

Role Concept in SAP Enterprise Portal 5.0 and 6.0



Version 1.0
February 2004



Copyright

© Copyright 2004 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.

IBM®, DB2®, DB2 Universal Database, OS/2®, Parallel Sysplex®, MVS/ESA, AIX®, S/390®, AS/400®, OS/390®, OS/400®, iSeries, pSeries, xSeries, zSeries, z/OS, AFP, Intelligent Miner, WebSphere®, Netfinity®, Tivoli®, Informix and Informix® Dynamic Server™ are trademarks of IBM Corporation in USA and/or other countries.

ORACLE® is a registered trademark of ORACLE Corporation.

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

Citrix®, the Citrix logo, ICA®, Program Neighborhood®, MetaFrame®, WinFrame®, VideoFrame®, MultiWin® and other Citrix product names referenced herein are trademarks of Citrix Systems, Inc.

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.

MarketSet and Enterprise Buyer are jointly owned trademarks of SAP AG and Commerce One.

SAP, SAP Logo, R/2, R/3, mySAP, mySAP.com and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and in several other countries all over the world. All other product and service names mentioned are trademarks of their respective companies.

Icons in Body Text

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

Additional icons are used in SAP Library documentation to help you identify different types of information at a glance. For more information, see *Help on Help* → *General Information Classes and Information Classes for Business Information Warehouse* on the first page of any version of *SAP Library*.

Typographic Conventions

Type Style	Description
<i>Example text</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Cross-references to other documentation.
Example text	Emphasized words or phrases in body text, graphic titles, and table titles.
EXAMPLE TEXT	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example text	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
Example text	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example text>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE TEXT	Keys on the keyboard, for example, F2 or ENTER.

Role Concept in SAP Enterprise Portal 5.0 and 6.0.....	6
Role Concepts at SAP	7
Roles in ABAP-Based SAP Systems	7
Maintenance of Roles in ABAP-Based Systems	8
Pre-Configured Roles in ABAP-Based Systems	8
What are the Functions of Roles in ABAP-Based Systems?	9
Roles in the mySAP Workplace	10
Role Maintenance in the mySAP Workplace.....	11
Pre-Configured Roles in the mySAP Workplace	12
What are the Functions of Roles in the mySAP Workplace?	12
Roles in SAP Enterprise Portal	13
Maintenance of Portal Roles.....	14
Pre-Configured Portal Roles.....	14
What are the Functions of Portal Roles?.....	15
Comparison of Role Concepts	16
Further Role Concepts: UME Roles.....	17
Comparison of Role Concepts: SAP Enterprise Portal 5.0 and 6.0.....	18
Portal Roles and Their Sources	18
Portal Roles and Administration.....	20
Portal Roles and ABAP-Based SAP Systems.....	21
Authorizations in SAP Enterprise Portal and in ABAP Systems.....	21
Permissions in SAP Enterprise Portal 6.0.....	22
Permissions in SAP Enterprise Portal 5.0.....	22
Portal Roles and Linking Them With Authorization Profiles	23
Role Distribution to the ABAP-Based SAP System	24
Role Migration from the ABAP-Based SAP System to the Portal.....	27
What is the Leading System for Role Maintenance?	29
Scenario I: ABAP-Based SAP System as the Leading System.....	29
Scenario II: SAP Enterprise Portal as the Leading System	30
Combination of Scenarios I and II.....	31
Portal Roles and Portal Content.....	32
Object Model in SAP Enterprise Portal 5.0 and 6.0	32
Object Relationships: Delta Links and Master Links	33
Administration Environment for Portal Content Objects	35
Namespaces for Content Objects.....	37
Portal Roles and Navigation.....	39
Portal Roles and User Management.....	40
Static Versus Flexible Role Assignment.....	41
UME Actions and Portal Permissions.....	42

Creation of a Portal Role Concept 43
Further Documentation 46



Role Concept in SAP Enterprise Portal 5.0 and 6.0

Portal roles are a key element of SAP Enterprise Portal to structure and deliver content to the end user. Through roles, a company can structure its business processes and deliver business content according to the needs of certain user groups of SAP Enterprise Portal.

Roles are the core functionality of many other applications in SAP products in addition to SAP Enterprise Portal. The role concepts in these applications, however, differ in a number of aspects.

A main focus of this document is to give you an overview of the most important SAP role concepts and to point out the main differences between the different models. This should clarify how the portal role concept fits into the overall SAP role concept.

Another focus of this document is on describing the role concept in SAP Enterprise Portal 5.0 and 6.0. The following aspects are discussed, describing the differences between EP 5.0 and EP 6.0:

- Portal roles and their sources
This section describes the sources available for bringing roles into SAP Enterprise Portal.
- Portal Roles and Administration
This section describe the connection between portal roles and portal administration.
- Portal roles and ABAP-based SAP systems
This section describes the points out the differences between the permission concepts in SAP Enterprise Portal and the authorization concepts in ABAP-based SAP systems. It also explains how portal roles can be linked with the authorization profiles in the ABAP-based systems and which tools can be used for this purpose. The scenarios „SAP Enterprise Portal as the leading system“ and „ABAP-based system as the leading system“ are also discussed.
- Portal roles and portal content
This section explains the object models on which EP 5.0 and 6.0 are based and the different administration environments for content objects are compared with one another.
- Portal roles and navigation
This section explains the relationship between portal roles and navigation.
- Portal roles and user management
This section discusses the different user management concepts in SAP Enterprise Portal 5.0 and 6.0.

See [Further Documentation \[Seite 46\]](#) for references to other documents and to the SAP Enterprise Portal documentation.



Role Concepts at SAP

SAP's role concept began with the introduction of the profile generator, which was available with R/3 Release 3.1G, and which was used only as a tool for the administration of authorizations.

The SAP role concept was continuously developed in subsequent releases right up to the introduction of the mySAP Workplace. A mature form was available with Release R/3 4.6x and mySAP Workplace 2.11. This release merged personalized menu information using roles for the first time. The mySAP Workplace enhanced the role concept in the portal area.

SAP Enterprise Portal 5.0 and 6.0 enhance the role concept even further. At the same time, the past investment in the concept and development of roles is applied by offering migration paths for the new role concept in SAP Enterprise Portal. Using migration tools, existing SAP roles can be used in the new platform.

An overview of the role concepts in the different SAP products is given below. It points out the most important differences in the role concepts of the different SAP products.

- [Roles in ABAP-Based SAP Systems \[Seite 7\]](#)
- [Roles in the mySAP Workplace \[Seite 10\]](#)
- [Roles in SAP Enterprise Portal \[Seite 13\]](#)
- [Comparison of Role Concepts \[Seite 16\]](#)

[UME Roles \[Seite 17\]](#) (roles in the User Management Engine) are also explained.



Roles in ABAP-Based SAP Systems

Definition

Roles in an ABAP-based SAP system are collections of activities that permit users to participate in one or more business scenarios of a given SAP application. By using roles the administrator defines the user menu or SAP Easy Access menu that allows the user to access the transactions, reports or Web-based applications contained in the roles.

Roles and the derived SAP Easy Access menu only contain the functions that are typical for a given user's daily work. Authorization profiles that limit the scope of action of users in the SAP system are generated according to the activities contained in roles.

Single Roles and Composite Roles

Roles in ABAP-based SAP systems can be either single roles or composite roles. The contents of a single role always refer to a single SAP application. The single role also contains authorization information about the objects contained in the role.

There are also composite roles. Sometimes a workplace cannot be described with only a single role. For easier maintenance and greater reusability of the information, you can describe a workplace modularly with multiple single roles that are combined into a composite role. If users are assigned to a composite role, they are automatically assigned to the single roles contained in the composite role. Composite roles do not contain data about authorizations.

In the composite role you can create the overall menu structure resulting from the sum of the single roles in the composite role.

It makes sense to create composite roles for example if some of your employees need authorizations for more than one role. Instead of entering each user individually in each required role, you can create a composite role and assign the users to this composite role.

Read [Further Documentation \[Seite 46\]](#) to find out where you can find detailed documentation about roles in ABAP-based systems.



Maintenance of Roles in ABAP-Based Systems

In ABAP-based systems, the functions for creating and maintaining roles, user assignment and the generation of authorizations, are linked with one another in the transaction for role maintenance (PFCG).

In the role maintenance transaction, the system administrator can define the menu of a role from the menu paths (in the SAP menu), transactions, reports, Internet/Intranet links, etc. Any structure and terminology can be defined for the functions it contains. The selected functions correspond to the activities performed by the user or group of users.

The tree which a system administrator can define here for a group of users corresponds to the user menu that appears when the user to whom this role is assigned logs onto the SAP system.

The profile generator is also available in transaction PFCG. The profile generator automatically provides the corresponding authorizations for the selected functions. Some of these offer proposals. A traffic light indicates which values need to be maintained. You then generate the authorization profile and assign the role to the users.

The role-based user menu or the SAP Easy Access menu appears when a user logs onto the SAP system. This replaces the enterprise menu, which is no longer available with R/3 Release 4.6A.



Pre-Configured Roles in ABAP-Based Systems

SAP provides pre-defined role templates in each ABAP-based system. Before you begin to set up your own roles for your employees, you should check whether the roles provided by SAP can be applied to the activities in your company.

When one of the SAP roles is assigned to a user, the typical user menu for this user's daily work is automatically displayed at logon and the authorizations needed for these tasks are automatically granted.



What are the Functions of Roles in ABAP-Based Systems?

Using roles, access to SAP transactions and reports can be defined for each user and can be adjusted to the relevant activities of a user.

Roles are assigned to users. Roles define what contents of a SAP system should be accessed by each user.

Roles control authorization maintenance; authorization profiles are generated for the activities and functions contained in the role.



Roles in the mySAP Workplace

With the mySAP Workplace, SAP took its first steps toward developing an enterprise portal. The mySAP Workplace is a personalized and role-based Web access to all the information, applications and services, that users need for their work. In their roles, users perform certain business scenarios, such as creating invoices, that are taken from different SAP components and/or external systems. For example, users can enter an order in Materials Management and display a list in the Business Information Warehouse without having to log onto different SAP systems (security concept with single sign-on). The borders between the applications disappear, and the Workplace appears to the user as a unified interface for all applications. Users only need an Internet browser and do not need to install any other programs.

All the activities called by users from their Workplace (for example SAP transactions, reports, and Internet and Intranet pages) are taken from the assigned roles. The roles contain the activities users need for their daily work, and represent the business processes that they have to perform.

In the role concept **prior to** the introduction of the mySAP Workplace, roles are the basis for generating the user-specific SAP Easy Access Menus within **one** SAP application. The mySAP Workplace offers the following enhancements with respect to this role concept:

- Cross-system access

The mySAP Workplace offers a personalized and system-wide access to all the activities and information that are relevant for the user. This means that, for example, users can access different SAP systems using their assigned roles and do not need to know in which system they are. With single sign-on, users log onto the Workplace only once and can thus reach all the SAP systems that can be accessed from the Workplace.
- Integration of different information

The mySAP Workplace not only offers access to SAP systems, but also permits the integration of internal and external information and services under a single Web-based user interface. Users can use not only the functions of the different SAP applications, but also those of potential non-SAP systems and Internet services.
- Navigation

Roles and user navigation are linked with one another. Workplace users navigate within a user-specific tree structure, called the LaunchPad, containing all the activities relevant for them. Navigation within this tree structure is defined by the menu structure of composite roles.

Single and Composite Roles

A Workplace system is an ABAP-based SAP system. The role concept of the mySAP Workplace therefore also is familiar with single and composite roles. Composite roles, however, have a greater significance in a Workplace system than in an SAP system, in which the roles are only used to create the SAP Easy Access menu.

You **must** use composite roles within the role concept of the mySAP Workplace, because only by using composite roles can the administrator:

- combine the contents of the Workplace across all systems
- organize and structure the contents of the Workplace
- define the user navigation (LaunchPad navigation)

Composite roles contain the activities, functions, information and services that users need to perform their daily work in a certain function **across all systems**. A user can be assigned to more than one composite role. Each composite role consists of a number of single roles that

grant access to all the activities and functions belonging to this composite role. Note that each single role provides activities, functions, information or services from just one backend system.

A single role defines a group of activities, functions and services from just one target system (backend system). Therefore it is not defined **for several systems**.

For more information about composite and single roles, see [Maintenance of Workplace Roles \[Seite 11\]](#).

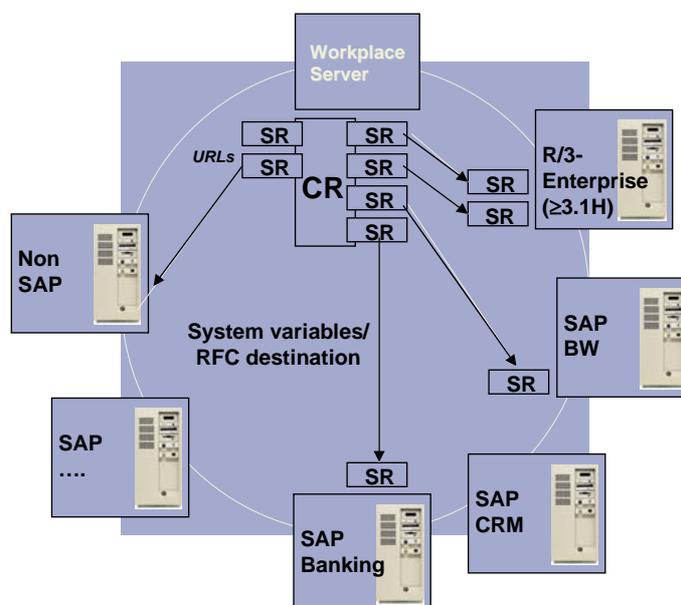
Role Maintenance in the mySAP Workplace

Most workplace roles (single and composite roles) are created on the Workplace Server. The Workplace Server is a special ABAP-based SAP system that is connected with other SAP backend systems using RFC definitions. The Workplace Server provides the functions for configuration and administration, including role administration. Workplace roles (single and composite roles) are created and maintained in transaction PFCG. The procedure for the creation and administration of roles for display in the Workplace is thus analogous to that for display in the SAP Easy Access menu.

The administrator combines the single roles to a composite role on the Workplace Server. The administrator then defines the navigation structure for the Workplace user in the composite role.

Single roles must exist on both the Workplace Server and the backend systems. There are therefore two methods for the administration of single roles: Single roles are created in the backend systems and then copied to the Workplace Server. For backend systems with Release 4.6A and higher, single roles can also be created on the Workplace Server and then distributed to the backend systems.

The following graphic shows a Workplace system landscape with a Workplace Server and connected backend systems:



You can assign both single roles and composite roles to users. The authorization profiles for the single roles are generated in the backend systems where they originate, and not on the Workplace Server.



Pre-Configured Roles in the mySAP Workplace

SAP provided more than 400 cross-component and cross-application templates for composite roles, including single roles, for the mySAP Workplace. These were shipped on a separate CD and imported to the Workplace Server. In addition to cross-industry templates, there were also industry-specific templates for composite roles and single roles.



What are the Functions of Roles in the mySAP Workplace?

Workplace roles permit **personalized**, **unified** and **cross-system** access to all the information, services and activities that are relevant for the user.

Workplace roles permit you to integrate different information. The primary application of the mySAP Workplace is to integrate different SAP applications in a unified Web-based interface, but non-SAP systems and Internet services can also be linked.

The user navigation at the Workplace is defined with Workplace roles (composite roles).

Workplace roles are assigned to the user. They define the contents that the user can access.

Authorization maintenance is controlled by the single roles of the Workplace; authorization profiles are generated for the activities contained in the single roles.

Roles in SAP Enterprise Portal

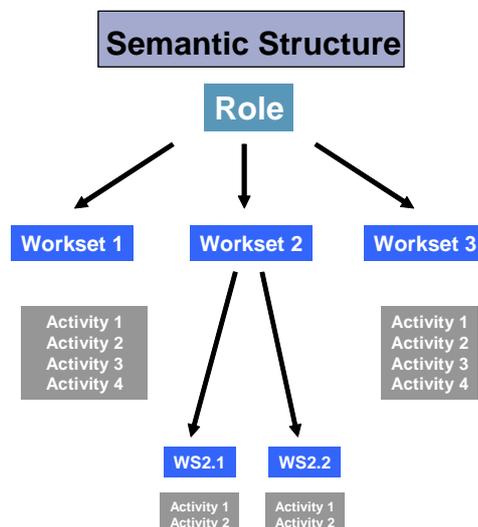
In SAP Enterprise Portal 5.0 and 6.0, SAP has taken the existing role concept one step further and introduced features like multi-page support, flexible page layouts, and worksets as a new layer in the role hierarchy. With the introduction of worksets as modular entities within a role, customers can use these building blocks to build and rebuild role structures more dynamically. The role concepts are basically identical in EP 5.0 and EP 6.0.

In contrast to the role concept in ABAP-based SAP systems or in the mySAP Workplace, the role concept in SAP Enterprise Portal is not concerned with the activities of the user in an SAP system, but instead classifies the users from the point of view of the entire company and the core processes in the company. For more information see [Creating a Portal Role Concept \[Seite 43\]](#). From the business point of view, a portal role represents the job description that a person fulfills in an organization. The contents of portal roles are defined by company structures and the information requirements of the portal users in this company.

Technically, portal roles are folder hierarchies composed of worksets, pages and iViews (in EP 5.0 there are also External Services). Roles are thus containers for portal content objects. Portal content is provided by content objects such as worksets, pages and iViews and provided for the user by insertion in roles.

In contrast to the portal role, a workset presents a certain area of activity, such as controlling or budgeting. A workset can be used by any number of roles. Whereas roles are based on global company structures, worksets include activities or tasks that belong to the same area of activity. From a business point of view, a workset therefore cannot replace a role. Technically a workset is a folder hierarchy containing pages and iViews, analogous to a portal role. Worksets cannot be assigned directly to users.

The following diagram shows the semantic relationship between roles and worksets:



See [Further Documentation \[Seite 46\]](#) for information about portal roles in the standard documentation.



Maintenance of Portal Roles

Roles are maintained with the Role Editor in both SAP Enterprise Portal 5.0 and 6.0. The Role Editor is a Web-based tool for creating roles and hierarchies and for assigning content objects to roles.

In EP 5.0, the Role Editor is a central tool which can be used to create and edit External Services, master iViews and worksets as well as roles. Other editors are available for the administration of pages and iViews.

In EP 6.0, the Role Editor is embedded in the central administration environment for the development and administration of content: the Portal Content Studio. This administration environment can be used to call all editors for the creation and administration of content, including the Role Editor. Only roles can be created and edited in the Role Editor.

For more information see [Administration Environment for Portal Content Objects \[Seite 35\]](#).

Contrary to the ABAP-based transaction for role maintenance (PFCG), the functions for creating and maintaining roles, assigning users, and maintaining permissions, are not linked in the Role Editor of SAP Enterprise Portals. Other editors and tools are available for the maintenance of administration permissions for content objects and for user assignment.

The following table shows which steps an administrator must perform when creating roles:

Action	EP 5.0	EP 6.0
Create role	X (Role Editor)	X (Role Wizard)
Build role hierarchy (create folder)	X (Role Editor)	X (Role Editor)
Assign content objects to role	X (Role Editor)	X (Role Editor)
Define entry points/navigation	X (Role Editor)	X (Property Editor as part of the Role Editor)
Define permissions	- (not relevant)	X (Permission Editor)
Make user assignments	X (Tool for assigning roles to users)	X (Tool for assigning roles to users)

Read the section [Further Documentation \[Seite 46\]](#) to find out where you can find detailed documentation about role administration in SAP Enterprise Portal.



Pre-Configured Portal Roles

Pre-configured portal roles are part of the standard content available after installation of SAP Enterprise Portal and include for example the portal administration roles. For more information see [Portal Roles and Administration \[Seite 20\]](#).

Roles and other portal content are also provided in the form of business packages on the iViewStudio. They can be downloaded and imported into SAP Enterprise Portal. Business packages provide business content. Using business packages, you do not need to build all your own content. Instead, you can use the objects provided by SAP and adjust them to your company's needs. For more information see [Portal Roles and Their Sources \[Seite 18\]](#).

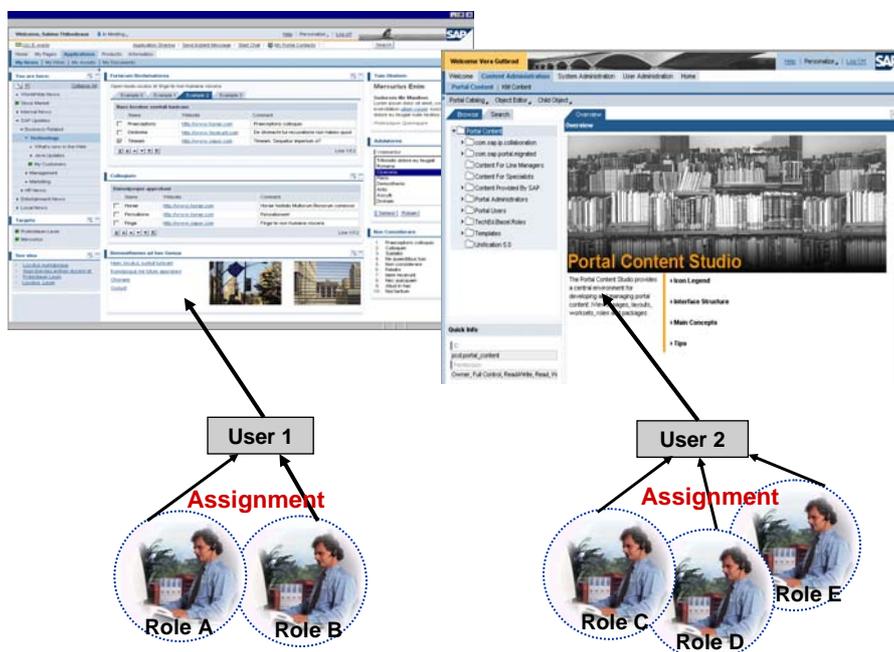
What are the Functions of Portal Roles?

Portal roles enable a personalized and single access to all applications, information and services needed in a given role in a company.

Portal roles represent complete job descriptions and are not limited to the objects in SAP applications. For more information see [Creating a Portal Role Concept \[Seite 43\]](#).

The navigation structure of SAP Enterprise Portal (top-level and detailed navigation) is defined by the role structure. Role and navigation are thus greatly interconnected. For more information see [Portal Roles and Navigation \[Seite 39\]](#).

Portal roles connect portal users with the content because only portal roles can be assigned to users or user groups:





Comparison of Role Concepts

The following table contains the most important differences between the role concepts in ABAP-based systems, Workplace systems, and in SAP Enterprise Portal:

Roles in ABAP-Based SAP Systems	Workplace Roles	Portal Roles
The contents of a role always refer to a single SAP application.	The contents of Workplace roles (composite roles) are cross-application. The contents of single roles in the Workplace refer to a single SAP application.	The contents of portal roles do not depend on SAP applications. They contain different kinds of information (heterogeneous content types): SAP and non-SAP applications, documents of all kinds, Internet information, etc.
The role contents depend on the user's tasks in the SAP system.	The role contents depend on the user's tasks, mostly in the SAP system.	The role contents depend on the company structure and the core processes of the company.
The SAP Easy Access menu is defined by roles.	The tree structure (LaunchPad) for user navigation at the Workplace is defined by roles.	The role hierarchy is the basis for defining the top-level and detailed navigation in SAP Enterprise Portal.
There are single and composite roles, whereby composite roles need not be used.	There are single and composite roles, as Workplace roles are also roles in an ABAP-based system. Composite roles must be used to define the user navigation (LaunchPad).	Roles are not divided into different role types. The portal introduces the concept of "worksets".
All actions connected with the role are performed with transaction PFCG: definition of the role, assignment to the user, generation of authorizations.	All actions connected with the role are performed with transaction PFCG: definition of the role, assignment to the user, generation of authorizations.	Maintenance with Web-based tools in the portal administration landscape.
Roles (single roles) carry the authorization information. Authorization profiles are generated in transaction PFCG.	Single roles of the Workplace contain the authorization information. Authorization profiles are generated in transaction PFCG.	No authorizations can be generated for ABAP-based SAP systems in SAP Enterprise Portal. Portal roles do not carry any authorization information.
Roles define the information to which users have access.	Workplace roles define the information to which users have access.	Portal roles define the information to which users have access.
Roles are transported with the general SAP transport infrastructure.	Roles are transported with the general SAP transport infrastructure.	Transport takes place in the form of import and export functions.



Further Role Concepts: UME Roles

In addition to roles in ABAP-based systems, in SAP Enterprise Portal, and in the mySAP Workplace, there are also roles within the SAP User Management Engine (UME).

Like the role concept in ABAP-based systems and in the mySAP Workplace, roles carry the authorization information within the UME. The authorization concept in the User Management Engine (UME) consists of permissions, actions and roles.

These objects are related as follows: Internally in their Java code, applications define **Java permissions** and use them for access control. An **action** is a collection of permissions. Every application defines its own set of actions and specifies the permissions assigned to the actions either in an XML file or (more seldom) dynamically in the code. The actions are listed in the user management administration console, where you can group them together into **roles**. UME roles group together actions from one or more applications. You assign roles to users in the user management administration console. By assigning roles to users, you define the users' authorizations.

UME actions are used in SAP Enterprise Portal 6.0 (but UME roles are not used). For more information about using UME actions in SAP Enterprise Portal see [UME Actions und Portal Permissions \[Seite 42\]](#).

See [Further Documentation \[Seite 46\]](#) for information about UME roles in the standard documentation.



Comparison of Role Concepts: SAP Enterprise Portal 5.0 and 6.0

The chapters below explain the most important concepts in connection with portal roles. The concepts and functionality of SAP Enterprise Portal 5.0 and 6.0 are also compared:

- Portal roles and their sources
- Portal roles and administration
- Portal roles and ABAP-based SAP systems (authorizations and permissions)
- Portal roles and portal content
- Portal roles and navigation
- Portal roles and user management



Portal Roles and Their Sources

You can fill SAP Enterprise Portal with roles in different ways:

- **You develop your roles yourself.**

The portal offers you a number of administration tools for developing roles. You can use them to create portal content and to build portal roles. For information about the administration tools see [Administration Environment for Portal Content Objects \[Seite 35\]](#).

You develop roles by creating folder hierarchies and adding content objects to these folders.

- **You download business packages from the iViewStudio.**

Preconfigured roles are shipped in business packages. Business packages are predefined packages containing portal content. You can access them from SAP AG at <http://iviewstudio.com>. You can download individual content packages directly from the iViewStudio, and migrate and integrate them in your portal.

In the iViewStudio you find business packages that were developed based on SAP Enterprise Portal 5.0 and 6.0. You can also use EP 5.0 packages in a SAP Enterprise Portal 6.0 environment by performing a migration at the same time as the download.

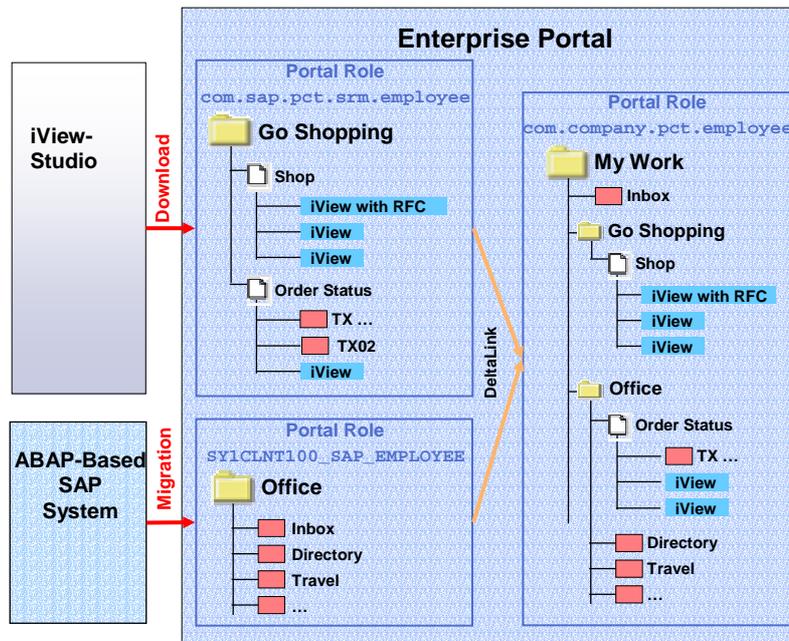
For more information about business packages see <http://iviewstudio.com>.

See [Further Documentation \[Seite 46\]](#) for more information about business packages.

- **Role Migration**

You can migrate roles from an ABAP-based SAP system to SAP Enterprise Portal and reuse them. For more information see [Role Migration from the SAP System to the Portal \[Seite 27\]](#).

In practice, you will work with a combination of the three options, as shown below. In the enterprise portal you have the portal role *com.sap.pct.srm.employee*, which comes from a business package and is downloaded from the iViewStudio. Portal role *SY1CLNT100_SAP_EMPLOYEE* comes from an ABAP-based SAP system and is migrated to the enterprise portal. The role *com.company.pct.employee* is a new role containing the other two roles, linked with a delta link. The role *com.company.pct.employee* uses the contents of the other two roles and changes them with the delta link method.



Administration Roles

Roles are also shipped together with the standard portal content. This includes the administration roles, which you must use for portal administration. For more information see [Portal Roles and Administration \[Seite 20\]](#).



Portal Roles and Administration

The entire portal administration is performed using administration roles contained in the standard content of the portal. The administration roles contain all the functions possible for portal administration.

The standard delivery of SAP Enterprise Portal 6.0 contains four administration roles, all of which subdivide the existing administration tasks into the following four groups:

- Super Administration (containing all administration tasks)
- Content Administration
- System Administration
- User Administration

You can find these roles in the Portal Catalog under *Portal Content* → *Portal Administrators*. You can assign these roles directly to your administrators. The preconfigured administration roles support delegated administration by dividing the administration tasks into sensible units for which the relevant administrators are responsible. System administrators, for example, cannot see the tasks of content administrators within their role. A certain view on the Portal Catalog is created from the administration roles. Content administrators can view and edit different objects in the Portal Catalog than system administrators. A content administrator can for example create and edit iViews, pages, worksets and roles, but not systems or export packages. Only the system administrator can access these objects. The super administrator can perform **all** administration tasks and can access **all** objects of the Portal Catalog.

SAP Enterprise Portal 5.0 has only one administration role, *portal_admin*. It contains all the administration tasks; delegated administration as in EP 6.0 is not supported. At delivery the administration role is already in the customer namespace and you can adjust or change it directly. At delivery, the *portal_admin* role contains delta links to a set of worksets that are located in the SAP namespace and from which the role obtains its contents.

See [Further Documentation \[Seite 46\]](#) for information about administration roles in the standard documentation.



Portal Roles and ABAP-Based SAP Systems

The below sections explain the different authorization and permissions concepts in SAP Enterprise Portal and in the ABAP-based SAP systems.



When we talk about ABAP-based systems in the following sections, this also includes Workplace systems.

The below sections also explain how portal roles can be linked with the authorization profiles in the ABAP-based SAP systems. There are tools available with which you can distribute portal roles to the backend system or migrate roles from the ABAP-based backend systems to the enterprise portal.

The scenarios *SAP Enterprise Portal as a Leading System* and *ABAP-Based SAP System as a Leading System* are also discussed.

See [Further Documentation \[Seite 46\]](#) for more information about the above topics.



Authorizations in SAP Enterprise Portal and in ABAP Systems

SAP Enterprise Portal does **not** have a central authorization concept that would allow you to generate authorization profiles necessary for the backend system.

Note the following about portal roles and authorizations:

- Portal roles cannot be used in the SAP Enterprise Portal to generate authorization profiles for the backend system.
- If portal roles contain transactions and other objects that access ABAP-based backend systems, you must still generate the authorization profiles in the backend system. You cannot do this in the portal environment.
- Both SAP Enterprise Portal and the backend system have tools that permit you to link the portal role with the ABAP authorization concept and to link the authorization profile in the backend system with the portal role concept. You can still use the authorization profiles in your SAP system landscape if you are using SAP Enterprise Portal. See also [Portal Roles and Linking Them with Authorization Profiles \[Seite 23\]](#).
- SAP Enterprise Portal has its own permissions concept, which is implemented with the Access Control List method. See also [Authorizations in SAP Enterprise Portal 6.0 \[Seite 22\]](#).



Permissions in SAP Enterprise Portal 6.0

There is a permissions concept for portal objects in SAP Enterprise Portal 6.0. It is valid for all objects of the Portal Content Directory that can be maintained with a special editor (Permission Editor) in the portal. Portal permissions mainly define the access rights of portal administrators to portal objects in the Portal Catalog. The access permissions are implemented with the Access Control List (ACL) method.

Portal permissions are connected with the concept of delegated administration. By assigning ACLs to folders in the Portal Catalog, you can define which actions an administrator may perform with certain objects of the Portal Catalog. For example, administrator X may only have read permissions for objects in the Portal Catalog folder B, whereas administrator Y may also have write permissions for the same objects in folder B.

In addition to the different levels of administration permissions (design time permissions), there is also an end user permission. It defines which objects should be displayed for a user in the runtime environment and whether these objects may be personalized.

The permission concept of SAP Enterprise Portal includes:

- Permissions for portal administration
- End user permission to view and personalize portal content in a runtime environment.



The permissions concept of SAP Enterprise Portal **does not include** authorizations for objects in the backend system.



Permissions in SAP Enterprise Portal 5.0

SAP Enterprise Portal 5.0 does not have a permissions concept for portal objects that is analogous to that for SAP Enterprise Portal 6.0. You cannot distribute administration tasks and simultaneously assign different permissions for content objects.

In SAP Enterprise Portal 5.0 there are more restrictions. The only objects for which you can assign authorization levels for execution are master iViews and their dependent Java iViews. There are no access permissions for any other objects.

In EP 5.0 you can define the authorization level for a user in the **AuthRequirement** property of the portal component properties of a master iView in order to use the master iView or its derived Java iViews. In an authorization level, you can for example define that a user must be assigned to one or more roles in order to call a master iView or a derived Java iView. This is true for both the administration and the end user environment.

Portal Roles and Linking Them With Authorization Profiles

Distribution of Portal Roles in the ABAP-Based Backend System

Portal roles and their contents can be linked with authorization profiles generated in ABAP-based systems. In order to be able to access the authorization data in the connected backend systems with the roles administered in SAP Enterprise Portal, you must distribute these role definitions and their user assignments to these systems. The portal provides a tool with which you can distribute portal roles and user assignments to the backend system.

The backend system provides transaction WP3R. It can be used to assign users and their assigned portal roles a corresponding role in the backend system. This corresponding role (authorization role) contains the authorizations needed to execute certain services, such as transactions and iViews, from the portal. Authorization roles are the basis for generating authorization profiles.



You use these tools primarily **if you use SAP Enterprise Portal as the main system** to create your roles. See also [Scenario II: SAP Enterprise Portal as the Leading System \[Seite 30\]](#).

You can also use the tools for synchronization. For example, if you enhance existing portal roles with entries from backend systems (for example, you add additional transactions), you can also update the authorization roles in the backend system and adjust the authorization profiles.

Role Migration from the ABAP-Based Backend System to SAP Enterprise Portal

You can also apply a reverse method. You can use existing single and composite roles as well as authorization profiles from ABAP-based SAP systems if you are working with SAP Enterprise Portal. SAP Enterprise Portal offers you a role migration tool to migrate definitions and user assignments of the single and composite roles to SAP Enterprise Portal. The authorization profiles remain in the backend system and are used when you launch a transaction from the portal.

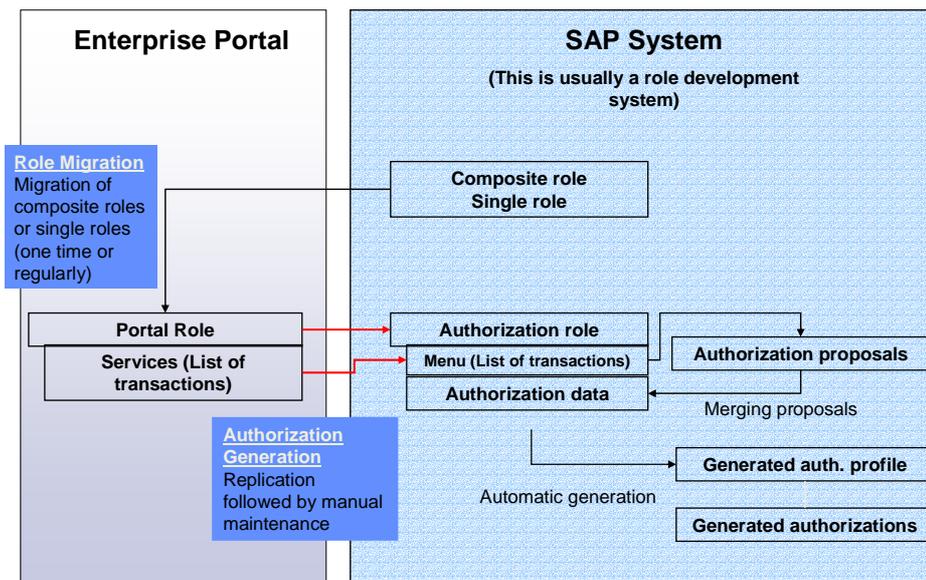


You use role migration primarily if you use the ABAP-based backend system as the leading system to create roles. See also [Scenario I: ABAP-Based SAP System as the Leading System \[Seite 29\]](#).

You can also use role migration as a synchronization tool. When you change a single or composite role in the backend system, you can migrate the changed role again from the backend system to SAP Enterprise Portal.

You can also combine the two scenarios: role migration and role distribution. The scenario you choose depends mainly on whether you are using the enterprise portal or the ABAP-based SAP system as the leading system for creating roles. You can also use a combination of the two scenarios.

The figure below shows how the process of role migration and role distribution can affect one another:

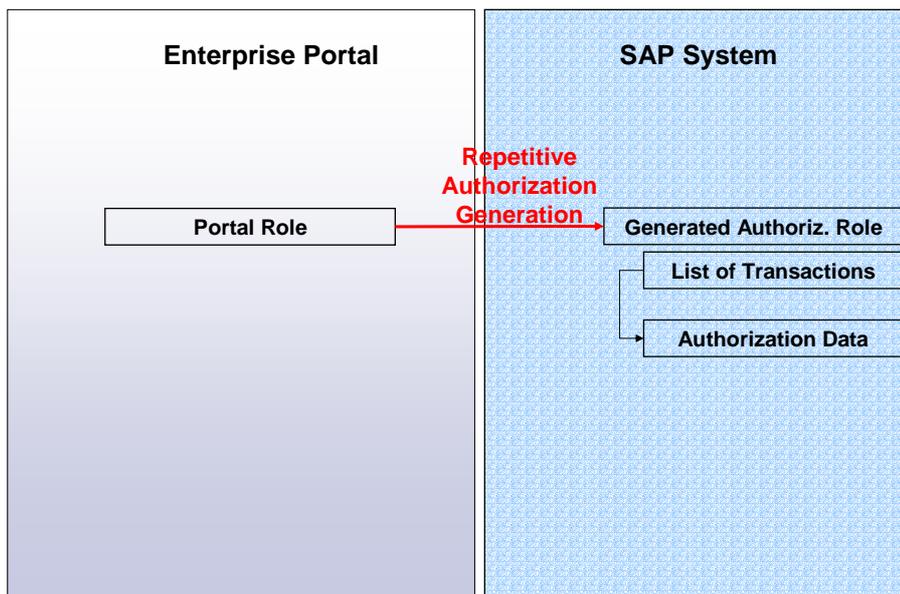


Role Distribution to the ABAP-Based SAP System

Scenarios for Role Distribution

You can use the role distribution function for the following scenarios:

- You maintain authorizations for the objects contained in portal roles (such as transactions and iViews) that access ABAP-based backend systems. This is the case in the following scenario: You are using SAP Enterprise Portal as the leading system for creating your roles and therefore have to distribute roles in order to generate authorizations in the backend system.
- You distribute changed and enhanced portal roles to the backend system at regular intervals in order to create authorizations for added objects.
- You distribute the role-to-user assignment to the backend system.



Role Distribution in EP 5.0 and EP 6.0

The prerequisite for role distribution and distribution of role-to-user assignments in EP 5.0 and EP 6.0 is to import SAP Enterprise Portal plug-in 6.0 to all connected backend systems of the portal. This plug-in contains all the functions necessary for post-processing portal roles in the backend system.

Distribution includes the following:

- Transfer of the portal roles to the backend system

During the role transfer, the relevant entries for authorization maintenance in the backend system are filtered out of the portal role. Transactions and non-transactional services can be sent to the backend system. All other objects are ignored when the role is transferred. Non-transactional services are iViews that access the backend system using BAPIs, and that can display data from the backend systems in the portal.
- Distribution of the user-to-role assignment from the portal to the backend system
- Creation of authorization roles for each portal role and each logical system in the backend system using transaction WP3R
- Generation of authorizations for the services contained in the authorization role (transactions and iViews). Authorization tracing must be activated in the backend system in order to make sure that the authorization profiles necessary for iViews are also generated. If authorization tracing is activated, the authorization proposals entered in the backend system are also created for iViews. The authorization profiles are generated from the proposed authorization values.
- Assignment of authorization roles to users

The assignments copied from the portal must be implemented in the backend system, that is the authorization roles derived from the portal roles must also be assigned to the relevant users in the backend system.

Constraints

1. Manual post-processing

Distribution of portal roles to the backend system requires manual post-processing:

- Authorization roles must be generated from portal roles and the corresponding service list.
- After distribution of the user assignment, the users must be manually assigned to the authorization roles.

2. Identical user IDs

To ensure that the user assignments are distributed correctly, you must make sure that the user IDs in the portal and the backend system are identical. Ideally the two IDs will already be identical. However, if they are different, you must perform user mapping from the portal user to the SAP user.

3. Mapping of system landscapes

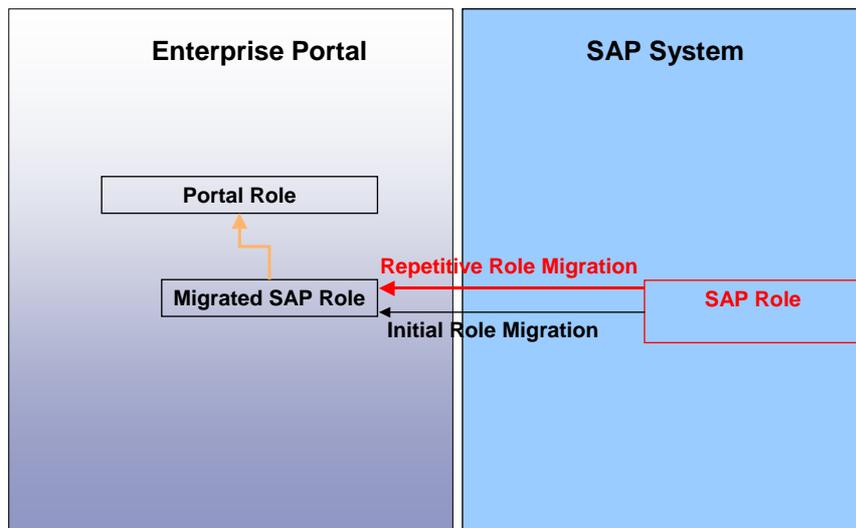
The portal does not recognize the SAP system landscape. This means that the portal does not recognize either the logical backend systems or their responsibilities. You therefore have to store the logical system names of the backend systems in the portal system landscape so that both system landscapes (portal and backend system) can communicate with one another.

Role Migration from the ABAP-Based SAP System to the Portal

Scenarios for Role Migration

Use the role migration function for the following scenarios:

- You want to reuse existing role definitions of an ABAP-based SAP system in SAP Enterprise Portal.
- You initially migrate all your roles from the ABAP-based SAP systems to the enterprise portal. In the future you plan to create and maintain your roles only from the portal.
- You migrate new role definitions from the backend system to the portal at regular intervals. You do this especially when you use the ABAP-based SAP system as the leading system. In this case you still create your roles in this system and only use the portal to display and navigate in the contents.
- You also migrate the services contained in the roles (transactions, URLs, MiniApps, etc.) to the portal: You can only migrate services using the role as a migration unit, and not independently of the role. After migration, you can access these services in the portal and also use them in other roles.



Role Migration in EP 5.0 and EP 6.0

EP 5.0 provides you with a tool for migrating roles from the backend system to the portal. You can find this tool in the administration role.



At the moment you can only use role migration in EP 5.0. All connected SAP component systems require that the SAP Enterprise Portal plug-in be installed. Migration is supported for SAP systems of Release 4.6x and higher.

EP 6.0 currently does not offer a tool for migrating roles from the backend system to SAP Enterprise Portal. **This tool will be available soon.**

Functions Within Role Migration (EP 5.0 Only)

Migration includes the following features:

- Single roles are automatically migrated to portal roles (roles or worksets). Single roles are created in the Portal Content Directory (PCD) as portal roles or worksets with the corresponding menu hierarchy.
- Composite roles are also created as portal roles or worksets with the corresponding menu hierarchy in the PCD. The single roles that are assigned to the composite roles are migrated together with the composite role. The menu of the single roles must be read into the composite role.
- Single and composite roles can also be migrated from the mySAP Workplace, but they have a special scenario. The composite roles can be found on the Workplace Server and the single roles in the component systems. The composite roles contain links to the single roles. Note that only the menu of the single roles is migrated when you migrate composite roles from the Workplace Server to the enterprise portal. The services contained in the single roles are not migrated and stored in the PCD. You therefore have to migrate the single roles from the component systems separately in order to have a functioning role in the enterprise portal.
- MiniApps are migrated to Java iViews.
- Service migration: In addition to role migration, all the services contained in the single and composite roles (transactions, MiniApps, URLs) are also migrated. This means that all the transactions, MiniApps, Web URLs, etc contained in the old ABAP roles are available as content objects in the enterprise portal and can also be used in other portal roles.
- The role-to-user assignments can also be migrated (this only works if the user names are identical).
- The authorizations are not migrated. They remain in the backend system and are still maintained in transaction PFCG.

Constraints

The previous single and composite roles do not require any further technical work in the portal. However, since they do not contain any pages and were not originally designed for display in a portal, their contents will usually require some editing or redesigning. Additional pages with iViews must be defined when you redesign the contents. You might also have to adjust the role hierarchy or navigation structure.

Derived roles are not migrated.

What is the Leading System for Role Maintenance?

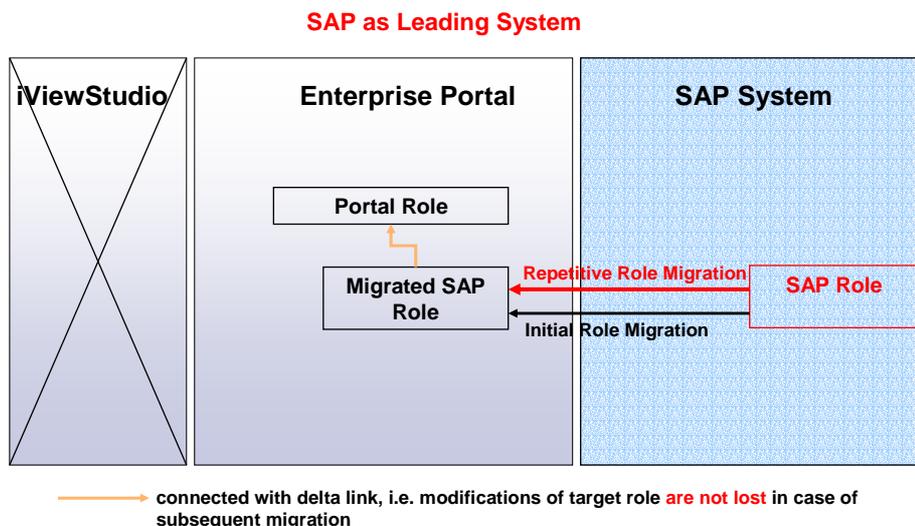
During role maintenance you must decide which should be the leading system. The leading system is the system containing the original role definition and is always the source system for repetitive migrations.

You have the following options:

- SAP Enterprise Portal is the leading system.
- The ABAP-based SAP system is the leading system.
- You are using a combination of the above two scenarios.

Scenario I: ABAP-Based SAP System as the Leading System

This the scenario should be used if you want to use mainly functions or transactions from an ABAP-based backend system in your portal roles.



Consequences for Role Maintenance in the ABAP-Based SAP System:

- Roles are created and administered in transaction PFCG.
- Authorizations are generated and users are assigned to the roles.
- Roles are migrated from the ABAP-based SAP system to the portal at regular intervals. User assignments are also migrated.

Consequences for Role Maintenance in SAP Enterprise Portal:

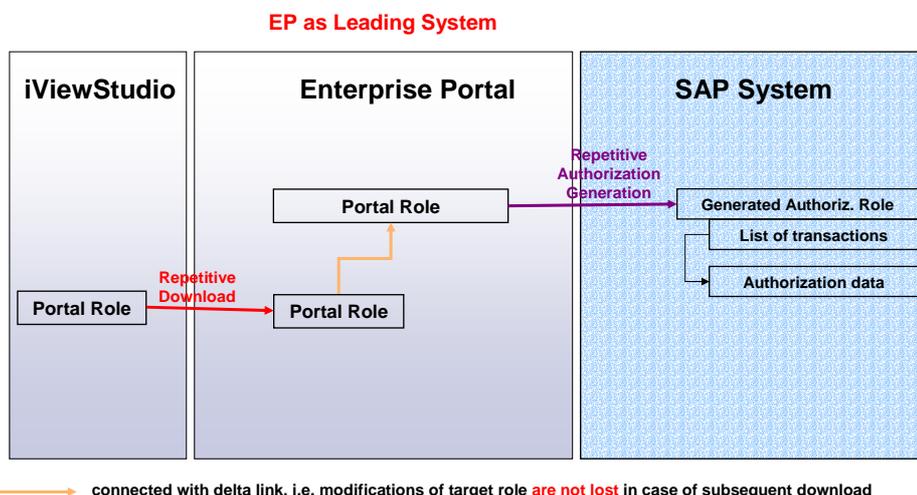
- Migrated roles must be edited or redesigned for display in the portal. This means that you have to consider what the role hierarchy should look like and which roles you want to link to other roles.
- You also define the navigation structure for the portal (top-level and detailed navigation).
- You have to pay attention to how you proceed when modifying migrated roles. You should use delta links here by creating a portal role and inserting a migrated role in it as a delta link. The advantage of this method is that changes made to the migrated role are not lost if the role is migrated to the portal again.



Scenario II: SAP Enterprise Portal as the Leading System

This scenario should be used if your roles do not use many objects of ABAP-based systems and contain primarily information, services and functions that do not come from ABAP-based applications.

In this scenario you initially migrate once the parts from the ABAP-based systems that you want to use in the enterprise portal. Thereafter you only administer your roles using the Web-based administration tools in the enterprise portal. If you want to add individual transactions from the backend system to your portal role at a later time, you do not need to perform another migration. In this case you just create an iView or several iViews in the portal administration environment. These iViews call the desired SAP transactions in the backend system and can directly be added to a role.



Consequences for Role Maintenance in the Portal

- The transactions and objects used from the ABAP-based SAP systems are initially migrated only once to the portal.
- New roles are created in the portal administration environment. You can also import preconfigured roles into the portal from the iViewStudio by downloading business packages.
- Roles are only changed, updated and administered in the portal environment.
- If portal roles contain iViews that call a transaction in a backend system the authorizations for these ABAP parts of a portal role must still be created in the backend system. As a prerequisite for the authorization generation you must transfer portal roles into the relevant ABAP-based system using the function of "role transfer" that you find in the portal administration environment.

Consequences for Role Maintenance in the SAP System (backend system)

- From now on you use transaction **WP3R** for repetitive authorization generation in the backend system. This is a special transaction which can identify transferred portal roles coming from the portal environment and can transform these roles into so called "authorization roles". Authorization roles can be used from an ABAP based system to create authorization profiles.
- You no longer use transaction PFCG for the generation of authorizations in the backend system.



Combination of Scenarios I and II

In practice, you will often use a combination of scenarios I and II.

For example you may still create the ABAP-based part of your portal roles in the backend system and migrate the role definitions to the enterprise portal in regular intervals. In parallel you create portal roles by importing business packages and/or creating new content objects in the portal. You define certain locations in your portal role hierarchies where the migrated roles from the backend system can be linked. The contents of the migrated roles in the portal are updated regularly by repetitive role migration.



Portal Roles and Portal Content

Portal roles are containers for other portal content. Roles are created by building folder hierarchies and assigning content objects to these folder hierarchies. Users can access the content intended for them from the role-to-user assignment.

Portal roles and other content objects are embedded in an object model and share an object relationship.

This section describes the object model on which the enterprise portal is based and describes the differences between EP 5.0 and EP 6.0.

It also discusses the administration environment and the conventions for namespaces.

See [Further Documentation \[Seite 46\]](#) for references to the standard documentation.



Object Model in SAP Enterprise Portal 5.0 and 6.0

The object models of EP 5.0 and EP 6.0 differ as follows:

- **In the object repository**

The content objects are stored in a persistent data repository, which is also called the Portal Content Directory (PCD). The PCD stores metadata about the stored objects and data about the relationships between the objects. The basic layer of the PCD is the layer in which the data stored in the PCD is made persistent. In EP 5.0 this layer consists of a file system. In EP 6.0 it is a database.

In EP 5.0, the content objects are stored at different locations. The PCD contains the following objects: roles, worksets, Java iViews, master iViews and External Services. There is also a relational database containing information about iViews and pages.

EP 6.0 has a single repository system containing all the objects in the database of the Portal Content Directory.

- **In the content object type**

EP 5.0 uses the master iView concept: External Services and Java iViews are created based on master iViews. EP 6.0 no longer distinguishes between master iViews, External Services and Java iViews: these objects are now all called iViews. iViews are created based on portal components, other iViews or iView templates. There are also templates for layouts and pages. In EP 6.0, layouts are separate content objects.

The template concept in EP 6.0 makes it easier to create new objects: a template is used to create new objects.

The EP 5.0 concept of assigning iViews to channels no longer exists in EP 6.0. All content objects are stored in folders of the Portal Catalog and are accessed from the Portal Catalog.

The following table shows a comparison of content objects types in EP 5.0 and EP 6.0:

Object	EP 5.0	EP 6.0
Role	x	x
Workset	x	x
Page	x	x
Master iView	x	-
Java iView	x	-
.Net iView	x	-
iView	-	x
External Service	x	-
Page template	-	x
iView template	-	x
Layout template	-	x

- **In their relationship to one another**

This is described in detail in [Object Relationships: Delta Links and Master Links \[Seite 33\]](#).

See [Further Documentation \[Seite 46\]](#) for a detailed description of the object model in EP 5.0 and EP 6.0.



Object Relationships: Delta Links and Master Links

Delta Link and Master Link Concepts in SAP Enterprise Portal 5.0

SAP Enterprise Portal 5.0 has two parallel concepts for object relationships: the delta link concept and the master link concept. You can only create delta links for roles and worksets, that is for objects that consist of structure hierarchies. Delta links only work on object hierarchies, and **not** on property values of objects.

You therefore can only create delta links in the following cases:

- Link a workset to a workset.
- Link a role to a role.
- Link a workset to a role.

The master link concept is parallel to the delta link concept. The core objects of this concept are the master iViews, which are used to create other objects. The master iView imparts all its properties and values to the objects it generates. Property values are always imparted from a source object to a target object for objects that have a master link relationship. You can only create master links for Java iViews and External Services.

You create a master link when you:

- Create a Java iView based on a master iView.
- Create an External Service based on a master iView.



Note that you cannot create either delta links or master links from pages and .Net iViews in EP 5.0.

Delta Link Concept in EP 6.0

In SAP Enterprise Portal 6.0, the delta link and master link concepts are combined to a common concept, called the delta link concept, thus simplifying it. In contrast to EP 5.0:

- The delta link concept in EP 6.0 includes **all** content objects.
- Delta links operate on hierarchies **as well as** property values of objects.

You always create a delta link in both scenarios:

- You link objects to other objects (for example a workset in a role).
- You create an object based on another object (for example an iView based on an iView template).



The main advantage of the delta link concept is the same in EP 5.0 and EP 6.0. You can reuse and change objects without changing the original or source object. You can change delta link objects (target objects) without changing the source object. For example, you can delete or add role hierarchy entries or change property values for iViews and pages. The source object is not affected. The options offered in EP 6.0 can be seen as a simplification and unification of the concept.



Administration Environment for Portal Content Objects

Administration Environment in EP 5.0

EP 5.0 has three different administration environments for creating and maintaining content objects:

- Role Editor
 - The Role Editor is the central tool for creating and editing all objects of the Portal Content Directory: roles, External Services, master iViews and worksets.
- Page Editor
 - The Page Editor creates pages and fills them with content (iViews). The pages are assigned to roles. You define the page contents and layout in the Page Editor.
- iViewEditor
 - You can create .NET iViews and Java iViews with the iViewEditor.

Each of these administration tools has its own UI, and the process of creating and editing objects differs entirely from tool to tool:

[Role Editor]

Page ID	Page name	Last Update	
com.sapportals.km.applog	Application Log	Sep 27, 2002	Edit Delete
com.sapportals.km.cachemonitor	Cache Monitor	Sep 27, 2002	Edit Delete
com.sapportals.km.categories	Categories	Sep 27, 2002	Edit Delete
com.sapportals.km.classification_inbox	Classification Inbox	Sep 27, 2002	Edit Delete
com.sapportals.km.cm_explorer	Content Management	Sep 27, 2002	Edit Delete

[Page Editor]

[iView Editor]

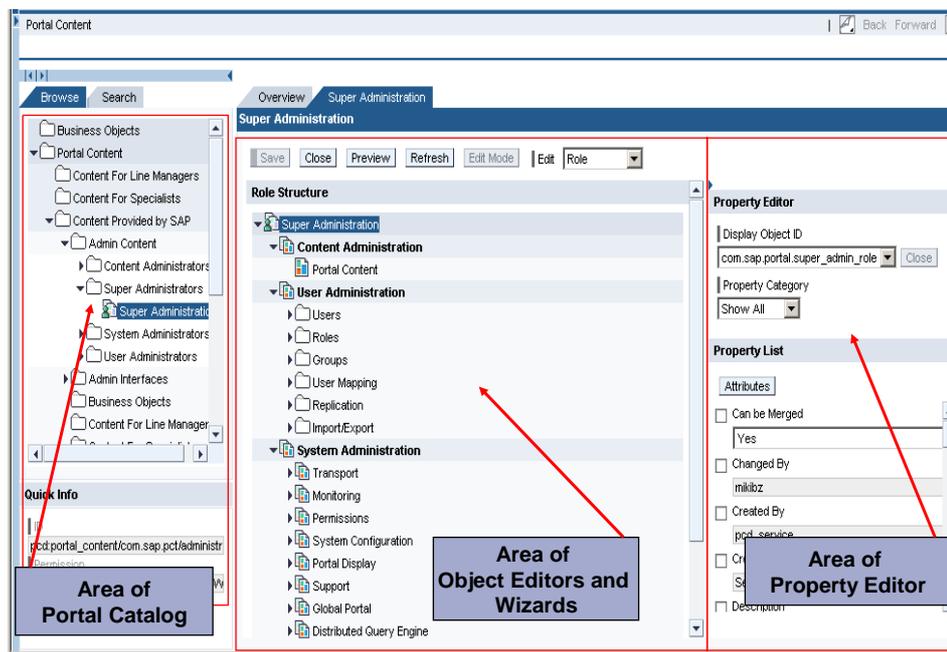
The tools also define the objects which the administrator can access. This means that the Role Editor can access different objects than the Page Editor.

Administration Environment in EP 6.0

SAP Enterprise Portal 6.0 has a central environment for the development and administration of content objects: the Portal Content Studio. All wizards and editors for the creation and administration of portal content can be called from this administration environment.

The Portal Content Studio also provides central administrator access to all content objects using the Portal Catalog. The Portal Catalog provides a central access point to the content

stored in the Portal Content Directory (PCD) and enables you to store, manage and organize the content in a structured hierarchy. In contrast to EP 5.0, where you have fixed flat lists of objects, in EP 6.0 you can adapt the Portal Catalog and its structure to your needs.



The advantage of this administration environment is that administrators see a unified user interface, and the processes for the creation and administration of portal content objects are mostly the same for the different content object types in the portal.

The process for creating a role is shown below:

Role Creation Process	Creation Location
1. Log on as super administrator or content administrator.	Portal Catalog
2. Open Portal Catalog.	
3. Create new role.	Role Wizard
4. Specify storage of role.	
5. Build role hierarchy and add objects to role.	Role Editor and Permission Editor
6. Define navigation.	
7. Define permissions.	Permission Editor

This process is similar for all objects you create; only a few object-specific steps differ for different objects.



Namespaces for Content Objects

SAP Namespace

There are namespaces in both EP 5.0 and EP 6.0 for the portal content objects shipped with the standard delivery. These namespaces indicate that the objects belong to the SAP namespace.

There are the following namespaces:

	EP 5.0	EP 6.0
com.sap.portal*	-	x
com.sap.km*	-	x
com.sap.pct* (for content objects from business packages)	x	x
com.sapportal*	x	-

As in ABAP-based systems, you may not modify the objects delivered by SAP. In contrast to ABAP-based systems, you do not copy the SAP objects to the customer namespace to change them and adjust them to your needs. Instead, you work with the options provided by the delta link concept in the enterprise portal.

The delta link concept offers the following advantages over a pure copy, as in ABAP-based systems:

- You can modify a target object (delta link object) that still references the source object. The source object is not affected by the change.
- If the source object is imported into the portal again at a later time with changed content, these changes automatically appear in all the derived target objects **simultaneously**.
- Your changes to the derived objects (target objects) are retained after you import the source object again.

If you want to use SAP objects, you must first create a delta link from the object you want to change. You have the following options:

	EP 5.0	EP 6.0
Link object to another object	x (only works for roles and worksets)	x
Create object based on another object	-	x
Copy object and insert again as delta link at another location in the Portal Catalog	-	x

Some content objects are already shipped by SAP with a delta link relationship to other objects. You recognize these objects in that their namespace is empty, i.e. they are shipped by SAP but you can use them directly without making any modifications.

In EP 6.0 you can find these objects in two folders of the Portal Catalog: *Portal Content* → *Portal Administrators* and *Portal Content* → *Portal Users*. The objects in these folders have already a delta link relationship to their source objects in the folder *Content provided by SAP*. In EP 5.0 the standard content includes the two roles *portal_user* and *portal_admin*.

Namespace for Custom Objects

We recommend that you use a namespace prefix for the content objects that you create yourself. In Enterprise Portal 6.0 this is also true for the names of folders in the Portal Catalog.

You should develop a global namespace concept before you create your custom objects. In this way you can ensure that:

- Objects can be clearly identified in that they are assigned to a certain organizational unit using a namespace prefix.
- Objects of a given organizational unit are handled separately from objects of another organizational unit during content administration.
- Objects of another organizational unit are not opened or changed.

One scenario that clearly shows how important it is to assign namespaces is the export and import of content objects. You should create disjunct export packages. When you assemble the packages, an object may only be in one package and not in multiple packages. If it were in more than one package, the object could easily be overwritten with an older version during an import. You can prevent this from happening by assigning namespace prefixes. The package itself should have a pre-defined namespace and only contain objects belonging to the same namespace.



Portal Roles and Navigation

The section [Authorizations in SAP Enterprise Portal and in the SAP System \[Seite 21\]](#) explains that, in contrast to the roles in the ABAP-based systems, portal roles do not contain information about authorizations. The portal does not have any authorization profiles that are linked to roles.

Instead, portal roles have the following main function in the enterprise portal: they contain the navigation structure for the portal user. Portal roles thus define:

- What content the user can see and how this content is structured.
- How the content is represented in the frontend for the portal user. The role structure and the navigation structure in the portal are linked closely. The role administrator defines which nodes in the role structure the user can see and where they appear in the top-level and detailed navigation.

The basic concept for navigation is identical in EP 5.0 and EP 6.0. The following list contains the most important differences between EP 6.0 and EP 5.0:

- The navigational model built into SAP Enterprise Portal 6.0 relies on standard portal components (iViews and pages) that are open and customizable.
- Detailed navigation and iPanel are combined in the navigation panel, and the iPanel no longer exists.
- Detailed navigation does not disappear when you open a full-page application because it is not part of the content area frame.
- Detailed navigation is not part of a page in the content area; instead, objects in the detailed navigation are shown in the navigation panel.
- Detailed navigation iView is part of the out-of-the-box delivery of navigation pages and iViews. It is automatically part of the navigation panel.
- Navigation is much more flexible: Additional navigation iViews, pages and portal layouts can be created by consultants and customers.
- Top-level navigation is much more flexible: You can customize the top-level navigation with two levels, one level or none.
- Merge ID for navigation node: You can merge a node on a certain level of a role (with all its subnodes) with a node of another role. In this case the two nodes appear in the top-level or detailed navigation as an entry and the merged subnodes appear in a certain order below this entry.

See [Further Documentation \[Seite 46\]](#) for a detailed description of the navigation concept in EP 5.0 and EP 6.0.

Portal Roles and User Management

SAP Enterprise Portal 5.0 has its own user management component that uses an LDAP (Lightweight Directory Access Protocol) corporate directory as the exclusive central user data repository.

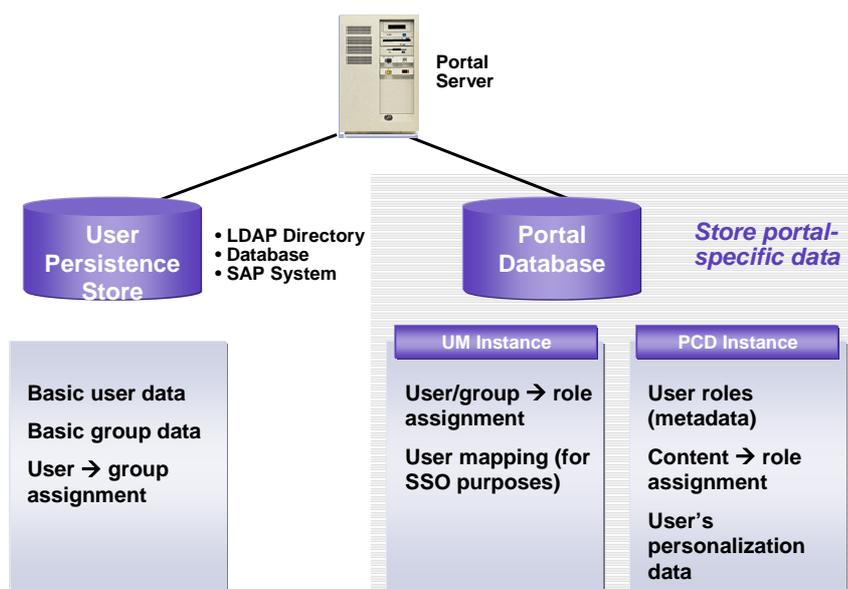
In addition to an LDAP corporate directory, the SAP Enterprise Portal 5.0 user management component uses a separate directory, the Portal LDAP directory, to store data for the portal. The information about the assignment of roles to users and groups is stored here, for example. It can be either a separate directory or simply a separate subdirectory of the LDAP corporate directory.

SAP Enterprise Portal 6.0 contains a new component for user management, called the SAP User Management Engine (UME). Compared to user management in EP 5.0, the UME contains enhanced functionality for user management and for the administration of user data. The UME is a service of the SAP J2EE Engine and can be used by all the components that run on the SAP J2EE Engine, including SAP Enterprise Portal 6.0.

With SAP User Management Engine (UME) you can leverage existing user data repositories in your system infrastructure by connecting to a wide range of data sources using configurable persistence adapters. You can read data from and write data to multiple data sources in parallel. For example, you can configure UME so that user data is read from an existing corporate directory, while new users are written to a database. UME allows you to enrich user accounts with identity information such as e-mail address, telephone number, and postal address. User administration is performed in the user management administration console, a Web-based administration tool.

In SAP Enterprise Portal 6.0, the administration console of the UME is integrated in the User Administration role. All the functions of the UME for administration of users are available with this role. The portal LDAP directory no longer exists in EP 6.0. The data for role-to-user assignment is stored in the portal database in EP 6.0.

The following diagram shows where the user data can be stored in SAP Enterprise Portal 6.0:



The user data can be stored in an LDAP directory, in an SAP system or in the portal database, or in a combination of these. The metadata of the content objects (roles, worksets, etc.) and the data for the role-to-user assignment are stored in the portal database.

See [Further Documentation \[Seite 46\]](#) for information about user management in the standard documentation.



Static Versus Flexible Role Assignment

Static role assignment is available in both SAP Enterprise Portal 5.0 and 6.0. You have a portal component in which you can assign roles to users or user groups. You make this assignment manually for each user or user group and you can only cancel or change this assignment manually.

The role assignment cannot be automated, for example by assigning certain roles or cancelling an assignment automatically, depending on the properties of a user.

Flexible role assignment is not available.



UME Actions and Portal Permissions

UME actions are the equivalent of portal permissions in the User Management Engine (UME). UME actions are groups of permissions for accessing all the functions delivered by the UME. When a user calls such a function (for example role-to-user assignment), the UME checks if the user has the corresponding UME actions before the user can access certain iViews and functions. For more information about UME actions see [Further Role Concepts: UME Roles \[Seite 17\]](#).

The functions of the UME are available in SAP Enterprise Portal 6.0 in the user administration role.

UME Actions as Enhancement to the Portal Authorization Concept

UME actions are used in SAP Enterprise Portal 6.0 and enhance the permissions concept of the portal. The permissions concept of the portal is based on Access Control Lists (ACL). See also [Permissions in SAP Enterprise Portal 6.0 \[Seite 22\]](#). ACLs are assigned for all the objects of the Portal Content Directory. UME actions are additional permission checks that are not based on ACLs; instead they check special permissions that are assigned in the Java code.

The administrator, who is assigned the user administration role or part of this role, needs additional permissions in order to be able to call the functions and iViews in this role. The permissions must be granted in the form of UME actions. In the portal you can assign UME actions to portal roles in the Role Editor. Each UME action is available as a property in the Property Editor of the Role Editor. One or more actions can be assigned to each role. For example, when you assign the action *UME.Assign_User*, the administrator assigned to this role can assign the roles to the users. Therefore, when you assign the user administration role or part of this role to your user administrators, you must consider which actions should be assigned for these roles.

UME Actions in the Company Concept

UME actions are also important when you set up delegated administration in connection with the company concept. In the company concept you can define that administrators should only be able to see and edit a certain set of users. The ACL permission concept of the portal is therefore only relevant for PCD objects. You cannot control the permission to only see and edit a certain set of users with ACLs. In the standard portal shipment, all administrators who are assigned the user administration role therefore initially have access to **all** users. They can also assign users **all** roles, even if they only have end user permission for these roles.

You can use companies to implement a simpler form of delegated user administration. You can distribute the users to administrative sets by assigning them to companies. One or more administrators are responsible for the administration of these users in a company. The administrators are responsible for a certain set of users. You can create, change or delete the users in this set and assign them certain roles. You can only assign the roles for which the administrators have a special permission. The administrators have no access to users belonging to a different company.

To set up delegated user administration, you must create a special role and assign this role the UME action *UME.Delegated_Admin*. You then assign the administrators to the relevant companies (in the user profile). In a second step, you assign the delegated administrators the special role for delegated user administration.



Creation of a Portal Role Concept

This section gives you a short introduction to a method for creating a portal role concept. This document does not discuss this method in detail, but only gives an overview of the subject.

As explained in [Comparison of Role Concepts \[Seite 16\]](#), ABAP-based systems or Workplace systems assume you are defining task-oriented roles. Starting with the application area of a given application, individual activities (and the corresponding transactions) are combined into a role.

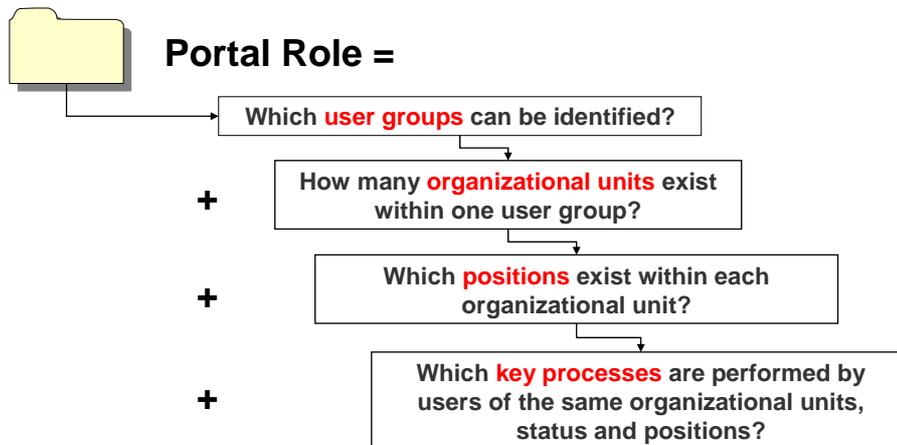
A role in the enterprise portal does not begin with the user's activity, but classifies the users according to the activities of the entire company. The role model in the enterprise portal is therefore a model for structuring and classifying the portal users from the point of view of the company. The concept is orientated to both the company structure and the core processes within the company. In this way individual users can be assigned depending on their position and task in the company. In addition to roles, the portal also offers the „workset“ function. It reflects the activities used in the ABAP-based role concept.

Parameters for Defining the Relationship Between Users and the Company

If you are planning a role concept for creating roles in your company, you should keep the following aspects in mind: Roles are based on a model for portal users and are derived from the organization of the company. The underlying question for creating the role concept is therefore: „What is the relationship between the user and the company?“

We recommend that you use certain parameters to define the relationship between your users and your company. You might want to use the following parameters:

- Parameter „user group“ defines whom the portal should be available to (for example company employees, partners, customers).
- Parameter „organizational unit“ defines the parts of the company to which the portal users are assigned. Organizational charts can be used here.
- Parameter „Function/Position“ defines the areas of responsibility within the company (for example, board, manager, employee).
- Parameter „core process“ defines the main activities assigned to the role (for example sales, consulting, HR).



Each parameter, such as user group, organizational unit, function, or core process, divides the set of portal users into classes by assigning certain properties, such as member of user group X. A class defined in this way represents a role of its own.

To prevent overlaps in the contents of the different roles, you should assume that the roles are based on one another and have a relationship to one another when you create the role model. The role model should structure the roles hierarchically. One criterium for the hierarchy is the degree of detail of a role. An indication of the degree of detail can be for example the number of portal users per role: The more general the contents of a role, the larger the number of users. For the portal user the role hierarchy means that the relevant roles are added depending on their location in the role model.

Roles and User Assignments

Portal users can be assigned uniquely depending on the role parameters:

- as members of a user group
- as members of an organizational unit of the company
- by their function or position in the company
- by their participation in a core process in the company

Users are assigned all relevant roles, so that they have at least one role („user group” is the most general role). Depending on the company structure, one or more organizational units or core process roles will be relevant for each portal user. Usually users will have four or more roles.



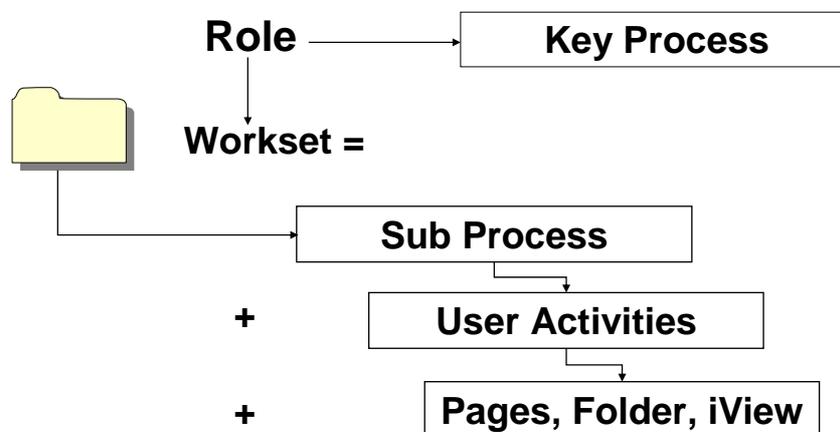
As an employee of a company that wants to use an employee portal, the portal user staff member “XY” has four roles:

- User group „Company employee“
- Organizational unit „Administration“
- Function „Employee“
- Core process „Accounting“

Roles and Worksets

Whereas the role model classifies portal users according to certain properties, the workset model describes the activity classes of users. A workset is a collection of services and information (in the form of pages and iViews) that supports users in their concrete tasks.

The core processes identified during role definition could be used as the basis for workset evaluation. A core process is a collection of activities belonging to a certain activity area, such as controlling, sales or accounting. Depending on the complexity of the core process, sub-processes that are the basis for creating worksets can be identified. All iViews and pages that support the individual activities of a sub-process form the basis for creating a workset and are assigned to this workset. Worksets are reusable sub-processes that can be assigned to different roles. The worksets evaluated in this way are linked with the roles that form the core processes:



You want to create several worksets for the sales process: Workset I „Employee: Plan and Execute a Presales Workshop“, Workset II „Employee: Create an Offer“, Workset III „Manager: Create an Offer“ and Workset IV „Employee: Create a Cost Estimate“.

These worksets can be assigned to different roles. For example, you could have a role "Sales Employee" to which you assign worksets I, II and III. You could also have a role „Sales Manager“ to which you assign workset III.

Evaluation Study for Roles and Worksets

Before you create roles and worksets in the administration environment in the enterprise portal, you should clarify the following points in the evaluation project:

- How many and which roles do you need?
- How many and which worksets do you need?
- Which worksets should be assigned to which roles?

After analyzing your company structure and your core processes, you should define a user classification with which you can define your roles and worksets.



Further Documentation

Standard Documentation for SAP Enterprise Portal 5.0 and 6.0

You can find documentation about SAP Enterprise Portal on the *SAP Help Portal* at help.sap.com/ep. You can find the most recent documentation for SAP Enterprise Portal 6.0 in the table for Release EP 6.0 SP2. You can find the most recent documentation for SAP Enterprise Portal 5.0 in the table for Release EP 5.0 SP6.

SAP Enterprise Portal Glossary

You can find the glossary on the *SAP Help Portal* at help.sap.com/ep. You can find the most recent glossary for SAP Enterprise Portal 6.0 in the table for Release EP 6.0 SP2. You can find the most recent glossary for SAP Enterprise Portal 5.0 in the table for Release EP 5.0 SP6.

Topic “Roles in ABAP-Based Systems”

You can find detailed documentation about this topic on the *SAP Help Portal* at help.sap.com under *SAPNetWeaver → SAP Web Application Server*. In the SAP Library, choose *SAP NetWeaver Components → SAP Web Application Server → Security → Users and Roles*.

Topic “Roles in SAP Enterprise Portal”

You can find the documentation in the Administration Guides for SAP Enterprise Portal 5.0 and 6.0.

EP 5.0	EP 6.0
Choose <i>Administration Guide → Roles</i> .	Choose <i>Administration Guide → Portal Platform → Content Administration → Roles</i> .

Topic „UME Roles“

You can find detailed documentation about this topic on the *SAP Help Portal* at help.sap.com under *SAPNetWeaver → SAP Web Application Server*. Choose *SAP NetWeaver Components → SAP Web Application Server → J2EE Technology in SAP Web Application Server → Administration Manual → Server Administration → SAP J2EE Engine Security → Users and Authorizations → User Administration → UME User Administration → UME Roles*.

Topic “Portal Roles and Their Sources”

For information about business packages (download, installation, etc.) visit the iViewStudio at www.iviewstudio.com → *About → Product Information and How-to-Guides*.

Topic “Portal Roles and Administration”

You can find the documentation in the Administration Guides for SAP Enterprise Portal 5.0 and 6.0.

EP 5.0	EP 6.0
Choose <i>Administration Guide → Roles → Role Maintenance → Changing Roles and Worksets in an External Namespace → Delta Links and Upgrade of Business Packages → Roles that are shipped → Portal Admin Role</i> .	Choose <i>Administration Guide → Cross Platform → Default Initial Content → Pre-configured Roles</i> .

Topic “Portal Roles and ABAP-Based SAP Systems

Topic	EP 5.0	EP 6.0
Permissions in SAP Enterprise Portal	In the SAP Enterprise Portal Administration Guide choose <i>iViews</i> → <i>Master iViews</i> → <i>Master iView Property</i> → <i>Portal Component Properties</i> .	In the SAP Enterprise Portal Administration Guide choose <i>Portal Platform</i> → <i>System Administration</i> → <i>Portal Permissions</i> .
Role Distribution	In the SAP Enterprise Portal Administration Guide choose <i>Roles</i> → <i>Roles and SAP Systems</i> → <i>Role and User Distribution to the SAP System</i> .	For more information see the SAP Service Marketplace at: service.sap.com/ep → <i>Product Information</i> → <i>Enterprise Portal 6.0</i> → <i>Documentation and More</i> → <i>How-to-Guides</i> → <i>How to Perform Role and User Distribution to the SAP System</i> .
Role Migration	In the SAP Enterprise Portal Administration Guide choose <i>Roles</i> → <i>Roles and SAP Systems</i> → <i>Migration of SAP Roles to the Enterprise Portal</i> .	-

For information about authorizations in ABAP-based systems, visit the SAP Help Portal (**help.sap.com**) under *SAPNetWeaver* → *SAP Web Application Server*. In the SAP Library, choose *SAP NetWeaver Components* → *SAP Web Application Server* → *Security* → *Users and Roles*.

Topic “Portal Roles and Portal Content”

You can find the documentation in the Administration Guides for SAP Enterprise Portal 5.0 and 6.0.

Topic	EP 5.0	EP 6.0
Portal Architecture and PCD	Choose <i>Administration Guide</i> → <i>Architecture of the Enterprise Portal</i> .	Choose <i>Administration Guide</i> → <i>Cross Platform</i> → <i>Architecture of the Enterprise Portal</i> .
Delta links	Choose <i>Administration Guide</i> → <i>Roles</i> → <i>Role Maintenance</i> → <i>Changes Roles and Worksets in an External Namespace</i> → <i>Delta Links and Upgrade of Business Packages</i> → <i>Delta Link</i> .	Choose <i>Administration Guide</i> → <i>Portal Platform</i> → <i>Content Administration</i> → <i>Content Object Model</i> .
Object Model	-	Choose <i>Administration Guide</i> → <i>Portal Platform</i> → <i>Content Administration</i> → <i>Content Object Model</i> .

Topic „Portal Roles and Navigation“

You can find the documentation in the Administration Guides for SAP Enterprise Portal 5.0 and 6.0.

EP 5.0	EP 6.0
Choose <i>Administration Guide</i> → <i>Roles</i> → <i>Roles and Navigation</i> .	Choose <i>Administration Guide</i> → <i>Portal Platform</i> → <i>Content Administration</i> → <i>Navigation</i> .

Topic “Portal Roles and User Management”

You can find the documentation in the Administration Guides for SAP Enterprise Portal 5.0 and 6.0.

EP 5.0	EP 6.0
Choose <i>Administration Guide</i> → <i>User Administration</i> .	Choose <i>Administration Guide</i> → <i>Portal Platform</i> → <i>User Administration</i> . Here you also find information about the company concept and about UME actions in the portal. See also <i>Portal Platform</i> → <i>System Configuration</i> → <i>User Management Configuration</i> .