How To...
Migrate from SAP
Enterprise Portal
5.0 SP6 to SAP
NetWeaver '04

THE BEST-RUN BUSINESSES RUN SAP

Icons in Body Text

Icon	Meaning
	Caution
	Example
	Note
	Recommendation

This page intentionally left blank

Contents

Document History

Version	Description
4.00	First official release of document
5.00	Updates for KMC Migration Exporter Tool
6.00	Updated with release of patch 7 for SR1
7.00	KM utility updated and miscellaneous portal updates
8.00	KM and portal updates, including page layout mapping; registration requirement
9.00	Updated for release with SP Stack 14 – relevant for migration to all future SP Stacks of NW '04
10.00	Update for implementation of Support Platform for SP Stack 15
11.00	Update for corrections received from the field and additional Support Platform information

1. Migration of SAP Enterprise Portal 5.0 to NetWeaver '04

Purpose

This document describes how to migrate the portal and Knowledge Management (KM) from Enterprise Portal 5.0 SP6 to NetWeaver '04 SP Stack 14.

⚠️ The Migration Project

Migration from EP 5.0 to NW '04 is an important undertaking and is to be approached as a serious project, including extensive preparation and some downtime. Documentation and SAP Notes should be read with appropriate attention.

Required Expertise Resources

To perform a successful and efficient migration expert knowledge in the following area is required or must be available:

- Application knowledge: specifically, the portal and KM

- Database administrator

- OS administrator

Registration

The migration procedure requires registration by means of a registration key. This is in order to enable SAP to provide proper support for your migration project.For details, see

Scope of the Migration Process

- Migrate the system to NetWeaver '04

- Optionally, change the operating system from Windows 2000 to UNIX

- Migrate portal content, including Business Packages to the NW '04 system

Database and Disk Space Prerequisites

- The temporary table space on the target system must be at least twice the size of the PCD on the source system.

  Most new relational database management system installations have an auto-expand feature for the temporary table space. The flag for this feature must be on. For MS SQL Server, this flag is on by default, but this should be verified.

- Free disk space, or free space on the file system for Unix, on the target system, should be at least the size of the PCD on the source system.

Limitations

- It is not possible to migrate from one relational database management system to another.

  💡

  Although the migration process does not support migration across different relational database management systems, for customers who want to switch operating systems and/or databases, SAP provides a tool (the NW copy) that is capable of copying database content and adapting it as required, according to operating system, database management system, or both.

Using the NW copy tool to switch OS or DB, or both, must be done only after the migration process is completed.

For detailed information on the NW Copy tool, see *Homogeneous and Heterogeneous System Copy for SAP Systems Based* at *SAP Web Application Server Java 6.40 SR1*, located at *service.sap.com/instguidesNW '04 → Installation*, and SAP Note 785848. The guide and note include information relevant for SR1 and later updates.

- There is no support for the migration of Collaboration content between EP 5.0 and NW '04.

    If you work with collaboration rooms in EP 5.0, these must recreated on the target NW '04 system. For detailed information on Collaboration see the Help Portal at *help.sap.com → Documentation → Language (English) → SAP NetWeaver → People Integration → Collaboration*.

List of Related SAP Notes

The SAP notes contain the most recent installation information, as well as corrections to the installation documentation. Read the installation SAP note before beginning the installation.

> Make sure that you have the most recent version of the SAP note. Find the SAP Notes related to SAP Enterprise Portal in SAP Service Marketplace, at:
>
> `http://service.sap.com/NW '04doc` → *SAP Notes*
>
> For all SAP Notes, or for search by number, go to:
>
> `http://service.sap.com/notes`

SAP Note Number	Title
732461	Central Note – Migration of EP & KM from 5.0 to NW '04
766765	Central Note – SAP EP 6.0 on Web AS 6.40 Release NW '04 SR1
832968	Central Note – SP Stack 14 – SAP NW '04 on Web AS 6.40

1.1. Overview - The Migration Process

Process

The migration process differs, depending on the components that are installed and the migration path that you choose.

The migration process has six main phases:

1. Installation on the target machine

    In preparation for the migration, you install NetWeaver '04 SP Stack 14, or higher, on the target machine.

    The target machine must have the same components as the source machine. For example, if the source machine has a portal and Knowledge Management installation, you must install both these components on the target machine.

    For more information about the installation procedure, see Installation of the Target System - NetWeaver '04 [Page 17].

2. Pre-Migration Activities

    There are pre-migration steps that must be performed prior to the migration process. The portal and Knowledge Management each have their own specific set of pre-migration steps. There are also specific preparations if you are using portal content from business packages. See the section, Preparations [Page 21] for the KM pre-migration information, Preparing for the Portal Migration [Page 36] for the portal, and Preparing for Business Package Migration [Page 61] for the relevant information about business packages.

    > If you are working with and migrating Knowledge Management, you **must** perform all the pre-migration steps, for both the portal and KM, prior to the entire migration process.
    >
    > This is because for KM requires updated information from the portal in order to migrate successfully.

    > Do the portal pre-migration steps **before** the preparations for the KM migration. This is to maintain a proper workflow, since the portal must be live for the its pre-migration steps and the KM pre-migration requires you to shut down the portal.

3. Migration of Knowledge Management

    If Knowledge Management is installed on the source system, then you **must** begin with the migration of this component. If Knowledge Management is not installed, you can begin with the migration of the portal.

    For more information, see Knowledge Management Migration [Page 19].

4. Migration of the portal

    For more information, see Enterprise Portal Migration [Page 33].

5. Migration of Business Packages

    For more information, see Migration of Business Packages [Page 60].

6. Post Migration Activities

    After completion of the migration processes for both KM and the portal, perform all required post-migration procedures. For detailed information, see Post-Migration Activities [Page 50].

Migrating from a Clustered Configuration

1. If you want to migrate a to a clustered configuration for NW '04, first migrate to the central instance of the target system, making sure that the J2EE Engine is shut on all the other instances in the cluster.

2. After completing the migration, restart the J2EE on all other instances. The migrated content is replicated automatically from the central instance.

For detailed information about J2EE Engine clustering, see *help.sap.com → Documentation → SAP NetWeaver → Release '04 → <Language> → SAP NetWeaver → Application Platform (SAP Web Application Server) → Java Technology in SAP Web Application Server → Administration Manual → Server Administration → Architecture Manual → Java Cluster Architecture.*

1.2. Checklist for EP 5.0 to NW '04 Migration

Use

Migrating SAP Enterprise Portal involves a complex collection of activities, including preparatory and post-migration activities. The migration activities performed may not be identical for all, depending on the EP installation and configuration, for example, if KM is not installed with the portal. Although the sequence of the checklist is generally in the order of performance, some tasks may be done at the same time (recommended).

The checklist shows all the activities needed to perform the migration to NW '04. The **Conditions** column tells you whether or not the specific activity is relevant for you.Use the checklist to make sure that all required actions are performed in the correct order.

Procedure

It is recommended to print the checklist and follow perform the activities, checking them off as they are completed.

> For the sake of clarity, the activities in this guide are largely organized and divided according to KM and portal activities. This does necessarily mirror the correct sequence in which to perform these activities. The checklist arranges the activities sequentially and they should be performed the order they are listed, skipping those that are not relevant to your system.
>
> Note that the checklist indicates what activities can be performed simultaneously with others in order to save time in the **Workflow Notes**.

Migration Checklist

☑	Migration Activity	Condition
	Install NetWeaver '04 SR1 and upgrade to SP Stack 14 (or higher). See Installation of the Target System - NetWeaver '04 [Page 17]	
	Back up the system. After successful installation of NW '04, it is highly recommended to use a back-up software solution and/or hardware mirroring to back up the system, and to back up the database.	
	Perform user management configuration as described in SAP Note 777640.	For portal, **only if** the user management engine on the target system is to use an LDAP directory as the data source for user information
	Navigate, explore and get to know the NetWeaver '04 environment.	
	Verify the prerequisites to migration as described in: Migration of SAP Enterprise Portal 5.0 to NetWeaver '04 [Page 7] Knowledge Management Migration [Page 19] Enterprise Portal Migration [Page 33].	Prerequisites for KM, on condition it is installed

	Read the central note for this migration path, SAP Note 732461. It is also recommended to review, before starting the migration, the troubleshooting document attached to SAP Note 703034. This document is updated from time to time, and it may contain valuable tips and workarounds.	

Portal pre-migration

	Prepare business packages for migration. See Migration of Business Packages [Page 61]. **Workflow Notes:** Not dependant on sequence; can be done at any time before migration at the same time as other non-dependant tasks.	Portal content from business packages exists on the source system.
	Obtain a registration key and register the migration process. See Registering the Portal Migration [Page 36]. **Workflow Notes:** Obtain key is not dependant on sequence; can be done at any time before migration at the same time as other non-dependant tasks. Entering registration key should be done simultaneously with defining the default master language property for migrated objects (if necessary), since both are entered in the upgrader service.	
	Define the default master language property for migrated objects. See Defining the Default Master Language Property for Migrated Portal Objects [Page 37]. **Workflow Notes:** Should be done simultaneously with entering registration key.	If this property requires changing to other than English
	Download and deploy the filtering and mapping file to the target system to filter the EP 5.0 content to be migrated. See Import Filter for Content Objects [Page 36]. **Workflow Notes:** Not dependant on sequence; can be done at any time before migration at the same time as other non-dependant tasks. If mapping layouts is necessary, it should be done at the same time as other filtering and mapping entries.	Portal content from business packages exists on the source system and/or there is other EP 5.0 content that is not compatible with the NW '04 environment.
	Map EP 5.0 Page Layouts To New Ones. See Mapping Page Layouts [Page 39]. **Workflow Notes:** If mapping layouts is necessary, it should be done at the same time as other filtering and mapping entries.	Only if there are customized page created other than the portal default layouts
	Prepare user management configuration for migration. See Pre-Migration User Management Steps [Page 39].	
	Verify that the EP 5.0 system landscape is uploaded. See Verifying Upload of EP 5.0 System Landscape [Page 41].	

	Remove and verify certain NW '04 portal permissions. For details, see <u>Defining and Verifying Permissions [Page 41]</u>.	
	Create a system in the NW '04 portal that points to the source system. See <u>Defining and Configuring a System for EP 5.0 [Page 42]</u>.	
	Check the contents of the supported languages table in the EP 5.0 database. See <u>Checking the EP 5.0 Language Table [Page 44]</u>. **Workflow Notes:** Not dependant on sequence; can be done at any time before migration at the same time as other non-dependant tasks.	
	Copy EP 5.0 files to your NW '04 machine. See <u>Copying EP 5.0 Files [Page 44]</u>. **Workflow Notes:** Compression of the files to copied can be done at the same time as the KM migration is being performed.	
	Shut down the source system.	
	Back up the file system and database of the NW '04 target system. (This may be useful In the event that the migration needs to be run again.)	
	Optional but strongly recommended: Run the pre-migration Support Platform plug-ins. See <u>Running the EP 5.0 Support Platform Plug-Ins [Page 46]</u> **Workflow Notes:** Not dependant on sequence; can be done at any time before migration at the same time as other non-dependant tasks.	
	Restart the NW '04 portal **before** migration. **Workflow Notes:** Some of the portal pre-migration tasks require restart of the portal to take effect. To save time, restart can be done once after performing several tasks.	

KM pre-migration

	Verify the correct source system as described in Checking the Source Version [Page 21].	Installation includes KM
	Find out the database name for later use. See Determining the Database Name [Page 22].	' '
	Find out the system IDs as described in Determining System IDs [Page 22].	' '
	Download the KM migration tool. See Obtaining the Migration Software [Page 23].	' '
	Shut down the portal as described in Shutting Down the Portal [Page 23].	' '
	Back up the etc directory. See Backing Up the etc Directory on the Target System [Page 23].	' '
	Copy the file system data of local fsdb repositories from the source to the target system. See Copying Data for Local fsdb Repositories [Page 24].	' '
	Run the *Migration Exporter* tool on the source system to store configuration data and other system data in an archive file. See Collecting Information on the Source System [Page 24].	' '

KM migration

	Copy the archive file `MigrationInput.zip` from the source to the target system and then start the *KMC Migration Tool*. See Using the Migration Tool [Page 25].	Installation includes KM
	Run reports to identify additional migration steps you must perform. See Running Reports [Page 26].	' '
	Merge `etc` directory contents from source and target systems. See Merging the Contents of the etc Directory [Page 28].	' '
	Migrate the source database. If fsdb repositories are configured, synchronize the fsdb data that is located on the file system with the metadata stored in the database. See Migrating the Database [Page 28].	' '
	Merge the source and target configuration data. See Migrating the Configuration [Page 31].	' '
	Log onto the target portal and import the compatibility package. See Importing the Compatibility Package [Page 31].	' '
	Back up the system. After successful installation of NW '04, it is highly recommended to use a back-up software solution and/or hardware mirroring to back up the system, and to back up the database.	

Portal migration

	Run the portal migration as described in Migrating the Portal [Page 48].	
	Back up the system. After successful installation of NW '04, it is highly recommended to use a back-up software solution and/or hardware mirroring to back up the system, and to back up the database.	

Supplementary Tasks

	On target system, perform Java system copy as documented in *Homogeneous and Heterogeneous System Copy for SAP Systems Based* at *SAP Web Application Server Java 6.40 SR1*, located at *service.sap.com/instguidesNW '04 >* → *Installation*. See Limitations [Page 7].	**Only if** it your project includes switching OS or DB, or both
	Upgrade target system to the latest version (SP Stack or higher).	
	Recreate Collaboration rooms. For information, see *help.sap.com* → *Documentation* → *Language (English)* → *SAP NetWeaver* → *People Integration* → *Collaboration*.	**Only if** your source system used Collaboration

KM post-migration

	Perform the manual migration steps that are specified in the results of the *Migration Tool* reports. See Performing Tasks Identified by Reports [Page 50].	Installation includes KM
	Delete obsolete system IDs, as described in Deleting System IDs [Page 51].	''
	Manually initialize templates and object types. See Initializing Ad Hoc Workflow Templates and Object Types [Page 52].	''
	Re-assign user to roles. See Assigning Users to New NW '04 Roles [Page 52].	''

Portal post-migration

	Perform the post-migration steps for User Management [Page 53].	
	Check permissions as described in Removing and Verifying Permissions [Page 54].	
	Manually migrate EP 5.0 styles. See Styles and Themes [Page 54].	
	Check what post-migration activities you need to perform for the J2EE Engine and regarding developed content. See J2EE Engine and Content with Code [Page 55].	Existence of customized J2EE Engine configurations and/or customer- developed components
	Reset proxy server settings. See Reconfiguring the Proxy Server [Page 55].	Source portal works with proxy server
	Recreate trust to back-end systems. See Working with Back-End Systems [Page 55].	Existence of systems based on back-end applications
	Define default alias for using EP 5.0 .NET iViews. See Support EP 5.0 .NET iViews [Page 55].	.NET iView migrated
	Make options menu available for all external services. See External Services Based on Standard.PAR [Page 56].	Existence in source of external services based on Standard.par
	Enable access to EP 5.0 portal favorites as described in Migration of EP 5.0 Favorites [Page 56]	Portal content objects defined as browser Favorites
	Save migration default traces for troubleshooting purposes. See "console log files" in Checking the Status of the Portal Migration [Page 59].	

Business Package post-migration

	Perform the post-migration steps that may be necessary, as indicated in Post-Processing Steps for the Migration [Page 63].	Content from imported business packages has been migrated from EP 5.0 to NW '04.

1.3. Installation of the Target System - NetWeaver '04

Prepare the target system for your migration, by installing NW '04 - SAP Enterprise Portal on Web AS 6.40.

> The NW '04 environment is very different from what the users and administrators of EP 5.0 have been used to working with. It is therefore very important to navigate, explore and gain familiarity with as many aspect of the NW '04 environment as possible before migrating content.

1.3.1. Planning the Target System

While migrating, you can upgrade the operating system and you can switch from Windows to UNIX.

You cannot change the relational database management system (RDBMS).

Supported Source and Target Systems

EP 5.0 SP6	NetWeaver '04
Win 2000/ MS SQL 2000	Win 2000/ MS SQL 2000
Win 2000/ MS SQL 2000	Win 2003/ MS SQL 2000
Win 2000/ Oracle 8.1.7	Win 2000/ Oracle 9.2
Win 2000/ Oracle 8.1.7	Win 2003/ Oracle 9.2
Win 2000/ Oracle 8.1.7	HP-UX 11(i)/ Oracle 9.2
Win 2000/ Oracle 8.1.7	Solaris/Oracle 9.2
Win 2000/ Oracle 8.1.7	AIX 5.2/ Oracle 9.2
Win 2000/ Oracle 8.1.7	United Linux/ Oracle 9.2
Win 2000/ Oracle 8.1.7	Red Hat Linux/ Oracle 9.2

> Switching RDBMS is possible after the migration by using the NW copy tool. Since the copy tool also enables switching OS, you may decide to perform the migration to the same target OS as the source and then make the desired OS and DB changes later. See the reference to the copy tool documentation in the beginning of this guide, Migration of SAP Enterprise Portal 5.0 to NetWeaver '04 [Page 7], under *Limitations*.

1.3.2. Installing SAP Enterprise Portal on the Target System

Obtaining a running SAP Enterprise Portal on Web AS 6.40 requires the following steps:

1. Install the NW '04 SR1

   See the guide *Installation Guide - SAP Enterprise Portal 6.0 on Web AS 6.40*, located at *service.sap.com/instguidesNW '04 → Installations*.

2. Upgrade the installation by installing SAP NetWeaver 2004 SP Stack 14 (or higher).

   The installation of SP Stack 14 is decribed in Support Package Stack Guide – SP stack 14, located at *service.sap.com/instguidesNW '04 → Operation → Cross-NW*.

3. Install Knowledge Management and Collaboration NW '04. For more information, see the section *Installation of Knowledge Management and Collaboration* in the installation guide referred to in step 1.

   You install **exactly** the same components on both the source and target system. If only the portal is installed on the source system, then install only the portal now and, if desired, add Knowledge Management and Collaboration later, after you have successfully completed the migration.

Recommendations

Source System

It is strongly recommended to maintain your EP 5.0 SP6 portal before migration to NW '04. It will ensure easy troubleshooting in case of problems.

In order to support migrated content that points to a URL in the EP 5.0 system, you must keep the EP 5.0 system up and running.

2. Knowledge Management Migration

Purpose

The migration transfers the content of Knowledge Management from an EP5.0 SP6 system to a NW '04 system. It also enables a change in operating system from Windows 2000 to Windows 2003 or UNIX.

Prerequisites

SAP Enterprise Portal and Knowledge Management are installed on the target machine and have the version SAP NetWeaver '04 SP Stack 14 (or higher).

Process Flow

Before you begin the migration, read SAP Note **732461**. It contains the latest information on the migration, including corrections to this guide.

When you migrate Knowledge Management, you need to:

- Migrate Content Management
- Migrate TREX Retrieval and Classification to TREX 6.1.14.

You migrate Content Management before you migrate the portal.

Migration of Content Management

The migration of Content Management involves a number of steps. The list below gives you an overview of the steps and shows the order in which they must be performed. If Content Management is installed on a cluster configuration, then the migration procedure is the same as for a standard configuration. However, after the migration, it is necessary to check the assignment of scheduled tasks to systems.

For detailed instructions on individual steps in the following list, see the corresponding sections later in the guide.

1. Preparations [Page 21]

    a. Make sure the source system has the version EP5.0 SP6 patch 1 with at least hotfix 10 for KM.

    b. Make a note of the name of the KM database on the source system.

    c. Make a note of the system ID on the source system.
       Cluster only:
       In a cluster configuration, there are several system IDs.

    d. Download the software for the migration from the SAP Software Distribution Center.

    e. On the source and target system, shut down the portal. Leave it shut down on both systems for the entire migration. The databases of both source and target systems must be up and running.

    f. On the target system, back-up the `etc` directory.

    g. Copy the file system data of local `fsdb` repositories from the source system to the target system.

    h. On the source system, run the *Migration Exporter* tool to collect input data for the migration and to store it in the archive file `MigrationInput.zip`

2. <u>The Migration [Page 25]</u>

   a. On the target system, extract the *KMC Migration Tool* to a temporary folder.

   b. Copy the file `MigrationInput.zip` containing input data for the migration from the source system to the folder with the *KMC Migration Tool* on the target system.

   c. Use the *KMC Migration Tool* to:

      i. Run reports that identify additional actions that are required for the migration.

      ii. Merge the contents of the EP5.0 and NW '04 `etc` directories.

      iii. Migrate the database content and synchronize data for fsdb repositories.

      iv. Merge the EP5.0 and NW '04 configuration data.

          If required, exclude the XML configuration files of customer developments from the migration. For more information, see <u>Migrating the Configuration [Page 31].</u>

   d. Prepare for the migration of EP5.0 iViews to NW '04 with the import of the *Compatibility package* into the target system. The package enables the use of EP5.0 iViews in NW '04.

      Perform this step only if you want to use existing EP5.0 iViews in NW '04. The iViews are migrated later during the portal migration.

3. <u>Post-Migration Activities [Page 50]</u>

A number of actions are necessary to complete the Knowledge Management Migration.

      You perform these steps **after you have finished the portal migration**.

   a. Analyze the *Customer Component* and *Repository Managers* reports that are generated by the *KMC Migration Tool* at the beginning of the migration. Perform the manual migration tasks that are necessary to complete the migration.

   b. Delete obsolete system IDs on the target system:

      ▪ In a system with a single instance, delete the obsolete NW '04 system ID.

      ▪ In a cluster, delete old system IDs and then ensure that scheduled tasks are assigned to new NW '04 system IDs.

   c. Initialize templates and object types for Ad Hoc Workflow.

   d. Assign users to new NW '04 Roles.

Migration of TREX to EP6.1.14

You can migrate TREX before or after the Content Management and Collaboration migration. For the migration, you install the new TREX 6.1 SR1 version on the same machine as the old TREX installation. You then migrate the indexes from the old system to the new system.

For more information about the migration procedure, see SAP Service Marketplace at **service.sap.com/instguidesNW '04** → *Upgrade → Cross-NW → Component Migration Guide - Search and Classification (TREX)*

> ⚠️
>
> When you follow the instructions in the migration guide, make sure that you establish the connection between TREX and the Knowledge Management application (the client). To do this, you need to configure the TREX Service in the *SAP J2EE Engine Visual Administrator Tool.*

After migrating the TREX indexes, apply Support Package Stack 14 (for TREX). After this upgrade, the target version is TREX 6.1.14.

> For information about the SP Stack upgrade, see **service.sap.com/instguidesNW '04** → *Operations → Cross-NW → Support package Stack Guide - SAP NetWeaver 04 SP Stack 14.*

Results

The Content Management migration moves the EP 5.0 database content and configuration to the NW '04 system and updates them. The EP 5.0 configuration data is transferred from the file system into the NW '04 database.

Note that the repositories configured in the EP 5.0 system will not be accessible on the target system. To make them accessible, you need to perform the additional actions that are specified in the results of the *Repository Managers* report [Page 26] which checks the repositories.

2.1. Preparations

Purpose

Before you begin the migration, you need to perform a number of preparatory steps.

2.1.1. Checking the Source Version

Use

The source system for the migration must have the version CM 5.0 SP6 patch 1 hotfix 10 for KM. Before you start the migration, ensure that you have the correct source version.

Procedure

1. Open the registry. To do this, choose *Start → Run* and then enter **regedit** in the *Open* field.

2. In the registry, choose *My Computer → HKEY_LOCAL_MACHINE → SOFTWARE → SapPortals → CM*

3. Look for an entry like the following with at least hotfix 10 (for KM):

   CM SP6 Patch1 hotfix <number>

   If a lower patch version or hotfix than required is displayed, then you do not have the correct source version for the migration. In this case, you must install the missing patches before proceeding with the migration.

2.1.2. Determining the Database Name

Use

Before the migration make sure that you know the name of the CM database. You need to specify the name when you migrate the database with the migration tool.

Procedure

> If you are certain that the system uses the default database name `wcm`, you can skip this procedure:

1. In the portal, access the connection pools with *KM-Admin → Configuration → Content Management → Utilities → JDBC Connection Pools.*

2. In the definition of the connection pools, identify the *Database Name* and make a note of it for later use. If the variable `%DBSID%` appears instead of a database name, then you need to make a note of the name specified for DBSID in the `config_local.properties` file.

2.1.3. Determining System IDs

Use

You need to find out the system ID on the source system and make a note of it. Later, when you have completed the migration, you need to delete the ID on the target system because it is obsolete. The NW '04 target system uses new IDs.

> **Cluster only:**
>
> There are several system IDs in a cluster.

Procedure

1. On the source system, log on to the portal and choose *KM Admin → Configuration → Content Management →Global Services → System Landscape Definitions → Systems → Content Management Systems.*

2. For later use, make a note of all the system IDs that are displayed.

2.1.4. Obtaining the Migration Software

Use

You download the software for the migration from the SAP Service Marketplace.

Procedure

1. Access the migration software at **service.sap.com/swdc** → *Download* → *SAP Support Packages* → *Entry by Application Group* → *SAP NetWeaver* → *SAP NETWEAVER* → *SAP NETWEAVER 04* → *Entry by Component* → *EP Migration*. Choose the relevant migration path and then *#OS Independent..*

2. Download the file `KMCMIGTOOL_<number>.sar`
    Where <number> represents the version of the tool.
    Extract the contents on a local machine using the SAPCAR tool:

    sapcar –xvf KMCMIGTOOL_<number>.sar

3. Copy the following file to a temporary directory on the **source system**:

    `MigrationInfoExporter.zip`

    Copy the following file to a temporary directory on the **target system**

    `MigrationTool.zip`

2.1.5. Shutting Down the Portal

*   On the source system, make sure that all users have saved and checked in their documents and are logged off.

*   On the source and target system, shut down the portal. Leave it shut down on both systems until the end of the migration. The databases of both the source and target systems must be up and running.

*   Cluster only:
    Make sure the portal is shut down on all the nodes in the cluster.

2.1.6. Backing Up the etc Directory on the Target System

Use

On the newly installed NW '04 target system, back up the `etc` directory containing system data. You need this backup if the migration of the `etc` directory fails. The backup enables you to restore the original state so that you can repeat the migration.

Procedure

> **Cluster only:**
> Perform this step on the central instance.

On the target system, back up the `etc` folder.

Windows:

`\usr\sap\<system_name>\SYS\global\config\cm\etc`

UNIX:

`/usr/sap/<system_name>/SYS/global/config/cm/etc`

Copying Data for Local fsdb Repositories

Use

fsdb repositories store resources on the file system and metadata for these resources on the database. The data in the database is automatically transferred to the target system during the database migration. However, the data on the file system is not transferred automatically. If it is stored in a local directory, you need to copy it manually to the target system.

> If the file system data for an fsdb repository is stored on a remote share, no special copy operation is necessary.

Copying File System Data to the Target System

For each **local** fsdb repository that you want to use on the target system:

1. Create a directory on the target system.

2. Compress the data on the source system and then copy it to the newly created directory on the target system.

3. Unpack the data on the target system.

4. For later reference, note down the name of each fsdb repository and its root directory on the target system.

   You need the information later during the last phase of the database migration. In this phase, you adapt the configuration settings of the fsdb repositories so that they are valid for the target system.

2.1.7. Collecting Information on the Source System

Use

You run the *Migration Exporter* tool to:

- Export the configuration data

- Collect data on the source system which is required as input for the migration

The *Migration Exporter* tool saves both the configuration and input data in an archive file `MigrationInput.zip.` The data in the file is required later, on the target system, as input for the *KMC Migration Tool*.

Procedure

> **Cluster only:**
> Perform this step on the central instance.

1. On the source system, extract the file `MigrationInfoExporter.zip` tool to a temporary folder. You downloaded this file from the SAP Software Distribution Center in preparation for the migration.

2. Run the tool from the temporary folder. To do this, enter the command:

   `MigrationInfoExporter.cmd`

   The *Migration Exporter* tool exports both the configuration data and further system data to the file `MigrationInput.zip.`

3. Remember the location of the `MigrationInput.zip` file. Later, you copy the file to the temporary folder on the target system where the *KMC Migration Tool* is located.

2.2. The KM Migration

Purpose

You perform the main steps of the migration with the *KMC Migration Tool*. You use the tool to run reports that return information about the system, to merge the contents of the EP 5.0 and NW '04 `etc` directories, and to migrate both the database and configuration.

2.2.1. Using the Migration Tool

Use

You perform all the central migration tasks with the *KMC Migration Tool*. You run the tool on the **target system**.

Procedure

Starting the Tool

> **Cluster only:**
>
> You run the migration tool on the central instance of a J2EE cluster.

On the **target system** proceed as follows:

1. To ensure that you have the authorizations required for the migration, we recommend that you log on as SAP J2EE Engine administrator.

2. Extract the file `migrationTool.zip` to a temporary directory. You downloaded this file from the SAP Software Distribution Center in preparation for the migration.

   You can use any extraction tool, for example, WinZip.

3. Copy the file `MigrationInput.zip`, which contains the input data for the migration, from the source system to the temporary directory you created in the previous step.

4. Start the *KMC Migration Tool*.

   a. **UNIX only:** Before you can run the tool, you need to set the execute permission with the command:

      `chmod 777 <file_name>`

   b. To run the tool, switch to the temporary directory and start the script appropriate for your operating system.

      For Windows start:

      `go.cmd`

      For UNIX start an X-Session and enter:

      `./go.sh`

   The tool opens and offers you all the options that you need to carry out the migration: *Reports*, ETC, *DB* and *Config.*

Working with the Tool

1. To enable the tool to access all the information it needs during the migration, you must specify the *SAP System Name* (SAPSID).

   FP8

2. Work through the options in the sequence shown on the initial screen, from left to right. Before you start a new migration step, always check whether the previous step has completed. If you start a step before the previous one has completed, the data on the target system will be inconsistent.
   For details about each step, see the sections below.

Log File

The tool writes information to the log file KMCMigrationTool.log which is located in the directory where you start the migration tool.

2.2.2. Running Reports

Use

The KMC Migration tool includes reports that you run to identify additional steps that you need to perform to complete the migration. The reports generate information that is required for different purposes at different stages of the migration.

> The target KMC system may not start up if you do not perform the steps specified in the results of the reports after the completion of the portal migration.

Repository Managers Report
This report identifies tasks that are necessary to configure repositories on the targets system correctly. You need the results of the report later, after the migration of the Portal Platform, to manually configure the repositories.
For more information, see Performing Tasks Identified by Reports [Page 50]

The report finds out, for example, whether:

- Local paths and remote paths are accessible and the parameter LocalRoot has a valid value

- The LocalRoot Versioning has a valid value for CM repositories

- W2K Security Manager is in use. On UNIX the report issues a warning.

> If you do not want to use the repositories that are configured on the source system on the target system, you do not need to run the report.

Customer Components Report

The report identifies components that were developed and integrated in the application after the original KMC installation. These customer components are not automatically transferred to the target system during the migration. To deal with them, you have two options. You can:

- Manually deploy the java classes of the components on the target system. You do this after the migration of the Portal Platform. For more information, see Performing Tasks Identified by Reports [Page 50].

- Decide that you do not need the components on the target system. In this case, you have to exclude the xml configuration files of the components from the migration to the target system. You can do this when you run the *Config* option of the KMC Migration Tool. For more information, see Performing Tasks Identified by Reports [Page 50].

> If after the test migration you cannot access KMC, we recommend that you remove the xml configuration files of the customer components before repeating the test migration.

If the source system has customer components and you do not exclude the corresponding XML configuration files from the migration, then the target system will display errors related to these components. You can temporarily ignore these errors until after the portal migration when you need to deal with the migration of the customer components. Only ignore the errors that are related to the components which are identified by the customer component report. If you notice other errors, you need to resolve them.

Database Deployment Report

The report determines whether the CM repositories on the source system store data in more than one database. This check is necessary because only one database instance is permitted on the target system. There all data for CM repositories is stored in the Java schema of a **single** SAP J2EE Engine database instance.

> If the tool finds out that more than one database is in use, you need to contact SAP support to **get special assistance for the migration**.

Procedure

To run a report, proceed as follows:

1. On the initial screen of the *KMC Migration Tool*, choose *Reports*.

   The *Report Tool* window opens.

2. Specify a folder to store the results of the reports in the field *Save reports results into.*

3. Select the report you need to execute and choose *Run*.

   The report starts and writes status information on the screen. Errors are indicated in red.

4. Analyze the results of the report. You open the results in the folder you specified earlier or with *File → View latest Report.*

5. If the *Customer Components* or *Repository Managers* report contains information that makes further migration steps necessary, perform these when you have run all the options offered by the *KMC Migration Tool* and migrated the portal.

2.2.3. Merging the Contents of the etc Directory

Use

In this procedure, the contents of the old (EP5.0) and new (NW '04) `etc` folders are merged and copied to the target system.

Procedure

1. On the initial screen of the KMC Migration Tool, choose *ETC*.

    The *ETC Migration* window opens. It shows the *Source Folders* (EP5.0), the *Target Folders* (NW '04) and a *Temporary Folder*. The *Temporary Folder* is a working folder that shows the merge process.

2. Choose *Start*.

    The merge process begins. You can follow the progress in the displayed folders and the output displayed at the bottom of the window. The time that has elapsed for the merge is also shown in milliseconds. When the process has finished the following message appears:

    Etc directory migrated successfully in <milliseconds>

    > If you need to repeat the merge, you can restore the original `etc` directory on the NW '04 target system using the backup you made in preparation for the migration. For more information, see Backing up the etc Directory on the Target System [Page 23].

2.2.4. Migrating the Database

Use

You run the *Database Migration* tool to automatically migrate the EP5.0 source database to the NW '04 target database. In addition, if the migration process includes fsdb repositories, you use the tool to synchronize these repositories on the target system.

Prerequisites

On the source and target system make sure that the portal is shut down and the database is running.

Procedure

To migrate the database:

1. On the initial screen of the *KMC Migration Tool* choose *DB*.

    The *DB Migration* window opens.

2. Enter the required data as shown in the input table below and then choose *Start*.

    When the migration begins, the bottom part of the screen shows the progress of the conversion and reports any errors that occur. The time required for the migration varies, depending on the processing power of the target machine. **Normally the process takes several hours**.

3. If fsdb repositories exist on the source system, perform the fsdb synchronization. The *FSDB Synchronization* screen, which you require for this task, appears after completion of the database migration. For the synchronization you:

    a. Adapt the configuration settings of the fsdb repositories so that they are valid for the target system

b. Perform the synchronization which ensures that data on the file system and metadata on the database are synchronized.

Input for Database Migration Tool

If you are uncertain of the DB user and password, which you have to enter, you can test it as follows:

Oracle

Open the *Enterprise Manager Console* with *Start → Programs → Oracle → Enterprise Manager Console*. Choose the instance and enter username and password for CM. If the logon fails, you might need to enter a new password.

MS SQL Server

Open the *Query Analyzer* with *Start → Programs → Microsoft SQL Server → Query Analyze* and use *SQL Server Authentication*. Enter the user and password for the CM database. If the login fails, you might need to change the password.

For more information on setting a new password for Oracle or MS SQL Server, see SAP note **687576**.

	Source
DB Server	Enter the IP Address of the machine where the source database server is installed. To find out the address enter the command: `netstat –n`
DB Type	Enter `SQL Server` or `Oracle`.
DB Name	Enter the name of the database. This can be the default `wcm` or the name you determined earlier in the connection pools or the DBSID entry of the `config_local.properties` file. For more information, see Determining the Database Name [Page 22]
DB port	**For MS SQL Server:** Enter the port number for the database. The default is 1433. **For Oracle:** Enter the Listener port for the database. The default is 1521 or 1527.
DB User	Enter the user with which CM connects to the database. The **MS SQL Server** default user is `wcm` The **Oracle** default user is `wcm`.
DB Password	Enter the password for the CM database connection.

Synchronizing the fsdb Repositories

You perform the synchronization at the end of the database migration, when the *FSDB Synchronization* screen appears. The synchronization ensures that the fsdb data on the file system corresponds to the metadata in the database.

⚠️

> To prevent the loss of fsdb metadata on the target system, you must perform the synchronization at this point in the migration process.

Proceed as follows:

1. In preparation for the synchronization, configure the fsdb repositories correctly for the target system. To do this:

   a. Select a repository that is displayed on the *FSDB Synchronization* screen.

      The color in which the root repository is displayed changes to green, red or orange.

   b. Find out the meaning of the color with the help of the table below and then perform the actions that are recommended to correct the configuration.

2. Synchronize the data on the files system with the metadata on the database. To do this:

   a. Select all fsdb repositories for which you copied data from the source to the target system.

   b. Click *Start* to trigger the synchronization process.

      The process takes few minutes to complete. When it has finished, you are informed in the status area of the *FSDB Synchronization* screen.

Color	Meaning	Required Action
Red	The root directory that is specified for fsdb data on the source system does not exist on the target system.	Click on the path displayed in red and navigate to the correct directory on the target system. You created this directory in preparation for the migration.
Orange	The root directory that is specified exists on the target system, but does not contain the data for the fsdb repository which is selected on the screen.	Click on the path displayed in orange and navigate to the directory on the target system which contains the data for the repository in question. You created this directory in preparation for the migration and then filled it with fsdb data from the source system.
Green	The repository involved is configured correctly on the target system	No action
Black	The repository involved is not selected. Colors indicating the validity of the configuration are not displayed.	No action

2.2.5. Migrating the Configuration

Use

The migration of the configuration merges the EP5.0 and NW '04 configuration data and transfers it from the file system to the database. It also offers a screen to exclude XML files containing configuration data for custom developments from the migration. You exclude these files if:

- You no longer need the custom developments on the target system
- The custom developments are incompatible with the SAP NetWeaver version on the target system and are not yet available in the version required for the target system.

Earlier in the migration procedure, you used the *Customer Components* report to identify components which were added to KMC after the original installation. The configuration files for the components are transferred to the target system during the migration of the configuration, however, without the corresponding java classes. These have to be transferred manually after the portal migration. If you do not need the customer components on the target system, or if you do not yet have a version of them which is compatible with the target system, you can exclude the corresponding configuration files from the migration, using the *Config* option of the migration tool.

Procedure

Close any explorers or applications that are open and can access directories with configuration data.

1. On the initial screen of the *KMC Migration Tool*, choose *Config*.

   The *Custom Code Development Removal* screen opens.

2. Proceed as follows:

   - If you want to start the migration of the configuration and include XML configuration files for custom developments:

        i. Choose *Quit*.
           The KMC *Configuration Migration* screen opens.

        ii. Choose *Run* to start the migration of the configuration.

   - If you want to exclude XML configuration files of custom developments from the migration:

        iii. Select the XML files you want to exclude and then choose *Start*.
             The XML files are removed from the list of migration files and then the *KMC Configuration Migration* screen opens.

        iv. Choose *Run* to start the migration procedure.

   The migration of the configuration begins and displays the status at the bottom of the window. Errors are displayed in red.

2.2.6. Importing the Compatibility Package

Prerequisites

The compatibility package is provided in the `KmCompatibilityPackage.zip` file that is attached to SAP note **640634**. Fetch the file in preparation for the import.

Procedure

1. On the target system, extract the file `KmCompatibilityPackage.zip` to the following directory on the portal machine:

   `\usr\sap\<system_name>\sys\global\pcd\Import`

   Make sure that access to the `import` folder is not restricted with `read-only`, otherwise the import will fail. For more information, see note **681323**.

2. Log on to the portal as super administrator and choose *System Administration → Transport → Import.*

3. For *Source for Package Files*, select *Server*. Choose *Browse* and navigate to the file `package.pkg` which contains the compatibility package. Select the file so that it is displayed on the import page.

4. Make sure that the option *Content to be overwritten* is set to *All*.

5. Choose *Import* to import the compatibility package. The import takes a while. To find out whether the import has completed, choose *View Log*.

3. Enterprise Portal Migration

The portal of NetWeaver '04 is a more advanced and versatile portal version than EP 5.0, as well as being platform independent. The migration utility, included with the NW '04 installation, adapts EP 5.0 content so that it can be integrated by the new portal version. This offers the users of the organization the technical benefits of NW '04 without the loss of data or user management configurations.

The migration is an automated process, but requires some manual, preliminary steps as well as important post-migration procedures.

> If your system includes KM, the migration for KM must be performed before the portal migration. For migrating Knowledge Management (KM), there are different tools and processes than for the portal. For more information, see Knowledge Management Migration [Page 19].

For additional useful information, see Scope of Portal Migration - EP 5.0 to NW '04 [Page 34] before starting the migration process.

For the latest information and updates about the migration process from EP 5.0 to NetWeaver '04, consult SAP Note 732461.

Prerequisites

- You are running EP 5.0 SP6 with Patch 1.

  If you are running an earlier EP 5.0 version, then upgrade your portal to SP6 and apply Patch 1. For information on upgrading, to SP6, go to *service.sap.com/epinstall → SAP NetWeaver → SAP NetWeaver in Detail → People Integration → Portal → Media Library → Documentation & More → EP 5.0 → Installation, Upgrades &Patches*.

- NetWeaver '04 SP Stack 14 portal is installed on the target machine (to which the EP 5.0 content is to be migrated).

  See EP Installation Sequence: Including KM & Collaboration [Page 17].

  > It is recommended to create and save an image of your NW '04 installation.

- Java Virtual Machine (JVM) settings are configured as recommended in **SAP Note 696410**.

Process Flow

Although most of the migration of the content on your NW '04 machine is automatic, some manual steps are involved in preparation for migration and after migration has completed.

To prepare for automatic migration you must do the following:

- Prepare business packages for migration.

  Follow the steps necessary for preparing business packages for migration, particularly making sure versions are synchronized with the version of your NW '04 portal installation.

  For detailed information about the migration business packages, see Migration of Business Packages [Page 60] in this guide.

- Obtain a registration key to enable the migration (see SAP Note 854791) and register the migration. See Registering the Portal Migration [Page 36]

- Perform all tasks necessary for migrating the portal as described in Preparing the Portal for Migration [Page 36].

- Shut down the source system.

- Run the migration utility. See Migrating the Portal [Page 48].

3.1. Scope of Portal Migration - EP 5.0 to NW '04

The migration of EP 5.0 to NW '04 includes the following components:

- Portal archives (PAR & ZAR files)

- Content objects

  The migration of content objects includes .NET and Java iViews, delta links, pages, roles, worksets, channels (converted to folders, the IDs of which are created from the channel name), and external services.

- User management

- User mapping

- Role assignments

- Channel-to-role assignments

- Systems

- Data sources

  The migration of data sources translates them in a system of type "data source," having its own system template.

- Personalizations

The migration of EP 5.0 to NW '04 does not include the following components:

- The migration of themes and styles is not performed automatically. For details, see *Process Flow* in Enterprise Portal Migration [Page 33] and Post-Migration Procedures [Page 53].

- Unifier projects

- iPanel

- .NET iViews that do not have matching portal components in NW '04 are not migrated.

  Currently, only URL, Yahoo, and ASP iViews are supported.

  ASP iViews are supported with the following limitations:

  - The IIS on which they are located must be up and running.

  - If an ASP points to a URL in the EP 5.0 portal, the EP 5.0 portal needs to be up and running to view results.

    In addition, a trust relationship must be created between the target NW '04 and the EP 5.0 portals, so that the EP 5.0 portal will trust the logon ticket of the NW '04 system. For information on creating trust, see SAP Note 711769.

    (To create an iView in the NW '04 portal that has EP 5.0 ASP content, you need to create a URL iView that points to the URL on the EP 5.0 server.)

  - If an ASP returns content that is dependent upon and specific to the EP 5.0 system (such as unsupported EP 5.0 tags), that content is not supported by the migration process. See SAP Note 774592.

- The NW '04 portal supports the URL tags `<DBHOST HOST>`, `<DBHOST PROTOCOL>`, `<DBHOST PORT>`, `<DBHOST HOST PORT>`, and `<DBUSER USERID>`. ASP iViews requiring additional tags are not supported.

- iViews that contain supplementary files

- Customer-defined layouts, defined as follows:
    - Layouts manipulated by changing default ASP files
    - New customer-created layouts

    Such layouts must be recustomized in NW '04 after the migration. For information, go to the portal administration guide on the help portal, System Administration → Portal Display.

About characters in the object ID:

An object ID (technical name) in NW '04 can contain only the following characters: "0" to "9", "A" to "Z", "a" to "z", forward slash ("/"), period (".") underscore ("_"), percent sign ("%"), tilde ("~"), hyphen ("-"), and opening and closing parentheses "()".

During migration, different characters are replaced by their escape version. For example, "My Channel" in NW '04, will appear as "My%20Channel".

Neither functionality nor object title are affected.

Flow at the Back End:

The automated back-end flow of the migration is as follows:

- Data from EP 5.0 is exported from:
    - Portal repository database
    - Portal Content Directory (PCD)
    - Portal LDAP directory

- The exported data is processed and adapted to the NW '04 system.

- The processed data is imported into the NW '04 portal system database

Migrating to a Clean NW '04 Installation

Although it is not a requirement, it is recommended to perform the migration procedure described in this guide to a machine housing a clean portal installation, i.e. containing no new content added prior to the migration of content from your EP 5.0 machine.

The reason for this recommendation is a follows:

Suppose you have finished installing NW '04, as required, and then you have imported content from a business package from iView Studio. You make administrative changes and personalize iViews and pages.

If you have the same objects on your EP 5.0 machine, during migration this content is transferred to the same directory as the imported content, and any administrative changes and personalization made on the NW '04 installation are overwritten.

You can partially work around this problem by exporting your new modified content, and then re importing it after the migration. However, this workaround, although it saves administrative changes, loses personalization during the export.

(To import and export content in NW '04, navigate as follows: *System Administration → Transport → Export/Import.*)

3.2. Preparing for the Portal Migration

Before migrating the old system to the new one, several preparation steps are required. Follow the instructions described in the sections below. The following topics are included:

3.2.1. Registering the Portal Migration

Use

The registration process includes obtaining a key from SAP, for information about your migration project is required. This helps SAP provide optimal support for your project. To obtain a registration key, follow the instructions provided in SAP Note 854791.

The registration procedure described here may be performed at any time prior to running the migration utility.

Procedure

1. Go to *System Administration* → *System Configuration* → *Service Configuration* and browse to *Applications* → `com.sap.portal.upgrader.upgraderservice` → *services* → `UpgraderService`.

2. Open the UpgraderService Property Editor, by right-clicking `UpgraderService` and choosing *Configure*, or by double-clicking `UpgraderService`.

3. In the Registration Key field, enter the registration key received by following the instructions in SAP Note 854791, and choose *Save*.

4. Restart the portal.

> Changes to portal services require restart. If you are planning to make other changes requiring restart, for example Defining Default Master Language Property For Migrated Objects [Page 37], then avoid multiple restarts. Just make sure to restart the portal before migration.

3.2.2. Defining Default Master Language Property for Migrated Objects

Use

The default master language of iViews and Pages migrated from EP 5.0 is English (en). The default master language can be changed by performing the following pre-migration procedure:

Procedure

1. Go to *System Administration → System Configuration → Service Configuration* and browse to *Applications →* **com.sap.portal.upgrader.upgraderservice** *→ services →* **UpgraderService**.

2. Open the UpgraderService Property Editor, by right-clicking **UpgraderService** and choosing *Configure*, or by double-clicking **UpgraderService**.

3. Change the **upgrader.MasterLanguage** property to the desired language using the locale convention (only the language property part without the country, for example fr, de).

> In the field *The display format of the migration log*, the value "HTML" appears. If desired, you may change the format to "XLS" (MS Excel). If any other file extension is entered as the value, the file type of the log will remain HTML.

4. Restart the portal.

> Changes to portal services require restart. If you are planning to make other changes requiring restart, for example Mapping Page Layouts [Page 39], then avoid multiple restarts. Just make sure to restart the portal before migration.

3.2.3. Import Filter for Content Objects

Use

When you import portal content from SAP Enterprise Portal 5.0 to SAP NetWeaver '04, the *Import Filter for Content Objects* checks the content objects, for example, iViews, pages, worksets, and roles.

The *import filter* is shipped as an attachment to SAP Note 642999. For more information, see SAP Note 642999.

Features

The *import filter* provides two functions for content objects in SAP Enterprise Portal 5.0 during the import:

- Skipping content objects

- Mapping content objects

The *import filter* is controlled using the import filter file. The import filter file contains a list of all content objects that should be skipped and that can be mapped. The system automatically skips and maps content objects.

> You must not make any manual changes to the import filter file. SAP does not accept liability for or support customer changes to the import filter file.
>
> Exception: This file may be edited only in the event that you have been using customized page layouts in EP 5.0 and need to map them to new NW '04 layouts, and only as described in Mapping Page Layouts [Page 39].

Skipping Content Objects

Certain content objects from SAP Enterprise Portal 5.0 cannot or should not appear in SAP NetWeaver '04. The import filter file for the *Import Filter* lists the content objects that are skipped during import to SAP Enterprise Portal SP2.

The following objects can be affected:

- .ivu

- .par

- .pag

- .pcd

Mapping Content Objects

To map content objects, you must use the *Import Filter* to map paths in SAP Enterprise Portal 5.0 to paths in SAP NetWeaver '04. You can only map content objects that are listed in the Portal Content Directory.

You can only map paths from SAP Enterprise Portal 5.0 (technical names) to the paths in SAP NetWeaver '04 (technical names).

> Path mapping:
>
> pcd#/global/services/installed/SAPApplications.BSP=portal_content/com.sap.portal.migrated/ep_5.0/templates/com.sap.portal.appintegrator.sap.bwc.BSP

If you have been using custom page layouts in EP 5.0, which you want to keep in the NW '04 portal, follow the instructions in

Regular Updates to the Import Filter

SAP regularly changes the import filter file for the *import filter*. Therefore, before you import a 5.0 business package, you must check each time that you have the latest version of the *import filter*.

3.2.4. Mapping Page Layouts

In EP 5.0 it was possible to create custom page layouts in ASP files. Since these files are not migrated, neither are the layouts. However, it is possible to recreate these layouts in NW '04 and, using the , map the EP 5.0 layout files to the new during the migration process.

Creating Customized Page Layout Templates in NW '04

Create new layout templates according to the instructions and information supplied in the Help Portal at *help.sap.com → Documentation → SAP NetWeaver → People Integration → Portal → Administration Guide → Content Administration → Portal Pages → Creating a Customized Page Layout Template*.

Integrating New Page Layout Templates in NW '04

Perform the following for each layout template you have created and to which you wish to map an EP 5.0 layout.

Although there are restrictions imposed by SAP to making changes in the folder *Content Provided by SAP*, changes required to map page layouts may be made, but only if performed precisely as described in this document.

1. Navigate as follows: *Content Administration → Portal Content → Content Provided by SAP → Templates → Layout Templates*.

   In Quick Info you can see that the ID of this folder is **portal_content/com.sap.pct/templates/layouts**.

   Do not perform the following steps from any other folder than Layout Templates, to which you navigated in Step 1. Mapping will **not** work if the layout templates are add to a different folder.

2. Right-click the Layout Templates folder and from the context menu choose *New From PAR → Layout*.

3. In Step 1 of the wizard, select the desired layout and choose *Next*.

4. In Step 2 of the wizard, choose a portal component.

5. In Step 3 of the wizard, enter the required values. Choose Next and Finish to the end of the wizard.

   The new layout is added to the Layout Templates folder.

Mapping the EP 5.0 Layouts to NW '04

It is now possible to edit the Import *Filter for Content Objects* file (cms_mapping.properties) to map the EP 5.0 ASP files to the new NW '04 layouts. See section 1d of the import filter file for an explanation about layout mapping.

Layout IDs:

In order to map the layouts, you must have the IDs of the EP 5.0 and the NW '04 layouts.

- Section 1d in the filter file provide the ID for default layouts. To find further layout ID information, you can go to the EP 5.0 database and run the query `Select * from p865_colsets`.

- For NW '04 IDs, go to the Layout Templates folder, as described in the above section on integrating new layouts into NW '04.

  Select the new layout and note the ID in Quick Info. (The ID is located after the last backslash (\), in the format *<prefix>.<ID>*. This ID will be needed for mapping in the filter file.)

  > Any change to the *Import Filter for Content Objects* file (cms_mapping.properties) requires that the target NW '04 portal be restarted. This must be done before migrating for the mapping to take effect.

3.2.5. Pre-Migration User Management Steps

Procedure

The steps listed below must be taken to enable smooth migration of user management information from EP 5.0 to NW '04. The specific order is not important.

- Verify that there is read-access to the EP 5.0 corporate and portal LDAP

- On the NW '04 machine, specify the corporate LDAP server and hierarchy type exactly as they were defined for EP 5.0. Changes in user management configuration cannot be migrated.

  The path in NW '04 is *System Admin → System Configuration → UM configuration*, and go to:
    - Data Sources tab
    - LDAP Server tab

- To avoid possible problems accessing the corporate LDAP on NW '04, set the minimum lengths of the user ID and password to '4' on the NW '04 machine.

  The path in NW '04 is *System Admin → System Configuration → UM configuration → Security Settings* tab.

- Resolve any inconsistencies which may exist in EP 5.0 between roles existing in the PCD and roles in the usermanagement service. Obtain this information by navigating in EP 5.0 to the following iView: *Support → Support Desk → Portal Content Directory → CompareRoleLists*.

- In case there are inconsistencies, clean up the system by removing roles from usermanagement that no longer exist in the PCD, or use the option in the *CompareRoleLists* page to register the roles in usermanagement.

- Make sure that in your EP 5.0 LDAP, you design users, groups and roles with **unique** names. For example, if you have a user named „User 1" and an organizational unit also called „user 1", and both of them have user mapping, during migration, their mapping will clash.

  Read SAP note **692418** and follow it to ensure smooth migration.

Backing Up User Management Information

Export your LDAP data and the EP 5.0 database (typically TTPSys) from the LDAP and the database management system applications used by EP 5.0 (according to the instructions in the documentation of those applications).

This is recommended for back-up purposes only. During migration, the NW '04 portal connects directly to the EP 5.0 LDAP and database.

⚠️

It is recommended to back up these files, LDAP data, and database, referred to above, and the user management files specified in Copying EP 5.0 Files [Page 44] before performing the migration.

Before exporting LDAP and database information, make sure that no users or administrators are working in EP 5.0.

3.2.6. Verifying Upload of EP 5.0 System Landscape

Use

Two files in EP 5.0 constitute the system landscape of the source portal: *systems.xml* and *jcoDestinations.xml*. To enable the successful migration of the system landscape to the NW '04 portal, the system landscape files in EP 5.0 must be uploaded. Verify their upload status according to the following procedure.

⚠️

This procedure **must** be performed **before** you copy files to the NW '04 portal, as described in Copying EP 5.0 Files [Page 44].

Procedure

1. In EP 5.0, go to *System Configuration → System Landscape.* and see the Landscape Upload Status frame in the System Landscape Cockpit.

2. If the files are not uploaded, go to the Landscape Up- and Download Frame and choose *Upload to Portal*.

3. In the work area, enter the desired files and choose *Upload*.

3.2.7. Defining and Verifying Permissions

Use

This section describes pre-migration steps necessary in the NW '04 (target) portal for enabling users to access assigned content and to allow personalization.

Procedure

1. Go to *System Administration → Permissions → Portal Permissions.*

2. Right-click on the root Portal Content folder (`pcd:portal_content`) and choose Open Permissions.

    For the group Everyone, assign the following permissions:

    o   Under Administrator - None

    o   Under End User – On (checkbox selected)

    o   Role Assigner – Do not change

3. For each subfolder of Portal Content, except for Migrated Content (`pcd:portal_content/com.sap.portal.migrated`) and for Portal Users (`pcd:portal_content/every_user`), remove the Everyone row.

4. Navigate to the Layout Templates folder
    (`pcd:portal_content/com.sap.pct/templates/layouts`), under *Content
    Provided by SAP → Templates.*

    For the group Everyone, assign the following permissions:

    o   Under Administrator - None

    o   Under End User – On (checkbox selected)

    o   Role Assigner – Do not change

5. Browse to the folder *Migrated Content → EP 5.0*
    (`pcd:portal_content/com.sap.portal.migrated/ep_5.0`), and add to each
    subfolder:

    For the content_admin_role role, assign the following permissions:

    o   Under Administrator - Full Control

    o   Under End User – Off (checkbox cleared)

    o   Role Assigner – Do not change

    For the system_admin_role role, assign the following permissions:

    o   Under Administrator - Read/Write

    o   Under End User – Off (checkbox cleared)

    o   Role Assigner – Do not change

6. Browse to the *Security Zones →* `com.sap.portal.ep50` folder
    (`ara:/security/com.sap.portal.ep50`),

    For the group Everyone, assign the following permissions:

    o   Under Administrator - None

    o   Under End User – On (checkbox selected)

    o   Role Assigner – Do not change

3.2.8. Defining and Configuring a System for EP 5.0

Use

This section details what needs to be done to create an NW '04 system pointing to the 5.0
portal. This will enable the NW '04 migration utility to access the EP 5.0 databases in order to
process the non-Java content for migration.

Procedure

1. From the top-level navigation, go to *System Administration → System Configuration →
    System Landscape.*

2. Navigate to Portal Content and create a new system based on an EP 5.0 system
    template.

    To create a system, right-click on the desired location (either the root Portal Content
    folder or anywhere in the hierarchy), and from the context menu, choose *New →
    System*,.

    For details, see the portal administration guide on the help portal, *System
    Administration → System Landscape → System.*

3. Open the new system for editing from the context menu by right-clicking the system
    and, choosing *Open → Object* to open the system Property Editor. (Double-clicking the
    system opens the Property Editor by default.)

4. In the Property Editor, choose EP 5.0 Connection Parameters from the Property Category drop-down list, and define the following parameters:

   o EP 5.0 Server Name

   o EP 5.0 Server Port

   o EP 5.0 Protocol (valid values: http/https)

   o Location of EP 5.0 Styles – Leave blank

   o Location of System Landscape – Leave blank (for future use)

   o Location of ZAR files - The same location on the NW '04 machine to which you copied them. (This parameter is necessary only if content with services were created in EP 5.0.)
   e.g. …/usr/sap/FP8/JC00/j2ee/migration_ep50/zar

   o Location of User Management – The same location on the NW '04 machine to which you copied the user management and configuration file, e.g. …/usr/sap/FP8/JC00/j2ee/migration_ep50/ume

      See Copying EP 5.0 Files [Page 44].

5. In the Property Editor, choose EP 5.0 Database Connection Parameters from the Property Category drop-down list, and define the following parameters to the portal repository database:

   o Connection URL

      Use a URL that matches the drive ClassName. For example:

      ▪ For com.sap.portals.jdbc.sqlserver.SQLServerDriver, use jdbc:sap:sqlserver://<host>:1433;DatabaseName=<database_name(typically TTPSys)>

      ▪ For com.sap.portals.jdbc.oracle.OracleDriver, use jdbc:sap:oracle://<host>:1521;sid=<schema_name>

      ▪ For driver oracle.jdbc.driver.OracleDriver use jdbc:oracle:thin:@<host name>:<port>:<SID>

   o Database Administration Password

   o Database Administration User ID

      The default database user with SQL Server is EPUser.

      The default database user with Oracle is TTPSYS.

   o Driver Class Name

      Select the driver class name from the drop-down list of installed drivers. An example of a driver class name is:

      ▪ com.sap.portals.jdbc.oracle.OracleDriver

6. A specific default system alias must be defined on the NW '04 machine for the EP 5.0 system which was created there. Add the alias **DEFAULT_EP5_SYSTEM** to the EP 5.0 system opposite which NW '04 is working. If this is not the first alias given to the system, select it as the default alias.

   To the system aliases, choose System Aliases in the Display selection list at the top right of the system Property Editor.

   For more information, see the section on system aliases in the portal administration guide at *help.sap.com/NW '04 → <language> → SAP Library → SAP NetWeaver → People Integration → Portal → Administration Guide → System Administration → System Configuration → System Landscape → System Aliases.*

3.2.9. Checking the EP 5.0 Language Table

Use

Before running the migration from EP 5.0 to NW '04, make sure that the supported languages table in the EP 5.0 database is configured correctly. Although missing entries in the Supported Languages table do not affect portal functionality, they may cause a partial failure of the migration process.

Procedure

Run the following query on your EP 5.0 database (typically TTPSYS):

select * from P310_SUPPORTED_LANGUAGES

The result of the query should be several lines in the following format:

LANGUAGE_ID	LANGUAGE_NAME	LANGUAGE_SYMBOL
-1		NULL
0	Neutral	neutral
7	Deutsch	de
9	English	en
10	Espanol	Es
12	Francais	Fr
16	Italiano	It
22	Portugues	pt

Although it is recommended that all of the above entries appear in the table, it is not mandatory. Only the entry for LANGUAGE_ID 0 (Neutral) is mandatory. If it is missing from the database it needs to be entered manually.

3.2.10. Copying EP 5.0 Files

Use

This section describes in detail the EP 5.0 files related to user management, Portal Content Directory (PCD), and system landscape, which need to be copied to the NW '04 machine so that they are available for processing and import by the NW '04 migration utility.

Procedure

Copy the files listed in the table from the specified source location on the EP 5.0 machine to the specified destination directory on the NW '04 machine.

Compressing the files to be copied significantly reduces the transfer time (as much as 20%). Any compression utility may be used. If your preferred utility is not capable of compressing the number of files you have, it is possible to create more than one .zip file. It is important, however to build the content of the directory as it was on the source portal machine.

SAPCAR is the SAP proprietary, platform independent compression utility which is available from your NW '04 installation. SAPInst automatically unloads SAPCAR into the following directories:

For Windows in ...\Program Files\sapinst_instdir

for Unix, – in the directory from which SAPInst is launched

EP 5.0 Files to Copy

Action	From (on EP 5.0 machine)	To (on NW 04 machine)
User management: Copy all files and subfolders.	*<irjRootFolder>\WEB-INF\plugins\portal\services\usermanagement\data* Where the *<irjRootFolder>* is typically: *SAP_J2EEngine6.20\<alone* or *cluster>\services\servlet_jsp\work\jspTemp\irj\root*	*/usr/sap/sap_system_id/<J2EE_instance>/j2ee/migration_ep50/ume* You need to create this directory.
PCD: Copy all files and subfolders.	Open the pcd.properties file: *<irjRootFolder> \WEB-INF\plugins\portal\system\properties\pcd.properties* Find the value of the property *pcd.home* The default is: *C:\Enterprise Portal\DataFile\data* The pcd.home property represents the folder from which you need to copy all files and subfolders. (Do not copy the folder itself.)	The directory dedicated to PCD migration Find the path to this directory as follows: In top-level navigation, *System Administration → Support* From the portal *Support Desk* page, select *Portal Content Directory.* Under *Test and Configuration Tools,* select *PCD Configuration.* The path to the directory is listed under *Parameters for Portal Content Migration,* in the field *Pcd.Migration.TempPcdRoot Directory* Typical path: */usr/sap/sap_system_id/<J2EE_instance>/j2ee/temp/pcd/Migration/Pcd* If this path does not exist in the file system, create it manually. If the path exists, its content may be moved to another location if desired. The content in this directory would already be written to the database; it exists here for backup purposes.

| ZAR: Copy **only** those ZAR files created by your organization. Do not search for and copy all such files.

On the target system, remove the `.bak` extension. | ⚠️

Search for proprietary ZAR files (that is, only those ZAR files that were created within your organization for your portal), starting from your irj root folder. Copy these files to the specified location on the target machine.

If you were working with business packages, there may also be ZAR files associated with them. These should also be copied to the target machine.

For example, if you are working with CRM in EP 5.0, do the following:

On you EP 5.0 machine, search for `crmcontext.zar.bak` (it should be located in *<irj_root_folder>\root\WEB-INF\deployment*). Then move it to the target machine. | */usr/sap/ sap_system_id/<J2EE_instan ce>/j2ee/migration_ep50/zar*

You need to create this directory.

⚠️

After copying into specified folder on the target system, remove the `.bak` extension from all the ZAR file names.

For example, rename the file `crmcontext.zar.bak` to `crmcontext.zar`.

For more details, see SAP Note 761545. |

🔆

Note that the path examples in the table are typical Unix format. On PC, the path is preceded with the drive, for example, C:\, and it would contain back slashes instead of forward slashes.

3.2.11. Running the EP 5.0 Support Platform Plug-Ins

The Support Platform is an SAP-proprietary testing engine for running checks and fixes on portal systems. Running the *EP5 to NW04 Migration* set of pre-migration plug-ins is an important aid to prevent needless migration failure, causing additional downtime.

Verify that Support Platform is Started

Before trying to run the plug-ins, make sure that the Support Platform application is running. This can be done with a few telnet commands:

1. Access telnet with:

    `<machine_name> <portal_port_+_8 (e.g. 50008)>`

2. Log in to telnet with the Administrator user (user from the group Administrators).

3. Enter password.

4. Jump to any server node:

    `jump 0` (goes to the first server node)

    or:

    `jump <server_id>`

5. To add the required group of commands, enter the command:

```
add deploy
```

6. Now enter:

```
list_app | grep supportplatform
```

This returns:

```
sap.com/com.sapportals.supportplatform  STARTED/STOPPED  Server <server_id
(e.g. 0 0_65012)>
```

7. If the Support Platform is stopped, run the command:

```
start_app sap.com/com.sapportals.supportplatform
```

Alternatively:

You can start the application from the J2EE Visual Admin tool, as follows:

1. Log on to the J2EE Visual Admin tool and go Server → Services → Deploy.

2. In the Deployed Components pane, go to Deploy Service → Server → servlet_jsp → sap.com/con.sapportals.supportplatform.

3. Choose Start Application and in the window that opens, which shows all the server nodes checked, choose OK.

Accessing the Support Platform

There are two ways of accessing the Support Platform:

1. Type your target portal URL in a browser address field with the alias "sp" instead of "irj" (*<hostname>:<port>*/sp).

   Log on with your regular portal username and password.

2. Alternatively, from within the target portal, navigate as follows: *System Administration → Support* (opens the Support Desk page) → *Support Platform* (opens the Support Platform general info page), and select the link *Click here to open the Support Platform*.

Running the Plug-Ins

1. In the *Support Platform Plug-ins* navigation panel, expand the folders *Enterprise Portal → EP5 to NW04 Migration → Pre-Migration*. The following plug-ins are exposed:

Check Migration System	Checks that there exists, on the target portal, an EP 5.0 system with the alias DEFAULT_EP5_SYSTEM.
Check DB Connection	Checks database connectivity: • Takes system parameters and tries to connect to the EP 5.0 database. • Verifies that default language is configured.
Check Permisison Settings	Checks that correct permissions exist.
Check System Landscape	Checks if *systems.xml* and *jcodestinations.xml* exist in the correct location.

2. Select the *Pre-Migration* folder and then *Run*. Selecting the folder runs all the plug-ins in the correct order. This is important since there are sequential dependencies between the plug-ins. In a cluster environment, you can choose *Run on all nodes*.

   The results are displayed in the Support Platform result panes on the right.

Support Platform documentation:

For detailed information about the Support Platform and how to use it, see *The NetWeaver Support Platform*, located at *help.sap.com/nw4 → Documentation* SAP Solution Manager → *English → SAP Library → SAP NetWeaver → Solution Life Cycle Management → Support Platform*.

3.3. Migrating the Portal

Use

Running the migration utility processes and imports your EP 5.0 content, preserving it for use after moving to NetWeaver '04 as your company portal.

Prerequisites

You have performed all the required actions to prepare for the migration, as specified in the *Process Flow* section of Enterprise Portal Migration [Page 33].

> The user who implements the migration process **must** be assigned to the Super Administrator role.

> If you are working with KM and have not yet imported the KM backward compatibility package, do this before you start portal migration. For details, see Importing the Compatibility Package [Page 31].

Procedure

> To be sure of data integrity, it is recommended to shut down the source EP 5.0 SP6 portal before starting the migration.

1. From the top-level navigation of the target NW '04 portal, go to *System Administration* → *System Configuration* → *System Landscape*.

2. Right-click the EP 5.0 system you created for EP 5.0, and choose *Migrate* from the context menu.

   The migration page appears, displaying a list of portal components to be migrated, according to component type. It also displays a link to a log of the whole migration process and shows a status column containing links for indicating the current migration status of each component.

3. When the migration page appears, choose the *Migrate* button.

   A popup window appears showing a progress bar that indicates the general progress of the entire migration.

   > The status links for the individual portal components are updated every few seconds in synchronization with the general progress indicator.

   > Choosing the *Cancel* button on the migration progress window stops the migration process without erasing created content. This is not recommended unless, for some reason, the migration process hangs.

4. When the migration progress indicator shows 100%, choose *Done* to close the popup window.

5. After migration is finished, restart the SAP J2EE Engine.

Result

At this point the automatic migration process is complete. The migrated EP 5.0 content appears in your portal under Portal Content in the folder *Migrated Content*, which is created when the portal is installed.

> This does not apply to content components of an administrative type, such as user management, which would be written to the portal database.

Migration Status

The status of the migration is shown, per component, by the hypertext link in the status column of the migration page. The links point to log files from which information can be obtained about the migration process of each and every component. Use this information for fixing problems that may have impeded the successful migration of specific components. These logs remain, unless overwritten by a subsequent migration.

For more information about the logs and troubleshooting, see Troubleshooting the Portal Migration [Page 59].

4. Post-Migration Activities

For the migration process to be complete for both KM and the portal, certain post-migration activities must be performed after the successful implementation of the respective automatic migration tools.

4.1. Post-Migration Activities for KM

Purpose

To complete the migration, you configure repositories and migrate customer components with the help of the information generated by the migration reports. You also delete obsolete system IDs in the cluster and determine if it is necessary to reassign users to NW '04 roles.

4.1.1. Performing Tasks Identified by Reports

Use

Use the information generated by the *Customer Components* and *Repository Managers* reports to perform additional manual migration steps.

> ⚠️
>
> If you do not perform the additional manual migration steps, your system may not start up.

Procedure

1. On the initial screen of the *KMC Migration Tool*, choose *File → Latest Reports* and open the report for the *Customer Components*. Alternatively, you can access the reports directly in the folder which you specified for the results.

   The *Customer Components Report* identifies components that were developed after the original KMC installation and which you must therefore **migrate manually**. It shows a list of xml configuration files that exist on the target system without corresponding java classes. You have to deploy the Java classes corresponding to the XML files manually because they are not transferred during the normal migration procedure.

   KMC displays errors on the target system if it registers that xml files point to java classes that do not exist in the system. The errors no longer occur after the deployment of the corresponding Java classes.

   > 💡
   >
   > If you used the *Config* option of the migration tool to exclude XML configuration files of custom developments from the migration, then these errors are not displayed.

2. On the initial screen of the *KMC Migration Tool*, choose *File → Latest Reports* and open the report for the *Repository Managers.* Alternatively, you can access the report directly in the folder which you specified for the results.

   With the help of the report, identify problems related to the configuration of repositories on the target system and resolve them with the instructions provided. Due to the move from one machine to another, the configuration of some repositories is no longer valid. For example, if you have configured a local repository on the source system, then the path to the repository will no longer be correct on the target system. The report informs you of the tasks that are necessary to configure the repositories correctly.

4.1.2. Deleting System IDs

Use

After the migration, the system IDs of the old EP 5.0 system and the new NW '04 system are active in the configuration. You therefore need to delete the obsolete EP 5.0 system IDs.

Cluster only:
After deleting the old system IDs, you make sure that scheduled tasks are assigned to the ew IDs.

> If both the old and the new system IDs are active, an error appears in the component monitor. To check for the error in the portal, choose *System Administration → Monitoring → Knowledge Management → Component Monitor KMC → Component Monitor → Services → Landscape Service:*
>
> `Configuration Error: Cluster mode not enabled`

Procedure

1. Log on to the portal and choose *System Administration → System Configuration → KM → Content Management.*

2. Choose *Global Services → System Landscape Definitions → Systems → Content Management Systems.*

   The system ID is displayed.

3. Delete the EP 5.0 system ID. You made a note of it in preparation for the migration.

   Cluster only:

   In a cluster configuration with several instances:

   a. Delete all the system IDs that originate from the source system. You made a note of these in preparation for the migration.

   b. Assign scheduled tasks to the new system IDs.

   > You must explicitly assign tasks to a system ID, otherwise they are not executed.

   To assign tasks:

      i. Return to *Global Services* and choose *Scheduler Tasks.*

         A list of scheduler tasks is displayed.

      ii. Make sure that the tasks listed are all assigned to the new NW '04 system IDs. Change any assignment that still uses old system IDs.

4.1.3. Initializing Ad Hoc Workflow Templates and Object Types

Use

To enable the use of templates and object types in Ad Hoc Workflow, you need to manually initialize them.

Procedure

1. Access the workflow templates in the portal with *Content Administration → Workflow Content → Workflow Templates*.

2. Choose *Restore Default Templates*.

   The default workflow templates are automatically initialized.

3. To access the object types for tasks, enter the following address:

   **http://<servername>:<portNumber>/irj/servlet/prt/portal/
   prtroot/com.sap.workflow.apps.BusinessObject**

4. Choose Browse and then navigate to the folder:
   \usr\sap\<SAPSID>\JC<number>\j2ee\cluster\server0\apps\sap.com\
   irj\servlet_jsp\irj\root\WEB-
   INF\portal\portalapps\com.sap.workflow.apps\privat\install\objTy
   pes

5. Select *WFTask.xml* and choose *Upload*.

   The object types for workflow tasks are created.

4.1.4. Assigning Users to New NW '04 Roles

The roles in EP 5.0 SP6 and NW '04 are different. The EP 5.0 role km_admin no longer exists in NW '04. Also the System Principal that could be assigned directly to users and allowed full access to all content no longer exists. Users who are System Principals in EP 5.0 are not System Principals in NW '04 and are therefore restricted in accessing content. It is therefore necessary to reconsider the assignment of users to roles in the NW '04 target system.

The default administration roles that are available in NW '04 are:

- system_admin_role

- super_admin_role

- content_admin_role

- user_admin_role

For information on the default assignment of Knowledge Management content to roles in NW '04, see *help.sap.com → SAP NetWeaver → Information Integration → Knowledge Management → Administration Guide → Content Administration → Roles*.

4.2. Post-Migration Activities for the Portal

Purpose

For the portal migration process to be complete, with EP 5.0 content operating satisfactorily in NetWeaver '04, post-migration steps must be performed for the following components:

- User management

- Removing and Verifying Permissions

- User Mapping with Data Sources

- Styles and themes

- J2EE Engine and content customized with code

- Proxy server

- Working with back-end systems

- Support for EP 5.0 .NET iView

- External Services

- Migration of Favorites

After performing post-migration activities, restart the J2EE server.

4.2.1. User Management

- The migration process does not include migrating the portal_user or the portal_admin roles. The respective, parallel roles in NW '04 are eu_role and super_admin_role.

  - o After migration, assign eu_role to the Everyone group. Refer to SAP Note 685227 for details.

  - o If either of these EP 5.0 roles, portal_user or the portal_admin, had essential content associated with them, this content must be reassigned in EP 6.0.

  The EP 5.0 admin user is not migrated to the NW '04 system. In EP 5.0, there was only one admin role, defined as the super admin, and in NW '04, administration is delegated; therefore, you need to reassign admin permissions in NW '04.

- For Single Sign-on to continue functioning after migration, SAP systems need to be configured to trust the NW '04 logon ticket just as the ticket was trusted in EP 5.0.

For more information, see "Configuring SAP Systems to Accept and Verify SAP Logon Tickets" in *Security Guide – SAP NetWeaver*, located at *service.sap.com/instguidesNW '04 → Installation & Upgrade Guides → SAP NetWeaver → Release 04 → Planning*.

UME Verification after Migration

It is recommended to check user management engine functionality. After you finish migration, check role assignments, user mapping, and additional attributes.

- Search for a user_id or name and verify that the user properties, such as language and roles, are correct.

- Log on as an end user and verify that roles and personalization have been migrated.

4.2.2. Removing and Verifying Permissions

1. Go to *System Administration → Permissions → Portal Permissions*.

2. Navigate to the Layout Templates folder (*pcd:portal_content/com.sap.pct/templates/layouts*), under *Content Provided by SAP → Templates* and remove the Everyone row.

3. Browse to the folder *Migrated Content → EP 5.0* (*pcd:portal_content/com.sap.portal.migrated/ep_5.0*), and remove the Everyone row for the following subfolders:

   o Roles

   o Services

   o Templates

   o Worksets

4.2.3. Styles and Themes

Use

The migration of styles and themes from EP 5.0 to the NW '04 portal is a manual, not an automated procedure. Themes and styles from EP 5.0 must be downloaded in EP 5.0 and then manually uploaded to the NW '04 portal, where they need to be processed before they can be properly viewed.

Procedure

1. In EP 5.0, navigate to *System Configuration → Styles → Related Tools → Style Archive*.

2. From the download area, save the .zip file of the desired style.

   Now the style can be uploaded to NW '04 by browsing to the saved location from the NW '04 theme archive.

   The navigation path to the NW '04 theme archive is *System Administration → Portal Display → Theme Archive*.

3. For detailed information about post-migration processing of theme elements, refer to **SAP Note 658798**. (Although this note was written originally for EP 6.0 SP2, its contents remain valid for NW '04.)

   Additionally, EP 5.0 style personalizations have been removed during migration. After uploading and processing the themes in NW '04, the themes, together with framework pages, can be assigned to desktop objects by an administrator, using the Portal Desktop Editor during design time.

4.2.4. J2EE Engine and Content with Code

1. If you created customized content using code, make the required adaptations to the file names and their contents, if necessary, to support case sensitivity for Unix.

2. If a connection pool was created in EP 5.0 for custom applications, make sure to recreate it for NW '04, as it was defined in J2EE for EP 5.0.

3. If EJBs were created and deployed in EP 5.0, redeploy them in J2EE 6.40 for NW '04.

   If you have customized content using code, or you are running applications specific to SAP J2EE Engine 6.20, you may be able to convert these to work with SAP J2EE Engine 6.40 using the SAP J2EE Engine Converter and Deploy tools.

   For details, see the section on incompatibilities between J2EE 6.20 and 6.40 in the migration manual for SAP J2EE 6.20 to 6.40 at *help.sap.com/nw4 → English → SAP Library → SAP NetWeaver → Application Platform (SAP Web Application Server) → Java Technology in SAP Web Application Server → Migration*.

4. If additional JARs were copied to EP 5.0, they need to be recopied to NW '04.

   See the section on incompatibilities between J2EE 6.20 and 6.40 in the migration manual for SAP J2EE 6.20 to 6.40, if necessary.

5. If you have custom tuning and configuration changes, which were made in J2EE Engine in 6.20, and need to find the corresponding settings and system properties in J2EE 6.40, this information is also covered in the section on incompatibilities between J2EE 6.20 and 6.40 in the migration manual for SAP J2EE 6.20 to 6.40.

6. If the files library.txt or reference.txt were changed in EP 5.0, the changes must be redone for NW '04.

7. If additional HTML files were created in EP 5.0, copy them to the docs folder on the NW '04 machine, *\j2ee\j2ee_<instance_no>\docs*.

4.2.5. Reconfiguring the Proxy Server

If your EP 5.0 portal was working with a proxy server, the proxy settings were not copied to the NW '04 portal during migration. You need to reconfigure these settings. To do so, go to *System Administration → System Configuration → Service Configuration → Applications → com.sap.portal.ivs.httpservice → Services → proxy*. For documentation, go to *help.sap.com/NW '04 → English* and navigate to the *System → System Configuration → Service Configuration → System Properties for Proxy Server* section of the portal administration guide.

4.2.6. Working with Back-End Systems

If you are using systems in the source portal system landscape, which are based on SAP backend systems, such as R/3, BW, and CRM, and which are authenticated using SAPLOGONTICKET, you need to recreate the trust between the NW '04 portal and the relevant SAP backend system.

4.2.7. Support EP 5.0 .NET iViews

A specific default system alias must be defined on the NW '04 machine for the EP 5.0 system which was created there. If you have not already done so before migration, when you created and configured your EP 5.0 system on the NW '04 machine, add the alias DEFAULT_EP5_SYSTEM to the EP 5.0 system and make sure to select it as the default alias, if it is not the only one.

4.2.8. External Services Based on Standard.PAR

Use

After migration, the Options menu will not be available for External Services that are based on `Standard.PAR`, unless the following procedure is performed.

Procedure

1. Go to Content Administration → Portal Content, and navigate to Migrated Content → EP 5.0 → Templates → Standard.URLComponent, and open the object Property Editor.

2. Change the Property Category to Load.

3. Change the Isolation Method property value to URL.

4.2.9. Migration of EP 5.0 Favorites

Use

The Enterprise Portal 5.0 user could save useful pages, resulting from portal navigation, as favorites in the browser by clicking the *Add to Favorites* link. After migration to NetWeaver '04, the targets of the saved URLs are no longer at the same location. The following instructions explain the tasks required to enable access to EP 5.0 portal favorites.

Prerequisites

Requests for favorites must be redirected to the correct server. This should be performed by a domain administrator. Use an existing proxy server or a separate Web server for redirection. If you use a separate Web server, the only requirement is that it be capable of redirecting a request to a specific port.

> If you don't want to keep an additional Web server alive, just for the purpose of redirection, have users create new favorites after redirection.

An EAR file has been downloaded from SAP Note 834466.

Procedure

The EAR file, which constitutes an application for translating the favorite URL to the corresponding server and port, must be configured and deployed using the J2EE server admin tool.

Configuring and Deploying EAR File

1. Open the J2EE server admin tool.

2. Expand the relevant server node: *<server>* → *services* → *deploy*.

3. Under the work area, choose the *Application* radio button.

4. Choose the *Deploy & Start* to open the dialog in which you enter the EAR file.

5. Browse to the EAR file and choose OK, then OK again in the *Deploy* dialog, and OK again.

   The EAR file (`sap.com/EP5.0 Favorites Migration`) is added to the list of application that work on top of the J2EE server.

6. In the admin tool navigation panel on the left, choose Web Container to view a list of all applications that work on top of the J2EE server.

7. Drill down and select the top-level node of SAPPortal.

8. Click the *View* button on the right and choose the *Context Parameters* tab.

9. In the navigation panel, select the *portalAddress* parameter, and in the *Parameter Value* field on the right, change the value to the NW '04 address. The correct format appears by default:

```
<protocol>//<NW_portal_server>:<NW_portal_port>
```

This value from now on serves as the NW '04 address.

10. Choose *Modify* and then *Save*. A confirmation notice is returned.

Clicking OK on the confirmation notice restarts the application.

Result

Users may still take advantage of useful information returned by favorites saved to their browsers while working with EP 5.0.

5. Troubleshooting the EP 5.0 to NW '04 Migration

In the event of problems incurred during the migration process for KM or the portal, check the status of the process as described in the following sections.

5.1. Checking the Status of the KM Migration

Use

Log on to the target system and check the component monitor to assess the status of the migration.

Procedure

1. In the portal, choose *System Administration* → *Monitoring* → *Knowledge Management* → *Component Monitor.*

2. In the component monitor, click *Filters*, *Repository Managers*, *Repository Services* and *Services.* For each of these items, check the subentries. Keep in mind that if you have not yet performed the necessary actions identified by the Repository Managers Report, tool during the repository check, the repositories will indicate errors:

   The colors beside the entries indicate the following:

   o Green shows the object is functioning well.

   o Red shows the object cannot be started or is configured incorrectly.

   o Yellow indicates that one or more lower-level items are red.

3. If Content Management does not start up, there might be a problem with the database connection. To find out more, check the available log files:

   For UNIX, replace the backlashes in the paths with slashes.

   a. Switch to the directory:

      ```
      <Drive>:\usr\sap\<SAPSID>\JC<J2EE_instance_number>\j2ee\
      cluster\server0\log\
      ```

   b. Open the file `defaultTrace.0.trc` with the most recent date. If errors appear in the trace file, try to solve them and then restart the SAP J2EE Engine.

      You can also view the trace file using the log viewer that is available in the SAP J2EE Visual Administrator.

5.2. Checking the Status of the Portal Migration

As the migration utility works on reading content from EP 5.0 and importing it to NW '04, it writes its progress to two separate types of log files.

> For detailed troubleshooting information about portal migration, see SAP Note 703034 and its attachment.

Log Types

Type	Access	Description
General migration log	Choosing the Status hypertext link at the top of the migration page	Overview of migration process, indicating status of each component together with available information, including a report on the quantity of migrated components.
Component-specific log	Choosing the hypertext link in the Status column on the same row as the specific component	Provides detailed information about the migration of the component, including what happened, and why, and an quantitative report on the number of items migrated.

> The quantitative report may be useful even for successfully migrated components, as a check to see if all the items migrated were actually copied correctly to the NW '04 machine.

When an error occurs in migration, or when requesting help from development support, always refer to the log and systems files:

Log files	*<irjRootFolder>\portalapps\com.sap.portal.upgrader.upgraderservice\<last created folder>*
System files	systems.xml and jcoDestinations.xml can be found at *Enterprise Portal\DataFile\data\Pcd\system\landscape*, where *Enterprise Portal* is *Pcd.Home*
Console log files	*<install directory>\cluster\server\log\default_trace* Look at the latest *<…>_output.log* & *<…>_error.log files.*
UME log files	*/usr/sap/sap_system_id/<J2EE_instance>/j2ee/migration_ep50/ume* See *usermanagement_error.log* and *usermanagement.log.*

Log File Color Legend:

Green:	The migration was Successful
Gray:	Comments have been logged
Blue:	Warning is indicated and described
Red	Error is indicated and described

5.2.1. Continuing the Portal Migration after Fixes

At the top of the migration page are a Migrate button, a Recover button, and a checkbox labeled Overwrite Existing Data. There are several courses of action after issues hampering a successful migration have been fixed. The following table describes the possible actions and their results.

Actions for Continuing Migration Process

Action	Description	Use
Choose Migrate	The migration process restarts and progresses without overwriting content already existing from a previous migration attempt.	Useful if, for any reason, you needed to manually delete content that was already migrated.
Select Overwrite Existing Data and Migrate	The migration process restarts and overwrites existing content. System and datasource objects are not overwritten. If errors are returned, consult the troubleshooting SAP Note 703034.	Useful in the event of corrupt content, for example, iViews that, for some reason, the migration could not successfully recreate in NW '04. Use this method when a change has been made to EP 5.0 since the last migration.
Choose Recover (Do not choose to overwrite)	The migration process restarts, working only on those components that were not previously migrated.	This is recommended only after consulting Engineering Support.

6. Migration of Business Packages

The migration of portal content, which was imported in the source system from business packages, consists of the correct preparation of that content before implementing the migration process for EP 5.0 to NW '04.

Purpose

When you upgrade your portal installation from SAP Enterprise Portal 5.0 to SAP NetWeaver '04, you can migrate your existing content without losing your personalization settings.

This documentation explains which special points you must follow during the migration of business packages.

Prerequisites

- In addition to your SAP Enterprise Portal 5.0, you have installed a SAP NetWeaver '04.

- If you are using a business package based on WebAS 6.20, you must have installed the SAP Java Connector (JCo) Proxy Runtime, Release 2.0.8 or higher. For more information about the SAP JCo Proxy Runtime, see SAP Note 595987.
  This activity is not required for WebAS 6.40.

- You have installed the import filter [Page 36].

Process Flow

You must work through the following steps to migrate business packages:

1. Prepare for business package migration.

2. Migrate the actual business packages.

3. Complete the post-processing steps for the migration.

6.1. Preparing for Business Package Migration

Before you can migrate business packages, you must complete the preparation steps. You have worked through some of the following steps to prepare for the migration of the portal or Knowledge Management. If you have not done this, you must do it before migrating business packages.

The following preparations must be made:

- You have imported the compatibility package to SAP NetWeaver '04.

  ⚠️

  Business package objects that contain links to content objects in Knowledge Management (KM) and that are migrated from SAP Enterprise Portal 5.0 to SAP NetWeaver '04 cannot find their target objects in KM after the migration because the naming conventions for KM content objects have changed in SAP NetWeaver '04. Therefore, you must use the Compatibility Package for KM to map the paths again.

  The *Compatibility Package for KM* is shipped as an attachment to SAP Note 640634. You can find the procedure in this guide in the Importing the Compatibility Package [Page 31] section in the *Knowledge Management Migration* section.

Importing the Compatibility Package is part of the migration process of KM. If you have KM installed and migrated from the source system, you do not need to perform the import again. If you do not have KM installed, you still may have business package content with KM iViews; therefore, you must still import the Compatibility Package, although you may can do this either before or after the migration.

- For the migration, you require a release of the business package that is released for migration. Usually, this is the latest release of a business package. For information about the release status of business packages, see SAP Note 642775.

  A business package has one of the following statuses:

    o 5.0 business packages that are released for SAP NetWeaver '04.

    o 5.0 business packages that are released for SAP NetWeaver '04 with additional languages.

    o 5.0 business packages that are not released for SAP NetWeaver '04.

    If you have not installed this particular release of the business package, you must upgrade the business package before migrating it.

    The Business Package for Projects is available in the releases 50.1, 50.2, and 50.3. Only release 50.3 is released for SAP NetWeaver '04; you can use only release 50.3 for the migration.

    If you want to use a business package release that contains additional languages, you must also first import a release of the business package that is released for migration and work through the migration. After the migration, you can then import the business package release that contains the additional languages.

6.2. Migrating Business Packages

Prerequisites

You must have completed the preparations [Page 61] for migrating business packages.

Effects of the Migration

- The system landscape connects portal content to the backend systems.

  For more information about the system landscape, visit the SAP Help Portal at *help.sap.com → Documentation → SAP NetWeaver → SAP NetWeaver '04 → People Integration → Portal → Administration Guide → System Administration → System Landscape*.
  The *systems.xml* and *jcodestination.xml* files are converted to system objects.

- In SAP NetWeaver '04, the channels from SAP Enterprise Portal 5.0 are converted to folders and placed in the *Portal Content → com.sap.portal.migrated → ep_5.0* directory.

Procedure

Once you have completed the preparations, you can perform the migration as described in the *Migrating the Portal* section.

You can find the imported and migrated objects in NetWeaver '04 portal in the portal catalog at *Portal Content → Migrated Content → EP 5.0*.

For more information about importing content objects, visit the SAP Help Portal at *help.sap.com → Documentation → SAP NetWeaver → SAP NetWeaver '04 → People Integration → Portal → Administration Guide → System Administration → Transport of Portal Objects → Transport Scenarios → Import and Deployment → Importing EP 5.0 Packages*.

Result

The 5.0 business packages are available in SAP NetWeaver '04.

6.3. Post-Processing Steps for the Migration

After completing the migration, you must work through the following activities, if they are relevant for your implementation:

- If you want to use business packages that contain additional languages, import the business package release that contains the additional languages to SAP NetWeaver '04 after completing the migration.

- If you have implemented the *Business Package for Communication*, you must make the modifications that are described in the Modification for the Business Package for Communication [Page 64] section.

- If you have implemented the *Business Package for Portal Users*, you must make the modifications that are described in the Modification for the Business Package for Portal Users [Page 64] section.

6.3.1. Modifications for the Business Package for Communication

In SAP NetWeaver '04, the groupware is connected through the portal platform. Therefore, the *Business Package for Communication* is no longer offered. Some of the business packages developed for SAP Enterprise Portal 5.0 that are released for SAP NetWeaver '04 contain groupware iViews from the *Business Package for Communication*. However, these iViews cannot be migrated.

The following business packages are affected:

- Business Package for CRM 3.1 60.1

- Business Package for CRM 4.0 60.1

During the migration, the import filter skips these iViews, as a consequence, they are not displayed in NetWeaver '04. For more information, see the documentation on the import filter [Page 36].

For more information about the necessary modifications, see SAP Note 640678.

6.3.2. Modifications for the Business Package for Portal Users

In SAP NetWeaver '04, the *Business Package for Portal Users* is no longer offered. With SAP Enterprise Portal 6.0, iViews that were part of the *Business Package for Portal Users* are delivered with the portal platform as standard content.

This means that the portal user role in SAP Enterprise Portal 5.0 cannot be migrated to SAP NetWeaver '04. Instead, SAP NetWeaver '04 contains the standard user role, which replaces the portal user role in SAP Enterprise Portal 5.0.

If you want to migrate selected content from the *Business Package for Portal Users*, you have the following options:

- To migrate the Universal Worklist, you install the backwards compatibility package. Once you have done this, you must configure the Universal Worklist again.
  For more information read SAP Note 642827.

- To retain the personalization settings, assign the *eu_role* role to the *Everyone* group after the migration.
  For more information, see SAP Note 685227 and the *User Management* section in the *Post-Migration Activities for the Portal* section of this guide.