPO, and WSA the Inbound radio button is unavailable; for keys CPO, PLN, and CSH, the Outbound radio button is unavailable.

Several buttons and boxes are accessible to you only for CPO layouts. As a result, those buttons and boxes are unavailable for all other layouts. The fields you can use for CPO layouts are the Inbound Duplicates Rule button (listed to the right of the fields on the Header tab, these buttons handle the Update, Reject and Replace functions); the Delete Unshipped Lines checkbox (listed to the right of fields on the Line Item tab); and the Delete Unshipped Schedules checkbox (listed to the right of fields on the Sub Line Item tab).

Accessibility to Options Menu Choices

Keys CSH, CPO, and ACK are the only keys for which you can select special settings. For keys ASN, INV, PLN, and VPO, the special settings options are unavailable.

The Options menu option Flush Temp. Cash Tables is only available for key CSH.

The Options menu option Print Length Discrepancies is available for all keys.

Mandatory Fields

When selecting data fields for any layout key, you may notice that certain fields under each tab are selected by default and some are simply unavailable. Fields selected by default are Mandatory fields for the key with which you are currently working. Any inbound CPO, PLN, or CSH Data Import layouts and .VDI files must contain the Mandatory fields in order to import properly. Also, any outbound ASN, ACK, INV, RCA, VPO, and WSA layout automatically exports these Mandatory fields as part of the tabs you use in the layout.

Hidden Fields

When selecting data fields for the CPO layout key, you may notice that certain fields under each tab are not visible among the Data Import layout fields. VISUAL addresses these fields; they are classified as Hidden for the CPO. As a result, you can't import data to those fields.

The database fields still exist (as you can easily verify – see your System Administrator for more information). The only field hidden in the VPO key is the Purc_Line_Del.Del_Sched_Line_No (in the Sub Line Item tab). There are no hidden fields for keys ACK, ASN, CSH, INV, or PLN. If interested, please see the available Hidden field listing.

Default Layouts

When you start VMDIGEN for the first time, the program creates pre-defined Default layouts for the seven available layout keys and assigns each a version number of 0000. You can use these default layouts as you would any manually created layout, meaning you can modify or delete them. If you do delete a layout, the Data Import Utility recreates the layout automatically the next time you start the program. If interested, please see the available Default field layout listings.

Using the Generate Data Import Layouts Window

Creating ACK Layouts (Customer Acknowledgements)

1   From the Key/Version list box, select **ACK** and then enter a version for the layout in the adjacent field.

2   Select a File Type, Single or Multiple.

   Single file - The single file type writes all records to one file.

   Multiple file - The multiple file type writes each record type to a separate file. Available record types for ACK are HDR, LIN, and SUB.

3   Select the appropriate file style from the File Style section.

The file style refers to the format of the data contained in the .VDI file. You can select:

Fixed - This style indicates that the data in the .VDI file(s) will always occupy the same "fixed" space for each field and record.

Delimited - By selecting this option, you are informing the Data Import Utility that the data in the .VDI file varies in size. You also need to select a delimiter for the end of each record and the character VISUAL should use to separate each field in the record. Please see the detailed description of Delimited styles in the previous section.

For Record, select from **Blank**, **Newline**, and **Null (Fixed Length)**.

For Field, select from **Blank**, **Asterisk**, **Comma**, **Tab**, or **Null (Fixed Length)** as a delimiter.

Note: If you are creating a Null (fixed length) layout (i.e. with each record contained on its own line), choose these settings:

File Style: Fixed

Record: Newline

Field: Null (Fixed Length)

4   From the Options menu, select **Special Settings** or click the **Special Settings** button on the main toolbar.

The Special Settings dialog box appears. The ACK tab has the default position. You cannot select the other tabs.

Select the appropriate option:

Original Orders Only (855) - Select this option button to acknowledge original customer orders only. Original orders are orders with the EDI Release checkbox selected but not the Order Changed checkbox. These check boxes appear in the EDI tab of the Customer Order Entry window.

Change Orders Only (865) - Select this option button to acknowledge changed customer orders only. Changed orders are orders with both the EDI Release checkbox selected **and** Order Changed checkbox selected. These check boxes appear in the EDI tab of the Customer Order Entry window.

When you update an existing order using Data Import Exchange, VISUAL selects the Order Changed checkbox. When you manually make changes to new orders in Customer Order Entry, you have to manually mark the Order Changed checkbox. You can clear the checkbox if you mistakenly change an order prior to exporting your 855 ACK documents.

If multiple 865 layouts exist for the same customer, the 865 ACK is only exported one time per change. That is, if you have orders with Order changed checkbox marked and you export 865 ACK, you cannot export the same orders with another layout -- unless you first re-select the checkbox.

Both Original and Change (ORDRSP) - Select this option button to acknowledge both original and changed customer orders.

When you update an existing order using Data Import Exchange, VISUAL selects the Order Changed checkbox. When you manually make changes to new orders in Customer Order Entry, you have to manually mark the Order Changed checkbox. You can clear the checkbox if you mistakenly change an order prior to exporting your 855 ACK documents.

If multiple 865 layouts exist for the same customer, the 865 ACK is only exported one time per change. That is, if you have orders with Order changed checkbox marked and you export 865 ACK, you cannot export the same orders with another layout -- unless you first re-select the checkbox.

The Data Import Utility includes Customer Order Acknowledgment Codes on every line item (LIN record) of your ACK (this applies to 855 as well as 865 documents). You can enter and maintain common Customer Order Ack Codes using in Application Global Maintenance. If the codes your trading partner requires you to use are not in the default list, you may add them. For more information, refer to the "Application Global Maintenance" chapter.

When your EDI order is saved or received via VMDIXCHG, all customer order line items have your default code on them. For example, some clients use the IA code (Item Accepted), some use AC (Item Accepted and Shipped), and others might use some mutually-agreed upon code. You can add as many codes as you need. Do this in Customer Maintenance. For more information, refer to the "Customer Order Entry" chapter.

Click **Ok** to commit these settings.

5   Begin to define a record layout. See the section Defining Record Layout later in this chapter for more information.

6   In Customer Order Entry, customer order line items receive the default code you chose for the customer. Before exporting your ACK documents, you may find one of your line items requires a code other than the default. For example, you may have IA as your default, but need to send IH (Item on Hold) for this one line item.

In that case,

- Open Customer Order Entry and find the order.
- Highlight the line item and scroll over to the far right of the line item table.
- Select the Ack Code field and choose the code.
- Save the order.

7   Begin to define a record layout. See the section "Defining Record Layouts" later in this chapter for more information.

Creating ASN Layouts

1   From the Key/Version list box, select **ASN** and then enter a version for the layout in the adjacent field.

2   Select a File Type, Single or Multiple.

Single file - The single file type writes all records to one file.

Multiple file - The multiple file type writes each record type to a separate file. Available record types for ASN are HDR, SDL, LIN, SUB, and ASL.

3   Select the appropriate file style from the File Style section.

The file style refers to the format of the data contained in the .VDI file. You can select:

Fixed - This style indicates that the data in the .VDI file(s) will always occupy the same "fixed" space for each field and record.

Delimited - By selecting this option, you are informing VISUAL that the data in the .VDI file varies in size. You also need toselect a delimiter for the end of each record and the character VISUAL should use to separate each field in the record. Please see the detailed description of Delimited styles in the previous section.

For Record, select from **Blank**, **Newline**, and **Null (Fixed Length)**.

For Field, select from **Blank**, **Asterisk**, **Comma**, **Tab**, or **Null (Fixed Length)** as a delimiter.

Note: If you are creating a Null (fixed length) layout (i.e. with each record contained on its own line), choose these settings:

File Style: Fixed

Record: Newline

Field: Null (Fixed Length)

4   Begin to define a record layout. See the section "Defining Record Layouts" later in this chapter

Creating CPO Layouts in VMDIGEN

If you are licensed to use multiple sites, use caution when defining and using a CPO layout. Since you specify the Allocations Require Warehouse/Location setting (DDP) on the accounting entity record, some of your entities may require you to specify warehouse IDs/locations in allocations (DDP enabled) while others do not. Sites assigned to an accounting entity inherit the accounting entity's setting. As a result, the warehouse ID in all CPO layouts is optional.

If you plan to use a CPO layout in conjunction with a site that is DDP enabled, you must select a CPO layout that contains a Warehouse ID. If you import a .vdi without a warehouse ID to a site that requires the warehouse, the file import will fail.

If your site is DDP enabled, all customer order lines in the .vdi file must include the warehouse ID. Otherwise, the file import will fail.

If your site is not DDP enabled, you can include a warehouse ID in a CPO layout even though the site does not require a warehouse. If a warehouse is specified in the .vdi file, then the warehouse ID will be inserted in the customer order line. If a warehouse is not included in the .vdi file, the file import will still be successful because the site does not require the warehouse.

1   From the Key/Version list box, select **CPO** and then enter a version for the layout in the adjacent field.

2   In the Description field, enter a description for the layout key. Click **Description** to choose a predefined layout key description.

3   From the File Style section, select the appropriate file style.

The file style refers to the format of the data contained in the .VDI file. You can select:

Fixed - Choose this option if you want the data in the .VDI file(s) to always occupy the same "fixed" space for each field and record.

Delimited - Choose this option if the data in the .VDI file varies in size.

4   Select the appropriate delimiter for the end of each record, and a character to separate each field in the record.

For Record, select from **Blank**, **Newline**, and **Null (Fixed Length)**.

For Field, select from **Blank**, **Asterisk**, **Comma**, **Tab**, or **Null (Fixed Length)** as a delimiter.

If you are creating a Null (fixed length) layout (i.e. with each record contained on its own line), choose these settings:

File Style: Fixed

Record: Newline

Field: Null (Fixed Length)

5   Click the **Header** tab and choose the appropriate Inbound Duplicates Rule for headers, line items, and delivery schedules.

Note: The Update check box must be selected in the Header Inbound Rule section to use Line Item Duplicate and Delivery Schedule Duplicate features.

During the import of data, the Data Import Utility checks the import file records to see if duplicate data exists. Duplicate data has the same primary key in the targeted VISUAL table.

For CPO imports, a duplicate customer order has the same Customer Order ID as an order that already exists in the database.

If a quantity exists in the SUB record, VISUAL compares the quantity of the first delivery schedule to it, and then updates it with the quantity with the difference between the two. If the first delivery schedule is less than the fab build qty, and you are using the Fab Build Quantity as your base, VISUAL reduces the first delivery schedule qty to 0. If there is no fab build qty at the time of import, VISUAL imports the first delivery schedule qty in the VDI file (as if you had chosen to import as discrete).

6   Select Header, Line Item Duplicate, and Delivery Schedule Duplicate options:

Header

Insert - Select the **Insert** check box to allow the insert of new customer orders

Update - Select the **Update** check box to allow the update of existing customer orders

Line Item Duplicate

Insert - Select the **Insert** check box to allow the insert of new line items.

Update - Select the **Update** check box to allow the update of existing line items.

Delivery Schedule Duplicate

Insert - Select the **Insert** check box to allow the insert of new delivery schedules.

Update - Select the **Update** check box to allow the update of existing delivery schedules.

7   Choose a method of calculating quantity:

Cumulative - Select the **Cumulative** option button to use the difference between prior values and the delivery schedule value.

Discrete - Select the **Discrete** option button to import the actual delivery schedule quantities included in the SUB (delivery schedule) records of the CPO VDI file. VISUAL performs no calculations or computations.

8   Choose a Cumulative Base:

Shipped Quantity - Select the **Shipped Quantity** option button to use the actual ship quantity plus any adjustment as the starting point.

Fab Build - Select the **Fab Build** option button to use the Fab Build Quantity as the starting point.

9   Select these check boxes as they apply to the CPO layout you are creating:

Mark EDI Blanket Flag - To mark the imported customer order as a Blanket order when you run VMDI Exchange for a CPO layout, select the **Mark EDI Blanket Flag** check box.

Update Dispatched Orders - If you have DCMS installed and you want VMDI Exchange to update the customer orders with information from the .VDI file, select the **Update Dispatched Orders** check box.

10   Click the **Line Item** tab and select the **Delete Unshipped Lines** check box to delete any unshipped lines on an order before updating with updated data from a new .VDI file. This feature is useful for customers whose trading partners insist that they delete any customer order line items not shipped on an order prior to receiving updates for that order.

If you select to Delete Unshipped Lines, this warning message is shown:

"This will delete ALL unshipped lines on matching imported customer order headers regardless of which lines are imported. Processing will also delete ALL unshipped delivery schedule lines for those customer order lines containing delivery schedules."

11   Click the **Sub Line Item** tab and select the **Delete Unshipped Schedules** check box to delete any unshipped delivery schedules on an order before updating with updated data from a new .VDI file. This feature is useful for customers whose trading partner insists that they delete any customer order delivery schedule lines not shipped on an order prior to receiving in updates for that order.

If you select to Delete Unshipped Schedules, this warning message is shown:

"This will delete ALL unshipped delivery schedule lines of those matching customer order line(s) being imported."

12   Click the **Line Item** tab and begin to establish Match Fields.

If you have chosen Update (see step 6) as your inbound rule, you can choose how to determine line item matches for your CPO layout. If you do not choose any line item match fields, VISUAL updates line items based on a match of the Part ID. If you have multiple line items on an order for the same Part ID, it will only update the first occurrence of the part. You may need to choose additional match fields to avoid that problem.

It is possible to use the line item number as a match field, but many EDI trading partners don't use the line item number in the incoming data. You may need to use other fields to determine the correct line item for update.

To solve the problem of matching on the line item number, choose other fields for VISUAL to send in the line item. You can choose a combination of fields that allow you to create a unique line item in the order. If the combination you have selected does not determine unique line items, you will

need to add more fields to your match criteria until you find the right combination. For example, Part ID and EDI Release Number may determine a unique line item for your order. If that's not unique, try adding the Shipto ID field.

Note: If you use the line item number field as part of your match criteria, VISUAL ignores all other match fields and the line item number determines the match.

Also, if you have delivery schedules on your line items, do *not* use the Desired Ship Date field as part of your match criteria. VISUAL uses the Desired Ship Dates in all of the delivery schedules for the line item and finds the earliest date, and then updates the Desired Ship Date field on the line item with that date. If you use delivery schedules, make an effort to avoid using the Desired Ship Date field as part of your match criteria.

If you are not using delivery schedules, the Desired Ship Date is fine to use as part of your match criteria.

In the Available Match Fields data field, highlight the field to add.

Click the **Right** Arrow to move the field into the Selected Match Fields section date field.

Repeat this procedure for each line.

13 Select **Special Settings** from the Options menu or click the **Special Settings** button on the main toolbar.

The Special Settings dialog box appears. The CPO tab has the default position. You cannot select the other tabs.

14 Select the appropriate options:

Select the **Auto Generate CO ID** check box to generate the Customer Order ID for you. After selecting this check box, you must enter a Prefix Token for use in your VDI file.

During the exchange of EDI data, VISUAL replaces the token with the actual generated Customer Order ID.

With the Autogenerate CO ID check box selected, VISUAL generates unique Customer Order IDs for incoming EDI customer orders. You cannot, however, use this feature if order details may change, because VISUAL has no way of matching the original order with the incoming changes to the order. Use this feature for unique, discrete customer orders that you are sure will not change.

15 Enter a prefix token in the Prefix Token field.

During the exchange of EDI data, VISUAL looks for this token in the 4th column on each header, line, and subline in your VDI import file.

16 Click **Ok** to commit the special settings.

Creating CSH Layouts

1 From the Key/Version list box, select **CSH** and then enter a version for the layout in the adjacent field.

2 From the Options men, select **Special Settings** or click the Special Settings button on the main toolbar.

The Special Settings dialog box appears. The CSH tab has the default position. You cannot select the other tabs.

Select the appropriate search option:

Search Invoices Based on:

Invoice ID - VISUAL searches invoices based on Invoice ID

Packlist ID - VISUAL searches invoices based on Packlist ID

BOL ID - VISUAL searches invoices based on BOL ID

ASN ID - VISUAL searches invoices based on ASN ID.

3   Click **Ok** to commit these settings.

4   To flush out the temporary cash tables, select **Flush Temp. Cash Tables** from the Options menu.

5   Begin to define a record layout. See the section "Defining Record Layouts" later in this chapter for more information.

Creating INV Layouts

1   From the Key/Version list box, select **INV** and then enter a version for the layout in the adjacent field.

2   Select a File Type, Single or Multiple.

Single file - The single file type writes all records to one file.

Multiple file - The multiple file type writes each record type to a separate file. Available record types for INV are HDR and LIN.

3   Select the appropriate file style from the File Style section.

The file style refers to the format of the data contained in the .VDI file. You can select:

Fixed - This style indicates that the data in the .VDI file(s) will always occupy the same "fixed" space for each field and record.

Delimited - By selecting this option, you are informing the Data Import Utility that the data in the .VDI file varies in size. You also need to select a delimiter for the end of each record and the character VISUAL should use to separate each field in the record. Please see the detailed description of Delimited styles in the previous section.

For Record, select from **Blank**, **Newline**, and **Null (Fixed Length)**.

For Field, select from **Blank**, **Asterisk**, **Comma**, **Tab**, or **Null (Fixed Length)** as a delimiter.

Note: If you are creating a Null (fixed length) layout (i.e. with each record contained on its own line), choose these settings:

File Style: Fixed

Record: Newline

Field: Null (Fixed Length)

4   Click **Ok** to commit these settings.

5   Begin to define a record layout. See the section "Defining Record Layouts" later in this chapter for more information.

Creating PLN Layouts

1   From the Key/Version list box, select **PLN** and then enter a version for the layout in the adjacent field.

2   Select a File Type, Single or Multiple.

Single file - The single file type writes all records to one file. The only available record type for used for PLN is HDR. PLN documents are imported from single files only. No multiple file option is available.

Multiple file - Not available for layout PLN

3   Select the appropriate file style from the File Style section.

The file style refers to the format of the data contained in the .VDI file. You can select:

Fixed - This style indicates that the data in the .VDI file(s) will always occupy the same "fixed" space for each field and record.

Delimited - By selecting this option, you are informing the Data Import Utility that the data in the .VDI file varies in size. You also need to select a delimiter for the end of each record and the character VISUAL should use to separate each field in the record. Please see the detailed description of Delimited styles in the previous section.

For Record, select from **Blank**, **Newline**, and **Null (Fixed Length)**.

For Field, select from **Blank**, **Asterisk**, **Comma**, **Tab**, or **Null (Fixed Length)** as a delimiter.

Note: If you are creating a Null (fixed length) layout (i.e. with each record contained on its own line), choose these settings:

File Style: Fixed

Record: Newline

Field: Null (Fixed Length)

4   From the Header Tables tab, select the appropriate inbound duplicates rule.

During the import of data, the Data Import Utility checks the import file records to see if duplicate data exists. Duplicate data has the same primary keys in the targeted VISUAL table.

In the case of PLN imports, a duplicate forecast has the same Customer ID, Forecast ID and Part ID as a forecast that already exists in the database.

Update - Select this option to examine the 3-field key above and update the forecast the data from the .VDI file if it finds a match. If VISUAL finds the same dates in the forecast in both the .VDI file and in VISUAL, it updates the records; if it finds new dates in the .VDI file, it adds the records.

Reject - Select this option to ignore data in the .VDI file that has the same primary keys as data in the target VISUAL table. In the case of PLN imports, if VISUAL finds a match on the 3-field key it will throw out the .VDI file forecast (leaving the forecast in VISUAL untouched) and write an entry to the log file. No information is written to the database for the forecast and no dates are examined.

Replace - Select this inbound rule and VISUAL, if it finds a match on the 3-field key, eliminates all of the records for that forecast from VISUAL and import them instead from the .VDI file. As with the Reject Duplicate inbound rule, VISUAL does not examine any dates. The only option that addressed the required date field is the Update inbound rule.

5   Click **Ok** to commit these settings.

6   Begin to define a record layout. See the section "Defining Record Layouts" later in this chapter for more information.

Creating RCA Layouts

1   From the Key/Version list box, select **RCA** and then enter a version for the layout in the adjacent field.

2   Select a File Type, Single or Multiple.

Single file - The single file type writes all records to one file.

Multiple file - The multiple file type writes each record type to a separate file. Available record types for RCA are HDR, LIN, and SUB.

3   Select the appropriate file style from the File Style section.

The file style refers to the format of the data contained in the .VDI file. You can select:

Fixed - This style indicates that the data in the .VDI file(s) will always occupy the same "fixed" space for each field and record.

Delimited - By selecting this option, you are informing the Data Import Utility that the data in the .VDI file varies in size. You also need to select a delimiter for the end of each record and the character VISUAL should use to separate each field in the record. Please see the detailed description of Delimited styles in the previous section.

For Record, select from **Blank**, **Newline**, and **Null (Fixed Length)**.

For Field, select from **Blank**, **Asterisk**, **Comma**, **Tab**, or **Null (Fixed Length)** as a delimiter.

Note: If you are creating a Null (fixed length) layout (i.e. with each record contained on its own line), choose these settings:

File Style: Fixed

Record: Newline

Field: Null (Fixed Length)

4   Click **Ok** to commit these settings.

5 Begin to define a record layout. See the section "Defining Record Layouts" later in this chapter for more information.

Creating VPO Layouts

1 From the Key/Version list box, select **VPO** and then enter a version for the layout in the adjacent field.

2 Select a File Type, Single or Multiple.

Single file - The single file type writes all records to one file.

Multiple file - The multiple file type writes each record type to a separate file. Available record types for VPO are HDR, LIN, and SUB.

3 Select the appropriate file style from the File Style section.

The file style refers to the format of the data contained in the .VDI file. You can select:

Fixed - This style indicates that the data in the .VDI file(s) will always occupy the same "fixed" space for each field and record.

Delimited - By selecting this option, you are informing the Data Import Utility that the data in the .VDI file varies in size. You also need toselect a delimiter for the end of each record and the character VISUAL should use to separate each field in the record. Please see the detailed description of Delimited styles in the previous section.

For Record, select from **Blank**, **Newline**, and **Null (Fixed Length)**.

For Field, select from **Blank**, **Asterisk**, **Comma, Tab**, or **Null (Fixed Length)** as a delimiter.

Note: If you are creating a Null (fixed length) layout (i.e. with each record contained on its own line), choose these settings:

File Style: Fixed

Record: Newline

Field: Null (Fixed Length)

4 Click **Ok** to commit these settings.

5 Begin to define a record layout. See the section "Defining Record Layouts" later in this chapter for more information.

Creating WSA Layouts

1 From the Key/Version list box, select **WSA** and then enter a version for the layout in the adjacent field.

2 Select a File Type, Single or Multiple.

Single file - The single file type writes all records to one file.

Multiple file - The multiple file type writes each record type to a separate file. Available record types for WSA are HDR, LIN, and SUB.

3   Select the appropriate file style from the File Style section.

The file style refers to the format of the data contained in the .VDI file. You can select:

Fixed - This style indicates that the data in the .VDI file(s) will always occupy the same "fixed" space for each field and record.

Delimited - By selecting this option, you are informing the Data Import Utility that the data in the .VDI file varies in size. You also need to select a delimiter for the end of each record and the character to use to separate each field in the record. Please see the detailed description of Delimited styles in the previous section.

For Record, select from **Blank**, **Newline**, and **Null (Fixed Length)**.

For Field, select from **Blank**, **Asterisk**, **Comma**, **Tab**, or **Null (Fixed Length)** as a delimiter.

Note: If you are creating a Null (fixed length) layout (i.e. with each record contained on its own line), choose these settings:

File Style: Fixed

Record: Newline

Field: Null (Fixed Length)

4   Click **Ok** to commit these settings.

5   Begin to define a record layout. See the section "Defining Record Layouts" later in this chapter for more information.

Defining Record Layouts

On the bottom half of the Generate Data Import Layouts window there are five tabs: Header Tables, Header Special Details, Line Item Tables, Sub Line Item Tables, and Adt Line Item Tables.

Each tab represents a record type in the layout. Not all tabs are used in each layout. If a tab or record type is not relevant to a key type, no tables appear when you select the tab.

Each tab also displays a list of default tables that contain the most appropriate fields for the selected key. Usually, all of the fields you want to access are available by default. If not, you can "join" additional tables to the ones displayed.

1   Select a tab to start defining a record layout.

2   Click the **Data** button to select data elements for the record type you are defining. (There is a **Data** button below each list of tables.)

The dialog box shows all of the available columns of the tables for that record type. The table displays the table name (or view), the column or field name, the data type, the position in the .VDI file record, the length of the field, the scale (number of decimal places) and whether the inbound data may be null for this column.

3 Select **Print**, **View**, **File**, or **E-mail** and then click the **Print** button to print, view, or send the data elements you have selected thus far. For more information on sending reports, refer to the "Concepts and Common Features" chapter.

Because this information is taken directly from the database catalog, the data fields must already be defined in the schema. If you intend to import user-defined columns and/or tables, these columns and tables must be added to the database prior to using the Generate Data Import Layouts window.

See "Joining Tables" for more information

When you first define a new layout, the default tables appear. These tables are mandatory. You can remove the columns from a layout, but the table itself is not removable.

If one or more data elements that you require is not displayed in the default tables, you can add the tables that store those fields to the end of an existing table list. Any user-defined or custom tables should have primary keys defined so that the join process can find the primary key automatically.

If you join additional tables to a tab, the mandatory tables appear first in the table lists, followed by each table you added. The columns appear alphabetically within each table.

4 To include a column as part of the .VDI layout, highlight the appropriate column and click on the **Select** button.

The x in the row header disappears and the position of the data element in the record appears in the Pos column. This position is only accurate if the File Style of the layout is Fixed; VISUAL updates the position any time you select or deselect an element.

The sequence in which the columns appear in the table window is the same sequence they will appear in the .VDI file layouts for each record. This sequence is critical because the .VDI file(s) will be created or read by an external application, most likely an EDI mapping tool. The use of an external application needs to be designed around the .VDI layout.

5 Once you define the record layouts for each tab, click **Ok**.

You return to the Generate Data Import Layouts window.

6 Click **Save**.

The Data Import Utility import and export data is placed in files having predefined names. The only user-defined portion of the file-naming is the directory in which they reside. Thus, when importing or exporting is done, the program always looks for or creates the same files in a user-defined place.

To keep multiple versions of the files (i.e., archive each imported or exported file) then you must do this outside of the Data Import mechanism.

.VDI files are named for their layout key target and layout version.

For multiple files format, there may be up to five files, for each tab used in the Generate Layout window. Each file has a suffix indicating its contents:

ASN9999**H**.VDIHeader (HDR) records

ASN9999**D**.VDIHeader Special Detail (SDL) records

ASN9999**L**.VDILine Item (LIN) records

ASN9999**S**.VDISubline records (SUB) records

ASN9999**A**.VDIAdditional Line Item records (ASL) records

Note: 9999 is the layout version.

Single file formats:

XXX9999.VDIContains HDR and LIN records

Note: XXX is the layout key and 9999 is the layout version.

Joining Tables

If you require additional tables, you can add them to the end of the item list in the appropriate tab. Any user-defined or custom tables should have primary keys defined so that the join process can find the primary key automatically.

VISUAL sets up joins automatically for mandatory tables, but does not permit access to the join for a mandatory table. You must define the joins for any non-mandatory tables that you add.

To join tables:

1 First select the tab to which to add the tables. From the table selection drop down box, select the table to join, then click on the **Join** button.

The Join Clause dialog box appears.

You can only join a table that is relative to the one that already exists.

You must always select RECTYPE. It is fixed depending on the tab your are in (HDR, SDL, LIN, SUB, ASL)

2 Select one of the primary key columns on the right table, then select the corresponding data element on the left column.

For example, if the Part table is on the right, and its Primary Key, ID, is selected, you should find a column containing the Part ID on the left, such as CUST_ORDER_LINE.PART_ID.

3 Click on the appropriate number button to number the column, then click **Set**.

The join clause must include all the fields that make up the primary key.

4 Click **Ok**.

The table is now joined.

The user-defined table is an advanced feature of the Data Import Utility. In most cases, you will not need this feature.

Please be careful when selecting the join keys. An incorrect join can cause data inconsistencies in your .VDI files.

Associating Customers to Outbound Layouts

You need to associate each outbound layout with one or more VISUAL Customer IDs so that when you run the layout through exchange, it knows whose data (invoices, ship notices) to export. To do this:

1   If you haven't done so already, save your outbound layout by clicking on **Save**.

2   Select **Associate** from the File menu or click the **Associate** button on the main toolbar.

The Associate Outbound Format dialog box appears.

3   Select which customers will use this layout when exporting data.

You can click on the **Select All** button to select all of the customers listed and the **Unselect All** button to deselect all of the customers you have selected.

4   Click on **Save**, and the click **Close**.

The customers you selected are now associated with this layout. When this layout is selected in the Data Import Exchange window, data for all customers who have been associated with this layout will be exported.

Printing Length Discrepancies

Use the print length discrepancies function to print a report of the fields that have changed beginning with version 6.2x. Rather than the Data Import Utility automatically changing the lengths, you can choose to keep the older field lengths. This may help you keep some of your older EDI maps functionally accurate.

1   From the Options menu, select **Print Length Discrepancies** or click the **Print Length Discrepancies** button on the main toolbar.

2   Select an output for the length discrepancies report:

Print - VISUAL prints the report after you select standard print options.

View - VISUAL displays the report on your screen before printing.

File - VISUAL presents you with a Print To File dialog box in which you can specify where to place the report.

E-mail - Select this option to send the report in a Rich Text Format (.RTF) through electronic mail. When you generate the report the system attaches the file to a Microsoft Outlook email. For more information on addressing and sending the email, refer to your Microsoft Outlook user documentation.

3   Click **Print** to output the report to tone of the above four destinations.

4   Click **Apply to DB** to apply field changes to the layout.

Flushing Temporary Cash Tables

For layout key CSH, you have the option of flushing temporary cash tables. You may be using maps to receive cash receipts, which the Data Import Utility uses to populate temporary cash tables. Unless you flush them out, those temporary cash tables remain in the database. Allowing those tables to remain may result in inconsistent performance and unexpected error messages. It's a good idea to flush your temporary cash tables from time to time.

1 From the Options menu, select **Flush Temporary Cash Tables** or click the **Flush Temporary Cash Tables** button on the main toolbar

A dialog box appears, asking you if you are sure.

2 Click **Yes** to continue.

VISUAL completes the flushing and returns a dialog box telling you the tables are now clean.

Starting the Data Import Exchange Window

The Data Import Exchange window is the application that does the actual importing or exporting of data. Data Import Exchange imports/exports the data to and from the .VDI files.

To start the Data Import Exchange window:

Select **VMDI Exchange** from the EDI menu.

Importing and Exporting Data In the Data Import Exchange Window

Use the Data Import Exchange window to import or export data to and from the VISUAL database.

If VISUAL encounters closed or cancelled orders during the import process, the import utility adds the order using the next available number and notifies you that it found a duplicate. You can view the details of the transaction by viewing the log.

1 In the Key/Version fields, specify which key (ACK, ASN, CPO, CSH, INV, PLN, RCA, VPO, or WSA) and layout version number to use (defined using VMDIGEN.EXE).

When you specify the key and version, VISUAL selects the appropriate radio button from the Direction section. The data is either incoming or outgoing. VISUAL also determines the file type, the inbound or outbound rule, and the file style for the data (previously defined using VMDIGEN.EXE).

Note: If you select CPO, you can optionally select the **Close Partial Shipped Schedules**, and **Include Today in Proration** check boxes. You cannot manually override the **Delete Unshipped Lines** or **Delete Unshipped Schedules** options using VMDIXCHG.EXE. You must make changes using VMDIGEN.EXE.

If you do not want to delete lines shipped at zero quantity, add SuppressZeroLine to the [Shipping] section of Preference Maintenance and specify a value of N.

If you select PLN, you can optionally change the Include Today in Proration option.

2 In the Directory field, specify the target directory for the .VDI file.

For an inbound file, this is the location in which VISUAL will find the .VDI file; for an outbound file, this is the location in which VISUAL will create the .VDI file(s). VISUAL exchanges each key and version separately.

VISUAL updates the run date for the selected .VDI layout after each exchange; it appears in the Run Date field. Normally, data is only exported once. The Data Import Exchange window only exports data (A/R Invoices and ASN's) with a date equal to or later than the Run date of the .VDI layout. You can enter an earlier date/time stamp to re-export data, but use caution. Using an earlier run date will resend all data again from the specified date and later, which could mean resending duplicates.

3 Click on the **Exchange** button on the main toolbar or select **Exchange** from the File menu.

If there are any critical errors while VISUAL is importing data, a message box that describes the error appears. VISUAL also generates a log file that contains more information about critical errors and information about less critical errors.

The log file lists each record that has an error and the error message; and shows each column with the data that VMDIXCHG was trying to write. The log file is located in the same user specified directory and has the same name as the .VDI file with a .log extension.

You should check the log file after each exchange.

Examining Log Files After Importing and Exporting

Four different logs are generated by VMDIXCHG for various keys.

Error Logs

This log is generated when importing CPO, CSH, and PLN documents and is very useful when debugging initial import problems. This log will only contain errors (CPO documents rejected due to match criteria will not appear in this log). The log is named for the key and layout (for example, the error log for CPO layout 0001 would be called CPO0001.log). The log is overwritten each time this layout is run.

An example log follows.

<LogFile>

<LogFileHeader>

<LogFileType>

Error Log

</LogFileType>

<LogFileDate>

5/1/00 9:39:21:000000 AM

</LogFileDate>

<LayoutKey>

CPO

</LayoutKey>

<LayoutVersion>

0001

</LayoutVersion>

<Version>

0001

</Version>

</LogFileHeader>

<VMDIErrorLog3>

==================================

Data error encountered in column
CUSTOMER_ORDER.SHIP_TO_ADDR_NO during import

LCUSTOMER_ORDER.ID=GE90C12064001

CUSTOMER_ORDER.CUSTOMER_ID=20000818

CUSTOMER_ORDER.CUSTOMER_PO_REF=000000004200000

CUSTOMER_ORDER.SHIP_TO_ADDR_NO=?

CUSTOMER_ORDER.ORDER_DATE=

CUSTOMER_ORDER.DESIRED_SHIP_DATE=

CUSTOMER_ORDER.STATUS=

CUSTOMER_ORDER.EDI_FLAG=

CUSTOMER_ORDER.ENTITY_ID=

CUSTOMER_ORDER.BACK_ORDER=

CUSTOMER_ORDER.POSTING_CANDIDATE=

CUSTOMER_ORDER.MARKED_FOR_PURGE=

CUSTOMER_ORDER.SELL_RATE=

CUSTOMER_ORDER.BUY_RATE=

CUSTOMER_ORDER.CONTACT_HONORIFIC=

CUSTOMER_ORDER.CONTACT_FIRST_NAME=

CUSTOMER_ORDER.CONTACT_INITIAL=

CUSTOMER_ORDER.CONTACT_LAST_NAME=

CUSTOMER_ORDER.CONTACT_SALUTATION=

CUSTOMER_ORDER.CONTACT_PHONE=

CUSTOMER_ORDER.CONTACT_FAX=

CUSTOMER_ORDER.CONTACT_POSITION=

CUSTOMER_ORDER.FREE_ON_BOARD=

CUSTOMER_ORDER.SHIP_VIA=

CUSTOMER_ORDER.SALESREP_ID=

CUSTOMER_ORDER.TERRITORY=

CUSTOMER_ORDER.TERMS_NET_TYPE=

CUSTOMER_ORDER.TERMS_NET_DAYS=

CUSTOMER_ORDER.TERMS_NET_DATE=

CUSTOMER_ORDER.TERMS_DISC_TYPE=

CUSTOMER_ORDER.TERMS_DISC_DAYS=

CUSTOMER_ORDER.TERMS_DISC_DATE=

CUSTOMER_ORDER.TERMS_DISC_PERCENT=

CUSTOMER_ORDER.TERMS_DESCRIPTION=

CUSTOMER_ORDER.DISCOUNT_CODE=

CUSTOMER_ORDER.SALES_TAX_GROUP_ID=

CUSTOMER_ORDER.FREIGHT_TERMS=

CUSTOMER_ORDER.CURRENCY_ID=

CUSTOMER_ORDER.CONTACT_MOBILE=

CUSTOMER_ORDER.CONTACT_EMAIL=

CUSTOMER_ORDER.EDI_BLANKET_FLAG=

CUSTOMER_ORDER.EXCH_RATE_FIXED=

</VMDIErrorLog3>

<VMDIErrorLog3>

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Successful Transactions (Good) Logs

This log is generated when importing CPO, CSH, and PLN documents and lists every record imported for the run. This log will not contain errors (they are in the error log). The log is named for the key and layout (for example, the good log for CPO layout 0001 would be called CPO0001G.log). The log is overwritten each time this layout is run.

An example log follows:

<LogFile>

<LogFileHeader>

<LogFileType>

Successful Transactions Log

</LogFileType>

<LogFileDate>

5/1/00 9:39:21:000000 AM

</LogFileDate>

<LayoutKey>

CPO

```
</LayoutKey>

<LayoutVersion>

0001

</LayoutVersion>

<Version>

0001

</Version>

</LogFileHeader>

<VMDIGoodLog>

+++++++++++++++++++++++++++++++++++++++++

The following record was updated.

Record number: 1

CUSTOMER_ORDER.ID=R 0702210

CUSTOMER_ORDER.CUSTOMER_ID=ABLMAN

CUSTOMER_ORDER.CUSTOMER_PO_REF=UMWX73801

CUSTOMER_ORDER.SHIP_TO_ADDR_NO=1

CUSTOMER_ORDER.FREE_ON_BOARD=NASHUA

CUSTOMER_ORDER.SHIP_VIA=FEDEX

CUSTOMER_ORDER.ORDER_DATE=12/15/00 12:00:00:000000 AM

CUSTOMER_ORDER.DESIRED_SHIP_DATE=12/15/00 12:00:00:000000 AM

CUSTOMER_ORDER.STATUS=R

CUSTOMER_ORDER.EDI_FLAG=Y

CUSTOMER_ORDER.SHIPTO_ID=CPO1

CUSTOMER_ORDER.ENTITY_ID=MMC

CUSTOMER_ORDER.BACK_ORDER=N

CUSTOMER_ORDER.POSTING_CANDIDATE=N

CUSTOMER_ORDER.MARKED_FOR_PURGE=N

CUSTOMER_ORDER.SELL_RATE=1.0

CUSTOMER_ORDER.BUY_RATE=1.0

CUSTOMER_ORDER.CONTACT_HONORIFIC=Mr.

CUSTOMER_ORDER.CONTACT_FIRST_NAME=David

CUSTOMER_ORDER.CONTACT_INITIAL=J.

CUSTOMER_ORDER.CONTACT_LAST_NAME=Brown
```

CUSTOMER_ORDER.CONTACT_SALUTATION=Dear Mr. Brown:

CUSTOMER_ORDER.CONTACT_PHONE=[617] 444-7000

CUSTOMER_ORDER.CONTACT_FAX=[617] 444-7011

CUSTOMER_ORDER.CONTACT_POSITION=General Manager

CUSTOMER_ORDER.SALESREP_ID=MARK

CUSTOMER_ORDER.TERRITORY=NEW ENGLAND

CUSTOMER_ORDER.TERMS_NET_TYPE=A

CUSTOMER_ORDER.TERMS_NET_DAYS=30

CUSTOMER_ORDER.TERMS_NET_DATE=

CUSTOMER_ORDER.TERMS_DISC_TYPE=A

CUSTOMER_ORDER.TERMS_DISC_DAYS=10

CUSTOMER_ORDER.TERMS_DISC_DATE=

CUSTOMER_ORDER.TERMS_DISC_PERCENT=2.0

CUSTOMER_ORDER.TERMS_DESCRIPTION=

CUSTOMER_ORDER.DISCOUNT_CODE=WHOLESALE

CUSTOMER_ORDER.SALES_TAX_GROUP_ID=MA

CUSTOMER_ORDER.FREIGHT_TERMS=P

CUSTOMER_ORDER.CURRENCY_ID=(USD) $

CUSTOMER_ORDER.CONTACT_MOBILE=

CUSTOMER_ORDER.CONTACT_EMAIL=

CUSTOMER_ORDER.EDI_BLANKET_FLAG=N

CUSTOMER_ORDER.EXCH_RATE_FIXED=N

CUSTOMER_ORDER.SEND_ACK=Y

</VMDIGoodLog>

<VMDIGoodLog>

++++++++++++++++++++++++++++++++++++++

The following record was updated.

Record number: 1

CUST_ORDER_BINARY.BITS=R 0701743 00000701743 NEW CRIB #: 40CR93

CUST_ORDER_BINARY.BITS_LENGTH=41

</VMDIGoodLog>

<VMDIGoodLog>

++++++++++++++++++++++++++++++++++++++

The following record was updated.

Record number: 1

Cust Order Line No 1 for Cust Order ID R 0702210 was updated.

CUST_ORDER_LINE.LINE_NO=1

CUST_ORDER_LINE.PART_ID=0038860967

CUST_ORDER_LINE.UNIT_PRICE=2.5

CUST_ORDER_LINE.USER_ORDER_QTY=190.0

CUST_ORDER_LINE.SELLING_UM=10X10_SHT

CUST_ORDER_LINE.DESIRED_SHIP_DATE=11/22/99 12:00:00:000000 AM

CUST_ORDER_LINE.MISC_REFERENCE=0038860967

CUST_ORDER_LINE.SHIPTO_ID=

CUST_ORDER_LINE.LINE_STATUS=A

CUST_ORDER_LINE.ORDER_QTY=190.0

CUST_ORDER_LINE.PRODUCT_CODE=

CUST_ORDER_LINE.COMMODITY_CODE=STEEL

CUST_ORDER_LINE.TRADE_DISC_PERCENT=15.0

CUST_ORDER_LINE.GL_REVENUE_ACCT_ID=

CUST_ORDER_LINE.COMMISSION_PCT=15.0

CUST_ORDER_LINE.ACK_ID=

CUST_ORDER_LINE.SEND_ACK=

</VMDIGoodLog>

<VMDIGoodLog>

++++++++++++++++++++++++++++++++++++++

The following record was updated.

Record number: 1

CUST_LINE_BINARY.BITS=D

CUST_LINE_BINARY.BITS_LENGTH=2

</VMDIGoodLog>

<VMDIGoodLog>

++++++++++++++++++++++++++++++++++++++

Insert/Update Logs

This log is generated when importing CPO, CSH, and PLN documents and lists every imported or updated document from the run. This log will not contain errors (they are in the error log). The log also shows any records deleted by the user having marked either the "Delete unshipped lines" or "Delete unshipped schedules" check boxes. The log is named for the key and layout (for example, the insert/update log for CPO layout 0555 would be called CPO0555IN.log). The log is overwritten each time this layout is run.

An example log follows.

<LogFile>

<LogFileHeader>

<LogFileType>

Insert Update Log

</LogFileType>

<LogFileDate>

4/12/00 2:30:18:000000 PM

</LogFileDate>

<LayoutKey>

CPO

</LayoutKey>

<LayoutVersion>

0555

</LayoutVersion>

<Version>

0555

</Version>

</LogFileHeader>

<VMDIInsertLog>

====================================

 Customer Order Z05550010 inserted

</VMDIInsertLog>

<VMDIInsertLog>

====================================

 Customer Order Z05550011 inserted

</VMDIInsertLog>

<VMDIInsertLog>

```
===================================

 Customer Order Z05550012 inserted

</VMDIInsertLog>

<VMDIInsertLog>

===================================

 Customer Order Z05550013 inserted

</VMDIInsertLog>

<VMDIInsertLog>

===================================

 Customer Order Z05550014 inserted

</VMDIInsertLog>

</LogFile>
```

Autogenerate Logs

VMDI generates this log when importing CPO documents with the Autogenerate feature. This log is a copy of the actual CPO VDI file, except the Autogenerate Tokens have been replaced with the actual customer order Ids created in the system. The log is named CPO and the layout (for example, the Autogenerate log for CPO layout 0025 would be called CPO0025.AUTO). The log is overwritten each time this layout is run. An example VDI file and log are shown below. Notice how the token AUTO is replaced with the actual customer order ID and that the number is incremented for second order (02006 for first order and 02007 for second):

Setting Session ID Preferences

You can establish exchange log file naming preferences by using the Session ID option.

1   From the Options menu, select **Session ID**, or click the **Session ID** button on the main toolbar.

2   The Session ID Settings dialog box appears.

3   Select the **Use Session ID** check box to specify a Session ID for the Data Import Utility exchange logs.

The Next Session and Prefix data fields are now active.

4   Enter the number for the next session log. VISUAL automatically increments the number as you conduct exchanges. To use a different number, enter it in the data field.

Enter a suffix if you want the exchange log file to have a special ending. For example, a next session log of 6 and a suffix or VE, produces a log file (Key)6VM.log.

5   Select the **prefix KEY** check box to attach the Key/Version (one of seven) of the exchange to the front of the log file.

Selecting this makes the Prefix data field unavailable. For example, setting preferences to a next session log of 7, a suffix of VE, and a KEY of ACK, leads to VISUAL producing the log ACK7VM.log.

Running the Data Interchange Utility in Command Line Mode

There are two modes of operation for VMDIXCHG: Standard and Command Line mode. Standard mode requires input from the user; Command line mode does not. If VMDIXCHG finds a valid command line, it executes in command line mode. Command line mode allows you to specify the run options currently available through the main screen.

When you run the program in command line mode, you use a cumulative log file, VMDIXCHG.LOG. Each time you execute the program, VMDIXCHG appends time stamped status information to the end of the file.

The VMDIXCHG.LOG file resides in the same directory as all other *.VDI and *.LOG files. When you run the program in batch mode, you can exchange multiple types of data (i.e. PLN, VPO, etc.) in the same run.

VMDIXCHG.APP

Command Line:

The command line must conform to the this format:

The first value is always the EXE name, VMDIXCHG.

The next three values are the database connection strings. The data base connection strings follow standard VISUAL format:

-D <database name>

-U <User ID>

-P <password>

All command line arguments up to this point are mandatory. The remaining arguments are optional. If you do not specify a particular argument, VMDIXCHG applies a default value where applicable.

Exchange File Path:

-F <file path>

If you omit the –F argument, VMDIXCHG uses the file path specified in the DataFilePath row in the EDI EXCHANGE section of Preferences Maintenance. You should only use the –F option if you need to temporarily override the default directory path.

Next, list the types of values to exchange. You may list more than one type. Keep in mind that you must separate additional values with a space.

The valid types are:

- ACK
- ASN
- CPO
- CSH
- INV
- PLN
- RCA
- VPO
- WSA

You must specify at least one valid data type, each of which must have a 4 digit unique identifier after it. The data type / numeric identifier combination equates to the KEY and VERSION columns of the VMDI_LAYOUT table.

Inbound Rule:

VMDIGEN establishes the inbound rule. You cannot change it from within VMDIXCHG. Therefore, you must specify inbound types by their KEY/VERSION (i.e. CPO8888).

Note: Inbound rule parameters are only applicable for inbound types such as CPO, CSH, and PLN.

Outbound Rule:

The next argument specifies whether you want VMDIXCHG to either append the outbound data to existing output files, or create a new file each time. Specify –A to append the file, or -O to overlay the file. If you omit this argument, the default is set to overlay the file.

Note: Outbound rule parameters are only applicable for outbound types such as ACK, ASN, INV, RCA, VPO, and WSA.

This example illustrates a command line that executes VMDIXCHG connected to database VMFGDEMO as user MIKE and password OCEAN, and executes the exchanges for CPO0000, INV9999 and ASN3333. VMDIXCHG overrides the EDI file directory for this run with C:\Infor\EDI\TEMP. In addition, the INV output file is overlaid and the ASN output file is appended onto it.

```
VMDIXCHG -D VMFGDEMO -U MIKE -P OCEAN -F C:\Infor\EDI\TEMP CPO0000 INV9999 -O
ASN333 -A
```

Because the program is running without user intervention, you cannot change the run date parameter. The run "as of date" for each data type that you are exchanging is from the LAST_RUN_DATE column of the VMDI_LAYOUT table for each layout key.

VMDIXCHG.LOG

This example illustrates the log file created when you run the program in batch mode:

8/21/02 11:07:13: ********** Session Started **********

8/21/02 11:07:13: Begin program execution in command line mode. ExtCommandLine=-DVMFG52 -USYSADM -PSYSADM PLN0000

8/21/02 11:34:20: Import of PLN0000 data to c:\Infor\bak\edi\pln0000.vdi has begun

8/21/02 11:34:23: 60 PLN records imported

8/21/02 11:34:24: ————— Session Ended —————

Integration Requirements

This section relates to the integration of EDI data into and out of the VISUAL database. For Harbinger and Sterling Commerce, you may choose to have Infor Global Solutions design and create your integration maps or you may choose to develop your own maps. For other EDI translators, you need to develop any necessary "maps" to and from that software in the format that the Data Interchange module produces and reads.

These sections describe the modules and EDI transactions that can currently be integrated. Additional EDI transactions are handled directly through the EDI translation software in standalone mode.

Customer Order Information (Inbound)

This is typically the most complex transaction to integrate because of the vast differences in how you and your trading partners may use the transaction data.

You need to consider several factors:

• Which inbound transaction(s) contain customer order information? (850, 860, 830, 862, etc.)

• Is the trading partner's VISUAL Customer ID present in the EDI data?

• Is there a Ship to location that applies to the entire order or does each line item have a separate Ship to location?

• Are the VISUAL part numbers present in the EDI data?

• Do you want to accept the pricing as it comes in should VISUAL override it?

EDI Transaction 850 - Purchase Order

The purchase order is the most widely used commercial EDI transaction. While the information contained in a purchase order may vary in content and format from company to company, there are pieces of information that are common to every PO:

• Order number and date

• Buyer's Company ID

• Ship-to location

• Requested delivery date

• One of more line items containing quantity ordered, unit of measure, unit price, and a part number or description

Other transactions may contain customer order information, such as the PO Change (860) or Material Release (830). This information can also be brought into VISUAL through integration.

Planning Information (Inbound)

This is typically the simplest transaction to implement. When planning information is imported, the CUSTOMER_ FORECAST table is populated in VISUAL database. These records contain a CUSTOMER ID, FORECAST ID, FORECAST DATE, PART NUMBER, and QUANTITY.

EDI Transaction 830 - Planning Schedule

The planning schedule is most typically used to transfer forecasting/material release information. You can use this transaction in a variety of ways, such as:

• a simple forecast

• a forecast with the buyer's authorization for the seller to commit to resources, such as labor or material

• an order release mechanism, containing such elements as resource authorizations, period-to-date cumulative quantities, and specific ship/delivery patterns. The order release forecast may also contain all data related to purchase orders, eliminating the need for discrete generation of purchase orders.

For inbound planning and customer order information, successful integration often depends on having raw EDI data (sample or production) from the trading partner. This data is necessary in order to determine the absolute segment and element location of each required piece of data.

The EDI requirements or "mappings" that a trading partner are sometimes inaccurate or outdated. Because the integration maps are dependent on the format of the data, changes or discrepancies may cause implementation delays. This is why sample data is so critical to a smooth and timely integration process. Accurate data not only eliminates the need for modifications to the maps, but is also essential for testing the maps prior to delivery to the customer.

Shipping Information (Outbound)

Shipping data is extracted from VISUAL to one or more fixed length files. The files contain the BOL information, the order or packlist information, and the line item information for each order. The details of each file are determined by the requirements of your trading partner.

EDI Transaction 856 - Advance Shipment Notice

The ship notice lists the contents of a shipment and its configuration within the shipment container at various levels of detail. ASN's are used extensively in the retail and automotive industries, where Just-In-Time (JIT) and Efficient Consumer Response (ECR) are an integral part of the management philosophy.

A typical ASN has this information:

- ASN number and date
- Shipment identification number (SID)
- Date and time of the shipment
- Bill of lading (BOL) number
- Number of packages
- Total shipment weight
- Product number and quantity of each item shipped (SKU)

Invoice Information (Outbound)

Invoice data is extracted from VISUAL to one or more fixed length files. The files contain the Invoice header information, the line item information, and (when applicable) subline item information. The details of each file are determined by the requirements of your trading partner.

EDI Transaction 810 - Invoice

The invoice is the second most widely used EDI transaction set. It is a natural extension of the purchase order and can generally be implemented at the same time. In most cases, an invoice simply repeats much of the information contained in the purchase order, while adding invoice related information such as:

- Invoice number and date
- Quantity shipped and invoiced amount for each item
- Total invoice amount
- Payment terms

A Glossary of EDI Terms

Accredited Standards Committee X12 (ASC X12) - The committee that defines the structure of EDI Transaction Sets in the United States.

Data Element - The smallest unit of information in the standard, representing a single piece of information. According to the standards, each data element is assigned a reference number, a name, description, data type and the min/max length.

EDI - Electronic Data Interchange. The exchange of commonly used business transactions in a formal, structured manner.

EDIFACT - An EDI Standard developed in Europe and typically used outside the United States.

Forms Overlays - Forms that are used in STX for Windows to perform data entry or printing of EDI data in a "user-friendly" format.

Functional Group - As part of an Interchange, a Functional Group consists of a GS Header Segment, one or more Transaction Sets of the same type, and a GE Trailer Segment.

Interchange - A group of one or more types of documents that are bound for transmission to a single trading partner.

Log-ons - A communications script that enables the STX software to connect to a VAN, Internet, or directly to a TP (if available) in order to transfer and receive EDI documents.

Maps or File Overlays - Maps link the STX software to the Data Import Utility module that connects to the VISUAL database. In order to integrate STX and VISUAL, one map must be created for each trading partner/transaction set combination.

Integration - The "sharing" of data between applications through application files to eliminate the need for repetitive data-entry and reduce errors.

Segment - A segment consists of a segment identifier, one or more related data elements in a defined sequence, and a segment terminator.

Trading Partner - Someone with whom you trade electronic documents.

Transaction Set - An electronic document whose format is defined by ASC X12. A Transaction Set consists of an ST Header Segment, one or more data segments in a specific order, and an SE Trailer Segment. Each set is assigned a numeric identifier. (e.g. 810 = an invoice)

Value Added Network (VAN) - An "electronic post office" whose responsibilities include providing a "mailbox" to which your partners send your documents, and to collect and distribute the documents that you send.

ANSI X12 EDI Transaction Sets

The Data Interchange Standards Association (DISA) and UN/EDIFACT have defined several hundred EDI transaction sets. Below is a comprehensive list of the ANSI/X12 Transaction Sets.

104 - Air Shipment Information

110 - Air Freight Details and Invoice

125 - Multilevel Railcar Load Details

126 - Vehicle Application Advice

127 - Vehicle Baying Order

128 - Dealer Information

129 - Vehicle Carrier Rate Update

130 - Student Educational Record (Transcript)

131 - Student Educational Record (Transcript) Acknowledgment

135 - Student Loan Application

139 - Student Loan Guarantee Result

140 - Product Registration

141 - Product Service Claim Response

142 - Product Service Claim

143 - Product Service Notification

144 - Student Loan Transfer and Status Verification

146 - Request for Student Educational Record (Transcript)

147 - Response to Request for Student Educational Record (Transcript)

148 - Report of Injury or Illness

151 - Electronic Filing of Tax Return Data Acknowledgment

152 - Statistical Government Information

154 - Uniform Commercial Code Filing

161 - Train Sheet

170 - Revenue Receipts Statement

180 - Return Merchandise Authorization and Notification

186 - Laboratory Reporting

190 - Student Enrollment Verification

196 - Contractor Cost Data Reporting

204 - Motor Carrier Shipment Information

210 - Motor Carrier Freight Details and Invoice

213 - Motor Carrier Shipment Status Inquiry

214 - Transportation Carrier Shipment Status Message

217 - Motor Carrier Loading and Route Guide

218 - Motor Carrier Tariff Information

250 - Purchase Order Shipment Management Document

251 - Pricing Support

260 - Application for Mortgage Insurance Benefits

263 - Residential Mortgage Insurance Application Response

264 - Mortgage Loan Default Status

270 - Health Care Eligibility/Benefit Inquiry

271 - Health Care Eligibility/Benefit Information

272 - Property and Casualty Loss Notification

276 - Health Care Claim Status Request

277 - Health Care Claim Status Notification

290 - Cooperative Advertising Agreements

300 - Reservation (Booking Request) (Ocean)

301 - Confirmation (Ocean)

303 - Booking Cancellation (Ocean)

304 - Shipping Instructions

309 - U.S. Customs Manifest

310 - Freight Receipt and Invoice (Ocean)

311 - Canadian Customs Information

312 - Arrival Notice (Ocean)

313 - Shipment Status Inquiry (Ocean)

315 - Status Details (Ocean)

317 - Delivery/Pickup Order

319 - Terminal Information

322 - Terminal Operations Activity (Ocean)

323 - Vessel Schedule and Itinerary (Ocean)

324 - Vessel Stow Plan (Ocean)

325 - Consolidation of Goods in Container

326 - Consignment Summary List

350 - U.S. Customs Release Information

352 - U.S. Customs Carrier General Order Status

353 - U.S. Customs Events Advisory Details

354 - U.S. Customs Automated Manifest Archive Status

355 - U.S. Customs Manifest Acceptance/Rejection

356 - Permit To Transfer Request

361 - Carrier Interchange Agreement (Ocean)

404 - Rail Carrier Shipment Information

410 - Rail Carrier Freight Details and Invoice

414 - Rail Carrier Settlements

417 - Rail Carrier Waybill Interchange

418 - Rail Advance Interchange Consist

419 - Advance Car Disposition

420 - Car Handling Information

421 - Estimated Time of Arrival and Car Scheduling

422 - Shipper's Car Order

425 - Rail Waybill Request

426 - Rail Revenue Waybill

429 - Railroad Retirement Activity

431 - Railroad Station Master File

440 - Shipment Weights

466 - Rate Request

468 - Rate Docket Journal Log

485 - Ratemaking Action

490 - Rate Group Definition

492 - Miscellaneous Rates

494 - Scale Rate Table

511 - Requisition

517 - Material Obligation Validation

527 - Material Due-In and Receipt

536 - Logistics Reassignment

561 - Contract Abstract

567 - Contract Completion Status

568 - Contract Payment Management Report

601 - Shipper's Export Declaration

602 - Transportation Services Tender

622 - Intermodal Ramp Activity

805 - Contract Pricing Proposal

806 - Project Schedule Reporting

810 - Invoice

811 - Consolidated Service Invoice/Statement

812 - Credit/Debit Adjustment

813 - Electronic Filing of Tax Return Data

815 - Cryptographic Service Message

816 - Organizational Relationships

818 - Commission Sales Report

819 - Operating Expense Statement

820 - Payment Order/Remittance Advice

821 - Financial Information Reporting

822 - Customer Account Analysis

823 - Lockbox

824 - Application Advice

826 - Tax Information Reporting

827 - Financial Return Notice

828 - Debit Authorization

829 - Payment Cancellation Request

830 - Planning Schedule with Release Capability

831 - Application Control Totals

832 - Price/Sales Catalog

833 - Residential Mortgage Credit Report Order

834 - Benefit Enrollment and Maintenance

835 - Health Care Claim Payment/Advice

836 - Contract Award

837 - Health Care Claim

838 - Trading Partner Profile

839 - Project Cost Reporting

840 - Request for Quotation

841 - Specifications/Technical Information

842 - Nonconformance Report

843 - Response to Request for Quotation

844 - Product Transfer Account Adjustment

845 - Price Authorization Acknowledgment/Status

846 - Inventory Inquiry/Advice

847 - Material Claim

848 - Material Safety Data Sheet

849 - Response to Product Transfer Account Adjustment

850 - Purchase Order

851 - Asset Schedule

852 - Product Activity Data

853 - Routing and Carrier Instruction

854 - Shipment Delivery Discrepancy Information

855 - Purchase Order Acknowledgment

856 - Ship Notice/Manifest

857 - Shipment and Billing Notice

858 - Shipment Information

859 - Freight Invoice

860 - Purchase Order Change Request - Buyer Initiated

861 - Receiving Advice/Acceptance Certificate

862 - Shipping Schedule

863 - Report of Test Results

864 - Text Message

865 - Purchase Order Change Acknowledgment/Request - Seller Initiated

866 - Production Sequence

867 - Product Transfer and Resale Report

868 - Electronic Form Structure

869 - Order Status Inquiry

870 - Order Status Report

872 - Residential Mortgage Insurance Application

875 - Grocery Products Purchase Order

876 - Grocery Products Purchase Order Change

878 - Product Authorization/Deauthorization

879 - Price Change

880 - Grocery Products Invoice

882 - Direct Store Delivery Summary Information

888 - Item Maintenance

889 - Promotion Announcement

893 - Item Information Request

894 - Delivery/Return Base Record

895 - Delivery/Return Acknowledgment or Adjustment

896 - Product Dimension Maintenance

920 - Loss or Damage Claim - General Commodities

924 - Loss or Damage Claim - Motor Vehicle

925 - Claim Tracer

926 - Claim Status Report and Tracer Reply

928 - Automotive Inspection Detail

940 - Warehouse Shipping Order

943 - Warehouse Stock Transfer Shipment Advice

944 - Warehouse Stock Transfer Receipt Advice

945 - Warehouse Shipping Advice

947 - Warehouse Inventory Adjustment Advice

980 - Functional Group Totals

990 - Response to a Load Tender

996 - File Transfer

997 - Functional Acknowledgment

998 - Set Cancellation EDI Requirements Worksheet

Tips for Successful Importing and Exporting

Use these tips and hints when importing or exporting EDI information.

Customer Orders (CPO)

The EDI Release Flag, located under the EDI tab in the Customer Order Entry window, is key to the successful export of invoices (INV) and Advance Ship Notices (ASN). You can activate the flag using several methods:

You can manually mark the flag on the customer order at some point prior to exporting the ASN or INV.

You can use Customer Maintenance (under the E-Commerce tab) to specify the customer as an EDI Trading Partner. Doing this ensures that all future orders will have the EDI flag selected.

You can establish your CPO import file so the EDI Release Flag field is "Y" for all incoming orders.

Advance Ship Notices (ASN)

Before you can export ship notices using the Data Import Utility, the EDI Release Flag must be set for customer orders. The EDI Release check box is located in the EDI tab of the Customer Order Entry window. You can select the check box any time prior to exporting data using VMDIXCHG. After you have entered the customer orders in VISUAL, ship them using Shipping Entry.

After Shipping the customer order and creating packlists, select **Print Bill of Lading** from the Shipping Entry File menu to create a BOL. Saving the Bill of Lading prompts VISUAL to generate a BOL number. At this point, you can launch an ASN layout in VMDIXCHG for this customer and you should be able to successfully export the ASN document. Failure to either mark the customer order's EDI Release flag in Customer Order Entry or create a BOL in Shipping Entry, prevents the ASN documents from exporting.

Note: VMDIXCHG ignores any shipping notices you may create from orders that don't have the EDI Release flag set. You can set the flag after you have shipped the orders and VMDIXCHG will then examine the documents runtime, assuming the date/time and Association requirements are also correct.

For example, if you are sending out Ship Notices to Able Manufacturing, VMDIXCHG searches for documents with a Customer ID of ABLMAN, the EDI Release Flag set, have a BOL, and meet the date/time requirement.

Launch VMDIXCHG for the proper layout (for example, ASN0012 for Able Manufacturing 856 documents) and verify the date on which to start exporting data. For example, if today is 5/12/99 and you enter 5/10/99 on the Run Date line, then VMDIXCHG will export all valid documents from 5/10 through today. Valid documents are those that have the EDI Release Flag set on them and for which you have created BOLs.

Invoices (INV)

Before you can export ship notices using the Data Import Utility, the EDI Release Flag must be set for customer orders. The EDI Release checkbox is located in the EDI tab of the Customer Order Entry window. You can select the checkbox any time prior to exporting data using VMDIXCHG. After you have entered the customer orders in VISUAL, ship them using Shipping Entry, and invoice them using the Invoice Forms option available from the Reports menu. At this point, the orders have been entered, shipped, and invoiced in VISUAL. Now you need to export the invoices using VMDIXCHG.

Note: VMDIXCHG ignores any shipping notices you may create from orders that don't have the EDI Release flag set. You can set the flag after you have shipped the orders and VMDIXCHG will then examine the documents runtime, assuming the date/time and Association requirements are also correct.

For example, if you are sending out Invoices to Able Manufacturing, VMDIXCHG searches for documents with a Customer ID of ABLMAN with the EDI Release Flag set, that you have shipped using Shipping Entry, invoiced using Invoice Forms, and meet the date/time requirement (see below).

Launch VMDIXCHG for the proper layout (for example, INV0012 for Able Manufacturing 810 documents) and verify the date on which to start exporting data. For example, if today is 5/12/02 and you enter 5/10/02 on the Run Date line, then VMDIXCHG will export all valid documents from 5/10 through today. Valid documents are those that have the EDI Release Flag set on them, and you have shipped using Shipping Entry, and invoiced using Invoice Forms.

Forecasts (PLN)

Follow this procedure to transfer customer forecast (planned data) information that you have imported from an EDI 830 transaction to the Master Production Schedule as a part forecast.

1   From the main menu, select **Tools**, then **Material Planning Window**.

The Material Planning Window appears.

2   From the File menu, select **Master Production Schedule**.

3   Click **Customer Forecasts**.

The Transfer Customer Forecasts to Part Forecasts dialog box appears.

4   Select the **Import to Both** option button.

5   Enter a Forecast ID and select the **Purge prior data** and **Bucketless import** check boxes.

Results appear in the Master Production Schedule. Enter the Part ID to view.

6   To edit the forecast, either make revisions to the Master Production Schedule or click the **Edit Customer Forecasts** button at the bottom of the dialog box and do the editing there.

For more information on customer forecasts, refer to the "Material Planning Window" chapter.

Special Notes

If you import an EDI 830 document into VISUAL as a customer forecast, VISUAL Quality only imports the 8 fields on the Customer Forecast screen.

The Customer Forecasts screen shows the 8 fields VISUAL Quality imports. They are:

Part ID or Customer Part IDCustomer ID

Forecast IDRequired Date (s)

Required Quantity(s)PO Reference

Forecast DateWarehouse ID

For example, you can create the Forecast ID in the EDI map to be a combination of PO# and Shipto DUNS # (N104). The only two EDI segments VISUAL examines when creating a customer forecast are the LIN and FST.

One approach that works well involves making the Forecast ID the same as the Part ID. By using the Part ID as the Forecast ID, anytime a date or quantity changes for that part, VISUAL updates the forecast rather than adding to it. The only time VISUAL adds to the forecast is when the trading

partner for that part sends a new date. In this map example, the customer originally wanted to use a combination of the EDI 830 Run Date and the Customer ID. However, if the trading partner had changed quantities for previously received dates, they would not send the same run date again. The run date is essentially the date the trading partner sent the EDI 830. Therefore, the entire forecast for that part - and all of the dates included in it - would be inserted into the Customer Forecast table. As a result, each time they sent an 830, VISUAL adds it.

One disadvantage of using the Part ID as the Forecast ID is that if the client decides to use reject duplicates (with the Forecast ID set up as above), then anytime you received another line item for the same part and Customer ID, VISUAL would reject the line's data.

When you run VMDIXCHG on a PLN VDI file, VISUAL enters the data into the Customer_Forecast table. In order to view the forecast data from the Edit Customer Forecasts screen you must first Transfer Customer Forecasts to Part Forecasts. To do that, select the **Import to Both** option button (to import the customer forecast to the forecast and master schedule tables), select the **Purge Prior** and the **Bucket-less Import** check boxes, enter a Forecast ID (appears on the Master Schedule screen), enter EDI-FORECASTS, and click **Begin**.

The Forecast ID displaying on the Master Schedule you imported using the Transfer feature (above) is not the same Forecast ID you imported using the Data Import Utility (shows on the Customer Forecast screen). For example, the Forecast ID you entered on the transfer screen is EDI-FORECASTS, but the actual forecast IDs imported from the Customer_Forecast table might be named EDITESTPO1, EDITESTPO2, and EDITESTPO3.

Purging Prior: A Few Hints

Choose the same ID every time you perform a transfer (EDI-FORECASTS, for example). When you perform the transfer, VISUAL updates the new Customer_Forecast data. For example, if the qty for 5/1/02 for forecast ID EDITESTPO1 is 104 and it is actually 50 in the new data, VISUAL changes it to 50 when you perform the transfer and the master schedule will change to show the proper amounts. If you entered a new Forecast ID (EDI-FORECASTS2, for example) when running the transfer, then VISUAL imports all the contents of the customer_forecast table to the master schedule table. Essentially, the same data would appear twice in the master schedule (once for the EDI-FORECASTS and once for EDI-FORECASTS2).

Adding a Trading Partner Name to an ASN (EDI 856)

> **Caution:** If you do not perform these steps in the order listed, your joins may be inaccurate and VISUAL could consequently export incorrect data. For example, when performing joins in the Additional Line Item file of an ASN, you could mistakenly export data for ALL packlists in the system if you perform the steps out of order or miss some.

The Trading Partner ID MUST be in the First Record of the First data file (BOL table of HDR). To do that, follow the steps below.

1 From your Windows Start menu, select **Run**.

2 Type `SQLTALK`.

SQLTalk Opens.

3 Type `Connect VMFGEDI;` <CTRL+ENTER at end of each line>

4 Type `Create View View_Shipper As Select * From Shipper;`

5 Type `Create View View_Cust_Order As Select * From Customer_Order;`

6 Type `Create View View_Customer As Select * From Customer;`

7 Type `GRANT ALL ON VIEW_SHIPPER TO PUBLIC;`

8 Type `CREATE PUBLIC SYNONYM VIEW_SHIPPER FOR SYSADM.VIEW_SHIPPER;`

9 Type `GRANT ALL ON VIEW_CUST_ORDER TO PUBLIC;`

10 Type `CREATE PUBLIC SYNONYM VIEW_CUST_ORDER FOR SYSADM.VIEW_CUST_ORDER;`

11 Type `GRANT ALL ON VIEW_CUSTOMER TO PUBLIC;`

12 Type `CREATE PUBLIC SYNONYM VIEW_CUSTOMER FOR SYSADM.VIEW_CUSTOMER;`

13 Type `Commit;`

14 Launch VMDIGEN

15 Create a new layout.

16 Choose fields from default tables listed and save the layout

17 Add the View_Shipper table, View_Cust_Order and then the View_Customer table.

18 Choose fields from the three new tables.

19 Join the BOL table to the View_Shipper table via the BOL ID field.

20 Join the View_Shipper to the View_Cust_Order table by linking the Cust_Order_ID field in the View_Shipper table to the ID field in the View_Cust_Order table.

21 Join the View_Customer_Order to the View_cust table by linking the Customer_ID field in the View_Cust_Order table to the ID field in the View_Customer Table.

22 Save the layout.

23 Add additional tables as necessary and repeat steps 16-21 above.

Adding a Customer as an EDI Customer

This procedure is a shortened version of what appears in the Customer Maintenance chapter. For more information, refer to the "Customer Maintenance" chapter.

1 From the Sales menu, select **Customer Maintenance**.

The Customer Maintenance window appears.

2 Call up the appropriate customer.

3 Click the **E-Commerce** tab.

4 Select the **EDI Trading Partner** checkbox.

5 Click the **Save** button to commit the setting.

With this preference set, VISUAL activates the EDI Release flag for all new orders (both manual and imported via VMDIXCHG) for the customer.

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