

Installing Portal Platform, Content Management & Collaboration



SAP Enterprise Portal 6.0 SP2



Document version 2.0

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Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

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

Typographic Conventions

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

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Installing Portal Platform, Content Management & Collaboration

SAP Enterprise Portal is comprised of the following components:

- Portal Platform, including a connector to SAP R/3 systems and a JDBC connector to database applications
- Content Management (CM)
- Collaboration
- Text Retrieval and Classification (TREC)
- Unification Server

This document provides detailed instructions for installing the Portal Platform, Content Management (CM) and Collaboration. The installation processes of portal add-ons are covered in their respective sections in the SAP Enterprise Portal 6.0 Installation Guide.

SAP Portal Platform, CM and Collaboration can be installed by running the SAPinst installer once. This guide provides instructions on how to install those components in one installation process. You can also install CM and Collaboration after Portal Platform has been installed, running SAPinst separately. Most of the guide is common for the three products. Sections which are specific to one or another are denoted as such.

Purpose

Use this document to do one of the following:

- Install a standalone Portal Platform with application connectors and, optionally, CM and Collaboration.
- Install Portal Platform, CM and Collaboration on the main machine in a clustered portal environment.



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

Make sure that you have the most recent version of each SAP note. You can find the SAP Notes in SAP Service Marketplace (<http://service.sap.com/notes>).

List of Related SAP Notes

SAP Note Number	Title
668312	Central Note – Installing EP 6.0 SP2



Portal Platform, CM and Collaboration Description

SAP Portal Platform provides a single point of access to a variety of information sources in the company. It brings content to end users, enabling them to:

- Personalize portal content to suit their working style
- Search internal and external sources for targeted information
- Access structured and unstructured information in the organization
- Collaborate with each other

Content is provided through iViews. iViews display in the portal client through a standard browser on the end user desktop. End users do not have to install any additional components to use SAP Portal Platform.

SAP Enterprise Portal is made up of the following components:

- The Portal Platform, which includes the portal framework (this installation is covered in this guide).
- The portal framework, which provides the environment for creating and administering iViews.
- iViews, some of which are supplied out-of-the-box. Alternatively, you can download iViews from the iviewstudio.com, or create your own by writing custom Java code, or Java Server Pages (JSP).
- Knowledge Management platform, which includes CM, Collaboration and TREX (CM and Collaboration installation is covered in this guide).
- SAP Unification Server, which enables connectivity to enterprise applications with Drag&Relate capabilities.
- Connectors to other applications - connector to SAP R/3 systems and connector to database application through JDBC are automatically installed with the Portal Platform.

The Portal Platform runs on the SAP J2EE engine, a proprietary Java application server based on the Java 2 Enterprise Edition (J2EE™) standards.

SAP Portal Platform integrates back end systems and other information sources, such as SAP R/3, Enterprise Information Systems, Databases, Web, etc.

The portal framework includes the following:

- Portal Components
- Portal Services
- Portal Content Directory (PCD)

The following are the central storage components:

- Portal system database (repository)
- User Management Engine (UME)
- Content Management (CM)
- Collaboration (COL)

During installation, you provide input that is used to configure the PCD and CM areas in the portal system database. The UME and Collaboration areas are automatically created by SAPinst.

This guide provides instructions for installing the Portal Platform and CM. To learn about the portal, its properties and functions, see the guides listed below.

- For information on system architecture, see the *SAP Enterprise Portal Administration Guide* at <http://help.sap.com/ep>
- For information on technical infrastructure, see the *SAP Enterprise Portal Installation Guide* → *Technical Infrastructure*.
- For information on how to create content and manage users, see the *SAP Enterprise Portal Administration Guide* at <http://help.sap.com/ep>



Installation Process

This section provides information on all the steps required to install the Portal Platform, CM and Collaboration.

The installation process is described in the following sections:

- Planning – find information on the planning required before installing.
- Preparations – find details on how to prepare for the installation.
- Installation – find a step-by-step procedure for installing the portal using SAPinst.
- Post-Installation – find information on settings and configuration required after running the automatic installation procedure and on how to launch the portal.
- Installation Check – find details on how to verify and validate your installation.

Recommended Work Mode

This section includes tables with details about each of the processes required for the installation. Use the tables as a checklist for installing the system and for navigating through the installation procedures.

All necessary installation phases (planning, preparation, installation, and post-installation) are listed in these tables.

Use the links to the general descriptions of the actions and to any additional information to help you perform the actions. This prevents you from missing important information.

We recommend that you proceed as follows to install both Portal Platform 6.0 and CM:

1. Print out the tables below.
2. Follow the installation sequence as shown in the tables.
 - If a step is required for your installation, follow the link for that step to the corresponding section.
 - Perform the procedure described there.
 - After you have successfully completed the installation step, mark the corresponding entry in the printed table with a checkmark (!) to log the progress of your installation.
 - Proceed with the next step listed in the table.

Process Flow

Planning

Careful planning is a prerequisite for the successful installation of the system.

!	Action – Portal Platform
	Define on which machine you will install each Enterprise Portal component. See Planning [Page 14] .
	Make sure that you have met all requirements, as detailed in the section Requirements [Page 17] .

!	Action – Content Management and Collaboration
	Make sure you know on which machine you can install Content Management and Collaboration. See Planning [Page 14] .

Preparations

Before you install, perform the following actions:

!	Action – Portal Platform
	Install the Database Server and Portal schemas [Page 18] .
	Configure The Portal Host [Page 19] – UNIX Only.
	Preparing for Security - Windows Only [Page 19] .
	Install Java Development Kit [Page 20] .
	Prepare the SAPinst Installation [Page 20] .
	Obtain Oracle Drivers [Page 21] – Oracle Users Only.
	Download SAP Java Cryptographic Toolkit [Page 22]
	Verify Installation Readiness with the System Analyzer [Page 23]

Installation

The table below describes the installation procedures.

!	Action – Portal Platform
	Prepare Input Parameters for Portal Platform [Page 34] .
	Run SAPinst and continue with the step-by-step guided installation. <ul style="list-style-type: none"> • For UNIX, see Installing the Portal Platform on UNIX [Page 29] • For Windows, see Installing the Portal Platform on Windows [Page 32]

!	Action – Content Management and Collaboration
	<p>Start SAPinst to install Content Management and Collaboration.</p> <ul style="list-style-type: none"> • For UNIX, see Installing on UNIX [Page 29] • For Windows, see Installing on Windows [Page 32]
	Enter Input Parameters for Content Management and Collaboration [Page 40] .
	<p>If you have a Collaboration license and are setting up a production system, install an Application Sharing server on a dedicated machine.</p> <p>Start SAPinst and enter the required Input Parameters for Application Sharing Server [Page 44].</p>

Post-Installation

!	Action – Portal Platform
	Establish the Portal URL [Page 46] .
	Initial Log-On [Page 47] .
	License the Enterprise Portal [Page 48] .
	Fine Tune the Enterprise Portal Installation [Page 49] .
	Install EP 6.0 SP2 Patch [Page 49] 1.
	Use the Portal [Page 49] .

!	Action – Content Management
	Check the Content Management Installation [Page 56]
	Create Folders for iViews [Page 51]
	Enable Local Editing [Page 51]
	Windows Only: Set Up the Connection to TREX [Page 52]
	Perform Initial Configuration Tasks [Page 54]

!	Action – Collaboration
	Perform these actions if you have a license for Collaboration.
	Collaboration Post-Installation Procedures [Page 55]



Planning

The planning that precedes the installation of Portal Platform, CM and Collaboration, entails a careful assessment of the existing infrastructure as well as future plans for growth and security needs.

To set up an optimal Enterprise Portal environment, refer to the following topics:

- [Considering Sizing, Security, and Load Balancing \[Page 14\]](#)
- [On Which Machine to Install? \[Page 15\]](#)
- [Requirements \[Page 17\]](#)



Considering Sizing, Security, and Load Balancing

The major components of the portal environment, namely the portal server, the database server, the Knowledge Management platform, and Unification Server, all demand varying levels of processing power. Within an organization serving a large number of portal users, the combination of these elements running together on the same machine may degrade the overall performance.

By distributing the various servers on different machines, you can improve the processing power of the portal server and create a more efficient and usable experience for portal end users.

If your organization intends to handle a large volume of portal clients, Network Load Balancing (NLB) solutions are required. Enabling NLB guarantees fault tolerance and strong performance, allowing the portal to satisfy any predetermined number of end users within a range of acceptable response times.

Security requirements in your company must be taken into account when planning the system infrastructure. Various solutions, such as separating the Intranet from the Internet with a Demilitarized Zone (DMZ), using encryption methods, or transmitting over different protocols may be applicable.

For information about hardware requirements for live systems, with varying sizing, security, and load balancing requirements, see the *SAP Enterprise Portal Installation Guide → Technical Infrastructure*.

Based on this document, you can determine the hardware requirements and best distribution options for your system.

If you plan to expand the portal in the future, you still have to install the Portal Platform and CM on one single machine, as described in this guide. The distribution is done by the SAP J2EE Engine tools.



On Which Machine to Install?

SAP Enterprise Portal components, namely the Portal Platform, CM and Collaboration, the prerequisite database server, and TREX, can be installed in several combinations. All of these components may reside on the same machine, but the system will not provide good performance. Therefore, it is better to distribute the components.

The options are:

- You can install the portal server and the database server on the same machine (NOT recommended, low performance).
- You can install the portal server and the database server on separate machines (recommended).
- You can use either one database server or two different database servers for both portal and CM. While one database server may be easier to maintain, two will render better performance.
- CM & Collaboration can only be installed on the machine where the portal platform is installed.
- The Application Sharing server for Real-Time Collaboration can either be installed on a dedicated machine or on the portal platform machine, together with CM & Collaboration.

It is recommended to install it on a dedicated machine since this server requires most of the machine's resources. See [Application Sharing Server for Real-Time Collaboration \[Page 16\]](#).

- In a portal cluster, all the machines hosting a SAP J2EE application for the portal must run the same operating system.

Determine which components you want to install on which machine.



It is strongly recommended to install each of the servers (portal, database, Application Sharing server for Collaboration, and TREX) on dedicated machines for best performance. Installation of several servers on one machine is only recommended for demo systems or testing and developing systems.



The Unification Server is not installed through the Enterprise Portal installer and can only be installed on a machine of its own, running Windows 2000.



Application Sharing Server for Real-Time Collaboration

The Application Sharing server is provided with *Collaboration for SAP Enterprise Portal*. It is a dedicated server that manages the processes and data streaming for application sharing services in the portal when Real-Time Collaboration is employed.

The Application Sharing server demands much of the system resources from the machine on which it is installed. If you are setting up a production portal, it is highly recommended to install the Application Sharing server on a dedicated machine. In a test or demo environment, you can install it on the portal or CM machine. SAPinst provides options allowing you to choose on which machine to install the server.



Installing the Application Sharing server is optional. It is only required if you intend to offer application sharing (through Real-Time Collaboration) as a collaboration service for portal users.



You must carefully choose the positioning of this server within your system landscape so that security is not compromised, but at the same time it is accessible enough to prevent load on the remaining network.

Prerequisites

- A license to install Collaboration.

Installation Workflow

Installing the Application Sharing server on a dedicated machine:

1. Run SAPinst and install the portal, CM and Collaboration using either of the following SAPinst installation options:
 - *Content Management & Collaboration*
 - *Portal Platform, Content Management & Collaboration*



In the Collaboration installation, deselect the option to install the Application Sharing server. This option is available in the *Collaboration – Application Sharing Server* screen. For more details, see [Input Parameters for Content Management and Collaboration \[Page 40\]](#).

2. Run SAPinst again on the dedicated machine, and install only the Application Sharing server. See also [Input Parameters for Application Sharing Server \[Page 44\]](#).

For instructions on running SAPinst, refer to either [Installing on UNIX \[Page 29\]](#) or [Installing on Windows \[Page 32\]](#).

Installing the Application Sharing server on the portal/CM/Collaboration machine:

1. Run SAPinst and install the portal, CM and Collaboration using either of the following SAPinst installation options:
 - *Content Management & Collaboration*
 - *Portal Platform, Content Management & Collaboration*



In the Collaboration installation, select the option to install the Application Sharing server.



Requirements

The following table lists the requirements for installing Portal Platform.

The host machine must meet the following requirements:

Requirement Type	Requirement
Hardware Requirements	<ul style="list-style-type: none"> • Disk Space: <ul style="list-style-type: none"> ○ The portal application requires 1.5G available per J2EE server node. ○ The DB requires 6GB - 10G. • RAM: 2 GBytes • Dual CPU, 2x700
Software Requirements	<ul style="list-style-type: none"> • Supported Operating Systems - see the Platform Availability Matrix (PAM) at http://service.sap.com/ep60 -> Platform Availability Matrix. • Additional requirements - See in this document.



Preparations

The following preparations must be completed before starting the installation:

- Installing a database server and portal schemas
- Configuring the portal host (UNIX only)
- Preparing for Security (Windows only)
- Installing Java development kit
- Preparing the SAPinst installation
- Obtaining Oracle drivers (Oracle users only)
- Downloading SAP Java Cryptographic Toolkit
- Verifying the system readiness with the System Analyzer.



Installing Database Server and Portal Schemas

Use

The Portal Platform requires:

- a database server, either Oracle or MSSQL, installed specifically for the portal
- portal schemas created on this database server prior to portal installation

During the Portal Platform installation, you are required to enter information about the database host and schema details.

You can install the Oracle database server on a dedicated host. This database server can be used for CM and Collaboration installation as well.



For improved performance, it is recommended that you install the database server on a dedicated machine.

- On a UNIX platform, the portal requires an installation of an Oracle database server on a machine in the network.
- On Windows platform, the portal requires installation of either an MSSQL database server or Oracle database server on a machine in the network.

In both cases, the database management system must be installed according to SAP standards.

Procedure

Oracle on UNIX

The procedure for installing the Oracle database server is described in the document *SAP Enterprise Portal Installation Guide* → UNIX: *Installing Oracle 9.2 for SAP Enterprise Portal 6.0 SP2*.

Oracle or MSSQL on Windows

The procedure for installing the Oracle or MSSQL database server and the portal schemas is described in the document *SAP Enterprise Portal Installation Guide* → Windows: *Creating Schemas for SAP Enterprise Portal*.



Notes:

- i. The portal installation requires the following information:
 - Instance name, that is the Oracle SID or MSSQL database name
 - Communication port, that is Oracle listener port or MSSQL portMake a note of these details when installing the database server and/or the schemas.
- ii. Make sure that the connection to the database server is activated, that is that the Oracle listener or MSSQL listener is up and running.



Configuring the Portal Host - UNIX Only

Use

The portal can be installed on a UNIX platform or on a Windows platform. If you are using UNIX, before installation, the portal host machine must be configured for the SAP J2EE Engine and SAPinst installation.

Procedure

To prepare the UNIX machine for portal installation:

1. Access the guide "OS Dependencies". Find this guide on SAP Service Marketplace at:
<http://service.sap.com/instguides> → *SAP Web Application Server* → <Release> → *SAP Software on UNIX: OS Dependencies*
2. Follow the instructions in *Section 1* and the section relevant to your operating system.



Preparing for Security - Windows Only

Use

To grant permissions to the portal file system only to authorized users, SAPinst automatically creates an administration group to which it grants full control over the portal file system. During installation you are prompted for a Windows user with administrative privileges to be associated with this group.

In addition, the user who performs the installation must have specific permissions on the installation machine.

Procedure

To prepare a user for privileges on the SAPPRT folder:

You can use your own credentials, or, optionally, create a user with administrative privileges. When prompted, you can enter the user's credentials.

To grant permissions to the user who runs SAPinst:

1. Access the Local Security Policy dialog as follows:
From the *Windows Start* → *Programs* → *Administrative Tools* → *Local Security Policy*
2. Choose *Local Policies* → *User Rights Assignments*.
3. Assign the following rights to the user who performs the SAPinst installation:
 - Act as part of the operating system
 - Increase quotas
 - Replace a process-level token
4. Log off and then log on to apply the changes, or restart the machine.



Installing Java Development Kit (JDK)

The portal installation uses the SAPinst installer. The SAPinst requires the Java Development Kit (JDK).

Install the Java Development Kit. For supported version information, see the *Platform Availability Matrix (PAM)* at <http://service.sap.com/ep60> -> *Platform Availability Matrix*.

Make sure that you are using version JDK 1.3.1_09 or higher up to JDK 1.4.



If you have installed the Oracle or MSSQL database server on this host, you have already installed JDK. It is not necessary to install it again.



Preparing the SAPinst Installation

Use

The installation tool used by SAPinst is a Java-based graphical user interface called SAPinst GUI, and needs at least a Java Runtime Environment (JRE), which is part of the JDK package.

Procedure

The procedures are:

- Checking your Java Runtime
- Checking Your JRE ext Directory

Checking your Java Runtime

A Java Runtime Environment must be installed on your host. SAPinst GUI requires the same JRE version as the SAP Web AS. The Java Runtime is not part of the SAP shipment.

SAPinst requires that the \$JAVA_HOME environment variable is set correctly to successfully issue Java calls.

Make sure that your JAVA_HOME environment variable is set to the directory in which you installed the JDK.

Setting the environment variable differs from shell to shell:

- In TCSH and CSH environments use:
`setenv JAVA_HOME /opt/j2sdk_1_3_1_09`
- In KSH, SH and BASH (Korn and Bourne (again) shells):
`export JAVA_HOME=/opt/j2sdk_1_3_1_09`

Version numbers may vary, and so may the directory names.

In Solaris, the directory is usually as shown above, whereas HP usually installs a simpler name, such as `/opt/java1.3`



Make sure that the JDK version in your `JAVA_HOME` environment variable is set to the latest version. If you installed Oracle on the portal host, the environment variable may use the lower version of JDK installed by Oracle.



You can run SAPinst GUI standalone from a separate Windows or UNIX host. This enables you to perform the installation on a remote host while monitoring the installation with SAPinst GUI from a local host.

For more information on remote installation, see [Performing a Remote Installation with SAPinst \[Page 57\]](#).

Checking Your JRE ext Directory

No `*.jar` files from an XML parser tool (like Xerces or Xalan that you might have installed) are permitted in the JRE `ext` directory. This leads to a SAPinst GUI start-up error.

To check the JDK `ext` directory:

1. Log on to the host on which you intend to run the SAPinst GUI.
2. If `*.jar` files already exist, rename them so they are not overwritten by the installer. Check whether there are already `<parser_name>.jar` files (`xerces.jar`, for example) already residing in your `ext` directory. The default path is:
 - o UNIX: `<JAVA_HOME>/JRE/lib/ext`
 - o Windows: `<JAVA_HOME>\JRE\lib\ext`
3. If you find any `*.jar` files, rename them (`xerces.xxx`, for example).



Do **not** forget to rename the files back to their original names after the installation procedure is complete.



Obtaining Oracle Drivers – Oracle Users Only

The portal installation using the Oracle database server requires the following drivers to be installed on the machine where the portal installation is performed:

- An Oracle JDBC driver
- A language support driver



If you do not require language support, ignore the instructions regarding the file `nls_charset12.jar`.

When This Procedure is Required

This procedure is *required* if you have installed the database server on a machine other than the portal host.

You do *not require* this procedure for the following conditions:

- If you already installed the database server on the portal host.
- If you have a mount point to the Oracle home directory of the database server machine.

Follow the instructions below to obtain the drives.



If you are using MSSQL, do not run this procedure.

To obtain the Oracle drivers:

1. On the database server machine, access the following files:

```
<$ORACLE_HOME>/jdbc/lib/classes12.jar  
<$ORACLE_HOME>/jdbc/lib/nls_charset12.jar
```

2. Copy the files from the database server machine into the user's home directory on the portal server machine.



If the files *classes12.jar* and *nls_charset12.jar* cannot be found in the user's home directory, you will be prompted for the file location during the installation.



Downloading SAP JAVA Cryptographic Toolkit

Use

You require the SAP Java Cryptographic Toolkit to make Java encryption functions available for the SAP Web Application Server, which is installed as the supporting application for the portal Web server.

More information is available in SAP note 397175.

Procedure

1. Download the *SAP Java Crypto Toolkit* from SAP Service Marketplace at:
<http://service.sap.com/download> → *SAP Cryptographic Software*.



The SAP Java Cryptographic Toolkit offered for downloading in the SAP Service Marketplace is subject to export control regulation in Germany as the country of origin and import regulation of your own country. Ensure that SAP has a corresponding export license for your user / company.

2. After you have downloaded the SAP Java Cryptographic Toolkit, extract it to a temporary directory. Copy the contained JAR files to the user's home directory before starting the installation, or specify the temporary directory when asked for the file during the installation.



If the SAP Java Cryptographic Toolkit files cannot be found in the user's home directory, you will be prompted for the files location during the installation.



Verify Installation Readiness with the System Analyzer

Definition

A SAP proprietary testing engine capable of performing multiple analyses of system processes and configurations.

Due to the open architecture of the System Analyzer, the tests performed and the manner in which results are returned depend upon the testing programs loaded. It can load additional plug-in testing programs that may be written for it using the Analyzer API.

Use

The System Analyzer, which is supplied as part of the Enterprise Portal installation, provides important pre-installation information if run prior to installing SAP Enterprise Portal. Running the analyzer with the appropriate tests verifies that all the portal prerequisites are in place. This saves time by avoiding aborted installations. The analyzer is also useful for post-installation checks and as a troubleshooting tool.

The System Analyzer API provides the possibility of writing a test which contains its own fix in the event that the test results show a failure.

Prerequisites

The `$JAVA_HOME` environment variable must be set correctly to successfully issue Java calls. Make sure that your `JAVA_HOME` environment variable is set to the directory in which you installed the JDK.

UNIX:

Setting the environment variable differs from shell to shell:

- In TCSH and CSH environments use:
`setenv JAVA_HOME /opt/j2sdk_1_3_1_09`
- In KSH, SH and BASH (Korn and Bourne (again) shells):
`export JAVA_HOME=/opt/j2sdk_1_3_1_09`

Version numbers may vary, and so may the directory names.

In Solaris, the directory is usually as shown above, whereas HP usually installs a simpler name, such as `/opt/java1.3`.

Windows:

Set the JAVA_HOME environment variable as follows:

1. From the desktop, select *My Computer*. Then, from the right-click menu, choose the *Advanced* tab.
2. Choose the Environment Variables button.
3. Add or edit the JAVA_HOME environment variable.

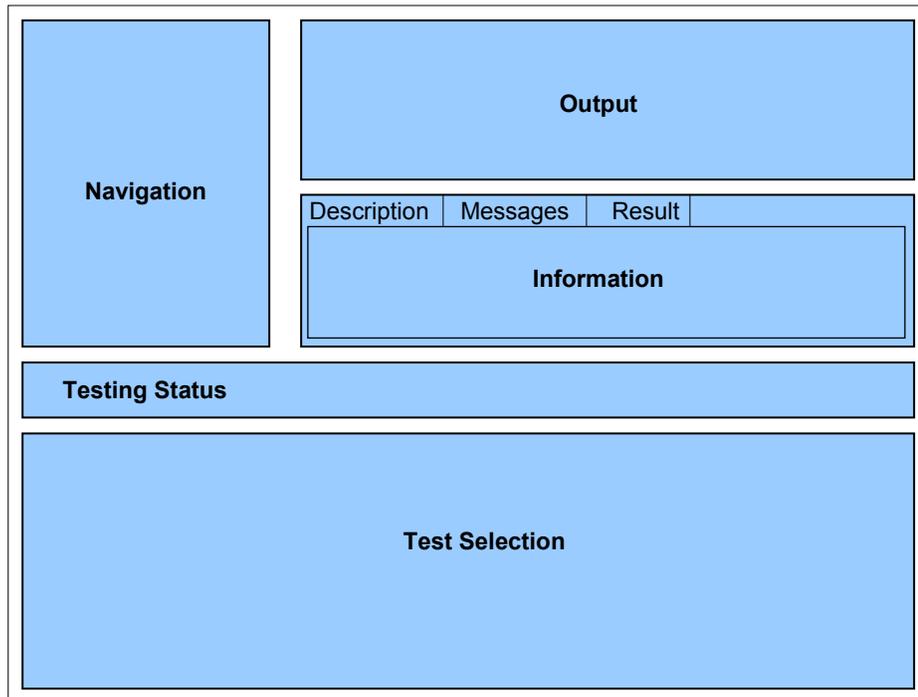
Structure

The System Analyzer displays four panes used to run tests and receive output:

- The navigation area displays all available tests arranged by type in a tree format.
The out-of-the-box tests are categorized into folders according to the test type. For example, portal requirements test, database tests, etc.
- The output area shows the results returned by each test in tabular form.
Each record in the table represents a property checked by the analyzer; each column is a property attribute. The first column indicates whether or not a specific test has succeeded.
- The information area returns the following:
 - A description of each test selected in the navigation area
 - Messages, if any, returned by a test after it is run
 - Details of the attribute values returned for each individual property
- The test selection area is a table with the following columns:
 - The first column indicates, by means of an icon, the status of the test:
 -  - The test succeeded.
 -  - The test succeeded but other tests that depend on this one cannot be performed.
 -  - The test is in progress.
 -  - A failure occurred during testing.

If no icon appears in this column, then either the test has not been selected or the selected test is dependent upon a test that failed or was not run.
 - The *Activate* column contains checkboxes for selecting the tests to be run.
 - The next column shows the name of the test, including its full path as displayed in the navigation area.
 - The next two columns show the start and end times for each test.

Double-clicking on any row displays the results for that test in the output and information panels.





The System Analyzer Workflow

Purpose

The default tests that are preloaded to the System Analyzer are categorized in folders in the navigation area according to purpose. The tests can return information for pre- and post-installation checks or for troubleshooting purposes.

Process

1. Before installing SAP Enterprise Portal, use the System Analyzer, running it from the installation CD, to make sure that all the portal prerequisites are in place and your system is ready for installation.
2. For tests that have fixes available, run fixes from the System Analyzer to install or repair missing or failed system components.
3. Perform post-installation system checks, running the appropriate tests from the System Analyzer.
4. In the event of problems, use the System Analyzer to check if all the relevant system components are in order.
5. Produce an XML file containing the System Analyzer test results.
6. Load additional tests to the System Analyzer as plug-ins.



Running Tests on the System Analyzer

Use

Run the Analyzer to test any or multiple system processes in order to verify installation readiness or post-installation checks, or to retrieve information for troubleshooting.

Procedure

1. To open the System Analyzer, go to the *ANALYZER* folder on the Enterprise Portal installation CD and run:
Windows: *prerequisite.bat*
UNIX: *prerequisite*
2. In the test selection pane of the System Analyzer, select the checkboxes next to the tests you wish to perform.
To see a description of the tests, select them in the Navigation area to display the relevant description in the Information area.
3. From the *Action* menu, select **Analyze**. The test programs you selected are executed.

Running a Single Test from the Navigation Pane

To run a single test, right-click it in the navigation area and choose **Analyze** from the context menu that appears. Only that test will be performed, whether or not it is selected in the selection pane, and regardless of how many other tests are selected in the *test selection* pane.



Running a Fix

Use

The open architecture of the System Analyzer makes it possible to program and load tests that are capable of executing fixes for failed results returned by the test. For example, if a required application or connector is not found, the test returning this result might provide a fix that installs the missing component. The fix may run scripts to change file names to have a required extension. In fact, the fix can do whatever is programmed within the limitations of the System Analyzer API.

How Do You Know if a Fix is Available

If a test returns a failed result, one or both of the following ways will indicate if a fix is available:

- After running a test, the *Information* area will include a message about the results and will also inform you if there is a fix for the failure.
- In the event that the testing program does not include a message, the presence of a fix in the test will always activate the *Fix* command in the context menu of the test selected in the *Navigation* area.

Prerequisites

The System Analyzer has run a test that returned a failed result and the test program includes a fix.

Procedure

1. First check the information area message tab to see if the selected test has a fix available for the current failure.
2. If no message appears indicating the presence of a fix, right-click the test in the navigation area. If the *Fix* item is active in the context menu, choose it to run the fix.
3. Perform additional actions, if any, specified by the fix message. For example, after a fix, it may be necessary to restart SAP J2EE Engine.
4. When the status area of the System Analyzer indicates that the fix is completed, rerun the test to verify results.



Recording Test Results in XML

Use

If the aid of the SAP support team should become necessary, the information recorded in the XML file generated by the System Analyzer will aid the support engineer in researching the problems and arriving at solutions.

Procedure

1. In the *File* menu of the analyzer, choose *Save as XML*.
2. In the dialog box that opens, enter a file name and desired location, and choose *Save*.

Result

System Analyzer test results are recorded and saved.



Adding Tests to the System Analyzer

Use

The open architecture of the System Analyzer allows it to track any changes in the system configuration. Testing programs can be written according to need and the System Analyzer can load them as plug-ins.

Prerequisites

The availability of testing programs (as .JAR files) implementing the System Analyzer API. These tests may be supplied by SAP or may be written by the customer.

Procedure

1. From the *Actions* menu, select **Load Plug-ins**.
2. In the dialog box that opens, enter the URL or the local path to the test program .JAR file and choose *OK*.

The System Analyzer loads the test and adds it to the navigation and selection areas.



Installation

This section provides exact information about which input is required during the installation procedure and how to start and handle SAPInst.



Installing on UNIX

Use

This procedure describes how to run SAPInst to install the Portal Platform, Content Management & Collaboration on supported UNIX platforms.

This section describes a local installation. For information on remote installation. See [Performing a Remote Installation with SAPInst \[Page 57\]](#).

Prerequisites

- Make sure that your `DISPLAY` and `JAVA_HOME` environment variables are set correctly.
- Read the information on how SAPInst works before proceeding.

How SAPInst Works

Upon executing the command, SAPInst extracts files pertaining to the specific installation to the directory from which you executed the “sapinst” command.

If there are no write permissions to this directory, the SAPInst control files are automatically extracted to a temporary directory.

You can run SAPInst in one of the following manners:

- Call the command file on the CD from a specific directory in your local host (recommended).

When you install a component with SAPInst for the first time, SAPInst stores important log and command files specific to the installation in the installation directory which you create before starting the installation (see instructions below). This directory is referred to as the SAPInst installation directory.

- Make sure that you use a separate installation directory for each installation you perform. Otherwise, you might lose previous log and command files stored in the SAPInst installation directory.
 - If you wish to use an existing directory for an installation, execute the `newinst.cmd` file in the installation directory before you run `sapinst` again. By doing so, you make sure that the log and command files of the installed instance are moved to a subdirectory and the installation of each new instance has its own log and command files.
- Execute the “sapinst” command from the CD.

If you run SAPInst from the installation CD, the SAPInst control files are copied to a temporary installation directory, typically under the `TMP` directory. In this case, if SAPInst stops before completing the installation, or if you need the log files for maintenance, they might not be available. Therefore, it is **not** recommended to execute SAPInst from the CD.

- Extract the SAPinst executable files to a local directory, placing the installation command in that local directory, enabling execution from there, and not the CD.

SAPinst does not install its own executable files on the local host. If you wish to do so, to avoid the need to use the CD for future use of SAPinst executables, add the clause “-extract” when running SAPinst, as explained below. Although performance may improve if you run SAPinst from the local host, it is recommended to run it as explained in the first bullet.

Procedure

1. Log on to your installation host as a user with *super user (root)* permission.
2. Mount the Installation CD.



Mount the CD locally. We do **not** recommend using Network File System (NFS).

3. Create an installation directory for SAPinst with full permissions (777). The directory you create must be under a subdirectory, and not directly under the root directory. For example: ***/subdir/sapinst***.

To create the directory, enter:

```
mkdir /<subdir>/<Installation Directory>
chmod 777 <Installation Directory>
```



Every installation service must have its own separate installation directory to prevent loss of former log and command files.



Sun Solaris only:

Do **not** use `/tmp` and its subdirectories because they are removed when the system is rebooted. For more information, see the documentation *SAP Software on UNIX: OS Dependencies*, section *<Your operating system>: Preparing the Installation*.

4. Change to the installation directory:
`cd <Installation Directory>`

5. Enter:

```
Installation CD/SAPINST/UNIX/<OS>/sapinst
```

The SAPinst GUI now starts automatically by displaying the *Welcome* screen.



- If the installation directory does not contain any files from a previous installation, a new installation starts. Otherwise, the previous installation is continued.
- The above command starts SAPinst from the CD in directory `<installation directory>`. If you want the SAPinst executable to be copied to this directory, see below: ***Extracting SAPinst Executable Files***.
- If a message appears about ports being used, see [SAPinst Ports \[Page 58\]](#).

6. Follow the instructions on your screen. The input parameters are listed in the sections:
 - [Input Parameters for Portal Platform \[Page 34\]](#)
 - [Input Parameters for Content Management and Collaboration \[Page 40\]](#)
 - [Input Parameters for Application Sharing Server \[Page 44\]](#)
7. After you have provided all input parameters, SAPinst starts the installation and displays installation progress during the processing phase. If the installation was successful, the message "The installation finished successfully" is displayed.



If SAPinst fails during installation, see [Troubleshooting the SAPinst Installation \[Page 65\]](#).

8. A message with the URL to the portal is displayed. Make a note of the URL so that you can access the portal.

Extracting SAPinst Executable Files

If you want the SAPinst executable to be copied to <SAPinst_INSTDIR>, instead of executing the command *sapinst* from the CD, do the following:

1. Enter the following command:
`Installation CD/SAPINST/UNIX/<OS>/sapinst -extract`
2. Start SAPinst from your <SAPinst_INSTDIR> with the following command:
`./sapinst`



Installing on Windows

Use

This procedure describes how to run SAPInst to install the portal on supported Windows platforms.

This section describes a local installation. For more information on remote installations, see [Controlling a SAPInst Installation from a Remote Machine \[Page 57\]](#).

Prerequisites

- Make sure that your `JAVA_HOME` environment variable is set correctly.
- Read the section on how SAPInst works before proceeding.

How SAPInst Works

Upon executing the command, SAPInst extracts files pertaining to the specific installation to the directory from which you executed the “sapinst” command.

If there are no write permissions to this directory, the SAPInst control files are automatically extracted to a temporary directory.

You can run SAPInst in one of the following manners:

- Call the command file on the CD from a specific directory in your local host (Recommended).

When you install a component with SAPInst for the first time, SAPInst stores important log and command files specific to the installation, in the installation directory which you create before starting the installation, (see instructions below). This directory is referred to as SAPInst installation directory.

- Make sure that you use a separate installation directory for each installation you perform. Otherwise, you might lose previous log and command files stored in the SAPInst installation directory.
 - If you wish to use an existing directory for an installation, execute the `newinst.cmd` file in the installation directory before you run `sapinst.exe` again. By doing so, you make sure that the log and command files of the installed instance are moved to a subdirectory and the installation of each new instance has its own log and command files.
- Execute the “sapinst” command from the CD.

If you run SAPInst from the installation CD, the SAPInst control files are copied to a temporary installation directory, typically under the `TMP` directory. In this case, if SAPInst stops before completing the installation, or if you need the log files for maintenance, they might not be available. Therefore, it is **not** recommended to execute SAPInst from the CD.

- Extract the SAPInst executable files to a local directory, placing the installation command in that local directory, enabling execution from there, and not the CD.

SAPInst does not install its own executable files on the local host. If you wish to do so, to avoid using the CD for future use of SAPInst, add the clause “-extract” when running SAPInst, as explained below. Although performance may improve if you run SAPInst from the local host, it is recommended to run it as explained in the first bullet.

Procedure

1. Log on to your host as a user who is a member of the local administration group.
2. Create an installation directory for SAPinst, for example: *C:\SAPinst*.
3. Insert the Enterprise Portal Installation CD in your CD drive.
4. Open the command line in the installation directory, and run the command:

```
<CD drive>:\SAPinst\NT\<OS>\sapinst.exe
```

The Welcome screen appears, and the installation begins.



If the directory does not contain any files from a previous installation, a new installation is started. Otherwise, the previous installation is continued.



With this command, SAPinst is started from the CD, and it only extracts files specific to the <component> installation to the installation directory. If you want the SAPinst executable file to be copied to your local file system, use the following command instead:

```
<CD drive>:\SAPinst\NT\<OS>\sapinst.exe -extract
```



If you get an error message about the ports being used, see [SAPinst Ports \[Page 58\]](#).

5. Follow the instructions on your screen. The input parameters and the values required are listed in the sections:
 - [Input Parameters for Portal Platform \[Page 34\]](#)
 - [Input Parameters for Content Management and Collaboration \[Page 40\]](#)
 - [Input Parameters for Application Sharing Server \[Page 44\]](#)
6. After you have entered all input parameters, SAPinst starts the installation and displays installation progress during the processing phase. If the installation was successful, the message “The installation finished successfully” is displayed.



If SAPinst fails during installation, see [Troubleshooting the SAPinst Installation \[Page 65\]](#).

7. A message with the URL to the portal is displayed. Make a note of the URL so that you can access the portal.



Input Parameters for Portal Platform

The following tables show the list of screens that appear during the installation procedure of SAP Portal Platform 6.0, and the input required for the installation:

Window Name	Prompt
CD Browser	<p>This screen may not appear at all, or appear occasionally during installation.</p> <p>A CD Browser may ask for the file LABEL.ASC containing the required label.</p> <p>The default path is: SAPinst CD root directory.</p> <p>For more information on the CD Browser dialog, see Handling the CD Browser Dialog [Page 66].</p>
SAP Enterprise Portal 6.0 SP2 Installation Options	<p>From the Install or Upgrade dialog, choose <i>New Installation</i>.</p> <p>Then, from the Choose an Installation Option menu, choose one of the following:</p> <ul style="list-style-type: none"> • <i>Portal Platform</i> • <i>Portal Platform, Content Management & Collaboration</i> <p>Click <i>Next</i>.</p>

Window Name	Prompt
SAP J2EE Engine	<p>Choose where to deploy the portal platform. You can deploy it on an existing SAP J2EE system or on a new one.</p> <p> For improved performance, choose to install on a new system.</p> <ul style="list-style-type: none"> New System: If you choose to install on a new SAP J2EE system, define the following property values: <p>System Name – Enter a name for the file system to be created for the portal deployment. This name only appears internally.</p> <p><i>UNIX:</i> The name may contain from 4 to 20 characters.</p> <p><i>Windows:</i> The name must consist of exactly 4 characters.</p> <p> Do not enter the name portal. It may cause system failure.</p> <p>Instance number – Enter a two-digit number (00 — 99) to indicate the instance on which the portal will be deployed.</p> <p>The instance number is used to determine the portal port, which is part of the portal URL. Therefore, two portals cannot reside on the same instance number.</p> <p> If you enter an instance number that is already used by another portal deployment on a different system on the machine, you'll be prompted to choose another instance.</p> <p>System Drive (Windows only) - Indicate the system drive on which you want to install.</p> <p>Maximum heap size for Java Virtual Machine – Set the memory to be used for JVM.</p> <p> It is recommended that you set this value to half of the installed physical memory of the machine, but not less than 512 Mbytes and not more than 1536 Mbytes.</p> <p> Make sure not to enter a value larger than the maximum Java heap size of your platform (see JDK documentation).</p> <p>The new system is created under:</p> <pre>/usr/sap/<SYSTEM_NAME>/j2ee/<j2ee_<INSTANCE_NUMBER>/...</pre> <p> If you enter <i>System Name=SAP_PORTAL</i> and <i>Instance Number=99</i>, the new instance is created under:</p> <pre>/usr/sap/SAP_PORTAL/j2ee/j2ee_99</pre> Existing system: If you choose to install the portal on an existing SAP J2EE system, from the drop-down list, choose the system onto which you want to deploy. <p>File systems which host a portal deployment are not available, since you cannot deploy two Enterprise Portal applications on one SAP J2EE Engine system.</p>

Window Name	Prompt
Group Information UNIX only	<p>The portal installation uses the system user <i>j2eeadm</i>, from the group <i>sapsys</i>, to perform the installation. If this user does not exist, this screen appears.</p> <p>In this screen you are creating the group <i>sapsys</i> in the UNIX operating system. It is recommended to verify with the system administrator the best values for the parameters below.</p> <ul style="list-style-type: none"> ○ Description – Enter a description for the <i>sapsys</i> group. ○ Group ID – Enter an ID for the group <i>sapsys</i>.
User Information UNIX only	<p>Note: This screen appears only if the Group Information screen appeared.</p> <p>In this screen, you are creating the user <i>j2eeadm</i> in the UNIX operating system. It is recommended to verify with the system administrator the best values for the parameters below.</p> <ul style="list-style-type: none"> ○ User ID – Enter an ID for the user <i>j2eeadm</i>. ○ Home directory – Enter the name for a home directory for the user <i>j2eeadm</i>. The default value is <code>/home/j2eeadm</code>. ○ Password – Enter a password for the user <i>j2eeadm</i>. ○ Confirm – reenter the password to confirm it.
Use of Existing SAP J2EE Engine	<p>This screen only appears if you chose to deploy the portal on an existing SAP J2EE Engine.</p> <p>The SAP J2EE system is accessed by the installer with the default credentials of the user <i>Administrator</i>.</p> <p>If the password for this user has not been changed for the existing SAP J2EE system, no entries are required. Click <i>Next</i> to continue.</p> <p>If the password for the user administrator of the selected SAP J2EE system has been changed, select the checkbox on the screen.</p> <p>Enter the updated password and confirm it.</p>

Window Name	Prompt
<p>Windows Startup User</p> <p>Windows only</p>	<p>To ensure that full permissions to the portal file system are granted only to specific users, SAPinst automatically creates an admin group, named <i>SAP_<J2EE_System Name>_LocalAdmin</i>.</p> <p>In this screen, specify the user to be included in this group. This user will have permission to the portal installation file system and will be able to start and stop the SAP J2EE Engine.</p> <p>Choose the user who is currently installing the portal (<i>Current</i>), or specify a new user (<i>Other</i>). If you choose <i>Other</i>, enter the user name and password.</p> <p>SAPinst concurrently creates the user account and includes it in the admin group.</p> <p></p> <p>For a clustered portal environment, make sure that the user selected in this screen is a domain user. This will be the Startup user with permissions to start and stop the Web server in all the machines in the cluster.</p> <p></p> <p>Permissions to the file system are also granted to the local admin group.</p>
<p>SAP Java Cryptographic Toolkit</p>	<p>This screen appears only if you have extracted the SAP Java Cryptographic Toolkit files into a directory other than the user's home dir.</p> <p>Specify the full path of the directory into which you have downloaded and extracted the SAP Cryptographic software file.</p> <p>For information on how to download and extract the files, see Downloading SAP JAVA Cryptographic Toolkit [Page 22].</p> <p>The installer is looking for the files:</p> <ul style="list-style-type: none"> • iaik_ice.jar • iaik.isse.jar • iaik.ssl.jar • w3c_http.jar
<p>Database Server Type</p> <p>Windows only</p>	<p>Choose the database management system on which your portal will run, MSSQL or Oracle.</p>

Window Name	Prompt
Connection to Database	<p>Oracle Users</p> <p>Enter connection details to the database server and configuration details to create a user (schema) for the portal server repository.</p> <ul style="list-style-type: none"> • Oracle Host Name – Enter the fully qualified server name that hosts the Oracle database server. • Oracle Instance Name – Enter the Oracle SID that you chose for the portal database. You defined this value during the database server installation. The default value is <i>POR</i>. • Oracle Listener Port – Enter the Oracle listener port of the portal database. You defined this parameter during the database server installation. The default value is <i>1527</i>. • Schema ID – Enter the user name of the portal schema. This user is automatically created during the database server installation. The default value is <i>PCD</i>. • Database User Password – Enter the password for the portal user. You defined this password during the database server installation. <p>MSSQL Users</p> <p>Enter connection details to the MSSQL database server and configuration details to create the portal server repository database.</p> <ul style="list-style-type: none"> • MSSQL Host Name – Enter the fully qualified server name that hosts the MSSQL database server. • MSSQL DB Port – Enter the MSSQL port of the portal database on the default instance. You defined this parameter during the database server installation. The default value is <i>1433</i>. • Schema ID – Enter the user name of the portal schema. This user is automatically created during the database server installation. The default value is <i>PCD</i>. • Database User Password – Enter the password for the portal user. You defined this password during the database server installation.
Required JDBC Libraries Oracle users only	<p>This screen appears only if you have chosen Oracle in the previous screen and have extracted the file <i>classes12.jar</i> and the <i>nls_charset12.jar</i> into a directory other than the user's home dir.</p> <p style="text-align: center;"></p> <p style="text-align: center;">This screen does not appear if you have extracted the files <i>classes12.jar</i> and <i>nls_charset12.jar</i> into the home directory.</p> <p>Specify the full path of the directory into which you have installed the Oracle drivers. See Obtaining Oracle Drivers – Oracle Users Only [Page 21].</p> <p>Make sure that the files are located in the directory you specified.</p>

Window Name	Prompt
Certification	<p>Enter values to define the distinguished name for keystore creation.</p> <p>The distinguished name (DN) uniquely identifies the portal server as an authorized certificate issuer for SAP logon ticket creation.</p> <p>The distinguished name is comprised of the following strings:</p> <ul style="list-style-type: none"> • CN – system ID • OU – sub-organization unit • OU – organization unit • O – organization • C – country <p>In this screen, enter values for the CN, OU, and OU elements of the distinguished name. The installer automatically adds the following predefined values:</p> <ul style="list-style-type: none"> • O= SAP Trust Community Portals • C=DE <p>Enter the following values:</p> <ul style="list-style-type: none"> • CN – Enter the system ID. The CN must consist of three characters. Use only the following characters: A-Z, Space, 0-9. (Spaces are not recommended). Example: CN=EP6 • OU – Enter the string that represents the sub-organizational unit. Use only the following characters: A-Z, a-z, Space, 0-9. Example: OU=Portal Installation • OU – Enter the string that represents your organizational unit. Use only the following characters: A-Z, a-z, Space, 0-9. Example: OU=Enterprise Portal <p style="text-align: center;"></p> <p style="text-align: center;">You can change these values later using the portal administration tools.</p>
Start Installation	Review your input. Click <i>Start</i> to start the installation, or <i>Back</i> to change your entries.



Input Parameters for Content Management and Collaboration

The following section gives you an overview of the input that is required when you choose to install Content Management (CM) and Collaboration for the SAP Enterprise Portal with SAPInst.



Collaboration requires a special license. If you have a license, you need to activate the Collaboration features after the installation, otherwise you cannot use them.

For more information, see [Collaboration Post-Installation Procedures \[Ext.\]](#).

Keep in mind that if you decide to install CM and Collaboration, it is essential to also install the TREX Retrieval and Classification component. TREX provides the functions that enable search and classification operations within CM. You can install TREX before or after CM.

Installation Options

There are two ways in which you can install CM and Collaboration. You can install them as part of an installation package, together with the portal, or separately, after the other portal components have been installed. SAPInst offers both these options on the screen *Enterprise Portal 6.0 SP2 Installation Options*. The screen appears when you have started SAPInst and have read the license agreement.



We recommend that you install CM and Collaboration after you have completed the installation of the portal platform. It is easier to identify and resolve any issues related to the CM and Collaboration installation if the portal is already set up and running smoothly.

When the screen *Enterprise Portal 6.0 SP2 Installation Options* appears, enter your installation choice as follows:

- If you want to install CM and Collaboration after the portal, as recommended, then select:
 - *New Installation*
 - *Content Management & Collaboration*
- If you want to install CM and Collaboration together with the portal, then select:
 - *New Installation*
 - *Portal Platform, Content Management & Collaboration*

Application Sharing Server

If you have a license for Collaboration, you need to install an Application Sharing server to enable Real-Time Collaboration. If you do not have a license, skip the installation of this server.

There are two ways in which you can install the Application Sharing server:

- If you are setting up a **production system**, you must install the server on a dedicated machine in a separate installation procedure. In this case, you restart SAPInst on the dedicated machine and choose the installation option *Application Sharing Server for Collaboration*.

For more information, see [Input Parameters for Application Sharing Server \[Page 44\]](#)

- If you are setting up a **test or demo system**, you can install the server on the portal machine together with CM and Collaboration. In this case, when you run SAPinst to install CM and Collaboration and the screen *Collaboration – Application Sharing Server* appears, select the option *Install Application Sharing server now, on the portal machine*.

Input for CM and Collaboration

When you run Saints, it prompts you to enter the data it needs to perform the installation. It requires you to enter the data shown in the table below.



If you install with the option *Portal Platform, Content Management & Collaboration*, then the following windows that are listed in the table **do not appear**:

- *Content Management – SAP J2EE Engine*
- *Portal Platform – Existing SAP J2EE*
- *Content Management - Connection to Portal*

If other windows shown below do not appear, make sure that SAP J2EE Engine is running and then restart the installation. The installation takes about an hour to complete.

Window	Entry
<p><i>Content Management – SAP J2EE Engine</i></p> <p>(Only appears if you are installing CM and Collaboration separately)</p>	<p>Select the instance of the SAP J2EE Engine which the local portal uses. You entered the instance name and number during the portal installation.</p>
<p><i>Portal Platform – Existing SAP J2EE</i></p> <p>(Only appears if you are installing CM and Collaboration separately)</p>	<p>Enter the password of the SAP J2EE administrator for the local portal. If you do not want to change the default password, select <i>Default password</i>.</p>

<p><i>Collaboration – Application Sharing Server</i></p>	<p>If you do not have a Collaboration license, skip this screen.</p> <p>If you have a license:</p> <ul style="list-style-type: none"> • Select <i>Install Application Sharing server now, on the portal machine</i> only if you are setting up a test or demo system. • Leave the checkbox unmarked if you are setting up a productive system. In this case, you must install the Application Sharing server on an additional, dedicated machine, after completing the Content Management installation. For more information, see Input Parameters for Application Sharing Server [Page 44]. <p style="text-align: center;"></p> <p style="text-align: center;">The Application Sharing server generates a high system load. We therefore strongly recommend that you install it on a dedicated machine for a productive system.</p>
<p><i>Content Management – Connection to Database</i></p>	<p>Enter details for the database connection. The screen differs depending on whether you have an Oracle or MS SQL Server database server.</p> <p>You can accept all the entries proposed by SAPinst except <i>Schema ID</i>, <i>Database Name</i> (MS SQL Server), and <i>Database User Password</i>. For these fields, enter the data that you specified during the installation of the database server.</p> <p>For Oracle enter:</p> <p><i>Oracle Host Name:</i> Name of the machine where the database server is installed.</p> <p><i>Oracle Instance Name:</i> The name of the Oracle instance (SID) that must be used for CM.</p> <p><i>Oracle Listener Port:</i> The number of the Oracle <code>Listener Port</code>.</p> <p><i>Schema ID:</i> Name of the DB schema for CM. You entered the name during the installation of the Oracle server. The default is WCM.</p> <p><i>Database User Password</i> The password for the CM database connection. You specified this password during the installation of the database server.</p> <p>For MS SQL Server enter:</p> <p><i>MSSQL Host Name:</i> Name of the machine where the database server is installed.</p> <p><i>MSSQL DB Port:</i> Number for the database port.</p> <p><i>Schema ID:</i> Name of the CM database. You entered the name during the installation of the MS SQL Server.</p> <p><i>Database User Password:</i> Password for the CM database connection. You specified this password during the installation of the database server.</p>

<p><i>Content Management - Connection to Portal</i></p> <p>(Only appears if you are installing CM separately)</p>	<p>Enter the address of the local portal server including the protocol, host name, domain and port number.</p> <p>Normally you enter the protocol used by the portal. If the portal uses both <code>http</code> and <code>https</code>, then enter one of these as the default for CM. CM then supports both <code>http</code> and <code>https</code>, but uses the default protocol you enter here to generate the URLs that are required for CM services like subscriptions and content exchange.</p> <p>Example: <code>http://portalhost.mydomain.com:1080</code></p>
<p><i>Content Management - Connection to TREX</i></p>	<p>Specify the name of the host where TREX is installed using the syntax: <code><hostname>.<domain></code></p> <p>Example: <code>mytrexhost.mydomain</code></p> <p>If you leave this field blank and do not enter the server now, you can do so later. For more information, see the section <i>Registering TREX Hosts with Content Management</i> in the documentation <i>Installing Retrieval and Classification (TREX)</i> in the <i>SAP Enterprise Portal Installation Guide</i>.</p>
<p><i>Start Installation</i></p>	<p>All the information you have entered is displayed. You can change incorrect entries in the summary with the help of the <i>Back</i> button.</p>
<p><i>Installation Progress</i></p>	<p>The window shows the steps of the installation procedure and highlights the step that is currently being executed. A progress bar shows the status of the overall installation procedure.</p>
<p><i>Finished successfully</i></p>	<p>The window appears when the installation has completed successfully. The installation of Content Management and Collaboration, without the portal, takes roughly an hour.</p>



Input Parameters for Application Sharing Server

The following section provides an overview of the input that is required when you choose to separately install the Application Sharing server on a dedicated machine (not on the machine(s) with portal, Content Management, and the remaining Collaboration components).

If you decide to install the Application Sharing server with the portal, CM, and Collaboration, you may skip this section.

For additional background information, see [Application Sharing Server for Real-Time Collaboration \[Page 16\]](#).

Window	Entry
<i>Installation Options</i>	<ul style="list-style-type: none"> From <i>Install or Upgrade?</i>, choose New Installation. From <i>Choose an installation option</i>, choose Application Sharing Server for Collaboration.
<i>Portal Platform – SAP J2EE Engine</i>	For more information, see the same description in Input Parameters for Portal Platform [Page 34] .
<i>Portal Platform – SAP J2EE Engine – Windows Startup User</i>	For more information, see the same description in Input Parameters for Portal Platform [Page 34] .
<i>Start Installation</i>	<p>All the information you have entered is displayed.</p> <p>You can change incorrect entries in the summary by clicking the <i>Back</i> button, and changing your current selections as needed.</p>
<i>Installation Progress</i>	Shows the steps of the installation procedure and highlights the step that is currently being executed. A progress bar shows the status of the overall installation procedure.
<i>Finished successfully</i>	The window appears when the installation has completed successfully.



When you have completed the installation, perform the necessary post-installation procedures. For more information, see [Collaboration Post-Installation Procedures \[Page 55\]](#).



Post Installation

After installing, perform portal and CM post-installation procedures.

- [Portal Platform Post Installation Procedures \[Page 45\]](#)
- [Content Management Post-Installation Procedures \[Page 50\]](#)
- [Collaboration Post Installation Procedures \[Ext.\]](#)



Portal Platform Post Installation Procedures

After running SAPinst, the portal software is installed and is ready to be launched. To prepare the portal for long term use by administrators and end users, some post-installation procedures are required.



At this point, it is recommended that you backup the portal installation file system.

The following procedures are required:

- Optionally, you can verify that the installation has been successfully completed. See [Checking the Installation Completion \[Page 62\]](#).
- If you haven't noted your portal URL after installation, obtain it now. See [Establishing the Portal URL \[Page 46\]](#).
- Log on to the portal for the first time with initial user credentials. See [Initial Log-on \[Page 47\]](#).
- Get a license for your portal. See [Licensing the Enterprise Portal \[Page 48\]](#).
- For optimal performance, fine-tune your installation. See [Fine Tuning The Enterprise Portal Installation \[Page 49\]](#).
- When completing all these tasks, the portal is ready to be used. See [Using the Portal \[Page 49\]](#).



Establishing the Portal URL

The Portal Default URL

All portal users, administrators and end users, access the portal through a browser application from their client machines. The portal is launched by typing in a URL.

The portal URL consists of the portal installation host name and the port on which the portal is listening, combined as follows:

```
http://<fully qualified portal machine name>:<HTTP port number>/irj
```



Example: If the Portal is installed on a computer that is identified as Portal01 on the network, and sap J2EE instance number is 00, type the following address:

```
http://Portal01.sap.corp:50000/irj
```

The portal URL was provided to you at the completion of the portal installation. If you did not make a note, you can calculate the portal port number.

Calculating the Portal HTTP Port Number

The port number is based on the number of SAP J2EE instance on which you have installed the portal, according to the following formula:

```
HTTP Port = 50,000 + (100*<instance number>)
```



If the Portal is installed on SAP J2EE instance number 01,

```
Portal Port = 50,000 + (100 * 1) = 50100
```

Additional URL Options

If you are working with Secure Sockets Layer (SSL), the portal URL begins with **https** instead of **http**.



In a clustered environment, typically you will have a virtual URL for the cluster. In the login process, make sure that you type in the URL of the primary server, not a virtual URL.



Initial Log-on

When the portal installation is finished, you are ready to log on for the first time.

User names and passwords are registered in a directory server or a user list. Initially, there is no directory server or user list associated with the portal. To make the connection, you have to create a user management configuration. Until you establish a connection with a user list, you log on to the portal using the default user credentials.

About the Default User SAP*

The default user logon provides you with access to the portal as a fully qualified administrator (super user).

However, this user is not designed to be used beyond the initial configuration stages. Among other things, it does not fully support working with multiple languages. Therefore, after you have logged on, work as a portal administrator using your own name and password.

To do so, make sure that you are registered in the directory server or user list to which your security configuration points and that you are associated with the portal administrative role. Then logon to the portal with your own name and password.

Once you are logged on with a dedicated administrator account, deactivate the initial user.

To log on to the portal with default credentials:

1. Open your Web browser.
2. Type the portal URL in the Internet browser address field, and press ENTER.
3. In the Enter Network Password screen, enter the following:
 - User Name: **sap***
 - Password: **06071992**
4. Configure user management as described in *Enterprise Portal Administration Guide* → *Portal* → *System Administration* → *User Management Configuration* → *Configuration of User Management in the Enterprise Portal*.



Licensing the Enterprise Portal

Use

Each SAP Enterprise Portal (EP) installation requires its own license key.

During installation of the portal a temporary license key is automatically generated. This key is valid for four weeks only. During this period of time, you have to apply to SAP for a permanent license key. It is recommended to do so as soon as possible after installation. When you receive the permanent license key, you must install it before the four-week trial period is over.

If your permanent license key expires, you can install a temporary license key. You must install the temporary license key within four weeks of the permanent license key expiring. Again, the temporary key is valid for four weeks only. During this period of time, you have to apply to SAP for a permanent license key and install it before the four-week trial period is over.



If a valid license key is not installed, only three users can log on to the portal simultaneously.

Procedure

For detailed information on how to license the portal, read the document *License Keys for SAP Systems* on SAP Service Marketplace at <http://service.sap.com/licensekey> → *mySAP.com*. The document describes the procedure for EP 5.0, but is also valid for EP 6.0 except for the following differences:

- You no longer need to install a temporary license key after installing the portal.
- The path to access the License Key iView has changed. It is now *System Administration* → *System Configuration* → *Portal Licensing*.
- EP 6.0 no longer contains a lock server, so all references to a lock server in the document are obsolete. The procedure on licensing an EP 6.0 portal cluster is covered in the document *SAP Enterprise Portal Installation Guide* → *Installing an Additional SAP J2EE Engine for a Portal Cluster*.
- The command line tool `LicenseKey` is no longer available in EP 6.0.



Fine Tuning the Enterprise Portal installation

Use

Use the Fine Tuning guide to optimize the portal environment. Most of the procedure are site-specific, however, some of the procedures, like setting JVM, prevents the portal from crashing.

Prerequisites

You have logged on to the portal at least once.

Procedure

To fine-tune the Enterprise Portal installation:

1. Access the Fine-Tuning guide from SAP Service Marketplace at:
<http://service.sap.com/ep60> → *Documentation and More* → *How-To Guides* → *How to Fine-Tune Performance of SAP Enterprise Portal 6.0*
2. To prevent portal crashes by clearing garbage collection, follow the instructions in the section *Tuning JVM settings* of the Fine-Tuning guide.
3. Read through the guide for additional configurations relevant for your installation.



Installing EP 6.0 SP2 Patch

Use

To complete the installation, apply the EP 6.0 SP2 patch.

Procedure

Follow the instructions in the document:

<http://service.sap.com/ep60> → *Documentation & More* → *Patches & Hotfixes* → *Installing Patch 1 for Enterprise Portal 6.0 SP2*



Using the Portal

Use

Once your portal is up and running with the basic installation components and default initial content, you can proceed with the administrative tasks required for customizing and deploying it for use in a preliminary test environment, and then striving toward an eventual live production portal.

Once you are logged on to the portal, you must complete the portal configuration according to your system needs.

The necessary steps following the full installation of the portal are described in detail in the SAP Enterprise Portal Administration Guide. This guide is available on the SAP Help Portal at <http://help.sap.com> → *SAP NetWeaver* → *mySAP Enterprise Portal* → *SAP Enterprise Portal* → *Administration, developer, and End User Documentation*

To complete the portal configuration, start with the section: *Portal Platform* → *Initial Configuration Tasks*.

An Initial Configuration Tasks topic is available also for CM & Collaboration.



In the Administration Guide, you should pay particular attention to the section: *Portal Platform* → *Super Administration*, which summarizes the major steps in beginning the deployment process immediately after installation.



Content Management Post-Installation Procedures

Purpose

When you have completed the CM installation, you need to perform a number of steps to prepare the system for end users.

Prerequisites

Before you perform the post-installation steps, make sure that no errors occurred during the installation.

For more information see: [CM Installation Check \[Page 56\]](#)

Process Flow

Perform the following tasks:

- Create folders that are required for iViews
- Enable local editing
- Windows only: Set up the connection to the TREX Server
- Perform initial configuration tasks



Creating Folders for iViews

Use

To enable the Knowledge Management iViews to function properly in the portal, you must create a number of folders.

Procedure

1. Make sure you are logged on as a user with the `super administrator` role.
2. On the top-level navigation bar of the portal, click *Content Administration* → *KM Content*
A list of all the KM repositories is displayed.
3. Create the folders shown in the table below. To do this:
 - a. Navigate to the repository specified.
 - b. Open the *Folder* popup menu in the navigation bar and then choose *New* → *Folder*
 - c. Enter the name of the new folder and save it.

Repository	Folder
documents	Public Documents
documents	News
documents	Discussions
documents	Links



Enabling Local Editing

Use

Content Management allows you to edit files in repositories without a manual checkout procedure. The downloading and uploading of documents is handled automatically by a Java applet that requires the installation of the Java Runtime Environment (JRE) on the clients. To enable clients to install the runtime environment, you must download the JRE to the portal server as described in the following.



Instead of using the Java applet to control the upload and download, you can use Active X. If you set Active X in the configuration framework, then clients can edit locally without installing additional software.

To set Active X, choose *System Administration* → *System Configuration* → *Knowledge Management Configuration* → *Content Management* → *Utilities* → *Editing*. Click *Local Editing* and then set the *Active Component* to *Active X*. This enables clients to edit locally without installing any additional software.

Procedure

To enable local editing on clients using the Java applet:

1. Download the latest JRE version from <http://java.sun.com> to a local directory on the portal server. Download at least version 1.3.0_01
2. On the portal server, open the file `htmlb.properties` in an editor. The file is located under:
`/usr/sap/<SAP J2EE instance name>/j2ee/j2ee_<instance number>/cluster /server/services/servlet_jsp/work/jspTemp/irj/root/WEB-INF/portal/portalapps/com.sap.portal.htmlb/lib`
3. Add a line to the `htmlb.properties` file that specifies the location of the downloaded JRE.

For example, for JRE 1.3.0_01, enter :

```
codebaseV13=http://<server>/<path>/jinstall-13-win32.cab#Version=1,3,0,1
```

Where `<server>` is the name of the host where the downloaded file is stored and `<path>` the location of the file.

4. On the portal clients, the first-time users choose the *Edit Locally* function they are informed that it is necessary to install JRE on the local machine. To automatically install the JRE, the user must:
 - Have administration rights on the local PC.
 - Confirm the prompt for the execution of the installation.



Windows Only: Setting Up the Connection to TREX

Use

The portal stores information that Content Management uses to communicate with TREX. In particular, the addresses of the queue servers, index servers, and Web servers are stored.

If you have installed TREX on Windows, you have to modify the Web server address. You do not need to modify the addresses of the other TREX servers.



The following description assumes that you are not using SSL communication between Content Management and TREX.

Procedure

1. Make sure you are logged on to the portal as super administrator. Choose System Administration → System Configuration → KM Configuration → TREX → TREX Java Client *from the top-level navigation bar*.
2. Choose Default HTTP Server. Edit the *Default* entry as follows:

Parameter	Entry
SSL Configuration File	Adopt the default setting.
HTTP Server	<p>If you are running TREX on Windows, modify the address of the Web server as follows:</p> <p><code>http://<%trexserver%>:8353 /TREXHttpServer/TREXHttpServer.dll?</code></p> <p>If you specified another port for the Web server during the installation, change the port too.</p> <p> <code><%trexserver%></code> is a variable for the host name of the TREX host. The actual host name is stored on the portal host in the <code>config_local.properties</code> configuration file.</p>
Protocol	<code>http</code>
Search Engine	<code>DRFUZZY</code>

3. Choose HTTP Server. Edit the `admin.httpserver.0` entry as follows:

Address	<p>Modify the address of the Web server again.</p> <p><code>http://<%trexserver%>:8353 /TREXHttpServer/TREXHttpServer.dll?</code></p>
Active	Make sure that this field is checked.
Access Count	Adopt the default setting.

4. Restart the servlet engine.



Initial Configuration Tasks

Purpose

When you have finished the post-installation tasks, the installation is complete. However, to prepare the system for end users, it is necessary to perform a number of essential configuration tasks.

For more information about the individual tasks, see SAP Help Portal on help.sap.com/ep → *EP6.0 SP2* → *Administration Guide* → *Knowledge Management Platform* → *Initial Configuration Tasks*.

Process Flow

Initial configuration tasks are:

- **Assignment of the content manager role to a user**

The content manager role enables a user to perform routine administration tasks related to Knowledge Management. You must assign the role to the user who will be responsible for organizing content.



Only if you assign this role to a user, will the *Content Management* tab which enables access to iViews for managing content be available in the portal.

- **Configuration of channels**

To ensure that the subscription and notification service can be used directly after the installation, you need to configure the required email channels and servers.

- **Assignment of permissions to folders**

After the installation, the permission *everyone:full* control is assigned to all folders. We therefore strongly recommend that you change the initial permissions to meet your requirements

- **Lotus Notes only: Configuration of Lotus Notes repository manager**

If you want to use Lotus Notes, you need to configure the required repository manager.



Collaboration Post-Installation Procedures

Purpose

Once you have completed installation of Collaboration, you must work through some steps to prepare the system for use. You configure certain settings before logging on to the portal, whereas you perform other required steps through the portal user interface.

Prerequisites

To use Collaboration, you require a separate license. For more information about licensing, contact your local SAP representative.

Process Flow

1. Work through the procedures for installing Collaboration, which are documented in the following section.
Follow the instructions on [configuring thread settings for the application sharing server](#) [Page 55].
2. Once you have installed Collaboration, you must complete several configuration tasks to prepare the system for use. These tasks are documented in the *SAP Portal Administration Guide* → *Collaboration* → *Initial Configuration Tasks*.

The Collaboration Administration Guide is available at help.sap.com → *SAP NetWeaver* → *SAP Enterprise Portal* → *Administration, Developer, and End User Documentation* → *EP 6.0 SP2*.



Configuring Thread Settings for Application Sharing Server

Use

To optimize performance of the Real-Time Collaboration Application Sharing server, you need to optimize the Thread Manager settings (for dispatcher and server) of SAP J2EE Engine using the SAP J2EE Engine Config Tool.



If the Application Sharing server is installed on the portal/CM/Collaboration machine, you will need to make sure that the shared thread settings are optimized for these components, as well.

Procedure

The number of threads that each machine is capable of supporting depends on the amount of available memory, CPU, and other system resources. You will need to conduct a number of performance tests to obtain the correct settings for a specific machine.

For additional information, see the following documents:

- How to Tune SAP J2EE Engine (available at <http://service.sap.com/webas> → *Tools & Demos* → *How-To Guides*)
- How to Fine-Tune Performance of SAP Enterprise Portal 6.0 (available at <http://service.sap.com/ep> → *Documentation & More* → *How-To Guides*).

Refer specifically to the section, *Thread Manager Settings*.

You can find general information on SAP J2EE on the SAP Help Portal at <http://help.sap.com> → *SAP NetWeaver* → *SAP Web Application Server*.



Installation Check

Once the portal has been launched, there is no need to make further checks.

If you could not log on to the portal, see [Troubleshooting \[Page 60\]](#).

To verify that Content Management has been installed successfully, see [Content Management Installation Check \[Page 56\]](#).



Portal Platform Installation Check

Once the portal has been launched, there is no need to make further checks.

If you could not log on to the portal, see [Troubleshooting \[Page 60\]](#).



Content Management Installation Check

Use

If you have installed Content Management (CM), you can use the *KM Component Monitor* to find out whether the components have started up successfully and have no configuration errors.

Procedure

1. Log on to the portal as a user with the *super administrator* role.
2. Choose *System Administration* → *Monitoring* → *Knowledge Management* → *Component Monitor*.
3. One after the other click *Filters*, *Repository Managers*, *Repository Services* and *Services*. For each of these items, check whether all subentries have the status green. The colors beside the entries indicate the following:
 - Green shows the object is functioning well.
 - Red shows the object cannot be started or is configured incorrectly.
 - Yellow indicates that one or more lower-level items are red.

4. If an object has the status red, read the error message. Try to correct the error in the system configuration.

For more information on the system configuration, see *Administrating Content Management* in the *SAP Enterprise Portal Administration Guide* at <http://help.sap.com/ep>. Choose *Knowledge Management Platform* → *System Administration* → *System Configuration* → *Content Management Configuration*.

5. If you find errors in the monitor, check whether the KM deployment completed successfully. For more information, see [Checking the Content Management Deployment \[Page 64\]](#)



Controlling a SAPinst Installation from a Remote Machine

Use

You can run the SAPinst GUI in standalone mode to perform a remote installation.

This enables you to install an SAP system on another host (the remote host) while monitoring the installation with the SAPinst GUI on your local Windows or UNIX computer (the local host).

The overall process is as follows:

1. Install SAPinst on your remote host and SAPinst GUI on your local host.
2. Start the SAPinst server on your remote host.
3. Start SAPinst GUI on your local host.
4. Perform the installation using SAPinst GUI.

For details see the appropriate procedures below.

Prerequisites

- Make sure that you have performed the preparation activities for your local host (SAPinst GUI host) and your remote host.

For more information, see "[Preparations \[Page 17\]](#)" in this documentation.

- Both computers are on the LAN and can ping each other.

To test this:

- Log on to your remote host and enter the command `ping <local host>`.
- Log on to the local host and enter the command `ping <remote host>`.
- SAPinst ports – Make sure that SAPinst ports are free. Otherwise, define other ports and use the commands accordingly. See [SAPinst Ports \[Page 58\]](#).

Procedures

Perform the following procedures:

1. [Starting SAPinst on the Remote Host \[Page 58\]](#)
2. [Starting SAPinst GUI on the Local Host \[Page 59\]](#)



SAPinst Ports

SAPinst uses the ports 21212 and 21213 during the installation for communication with the SAPinst GUI. If one of these ports is already used by another service, SAPinst aborts the installation with an appropriate error message.

In this case, you must start SAPinst or the SAPinst GUI from the command prompt as follows:



In the following commands, <free_port_number> defines an unused port number. Since SAPinst also uses <free_port_number> + 1, this must also be free.

For example, if you enter 60000 as <free_port_number>, SAPinst uses the ports 60000 and 60001.

UNIX:

From the installation directory, call the command from the installation CD as follows:

```
<sap installation CD>/sapinst/unix/<os>/<command>
```

Where <command> is one of the following:

- SAPinst: `./sapinst SAPINST_DIALOG_PORT=<free_port_number>`
- SAPinst GUI: `./sapinstgui.sh -port <free_port_number>`
- Start SAPinst GUI `./startinstgui.sh -port <free_port_number>`

Windows:

From the installation directory, call the command from the installation CD as follows:

```
<sap installation CD>:\sapinst\NT\i386\<command>
```

Where <command> is one of the following:

- SAPinst: `sapinst SAPINST_DIALOG_PORT=<free_port_number>`
- SAPinst GUI: `sapinstgui.bat -port <free_port_number>`
- Start SAPinst GUI `startinstgui.bat -port <free_port_number>`



Starting SAPinst on the Remote Host

Use

You use this procedure to run SAPinst on the **remote** host when you want to control it from a machine other than the installation machine.

Procedure

Your Remote Host Runs on a Windows Platform

1. Log on to your remote host as a user who is a member of the local administration group.
2. Insert the installation CD in your CD drive.
3. Create <SAPinst_INSTDIR> and change to this directory.

4. Enter the following command from the Windows command prompt:

```
<CD drive>:\SAPinst\NT\<OS>\sapinst.exe SAPINST_NO_GUISTART=true
```

SAPinst starts without the SAPinst GUI and waits for the connection to the SAPinst GUI.
5. Start the SAPinst GUI on your local host, as described in [Starting SAPinst GUI on the Local Host \[Page 59\]](#).

Your Remote Host Runs on a UNIX Platform

1. Log on to your remote host as user `root`.
2. Mount the installation CD.
3. Create `<SAPinst_INSTDIR>` and change to this directory.
4. Enter:

```
<Installation CD>/SAPINST/UNIX/<OS>/sapinst  
SAPINST_NO_GUISTART=true
```

SAPinst starts without the SAPinst GUI and waits for the connection to the SAPinst GUI.
The following message is displayed:

```
guiengine: waiting for connect...
```
5. Start the SAPinst GUI on your local host, as described in [Starting SAPinst GUI on the Local Host \[Page 59\]](#).



Starting SAPinst GUI on the Local Host

Use

You use this procedure to run SAPinst GUI on the **local** host when you want to control the SAPinst installation from a machine other than the installation machine. The local host is the host where you want to control the installation with the SAPinst GUI.

Procedure

Your Local Host Runs on a Windows Platform

1. Log on to your local Windows host.
2. Insert the installation CD into your CD drive.
3. Enter the following command from the Windows command prompt:

```
<CD drive>:\SAPinst\NT\<OS>\startinstgui.bat
```

The SAPinst GUI now gets started and connects automatically to the host that is waiting for a connection. The *Welcome* screen is displayed.



If prompted, enter the following parameters:

- *Hostname* : Enter the host name of the remote computer.
 - *Port*: Enter the same port number as SAPinst uses on the remote host.
4. Perform the installation from your local host.

Your Local Host Runs on a UNIX Platform

1. Log on to your local UNIX host as user `root`.
2. Mount your installation CD.
3. Change to the following directory:
`<Installation CD>/SAPINST/UNIX/<OS>`
4. Enter:
`startInstGui.sh`

The SAPinst GUI now gets started and connects automatically to the host that is waiting for a connection. The *Welcome* screen is displayed.



If prompted, enter the following parameters:

- *Hostname*: Enter the host name of the remote computer.
 - *Port*: Enter the same port number as SAPinst uses on the remote host.
5. Perform the installation from your local host.



Troubleshooting

Purpose

If you run into trouble while installing, launching, or using the portal, try the troubleshooting actions listed in this section. If the problem is still not solved, contact your local support center/software supplier.

General information for handling portal troubleshooting is available at: [Portal System Information \[Page 61\]](#).

Process Flow

- Problems during installation process:
 - Try the troubleshooting procedures. See [Troubleshooting the SAPinst Installation \[Page 65\]](#).
- Problems when logging on to the portal:
 - For more background, see [Portal System Information \[Page 61\]](#).
 - Verify installation completion. See [Checking the Installation Completion \[Page 62\]](#).
 - Start the SAP J2EE Engine. See [Verifying the SAP J2EE Engine Operation \[Page 70\]](#).
 - Verify that the SAP J2EE is up and running. See [Verifying the SAP J2EE Server Response \[Page 73\]](#).
 - Check the installation log files. See [Checking the Portal Platform Installation Log Files \[Page 74\]](#).
 - Check the deployment log files. See [Checking the Portal Deployment Log Files \[Page 63\]](#).

- Problems after launching the portal:
 - If you cannot access the portal with any user other than *SAP** (the default user created during installation), check the LDAP connection details in the user management configuration that you have created and used after installation.
 - If the portal is launched but provides an empty screen, do one of the following:
 - Verify that the user with which you have logged on has been assigned with a role, and that content is defined for that role.
 - Verify that the deployment log files do not contain any errors. See [Checking the Portal Deployment Log Files \[Page 63\]](#).



Portal System Information

This section provides information that may be required for further use or for maintenance purposes. The topics covered in this section are:

- Path to portal file system
- Portal file system user permissions
- Calculating the SAP J2EE Engine's P4 Port Number

Path to Portal File System

UNIX Installation

The portal installation creates the following path on your machine:

```
/usr/sap/<SAP J2EE instance name>/j2ee/j2ee_<instance number>/...
```

Windows Installation

The portal installation creates the following path on your machine:

```
<Installation drive>\usr\sap\<SAP J2EE instance name>j2ee\j2ee_<instance number>\...
```

File System User Permissions

UNIX Installation

The portal installation creates a SAP J2EE user with the following credentials:

- User Name ***j2eeadm***
- Password ***j2eeadm***



If the user *j2eeadm* already exists, the portal uses it for the installation.

Windows Installation

During installation, full control permissions to the portal file system are granted to a group created by SAPinst and to the local admin groups. The groups are:

- *SAP_<instance name>_LocalAdmin*
- *Local Administrators* group
- *Local System* group

During installation, you are required to specify a user to be associated with this group. The user you indicate can be either the one who installs the portal or a user that you specify during installation.



To facilitate clustered portal management on the domain level, for clustered portal environment it is strongly recommended that the user with permissions to the portal file system is a domain user.

Calculating the SAP J2EE Engine's P4 Port Number

The P4 port number is used to connect to the SAP J2EE Engine with the SAP J2EE Engine Administrator. The P4 port number is based on the number of the SAP J2EE instance on which you have installed the portal, according to the following formula:

$$\text{P4 Port} = 50,000 + (100 * \text{instance number}) + 4$$



If the SAP J2EE is installed with instance number 01,

$$\text{P4 Port} = 50,000 + (100 * 1) + 4 = \mathbf{50104}$$



Checking the Installation Completion

Use

Check the SAP J2EE log files to find out whether the installation has definitely finished.

Procedure

1. Switch to the following directory on the portal server:

Unix

```
/usr/sap/<SAP J2EE instance name>/j2ee/j2ee_<instance number>/cluster/server/managers/console_logs
```

Windows

```
\<J2EE_dir>\cluster\server\managers\console_logs
```

2. Open the following files with the most recent date:

- *<yy_mm_dd>_at_<hh_mm_ss>_error.log*
- *<yy_mm_dd>_at_<hh_mm_ss>_output.log*

Where *<yy_mm_dd>* is the creation date and *<hh_mm_ss>* is the creation time. For example: 2003_01_07_at_12_45_55_error.log.

Unix only:

You can monitor the progress of the installation on the console. To do this, open a new console with the user `j2eeadm` and open the files with the `tail` command. For example:

```
tail -f <yy_mm_dd>_at_<hh_mm_ss>_error.log
```

3. Check the end of the log files for the entries that indicate that the installation has completed. The `error.log` must contain the line `Portal initialization done.`
4. The `output.log` must contain the line `Starting service servlet_jsp ... done.`
5. Run the Analyzer to verify the log files deployment. To do so, follow the instruction in [Checking the Portal Deployment Log Files \[Page 63\]](#).
6. If you have installed CM and Collaboration, perform the CM deployment check. See [Checking the Content Management Deployment \[Page 64\]](#).



Checking the Portal Deployment Log Files

Use

If the portal fails to launch after installation, check the installation log files to see what can be fixed.

Prerequisites

You have installed the Portal Platform.

Procedure

To verify the portal deployment:

1. Launch the Analyzer. To do so, go to the folder ANALYZER on the Enterprise Portal installation CD and run `prerequisite.bat` for Windows, or `prerequisite` for UNIX.
2. In the test selection pane of the analyzer, select *Files > Backup Files*.
3. From the Action menu, select Analyze. The test programs are executed. If problems occur, use the Fix option from the right-click menu to solve it.

To learn more about the Analyzer, see [Verify Installation Readiness with the System Analyzer \[Page 23\]](#).

Alternatively,

1. Open a new console with the user `j2eeadm`.
2. Go to the following directories:
 - `/usr/sap/<SAP J2EE instance name>/j2ee/j2ee_<instance number>/cluster/server/services/servlet_jsp/work/jspTemp/irj/root/WEB-INF/deployment/`
 - `/usr/sap/<SAP J2EE instance name>/j2ee/j2ee_<instance number>/cluster/server/services/servlet_jsp/work/jspTemp/irj/root/WEB-INF/deployment/pcd`
 - `/usr/sap/<SAP J2EE instance name>/j2ee/j2ee_<instance number>/cluster/server/services/servlet_jsp/work/jspTemp/irj/root/WEB-INF/deployment/pcdContent`
3. Look for files with the extension `*.err`

4. Do one of the following
 - If error and log files do not appear, then the portal installation has been completed successfully.
 - If such files appear, check the log files and try to solve the problem indicated. If the problem(s) persist, contact your local support center/software supplier.



Checking the Content Management Deployment

Use

If the portal does not start up after the Content Management (CM) installation or you notice errors in the CM component monitor, then check the deployment. To check the deployment, examine both the application and content files.

Procedure

1. Switch to the directory that contains the deployment files for the Content Management and Collaboration applications:

Unix

```
/usr/sap/<SAP J2EE instance name>/j2ee/j2ee_<instance
number>/cluster/server/services/servlet_jsp/work/
jspTemp/irj/root/WEB-INF/deployment/pcd
```

Windows

```
<installation drive>:\usr\sap\<SAP J2EE instance
name>\j2ee\j2ee_<instance
number>\cluster\server\services\servlet_jsp\work\
jspTemp\irj\root\WEB-INF\deployment\pcd
```

2. Make sure that all the files called `com.sap.km*`, `com.sap.workflow` and `com.sap.netweaver*` have the ending `par.bak`. The additional `bak` extension indicates that the deployment was carried out. If any files have the ending `.err` this indicates that the deployment was executed, but an error occurred. In this case, find out the reason for the error in the corresponding log file. This has the same name as the `.err` file, but a `.log` extension.

Also check the SAP J2EE log file. For more information, see [Checking the Portal Platform Installation Log Files \[Page 74\]](#).

3. Switch to the directory that contains the files for the deployment of CM and Collaboration content:

Unix

```
/usr/sap/<SAP J2EE instance name>/j2ee/j2ee_<instance
number>cluster/server/services/servlet_jsp/work/jspTemp/
irj/root/WEB-INF/deployment/pcdContent
```

Windows

```
<installation drive>:\usr\sap\<SAP J2EE instance
name>\j2ee\j2ee_<instance
number>cluster\server\services\servlet_jsp\work\jspTemp\
irj\root\WEB-INF\deployment\pcdContent
```

4. Make sure that all the files called `com.sap.km*` have the ending `epi.bak`. The additional `.bak` extension indicates that the deployment was executed.

If any of the `com.sap.km*` files have the ending `.err`, check the corresponding `.log` file to find out what caused the error. Also check the SAP J2EE log files mentioned earlier.



Troubleshooting the SAPinst Installation

Use

If the SAPinst installation is interrupted, try the following procedures.

Procedure

If the CD Browser dialog appeared, see [Handling the CD Browser Dialog \[Page 66\]](#).

1. If an error occurs during the **dialog phase**, SAPinst:

- stops the installation
- displays a dialog that informs you about the error

You can now directly view the log file by choosing *View Logs*.

- *If the problem has to do with the system (for example: "Unable to create pipe, bad file number", ask the UNIX system administrator to try to solve the problem by changing relevant Kernel settings.*

Finally, you must abort the installation with *OK*, and try to solve the problem.

2. If an error occurs during the **processing phase**, SAPinst:

- stops the installation
- displays a dialog that informs you about the error

You can now:

- directly view the log file by choosing *View Logs*.
 - *If the problem has to do with the system (for example: "Unable to create pipe, bad file number", ask the UNIX system administrator to try to solve the problem by changing relevant Kernel settings.*
- try to solve the problem (see SAPinst Troubleshooting Guide at: <http://service.sap.com/sapinstfeedback>).
- **Windows only:** If SAPINST aborts while creating the local group on, see [SAPinst Aborts While Creating the Local Group \[Page 67\]](#).
- continue the installation by choosing *Retry*.
- abort the installation by choosing *OK*.

3. After solving the problem, see: [Continuing an Interrupted Installation \[Page 67\]](#).



Handling the CD Browser Dialog

The following tells you how to handle the CD Browser dialog.

SAPinst displays this window in following situations:

1. SAPinst wants to check the availability of the software package.

You can recognize this situation by the flag *Check Location* displayed on the CD Browser window.

Choose one of the following actions:

Action	Result
You do not enter any <i>Package Location</i> and leave the flag <i>Check Location</i> deselected.	SAPinst skips the check and you can continue the installation procedure. However, SAPinst asks later for the missing LABEL.ASC (see step 2 below).
You enter the path of the <i>Package Location</i> and leave the flag <i>Check Location</i> deselected.	SAPinst skips checking the label location, but your entered package locations are used later for the installation. SAPinst only asks again for a missing LABEL.ASC if the package location is incorrect (see step 2 below).
You enter the path of the <i>Package Location</i> and select the flag <i>Check Package Location</i>	SAPinst checks the label location and displays an error message if the location is incorrect. If all locations are correct, SAPinst does not ask again for the LABEL.ASC files later.

2. SAPinst cannot find the correct LABEL.ASC but needs the location of the software to process the installation now.

You can recognize this situation by the missing flag *Check Location* on the CD Browser window. You now have to enter the path to the correct LABEL.ASC. Otherwise, the installation cannot continue.

Additionally, you can copy the installation package by entering a location in the column *Copy Package to*.



SAPINST Aborts While Creating the Local Group

Use

If SAPinst stops during installation, with the error described below, use the workaround in this section to solve the problem and continue.

This procedure is relevant for Windows platform only.

Symptom

SAPINST aborts while creating the local group on Windows2000. The creation of the local group actually succeeded, but adding the selected windows user account fails. This effect was only observed when using local user but not with domain users.

The log file *sapinst_dev.log* shows the following warning:

```
WARNING      2003-10-30 15:58:35 [iaxxcctrl.cpp:478]
CController::stepExecuted()
The step createWindowsLocalAdminGroup with step key
EP60|ind|ind|ind|EP60|ind|0|EP_MAIN|ind|ind|ind|EP60|ind|0|
createWindowsLocalAdminGroup executed with status ERROR.
```

Solution

1. Add the local user to the local administrator group manually.
2. Restart SAPinst. the installation will continue from the place where it stopped.



Continuing an Interrupted Installation

Use

As SAPInst does not abort the installation in error situations, you can continue an interrupted installation in the following situations:

- You have **not** canceled the installation
- You have **already** canceled the installation

Prerequisites

You solved the problem that caused the error situation.

Procedure

- You have **not** canceled the installation

That is, the error dialog box is still displayed and SAPInst is waiting for your input. Proceed as follows:

In the error dialog box, choose *Retry*.

SAPInst now retries the installation step.

- You have **already** canceled the installation

That is, the installation was aborted and now you want to continue it. Since SAPInst records the installation progress in the `keydb.xml` file, it can continue the installation from the failed step without repeating previous steps.

You have two alternatives:

- Continuing the installation
- Starting from the beginning, that is, starting the installation with the default `keydb.xml` file as delivered

These two alternatives are described below.



In some cases, you must uninstall already installed components, before repeating the installation from the beginning. For example, this applies to an SAP system installation. For more information, see the uninstallation description in the corresponding installation guide.



How to Proceed on UNIX

Procedure - Continuing the Installation

1. Make sure that there are no java processes running SAPinst Gui. To obtain a list of java processes, enter the following command:

```
ps -ef | grep java
```

You can identify running SAPinst GUI java processes in the command line substring "...java -cp JAR/instgui.jar..." of the output.

2. Make sure that all environment variables are set as described in the corresponding installation documentation.
3. Start SAPinst from your <SAPinst_INSTDIR> with:

```
./sapinst
```

Procedure - Starting from the Beginning

You have the following alternatives

- Restart the installation from installation CD
Start SAPinst from CD again as described in the corresponding installation documentation.
SAPinst deletes all files in your installation directory and asks you if you want to overwrite any existing installation directory.
- To reset the installation and start from the beginning, prepare the new installation manually (installation CD is not needed).

from your <SAPinst_INSTDIR>, run the following command:

```
/newinstall
```



The old log files will be saved in the subdirectory:
<SAPinst_INSTDIR>/log_<timestamp>



Verifying the SAP J2EE Engine Operation

Use

If you cannot log on to the portal after installation, verify that the SAP J2EE Engine is up and running. If it has not been started, start it and then log on to the portal again.

For information on configuring the portal settings in SAP J2EE Engine, refer to [Portal System Information \[Page 61\]](#).



If SAP J2EE Engine is already running, SAPinst automatically stops and restarts the existing SAP J2EE Engine during installation of the portal.

Procedure

To verify that SAP J2EE Engine is running:

- Verify that all related java processes are running. To do so, run the following command:

```
ps -ef | grep java
```
- Verify that there are two instances of the user *j2eeadm*; one for the dispatcher and the other for the server.
 - If there are two instances, then the SAP J2EE Engine is up and running. In this case, if the portal cannot be launched, do the following:
 - Stop the SAP J2EE Engine. See [Stopping the SAP J2EE Engine \[Page 71\]](#).
 - Start it again. See [Starting the SAP J2EE Engine \[Page 72\]](#).
 - Try to launch the portal.
 - If the two instances of the user *j2eeadm* do not exist, start the SAP J2EE Engine. See [Starting the SAP J2EE Engine \[Page 72\]](#).

Result

The SAP J2EE Engine has started. The portal can be launched.



Stopping the SAP J2EE Engine

Prerequisites

You have installed the portal platform.

The SAP J2EE Engine is not in use by any application.

Procedure

To stop the SAP J2EE engine use one of the following methods:

- Log on to the SAP J2EE Engine using the *SAP J2EE Engine Administrator*. Select the cluster node and, from the button toolbar, choose the *shutdown* symbol, to shutdown the whole engine (dispatcher and all local server nodes).
- From the dispatcher console on which you started the SAP J2EE Engine, stop the processes using the following command:

```
shutdown
```

- Stop the SAP J2EE Engine using telnet, as follows:

- a. Logon via telnet using the following command:

```
telnet <j2ee_host_name> <j2ee_telnet_port>
```

The SAP J2EE Engine telnet port can be determined by the following formula:

$$50000 + (100 * \text{<j2ee_instance_number>}) + 8$$

- b. When the SAP J2EE Engine Telnet welcome screen is displayed, logon with the J2EE Engine administrator account and type:

```
shutdown 0
```



If the console is unknown, or if you cannot use the SAP J2EE Administrator, you can terminate all SAP J2EE Engine processes using the process numbers that belong to the user *j2eeadm*, running the following command for each of the processes. Keep in mind that this performs a hard kill of the SAP J2EE Engine processes and should be used in critical cases only:

```
kill <process number>
```

If the process is still active, use the command:

```
kill -9 <process number>
```

Result

The SAP J2EE Engine is stopped.



Starting the SAP J2EE Engine

Procedure

To start the SAP J2EE engine on UNIX:

1. Open a new console with the user `j2eeadm`.
2. Go to the following directory:
`/usr/sap/<SAP J2EE instance name>/j2ee/j2ee_<instance number>/cluster/dispatcher`
3. Type the following command:
`./go`



Running this command from the directory mentioned above launches the dispatcher console and starts the cluster server.

4. Wait for a server element to join the cluster. When it does, the following message appears:
`Element <server ID> joined.`

To start the SAP J2EE engine on Windows:

1. Go to the following directory:
`<portal installation drive>:\usr\sap\<SAP J2EE instance name>\j2ee\j2ee_<instance number>\cluster\dispatcher`
2. Double-click to run the following file:
`go.bat`
This command starts the dispatcher and launches the SAP J2EE server.
3. Wait for a server element to join the cluster. When it does, the following message appears in the CMD window:
`Element <server ID> joined.`

Result

The SAP J2EE Engine is running.



Verifying the SAP J2EE Server Response

Use

If the portal URL returns errors, and nothing is launched, verify that the SAP J2EE server is up and running.

Procedure

1. In the internet browser, enter the following URL:
http://<fully qualified portal machine name>:port
 - a. If the Documentation Start page of the SAP J2EE Engine appears, it means that the SAP J2EE Engine installation is OK but the irj deployment is not. See [Checking the Portal Platform Installation Log Files \[Page 74\]](#) and [Checking the Portal Deployment Log Files \[Page 63\]](#).
 - b. If an error message is displayed, it means that the SAP J2EE Engine is not working.
 - i. Try to restart it. See [Verifying the SAP J2EE Engine Operation \[Page 70\]](#).
 - ii. If the error recurs, contact your local support center/software supplier.



Verifying Connection to Database

Use

If the SAP J2EE Engine is responding but the portal does not launch, check the connection to the database.

Procedure

1. Launch the Analyzer. To do so, go to the folder ANALYZER on the Enterprise Portal installation CD and run *prerequisite.bat* for Windows, or *prerequisite* for UNIX.
2. In the test selection pane of the analyzer, select *Database > Check if DBPOOL is running*.
3. From the Action menu, select Analyze. The test program is executed. If problems occur, use the Fix option from the right-click menu to solve it.

To learn more about the Analyzer, see [Verify Installation Readiness with the System Analyzer \[Page 23\]](#).

Alternatively,

1. Launch the SAP J2EE Admin tool.
2. Access the parameter *dbpool*.
3. Click the parameter *sapew*.
4. On the right hand-side, verify the database connection fields.
 - a. If you find wrong entries:
 - i. Fix wrong values.
 - ii. Try to launch the portal again.

5. If the connection details are correct, check the portal databases (default names are *pcd* and *ume*) on the Oracle database server.



Checking the Portal Platform Installation Log Files

Use

If the portal fails to launch after installation, check the installation log files to see what can be fixed.

Prerequisites

You have installed the Portal Platform.

Procedure

To view the Portal Platform installation log files:

1. Launch the Analyzer. To do so, go to the folder ANALYZER on the Enterprise Portal installation CD and run *prerequisite.bat* for Windows, or *prerequisite* for UNIX.
2. In the test selection pane of the analyzer, select *Info > Server log, dispatcher log, portal log*.
3. From the Action menu, select Analyze. The test programs are executed. If problems occur, use the Fix option from the right-click menu to solve it.

To learn more about the Analyzer, see [Verify Installation Readiness with the System Analyzer \[Page 23\]](#).

Alternatively,

1. Open a new console with the user *j2eeadm*.
2. Go to the following directory:

```
/usr/sap/<SAP J2EE instance name>/j2ee/j2ee_<instance number>/cluster/dispatcher/managers/console_logs/
```
3. Open the following files:
 - `<yy_mm_dd>_at_<hh_mm_ss>_error.log`
 - `< yy_mm_dd >_at_<hh_mm_ss>_output.log`

Where `< yy_mm_dd >` is the creation date and `< hh_mm_ss >` is the creation time. For example: `2003_01_07_at_12_45_55_error.log`

4. Check the files.
 - If the files do not indicate any errors, then the portal installation has been completed successfully.
 - If errors appear, try to solve them, then start the SAP J2EE Engine. See [Starting the SAP J2EE Engine \[Page 72\]](#). If the problem(s) persist, contact your local support center/software supplier.



Uninstalling

What is Uninstalled

This section provides information on how to uninstall the portal platform. CM, installed on top of the portal platform, is automatically removed upon uninstalling the portal.

The initial portal is the hub for a portal cluster. When it is uninstalled, the rest the portals in the cluster are no longer functional. Therefore, it is important to first uninstall the portal from each clustered machine and then to uninstall it from the initial machine.

Prerequisites

- Make sure that no users are engaged with the portal.
- Make sure that you have prepared a backup of your content.
- Make sure that you have uninstalled the portal from all cluster machines.

Procedure

To uninstall the portal platform and its applications:

1. Shut down the SAP J2EE Engine. See [Stopping the SAP J2EE Engine \[Page 71\]](#).



Make sure all related processes disappeared.

2. Delete the portal directory that was created during installation:
`.../usr/sap/<SYSTEM_NAME>/`
3. On the database server machine, delete the portal instance. To do so, see instructions in the document *SAP Enterprise Portal Installation Guide* → *Installing Oracle 9.2.0 Database Server for Enterprise Portal 6.0*.