

# Production Planning & Control Workflow Scenarios



HELP.BCBMTWFMPP

Release 4.6C



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## Icons

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax
	Tip

## Contents

<b>Production Planning &amp; Control Workflow Scenarios .....</b>	<b>5</b>
Trigger Points (PP-SFC) .....	6
Technical Implementation .....	7
Preparation and Customizing .....	9
Purchase Order Changes (PP-SFC) .....	11
Technical Implementation .....	12
Preparation and Customizing .....	14
Operation.....	15
Production Order Phases (PP-SFC) .....	16
Technical Implementation .....	17
Preparation and Customizing .....	20
Production Order Changes (PP-SFC).....	22
Technical Implementation .....	23
Preparation and Customizing .....	25
Confirmation Variances (PP-SFC) .....	27
Technical Implementation .....	28
Preparation and Customizing .....	30
Operation.....	32

## Production Planning & Control Workflow Scenarios

See also:

[BC - Workflow Scenarios in the Applications \[Ext.\]](#)

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**Trigger Points (PP-SFC)**

## Trigger Points (PP-SFC)

### Purpose

A trigger point is an object that can be assigned to an operation to trigger certain functions. You can use the *Start workflow task* function, for example, to start single-step or multistep tasks. The function is then started when the status of the operation assigned to the trigger point changes.

### Process Flow

When a trigger point is reached, the MRP controller responsible for the production order can be informed. The controller then receives a work item in the inbox with which he or she can maintain the production order directly.

## Technical Implementation

### Object Types

The interface between R/3 functions and the Workflow System is implemented using object-oriented technology. For this reason, the information provided here is of a more technical nature. If you simply want an initial overview, you can skip the following section.

The following object types are used in this scenario:

- **BUS2005:** Production order  
Location in the Object Repository: *Production Planning and Control* → *Production Orders*
- **MLST\_PROD:** Trigger point  
Location in the Object Repository: *Production Planning and Control* → *Production Orders*
- **T024D:** MRP group  
Location in the Object Repository: *Production Planning and Control* → *Material Requirements Planning* → *Basic Data*

### Standard Tasks

The standard tasks shipped by SAP in the form of single-step tasks describe basic business activities from an organizational perspective. Each single-step task refers to an object method (technical link to an R/3 function) and is linked to the possible agents defined in the organizational structure.

- **Standard task:** TS00200047  
**Identifier:** InfDispTrP  
**Name:** Inform MRP controller about trigger point  
**Referenced object method, properties**  
**Object type:** BUS2005  
**Method:** Edit  
**Properties:** synchronous, with dialog

### Process Flow

If you have specified a workflow task for a trigger point, the Started event for the object type MLST\_PROD is triggered when the trigger point is reached. The receiver function module CN\_MS\_EVENT\_RECEIVER\_TYPE\_GET ensures that only the workflow task that you have specified with the *Start workflow task* function is actually started.

The Started event has the following parameters:

Parameter	Description
Operation	Object reference to the operation to which the trigger point is linked.
Order	Object reference to the production order for the operation to which the trigger point is linked.
TaskId	ID of the task to be started.

**Technical Implementation**

The following binding is defined between the triggering event and the standard task TS00200047:

<b>Task container</b>	<b>Event parameter container</b>
Trigger point	_Evt_Object
Operation	Operation
Production order	Order

The standard task TS00200047 uses the role 20000054 (MRP group) to determine the users who are linked to the MRP controller of the production order. If no users are linked to the MRP controller via the Organizational Management, all of the possible agents assigned to the standard task receive a work item.



## Preparation and Customizing

In addition to the general Customizing activities that ensure that the Workflow System functions correctly, specific Customizing settings must be defined for the standard task TS00200047.

### Maintaining Agent Assignment

Link the standard task TS00200047 to its possible agents. To do so, use the Customizing activity *Production → Shop Floor Control → Workflow → Trigger Points* or proceed as follows:

1. Choose *Tools → Business Workflow → Development → Definition Tools → Tasks/Task Groups → Display* and enter standard task TS00200047.
2. Assign the users or organizational units that are to process the task in your company to the standard task TS00200047.

### Linking MRP Controllers to the Organizational Management

If you only want the MRP controller responsible for the production order to receive a work item (instead of all the possible agents of the standard task), link the MRP controllers to the SAP Organizational Management. To do so, use the Customizing activity *Production → Shop Floor Control → Workflow → Trigger points* or proceed as follows:

1. Choose *Tools → Business Workflow → Development → Definition Tools → Organizational Management → SAP Org. Objects → Create Assignments*.
2. Enter T024D as the organizational object type.

### Maintaining the Type Linkage Table

You must not activate the event linkage between the standard task TS00200047 and the triggering event MLST\_PROD.Started. Instead, ensure that the type linkage table contains the following entry.

<i>Object type</i>	MLST_PROD
<i>Event</i>	Started
<i>Receiver type</i>	
<i>Receiver function module</i>	SWW_WI_CREATE_VIA_EVENT
<i>Check function</i>	
<i>Receiver type function module</i>	CN_MS_EVENT_RECEIVER_TYPE_GET
<i>Destination</i>	
<i>Global</i>	X
<i>Enabled</i>	X

To maintain the type linkage table, choose the Customizing activity *Production → Shop Floor Control → Workflow → Trigger Points* or proceed as follows:

1. Choose *Tools → Business Workflow → Development → Utilities → Events → Type Linkages*.

### Alternative: Informing the Production Scheduler

If you want to inform the production scheduler instead of the MRP controller, proceed as follows:

**Preparation and Customizing**

1. Copy the standard task TS00200047.
2. Assigned the copied task to the role 20000066 (production scheduler group) instead of 20000054 (MRP group). Then adjust the binding.
3. Following this, assign the possible agents to the copy and link the production schedulers (organizational object type T024F) to the Organizational Management. Finally, maintain the type linkage table.

## Purchase Order Changes (PP-SFC)

### Purpose

If an external material (non-stock material) or service (externally processed activity) has to be procured for a certain production order, a purchase requisition must be created. The purchaser responsible processes this requisition and one or more purchase orders are created as a result. This is noted in the production order.

If changes are made to the materials or services ordered for the production order (changes to the requirement quantity or requirements date), the system modifies the purchase requisition automatically. Any purchase orders that have already been created must be changed manually by the purchaser responsible.

### Process Flow

Using SAP Business Workflow, the purchaser responsible can be informed if

- Changes are made to the requirement quantity or requirements date for an external material or externally processed activity
- An external material item or external service activity has been deleted
- An external activity has been changed to an internal activity
- Or if a production order has been technically completed and the external material or activity are no longer needed
- And if one or more purchase orders have already been created.

The purchaser receives a work item containing all of the relevant changes regarding the external materials and activities. He or she can then display the relevant purchase requisitions and any purchase orders that have already been created. The purchase orders can also be edited or new ones created.

## Technical Implementation

# Technical Implementation

## Object Types

The interface between the R/3 functions and the Workflow System is implemented using object-oriented technology. For this reason, the information provided here is of a more technical nature. If you simply want an initial overview, you can skip the following section.

The following object types are used in this scenario:

- **BUS2005:** Production order  
Location in the Object Repository: *Production Planning and Control* → *Production Orders*
- **T024:** Purchasing group  
Location in the Object Repository: *Materials Management* → *Purchasing*

## Standard Tasks

The standard tasks shipped by SAP in the form of single-step tasks describe basic business activities from an organizational perspective. Each single-step task refers to an object method (technical link to an R/3 function) and is linked to the possible agents defined in the organizational structure.

- **Standard task:** TS20000613  
**Identifier:** PurchOrdPP  
**Name:** Purchase order change production order  
**Referenced object method, properties**  
**Object type:** BUS2005  
**Method:** DisplayPurchaseOrderChange  
**Properties:** synchronous, with dialog

## Process Flow

If changes are made to the materials or services ordered for a certain production order (requirement quantity, requirements date), the relevant materials and services are sorted according to purchasing groups (taken from the purchase requisition). Following this, the PurchaseOrderChange event for the object type BUS2005 is triggered for each of the purchasing groups responsible.

The BUS2005.PurchaseOrderChange event is the triggering event for the standard task TS20000613. This event has the following parameters:

Parameter	Description
PurchasingGroup	Purchasing group
ToDoList	Internal table containing the modified materials and services

The following binding is defined between the PurchaseOrderChange event and the task TS20000613:

Task container	Event parameter container

Technical Implementation

Production order	_Evt_Object
Start date	_Evt_Creation_Time
Start time	_Evt_Creation_Date
Triggered by	_Evt_Creator
Simple todo list	ToDoList
Purchasing group	PurchasingGroup

The standard task uses the role 00900010 (purchasing group). This determines all of the users who are linked to the purchasing group responsible. If no users are linked to the purchasing group via the Organizational Management, all of the possible agents assigned to the standard task receive a work item.

## Preparation and Customizing

### Preparation and Customizing

In addition to the general Customizing activities that ensure that the Workflow System functions correctly, specific Customizing settings must be defined for the standard task TS20000613.

#### Maintaining Agent Assignment

Link the standard task TS2000613 to its possible agents. To do so, use the Customizing activity *Production → Shop Floor Control → Workflows → Purchase Order Changes* or proceed as follows:

1. Choose *Tools → Business Workflow → Development → Definition Tools → Tasks/Task Groups → Display* and enter the standard task TS20000613.
2. Assign the users or organizational units that are to process the task in your company to the standard task TS20000613.

#### Linking Purchasers to the Organizational Management

If you only want the purchaser responsible to receive a work item (instead of all the possible agents of the standard task TS20000613), link the purchaser to the SAP Organizational Management. To do so, use the Customizing activity *Production → Shop Floor Control → Workflows → Purchase Order Changes* or proceed as follows:

1. Choose *Tools → Business Workflow → Development → Definition Tools → Organizational Management → SAP Org. Objects → Create Assignments*.
2. Enter T024 as the organizational object type.

#### Activating Event Linkage

The PurchaseOrderChange event for the object type BUS2005 is the triggering event for the standard task TS20000613. Before the standard task can be started, the event linkage must be activated. To do so, use the Customizing activity *Production → Shop Floor Control → Workflows → Purchase Order Changes* or proceed as follows:

1. On the initial screen, choose *Tools → Business Workflow → Development → Definition Tools → Tasks/Task Groups → Display* and enter the standard task TS20000613.
2. Activate the event linkage.

#### Maintaining Order Type-Dependent Parameters

You must define whether the standard task TS20000613 is to be started for each order type and plant. To do so, use the Customizing activity *Production → Shop Floor Control → Workflows → Purchase Order Changes* or *Production → Shop Floor Control → Master Data → Order → Define order type-dependent parameters*.

Set the *PO change* flag.

## Operation

When you execute a work item for the standard task TS20000613, a split screen is displayed:

The left-hand side of the screen contains a list of the materials or services. A checkbox is displayed beside each material and service. You can use this checkbox to flag the materials or services that you have already processed.

A red LED is displayed beside a material or service if a new work item was created for this material or service after the work item you are currently processing was created.

By double-clicking a material or service in the overview list, you can display the associated details in the right-hand part of the screen.

Here, you can edit existing purchase orders or create new ones. When you create a new purchase order, it does not appear straight away with the other purchase orders in the table. First, you have to update the purchase order on the database. Once you have done so, the purchase order appears as soon as you

- Click the Refresh button
- Double-click the material or service in the overview list

You can stop processing the work item and continue later by clicking Cancel, Back, or Exit. If you choose *Complete workflow*, the workflow is terminated.

---

**Production Order Phases (PP-SFC)**

## Production Order Phases (PP-SFC)

### Purpose

Production orders pass through various phases. These phases are expressed by the status of the production order:

- The production orders are first created (CRTD).
- The orders are then released (REL).
- The shop floor papers are printed out (PRT).
- The production orders are carried out. The produced quantities, services, and deadlines are continuously (partially) confirmed (PCNF).
- Final confirmation takes place (CNF).
- The production orders are technically completed (TECO).
- Finally, the production orders are flagged for deletion (DLFL).

### Process Flow

When you create a production order, a workflow can be started to inform the MRP controller of the current production order phase.

Note that a large number of work items may be created in this scenario. If a large volume of production orders is created in your production system, therefore, you should not use this scenario.

The work items are deleted at the latest if a deletion flag was set for the order in question.

If this scenario does not fulfill your requirements, you can use it as a template to create your own scenario.



## Technical Implementation

### Object Types

The interface between the R/3 functionality and the Workflow System is implemented using object-oriented technology. For this reason, the information provided here is of a more technical nature. If you simply want an initial overview, you can skip the following section.

The following object types are used in this scenario:

- **BUS2005:** Production order  
Location in the Object Repository: *Production Planning and Control* → *Production Orders*
- **T024D:** MRP group  
Location in the Object Repository: *Production Planning and Control* → *Material Requirements Planning* → *Basic Data*

### Standard Tasks

The standard tasks shipped by SAP in the form of single-step tasks describe basic business activities from an organizational perspective. Each single-step task refers to an object method (technical link to an R/3 function) and is linked to the possible agents defined in the organizational structure.

- **Standard task:** TS20000634  
**Identifier:** PrO Created  
**Name:** Production order created  
**Referenced object method, properties**  
**Object type:** BUS2005  
**Method:** EditAsynchronously  
**Properties:** asynchronous, with dialog
- **Standard task:** TS20000636  
**Identifier:** PrO Released  
**Name:** Production order released  
**Referenced object method, properties**  
**Object type:** BUS2005  
**Method:** EditAsynchronously  
**Properties:** asynchronous, with dialog
- **Standard task:** TS20000637  
**Identifier:** PrO Printed  
**Name:** Production order printed  
**Referenced object method, properties**  
**Object type:** BUS2005

## Technical Implementation

**Method:** EditAsynchronously

**Properties:** asynchronous, with dialog

- **Standard task:** TS20000638

**Identifier:** PrO Conf.

**Name:** Production order confirmed

**Referenced object method, properties**

**Object type:** BUS2005

**Method:** EditAsynchronously

**Properties:** asynchronous, with dialog

- **Standard task:** TS20000639

**Identifier:** PrO FinConf

**Name:** Production order finally confirmed

**Referenced object method, properties**

**Object type:** BUS2005

**Method:** EditAsynchronously

**Properties:** asynchronous, with dialog

- **Standard task:** TS20000640

**Identifier:** PrO TechComp

**Name:** Production order technically completed

**Referenced object method, properties**

**Object type:** BUS2005

**Method:** EditAsynchronously

**Properties:** asynchronous, with dialog

## Workflow Template

The actual business process is implemented as a workflow template, which is stored in your R/3 System.

- **Workflow Template:** 20000387

**Identifier:** ProdOrder

**Name:** Production order phases

## Process Flow

When you create a production order, the status management facility triggers the BUS2005.Created event. The workflow template TS20000387 is started as a result:

- When a production order is created, the MRP controller receives a work item for the standard task TS20000634. As soon as the production order has been released, this work item is terminated, since its terminating event is the release (BUS2005.Released). The work item is also terminated if a deletion flag has been set for the production order (BUS2005.Deleted).

Technical Implementation

- A work item for the standard task TS20000636 is created when the production order is released. The terminating events are: BUS2005.Printed, BUS2005.Deleted.
- A work item for the standard task TS20000637 is created when the shop floor papers are printed. The standard task TS20000637 has the terminating events: BUS2005.Confirmed, BUS2005.FinallyConfirmed, BUS2005.TechnicallyCompleted, BUS2005.Deleted.
- As soon as confirmation for the production order has been entered, a work item is created for the standard task TS20000638. The following terminating events are entered here: BUS2005.FinallyConfirmed, BUS2005.Deleted.
- When a production order has been finally confirmed, a work item for the standard task TS20000639 is created. The terminating events are: BUS2005.TechnicallyCompleted, BUS2005.Deleted.
- A work item for the standard task TS20000640 is created when the production order is technically completed. This work item is terminated as soon as a deletion flag is set for the production order.

The following binding is defined between the BUS2005.Created event and the WS20000387 workflow template:

Workflow container	Event parameter container
_WF_Initiator	_Evt_Creator
ProductionOrder	_Evt_Object

The following binding is defined between the workflow container and the containers of the standard tasks:

Task container	Workflow container
Production order	ProductionOrder

The standard tasks use the role 20000054 (MRP group) to determine the users who are linked to the MRP controller of the production order. If no users are linked to the MRP controller via the Organizational Management, all of the possible agents assigned to the standard tasks receive a work item.

## Preparation and Customizing

### Preparation and Customizing

In addition to the general Customizing activities that ensure that the Workflow System functions correctly, specific Customizing settings must be defined for this workflow template.

#### Maintaining Agent Assignment

You have to link the standard tasks in this scenario with their possible agents. To do so, use the Customizing activity *Production → Shop Floor Control → Workflows → Production Order Phases* or proceed as follows:

1. Choose *Tools → Business Workflow → Development → Definition Tools → Tasks/Task Groups → Display*. Enter the standard tasks TS20000634, TS20000636, TS20000637, TS20000638, TS20000639, TS20000640 here.
2. Assign the users or organizational units that are to process these tasks in your company to the standard tasks.

#### Linking MRP Controllers to the Organizational Management

If you only want the MRP controller responsible for the production order to receive a work item (instead of all the possible agents of the standard tasks), link the MRP controllers to the SAP Organizational Management. To do so, use the Customizing activity *Production → Shop Floor Control → Workflows → Production Order Phases* or proceed as follows:

1. Choose *Tools → Business Workflow → Development → Definition Tools → Organizational Management → SAP Org. Objects → Create Assignments*.
2. Enter T024D as the organizational object type.

#### Activating Event Linkage

The Created event of the object type BUS2005 is the triggering event for the workflow template WS20000387. Before the workflow template can be started, the event linkage must be activated. To do so, use the Customizing activity *Production → Shop Floor Control → Workflows → Production Order Phases* or proceed as follows:

1. Choose *Tools → Business Workflow → Development → Definition Tools → Tasks/Task Groups → Display* and enter the workflow template WS20000387.
2. Activate the event linkage.

#### Using the Status Management Facility to Ensure That Events are Created

You must make sure that the corresponding events for the object type BUS2005 are triggered when the CRTD, REL, PRT, PCNF, CNF, TECO, and DLDL statuses are set. To do so, use the Customizing activity *Production → Shop Floor Control → Workflows → Production Order Phases* or proceed as follows:

1. Choose *Tools → Business Workflow → Development → Definition Tools → Events → Event Creation → Status Management → Customer Settings*.
2. Enter the following:

StatusOT	BusinessOT	Event
ORH	BUS2005	Created

	Status restrictions	SysStatus = I0001 CRTD
ORH	BUS2005	Released
	Status restrictions	SysStatus = I0002 REL
ORH	BUS2005	Printed
	Status restrictions	SysStatus = I0007 PRT
ORH	BUS2005	Confirmed
	Status restrictions	SysStatus = I0010 PCNF
ORH	BUS2005	FinallyConfirmed
	Status restrictions	SysStatus = I0009 CNF
ORH	BUS2005	TechnicallyCompleted
	Status restrictions	SysStatus = I0045 TECO
ORH	BUS2005	Deleted
	Status restrictions	SysStatus = I0076 DLDL

**Alternative: Informing the Production Scheduler**

If you want to inform the production scheduler instead of the MRP controller, proceed as follows:

1. Copy the workflow template WS20000387.
2. In the copied template, assign the role 20000066 (production scheduler group) to the individual activities. Then adjust the binding.
3. Following this, assign the possible agents to the standard tasks and link the production schedulers (organizational object type T024F) to the Organizational Management. Activate the event linkage and ensure that the events are created via the status management facility.

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**Production Order Changes (PP-SFC)****Production Order Changes (PP-SFC)****Purpose**

SAP Business Workflow can inform an MRP controller when a production order is changed.

You can program the changes for which the MRP controller is to be informed as described below  
- in the function module exit EXIT\_SAPLCOBT\_001 (customer enhancement PPCO0001).

**Process Flow**

The MRP controller then receives a work item with which he or she can maintain the production order directly.

## Technical Implementation

### Object Types

The interface between the R/3 functionality and the Workflow System is implemented using object-oriented technology. For this reason, the information provided here is of a more technical nature. If you simply want an initial overview, you can skip the following section.

The following object types are used in this scenario:

- **BUS2005:** Production order  
 Location in the Object Repository: *Production Planning and Control → Production Orders*
- **T024D:** MRP group  
 Location in the Object Repository: *Production Planning and Control → Material Requirements Planning → Basic Data*

### Standard Tasks

The standard tasks shipped by SAP in the form of single-step tasks describe basic business activities from an organizational perspective. Each single-step task refers to an object method (technical link to an R/3 function) and is linked to the possible agents defined in the organizational structure.

- **Standard task:** TS20000623  
**Identifier:** InfDispOrder  
**Name:** Inform MRP controller about order change  
**Referenced object method, properties**  
**Object type:** BUS2005  
**Method:** Edit  
**Properties:** synchronous, with dialog

### Process Flow

You can define the changes for which the MRP controller is to be informed in the function module exit EXIT\_SAPLCOBT\_001 (customer enhancement PPCO0001). You can then start the standard task TS20000623 when these changes occur.

The following elements of the task container are important when the standard task TS20000623 is started:

Element	Description
_WI_Object_Id	Production order

**Technical Implementation**

Information	Internal table whose content is displayed in the description of the standard task;  <b>Type of table:</b> TYPES: TABLE ROW(255) TYPE C, TABLE TYPE STANDARD TABLE OF TABLE ROW.
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The standard task TS2000063 uses the role 20000054 (MRP group) to determine the users who are linked to the MRP controller of the production order. If no users are linked to the MRP controller via the Organizational Management, all of the possible agents assigned to the standard task receive a work item.



## Preparation and Customizing

In addition to the general Customizing activities that ensure that the Workflow System functions correctly, specific Customizing settings must be defined for this standard task.

### Maintaining Agent Assignment

Link the standard task TS20000623 to its possible agents. To do so, use the Customizing activity *Production → Shop Floor Control → Workflows → Production Order Changes* or proceed as follows:

1. Choose *Tools → Business Workflow → Development → Definition Tools → Tasks/Task Groups → Display* and enter the standard task TS20000623.
2. Assign the users or organizational units that are to process the task in your company to the standard task TS20000623.

### Linking MRP Controllers to the Organizational Management

If you only want the MRP controller responsible for the production order to receive a work item (instead of all the possible agents of the standard task TS20000623), link the MRP controllers to the SAP Organizational Management. To do so, use the Customizing activity *Production → Shop Floor Control → Workflows → Production Order Changes* or proceed as follows:

1. Choose *Tools → Business Workflow → Development → Definition Tools → Organizational Management → SAP Org. Objects → Create Assignments*.
2. Enter T024D as the organizational object type.

### Function Module Exit EXIT\_SAPLCOBT\_001 (Customer Enhancement PPCO0001)

To start the standard task TS20000623, you have to program and activate the function module exit EXIT\_SAPLCOBT\_001 (customer enhancement PPCO0001).

The various internal tables in the function module exit EXIT\_SAPLCOBT\_001 (customer enhancement PPCO0001) contain information on the old and new order headers, order items, and operations.

An example of how to start the standard task TS20000623 in the function module exit EXIT\_SAPLCOBT\_001 (customer enhancement PPCO0001) is provided in the include PPCOX001.

Here, the system checks whether the order quantity, planned scrap, start date, or the priority have changed. In this case, the changes are stored in the internal table LT\_INFORMATION.

The standard task TS20000623 is started via the function module SWW\_WI\_CREATE. The modified production order and the internal table LT\_INFORMATION are first written to the task container by means of the macros SWC\_SET\_ELEMENT and SWC\_SET\_TABLE.

Further information on the function module exit EXIT\_SAPLCOBT\_001 is available in Customizing under *Production → Shop Floor Control → Workflows → Production Order Changes* or *Production → Shop Floor Control → System Modifications → Enhancements in Order Maintenance → Enhancement when Saving an Order*.

### Alternative: Informing the Production Scheduler

If you want to inform the production scheduler instead of the MRP controller, proceed as follows:

**Preparation and Customizing**

1. Copy the standard task TS20000623.
2. Assign the copied task to the role 20000066 (production scheduler group) instead of 20000054 (MRP group). Then adjust the binding.
3. Following this, assign the possible agents to the copy and link the production schedulers (organizational object type T024F) to the Organizational Management. Then program and activate the function module exit EXIT\_SAPLCOBT\_001 (customer enhancement POCO001).

## Confirmation Variances (PP-SFC)

### Purpose

Confirmations provide a means of monitoring an order. In order to respond quickly to errors (for example, too much scrap), the MRP controller for a certain production order should be informed as soon as possible. This function can be implemented using SAP Business Workflow.

### Process Flow

The MRP controller receives a work item from which he or she can edit the production order, create a new production order, cancel the confirmation, or create a new confirmation.

The function module exit EXIT\_SAPLCORF\_105 (customer enhancement CONFPP05) must be programmed for this scenario (as shown below).

## Technical Implementation

# Technical Implementation

## Object Types

The interface between the R/3 functions and the Workflow System is implemented using object-oriented technology. For this reason, the information provided here is of a more technical nature. If you simply want an initial overview, you can skip the following section.

The following object types are used in this scenario:

- **BUS2116:** Confirmation  
Location in the Object Repository: *Production Planning and Control* → *Production Orders* → *Order Processing* → *Confirmations*
- **T024D:** MRP group  
Location in the Object Repository: *Production Planning and Control* → *Material Requirements Planning* → *Basic Data*

## Standard Tasks

The standard tasks shipped by SAP in the form of single-step tasks describe basic business activities from an organizational perspective. Each single-step task refers to an object method (technical link to an R/3 function) and is linked to the possible agents defined in the organizational structure.

- **Standard task:** TS20000563  
**Identifier:** MaxDiffEx  
**Name:** Maximum variance exceeded  
**Referenced object method, properties**  
**Object type:** BUS2116  
**Method:** DisplayDifference  
**Properties:** synchronous, with dialog

## Process Flow

You can define the variances of which the MRP controller is to be informed in the function exit EXIT\_SAPLCORF\_105 (customer enhancement CONFPP05). The event BUS2116.MaxDifferenceExceeded is then triggered when these variances occur.

The BUS2116.MaxDifferenceExceeded has the parameter Differences. This is an internal table that can be filled with any text (in the function module exit EXIT\_SAPLCORF\_105). This text then appears when a work item is executed for the standard task TS20000563 in order to inform the MRP controller.

Differences has the following type:

TYPES:

TABLE ROW(255) TYPE C,

TABLE TYPE STANDARD TABLE OF TABLE ROW.

Technical Implementation

The following binding is defined between the MaxDifferenceExceeded event and the standard task TS20000563:

Task container	Event parameter container
Prod. order conf.	_Evt_Object
Start date	_Evt_Creation_Date
Start time	_Evt_Creation_Time
Variances	Differences
Triggered by	_Evt_Creator
MRP controller	_Evt_Object.Order.MrpController

The standard task TS20000563 uses the role 20000054 (MRP group) to determine the users who are linked to the MRP controller of the production order. If no users are linked to the MRP controller via the Organizational Management, all of the possible agents assigned to the standard task receive a work item.

## Preparation and Customizing

### Preparation and Customizing

In addition to the general Customizing activities that ensure that the Workflow System functions correctly, specific Customizing settings must be defined for the standard task TS20000563.

### Maintaining Agent Assignment

Link the standard task TS20000563 to its possible agents. To do so, use the Customizing activity *Production → Shop Floor Control → Workflows → Variances in Confirmations* or proceed as follows:

1. Choose *Tools → Business Workflow → Development → Definition Tools → Tasks/Task Groups → Display* and enter the standard task TS20000563.
2. Assign the users or organizational units that are to process the task in your company to the standard task TS20000563.

### Linking MRP Controllers to the Organizational Management

If you only want the MRP controller responsible for the production order to receive a work item (instead of all the possible agents of the standard task TS20000623), link the MRP controllers to the SAP Organizational Management. To do so, use the Customizing activity *Production → Shop Floor Control → Workflows → Variances in Confirmations* or proceed as follows:

1. Choose *Tools → Business Workflow → Development → Definition Tools → Organizational Management → SAP Org. Objects → Create Assignments*.
2. Enter T024D as the organizational object type.

### Activating Event Linkage

The MaxDifferenceExceeded event for the object type BUS2005 is the triggering event for the standard task TS20000563. Before the standard task can be started, the event linkage must be activated. To do so, use the Customizing activity *Production → Shop Floor Control → Workflows → Variances in Confirmations* or proceed as follows:

1. Choose *Tools → Business Workflow → Development → Definition Tools → Tasks/Task Groups → Display* and enter the standard task TS20000563.
2. Activate the event linkage.

### Programming the Function Module Exit

To trigger the BUS2116.MaxDifferenceExceeded event, you must first program and activate the function module exit EXIT\_SAPLCORF\_105 (customer enhancement CONFPP05).

An example of how to program the function module exit EXIT\_SAPLCORF\_105 (customer enhancement CONFPP05) is provided in the include CORUX105.

Here, the system checks whether the confirmed quantities or deadlines differ from the planned quantities or deadlines that are to be confirmed. If this is the case, the variances are stored in the internal table LT\_DIFFERENCE.

**Alternative: Informing the Production Scheduler**

Once LT\_DIFFERENCE has been written to the event parameter container by means of the macro SWC\_SET\_TABLE, the MaxDifferenceExceeded event is triggered via the function module CO\_WF\_DIFFERENCE\_START. This has the following parameters:

Parameter	Description
I_OBJKEY	Object key
I_OBJTYPE	Object type
I_EVENT	Event

The function module does not create an event straight away. All of the events that are triggered in the function module exit EXIT\_SAPLCORF\_105 are first grouped together. The events are not generated (with a PERFORM ... ON COMMIT LEVEL 999) until the next COMMIT WORK. The function module SWE\_EVENT\_CREATE\_IN\_UPDATE is used for this purpose.

By creating events with the function module CO\_WF\_DIFFERENCE\_START, you can make sure that an event is still triggered correctly, even if the associated confirmation is currently being created and, therefore, does not yet exist (in the database) when the function module exit EXIT\_SAPLCORF\_105 (customer enhancement CONFPP05) is executed.

Further information on the function module exit EXIT\_SAPLCORF\_105 is available in Customizing under *Production → Shop Floor Control → Workflows → Variances in Confirmations* or *Production → Shop Floor Control → System Modifications → Enhancements in Order Confirmation → Customer Specific Input Checks When Saving*.

## Alternative: Informing the Production Scheduler

If you want to inform the production scheduler instead of the MRP controller, proceed as follows:

1. Copy the standard task TS20000563.
2. Assign the copied task to the role 20000066 (production scheduler group) instead of 20000054 (MRP group). Then adjust the binding.
3. Following this, assign the possible agents to the copy and link the production schedulers (organizational object type T024F) to the Organizational Management. Then program and activate the function module exit EXIT\_SAPLCORF\_105 (customer enhancement CONFPP05).

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## Operation

### Operation

When you execute a work item for the standard task TS20000563, the screen is divided into three sections.

The first section displays certain data on the production order. You can branch to the production order directly, edit it, or create a new production order.

The second section displays certain data on the confirmation. Here, you can cancel the confirmation or create a new confirmation.

The third section of the screen contains the text that you entered in the Differences parameter for the BUS2116.MaxDifferenceExceeded event.

You can stop processing the work item and continue later by clicking *Cancel*, *Back*, or *Exit*. If you choose *Complete workflow*, the workflow is terminated.