



One Identity Manager 8.1.1

Administration Guide for SAP R/3  
Structural Profiles Add-on

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### Legend

-  **WARNING:** A WARNING icon indicates a potential for property damage, personal injury, or death.
-  **CAUTION:** A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.
-  **IMPORTANT, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

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# Managing personnel planning data and structural profiles

SAP systems, which integrate personnel planning (SAP HCM systems), contain additional information about SAP users, their tasks and organizational assignments within the company. Hierarchies are built based this information. Authorizations with which SAP users are ensured access to the objects, are mapped as structural profiles in the HCM system.

In One Identity Manager, personnel master data and part of the organizational structure can, on the one hand, be imported from the HCM system and on the other hand, structural profiles are mapped with their properties. This means, employees can be provided with all the necessary authorizations in the HCM system through their SAP user accounts. Default One Identity Manager functions, such as the IT Shop or Identity Audit, can be used for structural profiles and personnel planning data.

Structural profiles from child systems of a central user administration and their user accounts assignments are not synchronized.

## One Identity Manager users for managing personnel planning data and structural profiles

The following users are used for setting up and administration of HCM data.

**Table 1: User**

User	Task
Target system administrators	<p>Target system administrators must be assigned to the <b>Target systems   Administrators</b> application role.</p> <p>Users with this application role:</p> <ul style="list-style-type: none"> <li>• Administrate application roles for individual target systems types.</li> </ul>

User	Task
Target system managers	<ul style="list-style-type: none"> <li>• Specify the target system manager.</li> <li>• Set up other application roles for target system managers if required.</li> <li>• Specify which application roles for target system managers are mutually exclusive.</li> <li>• Authorize other employee to be target system administrators.</li> <li>• Do not assume any administrative tasks within the target system.</li> </ul> <p>Target system managers must be assigned to <b>Target systems   SAP R/3</b> or a sub-application role.</p> <p>Users with this application role:</p> <ul style="list-style-type: none"> <li>• Assume administrative tasks for the target system.</li> <li>• Create, change or delete target system objects, like user accounts or groups.</li> <li>• Edit password policies for the target system.</li> <li>• Prepare system entitlements for adding to the IT Shop.</li> <li>• Can add employees, who have an other identity than the <b>Primary identity</b>.</li> <li>• Configure synchronization in the Synchronization Editor and defines the mapping for comparing target systems and One Identity Manager.</li> <li>• Edit the synchronization's target system types and outstanding objects.</li> <li>• Authorize other employees within their area of responsibility as target system managers and create child application roles if required.</li> </ul>
One Identity Manager administrators	<ul style="list-style-type: none"> <li>• Create customized permissions groups for application roles for role-based login to administration tools in Designer as required.</li> <li>• Create system users and permissions groups for non-role-based login to administration tools in Designer as required.</li> <li>• Enable or disable additional configuration parameters in Designer as required.</li> <li>• Create custom processes in Designer as required.</li> <li>• Create and configures schedules as required.</li> </ul>

User	Task
Administrators for the IT Shop	<ul style="list-style-type: none"> <li>• Create and configure password policies as required.</li> </ul> <p>Administrators must be assigned to the <b>Request &amp; Fulfillment   IT Shop   Administrators</b> application role.</p> <p>Users with this application role:</p> <ul style="list-style-type: none"> <li>• Assign system entitlements to IT Shop structures.</li> </ul>
Administrators for organizations	<p>Administrators must be assigned to the application role <b>Identity Management   Organizations   Administrators</b>.</p> <p>Users with this application role:</p> <ul style="list-style-type: none"> <li>• Assign system entitlements to departments, cost centers and locations.</li> </ul>
Business roles administrators	<p>Administrators must be assigned to the application role <b>Identity Management   Business roles   Administrators</b>.</p> <p>Users with this application role:</p> <ul style="list-style-type: none"> <li>• Assign system entitlements to business roles.</li> </ul>

## Setting up SAP HCM system synchronization

Synchronization of structural profiles and personnel planning data can be set up as an add-on to SAP R/3 User Management Module. That means, you set up synchronization for the SAP R/3 base administration before you can synchronize the structural profiles and personnel planning data. Then you create the synchronization project for the structural profiles and personnel planning data. Follow the instructions in the One Identity Manager Administration Guide for Connecting to SAP R/3 to do this. Anomalies are described in this guide.

### ***To load HCM system objects into the One Identity Manager database for the first time.***

1. Prepare a user account in the HCM system with sufficient permissions for synchronization.
2. The One Identity Manager parts for managing HCM system are available if "TargetSystem\SAPR3\HRProfile" is set.
  - Check whether the configuration parameter is set in the Designer. Otherwise, set the configuration parameter and compile the database.
3. Create a synchronization project with the Synchronization Editor.

### **Detailed information about this topic**

- [Authorizations for synchronizing with an SAP HCM system](#) on page 8
- [Setting up a synchronization project for synchronizing with an SAP HCM system](#) on page 9

## Authorizations for synchronizing with an SAP HCM system

You require the following authorizations for accessing the target system in order to synchronize One Identity Manager with an SAP HCM system.



- Structural profile "ALL" (assigned in the table T77UA)
- Authorization object S\_RFC (authorization check on RFC access) with activity 16, at least for the function groups PERS, PADR, RH65, RPAI.

For more detailed information about all the required authorizations, see the One Identity Manager Administration Guide for Connecting to SAP R/3.

## Related topics

- [Appendix: Referenced SAP R/3 tables and BAPI calls](#) on page 34

# Setting up a synchronization project for synchronizing with an SAP HCM system

Create your own synchronization project for synchronizing personnel planning data and structural profiles. Two separate project templates are available for this.

Use the Synchronization Editor to configure synchronization between the One Identity Manager database and the HCM system. The following describes the steps for initial configuration of a synchronization project.

## ***To set up a synchronization project for structural profiles***

1. Set up an initial synchronization project as described in the One Identity Manager Administration Guide for Connecting to SAP R/3. The following special features apply:
  - a. On the **Select project template** page in the project wizard, select the "SAP HCM authentication objects" project template.
2. Configure and set a schedule to execute synchronization regularly.

## ***To set up a synchronization project for personnel planning data***

1. Set up an initial synchronization project as described in the One Identity Manager Administration Guide for Connecting to SAP R/3. The following special features apply:
  - a. On the **Select project template** page in the project wizard, select "SAP HCM Employees and Departments".
  - b. To allow editing of communication data in One Identity Manager and provisioning of changes, choose the **Restrict target system access** tab and enable **Read/write access to target system. Provisioning available**. Otherwise, set **Read-only access to target system**.
2. Configure and set a schedule to execute synchronization regularly.

## Detailed information about this topic

- One Identity Manager Administration Guide for Connecting to SAP R/3
- One Identity Manager Target System Synchronization Reference Guide

## Related topics

- [Setting up a synchronization project for synchronizing additional personnel planning data on page 24](#)
- [Project template for synchronizing structural profiles on page 32](#)
- [Project template for synchronizing personnel planning data on page 33](#)

# Post-processing outstanding objects

Objects, which do not exist in the target system, can be marked as outstanding in One Identity Manager by synchronizing. This prevents objects being deleted because of an incorrect data situation or an incorrect synchronization configuration.

Outstanding objects

- Cannot be edited in One Identity Manager.
- Are ignored by subsequent synchronization.
- Are ignored by inheritance calculations.

This means, all memberships and assignments remain intact until the outstanding objects have been processed.

Start target system synchronization to do this.

### ***To post-process outstanding objects***

1. Select **SAP R/3 | Target system synchronization: SAP R/3**.

All tables assigned to the target system type SAP R/3 as synchronization tables are displayed in the navigation view.

2. Select the table whose outstanding objects you want to edit in the navigation view.

This opens the target system synchronization form. All objects are shown here that are marked as outstanding.




**TIP:**

***To display object properties of an outstanding object***

- a. Select the object on the target system synchronization form.
- b. Open the context menu and click **Show object**.

3. Select the objects you want to rework. Multi-select is possible.
4. Click one of the following icons in the form toolbar to execute the respective method.

**Table 2: Methods for handling outstanding objects**

Icon	Method	Description
	Delete	The object is immediately deleted in the One Identity Manager database. Deferred deletion is not taken into account. The <b>Outstanding</b> label is removed for the object.  Indirect memberships cannot be deleted.
	Publish	The object is added in the target system. The <b>Outstanding</b> label is removed for the object.  The method triggers the <code>HandleOutstanding</code> event. This runs a target system specific process that triggers the provisioning process for the object.  Prerequisites: <ul style="list-style-type: none"><li>• The table containing the object can be published.</li><li>• The target system connector has write access to the target system.</li></ul> The method can only be applied to objects in the table <code>SAPUserInSAPHRP</code> .
	Reset	The <b>Outstanding</b> label is removed for the object.

5. Confirm the security prompt with **Yes**.

**NOTE:** By default, the selected objects are processed in parallel, which speeds up execution of the selected method. If an error occurs during processing, the action is stopped and all changes are discarded.

Bulk processing of objects must be disabled if errors are to be localized, which means the objects are processed sequentially. Failed objects are named in the error message. All changes that were made up until the error occurred are saved.

**To disable bulk processing**

- Deactivate  in the form toolbar.

**NOTE:** The target system connector must have write access to the target system in order to publish outstanding objects that are being post-processed. That means, the option **Connection is read only** must not be set for the target system connection.

## Managing structural profiles

Structural profiles are mapped in the One Identity Manager, in order to provide the necessary permissions for user accounts. Structural profiles can be assigned to user accounts, requested, or inherited through hierarchical roles in One Identity Manager. No new structural profiles can be added or deleted.

You can edit the following data about structural profiles in One Identity Manager:

- Assigned SAP user accounts
- Usage in the IT Shop
- Risk assessment
- Inheritance through roles and inheritance restrictions

### **To edit structural profiles**

1. Select **SAP R/3 | Structural profiles**.
2. Select the structural profile in the result list. Select **Change master data**.
3. Enter the required data on the master data form.
4. Save the changes.

## General master data for structural profiles

**Table 3: Configuration parameters for risk assessment of structural profiles**

<b>Configuration parameter</b>	<b>Effect when set</b>
QER\CalculateRiskIndex	Preprocessor relevant configuration parameter controlling system components for calculating an employee's risk index. Changes to the parameter require recompiling the database.  If the parameter is enabled, values for the risk index can be entered and calculated.

Enter the following master data for a structural profile.

**Table 4: General master data for structural profiles**

Property	Description
Structural profile	Name of the structural profile
Distinguished name	Distinguished name of the structural profile The distinguished name is mapped through the SAP connector.
Canonical name	Canonical name of the structural profile The canonical name is mapped through the SAP connector.
Client	Client that contains the structural profile.
Service item	Service item data for requesting the structural profile through the IT Shop.
Depth of hierarchy	The number of the level in the hierarchy that the assigned user account is allowed to drill down to.
Seq.no.	Sequential number of this structural profile.
Object type	The structural profile is valid for this object type.
Plan version	The structural profile is applied to this plan version.
Risk index	Value for evaluating the risk of assigning the structural profile to account accounts. Enter a value between 0 and 1. The input field is only visible if the "QER\CalculateRiskIndex" configuration parameter is set.
Category	Categories for structural profile inheritance. Structural profiles can selectively inherit profiles. To do this, structural profiles and user accounts are divided into categories. Use this menu to allocate one or more categories to the structural profile.
IT Shop	Specifies whether the profile can be requested through the IT Shop. Then the structural profile can be requested from the Web Portal's employees and granted through a defined approval procedure. The structural profile can still be assigned directly to user accounts and hierarchical roles.
Only for use in IT Shop	Specifies whether the structural profile can be requested exclusively through the IT Shop. Then the structural profile can be requested from the Web Portal's employees and granted through a defined approval procedure. The structural profile cannot be assigned directly to hierarchical roles.

### Detailed information about this topic

- [Inheriting structural profiles based on categories](#) on page 22
- One Identity Manager IT Shop Administration Guide
- One Identity Manager Identity Management Base Module Administration Guide

- One Identity Manager Target System Base Module Administration Guide
- One Identity Manager Risk Assessment Administration Guide

## Assigning structural profiles to SAP user accounts

Structural profiles can be assigned directly or indirectly to user accounts. In the case of indirect assignment, employees, and structural profiles are arranged in hierarchical roles. The number of structural profiles assigned to an employee is calculated from the position in the hierarchy and the direction of inheritance. If you add an employee to roles and that employee owns a user account, the user account is added to the structural profile. Prerequisites for indirect assignment of employees to user accounts:

- Assignment of employees and structural profiles is permitted for role classes (department, cost center, location, or business role).
- User accounts are marked with the **Groups can be inherited** option.
- User accounts and structural profiles belong to the same SAP clients.

Furthermore, structural profiles can be assigned to employees through IT Shop requests. Add employees to a shop as customers so that structural profiles can be assigned through IT Shop requests. All structural profiles assigned to this shop can be requested by the customers. Requested structural profiles are assigned to the employees after approval is granted.

### Detailed information about this topic

- [Assigning structural profiles to business roles](#) on page 16
- [Assigning structural profiles to business roles](#) on page 16
- [SAP Assigning user accounts directly to structural profiles](#) on page 17
- [Adding structural profiles in system roles](#) on page 18
- [Adding structural profiles to the IT Shop](#) on page 19
- One Identity Manager Identity Management Base Module Administration Guide

## Assigning structural profiles to organizations

Assign structural profiles to departments, cost centers and locations in order to assign user accounts to them through these organizations.

***To assign a structural profile to departments, cost centers or locations (non role-based login)***

1. Select **SAP R/3 | Structural profiles**.
2. Select a structural profile in the result list.
3. Select **Assign organizations**.
4. Assign organizations in **Add assignments**.
  - Assign departments on the **Departments** tab.
  - Assign locations on the **Locations** tab.
  - Assign cost centers on the **Cost centers** tab.

- OR -

Remove the organizations in **Remove assignments**.
5. Save the changes.

***To assign structural profiles to departments, cost centers or locations (role-based login)***

1. Select **Organizations | Departments**.

- OR -

Select the category **Organizations | Cost centers**.

- OR -

Select the category **Organizations | Locations**.
2. Select the department, cost center or location in the result list.
3. Select **Assign structural profiles**.
4. Assign structural profiles in **Add assignments**.

- OR -

In **Remove assignments**, remove the structural profiles.
5. Save the changes.

## **Related topics**

- [Assigning structural profiles to business roles](#) on page 16
- [SAP Assigning user accounts directly to structural profiles](#) on page 17
- [Adding structural profiles in system roles](#) on page 18
- [Adding structural profiles to the IT Shop](#) on page 19
- [One Identity Manager users for managing personnel planning data and structural profiles](#) on page 5

# Assigning structural profiles to business roles

Installed modules: Business Roles Module

You assign structural profiles to business roles in order to assign them to user accounts over business roles.

## ***To assign a structural profile to a business role (non role-based login)***

1. Select **SAP R/3 | Structural profiles**.
2. Select a structural profile in the result list.
3. Select **Assign business roles** in the task view.
4. Assign business roles in **Add assignments**.  
- OR -  
Remove the business roles in **Remove assignments**.
5. Save the changes.

## ***To assign structural profiles to a business role (non role-based login)***

1. Select the category **Business roles | <Role class>**.
2. Select the business role in the result list.
3. Select **Assign structural profiles**.
4. Assign structural profiles in **Add assignments**.  
- OR -  
In **Remove assignments**, remove the structural profiles.
5. Save the changes.

## **Related topics**

- [Assigning structural profiles to organizations](#) on page 14
- [SAP Assigning user accounts directly to structural profiles](#) on page 17
- [Adding structural profiles in system roles](#) on page 18
- [Adding structural profiles to the IT Shop](#) on page 19
- [One Identity Manager users for managing personnel planning data and structural profiles](#) on page 5



# SAP Assigning user accounts directly to structural profiles

To react quickly to special requests, you can assign structural profiles directly to user accounts.

## ***To assign a structural profile directly to user accounts***

1. Select **SAP R/3 | Structural profiles**.
2. Select a structural profile in the result list.
3. Select **Assign user accounts** in the task view.

## ***To assign a structural profile to a user account***

1. Click **Add**.  
This inserts a new row in the table.
2. Select the user account you want to assign to the structural profile with **User accounts**.
3. If applicable, enter a validity period for the profile assignment in **Valid from** and **Valid until**.
4. Enter another user account if required.
5. Save the changes.

## ***To edit a profile assignment***

1. Select the profile assignment you want to edit in the table. Edit the validity period.
2. Save the changes.

## ***To remove a profile assignment***

1. Select the profile assignment you want to remove in the table.
2. Click **Delete**.
3. Save the changes.

## **Related topics**

- [Assigning structural profiles to organizations](#) on page 14
- [Assigning structural profiles to business roles](#) on page 16
- [Adding structural profiles in system roles](#) on page 18
- [Adding structural profiles to the IT Shop](#) on page 19

# Adding structural profiles in system roles

Installed modules: System Roles Module

Structural profiles can be added to different system roles. When you assign a system role to an employee the structural profiles are inherited by all SAP user accounts that these employees have. System roles in which SAP groups, roles, profiles or structural profiles are grouped, can be labeled with the system role type "SAP product". Structural profiles can also be added to system roles that are not SAP products.

**NOTE:** Structural profiles with **Only use in IT Shop** can only be assigned to system roles that also have this option set. For more information, see the One Identity Manager System Roles Administration Guide.

## **To assign a structural profile to system roles**

1. Select **SAP R/3 | Structural profiles**.
2. Select a structural profile in the result list.
3. Select **Assign system roles**.
4. Assign system roles in **Add assignments**.  
- OR -  
Delete the system roles in **Remove assignments**.
5. Save the changes.

## **To assign structural profiles to an SAP product**

1. Select **SAP R/3 | Products**.
2. Select the SAP product in the result list.
3. Select **Assign SAP structural profiles**.
4. Assign structural profiles in **Add assignments**.  
- OR -  
In **Remove assignments**, remove the structural profiles.
5. Save the changes.

## **Detailed information about this topic**

- One Identity Manager Administration Guide for Connecting to SAP R/3

## **Related topics**

- [Assigning structural profiles to organizations](#) on page 14
- [Assigning structural profiles to business roles](#) on page 16

- [SAP Assigning user accounts directly to structural profiles](#) on page 17
- [Adding structural profiles to the IT Shop](#) on page 19

## Adding structural profiles to the IT Shop

When you assign a structural profile to a IT Shop shelf, it can be requested by the shop customers. To ensure it can be requested, further prerequisites need to be guaranteed.

- the structural profile must be marked with the **IT Shop** option.
- the structural profile must be assigned a service item.
  - ① **TIP:** In Web Portal, all products that can be requested are grouped together by service category. To make the structural profile easier to find in Web Portal, assign a service category to the service item.
- If you only want it to be possible for the structural profile to be assigned to employees through IT Shop requests, the structural profile must also be labeled with the **Use only in IT Shop** option. Direct assignment to hierarchical roles or user accounts is no longer permitted.
- ① **NOTE:** With role-based login, the IT Shop administrators can assign structural profiles to IT Shop shelves. Target system administrators are not authorized to add structural profiles to IT Shop.

### **To add a structural profile to IT Shop.**

1. In Manager select **SAP R/3 | Structural profiles** (non-role-based login).  
- OR -  
In Manager, select **Entitlements | SAP Structural profiles** (role-based login).
2. In the result list, select the structural profile.
3. Select **Add to IT Shop**.
4. In **Add assignments**, the structural profile to the IT Shop shelves.
5. Save the changes.

### **To remove, a structural profile from individual shelves of the IT Shop**

1. In Manager select **SAP R/3 | Structural profiles** (non-role-based login).  
- OR -  
In Manager, select **Entitlements | SAP Structural profiles** (role-based login).
2. In the result list, select the structural profile.
3. Select **Add to IT Shop**.
4. In **Remove assignments**, the structural profile from the IT Shop shelves.
5. Save the changes.

### **To remove, a structural profile from all shelves of the IT Shop**

1. In Manager select **SAP R/3 | Structural profiles** (non-role-based login).  
- OR -  
In Manager, select **Entitlements | SAP Structural profiles** (role-based login).
2. In the result list, select the structural profile.
3. Select **Remove from all shelves (IT Shop)**.
4. Confirm the security prompt with **Yes**.
5. Click **OK**.

The structural profile is removed from all shelves by the One Identity Manager Service. All requests and assignment requests with this structural profile are canceled.

For more detailed information about request from company resources through the IT Shop, see the *One Identity Manager IT Shop Administration Guide*.

### **Related topics**

- [General master data for structural profiles](#) on page 12
- [Assigning structural profiles to organizations](#) on page 14
- [Assigning structural profiles to business roles](#) on page 16
- [SAP Assigning user accounts directly to structural profiles](#) on page 17
- [Adding structural profiles in system roles](#) on page 18

## **Additional tasks for structural profiles**

After you have entered the master data, you can run the following tasks.

### **Overview of a structural profile**

You can see the most important information about a structural profile on the overview form.

#### **To obtain an overview of a structural profile**

1. Select **SAP R/3 | Structural profiles**.
2. Select a structural profile in the result list.
3. Select **Structural profile overview**.

# Effectiveness of structural profiles

**Table 5: Configuration Parameter for Conditional Inheritance**

Configuration parameter	Effect when set
QER\Structures\Inherite\GroupExclusion	Preprocessor relevant configuration parameter for controlling effectiveness of group memberships. If the parameter is set, memberships can be reduced on the basis of exclusion definitions. The database has to be recompiled after changes have been made to the parameter.

If structural profiles are assigned to user accounts, an employee may obtain two or more structural profiles, which are not permitted in this combination. To prevent this, declare the structural profiles as mutually exclusive. To do this, you specify which of the two structural profiles should apply to the user accounts if both are assigned.

You can assign an excluded structural profile directly, indirectly or by IT Shop request at anytime. One Identity Manager determines whether the assignment is effective.

**NOTE:**

- You cannot define a pair of mutually exclusive structural profiles. That means, the definition "Structural profile A excludes structural profile B" AND "Structural profile B excludes structural profile A" are not permitted.
- You must declare each structural profile to be excluded from a structural profile separately. Exclusion definitions cannot be inherited.

The effect of the assignments is mapped in the tables SAPUserInSAPHRP and BaseTreeHasSAPHRP through the column XIsInEffect.

## Prerequisites

- The "QER\Structures\Inherite\GroupExclusion" configuration parameter is enabled.
- Mutually exclusive structural profiles belong to the same client.

## To exclude structural profiles

1. Select **SAP R/3 | Structural profiles**.
  2. Select a structural profile in the result list.
  3. Select **Exclude structural profiles**.
  4. Assign the structural profiles that are mutually exclusive to the selected location in **Add assignments**.
- OR -

In **Remove assignments**, remove structural profiles that are no longer mutually exclusive.

5. Save the changes.

For more information about the effectiveness of group memberships, see the One Identity Manager Administration Guide for Connecting to SAP R/3.

## Inheriting structural profiles based on categories

In One Identity Manager, structural profiles can be selectively inherited by user accounts. For this purpose, the structural profiles and the user accounts are divided into categories. The categories can be freely selected and are specified using a mapping rule. Each category is given a specific position within the template. The mapping rule contains different tables. Use the user account table to specify categories for target system dependent user accounts. In the other tables enter your categories for the structural profiles. Each table contains the category positions **Position 1** to **Position 31**.

Every user account can be assigned to one or more categories. Every structural profile can be assigned to one or more categories as well. The structural profile is inherited by the user account when at least one user account category item matches an assigned structural profile. The structural profile is also inherited by the user account if the structural profile or the user account is not put into categories.

- 1 **NOTE:** Inheritance through categories is only taken into account when structural profiles are assigned indirectly through hierarchical roles. Categories are not taken into account when structural profile are directly assigned to user accounts.

### To use inheritance through categories

1. Define the categories in the client.
  - 1 **NOTE:** If central user administration is implemented, define the categories in the central system as well as in the child system. The same categories must be defined in the child system as in the central system so that structural profiles from a child system can be inherited by user accounts.
2. Assign categories to user accounts through their master data.
3. Assign categories to structural profiles through their master data.

### To define a category

1. Select **SAP R/3 | Clients**.
2. Select the client in the result list. Select **Change master data**.
3. Select the **Categories** tab.
4. Open the member tree of the table "SAP structural Profiles".
5. Click the icon in front of the item name to enable category.

6. Enter a name for the category in the column for the respective One Identity Manager login language.
7. Save the changes.

### **Detailed information about this topic**

- One Identity Manager Administration Guide for Connecting to SAP R/3
- One Identity Manager Target System Base Module Administration Guide

### **Related topics**

- [General master data for structural profiles](#) on page 12

## Mapping personnel planning data

Personnel planning data and parts of the organization structure from the SAP HCM system can be mapped in the One Identity Manager. Set up a synchronization project to import personnel planning data. For more information, see [Setting up a synchronization project for synchronizing with an SAP HCM system](#) on page 9. The data source import "One Identity Manager" is given (column ImportSource = "SAP R/3") for all objects imported into the SAP database in this way.

Use this synchronization project to import employee master data and departments into One Identity Manager database. In addition, information about master identities, work hours, communication data, and department managers are imported. This information can be evaluated during identity audit by assigning employees to SAP user accounts.

Furthermore, you can configure synchronization for other personnel planning data. For more information, see [Setting up a synchronization project for synchronizing additional personnel planning data](#) on page 24.

## Setting up a synchronization project for synchronizing additional personnel planning data

You can import typically required personnel planning data into the One Identity Manager database using the initial synchronization project for personnel planning. This includes general employee master data, communications data, departments, and their managers. For more information, see [Project template for synchronizing personnel planning data](#) on page 33.

The SAP HCM system has other personnel planning data available. To import these, create a new synchronization project and configure mapping for the additional data. You can use predefined schema types to do this.

### Prerequisite

- Synchronization for SAP R/3 base administration is set up.



## To set up a synchronization project for additional personnel planning data

1. Set up an initial synchronization project as described in the One Identity Manager Administration Guide for Connecting to SAP R/3. The following special features apply:
  - a. On the **SAP HCM settings** page in the system connection wizard, state whether you want to configure any additional settings. Set the option **Show expert settings** to do this.
  - b. If you have set the **Show expert settings** option, select the address type to import on the **SAP HCM Settings** page.





If the option is not set, the page is not shown. The address type 1 (Permanent residence address) is imported by default.
  - c. The results of the compilation process are displayed on the **SAP connector schema** click **Next**.

**TIP:** You can enter a file with additional schema types on this page. The connector schema is extended by these custom schema types. You can also enter this data after saving the synchronization project. For detailed information, see the One Identity Manager Administration Guide for Connecting to SAP R/3.
  - d. On the **Select project template** page in the project wizard, select the "SAP HCM Employees and Departments" project template.
  - e. The **Restrict target system access** page is not displayed. The target system is only loaded.
  - f. Disable the option **Activate and save the new synchronization project automatically** on the last page of the project wizard.
  - g. To close the project wizard, click **Finish**.

This creates and allocates a default schedule for regular synchronization. The synchronization project is created.
2. Create mappings for the additional schema types in the Synchronization Editor.

**Table 6: Properties of a Mapping**

Properties	Meaning
Mapping name	Display name for the mapping. Mapping name is used as key. It cannot be changed after saving.
Mapping direction	Mapping direction permitted for all property mapping rules. Select "in direction of One Identity Manager"
Description	Spare text box for additional explanation.
Hierarchy synchronization	Specifies whether the mapping is part of the hierarchy. This option is important for optimizing synchronization.

Properties	Meaning
Only suitable for updates	Specifies whether schema class objects are never added during synchronization but only updated or deleted.
Schema class in One Identity Manager	<p>One Identity Manager schema class valid for this mapping. Displays all schema classes with a configured mapping, in the menu.</p> <ul style="list-style-type: none"> <li>Click  to edit schema class properties.</li> </ul> <p>Create a new schema class to set up a mapping for another schema type.</p> <ul style="list-style-type: none"> <li>Click  to create a new schema class.</li> </ul>
Schema class in the target system	<p>Target system schema class valid for this mapping. Displays all schema classes with a configured mapping, in the menu.</p> <p>Click  and create a new schema class for a schema type.</p> <p> <b>TIP:</b> If you require schema types that cannot be selected here, add your own.</p>

For information about setting up mappings and schema classes, see the One Identity Manager Target System Synchronization Reference Guide.

3. Edit the workflow "Initial synchronization" in the Synchronization Editor. Create additional synchronization steps for the new mappings.
  - a. In the **Synchronization direction** input field, select "In direction of One Identity Manager".

For detailed information about setting up synchronization steps, see the One Identity Manager Target System Synchronization Reference Guide.

4. Save the synchronization project in the database.
5. If you required schema types that cannot be selected when you add a mapping, add your own schema types. For detailed information, see the One Identity Manager Administration Guide for Connecting to SAP R/3.
6. Run a consistency check.
7. Activate the synchronization project.

### **To synchronize on a regular basis**

1. Open the synchronization project in the Synchronization Editor.
2. Select the category **Configuration | Start up configurations**.
3. Select a start up configuration in the document view and click **Edit schedule**.
4. Edit the schedule properties.
5. To enable the schedule, click **Activate**.
6. Click **OK**.

### **To start initial synchronization manually**

1. Open the synchronization project in the Synchronization Editor.
2. Select the category **Configuration | Start up configurations**.
3. Select a start up configuration in the document view and click **Execute**.
4. Confirm the security prompt with **Yes**.

### **Detailed information about this topic**

- [One Identity Manager Target System Synchronization Reference Guide](#)

### **Related topics**

- [Authorizations for synchronizing with an SAP HCM system](#) on page 8
- [Project template for synchronizing personnel planning data](#) on page 33

For more detailed information about setting up synchronization server, see the One Identity Manager Administration Guide for Connecting to SAP R/3.

## **Restricting synchronization scope**

The definition of a scope in the synchronization project allows you to limit the objects for synchronization. In order to synchronize only departments from the organization structure, you create a hierarchy filter for the target system connection. The hierarchy filter limits the scope to specific objects.

### **To create a hierarchy filter**

1. Open the synchronization project in the Synchronization Editor.
2. Select the category **Configuration | Target systems**.
3. Select the **Scope** view and click **Edit scope**.  
The hierarchy filter is displayed on the right-hand side of the scope view.
4. Mark all the departments to be included in the scope in the hierarchy.
5. Save the changes.

If the synchronization scope is limited to specific departments, only employees that are members of the selected department are synchronized. Therefore, expand the synchronization configuration to synchronize all employees. An extra schema class is supplied to do this. Add a mapping and synchronization step for this schema class.

The hierarchy filter does not affect "HREmployee\_Unfiltered (all)". This means that all employees are synchronized by the new synchronization step, even if the scope is limited to specified departments.


### ***To synchronize employees if the scope is limited to specified departments***

1. Open the synchronization project in the Synchronization Editor.
2. Update the target system schema.  
For more information, see [To update the target system schema](#) on page 28.
3. Create a mapping for "HREmployee\_Unfiltered".  
For more information, see [To create a mapping](#) on page 28.
4. Add a synchronization step in the synchronization workflow, which uses this map.  
For more information, see [To customize the synchronization workflow](#) on page 29.
5. Run a consistency check.
6. Activate the synchronization project.
7. Save the changes.

### ***To update the target system schema***

1. Select the category **Configuration | Target systems**.
2. Select the view **General** and click **Update schema**.
3. Confirm the security prompt with **Yes**.  
This reloads the schema data, making all unused schema data available.

### ***To create a mapping***


1. Select the category **Mappings**.
2. Click  in the navigation view.
3. Enter the general properties of a mapping and select the required schema classes.

**Table 7: Schema Classes**

<b>Property</b>	<b>Description</b>
Schema class in One Identity Manager	Employee (all)
Schema class in the target system	HREmployee_Unfiltered (all)

4. Click **OK**.  
This starts the mapping wizard.
5. Select **Create mapping rules based on template** on the **Select task** page.
6. Select **Employee** on the **Select source mapping** page.
7. The property mapping rules are displayed on the **Analysis result** page. Check the list and disable the rule you do not want to be added.
8. Click **Finish**.  
This opens the Mapping Editor. Check the property mapping rules and the object matching rules that have been created.

### **To customize the synchronization workflow**

1. Select the category **Workflows**.
2. Select the synchronization workflow in the navigation view (by default "Initial Synchronization").
3. In the workflow view, click .
4. Enter the synchronization step properties. Select the new map in the **Mapping** menu.
  - TIP:** Take the rest of the properties (processing methods, quotas, rules) from the properties of the synchronization step "Employee".
5. Click **OK**.
6. Double-click on "Employee" in the workflow view.
7. Select **General** and set **Disabled**.
8. Click **OK**.

For more detailed information about the topics described here, see the One Identity Manager Target System Synchronization Reference Guide.

## **Managing employees and departments**

After you have imported employees and departments into the One Identity Manager database, you can continue editing their properties. You can also enter additional properties (for example, language, or employee's primary location). Employees can be added to business roles, organizations or as customers to the IT Shop. In this way, employees can be supplied with the required company resource through One Identity Manager and taken into account in the Identity Audit.

- NOTE:** If you want to synchronize personnel planning data regularly with the One Identity Manager database, object properties written by synchronization must not be edited in One Identity Manager. Otherwise the changes are overwritten by synchronization.

Employees and departments with the data source import "SAP R/3" cannot be deleted in One Identity Manager.

### **To display employees who arise from importing personnel planning data**

- In Manager, select **Employees | Data source | SAP R/3**.

### **To display departments which arise from importing personnel planning data**

- In Manager, select **Organizations | Departments | Data source | SAP R/3**.

# Communication data display

It is possible to add communication data to SAP HCM systems, such as telephone numbers and employee email addresses, You can import communication data into the One Identity Manager database by synchronizing personnel planning data or you can enter it in the Manager.

## ***To display imported communication data***

1. Select the category **Employees | Data source | SAP R/3**.
2. Select an employee in the result list.
3. Select the task **Display SAP communication data**.

You will see all the communication data assigned to the employee with its respective validity period.

## ***To enter the employee's communication data***

1. Click **Add**.  
This inserts a new row in the table.
2. Edit the communication data properties.
3. Save the changes.

## ***To edit communication data***

1. Select the entry you want to edit in the table.
2. Edit the communication data properties.
3. Save the changes.

## ***To delete the employee's communication data***

1. Select the entry you want to delete in the table.
2. Click **Delete**.
3. Save the changes.

---

## Appendix: Configuration parameters for the SAP R/3 Structural Profiles Add-on Module

The following configuration parameters are additionally available in One Identity Manager after the module has been installed.

**Table 8: Configuration parameters for the module**

<b>Configuration parameter</b>	<b>Description</b>
TargetSystem\SAPR3\HRProfile	<p>Preprocessor relevant configuration parameter for controlling module components for managing structural profiles in SAP R/3. Changes to the parameter require recompiling the database.</p> <p>If this parameter is set you can manage personnel planning data and structural profiles with One Identity Manager.</p>

## Appendix: Default project templates for the SAP R/3 Structural Profiles Add-on Module

A default project template ensures that all required information is added in One Identity Manager. This includes mappings, workflows and the synchronization base object. If you do not use a default project template you must declare the synchronization base object in One Identity Manager yourself.

Use a default project template for initially setting up the synchronization project. For custom implementations, you can extend the synchronization project with the Synchronization Editor.

### Detailed information about this topic

- [Project template for synchronizing structural profiles](#) on page 32
- [Project template for synchronizing personnel planning data](#) on page 33

## Project template for synchronizing structural profiles

Use the "SAP HCM authentication objects" project template to synchronize structural profiles. The template uses mappings for the following schema types.

**Table 9: Mapping SAP R/3 schema types to tables in the One Identity Manager schema.**

Schema Type in the Target System	Table in the One Identity Manager Schema
SPROFILES	SAPHRP
UserInHRP	SAPUserInSAPHRP



# Project template for synchronizing personnel planning data

Use the "SAP HCM employees and departments" project template to synchronize personnel planning data. The template uses mappings for the following schema types.

**Table 10: Mapping SAP R/3 schema types to tables in the One Identity Manager schema.**

<b>Schema Type in the Target System</b>	<b>Table in the One Identity Manager Schema</b>
HREmployee_Active	Employee
HRPerson_0709_IDEXT	Employee
HRPerson_0041	Employee
HRPerson_0105	SHRPersonComData
HROrgUnit	Department
HROrgUnitManager	Department

## Appendix: Referenced SAP R/3 tables and BAPI calls

The following overview provides information about all the tables in an HCM system referenced during synchronization and the BAPI calls that are executed. The tables and BAPIs accessed by the SAP R/3 connector when SAP R/3 basis administration is synchronized are listed in the One Identity Manager Administration Guide for Connecting to SAP R/3.

**Table 11: Referenced tables and BAPIs**

Tables	BAPI Calls
• CSKS	• BAPI_PERSDATA_GETDETAIL
• CSKT	• BAPI_PERSDATA_GETDETAILEDLIST
• HRP1000	• BAPI_EMPLOYEE_GETDATA
• HRP1001	• BAPI_ADDRESSEMP_GETLIST
• PA0000	• BAPI_ADDRESSEMP_GETDETAIL
• PA0001	• HR_LEAVING_DATE
• PA0002	• BAPI_EMPLOYEE_ENQUEUE
• PA0007	• BAPI_EMPLOYEE_DEQUEUE
• PA0016	• BAPI_TRANSACTION_COMMIT
• PA0034	• BAPI_EMPLCOMM_CREATE
• PA0041	• BAPI_EMPLCOMM_CHANGE
• PA0105	• BAPI_EMPLCOMM_DELETE
• PA0709	• RFC_READ_TABLE
• PA0716	
• T001P	
• T77PR	
• T77UA	

One Identity solutions eliminate the complexities and time-consuming processes often required to govern identities, manage privileged accounts and control access. Our solutions enhance business agility while addressing your IAM challenges with on-premises, cloud and hybrid environments.

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Technical support is available to One Identity customers with a valid maintenance contract and customers who have trial versions. You can access the Support Portal at <https://support.oneidentity.com/>.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request
- View Knowledge Base articles
- Sign up for product notifications
- Download software and technical documentation
- View how-to-videos at [www.YouTube.com/OneIdentity](http://www.YouTube.com/OneIdentity)
- Engage in community discussions
- Chat with support engineers online
- View services to assist you with your product

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