

Master Data Distribution (Human Resources)



HELP.CABFAALEHR

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Master Data Distribution (Human Resources)

Use

You can distribute Human Resource master data (organizational data, HR master data) between different systems.

Features

An infotype is distributed completely with all fields.

Entries in table T77TR set an import lock for objects in the target system.

In insert mode (complete distribution), the objects are transported completely.

In update mode (change pointers), transported data is replaced completely in the target system.

Object types and infotypes can be further restricted by filters. A filter should be defined for the object types that are actually required.

Distributable HR Master Data

If you want to distribute HR master data, various filter types must be maintained in the distribution model for message type HRMD_A.

Message type HRMD_A must be assigned a filter object of the 'object type' type, and the value P.

For infotypes to be distributed, message type HRMD_A must be assigned a filter object of the 'infotype' type for each infotype, and the infotype number as the value.

You can distribute all standard scenario infotypes that are required in the non-HR system.



Infotypes for important applications in the target system:

- If you want to validate personnel numbers using the HR master record (existence check), object type P and infotypes 0000, 0001, 0002, and 0003 must be distributed.
- If you want to generate vendors in FI, object type P and infotypes 0000, 0001, 0002, 0003, 0006, 0009, and 0017 must be distributed.
- If you want to identify the sales employee, object type P and infotypes 0000, 0001, 0002, 0003, 0006, and 0900 must be distributed.

Distributable Organizational Data

All *Organizational Management* object types are distributed (except X*; for information on TS, T, WF, WS, and RY, see below).

All *Organizational Management* infotypes can be distributed (with the exception of roles and workflow).

Constraints

Human Resource data has just one centralized Human Resource R/3 System in which all Human Resource components are integrated. HR master data and organizational data must not be

Master Data Distribution (Human Resources)

changed in the receiving system. Profiles with read authorization, for example, can be used to ensure this.

Data in the receiving system is created using the same plan version as in the sending system.

If more HR master data needs to be maintained in the receiving system, you must ensure that the number range intervals are different from those in the sending system.

Tasks and responsibilities are not distributed, the relationship (1001) for these object types can be distributed.

If you are in update mode, local *Organizational Management* relationships are retained in the target system.

If you delete an object without activated change pointers, you must also delete it manually in the target system.

Data is saved in the target system without a dialog check.

Texts on HR master data infotypes are not distributed.

If you want to distribute HR master data infotypes, you must ensure that infotypes 0000, 0001, 0002, and 0003 are distributed. Infotype 0003 is only distributed by change pointers if it has been changed in combination with one of the other HR master data infotypes that are supported.

Distributed Organizational Management

Use

If you work with more than one R/3 System at your enterprise, you may need to be able to maintain the organizational plan created in *Organizational Management* (that is, your organizational object, relationship, and infotype elements) in more than one of these systems. The following scenarios are possible:

- You create the basic structure of your organizational plan in a centralized HR System. In other HR Systems, this organizational plan must be processed locally and even enhanced. You might need to transfer these changes to the centralized system.
- You create your organizational plan in an HR System, and maintain it there during live system operations. In an AC System of equal status, this organizational plan is used to depict an enterprise hierarchy using CO structures (such as a cost center structure). The existing organizational plan must be enhanced in this second system. You might need to transfer these changes to the HR System.

Integration

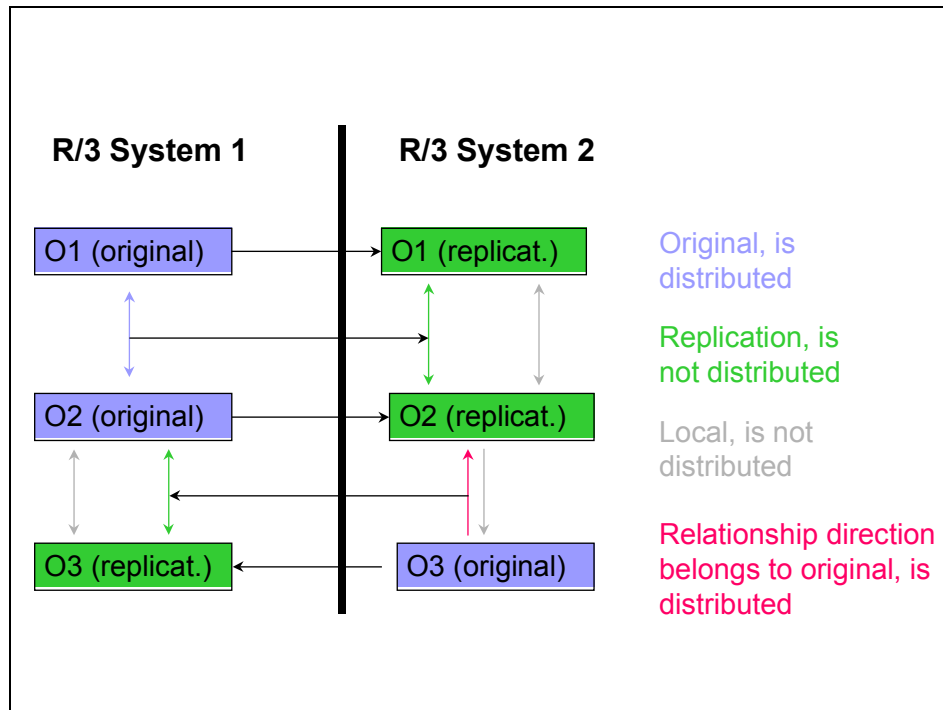
Functions in Both of the Systems Involved

The following functions can be used to distribute objects in accordance with such scenarios:

- To avoid having to maintain the same data several times in different systems, organizational objects, relationships, infotypes, and organizational plans can be replicated in their entirety so that they exist once as an original, and once as a replication.
- To make a clear distinction between the original and its replication, the system that contains the original - that is, the system in which business responsibility (that is, maintenance authorization) is stored - is determined for each organizational object.
- A relationship between a replication (whose original is stored in a different system) and an original is possible in one system.
- Depending on the scenario, responsibility for an object might need to change from one system to another. For this reason, the original of an object can be [moved \[Page 12\]](#).

Binding

Distributed Organizational Management

**Originals** in the original system

- If an organizational object is created, the current logical system is recorded as the original system.
- Originals can be maintained as required.
- Change pointers are written, and the changes are distributed. In the target system, the object is treated as a replication.
- Originals can be distributed in insert or update mode.
- ALE inbound processing is locked to prevent originals from being overwritten.

Replications in the system that is not the original system

- Replications can be maintained locally as required.
- If such local changes are made to a replication, the system displays a message to inform you that no change pointers are written, which means that changes are not distributed. (These messages can be deactivated.)
- Replications can be distributed to other systems in insert or update mode, but they cannot overwrite the originals. In the target system, the objects are treated as replications.

Relationships (infotype 1001) **between originals**

- A relationship between two originals can be maintained as required. It is treated as an original.
- Change pointers are written, and the changes are distributed. In the target system, it is treated as a replication.

Distributed Organizational Management**Relationships (infotype 1001) between replications**

- A relationship between two replications can be maintained locally as required. It is treated as a replication.
- Change pointers are not written, which means that changes are not distributed. Replicated relationships can be distributed to other systems in insert or update mode, but they cannot overwrite the originals. In the target system, the relationships are treated as replications.

Relationships (infotype 1001) between an original and a replication

- First, a relationship between an original and a replication is divided into its relationship directions. Customizing enables you to determine which relationship direction belongs to the original.
- A relationship direction that belongs to the original can be maintained as required. It is treated as an original. Change pointers are written, and the changes are distributed accordingly. The target system is enhanced by the opposite relationship direction.
- A relationship direction that does not belong to the original can be maintained locally as required. Change pointers are not written, which means that changes are not distributed.

Activities

See [Distributed Organizational Management Procedure \[Page 10\]](#)

Distributed Organizational Management Procedure

Distributed Organizational Management Procedure

Purpose

This description of a procedure is for [distributed Organizational Management \[Page 7\]](#).

Prerequisites

Customizing

If you want to distribute *Organizational Management* objects, the following Customizing requirements apply:

- The distribution model must be maintained accordingly

If you require more information, access the Implementation Guide (IMG) and choose *Basis → Application Link Enabling (ALE) → Modelling and Implementing Business Processes → Maintain Distribution Model and Distribute Views*.
- Distributed Organizational Management must be set up
 - You activate distributed Organizational Management
 - You determine the original system for existing objects
 - You determine whether relationship directions belong to the respective original object.
 - You activate/deactivate information dialog boxes.

If you require more information, access the Implementation Guide (IMG) and choose *Basis → Application Link Enabling (ALE) → Modelling and Implementing Business Processes → Predefined ALE Business Processes → Human Resources → Master Data Distribution → Set Up Distributed Organizational Management*.

If required, an object's original system can be displayed in *Organizational Management* transactions. To set this up, insert the ALE_ORIGSYSTEM column in the required array types.

If you require further information, access the Implementation Guide (IMG) and choose *Personnel Management → Organizational Management → Hierarchy Framework → Column Framework*.

Process Flow

1. You create objects as originals in the required system, as usual, and/or you process them as required. For more information, see [Organizational Management \[Ext.\]](#).
2. You perform distribution.
 - Automatic distribution

During live system operations, changes to originals triggered by change pointers are distributed by regular jobs.

To define jobs, choose *System → Services → Jobs → Define job*. Refer to: [Schedule Background Jobs \[Ext.\]](#)

To create IDocs for message type **HRMD_A**, choose *Tools → ALE → ALE Administration → Services → Change pointers → Evaluate*.

Distributed Organizational Management Procedure

– Distribution in update mode

Update mode enables you to distribute changes to infotypes to a target system, irrespective of change pointers. Any replicated or locally maintained infotypes that it contains which have not been changed in the sending system are retained.

Choose *Tools* → *ALE* → *Master data distribution* → *Human resources* → *Organizational data and master data* → *Send*. At this point, you can access more information by choosing *Help* → *Application help*.

– Distribution in insert mode

Insert mode enables you to replicate an entire object (infotype 1000 plus all infotypes). If the target system already contains a replication of the object, it is first deleted in full, that is, together with all of its existing infotypes. Locally maintained infotypes are lost.

Choose *Tools* → *ALE* → *Master data distribution* → *Human resources* → *Organizational data and master data* → *Send*. At this point, you can access more information by choosing *Help* → *Application help*.

– Initial distribution

When distribution is performed for the first time, the target system contains no objects or relationships. You can distribute the objects/relationships in insert or update mode. In the target system, they are created as a replication.

3. If necessary, use report RHALEORIGLIST to determine which systems are specified as original systems for individual objects.

Result

In accordance with your settings, the objects in question are distributed to the appropriate target system.

Change Original System of Objects

Change Original System of Objects

Use

In the [Distributed Organizational Management \[Page 7\]](#) scenario, you must specify which system is the original system for each organizational object. This specification of an original system can be changed, that is, a new original system can be specified for an object.

Prerequisites

An original system has already been specified for the object in question. If necessary, you can check this by using report RHALEORIGLIST.

Features

- BAPI_ORGMASTER_SAVE_ORIG_MULT is used to change the specification of an original system for an object. The new original system assumes business responsibility for the entire history of the object.
- If the original system changes, the history of the original systems of the original is recorded in table HRMDORIGIN.

Activities

1. Start report RHALEORGMOVE.
2. Follow the instructions displayed by choosing *Help* → *Application help*.

Distributed HR Master Data

Use

The "Distributed HR Master Data" scenario enables you to **integrate** the *Organizational Management* and *Personnel Administration* components, even though they are in **separate HR systems**.

This means that:

- An organizational plan is maintained in a **global HR System** (corporate system) using the *Organizational Management* component.
- This organizational plan is replicated in one or more **regional HR Systems** (operational systems).
- The *Personnel Administration* component (as well as the *Recruitment* and *Payroll* components) are implemented in these regional systems, where persons are related with positions in the organizational plan.
- HR master data in *Personnel Administration* is replicated from the global systems to the global system.

Integration

The following functions enable objects from *Organizational Management*, *Personnel Administration*, and *Recruitment* to be distributed and kept consistent in the various systems:

Functions in the Global System

- The organizational plan is created and maintained with organizational units (object type O), positions (object type S), and jobs (object type C). Therefore, the global system is the original system for these objects, and bears business responsibility for them.
- The data is distributed to the regional systems.
- Each time data is changed for organizational units, positions, and jobs whose original system is the global system, change pointers are written so that the changes can be replicated in the regional systems.

See also: [Distributed Organizational Management \[Page 7\]](#)

Functions in the Regional Systems

- Persons (object type P) and applicants (object type AP) are created and maintained. Therefore, the regional system concerned is the original system for these objects, and bears business responsibility for them.
- The organizational plan exists as a replication from the global system.
- Relationships are created and maintained between persons and (replicated) positions.
- The data (persons, applicants, and relationships) is replicated to the global system.
- Each time data is changed for persons and applicants whose original system is one of the regional systems, change pointers are written so that the changes can be replicated in the global system.

Distributed HR Master Data

- Each time data is changed for relationships between persons and positions whose original system is one of the regional systems, change pointers are written so that the changes can be replicated in the global system.
- Further HR functionality (such as *Payroll*) is used.
- Integration in ALE inbound processing is automatic, which means you do not have to execute reports RHINTE10 and RHINTE30.

Functions in All Systems

- The original system can be determined for existing objects.

Data Flow

If you require information on replication data flows for objects and relationships, see the **Data Flow** section in [Distributed Organizational Management \[Page 7\]](#).

Constraints

- You cannot transfer (move) the original version of an employee or applicant to a different system.
- There are no links between the various regional systems.
- An applicant can only be transferred to *Personnel Administration* in the respective original system for applicant data.
- If an employee has two personnel numbers, they can only be linked by a reference personnel number within one system, and not across systems.
- All HR functions (except *Organizational Management*) must be in one regional system. You cannot divide them between different systems and then distribute their data.
- In the global system, *Manager's Desktop* must be used in display mode only.

Activities

See [Distributed HR Master Data Procedure \[Page 15\]](#)

Distributed HR Master Data Procedure

Purpose

This description of a procedure is for [distributed HR master data \[Page 13\]](#).

Prerequisites

Customizing

If you want to distribute objects and relationships of *Organizational Management*, *Personnel Administration*, and *Recruitment* and be able to use integration, the following Customizing requirements apply:

- The distribution model must be maintained accordingly
 - The change pointers must be activated for HRMD_A.
 - If you require more information, access the Implementation Guide (IMG) and choose *Basis → Application Link Enabling (ALE) → Modelling and Implementing Business Processes → Maintain Distribution Model and Distribute Views*.
- The following filters must be set:
 - In the global system: object types O, C, and S; infotypes 1000, 1001
(but NOT: object types P and AP)
 - In the regional systems: object type P (and possibly AP); infotypes 0000, 0001, 0002, 0003, and 1001
(but NOT: object types O, C, and S)
- Integration between *Organizational Management* and *Personnel Administration* must be activated (in all participating HR systems)
 - If you require further information, access the Implementation Guide (IMG) and choose *Personnel Management → Integration → Integration with Personnel Administration*.
- HR master data distribution must be set up (in all participating HR systems)
 - You activate the Distributed HR Master Data scenario.
 - You activate integration in ALE inbound processing.
 - If you require more information, access the Implementation Guide (IMG) and choose *Basis → Application Link Enabling (ALE) → Modelling and Implementing Business Processes → Predefined ALE Business Processes → Human Resources → Master Data Distribution → Distributed HR Master Data*.
- Distributed Organizational Management must be activated (in all participating HR systems)
 - If you require more information, access the Implementation Guide (IMG) and choose *Basis → Application Link Enabling (ALE) → Modelling and Implementing Business Processes → Predefined ALE Business Processes → Human Resources → Master Data Distribution → Set Up Distributed Organizational Management → Activate Distributed Organizational Management*.

Distributed HR Master Data Procedure

- The definition of relationship direction B 008 must determine that it belongs to the original (in all participating HR systems)
If you require more information, access the Implementation Guide (IMG) and choose Basis → Application Link Enabling (ALE) → Modelling and Implementing Business Processes → Predefined ALE Business Processes → Human Resources → Master Data Distribution → Set Up Distributed Organizational Management → Distributable Relationship Direction.
- The definition of this relationship direction must determine that it is valid for object combinations P-S and US-S (in all participating HR systems)
If you require more information, access the Implementation Guide (IMG) and choose Basis → Application Link Enabling (ALE) → Modelling and Implementing Business Processes → Predefined ALE Business Processes → Human Resources → Master Data Distribution → Set Up Distributed Organizational Management → Distributable Relationship between Original and Replication.
- In the regional HR systems, the example coding supplied for the WRITE_CHGPTR_FOR_REPLICA method of the HRALE00ORIGSYSTEM BAdI must be implemented so that change pointers are written for infotype 1007 (Vacancy) for positions
If you require more information, access the Implementation Guide (IMG) and choose Basis → Application Link Enabling (ALE) → Modelling and Implementing Business Processes → Predefined ALE Business Processes → Human Resources → Master Data Distribution → Customer Enhancements → BADI: Fine Tuning of Original System Mechanism.
- In the global HR System, the example coding supplied for the SAVE_DATA_FOR_ORIGINAL method of the HRALE00ORIGSYSTEM BAdI must be implemented so that infotype 1007 (Vacancy) is read for positions in ALE inbound processing
If you require more information, access the Implementation Guide (IMG) and choose Basis → Application Link Enabling (ALE) → Modelling and Implementing Business Processes → Predefined ALE Business Processes → Human Resources → Master Data Distribution → Customer Enhancements → BADI: Fine Tuning of Original System Mechanism.
- Separate number ranges must be set up in the participating systems for all object types, particularly object type CP (central person)

You can activate dialog boxes to provide information when you change data for replications (in all participating HR systems).

If you require more information, access the Implementation Guide (IMG) and choose Basis → Application Link Enabling (ALE) → Modelling and Implementing Business Processes → Predefined ALE Business Processes → Human Resources → Master Data Distribution → Distributed HR Master Data → ALE: Dialog Box for HR Data and Application Link Enabling (ALE) → Modelling and Implementing Business Processes → Predefined ALE Business Processes → Human Resources → Master Data Distribution → Set Up Distributed Organizational Management → Activate/Deactivate Dialog Boxes.

Furthermore, you can use reports RHALEHRMDORIGINIT, RHALEORIGINIT_EMPLOYEE, and RHALEORIGINIT_APPLICANT to determine the original system for existing objects.

You can also access this report in the Implementation Guide (IMG) by choosing Basis → Application Link Enabling (ALE) → Modelling and Implementing Business Processes →

Distributed HR Master Data Procedure

*Predefined ALE Business Processes → Human Resources → Master Data Distribution
→ Set Up Distributed Organizational Management → Register Objects.*

Process Flow

The procedure is the same as for [Distributed Organizational Management Procedure \(see the Process Flow section\) \[Page 10\]](#).



Data is distributed in both directions, so you must ensure that IDocs are processed correctly in inbound processing. You must be certain that an IDoc has been processed successfully or with warnings (*booked* or *incompletely booked*) before IDocs are dispatched from the receiving system. Otherwise, data synchronization cannot be ensured. If a data inconsistency is discovered, you can use program RHALEINI (transaction PFAL) to **synchronize data manually**. **Update mode** must be used because insert mode is designed for initial transports with prior object deletion. To restrict the amount of distributed data as much as possible, you are advised to specify an infotype/subtype in update mode.