Distributed Contracts (MM-PUR, MM-SRV)



Release 4.6C



SAP AG

Copyright

© Copyright 2001 SAP AG. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. The information contained herein may be changed without prior notice.

Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.

Microsoft[®], WINDOWS[®], NT[®], EXCEL[®], Word[®], PowerPoint[®] and SQL Server[®] are registered trademarks of Microsoft Corporation.

 $\rm IBM^{\$},\,DB2^{\$},\,OS/2^{\$},\,DB2/6000^{\$},\,Parallel\,\,Sysplex^{\$},\,MVS/ESA^{\$},\,RS/6000^{\$},\,AIX^{\$},\,S/390^{\$},\,AS/400^{\$},\,OS/390^{\$},\,and\,\,OS/400^{\$}$ are registered trademarks of IBM Corporation.

ORACLE® is a registered trademark of ORACLE Corporation.

INFORMIX®-OnLine for SAP and Informix® Dynamic Server are registered trademarks of Informix Software Incorporated.

UNIX®, X/Open®, OSF/1®, and Motif® are registered trademarks of the Open Group.

HTML, DHTML, XML, XHTML are trademarks or registered trademarks of W3C $^{\$}$, World Wide Web Consortium,

Massachusetts Institute of Technology.

JAVA® is a registered trademark of Sun Microsystems, Inc.

JAVASCRIPT[®] is a registered trademark of Sun Microsystems, Inc., used under license for technology invented and implemented by Netscape.

SAP, SAP Logo, R/2, RIVA, R/3, ABAP, SAP ArchiveLink, SAP Business Workflow, WebFlow, SAP EarlyWatch, BAPI, SAPPHIRE, Management Cockpit, mySAP.com Logo and mySAP.com are trademarks or registered trademarks of SAP AG in Germany and in several other countries all over the world. All other products mentioned are trademarks or registered trademarks of their respective companies.

Icons

Icon	Meaning
Δ	Caution
	Example
\Rightarrow	Note
	Recommendation
4123	Syntax
	Tip

Contents

Distributed Contracts (MM-PUR, MM-SRV)	5
Distribution of Contracts	
Contract Distribution with Classification	
Sending Contract IDocs and Condition IDocs	14
Receiving Contract IDocs and Condition IDocs	16
Sending a Release Order IDoc	17
Receiving a Release Order IDoc	

Distributed Contracts (MM-PUR, MM-SRV)

Distributed Contracts (MM-PUR, MM-SRV)

Definition

Contracts that a central purchasing organization distributes to local purchasing organizations to allow the latter to utilize the more favorable conditions they contain for the procurement of materials or external services.

Each local purchasing organization sends information on its own release orders back to the central purchasing organization.

Distribution of Contracts

Purpose

Distributing contracts enables you to take advantage of the favorable conditions of a <u>Centrally Agreed Contract [Ext.]</u> negotiated by the central purchasing department as the <u>Reference Purchasing Organization [Ext.]</u>.

As a result, local purchasing organizations can order materials and services on better terms than would otherwise be the case.

The local purchasing organization issues release orders for materials or services against the centrally agreed contract and sends these orders direct to the vendors. At the same time, the local purchasing organization documents its own release orders and sends certain data from them back to the central purchasing organization.

All central and local release orders are documented in the central purchasing organization.

Prerequisites

Master Data

Before you can distribute contracts, you must previously have distributed the following master data:

- Vendor master data
- Material master data (in the case of contracts for materials)
- Service master data (in the case of contracts for external services)
- Purchasing info and source list records (in some cases)

For more information, refer to <u>Distributable Master Data Objects [Ext.]</u> and <u>IDoc Types for the Distribution of Material Master Data via ALE [Ext.].</u>

Contracts

You can only distribute contracts with the item categories "standard", "material unknown", "material group", and "external service".

You can only distribute contracts without account assignment or with account assignment unknown.

Customizing

Maintain distribution model

You must maintain the distribution model. (Basis \rightarrow Application Link Enabling (ALE) \rightarrow Model and Implement Business Processes \rightarrow Maintain Distribution Model.)



You can define dependencies between individual message categories in the distribution model so that contracts (message category BLAORD) are only distributed if the vendor master data (message category CREMAS) and material

master data (message category MATMAS) have already been distributed to the relevant local systems.

For example, you can specify in the distribution model that the distribution of conditions (message category COND_A) is to be dependent on the distribution of the contracts (message type BLAORD).

For more information, refer to the section Distribution Model [Ext.].

To maintain the distribution model, you can:

Make use of the examples provided in the standard system



Two examples of distribution models are supplied in the standard system. They are based on a central system (MASTER) and a local system (LOCAL). Filter conditions are defined for the message categories used.

In the example MM-PUR1, only material and service contracts with a distribution-relevant document type are distributed if they have been created by a certain purchasing organization and a certain purchasing (buyer) group.

In the example MM-PUR2, additional filtering by plant and item category takes place.

Use the template MM46ACONTRACTS01 to make the relevant settings

Maintain partner profiles

You must maintain the partner profiles. (Basis \rightarrow Application Link Enabling (ALE) \rightarrow Model and Implement Business Processes \rightarrow Partner Profiles and Time of Processing.)

Maintain responsible systems

You must maintain the following settings:

Responsible system	You must
Central system and local system	 define a separate document type for contracts that are to be distributed (Purchasing → Contract → Define Document Types)
	- define different number ranges for the service specifications (<i>External Services</i> → <i>Number Ranges</i>)
	The different number ranges must be maintained so that no service specifications that already exist in the central system are created in the local one.
	Upon receipt of the IDoc in the local system, a check is made as to whether the numbers of the service specifications are unique. If the number of a set of service specifications already exists in the local system, IDoc processing is terminated.



Central system	 set the ALE distr. indicator for the distribution-relevant document type, in order for changes to be analyzed (Purchasing → Contract → Define Document Types)
	 define the number range (ALE NoRng) for the distribution-relevant document type. As a result, a new number is internally assigned to local release orders (Purchasing → Contract → Define Document Types)
Local system	- define external number assignment for the distribution-relevant document type
	The number range of the local system must contain the number range of the central system in order that the number of the distributed contracts lies within the number range that the local system has defined for distributed contracts.

Carry out consistency check

You can check your settings for consistency. (Basis \rightarrow Application Link Enabling (ALE) \rightarrow Configure Predefined ALE Business Processes \rightarrow Logistics \rightarrow LO <-> LO \rightarrow Purchasing: Distributed Contracts)

R/2-R/3 Linkage

You can only distribute contracts for materials from an R/2 System to an R/3 System.

When sending release order IDocs from an R/3 System to an R/2 System, you must remember that shorter field lengths are used in the R/2 System.

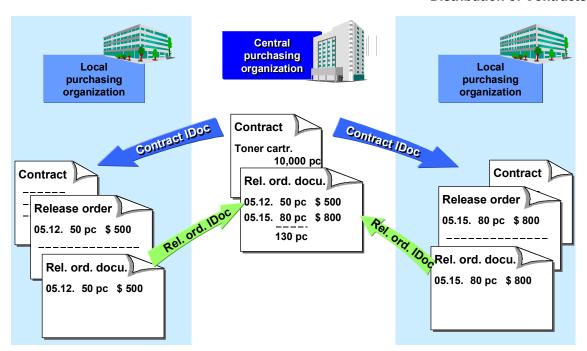
Field lengths	R/2	R/3
PO number	8-char.	10-char.
Company code	2-char.	4-char.
Plant	2-char.	4-char.
Release order item	3-char.	5-char.



Since the PO number is 10 characters long in the R/3 System, you must add two leading zeros to an 8-character PO number.

Process Flow

The following graphic illustrates the interchange of data between a central purchasing organization and local purchasing organizations.



- 1. The central system distributes the contract or the changes to a contract and the conditions to one or more local systems via IDoc.
- 2. On the basis of the transmitted IDoc (contract, conditions), the local system either creates a new contract or changes an existing one and updates the conditions where applicable.
- 3. The local system sends a release order IDoc containing certain data (such as the quantity released, PO number, etc.) to the central system if:
 - a) A release order is created against the contract (for materials or external services)
 - b) An unplanned service is entered against the contract (external services)
- 4. The local system updates the local release order documentation on the basis of the release order sent to the vendor. At the same time, the local system sends a release order IDoc to the central system.
- 5. The central system updates the central release order documentation and the quantity released against the central contract on the basis of the incoming release order IDoc.

Note

Using the classification system, you can distribute contracts selectively, so that contracts are only distributed to those local purchasing organizations in which they do not yet exist.

For more information, refer to Contract Distribution with Classification [Page 11].

See also:

MM Purchasing documentation: Distributed Contracts [Ext.]

MM External Services Management documentation: Contract Release Order and Release Documentation [Ext.]

Contract Distribution with Classification

Use

You can distribute contracts among local purchasing organizations with the aid of the classification system.

Use of the classification system enables you to distribute selectively: you can ensure that contracts are only distributed to those local purchasing organizations in which they do not yet exist or to those local organizations that have been newly included in the distribution model.

By using the classification system, you can prevent contracts from being redistributed to all the local purchasing organizations stored in the distribution model (local logical systems).

By distributing via classes, you can:

- Assign contracts to several classes if you wish to distribute contracts to several local purchasing organizations
- Control the distribution of contracts in the distribution model via class membership, so that contracts are only distributed if they are assigned to classes

Prerequisites

Customizing

Before you can assign contracts to classes, you must maintain the following settings in Customizing for *Application Link Enabling (ALE):*

1. Create a class with the class type 055 (contract class).

(Model and Implement Business Processes → Configure Distribution of Master Data → Distribution via Classes of Objects → Maintain Classes)

2. Assign the class to the desired logical systems.

(Model and Implement Business Processes → Configure Distribution of Master Data → Distribution via Classes of Objects → Assign Classes to Receiving Logical System)

3. Maintain the distribution model so that classes and, where appropriate, dependencies between message categories are taken into account as filters in the distribution.

(Model and Implement Business Processes → Configure Distribution of Master Data → Distribution via Classes of Objects → Model Distribution Using Classes)



Example

Your filter group contains the following values:

- Plant 0001
- Plant 0002
- Distribution via classes (Dependent on class membership indicator)
- Dependency of the distribution on the message category MATMAS for material master data (*Dependent distribution* indicator).



Contract Distribution with Classification

There is usually a logical AND link between the filters. There is an OR link between filter objects of the same name (e.g. plant).

A contract is therefore only distributed if it is valid for plant 0001 or 0002 and is assigned to the relevant class, and if the material master data was also distributed to this local purchasing organization (i.e. to this logical system).

Application

Assign the desired contracts to one or more classes.

You have the following options:

- If you wish to assign a contract to classes, choose Header → Details → Contract → Classify.
- If you wish to assign numerous contracts to classes, use report RCCLBI03 and the <u>Direct</u> Input [Ext.] procedure.

Features

When distributing contracts and conditions, you can use the following functions:

• Multiple classification

By assigning a contract to a class and a logical system, you can specify the local purchasing organizations to which the contract is to be sent.

If you wish to distribute a contract to several purchasing organizations, you can:

- Assign several classes to the contract
- Assign several logical systems to a class

• Take class membership into account in the distribution

Via the distribution model, you can specify that in the distribution of contracts the local purchasing organizations to which the relevant contract is to be sent are to be determined through the class membership.

• Distribution techniques

To distribute your contracts you can either use direct transmission or evaluate change pointers.

- Evaluation of change pointers

If you create a **new class**, assign it to a logical system, and then classify a contract, change pointers are created. Following evaluation of the change pointers, the contract is then distributed only to the relevant local purchasing organization.

Direct transmission

If you assign a **new logical system** to an already-existing class, in the case of direct transmission you can specify the new logical system directly, so that the affected contracts are only distributed to the new local purchasing organization.



If you choose the class as the selection criterion when directly transmitting contracts and conditions, the local purchasing organizations to which the contract is sent are

Contract Distribution with Classification

determined via the class. A prerequisite is that filtering is carried out via "class membership" in the distribution model.

If you do not enter a logical system when transmitting a contract directly, the local purchasing organizations to which the contract is to be sent are determined via the distribution model.

For more information on transmitting contracts, refer to the section <u>Sending Contract IDocs and Condition IDocs [Page 14]</u>.

Activities

Distribute the contracts (and, where applicable, the conditions) to the desired local purchasing organizations.

Sending Contract IDocs and Condition IDocs

Sending Contract IDocs and Condition IDocs

Use

Once a contract has been set up or changed by the central purchasing organization, the latter distributes the contract and conditions. In the process, it specifies:

- Which data is transmitted
- How data is transmitted

Which Data is Transmitted?

When the contract data is transmitted, you can specify whether you wish to transmit the contract, individual contract items, or conditions either together or separately.

For example, you can send just item 10 of a contract to plant 1000, or just the conditions of a contract to plant 2000.

Print-relevant texts and memos are included in the data transmitted.

You can also specify whether or not you wish to send the contract data to one or more local or logical systems.



If you do not specify a direct recipient when distributing the contract data, the data is transmitted to all logical systems listed in the distribution model.

If you use the method of contract distribution using classification, the local purchasing organizations to which the contract is to be sent are determined via classes. (See Contract Distribution with Classification [Page 11].)

How is the Data Transmitted?

The technical process of transmission differs from the message determination process in that in the following two techniques the IDocs are passed on to the ALE layer and transmitted immediately.

There are two distribution techniques:

- Send contract directly (via IDoc with the message categories BLAORD and COND A)
 - If you wish to send the contract and the conditions to a purchasing organization that is not included in the distribution model, you should send them directly to this one purchasing organization.
- Send changes on the basis of evaluations of the change pointers with the shared master data (SMD) tool

If you wish to send changes to contracts or conditions, you must first evaluate the change pointers for the relevant message category. The system passes on all changes to the ALE layer as IDocs and transmits the IDocs to all the logical systems that are included in the distribution model. After transmission, the change pointers are deleted.



Sending Contract IDocs and Condition IDocs

Newly created contracts are also found and transmitted through evaluation of the change pointers.

The following message categories are defined for the distribution of contract data:

Message category	IDoc type
for contracts BLAORD	BLAORD03
If the distributed contract does not yet exist in the local system, the system creates a copy of the new contract containing a reference to its original.	
If the distributed contract already exists in the local system, the system changes the relevant contract.	
for conditions COND_A	COND_A01

Prerequisites

In order for the system to be able to evaluate **changes**, you must make the following settings in Customizing for Basis (Distribution (ALE) \rightarrow Model and Implement Business Processes \rightarrow Configure Distribution of Master Data \rightarrow Replication of Modified Data):

- Define number range for change pointers
- Select Active indicator for change pointers in general
- Select Active indicator for message categories BLAORD and COND_A

Activities

Send contract:

 $ALE \rightarrow Master\ data \rightarrow Logistics \rightarrow Contracts\ w.\ conditions \rightarrow Send$

Send changes:

 $ALE \rightarrow ALE$ administration \rightarrow Services \rightarrow Change pointers \rightarrow Evaluate

Receiving Contract IDocs and Condition IDocs

Receiving Contract IDocs and Condition IDocs

Use

In the local system, a new contract is created or an existing one changed on the basis of the contract data received. Where applicable, conditions are updated.

You can process IDocs received with message categories BLAORD (contract) or COND_A (conditions) either individually or "en masse".

For more information, refer to the section Mass-Processing of IDocs [Ext.].

Features

In the case of systems using different SAP releases, you should note that

- New contracts were previously distributed with the message category BLAORD and changes to contracts with the message category BLAOCH (up to Release 4.0B)
- As of Release 4.5A, the message category BLAORD is used to distribute both changes to existing contracts and new contracts.

The system can still receive the message category BLAOCH.

Sending a Release Order IDoc

Sending a Release Order IDoc

Use

A release order is issued against a distributed contract in a local system. When this happens, a release order IDoc belonging to message category BLAREL is passed on to the ALE layer and transmitted. At the same time, the local release order documentation is updated.

Message category BLAREL (IDoc type BLAREL02) is used to transmit data such as the quantity released, the release date, the releasing logical system, and the PO number to the central system.

The local system automatically sends the release order IDoc back to the central system, since the ID of the sending logical system is stored in the contract header when a distributed contract is created

Receiving a Release Order IDoc

Receiving a Release Order IDoc

Use

The central release order documentation is updated in the central SAP system on the basis of local release orders.

When a release order IDoc belonging to the message category BLAREL is received, the central release order documentation and the quantity or value released against the distributed contract are updated.

Which data is displayed in the central release order documentation depends on the type of distributed contract.

If the contract is	the release order documentation contains:			
	Number, item, date, quantity, and value of purchase order	Releasing plant and releasing company code	Quantity released to date, target quantity, open target quantity	Value released to date
Quan tity contr act (w/o plant)	X	X	X	
Quan tity contr act (w. plant)	X		X	
Value contr act (w/o plant)	X	Х		Х
Value contr act (w. plant)	X			Х



If you wish to see the actual PO in the release order documentation, position the cursor on the desired line and choose $Goto \rightarrow Release$ order details.

Receiving a Release Order IDoc

In the case of a local release order, the system issues a message informing you in which other system the PO was created.