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### **Icons**



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#### QM in Production

### **Purpose**

During production, it may be necessary for you to carry out a several individual inspections at different intervals or as a result of certain events. With the component *QM in Production*, you can process inspections during a production operation (while manufacturing discrete parts) or a process phase (while producing process goods).

### Integration

The inspection characteristics in *Quality Management* (QM) are integrated in the work scheduling and production processing functions of the *Production Planning* (PP) component.

#### **Features**

#### **Inspection Points**

Using inspection points [Ext.] for an inspection during production, you can:

- Inspect materials at regular intervals
  - Time-based intervals (for example, an inspection point every hour or for each work shift)
  - Quantity-based intervals (for example, an inspection point for each container)
  - Freely-defined intervals (for example, an inspection point each time a tool change occurs)
- Record inspection results for each inspection point (for example, for each container or work shift) and valuate each inspection point with a "usage decision"
- Assign a produced quantity to each inspection point and allocate the inspection point quantities to partial lots



It is recommended that you allocate inspection points with the same usage decision to partial lots. This allows you to manage partial quantities that differ in quality. In this way, you can monitor the production process continuously with respect to the inspection characteristics.

#### Inspection lot creation

When a production order is released, the system creates an inspection lot record to manage the inspection specifications and inspection results for all operations.

#### Recording inspection results for an inspection point

When you record inspection results in QM, you can also confirm the operations in the PP component. This can occur automatically. You can confirm the inspection point quantities in PP in the form of a partial or final confirmation. If you want to confirm additional data in production planning (in addition to the inspection point quantities and target activities), you can call up a dialog box for a detailed confirmation. In this dialog box, you can record such information as actual times or personnel-related data. You can also record defects.

#### **QM** in Production

#### **Using control charts**

<u>Control charts [Ext.]</u> are primarily used in inspections during production to monitor and control the production processes. The control chart can be used to detect disturbances in the process. You correct these disturbances by intervening in the process. You can use the control chart to determine whether the correction was successful.

#### Inspection completion

When you process partial lots and confirm an inspection point, the system automatically proposes a "<u>usage decision [Ext.]</u>" for each partial lot based on the inspection point valuation. You can change the proposed code within the predefined code group.

The usage decision for the inspection lot confirms that all inspections have been completed or that the production order has been completed from a QM standpoint. To make the usage decision for the inspection lot, you can define a job that makes automatic usage decisions at predefined intervals, once the orders have been completed.

#### **Batch classification and quality certificates**

Through the integration of the <u>batch management [Ext.]</u> functions, the system can transfer the inspection results for a partial lot to the batch and these results can subsequently be used to classify the batch. As a result, batches can be selected on the basis of inspection results in *Sales and Distribution* (SD). If the batch attributes were defined with the help of a material specification, the system uses the inspection results for the respective characteristics to classify the batches.

The inspection results can also be used to create quality certificates.

#### Proposed quantity for a goods receipt from production

The inspection point quantities for the last QM-relevant operation are proposed for the goods receipt posting for the order. Only the quantities confirmed to PP as a yield or rework quantities are taken into consideration.

#### See also:

Planning an Inspection During Production [Page 7]

Processing an Inspection During Production [Page 16]

#### **Planning the Inspection During Production**

# **Planning the Inspection During Production**

The information below describes how to plan an inspection during production with inspection point processing. It informs you which data and settings must be maintained, if you want to inspect a material during production using <u>inspection points [Ext.]</u>.

The term "production order" in the following text refers to the following types of orders:

- · Production orders
- Process orders
- Run schedule headers

#### See also:

<u>Maintaining Master Data for Inspections During Production [Page 8]</u>

<u>Customizing Settings for Inspections During Production [Page 14]</u>

#### **Maintaining the Master Data**

# **Maintaining the Master Data**

If you want to process an inspection during production, you must make settings and maintain data in the following master data:

- <u>Task list [Page 9]</u> (at the header, operation, and characteristic levels). You can use the following task list types:
  - Routing
  - Rate routing
  - Master recipe
- Sampling procedure [Page 12]
- Inspection set-up in the material master [Page 13]



If you want the system to transfer the inspection results to the batch classification, you must also maintain a **material specification** for the corresponding batch material in which master inspection characteristics are linked to general characteristics.

#### See also:

Customizing Settings for Inspections During Production [Page 14]

### **Task List Maintenance**

#### Task list types

You can plan an inspection during production with inspection point processing for the following task list types, depending on the order type:

- Routing
- · Rate routing
- · Master recipe

Detailed information on	can be found in the document:
Routings	PP - Routings
Rate routings	PP - Routings
Master recipes	PP-PI Production Planning - Process Industries

#### Settings in the task list

You make the settings for an inspection during production with inspection point processing at the header, operation, and characteristic levels of the task list. The following table provides an overview of the data that must be maintained in the task list:

#### Overview of settings in the task list

Level	You maintain the following data
Task list header	Inspection points indicator
	User field combination for inspection points
	PL assignment indicator
Operation (detail screen)	Inspection interval (reference: quantity, time, freely defined)
	Last PL assignment indicator*
	Quan. pt. lot (for time reference)*
Inspection characteristic	Sampling procedures

<sup>\*</sup> Optional

For inspection point processing, you must maintain the following data in the task list:

- For the dynamic modification parameters in the **task list header**, you maintain the following data for the inspection:
  - Inspection points
     When you make an entry in this field, all sampling procedure data in the task list is used for inspection processing based on inspection points.
  - User field combination for inspection points (optional)
     You can define a combination of user fields to individually identify the inspection points.

#### **Task List Maintenance**

User-field combinations contain user-specific fields with individual key words defined in an individual sequence.

You can define the field combinations in the task list header or in the QM Customizing settings for a specific plant.

By specifying a user field combination in the header of each task list, you can override the plant-dependent settings defined in Customizing.

If you do not maintain this field in the task list header, the system uses the respective settings defined in QM Customizing for the inspection lot.



You can store the field combination you normally use under user parameter QBK. The initial screen for recording results for inspection points will be configured accordingly. If this user field combination differs from the one assigned to the inspection lot, a dialog box with the current user field combination is displayed.

#### Partial lot assignment

In this field, you specify whether you want to create only partial lots or both partial lots and batches; you also specify whether you want to create the partial lots/batches for each operation in the task list or only for last operation in the task list. The following levels of detail are possible:

- Inspection points
   With this setting, the produced quantities of materials are assigned exclusively to inspection points (to which the inspection results are also assigned).
- Inspection points partial lots
   With this setting, the produced quantities of materials are grouped together in partial lots.
- Inspection points partial lots batches
   With this setting, the partial lots are assigned to batches.

You can specify the level of detail in the task list header or in QM Customizing for a specific plant.

By specifying a level of detail for the partial lot assignment in the header of each task list, you can override the plant-dependent settings that are predefined in Customizing.

If you do not maintain this field in the task list header, the system uses the respective settings defined in QM Customizing for the inspection lot.

#### See also:

#### Customizing Settings for Inspections During Production [Page 14]

- In the operation detail screen, you maintain the following data in the *Quality management:* Inspection points section:
  - Inspection interval

You define inspection intervals at the operation level. You must maintain the intervals if you specified inspection points in the task list header. You can specify the following types of intervals:

Quantity
 In this case, you must specify a quantity factor and a unit of measure.

#### **Task List Maintenance**

Time In this case, you must specify a time factor and a unit of time.

• Freely defined (no quantity or time reference)

The inspection interval is printed on the inspection instruction and it appears in the worklist for results recording. In addition to serving as a planning value for results recording, the value for a quantity-based interval can also serve as a proposal for the quantity for a new inspection point.



The following example shows the effect of an inspection interval with **quantity reference** based on the following entries:

- Inspection point identification: Wire basket
- Inspection frequency based on sampling procedure: 2
- Quantity factor: 100
- Unit: piece

The interval for an inspection point includes 100 pieces, since a wire basket can hold 100 pieces of the operation quantity. You should inspect the goods in every second wire basket (inspection point).

Last p. lot assign. indicator (optional)

You set this indicator to identify the operation for which you will perform the last production inspection (from a QM perspective) and make the last partial lot assignments, if applicable. The system proposes the inspection point/partial lot quantities for this operation when the goods receipt posting is made for the order. An automatic goods receipt posting is only possible for the operations for which this indicator is set.

Quan. pt. lot indicator (optional)

If **time-related** inspection points are created in production, this indicator controls whether a quantity is associated with each inspection point or whether the quantity is only determined **once** for each partial lot.

If this indicator is set, the quantity is only determined once for each partial lot and is not increased with every inspection point. You should set this indicator, for example, if the same quantity will be inspected several times at different intervals. If the indicator is not set, the quantity in the partial lot is increased for each inspection point (that is, each inspection point corresponds to a produced quantity).

• At the **inspection characteristic** level, you specify a sampling procedure and therefore also the inspection frequency (among other things).

#### See also:

Maintaining Inspection Points in a Routing or Recipe [Ext.]

Maintaining Sampling Procedures for Inspections During Production [Page 12]

#### **Maintaining the Sampling Procedures**

### **Maintaining the Sampling Procedures**

The sample size for an inspection is determined by the sampling procedure. The sampling type in the sampling procedure determines how the sample is calculated; the valuation mode defines the rules for accepting or rejecting a characteristic or sample.



When you maintain the sampling procedures, make sure you only specify a **fixed sample** for inspections during production with inspection point processing.

In task lists used for inspections during production with inspection points, you can only use sampling procedures in which the indicator for **inspection points** is set.

If you set the indicator for inspection points in a sampling procedure, you can also specify an **inspection frequency**. The inspection frequency and the inspection grid in the task list together determine the number of inspections to be performed for each characteristic.

#### See also:

Maintaining Sampling Procedures for Control Charts [Ext.]

#### **Maintaining the Inspection Settings**

### **Maintaining the Inspection Settings**

For inspections during production with inspection point processing, you maintain the following data in the *Quality management* view of the material master (*Inspection set-up*):

Inspection type

You can use the following inspection types for inspections during production with inspection point processing:

- Inspection during production
- Inspection for run schedule headers

#### Indicator for the inspection type

You **must** set the following indicators for the inspection type:

- Insp. with task list
- Insp. by charac.

If you set this indicator, you do not necessarily have to plan inspection characteristics in the task list. For example, you can also create unplanned characteristics directly in results recording. These characteristics are maintained in the order.



If you want to carry out an inspection during production on the basis of a task list **and** material specification, you must also set the indicator *Inspect with mat. spec.* 

#### **Customizing Settings**

### **Customizing Settings**

#### Default settings at the plant level

In Customizing, you must maintain the following data for the default settings at the plant level:

#### Default sampling procedure for the inspection point processing

You can specify a sampling procedure that the system will automatically use, if you process characteristics in an inspection that have not been assigned a sampling procedure in the task list or material specification.

#### Specifying a user-field definition for inspection points

To identify the inspection points, you can define an individual combination of user fields and propose them for a specific plant. These user-field combinations contain user-specific fields with individual key words in a specific sequence.

You also define the field combination in the task list header. By specifying a user field combination in the task list header of each task list, you can override the plant-dependent settings defined in Customizing.

If you do not maintain this field in the task list header, the system copies the respective settings defined in Customizing into the inspection lot.



You can store the field combination you normally use under user parameter QBK. The system will then display this field combination when you call up the initial screen for recording results for inspection points. If this user field combination differs from the one assigned to the inspection lot, a dialog box with the current user field combination is displayed.

#### • Partial lot assignment in an inspection during production

You can specify whether you want to create only partial lots or both partial lots and batches; you also specify whether you want to create the partial lots/batches for each operation in the task list or only for last operation in the task list. The following levels of detail are possible:

#### Inspection points

With this setting, the produced quantities of materials are assigned exclusively to inspection points (to which the inspection results are also assigned).

#### Inspection points / partial lots

With this setting, the produced quantities of materials are grouped together in partial lots.

#### Inspection points / partial lots / batches

With this setting, the partial lots are assigned to batches.

You can specify whether the quantities should be assigned to a partial lot and/or batch for **each operation** or only for the **last** operation in an order.

You can also specify the partial lot assignment in the task list header. By specifying a partial lot assignment in the task list header, you can override the plant-dependent settings defined in Customizing.

If you do not maintain this field in the task list header, the system copies the respective settings defined in Customizing into the inspection lot.

**Customizing Settings** 

#### Inspection point valuation / usage decision for partial lot

In catalog type 3 (usage decisions), you can define a code that the system will propose automatically when you confirm the data to valuate the inspection point. If necessary, you can change the proposed code and choose a different one within the predefined selected set.

The valuation for the partial lot must agree with the usage decision for the inspection point.

#### Default user-field combination for inspection points

You can store **inspection point identifiers** in the operation data of the task list to identify the inspection points. You can also define individual **inspection point/user field combinations** to meet the requirements of your company.

Among other items, the user-field combinations contain fields for the date and time and two freely definable text and numeric fields to identify the inspection points. You can use these fields to define the inspection points as necessary, based on your company's industry sector, the type of production plants involved, the requirements for creating partial quantities, and so on. The field combinations that are stored here determine which data must be entered on the initial screen when you record inspection results for an inspection point.

You define the inspection point identification in the settings at the **plant level** in Customizing or in the **header** of the task list.



Since the inspection point identification applies to **all operations**, you should only specify a date and time in the user-field combination under certain circumstances (for example, when you use a time-based inspection interval).

#### See also:

Maintaining Master Data for Inspections During Production [Page 8]

Recording Results for an Inspection Point (Inspection Point Processing) [Page 19]

Maintaining a Task List for an Inspection During Production [Page 9]

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#### **Processing the Inspection During Production**

# **Processing the Inspection During Production**

Inspection Lot Creation [Page 17]

Recording Results for an Inspection Point (Inspection Point Processing) [Page 19]

Transferring Inspection Results to the Batch Classification [Page 27]

<u>Usage Decision [Page 28]</u>

**Inspection Lot Creation** 

### **Inspection Lot Creation**

In an inspection during production, the system creates an inspection lot for a production order. You or the system can create inspection lots for the following order types:

- Production orders (routing)
- Process orders (master recipe)
- Run schedule headers (for example, rate routing)

If you have maintained the inspection settings for the material to be produced (in the *Quality management* view of the material master) and have activated the corresponding inspection types, the system can automatically create an inspection lot:

- When the first operation is released for a production order or process order
- When a run schedule header is created

You can also create the inspection lot **manually** in the production order or process order before the order is released.

The characteristics containing the inspection specifications are assigned to individual operations in the order.

#### See also:

Create Inspection Lots [Page 18]

Maintaining the Inspection Settings [Page 13]

You can find detailed information on	In the documentation:
Production orders	PP - Production Orders
Process orders	PP-PI Production Planning - Process Industries
Run schedule headers	PP - Repetitive Manufacturing

#### **Creating Inspection Lots**

### **Creating Inspection Lots**

#### **Prerequisites**

You can only create inspection lots in the production order or process order if:

- The inspection data for the material to be produced has been maintained in the *Quality* management view of the material master and the corresponding inspection types have been activated
- The order has not been completed technically
- · The order does not contain a deletion indicator or deletion flag in the header

#### **Creating inspection lots automatically**

- The system creates an inspection lot automatically for a production or process order when the first operation in the order is released.
- If an inspection lot was created successfully, the system sets the status *ILCR* (inspection lot created) in the header of the order.
- If an inspection lot was not created successfully, the system sets the status *ILNC* (inspection lot not created) in the header of the order.

You can select and process all orders for which the creation of inspection lots was not successful, by using a selection profile and searching for all orders with the status ILNC.



If you assign a task list with inspection characteristics to a production order or process order **after an inspection lot has been created**, these inspection characteristics are not be taken into consideration in the inspection.

#### **Creating inspection lots manually**

To create an inspection lot manually before an order is released, proceed as follows:

- 1. Call up the order.
- 2. Choose Order  $\rightarrow$  Functions  $\rightarrow$  Inspection lot  $\rightarrow$  Create.

Recording Results for the Inspection Point (Inspection Point Processing)

# Recording Results for the Inspection Point (Inspection Point Processing)

After you have inspected the goods, you record inspection results for each inspection characteristic; the system stores these results in the inspection lot record.

You can record the inspection results for production inspection lots using the following quality inspection functions:

Worklist → Results recording

This option is recommended if you want to record results for **several** inspection lots, since the worklist allows you to record results for several lots quickly and easily.

Inspection result → For inspection point → Record

This procedure is recommended if you want to record inspection results for a specific inspection lot. The procedure for recording results for inspection points is essentially the same as recording results for an operation.

After you have called the function, you must enter additional data for the inspection point on the initial screen. The data you must enter depends on the setting for the inspection point/user-field combination in Customizing.

#### Inspection point confirmation and valuation

At the very latest, you must confirm the data for the inspection point when the inspection results are saved. The screen for confirming the data is called automatically if all characteristics in the operation have been closed and no inspection point data has previously been recorded.

When you confirm data for an inspection point in results recording and you are processing partial lots, the system automatically proposes a "usage decision" for each **partial lot** based on the inspection point valuation. You can change the proposed code within the predefined code group.

#### Quantity changes

You can make changes to inspection point quantities using the functions for recording and changing the results for an inspection point.

You can also display an overview of all inspection points for an inspection lot and subsequently change an inspection point quantity, as well as the valuation and quantity status.

#### See also:

Special Features for Process Manufacturing [Page 26]

Recording the Inspection Point Confirmation [Page 20]

Changing Inspection Point Quantities [Page 24]

Displaying Inspection Point Quantities [Page 25]

Results for Inspection Point Types and Partial Lots [Ext.]

**Recording the Inspection Point Confirmation** 

### **Recording the Inspection Point Confirmation**

### **Prerequisites**

The *Inspection point completion* field at the operation level of the task list determines whether the inspection point completion should occur manually or automatically. An automatic valuation of inspection points occurs on the basis of the settings in Customizing. With a manual valuation, the system displays a dialog box in which you valuate the results and confirm the inspection points after you have closed all inspection characteristics.

You can also display this dialog box manually by means of a pushbutton, regardless of the setting for the *Inspection point completion* field.

#### Use

With a manual completion of inspection points, you must confirm the inspection point data when you save the inspection results. The screen for confirming the data is displayed automatically once all characteristics for the operation have been closed and if inspection point data has been recorded yet.

#### **Procedure**

- 1. If the dialog box for confirming the inspection point data is not displayed automatically, choose *Goto* → *Data for inspection point* to call up the dialog box.
- 2. Depending on your inspection completion variant, enter the quantity data for the inspection point (yield, scrap, and rework), if necessary.
  - With inspection points for orders, you have the following options (depending on the inspection completion variant):
  - For inspections in a repetitive manufacturing environment, you can use the reporting point function to <u>backflush operations [Page 38]</u>.
  - If you are processing a production or maintenance order, the function for <u>confirming</u> operations [Page 36] is active.
    - Depending on the PP Customizing settings for the order type and the operation control key, the system proposes the indicators for *partial confirmation*, *final confirmation* or *no confirmation*.
    - You can change the system proposal, if necessary.
  - If you want to confirm data other than the inspection point quantities to production planning, you can display a screen for <u>detailed confirmations [Page 29]</u> for the order, in which you can confirm actual times and personnel data.
  - If you are using a process order, the system automatically proposes the No confirmation indicator for the operation. You can change the system proposal, if necessary.



Note the following special feature for process manufacturing applications: If you are producing the inspected material on the basis of a process order:

 The confirmation may possibly be triggered from the process control (that is, with the help of a process message or by means of a function call from the process instruction (PI) sheet.

#### **Recording the Inspection Point Confirmation**

 The processed quantity for the operation must be confirmed. This quantity may not be the same as the produced quantity specified for the inspection point.

For this reason, do **not** trigger the confirmation in QM module, if:

- A confirmation from the process control is planned in the process order
- The quantities for the operation and the inspection point are different
- 3. You can enter a *Cause* for a value that deviates from the planned value (for example, if it resulted from scrap or was caused by equipment damage).



You should only enter a cause if you also confirm it to production planning. You can also start **trigger points** (among other things) using the cause.

- 4. In the section Valuate inspection point, the system proposes the usage decision code based on the plant settings contained in Customizing. You can select a different usage decision code within the predefined code group using the Choose other valuation function.
- 5. The following steps depend on the partial lot assignment level predefined in Customizing application or in the task list header. Depending on the assignment level, you may have to assign the following items to the inspection point:
  - A partial lot (step 6)
     Provided the assignment level calls for the creation of partial lots
  - A partial lot and a batch (steps 6 and 7)
     Provided the assignment level calls for the creation of partial lots and batches and the material is a batch material
- 6. Assign a partial lot to the inspection point.
  - If a partial lot does not exist yet, a message appears that prompts you to create a new partial lot. Choose New partial lot to do so.
  - If partial lots already exist, the system proposes the partial lot that was processed last.
     You now have the following options, depending on the inspection point valuation:
    - You accept the proposed partial lot assignment.
    - You choose a different partial lot (if available).
    - You create a new partial lot.

The system copies the inspection point valuation to the partial lot.

- 7. Assign a batch to the partial lot.
  - If a batch does not exist yet, you must create a new batch. Choose Create batch to do so. If you do not specify a batch number for the new batch, the system automatically assigns one.
  - If batches already exist, you can either enter an existing batch or create a new batch.
     In doing so, you can compare the batch values with the inspection results [Page 35].

You can assign several partial lots to a single batch.

#### **Recording the Inspection Point Confirmation**

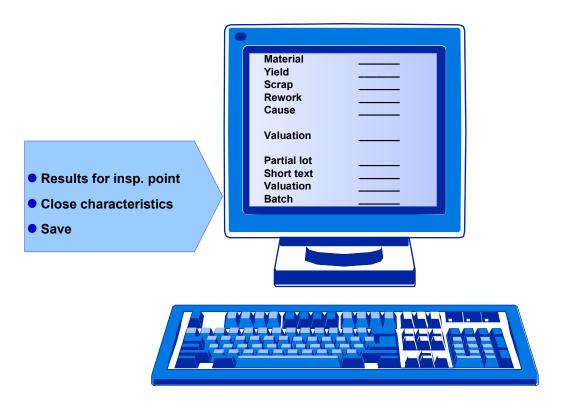


You can only create a **single** batch while you are processing an inspection point.

8. After you have made the required entries, choose *Enter* to return from the inspection point valuation and partial lot assignment dialog box to the results recording.

9. Save the data.

#### Inspection point confirmation and valuation



When you confirm the inspection point data, the following functions are available, depending on the assignment level you are using (for example, inspection points only or inspection points and partial lots):

Function	Use this function to:
General	
Detailed confirmation [Page 29]	Record additional PP confirmation data
Choosing a different valuation [Page 30]	Change the inspection point (and partial lot) valuation
Partial lot	
New partial lot	Create a new partial lot
Change new PL	Change the description of the new partial lot

### **Recording the Inspection Point Confirmation**

Reassign new PL [Page 32]	Assign previous inspection points to the current partial lot
Other material [Page 31]	Assign a different material to an inspection point (co-product)
Choose different partial lot [Page 33]	Choose a different partial lot
Batch	
Create batch	Create a new batch
Reassign batch [Page 34]	Assign previous partial lots to the current batch
Compare batch values [Page 35]	Compare the values of a batch with the inspection results

#### Changing inspection point quantities

### **Changing inspection point quantities**

You can change the quantity of an inspection point as follows:

1. Choose Logistics → Quality management → Quality inspection → Results → For inspection point → Change quantities.

The initial screen for changing the inspection lot quantities appears.

2. Enter the number of an inspection lot and choose *Enter*.

The system displays an overview of all inspection points for the inspection lot (with partial lots and batches, if applicable).

3. Select the inspection point for which you want to change the quantity.

A dialog box containing the inspection point details appears.

- 4. You can change the following data in this dialog box:
  - Yield
  - Scrap
  - Rework
  - Quantity status
  - Valuation status



The changes you make here apply only to QM and do not affect production planning. Any changes you make to the inspection point quantities using the functions for recording and changing the results for an inspection point will, however, affect production planning.

- 5. Choose *Continue* to return to the inspection point overview.
- 6. Save the changes.

#### **Displaying Inspection Point Quantities**

## **Displaying Inspection Point Quantities**

If you want to display the quantity for an inspection point, proceed as follows:

Choose Logistics → Quality management → Quality inspection → Results → For inspection point → Display quantities.

The initial screen for displaying the inspection lot quantities appears.

2. Enter the number of an inspection lot and choose Continue.

The an overview of all inspection points for the inspection lot (with partial lots and batches, if applicable) is displayed.

3. Select an inspection point for which you want to display the quantity.

A dialog box containing the following data for the inspection point is displayed:

- Yield
- Scrap
- Rework
- Quantity status
- Valuation status
- Relevant quantity f. GR
- 4. Choose *Continue* to return to the inspection point overview.

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#### **Special Features for Process Manufacturing**

# **Special Features for Process Manufacturing**

In process manufacturing, you can confirm the inspection results to QM in the following ways:

- You can call up results recording in QM directly from the process instruction (PI) sheet.
- You can copy summarized inspection results from process messages.

#### See also:

PP-PI Production Planning - Process Industries

**Transferring Inspection Results to the Batch Class** 

### **Transferring Inspection Results to the Batch Class**

For the system to be able to transfer inspection results to the batch classification for production lots with inspection point processing, the following conditions must be met:

- For a material that is maintained in batches, a corresponding material specification must be maintained, in which master inspection characteristics are linked to general characteristics.
- You must inspect the goods using a task list or a task list and material specification.

With **production lots with inspection point processing**, the system transfers the results to the batch classification when you **record results for the inspection point** and not when the usage decision is made.

Once you have entered a batch and saved the inspection results, the general characteristics for the batch class are automatically valuated using the measured results from the completed inspection characteristics.

In the long text for the partial lot, the system specifies which general characteristics in the batch class were supplied with inspection results.



The current inspection results may overwrite the existing characteristic valuation (if available).

#### See also:

LO - Batch Management

**Usage Decision** 

### **Usage Decision**

With production inspection lots, you first make the usage decision for the **partial lots**. The usage decision for the **entire inspection lot** then documents that the production order has been completed from a QM standpoint. Furthermore, the usage decision for the entire lot is also required for the reorganization and archiving of the QM transaction data.

To make the usage decisions for production lots, we recommend you use **worklist** function for this purpose.

Using the worklist function, you define a job for the **automatic usage decision** for **production lots**. This job makes the automatic usage decisions at predefined intervals once the orders have been completed technically.

Choose Logistics  $\rightarrow$  Quality management  $\rightarrow$  Quality inspection  $\rightarrow$  Worklist  $\rightarrow$  Inspection lot completion  $\rightarrow$  Automatic UD (orders)  $\rightarrow$  Job planning.

#### See also:

Automatic Usage Decision [Ext.]

### **Making a Detailed Confirmation**

#### Use

If you want to confirm data other than the inspection point quantities and target activities (actual quantities valuated with planned times) to production planning, you can display a screen for **detailed confirmations** for the order, in which you can confirm actual times and personnel data.

#### **Procedure**

- 1. Choose *Conf. details*. The screen for making confirmations for the production order appears. The quantity data for the inspection point have been copied into this screen.
- 2. If you want to record additional production planning data, choose *Enter* to access all fields on the screen that you will need to make the confirmations.
- 3. Enter the data you want to confirm. Among other data, you can confirm the following information:
  - Quantities (yield, scrap, rework)
  - Activity data

You can confirm the completed activities such as the setup or machine times.

#### Dates

You can confirm when the set up, processing, or tear down of operation began and ended.

#### Personnel data

You can confirm, for example, the personnel number of the employee who processed the operation or the number of employees who processed the operation.

#### Posting date

You record a posting date for every confirmation. The system automatically proposes the current date as the posting date. You can, however, enter another date.

#### Text

You can record both a short and long text to describe the confirmation activities.

For detailed information on how to record a confirmation, refer to the *Confirmations* section in the documentation for *PP - Production Orders*.

4. After you have entered all of the data, choose *Goto* → *Back* to return to the screen for the valuation and partial lot assignment.

#### **Choosing a Different Valuation**

### **Choosing a Different Valuation**

In the screen block *Valuate inspection point*, the system proposes a **usage decision code**. This code is stored in the settings at plant level in Customizing. You can change the valuation or choose a different usage decision code within the predefined code group. You can choose a different valuation as follows:

1. Choose Choose other valuation.

A list containing all codes in the predefined UD code group appears.

2. Choose a code.

If you are working with **partial lots** and have already made a partial lot assignment, you have two options:

If you created a **new** partial lot, a message appears after you select a code indicating
that the inspection point valuation will be transferred to the partial lot. Confirm the
message with *Enter* to return to the screen for the valuation and partial lot assignment.

The modified valuation is transferred to the partial lot.

If the partial lot already exists, the system returns to the screen for the valuation and partial lot assignment automatically after you select a code. Choose *Continue*. If the valuation is different, a dialog box appears with a message indicating that the partial lot valuation does **not** match the inspection point valuation.

From this dialog box, you can:

- Change the partial lot valuation
- Change the partial lot valuation and description

#### **Assigning a Different Material**

# **Assigning a Different Material**

1. Choose the function Other material.

A dialog box appears.

- 2. You have the following options:
  - If co-products have been planned in the order, you can display a list of materials using the possible entries help and select a material.
  - If no co-products have been planned in the order, enter a material (unplanned coproduct).
  - If you do not want to assign a material to the inspection point, choose No material.
- 3. Choose *Enter* to return to the screen for the valuation and partial lot assignment.

#### See also:

PP - Production Orders (for detailed information on co-products)

#### Reassigning a Partial Lot

### **Reassigning a Partial Lot**

You can assign previously processed inspection points to a current partial lot using the *Reassign PL* function.

This may be necessary, for example, if an inspection point is rejected because of a characteristic that was **not** inspected in the previous inspection point (valuation = acceptance). The system creates a new partial lot with the valuation "rejected." The previous inspection point(s) should also be assigned to this partial lot with the valuation "rejected." The partial lot assignment you made up to this point is no longer valid.

You assign previous inspection points to the current partial lot as follows:

1. Choose Reassign PL.

A list containing all inspection points is displayed.

2. Select one or more inspection points in the list.

The inspection points are assigned to the current partial lot.

#### Selecting a Different Partial Lot

# **Selecting a Different Partial Lot**

When you make confirmations for an inspection point, the system always proposes the partial lot that was last processed (provided partial lots already exist).

If additional partial lots exist for an inspection point, you can use the *Choose other partial lot* function to display a list of the additional partial lots from which you can select a partial lot.



If you created a **new** partial lot before you called this function, the new partial lot is deleted automatically after you select a partial lot from the list.

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#### Reassigning a Batch

# Reassigning a Batch

You have assigned a partial lot to an inspection point. You have also assigned a batch to the partial lot.

You can now use the *Reassign batch* function to assign previous partial lots to the current batch.

You assign previous partial lots to the current batch as follows:

1. Choose Reassign batch.

A list containing all partial lots is displayed.

2. Select one or more partial lots from the list.

These partial lots are assigned to the current batch.

**Compare Batch Values with Inspection Results** 

# **Compare Batch Values with Inspection Results**

You can display the characteristic values of a batch to compare them with the inspection results. To display the batch values for a material, choose *Compare batch charac*.

A dialog box is displayed that contains the following information:

- Class characteristic
- Dependent characteristic specifications
- Inspection result for characteristic

#### **Confirmation for Operation**

### **Confirmation for Operation**

When you save the characteristic results, you make the confirmations for the operation. You make the confirmations in accordance with the following indicators:

- Partial confirmation
- Final confirmation
- No confirmation
   This indicator must be set if you want to make the confirmation using the corresponding functions in PP.



If you set the *No confirmation* indicator **after** you already made a confirmation for an inspection point to production planning in QM, this confirmation is cancelled.

The indicators for a partial confirmation, final confirmation, or no confirmation are proposed on the basis of the operation control key and the parameters for order confirmation in Customizing for PP.



If the control indicator for the proposal of activities is set for the confirmation parameters in Customizing for PP, the actual activities are valuated as target costs.

In addition to the inspection point quantities and target activities, you can also make a detailed confirmation for the order to record such information as actual times and personnel data.

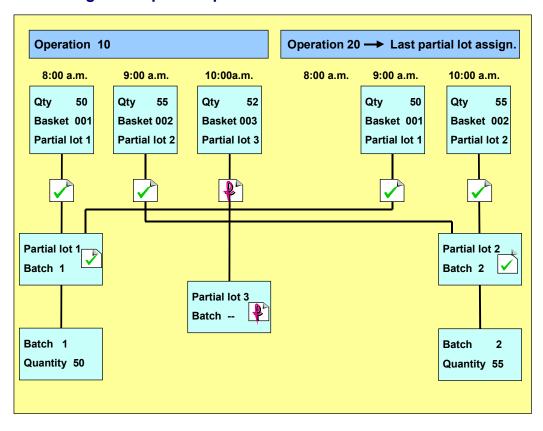
If the indicator for the last partial lot assignment is set, the inspection point quantities for the last QM-relevant operation are proposed for the goods receipt posting for the order. Only the quantities confirmed to PP as a **yield** or **rework** are taken into consideration.

The quantities are summarized at batch level. If you are not processing batches, all inspection point and partial lot quantities are summarized in a single item.

For detailed information about making confirmations for operations, refer to the documentation *PP - Production Orders*.

#### **Confirmation for Operation**

### Confirming the inspection point data



#### **Performing a Reporting Point Backflush**

### **Performing a Reporting Point Backflush**

If you are processing a **run schedule header**, you can branch to the reporting point backflush function directly from the function for confirming the inspection point data. The prerequisites for this are as follows:

- The operation is specified as a milestone operation in the task list.
   Milestones are transferred to the order automatically as reporting points when a run schedule header is created.
- The repetitive manufacturing profile in the material master permits production cost collectors to be created and provides for a reporting point backflush.

Choose Reporting point to execute a reporting point backflush.

The screen for the reporting point backflush is displayed. The *Quantity data* for the inspection point is displayed in the lower part of the screen.

For detailed information on how to execute a reporting point backflush, refer to the documentation *PP - Repetitive Manufacturing*.

#### **Integration of Inspection Point Processing**

### **Integration of Inspection Point Processing**

As a result of its functions for inspection point processing, QM has the following interfaces to neighboring application areas:

#### Production planning

- You can confirm the inspection point quantities to production planning when you make confirmations for operations or backflush operations.
- In addition to the inspection point quantities and target activities (actual quantities valuated with planned times), you can also confirm other data (for example, actual times) in a detailed confirmation for the production order.
- If necessary, the actual activities are valuated as target costs (based on the settings in Customizing for PP).
- You can record inspection results for planned or unplanned co-products.

#### • Inventory management

- The inspection point quantities for the last QM-relevant operation are proposed for the goods receipt posting for the order. Only those quantities that are confirmed to PP as yield are taken into account.
- When an automatic goods receipt takes place, the QM data (for example, quantity and batch number) are copied.

#### Batch management

You can create batches directly when you confirm the inspection point data in results recording.

The inspection results are also transferred to the batch classification, if necessary.

#### See also:

PP - Production Orders

MM - Inventory Management

LO - Batch Management