

MM - Materials Management: Workflow Scenarios



HELP.BCBMTWFMM

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Icons

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax
	Tip

Contents

MM - Materials Management: Workflow Scenarios	6
Releasing a Purchase Requisition (MM-PUR-REQ)	7
Example Scenario for a Release Procedure	9
Definition of Terms	10
Release Conditions	11
Release Strategy.....	13
Release Code.....	14
Release Prerequisites	16
Release Indicator	18
Release Procedure with Classification and Workflow (MM-PUR-REQ)	20
Technical Realization (MM-PUR-REQ)	22
Object Types (MM-PUR-REQ).....	23
Tasks: Release of Requisition (MM-PUR-REQ).....	24
Tasks: Release of Requisition Effected (MM-PUR-REQ).....	26
Tasks: Release of Requisition Refused (MM-PUR-REQ).....	27
Workflow: Release Requisition (MM-PUR-REQ).....	28
Steps in a Workflow (MM-PUR-REQ).....	30
Workflow Definition: Details (MM-PUR-REQ).....	32
Preparation and Customizing (MM-PUR-REQ)	33
Defining the Organizational Structure (MM-PUR-REQ).....	36
Performing Task-Specific Customizing (MM-PUR-REQ).....	37
Activating Event-Receiver Linkage (MM-PUR-REQ).....	38
Application-Specific Customizing (MM-PUR-REQ).....	39
Operation/Link to Appl. Functionality (MM-PUR-REQ)	40
Releasing External Purchasing Docs. (MM-PUR-GF)	41
Technical Realization (MM-PUR-GF)	42
Object Types: Release (MM-PUR-GF)	43
Tasks: Release (MM-PUR-GF).....	44
Tasks: Release Effected (MM-PUR-GF).....	47
Workflow: Release of Purchasing Documents (MM-PUR-GF)	49
Steps in a Workflow (MM-PUR-GF).....	51
Workflow Definition: Details (MM-PUR-GF).....	53
Preparation and Customizing (MM-PUR-GF)	54
Defining the Organizational Structure (MM-PUR-GF)	55
Performing Task-Specific Customizing (MM-PUR-GF)	56
Activating Event-Receiver Linkage (MM-PUR-GF)	57
Application-Specific Customizing (MM-PUR-GF)	58
Operation/Link to Appl. Functionality (MM-PUR-GF)	59
Settlement Accounting re Rebate Arrangements in Purchasing (MM-PUR-VM)	60
Technical Realization (MM-PUR-VM)	61
Object Type: BUS3030 (Rebate Arrangement, Purchasing)	62
Standard Task MMExBusVolCo (Perform Business Volume Comparison re Rebate Arrangement)	63
Standard Task: MMRebAgSettl (Perform Settlement Accounting re Rebate Arrangement)	64
Workflow Template MMRebAgSettl (Settlement Accounting re Rebate Arrangements).....	65

Preparation and Customizing (MM-PUR-VM)	67
Operation and Link to Application (MM-PUR-VM)	69
Release of Invoices Blocked for Price Reasons (MM-IV-LIV)	70
Technical Implementation (MM-IV-LIV)	72
Preparation and Customizing (MM-IV-LIV)	74
Link to the Application (MM-IV-LIV).....	75
Parking: Complete Invoices for Posting (MM-IV-LIV)	77
Technical Implementation (MM-IV-LIV)	79
Preparation and Customizing (MM-IV-LIV)	81
Link to the Application (MM-IV-LIV).....	82
Parking: Release of Invoices Completed for Posting (MM-IV-LIV).....	83
Technical Implementation (MM-IV-LIV)	85
Preparation and Customizing (MM-IV-LIV)	87
Link to the Application (MM-IV-LIV).....	88
Extending Arrangements in Purchasing (MM-PUR-VM).....	89
Technical Implementation (MM-PUR-VM)	90
Object: Volume-Rebate Arrangements in Purchasing (MM-PUR-VM)	91
Standard Task TS24500005: Extending Volume Rebate Arrangements in Purchasing (MM-PUR-VM).....	92
Preparation and Customizing (MM-PUR-VM)	93
Operation and Connection with Application Functionality (MM-PUR-VM).....	94
VMI: Creating and Acknowledging a Purchase Order From IDoc ORDRSP VMI (MM-CBP).....	95
Technical Implementation (MM-IV-CBP)	96
Preparation and Customizing (MM-PUR-CBP)	97
Operation and Link to Application (MM-CBP)	98

MM - Materials Management: Workflow Scenarios

See also:

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

Releasing a Purchase Requisition (MM-PUR-REQ)

Purpose

Release procedures for purchase requisitions (PReqs) can be used both for individual items and for all the items of a requisition (i.e. for the complete requisition). Such release procedures are necessary, for example, if the requisition exceeds a certain value and authorization is required for the relevant expenditure. It is sensible, for example, to define separate release strategies for different groups of materials for which different departments are responsible, and to define separate release strategies for capital goods and consumption goods.



The document type determines whether the release procedure applies to certain items only or to the complete requisition.

Release Procedure With/Without Classification

If a complete purchase requisition or a requisition item fulfills certain conditions (e.g. the order value exceeds \$10,000), it needs to be approved before it can be converted into a request for quotation (RFQ) or a purchase order (PO). In the SAP System, the release procedure replicates this approval process. Two procedures are available for purchase requisitions:

- Release procedure without classification

With this procedure, it is not possible to implement a link to workflow. For this reason, it will not be dealt with here. For more information, refer to the *MM Purchasing* documentation.

- Release procedure with classification

This procedure works with MM Classification, permitting a link to SAP Business Workflow.

All further information provided here is based on the release procedure with classification.

Each individual involved in the release procedure signifies approval with his or her release code using a release transaction. Once effected, a release can also be cancelled with the same code (that is to say, the original status is reinstated).

If linkage to SAP Business Workflow has been defined, refusal to release (rejection of a requisition or requisition item) is also possible.

SAP Business Workflow

The system can be set up in such a way that a person authorized to release purchase requisitions but whose daily duties primarily involve other tasks is advised via workflow when such a document is awaiting release. That is to say, this person sees a work item in his or her integrated inbox, which can be processed directly from within the inbox. When the item is processed, the release transaction is automatically invoked and the requisition item awaiting release is offered for release or refusal. The individuals who have been informed via workflow that a document is awaiting release thus need to know neither the transaction name (or menu path) nor their release code.

Releasing a Purchase Requisition (MM-PUR-REQ)



An individual workflow is started for each release step (i.e. for each release code).

IDES

A release procedure linked to workflow has been set up in the International Demonstration and Education System (IDES), which you can run through. If you wish to do so, first read the documentation on the demo system (*MM Materials Management* documentation, section *Purchase Requisition - Release Procedure with Workflow and Classification*).



Wherever possible, you will find examples for each point, based on the [Example Scenario for a Release Procedure \[Page 9\]](#).

Prerequisites

See [Preparation and Customizing \(MM-PUR-REQ\) \[Page 33\]](#)

Process Flow

See [Steps in a Release Procedure with Classification and Workflow \(MM-PUR-REQ\) \[Page 20\]](#) and [Steps in a Workflow \(MM-PUR-REQ\) \[Page 30\]](#)

Example Scenario for a Release Procedure

All the examples quoted in the following are based on this scenario:

In the Sales and Distribution Department, each employee may prepare and submit purchase requisitions for PCs. Depending on the total order value (and on certain other conditions, see [Release Conditions \[Page 11\]](#)) purchase requisitions are subject to an approval procedure as follows:

- Release strategy KF (cost center release)

Requisitions with an order value of up to \$10,000 are subject to the following procedure: First, a member of the Technical Services Department must check the configuration of the PCs. Different members of Technical Services are responsible for checking, depending on the purpose for which the PC is to be used (e.g. for scientific or administrative purposes). At this point, an alternative release is possible, i.e. only one of the staff members need release the requisition item.
After this, the Sales Manager must approve the requisition, since it is the latter's cost center that will be charged.
- Release strategy TF (technical release)

If the order value exceeds \$10,000, the release procedure is basically the same as in the case of requisitions whose total value does not exceed \$10,000. However, a member of the Executive Board is additionally required to signify approval (effect release).

Since, as a rule, Sales Managers and Executive Board members are seldom required to approve purchase requisitions, they are informed via Workflow when a requisition is awaiting release.

The users and release codes are as follows:

SAP user	Position	Release code
MILLER	Technical Services (Scientific Unit)	T1
GRITPIPE	Technical Services (Administration)	T2
SEAGOON	Sales Manager	KY
HUBBARD	Member of Executive Board	EX

Definition of Terms

Definition of Terms

In the following, the central terms used in connection with the release procedure are explained.

[Release Conditions \[Page 11\]](#)

[Release Strategy \[Page 13\]](#)

[Release Code \[Page 14\]](#)

[Release Prerequisites \[Page 16\]](#)

[Release Indicator \[Page 18\]](#)

Release Conditions

Definition

The release conditions determine the release strategy in accordance with which a complete purchase requisition or a requisition item is to be released. The conditions are formulated via characteristic values and are stored in the Purchasing Customizing facility (under the release strategy).

A prerequisite for this is that the characteristics have previously been created in the classification system. For more information on this topic, refer to [CA Characteristic \[Ext.\]istics](#) and [CA Classification System \[Ext.\]](#) and the Implementation Guide (IMG) for Purchasing.

To enable a release strategy to be assigned to it, a complete purchase requisition or a requisition item must have one of the possible values for each characteristic.



Release conditions for release strategy KF:

Characteristic	Value
Acct. assgt. cat.	Asset, cost center
Material group	001, 002
Plant	1000
Total value	up to 10,000
Purchasing group	001

Release conditions for release strategy TF:

Characteristic	Value
Acct. assgt. cat.	Asset, cost center
Material group	001, 002
Plant	1000
Total value	over 10,000
Purchasing group	001

In plant 1000, the preliminary account assignment specified for a purchase requisition item covering two PCs (material number R-1003, material group 002) is Asset no. 3221. The total value amounts to \$4,920. Purchasing group 001 is responsible for ordering this item, to which the system automatically assigns the release strategy KF.

Release Conditions



If a complete requisition or requisition item does not fulfill any of the conditions for a release strategy, it is automatically released for the issue of an RFQ or a PO.

Release Strategy

Definition

The release strategy defines the approval process for purchase requisitions. The strategy specifies the release codes with which a complete purchase requisition or a requisition item must be released (approved) and the sequence in which approvals have to be given. You can assign a maximum of eight release codes to the release strategy.

The assignment of the release strategy to a complete purchase requisition or a requisition item is based on the release conditions.



If the release strategy assignment process is carried out on an item-by-item basis, a single purchase requisition can contain items with different strategies. The individual items can thus be released separately for the issue of RFQs or POs.



Release strategies KF and TF have been defined.

Release Code

Release Code

The release code (denoting a release point) is a two-character ID allowing a person to process a requisition item. The release codes are defined in the Customizing facility of Purchasing and assigned to the release strategy. Who may work with which release codes is basically controlled via a system of authorizations (authorization object M_EINK_FRG).

The assignment of a release codes to processors (processing staff members) can additionally be defined as follows:

- Organizational
In this case, the relevant department stipulates which users will be working with which release codes.
With organizational release codes, a purchase requisition item can be released or the release cancelled.
- In Customizing
In this case, there must be a linkage with SAP Business Workflow. You must define the release codes for which Workflow is to automatically determine the responsible processor. These release codes are designated as *workflow-relevant*. A processor ID is assigned to the workflow-relevant release codes. The processor assignment can be carried out directly or indirectly:
 - Directly
The processor is a user name.
 - Indirectly
The processor ID is a job or a position, for example. At the runtime, the system then determines the responsible processing staff member.



Jobs are general work areas within an enterprise that are described by tasks (e.g. Executive Board).

Positions are to be understood as planned employees and can, for example, be held by a user. E.g. position of Sales Manager (held by user SEAGOON).

With workflow-relevant release codes, refusal is possible in addition to release and cancellation of release.

An individual release strategy can comprise both organizational and workflow-relevant release codes.



The organizational release codes T1 and T2 (Technical Services) and the workflow-relevant release codes KY (Sales Manager) and EX (Executive Board) have been defined.

Release Prerequisites

Release Prerequisites

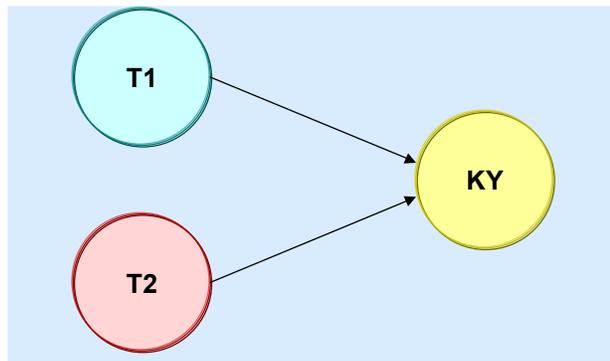
Definition

The release prerequisites indicate the sequence in which a complete purchase requisition or requisition item must be approved via the release codes. The release prerequisites are defined in Customizing for Purchasing (in the release strategy).



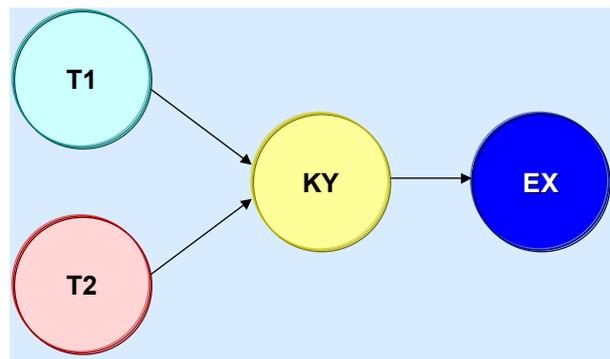
Release strategy KF (purchase orders up to \$10,000)

With the two-step release strategy KF, release by either T1 or T2 is the prerequisite for release with KY. That is to say, a member of the Technical Services staff (T1 or T2) must release the requisition item before the more senior level of Sales Manager (KY).



Release strategy TF (purchase orders above \$10,000)

Release strategy TF basically corresponds to the strategy KF. However, the requisition item must additionally be released by a member of the Executive Board (release code EX). A prerequisite for release by EX is release by the Sales Manager (release code KY).



Release Indicator

Release Indicator

When a complete requisition or a requisition item has been processed via a release code, a release indicator is assigned to it. The latter shows whether:

- The requisition can be changed by materials planning and control
- An RFQ referencing the item can be created
- A PO referencing the item can be issued
- Purchasing can change the quantity or the delivery date
- The item can be changed subsequent to the start of the release procedure

You define when the system sets which release indicator in Customizing for Purchasing under "Set Up Procedure with Classification".



Release indicators for strategy KF:

T1	T2	KY	Release indicator
-	-	-	S (blocked)
x	-	-	S (blocked)
x	-	x	2 (RFQ/PO)
-	x	-	S (blocked)
-	x	x	2 (RFQ/PO)

x = released

- = not yet released

An RFQ or a PO referencing the requisition item can be created if releases have been effected by T1 or T2 and then with KY.

Release indicators for strategy TF:

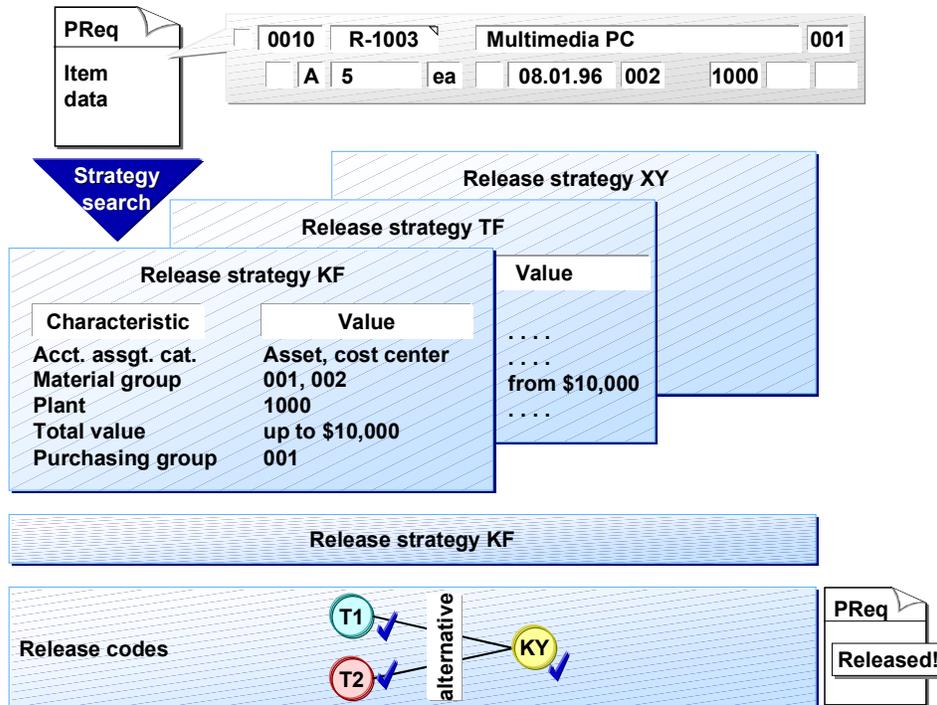
T1	T2	KY	EX	Release indicator
-	-	-	-	S (blocked)
x	-	-	-	S (blocked)
x	-	x	-	S (blocked)
x	-	x	x	2 (RFQ/PO)
-	x	-	-	S (blocked)
-	x	x	-	S (blocked)
-	x	x	x	2 (RFQ/PO)

An RFQ or a PO referencing the requisition item can be created if releases have been effected by T1 or T2 and KY and EX.

Release Procedure with Classification and Workflow (MM-PUR-REQ)

Release Procedure with Classification and Workflow (MM-PUR-REQ)

The following graphic illustrates the implementation of a release procedure with a link to workflow using the release strategy KF as an example. Since the Sales Manager is seldom required to release requisition items, his or her release code is workflow-relevant. That is to say, in such cases a work item will appear in the integrated inbox of the processor responsible for this code.



Process Flow

1. The characteristic values from the complete purchase requisition or the requisition item are passed on to Classification.
2. The system checks whether the values satisfy release conditions. If so, it assigns a release strategy (in the example, KF). The release strategy is determined independently of SAP Business Workflow.
3. The persons responsible for the release codes process the complete purchase requisition or the requisition item in the sequence prescribed by the release strategy.

In the case of strategy KF, the sequence is as follows:

Once the strategy has been assigned, the employees from the technical department (T1 and T2) see the requisition item in their worklist of requisitions requiring release. When one of these employees has effected release, the Sales Manager (KY) sees a work item in his or her SAP Business Workplace inbox. Once the Sales Manager has signified approval, an RFQ or a purchase order can be issued.

Release Procedure with Classification and Workflow (MM-PUR-REQ)

If the Sales Manager refuses to release the item, no further processing can take place and the requisition item may have to be amended.



If strategy TF is assigned, processing is basically carried out as in the case of strategy KF except that an additional work item is generated after the Sales Manager (KY) has effected release. This work item appears in the inbox of the relevant member of the Executive Board (EX).

If the Sales Manager (or afterwards the member of the Executive Board) refuses to release the item, no further processing can take place and the requisition item may have to be amended.



An individual workflow is started for each workflow-relevant release code.

Technical Realization (MM-PUR-REQ)

Technical Realization (MM-PUR-REQ)

Object Types Used

Object technology is used to create the interface between the SAP functionality and the Workflow system. The information given below is primarily of a technical nature and is not necessary for an initial overview.

[Object Types \(MM-PUR-REQ\) \[Page 23\]](#)

Tasks

The single-step tasks provided by SAP describe basic business activities from an organizational point of view. A single-step task relates to a *single* object method (= technical link to SAP functionality) in each case, and is linked to its organizationally possible processors.

[Tasks: Release of Requisition \(MM-PUR-REQ\) \[Page 24\]](#)

[Tasks: Requisition Release Effected \(MM-PUR-REQ\) \[Page 26\]](#)

[Tasks: Requisition Release Refused \(MM-PUR-REQ\) \[Page 27\]](#)

Workflow

The actual operational procedure is implemented as a workflow. You will find this workflow in your SAP System.

[Workflow: Release Purchase Requisition \(MM-PUR-REQ\) \[Page 28\]](#)

[Steps in a Workflow \(MM-PUR-REQ\) \[Page 30\]](#)

[Workflow Definition: Details \(MM-PUR-REQ\) \[Page 32\]](#)

Object Types (MM-PUR-REQ)

In this scenario, the following business application objects are processed (i.e. a purchase requisition is released or rejected using a release code).

- Purchase Requisition for Item-Wise Release
Type `BUS2009` (`PurchaseReqItem`)
- Purchase Requisition for Overall Release
Type `BUS2105` (`PurchaseRequisition`)

Location in Object Repository:

Materials management → *Purchasing*

Tasks: Release of Requisition (MM-PUR-REQ)**Tasks: Release of Requisition (MM-PUR-REQ)**

In these tasks, a purchase requisition is released or rejected using a release code.

Item-Wise Release

Task: TS00007986

Identifier: req_rel

Description: *Release of purchase requisition*

Referenced Object Method, Attributes

Object type: BUS2009 (*Purchase requisition*)

Method: SingleRelease (*individual release*)

Attributes: None

Overall Release

Task: TS20000159

Identifier: mm_req_rel_c

Description: *Overall release of purchase requisition*

Referenced Object Method, Attributes

Object type: BUS2105 (*Purchase requisition*)

Method: SingleRelease (*individual release*)

Attributes: None

Maintaining Processor Assignment

At runtime, these tasks are addressed to the processor(s) (processing staff member(s)) to whom the release code has been assigned via a role resolution. You must make the following settings in Customizing for this:

- In **Task-Specific Customizing for SAP Business Workflow** you must list all organization management objects that are generally permitted to work with workflow-relevant release codes (e.g. jobs or positions). Prior to this, the organizational plan (defining the organizational structure) must be finalized.



User HUBBARD holds the position *Member of Executive Board*, and user SEAGOON the position *Sales Manager*.

- By assigning a release code to a processor in **Customizing for Purchasing**, you specify who in concrete terms may process a document (i.e. effect releases) using this code. Take care that this assignment is compatible with the processor assignment in Task-Specific Customizing. If you enter a user, for example, the latter must also be the holder of a position in Task-Specific Customizing. If you enter a position, precisely this position must also be defined in Task-Specific Customizing and have users assigned to it.

Tasks: Release of Requisition (MM-PUR-REQ)



Release codes EX (Executive Board) and KY (Sales Manager) are assigned to the object type *User* and have the processor IDs HUBBARD and SEAGOON assigned to them respectively.

It is also necessary for the release codes to be marked as “relevant to Workflow”.

See also [Preparation and Customizing \(MM-PUR-REQ\) \[Page 33\]](#)

Determining the Processor

In determining the processor (the person who is to process the document), the system searches the Purchasing Customizing facility for the processor ID for a release code. This is achieved via role resolution.

For this purpose, the following roles are defined for the relevant task:

- Item-Wise Release
 Role 00000148 (*Person responsible for requisition release*)
- Overall Release
 Role 20000026 (*Person responsible for requisition release*)

Input for the role comprises the release code and the purchase requisition. These were passed on to the role container from the task container.

Role Container		Task container
<code>requisition</code>	<-	<code>_WI_OBJECT_ID</code>
<code>ReleaseCode</code>	<-	<code>ReleaseCode</code>

Then, using this data, the Customizing settings for Purchasing containing the linkage between release code and processor ID are read. After this, the system checks whether these settings agree with those of Task-Specific Customizing. If they do not, the workflow terminates and the system administrator responsible for workflow is informed by mail accordingly.



In the Customizing facility for Purchasing, user SEAGOON is assigned to the workflow-relevant release code KY as processor. In addition, in Task-Specific Customizing, SEAGOON is assigned to the position *Technical Services*.

Terminating Events

The tasks for releasing complete purchase requisitions or requisition items are terminated by the events *Release refused*, *Release effected*, or *Requisition significantly changed*.

See also:

[Steps in a Workflow \(MM-PUR-REQ\) \[Page 30\]](#)

Tasks: Release of Requisition Effected (MM-PUR-REQ)

Tasks: Release of Requisition Effected (MM-PUR-REQ)

Via these tasks, the creator of the purchase requisition is informed that release has been effected (approval has been signified). He or she receives this information via the text of the work item representing the task. The creator processes the work item and thus concludes it. There is no further functionality besides this conclusion of the work item.

Item-Wise Release

Task: TS00008018

Identifier: req_rel_ok

Description: *Requisition release effected.*

Referenced Object Method, Attributes

Object type: BUS2009 (*Purchase requisition*)

Method: InfoReleaseEffected (*Info: release effected*)

Attributes: None

Overall Release

Task: TS20000162

Identifier: mm_req_ok_c

Description: *Requisition release effected.*

Referenced Object Method, Attributes

Object type: BUS2105 (*Purchase requisition*)

Method: InfoReleaseEffected (*Info: release effected*)

Attributes: None

Maintaining Processor Assignment

These tasks should be classified as general tasks. General tasks do not have to be assigned to a processor because anyone may execute them. The processor (= creator of the purchase requisition) is determined from the context of the workflow.

Tasks: Release of Requisition Refused (MM-PUR-REQ)

Via these tasks, the creator of the purchase requisition is informed that release has been refused. He or she receives this information via the text of the work item representing the task. When the creator carries out the work item, he or she can change the rejected requisition.

Item-Wise Release

Task: TS00008014

Identifier: req_rel_rej

Description: *Requisition release refused.*

Referenced Object Method, Attributes

Object type: BUS2009 (*Purchase requisition*)

Method: InfoReleaseRejected (*Info: release refused*)

Attributes: None

Overall Release

Task: TS20000161

Identifier: mm_req_rej_c

Description: *Requisition release refused.*

Referenced Object Method, Attributes

Object type: BUS2105 (*Purchase requisition*)

Method: InfoReleaseRejected (*Info: release refused*)

Attributes: None

Maintaining Processor Assignment

These tasks should be classified as general tasks. General tasks do not have to be assigned to a processor because anyone may execute them. The processor (= creator of the purchase requisition) is determined from the context of the workflow.

Workflow: Release Requisition (MM-PUR-REQ)**Workflow: Release Requisition (MM-PUR-REQ)**

If the system recognizes that the release code with which a user must next signify approval in accordance with the release strategy is workflow-relevant, a workflow is started. An individual workflow is started for each workflow-relevant release code. A central task of workflow control is to determine the processor (several may be involved) to whom this release code has been assigned.

**When are workflows started in the case of release strategy KF?**

When user MILLER, or alternatively user GRITPIPE (both Technical Services), have released a requisition item with their non-workflow-relevant release codes T1/T2, the requisition item must then be processed with release code KY. Since KY is workflow-relevant, a workflow is started. The system recognizes that release code KY has been assigned to user SEAGOON (Sales Manager) and creates a work item for the latter.

When are workflows started in the case of release strategy TF?

A workflow is started as under release strategy KF. When user SEAGOON releases the requisition item, a further workflow is started and a workflow item appears in the inbox of user HUBBARD (Executive Board).

Item-Wise Release

Workflow: 00000038

Identifier: wf_req_rel

Description: *Workflow for requisition release*

Overall Release

Workflow: 20000077

Identifier: wf_req_rel_c

Description: *Workflow for overall release of requisition*

Triggering Event for Workflow

The event `ReleaseStepCreated` has been entered as the trigger for the workflow for the relevant object type.



This “linkage” between the event and the workflow to be triggered is deactivated in the standard system and must first be activated in Customizing for SAP Business Workflow if the workflow is actually to be started.

Workflow Container and Data Flow

The most important information that must be available within the course of the workflow comprises the reference to the purchase requisition to be processed (`_EVT_Object`) and the release code (`ReleaseCode`), as well as the name of the person who created the purchase

Workflow: Release Requisition (MM-PUR-REQ)

requisition (`_EVT_Creator`). The information is available as an event parameter in the container of the triggering event and must be passed on from there to the workflow container via data flow.

Therefore, the following data flow definition between the triggering event and the workflow container is defined in the standard system:

Workflow container		Event container
<code>_WF_Initiator</code>	<code><-</code>	<code>_Evt_Creator</code>
<code>requisition</code>	<code><-</code>	<code>_Evt_Object</code>
<code>ReleaseCode</code>	<code><-</code>	<code>ReleaseCode</code>

In the standard system, the element `_WF_Initiator` exists in the workflow container. The elements `requisition` and `ReleaseCode` have been created in addition to the standard elements that exist.

Steps in a Workflow (MM-PUR-REQ)

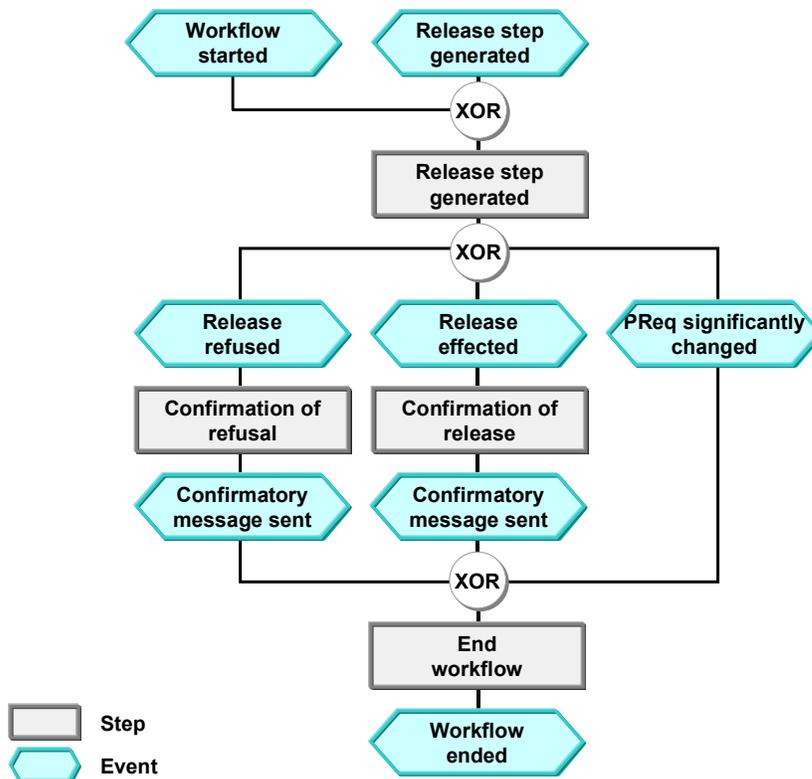
Steps in a Workflow (MM-PUR-REQ)

If the release code with which the complete purchase requisition or the requisition item is to be processed according to the release strategy is workflow-relevant, a workflow is started and a release work item generated. If a user whom workflow control identifies as being responsible for this release code logs on to the system, this user will see this work item in his or her SAP Business Workplace inbox.

If, for example, a job is assigned to the release code as a processor ID and several users are allowed to work with this release code, all of these users will see the same work item in their inboxes.

An **individual workflow** is started for **each** workflow-relevant **code**.

The steps in a workflow are as follows:



The processing of the work item results in one of the events *Release refused* or *Release effected*. These events terminate the task *Release requisition*. The entire workflow is ended when the creator of the purchase requisition receives a confirmation via a work item and has processed this work item.



The terminating event *Requisition significantly changed* can also occur outside the workflow process.

Changes After the Start of the Release Procedure



Changes to a purchase requisition can only be made if no other user is currently processing the requisition and the requisition has not yet been converted into a purchase order or RFQ.

In the following, we discuss what happens when a purchase requisition for which the release procedure has already commenced is changed. The following possible situations may arise:

- Changes that do not necessitate a different release strategy
- Significant changes necessitating a different release strategy

Since the first case does not necessitate another release strategy, it will not be discussed further here. For more information, refer to [Changes After the Start of the Release Procedure \[Ext.\]](#).



Significant change

The number of PCs requested for Asset 3221 is increased to 5. As a result, the total value of the requisition item increases to \$12,300. It is not possible to simply go ahead and make this change. The system issues a message; the release strategy must be re-determined (TF) and the release procedure restarted from the beginning.

If the change is significant, the right-hand path in the graphic would thus be taken, and the workflow terminated due to the occurrence of an event external to the workflow process. This has the following consequences:

- If the requisition has already been released for the issue of an RFQ or a PO, it is blocked again by the application and must be processed in accordance with the new release strategy.
- If a work item was generated, it is no longer visible in the processor's SAP Business Workplace inbox.

Workflow Definition: Details (MM-PUR-REQ)

Workflow Definition: Details (MM-PUR-REQ)

The following details are of interest in connection with the definition for the workflow for releasing (approving) purchase requisitions. Look at the definition in the system.

Data Flow

The following data flow is defined for each of the steps *Release requisition*, *Confirmation of refusal* and *Confirmation of release*:

Task container		Workflow container
<code>_WI_Object_ID</code>		<code><- requisition</code>
<code>ReleaseCode</code>	<code><-</code>	<code>ReleaseCode</code>

The elements `Requisition` and `ReleaseCode` have been created in the workflow container in addition to the elements available in the standard system and are supplied from the triggering event.

Determining the Processor

The processor determination facility is stored in the tasks (*Release of Purchase Requisition*) and not in the workflow definition.

See [Tasks: Release of Requisition \(MM-PUR-REQ\) \[Page 24\]](#)

Result of Processing and Termination of Workflow

Once the user has processed the complete purchase requisition or requisition item using his or her release code, one of two results is possible: either the requisition or requisition item has been released or release has been refused. This status information is placed in the SAP Business Workplace inbox of the requisition creator (`_WF_Initiator`) as a work item. When this work item has been processed, the workflow is terminated.



The terminating event *Requisition significantly changed* can also occur outside the workflow process.

Preparation and Customizing (MM-PUR-REQ)

Release Procedure with Classification

Requisition release with a link to SAP Business Workflow can only be carried out using the release procedure with classification. For this, all characteristics that are used in the release conditions (e.g. plant, purchasing group, account assignment category etc.) must be defined in the classification system.

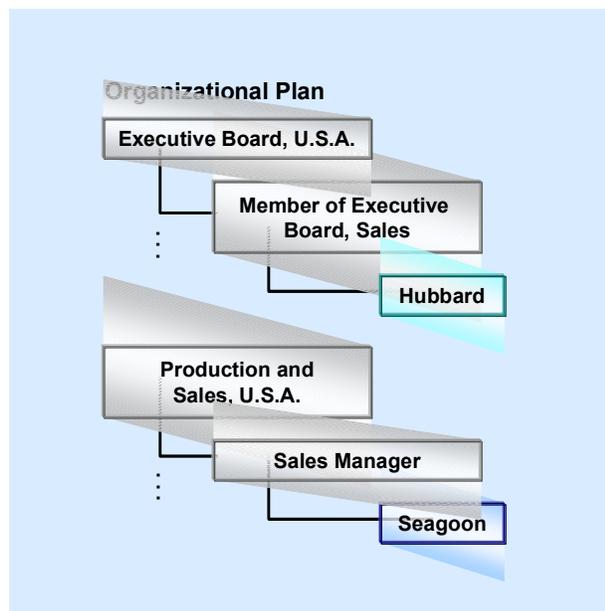
Information on classification is available in the documentation CA [Characteristics \[Ext.\]](#) and CA [Classification System \[Ext.\]](#) and in the Implementation Guide (IMG) for Purchasing.

Customizing the Workflow

Several other specific customizing steps are necessary for this workflow in addition to the general customizing that is necessary to make sure that the workflow system functions properly.

The following graphics give an overview of the settings that have to be maintained in Customizing.

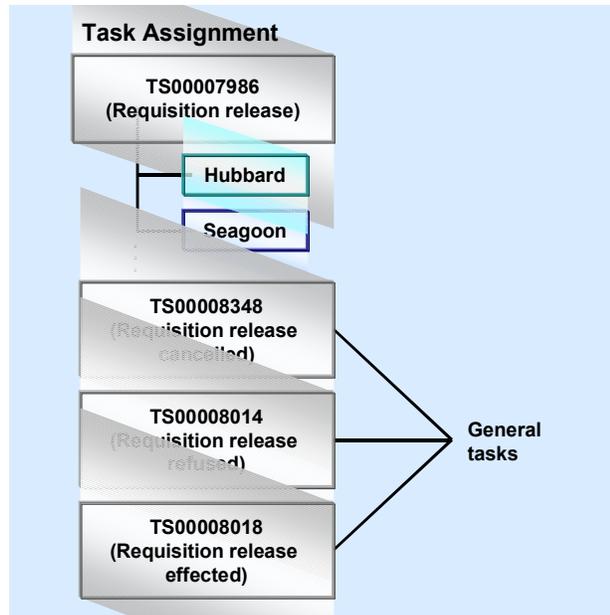
- **Customizing of SAP Business Workflow**
 - You can replicate your enterprise structure in the SAP System using the organizational plan. You create this structure in Customizing with elements such as organizational units (e.g. Executive Board, U.S.A) and positions (e.g. Board Member, Sales), and assign position holders (e.g. Hubbard) to these positions. In this way, you define the possible release points in the system.



- SAP supplies predefined tasks (e.g. TS 00007986: Release of Purchase Requisition). You must assign possible processors to these tasks. You can assign these tasks to a

Preparation and Customizing (MM-PUR-REQ)

release point (position or user) or allow every employee to perform them by defining them as “general tasks”.



- **Customizing for Purchasing**

You must maintain the following settings in Customizing for Purchasing:

- Specify whether each release code is relevant to workflow
- Assign a release point to workflow-relevant release codes

Preparation and Customizing (MM-PUR-REQ)

Release Codes		
Code		Workflow
T1	(Techn. Services, Scientific Unit)	no
T2	(Techn. Services, Admin.)	no
KY	(Sales Manager)	yes
EX	(Member of Executive Board)	yes
.	.	.
.	.	.
Workflow		
Code	Type	Processor ID
KY	US	Seagoon
EX	US	Hubbard
.	.	.
.	.	.

Here SAP provides the user exit M06B0001.

Customizing of SAP Business Workflow

[Defining the Organizational Structure \(MM-PUR-REQ\) \[Page 36\]](#)

[Performing Task-Specific Customizing \(MM-PUR-REQ\) \[Page 37\]](#)

[Activating Event-Receiver Linkage \(MM-PUR-REQ\) \[Page 38\]](#)

Application-Specific Customizing

[Performing Application-Specific Customizing \(MM-PUR-REQ\) \[Page 39\]](#)

Defining the Organizational Structure (MM-PUR-REQ)

Defining the Organizational Structure (MM-PUR-REQ)

A purchase requisition can be released by various users, who must all be identified in Customizing for SAP Business Workflow. They can also be assigned to various organizational units. Organizational units are a means of subdividing an enterprise according to various business criteria (for example, most enterprises are made up of different departments).



The following organizational units, positions, and holders of the positions have been defined.

<u>Org. unit</u>	<u>Position</u>	<u>Position holder</u>
Production and Sales, USA	Sales manager	SEAGOON
Executive Board, USA	Board member	HUBBARD

Define your organizational structure via the Customizing activity (*Basis Components* → *Business-Management* → *SAP Business Workflow*) → *Edit Organizational Plan*.

Performing Task-Specific Customizing (MM-PUR-REQ)

Here you list all organization management objects that are generally allowed to effect releases with workflow-relevant release codes (e.g. jobs or positions) and classify the general tasks.



The task `TS00007986` (*Release Purchase Requisition*) is linked with the positions *Sales Manager* and *Board Member*.

The tasks `TS00008014` (*Release of Requisition Refused*) and `TS00008018` (*Requisition Release Effected*) are classified as general tasks.

Procedure

1. Perform the customizing activity (*Basis* → *Business Management* → *SAP Business Workflow* → *Perform Task-Specific Customizing*).
2. Then, under *Materials Management* → *Purchasing*, choose the activity *Assign Tasks to Agent (Processor)*.
3. Assign the tasks *Release Purchase Requisition* to the processors (“agents”) who release requisitions via workflow in your enterprise (via *Agent Assignment* → *Create*).
4. Classify the tasks *Requisition Release Refused*, and *Requisition Release Effected* as general tasks via *Edit* → *Attributes*.

Activating Event-Receiver Linkage (MM-PUR-REQ)

Activating Event-Receiver Linkage (MM-PUR-REQ)

The event `ReleaseStepCreated` for the relevant object types is the triggering event for the workflow and is entered in the event linkage table as such in the standard system. For the workflow to actually be started, the linkage between the triggering event and the workflow as receiver of the event must be activated in Customizing for SAP Business Workflow.

Procedure

1. Perform the customizing activity (*Basis → Business Management → SAP Business Workflow → Perform Task-Specific Customizing*).
2. Activate event linkage for the workflow (*Materials Management → Purchasing → Purchase Requisitions → Activate Event Linkage*).

(Alternatively, you can activate event-receiver linkage by processing the workflow directly.)

Application-Specific Customizing (MM-PUR-REQ)

In Customizing for Purchasing, you define:

- Which release codes are relevant to workflow
- Who may effect release with which code. This assignment is plant-dependent. You have the option of defining either a direct or an indirect user assignment:
 - Direct
You enter a user name directly.
 - Indirect
You enter a job or a position, for example. At runtime, the system then determines the processing staff member responsible.

Take care to ensure that this assignment is compatible with the processor assignment in Task-Specific Customizing for SAP Business Workflow. If, you enter a user, for example, the latter must also be the holder of a position in Task-Specific Customizing. If you enter a position, precisely this position must also be defined in Task-Specific Customizing and have users assigned to it.



You can implement an enhancement (user exit M06B0001) for a release code if you wish to have a different role resolution than the one defined in the standard system.



- The release codes EX and KY are workflow-relevant.
- Release codes EX (Executive Board) and KY (Sales Manager) are assigned to the object type *User* and have the processor IDs HUBBARD and SEAGOON assigned to them respectively.

You make these settings via the Customizing activity (*Purchasing* → *Purchase Requisition* → *Release Procedure* →) *Procedure with Classification*. For more detailed information, refer to the Implementation Guide (IMG).

Operation/Link to Appl. Functionality (MM-PUR-REQ)

Operation/Link to Appl. Functionality (MM-PUR-REQ)

The following description is based on the assumption that a purchase requisition is created that is subject to the release strategy KF.

Create Purchase Requisition

A user creates a purchase requisition via *Logistics → Materials management → Purchasing → Requisition → Create*. This requisition fulfills the conditions of release strategy KF. Saving results in the creation of an object of the type *Purchase requisition*.

Working Through the Release Strategy T1

The requisition item must be released via the release codes T1 or T2 and then with KY.

The users who effect release with release codes T1 or T2 can process the requisition item via *Logistics → Materials management → Purchasing → Purchase requisition → Release → Individual release*, for example.

Generate event

The workflow-triggering event **ReleaseStepCreated** is created automatically once release has been effected with release code T1 or T2.

In the event parameter container, you will find the user name of the requisition creator (in the element **_EVT_Creator**), the reference to the purchase requisition (in the element **_EVT_Object**) and the release code KY (in the element **ReleaseCode**).

Release requisition item

The user to whom release code KY and the position *Sales Manager* has been assigned (SEAGOON), finds a work item representing the standard task *Release purchase requisition* in his SAP Business Workplace inbox. Processing this work item makes possible the release or refusal of the requisition item.

You can access the SAP Business Workplace via *Menu → Business Workplace*.

Releasing External Purchasing Docs. (MM-PUR-GF)

Purpose

Release procedures are necessary, for example, if an external purchasing document exceeds a certain value and is subject to approval by a person's superiors. It is advisable to define different release strategies for certain order types, purchasing organizations, or purchasing groups.

Each individual involved in the release procedure signifies approval with his or her release code using a release transaction. Once effected, a release can also be cancelled with the same code (that is to say, the original status is reinstated).

The system can be set up in such a way that a person authorized to release purchase requisitions but whose daily duties primarily involve other tasks is advised via workflow when such a document is awaiting release. That is to say, this person sees a work item in his or her SAP Business Workplace inbox, which can be processed directly from within the inbox. When the item is processed, the release transaction is automatically invoked and the document awaiting approval is offered for release. The individuals who have been informed via workflow that a document is awaiting release thus need to know neither the transaction name (or menu path) nor their release code.



An individual workflow is started for each release step (i.e. for each release code).

Prerequisites

See [Preparation and Customizing \(MM-PUR-GF\) \[Page 54\]](#)

Process Flow

See [Steps in a Workflow \(MM-PUR-GF\) \[Page 51\]](#)

See also:

For more detailed information on the release procedure and an example, see [Releasing a Purchase Requisition \(MM-PUR-REQ\) \[Page 7\]](#).

Technical Realization (MM-PUR-GF)

Technical Realization (MM-PUR-GF)

Object Types Used

Object technology is used to create the interface between the SAP functionality and the Workflow system. The information given below is primarily of a technical nature and is not necessary for an initial overview.

[Object Types: Release \(MM-PUR-GF\) \[Page 43\]](#)

Tasks

The tasks provided by SAP as single-step tasks describe basic business activities from an organizational point of view. A single-step task relates to a *single* object method (= technical link to SAP functionality) in each case, and is linked to its organizationally possible processors.

[Tasks: Release \(MM-PUR-GF\) \[Page 44\]](#)

[Tasks: Release Effected \(MM-PUR-GF\) \[Page 47\]](#)

Workflow

The actual operational procedure is implemented as a workflow. You will find this workflow in your SAP System.

[Workflow: Release of Purchasing Documents \(MM-PUR-GF\) \[Page 49\]](#)

Object Types: Release (MM-PUR-GF)

In this scenario, the following business application objects are processed (i.e. a purchasing document is released using a release code).

- Request for Quotation (RFQ)
Type **BUS2010** (VendorQuotationReqst)
- Purchase Order (PO)
Type **BUS2012** (PurchaseOrder)
- Scheduling Agreement
Type **BUS2013** (PurchSchedAgreement)
- Contract
Type **BUS2014** (Purchasing Contract)

Location in Object Repository:

Materials management → Purchasing

Tasks: Release (MM-PUR-GF)

Tasks: Release (MM-PUR-GF)

In these tasks, a purchasing document is released with a release code.

Request for Quotation (RFQ)

Task: TS20000175

Identifier: mm_qr_rel

Description: *Release of RFQ*

Referenced Object Method, Attributes

Object type: BUS2010 (RFQ)

Method: SingleRelease (*individual release*)

Attributes: None

Purchase Order (PO)

Task: TS20000166

Identifier: mm_po_rel

Description: *Release of PO*

Referenced Object Method, Attributes

Object type: BUS2012 (PO)

Method: SingleRelease (*individual release*)

Attributes: None

Scheduling Agreement

Task: TS20000169

Identifier: mm_pa_rel

Description: *Release of scheduling agreement*

Referenced Object Method, Attributes

Object type: BUS2013 (*Scheduling agreement*)

Method: SingleRelease (*individual release*)

Attributes: None

Contract

Task: TS20000172

Identifier: mm_pc_rel

Description: *Release of contract*

Referenced Object Method, Attributes

Object type: BUS2014 (*Contract*)

Method: SingleRelease (*individual release*)

Attributes: None

Maintaining Processor Assignment

At runtime, the relevant task is addressed to the processor(s) (processing staff member(s)) to whom the release code has been assigned via a role resolution. You must make the following settings in Customizing for this:

- In **Task-Specific Customizing for SAP Business Workflow** you must list all organization management objects that are generally permitted to work with workflow-relevant release codes (e.g. jobs or positions).
Prior to this, the organizational plan (defining the organizational structure) must be finalized.
- By assigning a release code to a processor in **Customizing for Purchasing**, you specify who in concrete terms may process a document (i.e. effect releases) using this code. Take care that this assignment is compatible with the processor assignment in Task-Specific Customizing. If you enter a user, for example, the latter must also be the holder of a position in Task-Specific Customizing. If you enter a position, precisely this position must also be defined in Task-Specific Customizing and have users assigned to it.

It is also necessary for the release codes to be marked as “relevant to Workflow”.

See also:

[Preparation and Customizing \(MM-PUR-GF\) \[Page 54\]](#)

Determining the Processor

In determining the processor (the person who is to process the document), the system searches the Purchasing Customizing facility for the processor ID for a release code. This is achieved via role resolution.

For this purpose, the following roles are defined for the relevant task:

- Request for Quotation (RFQ)
Role 20000030 (*Person responsible for releasing RFQ*)
- Purchase Order (PO)
Role 20000027 (*Person responsible for releasing PO*)
- Scheduling Agreement
Role 20000028 (*Person responsible for releasing scheduling agreement*)
- Contract
Role 20000029 (*Person responsible for releasing contract*)

Input for the role comprises the release code and the relevant document. These were passed on to the role container from the task container.

Role Container

Task container

Tasks: Release (MM-PUR-GF)

```
<Document>                                     <-
      _WI_OBJECT_ID
ReleaseCode                                     <-      ReleaseCode
```

Then, using this data, the Customizing settings for Purchasing containing the linkage between release code and processor ID are read. After this, the system checks whether these settings agree with those of Task-Specific Customizing. If they do not, the workflow terminates and the system administrator responsible for workflow is informed by mail accordingly.

Terminating Events

The standard task *Release <Document>* is terminated by the events *Release effected*, or *<Document> significantly changed*.

See also:

[Steps in a Workflow \(MM-PUR-GF\) \[Page 51\]](#)

Tasks: Release Effected (MM-PUR-GF)

Via these tasks, the creator of the document is informed that release has been effected (approval has been signified). He or she receives this information via the text of the work item representing the task. The creator processes the work item and thus concludes it. There is no further functionality besides this conclusion of the work item.

Request for Quotation (RFQ)

Task: TS20000177

Identifier: mm_qr_ok

Description: *Release of RFQ effected*

Referenced Object Method, Attributes

Object type: BUS2010 (RFQ)

Method: InfoReleaseEffected (*Info: release effected*)

Attributes: None

Purchase Order (PO)

Task: TS20000168

Identifier: mm_po_ok

Description: *Release of PO effected*

Referenced Object Method, Attributes

Object type: BUS2012 (PO)

Method: InfoReleaseEffected (*Info: release effected*)

Attributes: None

Scheduling Agreement

Task: TS20000171

Identifier: mm_pa_ok

Description: *Release of scheduling agreement effected*

Referenced Object Method, Attributes

Object type: BUS2013 (Scheduling agreement)

Method: InfoReleaseEffected (*Info: release effected*)

Attributes: None

Contract

Task: TS20000174

Identifier: mm_pc_ok

Tasks: Release Effected (MM-PUR-GF)

Description: *Release of contract effected*

Referenced Object Method, Attributes

Object type: BUS2014 (*Contract*)

Method: InfoReleaseEffected (*Info: release effected*)

Attributes: *None*

Maintaining Processor Assignment

These tasks should be classified as general tasks. General tasks do not have to be assigned to a processor because anyone may execute them. The processor (= creator of the document) is determined from the context of the workflow.

Workflow: Release of Purchasing Documents (MM-PUR-GF)

If the system recognizes that the release code with which a user must next signify approval in accordance with the release strategy is workflow-relevant, a workflow is started. An individual workflow is started for each workflow-relevant release code. A central task of workflow control is to determine the processor (several may be involved) to whom this release code has been assigned.

Request for Quotation (RFQ)

Workflow: 20000080

Identifier: wf_qr_rel

Description: *Workflow for release of RFQ*

Purchase Order (PO)

Workflow: 20000075

Identifier: wf_po_rel

Description: *Workflow for release of purchase order*

Scheduling Agreement

Workflow: 20000078

Identifier: wf_pa_rel

Description: *Workflow for release of scheduling agreement*

Contract

Workflow: 20000079

Identifier: wf_pc_rel

Description: *Workflow for release of contract*

Triggering Event for Workflow

The event `ReleaseStepCreated` has been entered as the trigger for the workflow for the relevant object type.



This "linkage" between the event and the workflow to be triggered is deactivated in the standard system and must first be activated in Customizing for SAP Business Workflow if the workflow is actually to be started.

Workflow Container and Data Flow

The most important information that must be available within the course of the workflow comprises the object reference to the document to be processed (`_EVT_Object`) and the release code (`ReleaseCode`), as well as the name of the person who created the document

Workflow: Release of Purchasing Documents (MM-PUR-GF)

(`_EVT_Creator`). The information is available as an event parameter in the container of the triggering event and must be passed on from there to the workflow container via data flow.

Therefore, the following data flow definition between the triggering event and the workflow container is defined in the standard system:

Workflow container		Event container
<code>Initiator</code>	<code><-</code>	<code>_Evt_Creator</code>
<code><Document></code>		<code><-</code> <code>_Evt_Object</code>
<code>Release code</code>	<code><-</code>	<code>ReleaseCode</code>

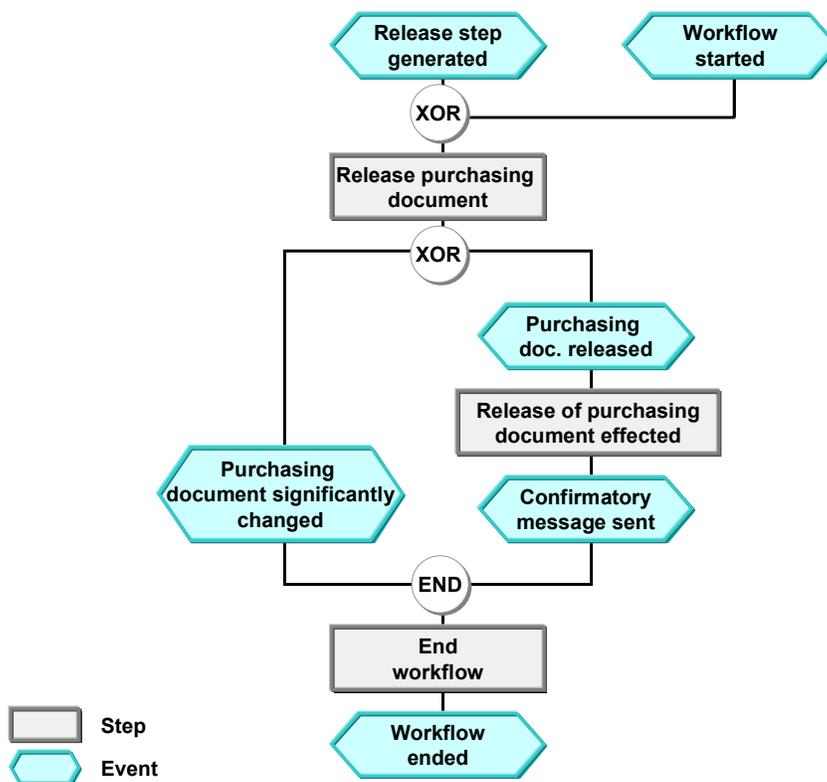
In the standard system, the element `Initiator` exists in the workflow container. The elements `<Document>` and `ReleaseCode` have been created in addition to the standard elements that exist.

Steps in a Workflow (MM-PUR-GF)

If the release code with which the document is to be processed according to the release strategy is workflow-relevant, a workflow is started and a release work item generated. If a user whom workflow control identifies as being responsible for this release code logs on to the system, this user will see this work item in his or her SAP Business Workplace inbox. If, for example, a job is assigned to the release code as a processor ID and several users are allowed to work with this release code, all of these users will see the same work item in their inboxes.

An **individual workflow** is started for **each** workflow-relevant **code**.

The steps in a workflow are as follows:



The processing of the work item results in the event *Release effected*. This event terminates the task *Release <document>*. The entire workflow is ended when the person who created the document receives a confirmation per work item and has processed this work item.



The terminating event *<Document> significantly changed* can also occur outside the workflow process.

Steps in a Workflow (MM-PUR-GF)**Changes After the Start of the Release Procedure**

Changes can only be made to a document if no other user is currently processing the document and no follow-on document has yet been generated (such as an RFQ from a purchase requisition, or a PO from an RFQ).

In the following, we discuss what happens when a document for which the release procedure has already commenced is changed. The following possible situations may arise:

- Changes that do not necessitate a different release strategy
- Significant changes necessitating a different release strategy

Since the first case does not necessitate another release strategy, it will not be discussed further here. For more information, refer to [Changes After the Start of the Release Procedure \[Ext.\]](#).

If the change is significant, the right-hand path in the graphic would thus be taken, and the workflow terminated due to the occurrence of an event external to the workflow process. This has the following consequences:

- If the document has already been released for follow-on processing, it is blocked again by the application and must be processed in accordance with the new release strategy.
- If a work item was generated, it is no longer visible in the processor's SAP Business Workplace inbox.

Workflow Definition: Details (MM-PUR-GF)

The following details are of interest in connection with the workflow definition. Look at the definition in the system.

Data Flow

The following data flow is defined for each of the steps *Release <Document>*, *Confirmation of cancellation*, and *Confirmation of release*:

Task container		Workflow container
<code>_WI_Object_ID</code>	<-	<code><Document></code>
<code>ReleaseCode</code>	<-	<code>ReleaseCode</code>

The elements `<Document>` and `ReleaseCode` have been created in the workflow container in addition to the elements available in the standard system and are supplied from the triggering event.

Determining the Processor

The processor determination facility is stored in the tasks *Release <document>* and not in the workflow definition.

[Tasks: Release \(MM-PUR-GF\) \[Page 44\]](#)

Result of Processing and Termination of Workflow

Once the user has processed the document using his or her release code, the document counts as “released”. This status information is placed in the SAP Business Workplace inbox of the document creator (*Initiator*) as a work item. When this work item has been processed, the workflow is terminated.



The terminating event *<Document> significantly changed* can also occur outside the workflow process.

Preparation and Customizing (MM-PUR-GF)

Preparation and Customizing (MM-PUR-GF)

Use

Several other specific customizing steps are necessary for this workflow template in addition to the general customizing that is necessary to make sure that the workflow system functions properly.

Classification

Document release (approval) using SAP Business Workflow necessitates a link to the classification system, that is to say all characteristics used in the release conditions (such as plant, purchasing group, account assignment category etc.) must be made known to classification.

Detailed information is available in the document CA [Characteristics \[Ext.\]](#) and CA [Classification System \[Ext.\]](#) and in the Implementation Guide (IMG) for Purchasing.

Customizing of SAP Business Workflow

[Defining the Organizational Structure \(MM-PUR-GF\) \[Page 55\]](#)

[Performing Task-Specific Customizing \(MM-PUR-GF\) \[Page 56\]](#)

[Activating Event-Receiver Linkage \(MM-PUR-GF\) \[Page 57\]](#)

Application-Specific Customizing

[Performing Application-Specific Customizing \(MM-PUR-GF\) \[Page 58\]](#)

Defining the Organizational Structure (MM-PUR-GF)

Various users are able to release documents. These users must be identified in Customizing for SAP Business Workflow. They can also be assigned to various organizational units.

Organizational units are a means of subdividing an enterprise according to various business criteria (for example, most enterprises are made up of different departments).

Set up your organizational structure as follows:

Perform the customizing activity (*Basis Components* → *Business Management* → *SAP Business Workflow*) → *Edit Organizational Plan*.

Performing Task-Specific Customizing (MM-PUR-GF)

Performing Task-Specific Customizing (MM-PUR-GF)

Here you list all organization management objects that are generally allowed to effect releases with workflow-relevant release codes (e.g. jobs or positions) and classify the general tasks.

Procedure

1. Perform the customizing activity (*Basis → Business Management → SAP Business Workflow → Perform Task-Specific Customizing*).
2. Then, under *Materials Management → Purchasing*, choose the activity *Assign Tasks to Agent (Processor)*.
3. Assign the task *Release <Document>* to the processors (“agents”) who effect release via workflow in your enterprise.
4. Classify the task *<Document> Release Effected* as a general task.

Activating Event-Receiver Linkage (MM-PUR-GF)

The event `ReleaseStepCreated` for the relevant object types is the triggering event for the associated workflow and is entered in the event linkage table as such in the standard system. For the workflow to actually be started, the linkage between the triggering event and the workflow as receiver of the event must be activated in Customizing for SAP Business Workflow.

Procedure

1. Perform the customizing activity (*Basis → Business Management → SAP Business Workflow → Perform Task-Specific Customizing*).
2. Activate event linkage for the workflow template *Workflow for Release <Document>* (*Materials Management → Purchasing → Activate Event Linkage*).

(Alternatively, you can activate event-receiver linkage by processing the workflow directly.)

Application-Specific Customizing (MM-PUR-GF)

Application-Specific Customizing (MM-PUR-GF)

In Customizing for Purchasing, you define:

- Which release codes are relevant to workflow
- Who may effect release with which code. This assignment is plant-dependent. You have the option of defining either a direct or an indirect user assignment:
 - Direct
You enter a user name directly.
 - Indirect
You enter a job or a position, for example. At runtime, the system then determines the processing staff member responsible.

Take care to ensure that this assignment is compatible with the processor assignment in Task-Specific Customizing for SAP Business Workflow. If, you enter a user, for example, the latter must also be the holder of a position in Task-Specific Customizing. If you enter a position, precisely this position must also be defined in Task-Specific Customizing and have users assigned to it.



You can implement an enhancement (user exit M06E0005) for a release code if you wish to have a different role resolution than the one defined in the standard system.

You make these settings via the Customizing activity (*Purchasing* → *Purchase Requisition* → *Release Procedure* →) *Procedure with Classification*. For more detailed information, refer to the Implementation Guide (IMG).

Operation/Link to Appl. Functionality (MM-PUR-GF)

The following description is based on the assumption that a purchase order is created that is subject to a release strategy.

Creation of Purchase Order

A user creates a purchase order via *Logistics → Materials management → Purchasing → Purchase order → Create*. This PO fulfills the conditions of a release strategy. Saving results in the creation of an object of the type *Purchase order*.

Working Through the Release Strategy

The PO must be released using all the release codes defined in the release strategy.

Non-workflow-relevant release codes

If a release code is not workflow-relevant, the user responsible can effect release as follows:

Logistics → Materials management → Purchasing → Purchase order → Release

Workflow-relevant release codes

If a release code is workflow-relevant, the event that triggers the workflow, **ReleaseStepCreated**, is generated automatically.

In the event parameter container, you will find the user name of the person who created the PO (in the element **_EVT_Creator**), the reference to the PO (in the element **_EVT_Object**), and the release code (in the element **ReleaseCode**).

The user responsible finds a work item representing the standard task *Release purchase order* in his or her SAP Business Workplace inbox. Processing this work item allows the PO to be released.

You can access the SAP Business Workplace via *Menu → Business Workplace*.

Settlement Accounting re Rebate Arrangements in Purchasing (MM-PUR-VM)

Settlement Accounting re Rebate Arrangements in Purchasing (MM-PUR-VM)

Purpose

In Purchasing, rebate arrangements are stipulations agreed with vendors governing refunds of part of the buying entity's total spend over a certain period. Such refunds often vary according to the volume of business done with (i.e. volume of purchases made from) the vendor. The volume of business done with the vendor and the resulting rebate can only be determined retrospectively, at the end of the period (subsequent to the individual transactions of which this business volume is composed). The calculation of the rebate and the subsequent transfer of the relevant data to Financial Accounting is described as settlement accounting with respect to the rebate arrangement.

Settlement accounting can be carried out periodically during the overall validity period of the rebate arrangement and/or once-only, at the end of this period.

Process Flow

The Purchasing staff who entered into the relevant rebate arrangements with the vendors can be advised by workflow when the planned settlement dates are reached. A work item appears in their inboxes on each settlement date. From within the work item, the responsible member of staff can directly invoke the settlement accounting transaction with the rebate arrangement affected.

Prior to settlement, it may be necessary to compare and agree business volume data with the vendor. A work item is created for this process as well.

See also:

SAP Retail: Subsequent (End-of-Period Rebate) Settlement.

Technical Realization (MM-PUR-VM)

Object Types Used

Object technology is used to create the interface between the R/3 functionality and the Workflow system.

For this reason, the information given below is primarily of a technical nature. You need this information only if you are interested in details of the implementation or wish to create your own enhancements.

Object type BUS3030 (rebate arrangement, Purchasing).

Standard Tasks

The standard tasks provided by SAP as single-step tasks describe basic business activities from an organizational point of view. A single-step task relates to a single object method (= technical link to R/3 functionality) in each case, and is linked to its organizationally possible processors.

[Standard Task MMExBusVolCo \(Perform Business Volume Agreement Process re Rebate Arrangemen \[Page 63\]t\)](#)

[Standard Task MMRebAgSettl \(Perform Settlement Accounting re Rebate Arrangemen \[Page 64\]t\)](#)

Workflow Template

The actual operational procedure is implemented as a workflow template. You will find this workflow template in your R/3 System.

[Workflow Template MMRebAgSettl \(Settlement Accounting re Rebate Arrangements\) \[Page 65\]](#)

Object Type: BUS3030 (Rebate Arrangement, Purchasing)

Object Type: BUS3030 (Rebate Arrangement, Purchasing)

Definition

A rebate arrangement is an understanding with a business partner relating to the granting of rebates over a certain period.

A rebate arrangement can be entered into between a sales area and a customer (rebate recipient or beneficiary) or between a purchasing organization and a vendor (rebate granter).

Use

In the scenario, a business application object of type *BUS3030* is processed, i.e. either a business volume comparison or settlement accounting is carried out with respect to a rebate arrangement in Purchasing.

Standard Task MMExBusVolCo (Perform Business Volume Comparison re Rebate Arrangement)

Structure

Standard task for performing a business comparison and agreement process with regard to a rebate arrangement in Purchasing.

Standard task: TS00900055

Identifier: MMExBusVolCo

Description: Business volume comparison for rebate arrangement

Structure

Object Method Referenced

Object type: *BUS3030* (rebate arrangement, Purchasing)

Method: ExecuteBusVolComp (perform business volume comparison)

Processor Assignment

At runtime, this standard task is addressed to one or more members of the purchasing group responsible for the rebate arrangement. A necessary prerequisite for this is the assignment of the responsible purchasing groups to the desired organizational units or positions of organization management (see [Preparation and Customizing \(MM-PUR-VM\) \[Page 67\]](#)).

Standard Task: MMRebAgSettl (Perform Settlement Accounting re Rebate Arrangement)

Standard Task: MMRebAgSettl (Perform Settlement Accounting re Rebate Arrangement)

Definition

Standard task for performing settlement accounting with respect to a rebate arrangement in Purchasing.

Standard task: TS00900058

Identifier: MMRebAgSettl

Description: Perform settlement accounting re rebate arrangement

Structure

Object method referenced

Object type: *BUS3030* (rebate arrangement, Purchasing)

Method: Settle

Processor assignment: At runtime, this standard task is addressed to one or more members of the purchasing group responsible for the rebate arrangement. The same settings are necessary as for the standard task *TS00900055*.

Workflow Template MMRebAgSettl (Settlement Accounting re Rebate Arrangements)

Definition

Work template to perform settlement accounting with regard to a rebate arrangement.

If the system recognizes that final or interim settlement accounting is due with respect to a rebate arrangement in Purchasing because a settlement date has been reached, a workflow is started with template *MMRebAgSettl*.

Workflow template: *WS00900007*

Identifier: *MMRebAgSettl*

Description: Settlement accounting with regard to rebate arrangements (Purchasing)

Triggering Events for Workflow Template

The events *ToBeSettledInterim* (partial settlement re rebate arrangement in Purchasing) and *ToBeSettledFinal* (final settlement re rebate arrangement in Purchasing) are entered as triggering events for the workflow template for object type *BUS3030* (rebate arrangement, Purchasing).



This “linkage” between the event and the workflow template to be triggered is deactivated in the standard system and must first be activated in Customizing for SAP Business Workflow if the workflow template is actually to be started. (See [Preparation and Customizing \(MM-PUR-VM\) \[Page 67\]](#).)

Workflow Container and Data Flow

The important information that must be available during the course of the workflow is the object reference to the rebate arrangement to be processed (*_Evt_Object*). The information is available as an event parameter in the container of the triggering event, and must be passed on from there to the workflow container via data flow.

As a result, the following data flow definition between the triggering event and the workflow container is defined in the standard system:

Workflow container	Event parameter container
<i>RebateAgreementPurch</i>	<i>_Evt_Object</i>

The element *RebateAgreementPurch* has been created in addition to the elements available in the standard system.

Steps in the Workflow

1. You can start workflows for rebate arrangements in respect of which settlement is due via a program.
2. For each selected rebate arrangement, the system checks whether a settlement date has been reached. If a date for interim or final settlement has been reached, a workflow is started.

Workflow Template MMRebAgSettl (Settlement Accounting re Rebate Arrangements)

A separate workflow is started for each rebate arrangement settlement date.

3. The attribute BusVolCompNec (business volume comparison and agreement necessary) of the object "rebate arrangement, Purchasing" indicates whether a business volume comparison and agreement process is necessary prior to actual settlement.
 - If this is the case, a work item is generated to carry out this process. This appears in the inboxes of all members of the purchasing group responsible for the rebate arrangement.
 - If this is not the case, or after this step, the system generates a work item to carry out actual settlement. The members of the responsible purchasing group receive this item in their inboxes too.

Preparation and Customizing (MM-PUR-VM)

Use

Several other specific customizing steps are necessary for this workflow template in addition to the general customizing that is necessary to make sure that the workflow system functions properly.

Activities

Defining the Organizational Structure

In Purchasing, settlement accounting with respect to a rebate arrangement is always carried out by the responsible purchasing group. All purchasing groups that have to carry out settlement accounting via workflow must therefore first be identified in Customizing for SAP Business Workflow. A purchasing group is typically assigned to an organizational unit. Organizational units are a means of subdividing an enterprise according to various business criteria (for example, most enterprises are made up of different departments).

Define your organizational structure via the Customizing activity (*Basis Components* → *Business Management* → *SAP Business Workflow*) → *Edit organizational plan*.

Perform the Customizing activity (*Basis Components* → *Business Management* → *SAP Business Workflow* → *Basic Settings*) → *Maintain Assignments for SAP Organizational Object Types*, and assign the purchasing groups (object type *T024*) to the organizational units or positions that the purchasing groups represent.

Performing Task-Specific Customizing

Here you list all organizational management objects (e.g. jobs or positions) that are generally allowed to carry out settlement accounting with regard to rebate arrangements in Purchasing and classify the general tasks.

You assign tasks in Materials Management as follows:

1. Perform the customizing activity (*Basis Components* → *Business Management* → *SAP Business Workflow* →) *Perform Task-Specific Customizing*.
2. Then, under *Materials Management* → *Purchasing* → *Vendor - Material Relationships and Conditions*, choose the activity *Assign Tasks to Agent (processor)*.
3. Classify the standard tasks *TS00900055 (Comparison of Business Volumes for Rebate Arrangement)*, and *TS00900058 (Settlement Accounting for Rebate Arrangement)* as general tasks.

Activating Event-Receiver Linkage

The events *ToBeSettledInterim* (for partial settlement accounting) and *ToBeSettledFinal* (for final settlement accounting) for the object type *BUS3030* (rebate arrangement - Purchasing) are triggering events of workflow template *00900007* (settlement accounting with regard to rebate arrangements in Purchasing) and are entered as such in the event linkage table in the standard system. For the workflow template to actually be started, the linkage between the triggering events and the workflow template as receiver of the events must be activated in Customizing for SAP Business Workflow.

Preparation and Customizing (MM-PUR-VM)

Activate the workflow template *MMRebAgSettl* in your system as follows:

1. Perform the customizing activity (*Basis Components → Business Management → SAP Business Workflow → Basic Settings*) → *Perform Task-Specific Customizing*.
2. Activate event linkage for the workflow template (*Materials Management → Purchasing → Vendor - Material Relationships and Conditions → Activate Event Linkage*).

(Alternatively, you can activate event-receiver linkage by processing the workflow template directly.)

Operation and Link to Application (MM-PUR-VM)

Use

Rebate arrangements entered into with vendors by Purchasing can be passed on to Business Workflow for settlement accounting purposes at regular intervals. There are two possible ways of doing this, both of which should be carried out by a person acting as a coordinator. The latter can be a central coordinator or a coordinator for a particular purchasing organization.

Activities

- Manuel execution
 - The coordinator regularly carries out settlement accounting with regard to rebate arrangements via *Settlement acctg.* → *Via workflow.*
- Automatic periodic execution
 - Since the program for settlement accounting via workflow should be run regularly (e.g. each week), it is advisable to execute this program in the background at the desired intervals. This involves two steps:
 - a) First define suitable variants of the program (program name: *RWMBON11*), in which the settlement date field is defined as a selection variable and dynamically filled with the current date. You can also add other selection criteria as required.
 - b) You then schedule the program to be run in the background with a desired period. See the documentation on background processing: *BC Computing Center Management System* → *Background Processing* → *Scheduling and Managing Background Jobs.*

Release of Invoices Blocked for Price Reasons (MM-IV-LIV)

Release of Invoices Blocked for Price Reasons (MM-IV-LIV)

Purpose

In *Logistics Invoice Verification*, invoice items are blocked due to price variances. Financial Accounting cannot pay these invoices.

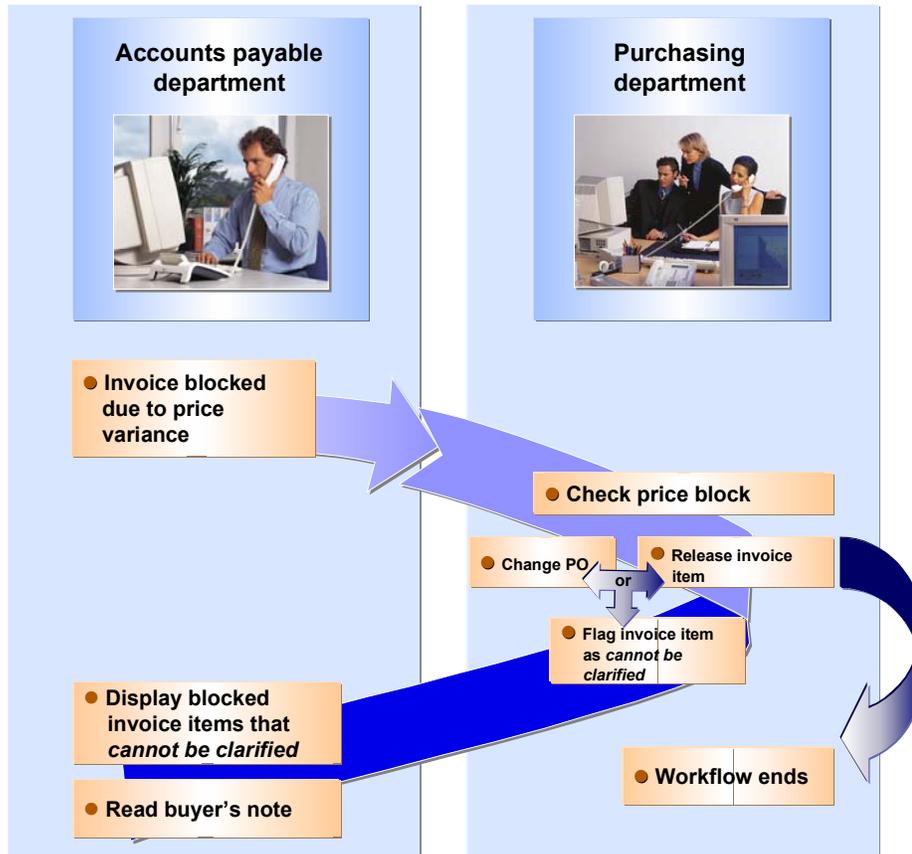
If a price block is defined for invoice items, the system can inform the buyer responsible for the purchase order automatically via workflow. This means that he or she sees a work item in his or her inbox, which he or she can use to verify the blocked invoice items and then process them as follows:

- Change the purchase orders
- Release the invoice items by deleting the blocking reason
- Flag the invoice items as *cannot be clarified*

The workflow ends when the price blocks in the invoice items are no longer valid because the order prices have been changed, or when the invoice item is released because the blocking reasons have been deleted.

If you flag price blocks in the invoice items as *cannot be clarified*, the system creates a work item for the accounts payable clerk. The accounts payable clerk then explicitly ends the workflow.

Process Flow



See also:

[Technical Implementation \(MM-IV-LIV\) \[Page 72\]](#)

[Preparation and Customizing \(MM- IV-LIV\) \[Page 74\]](#)

[Link to the Application \(MM-IV-LIV\) \[Page 75\]](#)

[Invoice Release \[Ext.\]](#)

Technical Implementation (MM-IV-LIV)

Technical Implementation (MM-IV-LIV)

Object Types

Object technology is used to create the interface between the R/3 functions and the Workflow system. The information given below is primarily of a technical nature and is not necessary for an initial overview:

Incoming invoice

Object type Bus2081 (Incoming invoice)

Workflow Template

The actual operational procedure is implemented as a workflow template. You will find this workflow template in your R/3 System.

Workflow template: WS 20000397

Description: Handling invoices blocked due to price

Triggering Event for Workflow Template

The triggering event for the workflow template is *IncomingInvoice.blockedPrice* (Invoice item blocked due to price variance).

This coupling between the event and the workflow template to be started is deactivated in the standard system. If you want to use the workflow template, you have to activate it in Customizing for *Logistics Invoice Verification*.

For more information, see [Preparation and Customizing \(MM-IV-LIV\) \[Page 74\]](#).

User Roles

You check and release invoice items that are blocked for price reasons at the following organizational levels. The processor is also determined at these levels.

Processor Determination: Buyer

If you have already maintained an organizational plan, you can use it here.

If there is no organizational plan, you need to create a Purchasing department. For each purchasing group, you define a position and link it to the entries in table T024. You define the users for each position.

For more information, see [Organizational Plan \[Ext.\]](#).

Processor Determination: Accounts Payable Clerk

If you have already maintained an organizational unit, you can use it here.

If there is no organizational unit, you need to create the organizational unit Invoice Verification.

Link the organizational unit to the single-step task TS20000704:

- By simple processor assignment

All users in the organizational unit Invoice Verification receive the work item.

Technical Implementation (MM-IV-LIV)

- By defining a specific role

Only selected accounts payable clerks receive the work item. For example, you can use the attribute User name, which contains the accounts payable clerk's name.



Note that a standard user group for invoices that are posted in the background is stored in the role.

See also:

[Role \[Ext.\]](#)

Preparation and Customizing (MM-IV-LIV)

Preparation and Customizing (MM-IV-LIV)

Authorization Objects

You need to maintain the following authorizations for the buyers who release invoice items blocked due to price:

- Authorization to display (activity 03) and change (activity 02) purchase orders
M_BEST_BSA, M_BEST_EKG, M_BEST_EKO, M_BEST_WRK
- Authorization to display invoices
M_RECH_WRK
- Authorization to delete (change the invoice) the blocking reason Price (activity 02)
M_RECH_EKG

Several other specific customizing steps are necessary for this workflow template in addition to the general customizing that is necessary to make sure that the workflow system functions properly.

Defining the Organizational Structure

Various buyers can check and release invoice items that are blocked due to price. You need to identify them all in Customizing for SAP Business Workflow. These buyers can be assigned to various organizational units. Organizational units are a means of subdividing an enterprise according to various business criteria, such as purchasing groups.

For each purchasing group, you define a position and link it to the entries in table T024. You define the users for each position.

For more information, see [Organizational Plan \[Ext.\]](#).

Performing Task-Specific Customizing

Here you list all organizational management objects that are generally allowed to release invoices blocked for price reasons (such as purchasing groups) and classify the general tasks.

Activating Event-Receiver Linkage

The event *IncomingInvoice.blockedPrice* (Invoice item blocked due to price variance) for object type BUS2081 (Incoming invoice) is an event that triggers workflow template WS 20000397 and is entered in the event linkage table as such as the standard event.

This coupling between the event and the workflow template to be started is deactivated in the standard system. If you want to use the workflow template, you activate the linkage between the triggering event and the workflow template as receiver of the event in Customizing for Logistics Invoice Verification. (*Logistics Invoice Verification* → *Invoice Block* → *Activate Workflow Template*)

Link to the Application (MM-IV-LIV)

Use

The buyer should check whether the price variance in an invoice item is justified. The buyer can make use of the following environment information for the invoice items: invoice, purchase order, and memos.

He or she can process the invoice items and the purchase order items that they are based on as follows:

- Change purchase order
- Release invoice item
- Flag invoice item as *cannot be clarified*

Prerequisites

The event for the change document *PurchaseOrder.changed* must be triggered for the purchase order (BUS2012) so that you can change a purchase order.

Features

Change Purchase Order

The buyer can change the relevant purchase order for selected invoice items blocked for price reasons. If all the purchase orders have been changed, the system checks if the price blocks in the invoice items have become invalid due to the change in the order prices. If this is the case, the system deletes the blocks and releases the invoice for payment.

If there are still price blocks that need to be clarified, the buyer can process the work item again.



Due to technical restrictions, the system does not advance in online mode after calling the transaction *Change Purchase Order*. You must call the work item *Further processing Invoice <Document number> <Fiscal year>* in the integrated inbox. This additional call of the work item does not apply to later releases.

Release Invoice Item

You can delete the blocking reasons for blocked invoice items. The system checks if the buyer has authorization to delete the blocking reason for the items selected. If this is the case, the system releases the invoice items blocked for price reasons and they can be paid.

If there are still price blocks that need to be clarified, the buyer can process the work item again.

Flag Invoice Item as Cannot Be Clarified

The buyer uses the memo function on the invoice display to document selected invoice items flagged as *cannot be clarified*. To do this, choose *System* → *Links*, then choose *Create note* on the invoice display screen.

The system saves the price blocks that are flagged as *cannot be clarified*. If there are still items that need to be clarified, the buyer can process the work item again.

[Link to the Application \(MM-IV-LIV\)](#)

Parking: Complete Invoices for Posting (MM-IV-LIV)

Purpose

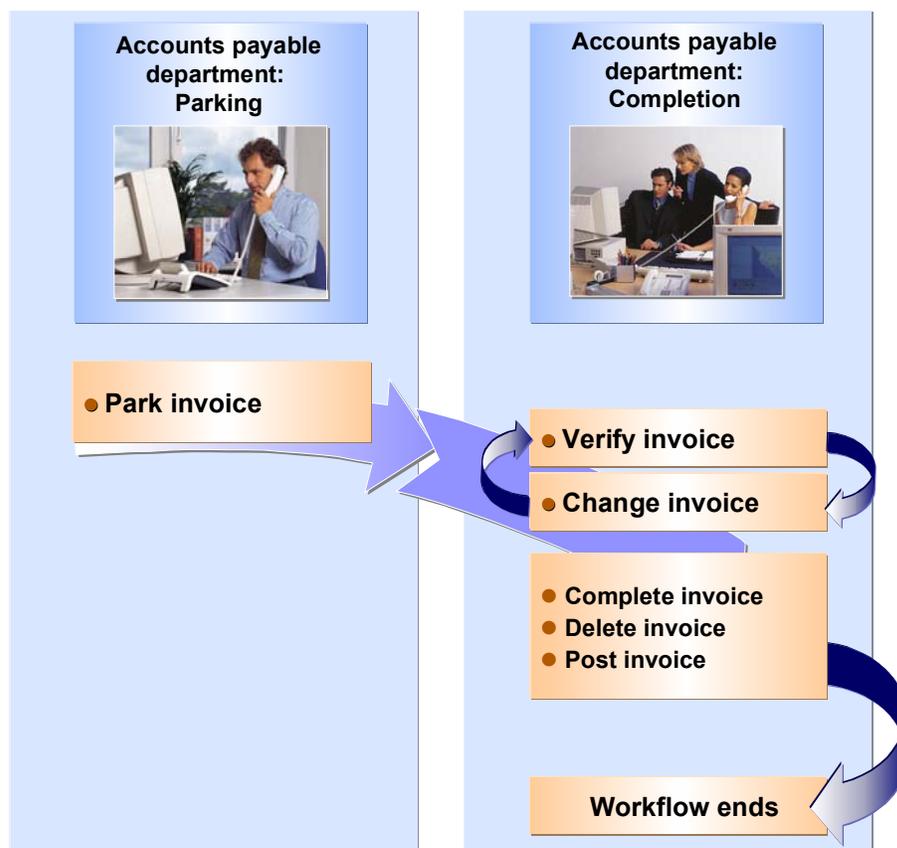
In *Logistics Invoice Verification*, you can park invoices, credit memos, subsequent debits, and subsequent credits in the Document Parking function. If different groups of processors are to *park* invoice documents and *complete* them for posting, you can implement this workflow.

All users that are authorized to complete parked documents for posting, receive a work item in their inbox. They can change parked documents using this work item. The work item appears in these employees' inbox until the parked document has been completed for posting or the invoice document is completed for posting, deleted, or posted outside the workflow.

The workflow ends when a user in the group of processors who complete documents for posting does one of the following with the invoice document:

- Saves it as complete
- Deletes it
- Posts it

Process Flow



See also:

Parking: Complete Invoices for Posting (MM-IV-LIV)

[Technical Implementation \(MM-IV-LIV\) \[Page 79\]](#)

[Preparation and Customizing \(MM- IV-LIV\) \[Page 81\]](#)

[Link to the Application \(MM-IV-LIV\) \[Page 82\]](#)

[Document Parking \[Ext.\]](#)

Technical Implementation (MM-IV-LIV)

Object Types

Object technology is used to create the interface between the R/3 functions and the Workflow system. The information given below is primarily of a technical nature and is not necessary for an initial overview.

Incoming invoice

Object type Bus2081 (Incoming invoice)

Workflow Template

The actual operational procedure is implemented as a workflow template. You will find this workflow template in your R/3 System.

Workflow template: WS 20001003

Description: Complete the Parked Log. IV Document

Triggering Event for Workflow Template

The workflow template is triggered by the event *IncomingInvoice.parked*, if the invoice document is parked (parked status: RBKP-RBSTAT='A'), or if the invoice document that was complete for posting is changed and only parked afterwards.

This coupling between the event and the workflow template to be started is deactivated in the standard system. If you want to use the workflow template, you have to activate it in Customizing for *Logistics Invoice Verification*.

For more information, see [Preparation and Customizing \(MM-IV-LIV\) \[Page 74\]](#).

User Roles

Invoice documents that have been completed for posting are saved at the following organizational levels:

Processor Determination: Clerk Responsible for Completing Invoices for Posting

If you have already maintained an organizational unit, you can use it here.

If no organization unit is available, create an organizational unit that includes the people responsible for completing parked invoice documents for posting.

Link the organizational unit to the single-step task TS20000878:

- By simple processor assignment
 - All users in the organizational unit receive the work item.
- By defining a single role
 - Only selected users in the organizational unit receive the work item.

See also:

[Role \[Ext.\]](#)

Technical Implementation (MM-IV-LIV)

Preparation and Customizing (MM-IV-LIV)

Authorization Objects

You must have maintained authorization to change parked invoice documents (activity 77, M_RECH_WRK) for users who are to complete parked invoice documents for posting.

Several other specific customizing steps are necessary for this workflow template in addition to the general customizing that is necessary to make sure that the workflow system functions properly.

Performing Task-Specific Customizing

List here all the organizational management objects and classify the general tasks.

Activating Event-Receiver Linkage

The event *IncomingInvoice.parked* (Invoice parked) for object type BUS2081 (Incoming invoice) is an event that triggers workflow template WS 20001003 and is entered in the event linkage table as such as the standard event.

This coupling between the event and the workflow template to be started is deactivated in the standard system. If you want to use the workflow template, you activate the linkage between the triggering event and the workflow template as receiver of the event in Customizing for Logistics Invoice Verification. (*Logistics Invoice Verification* → *Document Parking* → *Activate Workflow Template for Document Completion.*)

Link to the Application (MM-IV-LIV)

Link to the Application (MM-IV-LIV)

Use

The accounts payable clerk receives a work item in his or her inbox. He or she can change parked invoice documents using this work item.

For example, a parked invoice document still contains a balance. Once the invoice document has been changed, the balance should be zero and the system can post the invoice document if necessary.

If the invoice documents are also subject to a release procedure and you implement the workflow *Release of Invoice Documents Completed for Posting*, the accounts payable clerk should save the invoice documents as complete. For more information, see [Parking: Release of Invoices Completed for Posting \(MM-IV-LIV\) \[Page 83\]](#).

Parking: Release of Invoices Completed for Posting (MM-IV-LIV)

Purpose

You can use a workflow to control the process flow of document parking in *Logistics Invoice Verification*. You implement this workflow if invoice documents have to be approved by certain users before posting if they exceed certain release criteria.

- During the release procedure, the person responsible for releasing the invoice document decides if it should be released. If he or she decides to release the document, it is first released in the background and then posted.
- If he or she rejects the invoice document release, the document is forwarded with a memo containing the rejection reason to the accounts payable clerk responsible for completing documents for posting so that he or she can change it.

When the invoice document has been *saved as complete* and is subject to release, the person responsible for releasing it again receives a work item for processing in his or her inbox.

The workflow ends when the person responsible for releasing the invoice document does one of the following things:

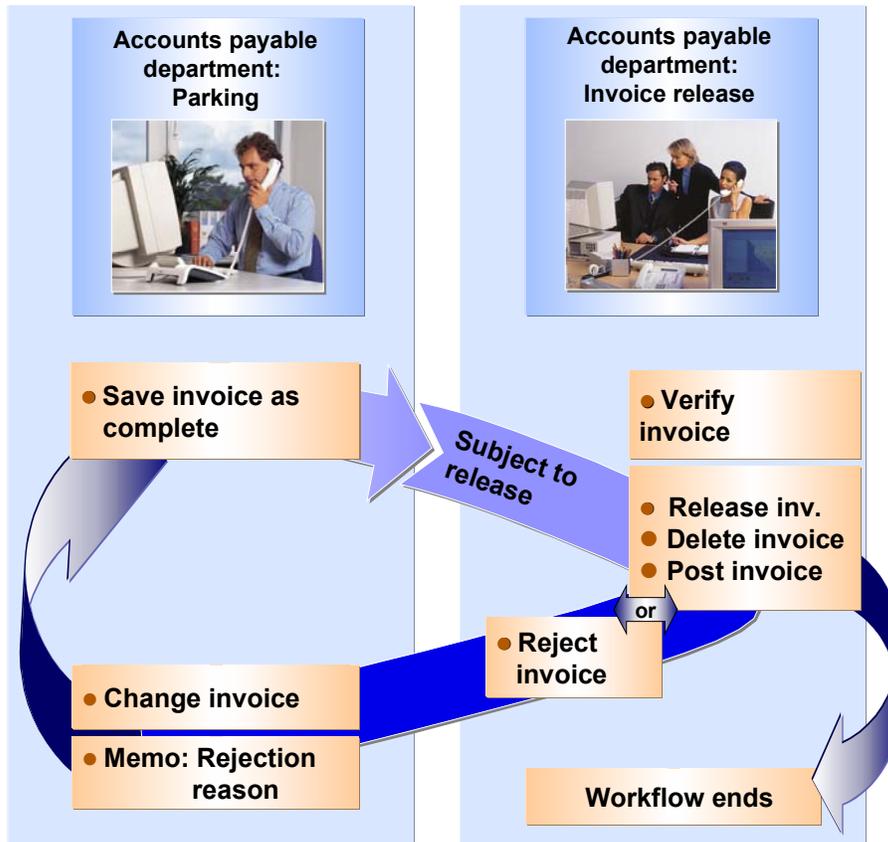
- Releases it
- Posts it
- Deletes it

Prerequisites

In the Implementation Guide (IMG) for *Logistics Invoice Verification*, you can specify for which company code, which vendors, which invoices, and above which amount a document is subject to release. In an invoice document that is completed for posting, the amount that is subject to release is based on the gross amount. (*Logistics Invoice Verification* → *Document Parking* → *Define Release Criteria*)

Parking: Release of Invoices Completed for Posting (MM-IV-LIV)

Process Flow



[Technical Implementation \(MM-IV-LIV\) \[Page 85\]](#)

[Preparation and Customizing \(MM- IV-LIV\) \[Page 87\]](#)

[Link to the Application \(MM-IV-LIV\) \[Page 88\]](#)

[Document Parking \[Ext.\]](#)

Technical Implementation (MM-IV-LIV)

Object Types

Object technology is used to create the interface between the R/3 functions and the Workflow system. The information given below is primarily of a technical nature and is not necessary for an initial overview.

Incoming invoice

Object type Bus2081 (Incoming invoice)

Workflow Template

The actual operational procedure is implemented as a workflow template. You will find this workflow template in your R/3 System.

Workflow template: WS 20001004

Description: Release the Completed Log. IV Document

Triggering Event for Workflow Template

The event for workflow template *IncomingInvoice.CompletedToRelease* is triggered if the parked document is complete for posting (RBKP-RBSTAT='B') and is subject to release (RBKP-RFGKZ='X').

This coupling between the event and the workflow template to be started is deactivated in the standard system. If you want to use the workflow template, you have to activate it in Customizing for *Logistics Invoice Verification*.

For more information, see [Preparation and Customizing \(MM-IV-LIV\) \[Page 87\]](#).

User Roles

You complete parked invoices for posting and release them at the following organizational levels.

Processor Determination: Clerk Responsible for Releasing Invoices

If you have already maintained an organizational unit, you can use it here.

If no organization unit is available, create an organizational unit that includes the people responsible for releasing invoice documents that are complete for posting.

Use the organizational unit in Customizing for *Logistics Invoice Verification* in the activity for defining release criteria.

Processor Determination: Clerk Responsible for Completing Invoices for Posting

If you have already maintained an organizational unit, you can use it here.

If no organization unit is available, create an organizational unit that includes the people responsible for completing parked invoice documents for posting.

Link the organizational unit to the single-step task TS20000879:

- By simple processor assignment

Technical Implementation (MM-IV-LIV)

All users in the organizational unit receive the work item.

- By defining an individual role

Only selected users in the organizational unit receive the work item.

See also:

[Role \[Ext.\]](#)

Preparation and Customizing (MM-IV-LIV)

Authorization Objects

You must have maintained the authorization to display invoices (activity 03, M_RECH_WRK) for users who are responsible for releasing invoices.

You must have maintained authorization to change parked invoice documents (activity 77, M_RECH_WRK) for users who are to complete parked invoice documents for posting.

Several other specific customizing steps are necessary for this workflow template in addition to the general customizing that is necessary to make sure that the workflow system functions properly.

Performing Task-Specific Customizing

List here all the organizational management objects and classify the general tasks.

Activating Event-Receiver Linkage

The event *IncomingInvoice.CompletedToRelease* (Invoice document completed for posting and subject to release) for object type BUS2081 (Incoming invoice) is an event that triggers workflow template WS 20001004 and is entered in the event linkage table as such as the standard event.

This coupling between the event and the workflow template to be started is deactivated in the standard system. If you want to use the workflow template, you activate the linkage between the triggering event and the workflow template as receiver of the event in Customizing for Logistics Invoice Verification. (*Logistics Invoice Verification* → *Document Parking* → *Activate Workflow Template for Release for Posting.*)

[Link to the Application \(MM-IV-LIV\)](#)

Link to the Application (MM-IV-LIV)

Use

The release of invoice documents that have been completed for posting is supported by a link to a workflow procedure.

Prerequisites

The event *IncomingInvoice.CompletedToRelease* must be triggered for an invoice (BUS2081) so that a release procedure is started. We recommend implementing this workflow together with the SAP workflow template WS20001003.

In Customizing for *Logistics Invoice Verification*, you maintain the activity *Define Release Criteria* under *Document Parking*.

Features

Release for Posting

In the release step, the person responsible for releasing the invoice document decides if it should be released. The system uses the virtual attribute *ReleaseAgent* for object type BUS2081 to determine the person responsible for releasing the document. The release criteria in Customizing for *Logistics Invoice Verification* are checked for this.

- If the person responsible decides to release the document, it is first released in the background and then posted.
- If he or she decided to reject the document, it is forwarded for further processing to the accounts payable clerk responsible for completing invoice documents for posting. The rejection reason should have been entered using the memo function.

Completing Invoices for Posting

The accounts payable receives a work item in his or her inbox. In this work item, he or she can read the reason why the invoice document was rejected and change it. If the accounts payable clerk parks the changed invoice document, saves it as complete, deletes it, or posts it, the workflow ends. It makes sense to save the invoice document as complete and therefore trigger the release workflow again, assuming that the invoice document is subject to release.

If the invoice document is parked, deleted, posted, or released in the background outside the workflow process, the workflow ends.

Extending Arrangements in Purchasing (MM-PUR-VM)

Purpose

Arrangements are defined for a fixed period (such as a year), and are settled at the end of this period. Arrangements that are to be valid for longer periods (such as longer than a year) can be extended, if an arrangement calendar exists for them.

An arrangement must be extended **before** the relevant purchasing documents (such as purchase orders) are entered, if the price determination date for these documents falls within the validity period of the new (that is, extended) arrangement.

Process Flow

The staff in Purchasing who agreed the arrangements can be sent a message on the extension dates set in advance via workflow. This means that, on the extension dates, a work item is sent to their inbox which they can use to call the extension transaction and relevant arrangement. Compared to extension of arrangements by mass processing (transactions MEB7 and MER7), workflow processing has the added advantage of allowing you to change the currency of the arrangements. This is not possible in "Change" mode.

Technical Implementation (MM-PUR-VM)

Technical Implementation (MM-PUR-VM)

Object Types Used

Object technology is used to create the interface between the R/3 functions and the workflow system. The information given below is of a technical nature and is not necessary for an initial overview.

Standard Tasks

The standard tasks provided by SAP as single steps describe the basic business activities from an organizational point of view. A single-step task relates to a single object method (= technical link to R/3 functionality), and is linked to the agents possible from an organizational point of view.

Object: Volume-Rebate Arrangements in Purchasing (MM-PUR-VM)

Definition

A volume-rebate arrangement in Purchasing is a volume-rebate arrangement that a purchasing organization agrees with a vendor (condition granter).

Use

In this scenario, a volume-rebate arrangement in Purchasing is extended.

Location in object repository: *Materials Management* → *Purchasing* → *Vendor - Material Relationships and Conditions*

Standard Task TS24500005: Extending Volume Rebate Arrangements in Purchasing (MM-PUR-VM)**Standard Task TS24500005: Extending Volume Rebate Arrangements in Purchasing (MM-PUR-VM)****Use**

In this standard task, an arrangement in Purchasing is extended.

Object method referenced: object type *BUS3030* (volume rebate arrangement - Purchasing), method: *EXTENDMANUALLYWITHMODIFICATION* (extend manually).

Agent assignment: For the validity period, this standard task is addressed to the agent(s) in the purchasing group which is responsible for the arrangement. You must make the following settings in Customizing for this:

Assign the purchasing groups responsible to the required organizational units or organizational management positions.

Triggering events of the task

The event *ToBeExtendedManually* has been entered as the trigger for object type *BUS3030* (rebate arrangement in Purchasing).



This link between the event and the workflow template to be started is normally inactive in the standard system. If the workflow template is to be started, it must first be activated in the Customizing application for the SAP Business Workflow.

Task container and binding

The object reference to the rebate arrangement in Purchasing exists as event parameters in the container of the triggering event and must be transferred to the workflow container via a binding.

The standard system includes the following binding definition between the triggering event and the workflow container:

Workflow Container	Event Parameter Container
<i>RebateAgreementPur</i>	<i>_Evt_Object</i>

Steps in a Workflow

Workflow can be started for all arrangements to be extended by means of a report (*Material management* → *Purchasing* → *Master data* → *Subseq. settlement* → *Arrangement settlement* → *Extend* → *Via workflow*).

Events are created for the selected arrangements, and these events trigger generation of work items for extension.

Separate workflow is started for each extension for each individual arrangement. This work item is sent to the purchasing group responsible. During extension, it is possible to change the arrangement currency. By this stage, it is not possible to do this in transaction MEB2 (change arrangement).

Preparation and Customizing (MM-PUR-VM)

Use

In addition to general customizing, which ensures that the workflow system functions correctly, customizing is also required specifically for this workflow template.

Activities

Processing the organizational structure

An arrangement in Purchasing is always settled by the purchasing group responsible. All purchasing groups which extend arrangements using workflow must therefore firstly be entered in Customizing for SAP Business Workflow. A purchasing group is usually assigned to an organizational unit. An organizational unit is an area of a company, e.g. a department.

Enter your organizational plan by choosing Customizing activity *Basis Components* → *Business Management* → *SAP Business Workflow* → Edit organizational plan.

Execute Customizing activity *Basis Components* → *Business Management* → *SAP Business Workflow* → *Basic Settings* → *Maintain assignments for SAP organizational object types*, and assign the purchasing groups to the organizational units or positions which the purchasing groups represent (object type *T024*).

Performing Task-Specific Customizing

You assign tasks in Material Management as follows:

1. Execute the Customizing activity (*Basis* → *Business Management* → *SAP Business Workflow* → *Perform task-specific Customizing*).
2. Choose *Materials Management* → *Purchasing* → *Vendor - Material Relationships and Conditions* and choose activity *Assign tasks to agent*.
3. Classify standard task *TS24500005* (extending volume-rebate arrangements in Purchasing) as a general task.

Activate Event-Receiver Linkage

The event *ToBeExtendedManually* for object type *BUS3030* (volume rebate arrangement - Purchasing) is a triggering events of workflow template *24500005* (extending volume rebate arrangements in Purchasing) and is entered as standard in the event coupling table. So that the event is actually started, the linkage between the triggering events and the task, as the receiver of the event, must be activated in SAP Business Workflow Customizing.

Activate the task *MMArrangExt* in your system as follows:

1. Execute the Customizing activity *Basis Components* → *Business Management* → *SAP Business Workflow* → *Perform task-specific Customizing*.
2. Activate event coupling for the workflow template (*Materials Management* → *Purchasing* → *Vendor - Material Relationships and Conditions* → *Activate event coupling*).

Operation and Connection with Application Functionality (MM-PUR-VM)

Operation and Connection with Application Functionality (MM-PUR-VM)

Use

Agreed arrangements in Purchasing, which have an arrangement calendar, can be transferred for extension to Business Workflow at regular intervals. The ways of doing this are described below. These measures should be carried out by a coordinator (e.g. a central coordinator or a coordinator for the individual purchasing organization):

1. The coordinator uses the report offered under *Material management* → *Purchasing* → *Master data* → *Subseq. settlement* → *Arrangement* → *Extend* → *Via workflow* to manually select the arrangements and start the single-step tasks in good time before the end of the validity period. Each arrangement can only be extended once.
2. If you need to start the report for extending arrangements using workflow at regular intervals (e.g. each week), you are advised to execute this report in the background. This involves two steps:
 - a) First you must define suitable variants for this report (report name: *RWEWU001*), in which the extension date is defined as a selection variable, and is filled with the day's date each day. You can also add other selection criteria as required.
 - b) Then plan for the report to be executed in the background at the intervals you require.

VMI: Creating and Acknowledging a Purchase Order From IDoc ORDRSP VMI (MM-CBP)

Purpose

Workflow is used to create and simultaneously acknowledge a purchase order during the inbound processing of IDocs of message type *ORDRSP* with message variant *VMI*. The IDoc may be sent by your vendor, for example, if the vendor wants to supply you with goods using Vendor Managed Inventory (VMI).

VMI enables a vendor to offer your company the service of planning requirements of the vendor's articles. For further information, see [Vendor Managed Inventory \(VMI\) \[Ext.\]](#) and [VMI: Generating POs for EDI Order Acknowledgements \[Ext.\]](#).

Process Flow

Workflow is started if a vendor wants to create a purchase order by EDI in your system as part of a VMI scenario.

As a result, an IDoc is transferred and used to generate and acknowledge the purchase order in your system.

The purchase order is usually created and acknowledged completely in the background. Work items are only created if errors occurred. These work items are displayed in the integrated inboxes of the people responsible for processing the errors.

Once a work item is executed, automatic checks are carried out again. If no further errors occur, workflow is complete.

Technical Implementation (MM-IV-CBP)

Technical Implementation (MM-IV-CBP)

The following information is of a technical nature. You need the information if you are interested in the details of implementation, or want to carry out enhancements yourself.

Object Types

Object technology is used to create the interface between the SAP functions and the Workflow system.

The methods and events used to trigger workflow and to process the work items are provided by object type *IDOCORDRSP* (IDoc message *ORDRSP*). This object type represents the purely technical interface for executing work items, not a concrete IDoc.

Task Group

Task groups are collections of standard tasks, workflow templates and other task groups that are used in the same context.

The workflow described here is assigned to task group *20000011*.

Preparation and Customizing (MM-PUR-CBP)

Use

Several other specific customizing steps are necessary for this workflow template in addition to the general customizing that is necessary to make sure that the workflow system functions properly.

Prerequisites

You have carried out the general customizing for SAP Business Workflow.

Task-Specific Customizing

Role resolution for this workflow takes place during automatic workflow customizing for the IDoc interface/EDI.

For further information, see [IDoc Interface/EDI: Role Resolution in Exception Handling \[Ext.\]](#).

Operation and Link to Application (MM-CBP)

Operation and Link to Application (MM-CBP)

Use

Workflow is automatically triggered by IDoc inbound processing (process code *ORDV*) if a vendor wants to create a purchase order by EDI in your system as part of a VMI scenario. In this process, an IDoc of type *ORDRSP* and message variant *VMI* is sent to your SAP system. This results in a purchase order being created in the background.

If errors occur, work items are created and sent to the integrated inboxes of the people responsible for processing the errors. Errors may arise as a result of missing master or Customizing data in the SAP System, or incorrect/insufficient data in the IDoc.

The people responsible can display the IDoc from the work items, and then change or add to the data, or make changes in the article master or in Customizing, as required. The people responsible can trigger inbound processing directly from the work item, or flag the IDoc for deletion.

If inbound processing is triggered, the whole process is carried out again. If the system does not find any further errors, a purchase order is automatically generated and acknowledged.

If errors occur during the acknowledgement of the purchase order, work items are created. The people responsible for processing the errors can display the IDoc directly from the work items and analyze the errors. In this case, however, error handling directly from the item is not possible. The standard IDoc tools must be used to process the errors.

If the system finds no further errors after the work items have been executed, workflow is complete.