Infor CloudSuite Industrial Configuration and Data Collection User Guide

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Chapter 1 Configuration

1

Configuring Items, Estimates, or Jobs

Configuring a Job or Item

To configure a job or item on the **Job Orders** form, do the following:

1 Select the Item or enter the Job number.

When you save the job, the **Configure** button is enabled.

NOTE: The selected item must be designated as "Job Configurable" on the **Items** form, **Configuration** tab. A job must have a status of **Firm**.

2 Click Configure.

The configuration user interface (UI) for the item displays. The information you select from the UI can be used to configure the job or item.

3 Configure the job or item. Refer to the configuration application's documentation for additional information.

NOTE: When you are in a configuration session, the system prevents you from accessing any system forms or online help.

4 Once the system returns the configured job or item, process it according to your standard procedures.

After processing, the system updates the **Job Orders** form with the configuration information. It also expands the BOMs for any sub-jobs and phantom items associated with this job, and displays any configuration forms for those sub-jobs and items.

Placing a Hold on a Configuration

Rules can be defined that place an Infor Product Configuration Management configuration on hold if, for example, an option in the configuration requires approval. When the original user completes the configuration, the **Configure** button for the line is set to **Configure-HOLD**, and the **Config Hold** field

is selected. When a configuration is approved, you can either reconfigure the sourced job or order line to remove the hold in Infor PCM, or you can select the **Actions>Remove Config Hold** menu option in Infor CloudSuite. The button label is updated to **Configure-Complete** and the **Config Hold** field is cleared.

The configuration hold extends to any sub-jobs. Those sub-jobs cannot be released until the hold is removed.

Configured Jobs and Co-Products

Once a job is configured, you can manually change the job order routing from **Item** to **Co-product**. However, if you do this, you cannot reconfigure the line item. Also, normal Infor CloudSuite business rules will apply to the job - you must complete the product mix master and operational steps to complete the co-product job.

Configuring an Estimate Job

To configure an Estimate Job, do the following:

1. From the **Estimate Job Orders** form, add or update a job for a configurable line item with a status of **Planned**. When you save the job, the **Configure** button is enabled.
2. Click **Configure**. The configuration user interface (UI) for the item displays.
3. Configure the estimate job. Refer to the configuration application's for additional information.

   NOTE: When you are in a configuration session, the system prevents you from accessing any Infor CloudSuite forms or online help.
4. After the system returns the configured estimate job, process it according to your standard procedures.

   After processing, the system updates the **Estimate Job Orders** form with the configuration information.

   For a configurable job/item with an incomplete configuration, or which has not been configured at all, the **Configure** button remains enabled.

   When a configuration is complete, the **Configure** button changes to **Configure-Complete**.

About Auto Job Generation

If **Auto Job Generation** is set to **Always** for this item on the **Items** form - **Configuration** tab, a cross-reference job is automatically created.

If **Auto Job Generation** is set to **Prompt**, the system asks if you want to create a cross-reference job.

Placing a Hold on a Configuration

Rules can be defined that place anInfor Product Configuration Management configuration on hold if, for example, an option in the configuration requires approval. When the original user completes the configuration, the **Configure** button for the line is set to **Configure-HOLD**, and the **Config Hold** field is selected. When a configuration is approved, you can either reconfigure the estimate job to remove the hold in Infor PCM, or you can select the **Actions>Remove Config Hold** menu option in Infor CloudSuite. The button label is updated to **Configure-Complete** and the **Config Hold** field is cleared.

The configuration hold extends to any sub-jobs. Those sub-jobs cannot be released until the hold is removed.

Copying a Job with Configuration Information

To copy a job's configuration information to another job, select the appropriate row in the **Job Orders** or **Estimate Job Orders** form, and select **Actions>Copy**.

To copy a job's routing, BOM, and configuration information to another job, use the **Copy Routing BOM** form to copy the existing job to a new or existing job.

When Is Configuration Information Copied With a Job?

With the **Actions>Copy** method, any configuration data that exists for the job is also copied.

With the **Copy Routing BOM** form:

- If you copy a job that includes configuration information to a *new* job, the configuration information is automatically copied to the new job, along with the BOM and routing information.
- If you copy a job that includes configuration information to an *existing* job, the BOM and routing information are automatically copied. The configuration information is copied only if *all* the following conditions are true:
  - The "from" job and the "to" job cannot be current.
  - The "from" and "to" job types must be either **Job** or **Estimate**.
  - The "to" job must be "firm" when its job type is **Job**.
  - The "to" job does not contain any subordinate jobs.
  - Every operation of the "from" job will be copied to the "to" job. (Use the **Starting** and **Ending Operation** fields to set this.)
  - Both material and labor will be copied to the "to" job.
  - All operations and BOMs of the "to" job will be deleted or replaced. (Use the **Option** field to set this.)

Any attached documents that were generated through Infor Product Configuration Management are not copied. However, if you reconfigure a copied line item, any generated documents are attached after the configuration is complete.

If you copy a configuration that is on hold, the copy is also placed on hold.

Costing Method for Configurable Items

NOTE: The following information applies only if Infor PCM is installed.

We recommend that you use *actual costing* for configurable items. If you use standard costing, and if you are using intelligent part numbers, you must perform the **Roll Current Cost to Standard Cost** utility for the item on the job, before the job can be released.

Deleting Configurable Jobs, Items, and Operations

When you delete a configurable job, item, or operation, the associated configuration information is also deleted.

Reconfiguring a Line Item or Job

When a configuration is processed and line item records or jobs are created, the system stores key data for each line item or job in the cfg_ref table of the Infor CloudSuite database.

You can choose to reconfigure part or all of a multi-level configuration. On reconfiguration, records in the cfg_ref table are read to find all line items and jobs created by the original configuration, so they can be deleted before creating new records.

Warning Messages

The status of line items and jobs must be **Firm** in order to remove the entire job structure at reconfiguration. If the status of a line item or job record prevents it from being deleted, this warning appears before the configuration user interface opens.

- "There are jobs from a prior configuration which cannot be deleted."

  The status of order line items must be Planned in order to remove the items. If an order line item has a status other than Planned, this warning appears:

- "There are line items from a prior configuration which cannot be deleted."

If you receive either of these messages, you can cancel, change the status of the line item or job, and reconfigure again.

If You Ignore the Message

If you ignore the warning message and open the configuration user interface, reconfigure, and then try to Save or Process the reconfiguration, the message displays again. You are given these choices:

- Click **Cancel** to cancel the reconfiguration.
- Click **OK** and continue without deleting any of these records, in which case an entire new structure is created and the old orders and jobs must be manually deleted.

NOTE: Reconfiguration does not delete other references (such as related purchase orders) because it cleans up only references created by the configuration UI.

Setting Up a Configuration Interface for an Item or Job - Infor Product Configuration Management

NOTE: The following information applies only if you have installed Infor PCM Configurator.

Step 1 - Set Up Inventory Parameters

To set up Infor CloudSuite to work with Infor PCM Configurator, do the following:

1. On the **Inventory Parameters** form, specify the URL used to access the Infor PCM Configurator application. Save your changes.
2. Specify the name of the Configurator Application ID.
3. If you are going to do header-level configurations, specify the Header Name Space.
4. After you set up the fields on the Product Configuration tab, restart Infor CloudSuite so that the Configure buttons are enabled throughout the system.

NOTE: If you change these values later, you must log out of Infor CloudSuite and discard the IDO cache through Configuration Manager. Then restart Infor CloudSuite. If you change the Configuration server, you must also restart the Infor Framework IDO Runtime Service before you restart Infor CloudSuite.

Step 2 - Set Up Configurable Items

To set up an item you want to be configurable, do the following:

1. On the Items or Multi-Site Items form, select or enter the item number of the item that you want to be configurable.
2. Select the **Configuration** tab.
3. To allow users to configure order information for the item, select the Order Configurable check box.

4 To allow users to configure job information, select the Job Configurable check box.

5 If the item is both order-configurable and job-configurable, select an **Auto Job Generation** option:

- To automatically create the job after order configuration is complete, select **Always**.
- To ask the user whether to create the job after order configuration is complete, select **Prompt**.
- To never automatically configure the job, select **Never**. Users must create the job manually, using the **job cross-reference** feature.

6 Specify the Name Space to use for this item.

7 Save the item.

Example: Setting Up a Configured Subassembly

NOTE: This topic applies only to using the Features and Options Product Configurator.

In this example, you will add a wheel to the current BOM of FO-10000, and allow customers to choose the color of the wheel reflectors.

1 Open the Copy Items activity and copy the following items. Be sure to select the checkbox to copy the Current BOM.

- SA-61500 to SA-61700
- RF-30000 to RF-30100
- RF30000 to RF-30200

2 Open the Items form and update the desctiptions of the new items.

- SA-61700 - "CONFIGURED SUBASSEMBLY"
- RF-30100 - Add "WHITE to the end of the description
- RF-30200 - Add "YELLOW" to the end of the description

3 Update SA-61700.

- Deselect the Stocked checkbox so that cross-referencing will create a configured sub-job for the wheel.
- Make SA-61700 a configured item by selecting its Configuration Flag checkbox.

4 Update feature templates.

- Update the FO-10000 feature template to include the wheel and reflectors by adding two segments to the end of the template. The final template should be "&&-&&&-&&&-&&-&&".
- Enter the same template on SA-61700.

5 Create feature groups.

a Wheel

- ID: TWHEEL

- Description: wheel
- Mandatory: Yes
- Mask: two characters at positions 9 and 10 (.....XX*).

b Reflectors

- ID: TREFL
- Description: reflectors
- Mandatory: Yes
- Mask: two characters at positions 11 and 12 (.....XX*).

6 Create feature group qualifiers.

a For the wheel option

- Feature: TWHEEL
- Include: Yes
- Code: ".....SA*

b For the white reflector option

- ID: TREFL
- Include: Yes
- Code: ".....WH*

c For the yellow reflector option

- ID: TREFL
- Include: Yes
- Code: ".....YL*

7 Update BOMs.

a SA-61700

- Add a quantity of 2 RF-30100 and a quantity of 2 RF-30200 to operation 10.
- Link both materials to the new feature group and fill in the appropriate Option Code.

b FO-10000

- Add a quantity of 2 SA-61700 to operation 10.
- Verify that Reference = Job. If you fail to do this, the system will not create sub-jobs and BOMs when you create the cross-references.

8 Generate feature group ranks.

- For SA-61700.
- For FO-10000, make sure you re-rank the seat before the rack.

9 Add a new customer order line for FO-10000 and verify the subassembly features and options are visible and updating the config string appropriately.

10 Save the line and click Source to generate the job orders and configured BOMs for FO-10000 and SA-61700. Verify that the correct jobs and BOMs were created.

Configuring Customer Orders or Estimates

Configuring a Customer Order

To configure a customer order header, do the following:

1 On the **Error! Hyperlink reference not valid.** or **Error! Hyperlink reference not valid.** form, add a new order, or edit an existing order. Ensure that the order status is **Planned**.

2 Save the order.

3 Select **Actions > Configure**. The system displays the configuration user interface (UI) for the order.

4 Configure the order. Refer to the configuration application's documentation for additional information.

NOTE: When you are in a configuration session, the system prevents you from accessing any Infor CloudSuite forms or online help.

The information you select in the UI can be used to configure the order header and all items in the order.

5 After the system returns the configured order, process the order according to your standard procedures.

After configuration, the next time you select that order or line item, the UI displays the saved information.

NOTE: If you reconfigure a customer order, any existing customer order line items or job cross-references will be deleted.

Configuring an Item from a Customer Order Line (Regular or Blanket)

To configure a customer order line or blanket line, do the following:

1 Access the **Error! Hyperlink reference not valid.**, **Error! Hyperlink reference not valid.**, or Customer Orders Quick Entry form.

2 Add or update a configurable line item.

3 Save the line item and click Configure. The configuration user interface for the item displays.

4 Configure the line item. Refer to the configuration application's documentation for additional information.

   NOTE: When you are in a configuration session, the system prevents you from accessing any Infor CloudSuite forms or online help.

5 After the system returns the configured line item, process it in Infor CloudSuite according to your standard procedures.

After processing, the system updates the form with the configuration information.

About Auto Job Generation

For regular line items, if **Auto Job Generation** is set to **Always** for this item on the **Items** form, **Configuration** tab, a cross-reference job is automatically created.

If **Auto Job Generation** is set to **Prompt**, the system asks if you want to create a cross-reference job.

For blanket line items, the job is not created until a release is created. (The **Always** and **Prompt** options do not apply to blanket orders.)

Placing a Hold on a Configuration

Rules can be defined that place an Infor Product Configuration Management configuration on hold if, for example, an option in the configuration requires approval. When the original user completes the configuration, the **Configure** button for the line is set to **Configure-HOLD**, and the **Config Hold** field is selected. When a configuration is approved, you can either reconfigure the order line to remove the hold in Infor PCM, or you can select the **Actions>Remove Config Hold** menu option in Infor CloudSuite. The button label is updated to **Configure-Complete** and the **Config Hold** field is cleared.

For customer order lines, the configuration hold extends to any jobs that are sourced from the order line. Those jobs cannot be released until the hold is removed.

You can create releases for a blanket order line with a configuration hold. The releases and any cross-referenced jobs are also on hold. To approve a sourced job for the held release, you can either reconfigure the job to remove the hold in Infor PCM, or you can select the **Actions>Remove Config Hold** menu option for the job in Infor CloudSuite.

Cross-Referencing and Reconfiguring Customer Orders

The system uses the configuration in effect at the time you perform a cross-reference.

Regular Customer Orders

You configure the item and cross-reference it from the line item. If you reconfigure the item, the original job is deleted and a new one is created.

Blanket Orders

You configure the item from the **Customer Order Blanket Lines** form and cross-reference it from the **Customer Order Blanket Releases** form. If you reconfigure the blanket line, it does not affect the jobs for any releases that are already cross-referenced. All releases that are not yet cross-referenced to jobs will use the new configuration on their jobs.

Obsolete Items

If an item becomes obsolete, the system does not allow the obsolete part to be issued from stock.

The obsolete item must be manually removed from the model.

Credit Limit

The value of each line item on an order is calculated to determine credit limit. When a configured line is generated and passed to **Customer Orders**, the completed line is checked against the customer's available credit.

Configuring an Estimate

To configure an estimate header, do the following:

1. Access the **Estimates** or **Estimates Quick Entry** form.
2. Add an estimate, or edit an existing estimate. Make sure the estimate has a status of **Planned**.
3. Save the estimate.
4. Select **Actions > Configure**.

   The configuration user interface (UI) for the estimate displays. The information you select from the UI can be used to configure the estimate header and all line items.
5. Configure the estimate. Refer to the configuration application's documentation for additional information.

   NOTE: When you are in a configuration session, the system prevents you from accessing any Infor CloudSuite forms or online help.
6. After the system returns the configured estimate, process it according to your standard procedures.

The next time you select that estimate header or line item, the user interface displays the saved information.

NOTE: If you reconfigure an estimate, any existing line items or job cross-references will be deleted.

Configuring an Estimate Line

To configure an estimate line, do the following:

1. On the **Estimate Lines** or **Estimated Quick Entry** form, add or update a configurable line item that has a status of **Planned**.
2. To configure the line item, click **Configure**. The configuration user interface (UI) for the item displays.
3. Configure the estimate line. Refer to the configuration application's documentation for additional information.

   NOTE: When you are in a configuration session, the system prevents you from accessing any Infor CloudSuite forms or online help.
4. After the system returns the configured estimate line, process it according to your standard procedures.

After processing, the system updates the **Estimate Lines** form with the configuration information.

About Auto Job Generation

If **Auto Job Generation** is set to **Always** for this item on the **Items** form, **Configuration** tab, a cross-reference job is automatically created.

If **Auto Job Generation** is set to **Prompt**, the system asks if you want to create a cross-reference job.

Placing a Hold on a Configuration

Rules can be defined that place an Infor Product Configuration Management configuration on hold if, for example, an option in the configuration requires approval. When the original user completes the configuration, the **Configure** button for the line is set to **Configure-HOLD**, and the **Config Hold** field is selected. When a configuration is approved, you can either reconfigure the line to remove the hold in Infor PCM, or you can select the **Actions>Remove Config Hold** menu option in Infor CloudSuite. The button label is updated to **Configure-Complete** and the **Config Hold** field is cleared.

The configuration hold extends to any jobs that are sourced from the estimate line. Those jobs cannot be released until the hold is removed.

Copying a Customer Order or Estimate with Configuration Information

To copy an order or estimate's configuration information to another order or estimate, you have two options:

- Use the **Actions > Copy** menu option, if available, to copy an existing row on a form. Any configuration data that exists for the row is also copied.
- Use the **Copy Orders and Estimates** form to copy an existing order or estimate to a new or existing order or estimate.

When Is Configuration Information Copied With an Order/Estimate?

Configuration information for a line is *always* copied when the line is copied.

All the configuration information for an order or estimate (including configuration information for the header) is copied if one of these conditions is true:

- You use the Actions > Copy menu option on the appropriate header form (Customer Orders, Customer Orders Quick Entry, Estimates, or Estimates Quick Entry).
- You copy all lines of an order to a *new* order on the Copy Orders and Estimates form.
- You copy all lines of an order to an *existing* order on the Copy Orders and Estimates form, and you delete all lines in the existing order. (Use the Option field to do this.)

Any attached documents that were generated through Infor Product Configuration Management are not copied. However, if you reconfigure a copied line item, any generated documents are attached after the configuration is complete.

If you copy a configuration that is on hold, the copy is also placed on hold.

Single-Site and Multi-Site Environments

In a single-site environment, cross-references to the database are automatically set up for copied configurations.

For multi-site environments where Infor PCM is used, all sites use the same output database. Sites can share model databases, and items can be configured at one site and reconfigured at another site. If each site has its own model database, they must be kept in sync. Refer to the Infor PCM documentation for additional information.

List Configuration Values

When you select Actions > List Configuration Values from the Estimates, Estimate Lines, Estimate Job Orders, Estimates Quick Entry, Customer Order, Customer Order Lines, Customer Orders Quick

Entry, or Job Orders forms, the Configuration Values form displays the configuration date, status, and model name at the top of the form. The sort sequence for the components listed is as follows:

- The product selected from the model is displayed first.
- The operations selected are displayed in order.
- For each operation, all materials are displayed in sequence order (Sequence 0 is displayed last).
- All **Control** type components are listed last.

The check box **External Only** allows you to filter the **Components/Attributes** on the **Configuration Values** form.

Printing Configuration Information

You can include configuration values on any of the following reports by setting **Configuration Details** to **All** (all details, both external and internal) or **External** (external details only) on the following reports and forms:

- Estimate Response Form Report
- Estimate Job Routing Report
- Job Paper Work Report
- Order Invoicing/Credit Memo
- Print Price Adjustment Invoice
- Consolidated Invoicing

Setting Authorizations for Configuration Users

A default group authorization called **ERPConfiguration** allows you to access the **Configuration Purge Utility** form and the **Configurator**.

Chapter 2 Document Automation

2

Attaching Infor Product Configuration Management Documents to Infor CloudSuite Records

Documents generated by Infor PCM Configurator or Infor PCM Document Automation can be attached to records on certain Infor CloudSuite forms. Select the record and click the “Display Documents” toolbar icon to open the **Documents** form, where the Infor PCM documents related to the record are listed.

Generating and Attaching Documents Using the Configure Button

The **Configure** button and **Actions > Configure** menu option are displayed only if the system is set up as described in Setting Up a Configuration Interface for an Item or Job - Infor PCM.

The **Configure** button and **Actions > Configure** menu option launch the Infor PCM Configurator. If the Configurator generates content in the form of a document, information about that document can be passed back to Infor CloudSuite in either a MFG Detail Rule or a SyteLineDocument Integration Rule.

If the Infor PCM Configurator uses a **MFG Detail rule** to pass information about a generated document back to Infor CloudSuite, the document is stored in the Infor CloudSuite **Attached Documents** form and is attached to the appropriate form and record. The MFG Detail rule specifies the AttachTo type, which is used to attach the document to the appropriate form:

- If **AttachTo** is job, the document is accessible from the **Job Orders** or **Estimate Job Orders** forms.
- If **AttachTo** is material, the document is accessible from the **Job Materials** or **Estimated Materials** forms.
- If **AttachTo** is operation, the document is accessible from the **Job Operations** or **Estimated Operations** forms.

The MFG Detail rule must be defined in the Infor PCM Design Studio. For information about setting up MFG Detail rules, see the *Infor Product Configuration Management Integration Guide for Infor Product Configuration Management*.

If the Infor PCM Configurator uses a **SyteLineDocument integration** rule to pass information about a generated document back to Infor CloudSuite, the document is stored in the Infor CloudSuite **Attached Documents** form and is attached to the form and record used to launch the Configurator.

Both the MFG Detail Rule and the SyteLineDocument Integration Rule have a DocumentName field. This Document Name is displayed in the list of documents that are accessible through the “Display documents for the current object” toolbar button on these forms, when the appropriate record is selected:

- Customer Orders
- Customer Order Lines
- Customer Orders Quick Entry: If the focus is on the order header, documents attached to the order header are listed. If the focus is on an order line, documents attached to the line are listed.
- Estimate Job Orders
- Estimate Lines
- Estimates
- Estimates Quick Entry: If the focus is on the estimate header, documents attached to the order header are listed. If the focus is on an estimate line, documents attached to the line are listed.
- Job Orders

The SyteLineDocument integration rule must be defined in the Infor PCM Design Studio. For information about setting up SyteLineDocument integration rules, see the *Infor Product Configuration Management Integration Guide for Infor Product Configuration Management*.

Generating and Attaching Documents Using the Generate Document Button

The **Generate Document** button and **Actions > Generate Document** menu option are displayed only if the system is set up as described in Setting Up the Infor PCM Document Automation Interface.

The **Generate Document** button and **Actions > Generate Document** option launch the Infor PCM Document Automation tool. If this tool generates content in the form of a document, it passes information about that document back to Infor CloudSuite in a SyteLineDocument integration rule. The document is stored in the Infor CloudSuite **Attached Documents** form, and is attached to the form and record used to launch Document Automation. These documents are accessible through the “Display documents for the current object” toolbar button on these forms, when the appropriate record is selected:

- Customer Orders
- Customer Orders Quick Entry
- Job Orders
- Estimate Job Orders
- Estimates
- Estimates Quick Entry

If a Default Rule Set was defined in the **Inventory Parameters** form, then when you select the menu option or click the button, you enter Infor PCM Document Automation tool. Otherwise, the **Configuration Rule Sets** form is displayed so you can select a rule set to generate the document.

Note: The **Configuration Rule Sets** form does not belong to a default authorization group, so the system administrator must assign individual users to the form or create a group.

For information about setting up rule sets in Infor PCM Document Automation, see the *Infor PCM Document Automation Installation and Setup Guide*.

Setting Up the Infor Product Configuration Management Document Automation Interface

Infor PCM Document Automation is a separately purchased product that is used to create configurable documents - for example, proposals that include MSDS (material safety data sheets), drawings, cover letter, and specifications. You can combine various pieces of documentation to build a single document. You can also build documents such as manufacturing instruction sheets, additional shipping information, or sales order addenda that further describe the options in a configured product.

You can access the Document Automation interface through the **Generate Document** button and **Actions > Generate Document** menu option on some Infor CloudSuite forms. The button and menu option are displayed only after you have set up fields on the **Inventory Parameters** form.

To set up Infor CloudSuite to work with Infor PCM Document Automation:

1. On the **Inventory Parameters** form, specify the **Configurator URL**, which is used to access the Infor PCM Document Automation application. Save your changes.
2. Specify the name of the **Document Automation Application ID**, as provided in your Infor PCM documentation. Infor CloudSuite uses this name to locate the name space and rule sets.
3. Specify the appropriate **Document Automation Name Space**, as provided in your Infor PCM documentation.
4. Optionally, specify a **Default Rule Set** to be used when the interface is opened. The list of rule sets is based on the specified Document Automation Application ID and Document Automation Name Space. If no default rule set is specified here, you must select a rule set before continuing with document generation in Infor PCM.
5. After setting up the fields, restart Infor CloudSuite so that the Document Automation buttons are enabled throughout the application.

For more information about what to specify in these fields, see the Infor Product Configuration Management Integration Guide for Infor Product Configuration Management.

For more information about how to generate documents and attach them to various forms using Infor PCM, see Attaching Infor PCM Documents to Infor CloudSuite Records.

Chapter 3 Data Collection

3

Posting and Validating Data Collection Transactions

Your data collection solution uploads transaction data into the Infor CloudSuite data collection tables. Depending on options you set in the **Data Collection Parameters** form, the data is either automatically posted to the Infor CloudSuite database, or it remains in the error processing table until you manually validate and post the transactions through the appropriate Error Processing forms.

You can include jobs with co-product mixes in the data collection tables. By-products are not supported for data collection solutions.

To post and validate data collection transactions, use these steps:

1 Set up the data collection options on the General tab of the **Data Collection Parameters** form, including these settings:

- For each type of data collection transaction, specify whether the transactions should be automatically posted. If you want to review the transactions before they are posted, do not select this option.
- How to track overtime, double-time and the grace period for jobs.

2 On the Background tab of the **Data Collection Parameters** form, for each selected **Auto-Post** option, click **Background Queue**. Set the frequency and starting/ending times for the background task to match your shift codes.

Example: Set the frequency to Daily, with an interval of 5 minutes. Set the starting time one half hour before the start of your first shift, and the ending time one hour after the end of your last shift. For a 24 hour shop, set the starting time to 12:00:00 a.m. and ending time to 11:59:59 p.m. If your company has 2 shifts -- the first shift works 7:00 a.m. to 3:00 p.m. and second shift works 3:00 p.m. to 11:00 p.m. -- then set the starting time to 6:00 a.m. (or 6:30 a.m., depending on how early the employees start entering DC transactions) and the ending time to 11:59 p.m.

3 Use a data collection solution to create data collection transactions and place them in the Infor CloudSuite data collection tables.

4 Review and post the data collection transactions in the appropriate Error Processing form:

NOTE: For transaction types that are set to **Auto-Post** and have background tasks defined through the Data Collection Parameters form, validated transactions are automatically posted to

the appropriate Infor CloudSuite file, and the **Post** button is disabled on the Error Processing form. For these types of transactions, you can only view transactions that contain errors in the Error Processing forms. You can also check the **Background Task History** for problems that might have occurred during auto-posting.

- Customer Order Shipping Error Processing
- Cycle Counting Error Processing
- Job Error Processing
- Job Material Transactions Error Processing
- Job Receipt Error Processing
- JIT Production Error Processing
- Miscellaneous Issue/Receipt and Quantity Adjustment Error Processing
- Production Schedule Complete Error Processing
- Production Schedule Scrap Error Processing
- Purchase Order Receiving Error Processing
- Quantity Move Error Processing
- Time and Attendance Error Processing
- Transfer Receive Error Processing
- Transfer Ship Error Processing
- Work Center (WC) Labor Error Processing
- Work Center (WC) Material Error Processing
- Work Center (WC) Machine Time Error Processing

When you post the transactions from the Error Processing form, the system defaults to the current date. Specify the date through which to post transactions or accept the displayed date.

NOTE: Transactions for items flagged obsolete or slow-moving may not post.

5 In the Error Processing form, review any data collection transactions that did not post. An error message is displayed with each unposted transaction to indicate why the transaction did not post.

If a transaction has an Unposted status after posting is performed, but there is no error associated with it, the end time is within the Job Grace Period specified on the **Data Collection Parameters** form, and the transaction can still be adjusted.

6 Correct the errors. When you update the error transaction, the status changes to **Pending**.

7 After all or most of the transactions that were in error have been corrected, run the Validate Data Collection Transactions utility, selecting the type of transactions that were corrected. The utility forces the same interactive validation as if the data were being entered for the first time. You can run the utility manually for specific types of transactions, or you can schedule it to run at certain times. The transaction will post during the next posting process.

8 Fix any data collection transaction errors and repost the transactions.

9 To delete any or all records in the Error Processing forms, use the corresponding Purge utility.

About Auto-Posting and Data Collection Background Tasks

On the **Background Task Definitions** form, you can see all of the available DCPost... tasks. Notice that they all have **Concurrency** set to 1, which means that only one instance of this task can run at a time. Do not change that setting, because it prevents different instances of the same background posting tasks from running simultaneously if you accidentally set the task run times to overlap.

To determine if a recurring data collection background task is set up to run, go to the **Active Background Tasks** form and look for these background tasks that are associated with the Auto-Post options:

Post Option	Background Task
Auto-Post Receiving	DCPostPurchaseOrderReceiving
Auto-Post Shipping	DCPostCustomerOrderShipping
Auto-Post Cycle Count	DCPostCycleCounting
Auto-Post Misc Issue/Receipt Qty Adjust	DCPostMiscIssue/ReceiptandQuantityAdjust
Auto-Post Quantity Move	DCPostQuantityMove
Auto-Post Job Material	DCPostJobMaterial
Auto-Post Job Receipt	DCPostJobReceipt
Auto-Post Transfer Ship	DCPostTransferShip
Auto-Post Transfer Receipt	DCPostTransferReceipt
Auto-Post Mfg Labor	DCPostMfgLabor
Auto-Post Time/Attendance	DCPostTime/Attendance
Auto-Post Production Schedule	DCPostProductionSchedule
Auto-Post JIT	DCPostJIT
Auto-Post Work Center Material	DCPostWorkCenterMaterial

NOTE: The **Auto-Post Job Transactions** option does not have its own background task, since it is used to turn on more processing for the **Auto-Post Manufacturing Labor** task.

To find out the times and dates when the task is scheduled to run, look at the SQL job in the database.

Stopping Auto-Posting

To stop auto-posting (temporarily or permanently):

1. In the **Active Background Tasks** form, select the appropriate **DCPost...** task and delete it.
2. In the **Data Collection Parameters** form, clear the check box next to the appropriate Auto-Posting option.

About the Error Processing Forms

Data Collection transactions are stored in the data collection tables until they are posted. Your data collection solution loads transactions into Infor CloudSuite database tables. You can use the error processing forms for the various types of transactions to:

- Validate transactions
- Update existing transactions
- Delete existing transactions
- Browse existing transactions
- Manually post transactions to the Infor CloudSuite database

Validating Data Before Posting

Whenever a transaction is updated via an error processing form, the data is interactively validated as if the data were being entered for the first time. The data must be free from errors to allow the data to be updated and stored.

All transactions must be validated prior to being posted to the Infor CloudSuite database. As part of the posting process, the data is validated again to ensure accuracy. However, one complicating factor does arise. Since all Data Collection transactions can be posted manually or through a batch process, the validations that are performed during the posting process cannot be done interactively. Instead, if errors are detected as the validations are performed, an error number is assigned to the transaction and the posting for that transaction is stopped, but processing continues. The transaction must be corrected before posting into Infor CloudSuite. When the transaction is updated, the status will change from Error to Pending.

After all or most of the transactions that were in error have been corrected, run the Validate Data Collection Transactions utility, selecting the type of transactions that were corrected. The utility forces the same interactive validation as if the data were being entered for the first time. You can run the utility manually for specific types of transactions, or you can schedule it to run at certain times.

After the transactions are validated, they can be posted.

About Data Collection Transaction Validation

Data collection transactions are not posted if they have an error status. After problems that caused errors are corrected, use the **Validate Data Collection Transactions** utility to revalidate the transactions and mark them as ready for posting. This utility forces the same interactive validation as if the data were being entered for the first time.

We recommend that you run this utility at the end of each work shift that includes data collection processing. Do not run the utility more than 2 or 3 times per day.

You can manually run the utility or use the **Actions > Background Queue** menu option to schedule it to run at a convenient time. If the adjustments or corrections will be performed throughout the day as time permits, schedule this utility to run several times a day in the background.

You can use the check boxes on the utility, along with the background queue, to create multiple schedules to revalidate transactions from different error processing forms at different times. The check boxes also allow different users to run the utility concurrently for different types of transactions.

Examples of Error Corrections that Require Revalidation

- Miscellaneous Issue transactions may require an increase in inventory. Users might not issue all material for a work center item between the time multiple dcwc transactions are entered and the time the transactions are posted.
- Miscellaneous Receipt transactions may require creation of locations.
- Transfer orders, purchase orders and customer orders must have a status of Open in order for related transactions to post. Often these orders are closed before all the transactions are posted.
- Product code and inventory locations may require corrections to the account setup.
- An error might occur where the database was too heavily loaded and a transaction failed to post due to a deadlock. You can manually run this utility with the appropriate check box selected, as a quick way to clear the deadlock error so that another attempt can be made to post the transaction.

Notes

If On Hand Negative errors occur, all records from the dcwc table are placed in Pending status until posting is run. Depending upon how far the posting process gets before an error occurs, a significant rollback can occur. Resubmitting these records frequently can cause heavy loads on the database server and transaction processing. We recommend that you perform all inventory adjustments and corrections prior to running this utility. If adjustments and corrections are performed throughout the day as time permits, then you can schedule this utility to run only several times a day.

About Machine Transactions (Data Collection)

The system allows you to track machine time for data collection solutions in two different ways:

- Prorated with labor
- Independent of labor

Machine Transactions Prorated with Labor

Machine transactions prorated with labor are affected by all labor parameters, including:

- Time and attendance
- Shift changes
- Breaks
- Holidays
- Overtime
- Double rates
- Any other time and labor factors

For example, in multi-job transactions, labor time and machine time are prorated to 50% labor and 50% machine in a job for machine transactions from the **Job Transactions** form. If a worker is operating two machines, the system prorates to 33% for labor and 33% for each machine.

Machine Transactions Independent of Labor

Machine transactions independent of labor provide tracking of specific machine transactions for more accurate costing figures.

Machine transactions tracked independently from labor contain the following attributes:

- Machine transactions are not affected by grace periods or time and attendance parameters. Machine transactions are based on standard clock time and are not affected by clock in or clock out, breaks, lunch breaks, and so forth.

- Machine overhead is calculated in terms of standard rates regardless of the shift and hour. Therefore, there are no overtime and double-rates or indirect time for machine transactions. There are no special machine rates for weekends or holidays, either.
- Machine transactions are not affected by shifts and machine time is accrued regardless of shifts. At the end of shifts, machine transactions are not automatically stopped.
- Start and end transitions are required but can be entered by different employees on different shifts or days.

The system keeps track of a specific machine time when a machine set up or machine run process is interrupted for the same job.

NOTE: After machine transactions are posted to the system, you cannot trace the transactions back to a specific machine or to a specific machine setup or run transaction.

If multiple machines are required by a job and you need to track time for each machine, you may want to create multiple operations and work centers to allow for the tracking of machine time after posting.

EXAMPLE: You have a job operation that requires the setup of a machine. You start the machine setup, but have to end it abruptly. Enter the transactions as follows:

Machine Trans	Hour	Reason
Start Set Up (F)	8:00 a.m.	Job setup
End Set Up (G)	8:15 a.m.	Job setup interrupted
Start Set Up (H)	8:30 a.m.	Job setup resumed
End Set Up (I)	9:00 a.m.	Ready to run the job

If machine setup and run transactions cross midnight, the system automatically generates the end transaction for that day and start transaction for the next day for the same transaction type and machine.

EXAMPLE: Machine setup started at 7:00 p.m. on 3/18 and ended at 3:00 a.m. on 3/19. The machine run started at 3:10 a.m. on 3/19 and ended at 2:00 p.m. on 3/21. The system automatically enters the other transactions (which are shown in **bold**).

Machine Trans	Start Time	End Time	Date
Start Set Up	19:00:00		03/18
End Set Up		23:59:59	03/18
Start Set Up	00:00:00		03/19
End Set Up		03:00:00	03/19

Start Mach Run	03:10:00		03/19
End Mach Run		23:59:59	03/19
Start Mach Run	00:00:00		03/20
End Mach Run		23:59:59	03/20
Start Mach Run	00:00:00		03/21
End Mach Run		14:00:00	03/21

About Multi-Job Transactions

Data collection solutions can run several jobs concurrently. Infor CloudSuite prorates each job's run time based on the number of jobs running at the same time for that employee. The prorations are not weighted to favor more time to one job versus another.

The system calculates the proration at the time you post the transaction from the DC Error Processing (dcsfc) table to the Unposted Job Transactions (jobtran) table. The proration affects all transactions in the dcsfc table, unposted job transactions, and posted job transactions.

When running multiple jobs in the data collection solution, the employee must specify start and end transactions.

The TERMID in the system DC Error Processing table must be set to MJOB.

Example: Multi-Job Transactions

An employee enters two start transactions. The first is at 8:00 a.m. for job 100. The second is at 9:00 a.m. for job 200.

Scenario 1: The **Multi-Job** option is cleared on both transactions.

Job 100 starts at 8:00 .a.m. When the start transaction for job 200 is entered, the system automatically ends job 100 with a total run time of 1 hour. Job 200 starts at 9:00 a.m. and continues until one of the following is true:

- An end transaction is entered for Job 200.
- A start transaction is entered for another single job.
- The employee clocks out.

	8	9	10
Job 100	**********		
Job 200		**********	

Scenario 2: The Multi-Job option is selected on both transactions.

Job 100 starts at 8:00 a.m. and Job 200 starts at 9:00 a.m. Both jobs will continue until one of the following is true:

- An end transaction is entered for each job.
- The employee clocks out.

	8	9	10
Job 100	**********		
Job 200		**********	

Scenario 3: The Multi-Job check box is cleared for job 100 and selected for job 200.

Job 100 starts at 8:00 a.m. The employee wants to start job 200 at 9:00 a.m. and job 100 is still running. When the employee enters the start transaction for job 200 at 9:00 a.m., the system automatically ends job 100 with a total run time of 1 hour, because it is not a multi-job. Job 200 starts at 9:00 a.m. and continues until one of the following is true:

- An end transaction is entered for job 200.
- The employee clocks out.

	8	9	10
Job 100	**********		
Job 200		**********	

Example: Multi-Job Proration

	8	9	10	11	12	1	2	3	4
Job 100	********	********	********		********	********	********		
Job 200	********	********							
Job 300		********	********		********	********			
Job 400					********	********	********	********	********

Total Run Times

Job	Hours
Job 100	6.0
Job 200	2.0
Job 300	4.0
Job 400	5.0
TOTAL	17.0 hours

Times	Job 100	Job 200	Job 300	Job 400	TOTAL
8-9	0.50	0.50			

9-10	0.33	0.33	0.33		
10-11	0.50		0.50		
12-2	0.66		0.66	0.66	
2-3	0.50			0.50	
3-5				2.00	
TOTAL	2.50	0.83	1.50	3.16	8.00hrs

Using Barcode Font Code128 in Barcode Reports

Use the following steps to replace the default barcode font in reports with barcode font Code128. Code128 prints smaller barcodes than the default font (barcode font Code39QuarterInch).

Note that Infor's support of barcode font Code128 prints only the characters currently available in the default barcode font.

NOTE: With Code128, Code128Narrow, and Code128VeryNarrow, a font size of 48 or greater is recommended. With Code128Wide and Code128VeryWide, a font size of 36 or greater is recommended.

When using this font, you must use English as the Windows regional setting.

Differences Between Code 128A and Code 128B

Code 128A does not support lower case characters but Code 128B does support lower case characters.

Code 128A can encode punctuation, the digits 0 through 9, uppercase characters (no lowercase), the standard ASCII control codes, and the special characters shown in the table below. Code 128B can encode punctuation, digits 0 through 9, upper and lower case characters, and the special characters in the table below.

We recommend that you use Code 128B; it is generally the best choice for most circumstances.

Code 128 Special Characters

ASCII Code	Code 128A	Code 128B
32	FNC3	FNC3
33	FNC2	FNC2
34	Shift	Shift
35	Code C	Code C
36	Code B	FNC4
37	FNC4	Code A
38	FNC1	FNC1
(FNC = Function Key)		

Replacing the Default Barcode Font with Font Code128

To replace the default barcode font in reports with barcode font Code128:

1. In Visual Studio 2008, open the .rdl file in which you want to substitute barcode font Code128 for the existing barcode font. .Rdl files are generally stored on the utility server in the TaskMan\Report folder.
2. Include one of these functions in the rdl file:

   For Code128 A:

```
Public Function GetBarCodeOutput t(ByVal inputValue As String) As String
Dim CheckDigit As Integer = 0
Dim i As Integer = 0
Dim BarCodeOutput As String = ""
Dim BarCodeInput As String
Dim BarCodeTemp  As String = ""
Dim SingleByte  As Integer = 0
```

```
BarCodeInput = inputValue.ToUpper()
For i = 1 To Len(BarCodeInput)
    SingleByte = Asc(Mid(BarCodeInput, i,1))
    BarCodeTemp = BarCodeTemp + Chr(SingleByte - 32)
Next
CheckDigit = 1
For i = 1 To Len(BarCodeTemp)
   SingleByte = Asc(Mid(BarCodeTemp, i,1))
   CheckDigit = (CheckDigit + (SingleByte * i)) Mod 103
Next
BarCodeTemp = BarCodeTemp + Chr(CheckDigit)
For i = 1 To Len(BarCodeTemp)
    SingleByte = Asc(Mid(BarCodeTemp, i, 1))
    If SingleByte =0 Then
       BarCodeOutput = Chr(0)
    ElseIf SingleByte > 0 And SingleByte < 94 Then
       BarCodeOutput = BarCodeOutput + Chr(SingleByte + 32)
    Else
       BarCodeOutput = BarCodeOutput + Chr(SingleByte + 103)
    End If
Next
Return  "µ"+ BarCodeOutput + Chr(196)
End Function
```

For Code128 B:

```
Public Function GetBarCodeOutput(ByVal inputValue As String) As String
Dim CheckDigit As Integer = 0
Dim i As Integer = 0
Dim BarCodeOutput As String = ""
Dim BarCodeInput As String
Dim BarCodeTemp  As String = ""
Dim SingleByte  As Integer = 0
BarCodeInput = inputValue.ToUpper()
```

```
For i = 1 To Len(BarCodeInput)
    SingleByte = Asc(Mid(BarCodeInput, i,1))
    BarCodeTemp = BarCodeTemp + Chr(SingleByte - 32)
Next
CheckDigit = 1
For i = 1 To Len(BarCodeTemp)
   SingleByte = Asc(Mid(BarCodeTemp, i,1))
   CheckDigit = (CheckDigit + (SingleByte * i)) Mod 103
Next
BarCodeTemp = BarCodeTemp + Chr(CheckDigit)
For i = 1 To Len(BarCodeTemp)
    SingleByte = Asc(Mid(BarCodeTemp, i, 1))
    If SingleByte =0 Then
       BarCodeOutput = Chr(0)
    ElseIf SingleByte > 0 And SingleByte < 94 Then
       BarCodeOutput = BarCodeOutput + Chr(SingleByte + 32)
    Else
       BarCodeOutput = BarCodeOutput + Chr(SingleByte + 103)
    End If
Next
Return "¶"+ BarCodeOutput + Chr(196)
End Function
```

3 Right-click a barcode object and select **Edit Formula**. In the Formula Editor, you will see a formula similar to this:

```
="*" & Replace(UCase(Trim(Fields!item.Value))," ", "_") & "*"
```

4 In this example, **Trim(Fields!item.Value)** is a database field that is replaced with a barcode. Reports can also include formulas for stored procedures

5 Replace the one-line formula with a call to the function you added in step 2:

```
=Code.GetBarCodeOutput(FieldValue)
```

where *FieldValue* is the database field or stored procedure field that is replaced with a barcode, for example:

```
=Code.GetBarCodeOutput(Trim(Fields!item.Value))
```

6 To close the Formula Editor, click the **Close** button.

7 Right-click the barcode object and select **Format Field**.

8 On the **Font** tab, select the appropriate font and font size. For example, select **Font** Code128 and **Size** 48.

9 Click **OK**.

10 Save the .rdl file and test the report.

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