

Post-Installation Guide



System Landscape Directory of SAP NetWeaver 2004s

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Documentation on SAP Service Marketplace

You can find this documentation at
service.sap.com/instguidesNW2004s

Typographic Conventions

Icons

Type Style	Represents	Icon	Meaning
<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.		Caution
	Cross-references to other documentation.		Example
Example text	Emphasized words or phrases in body text, graphic titles, and table titles.		Note
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.		Recommendation
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.		Syntax
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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1 Post-Installation Guide System Landscape Directory of SAP NetWeaver 2004s

Purpose

The System Landscape Directory (SLD), a component of SAP NetWeaver, is the central directory of system landscape information that is relevant to your software lifecycle management.



Bear in mind that the abbreviation SLD is not intended to define a product, since the System Landscape Directory is part of SAP NetWeaver. This abbreviation is only intended to improve readability.

SLD contains a description of your system landscape (that is, the software components that are actually installed) and a repository of software components that can theoretically be installed in your landscape (such as the software components that are available from SAP). Since the data about your system landscape is updated automatically, SLD always provides you with reliable and up-to-date information. Thus, SLD is a central information provider for SAP and third-party tools that use this data to deliver the services that you need to keep your landscape up and running.

SLD is part of the installation of every SAP NetWeaver 2004s system with usage type Application Server Java (AS Java). If you want to activate SLD in a system with usage type AS Java, no further installation is required. You only have to perform the configuration of the SLD server side and the configuration of the SLD security roles as described in this Post-Installation Guide.



For newer SAP products, the initial configuration of SLD can also be performed during the installation of SAP systems with usage type AS Java. For more information, see service.sap.com/instguidesnw2004s → *Installation Guide – SAP NetWeaver 2004s*.

For every system in your landscape that reports data to SLD, you have to configure a corresponding SLD data supplier. For more information about the configuration of the SLD data suppliers and the SLD ABAP API, see service.sap.com/sld → *Media Library* → *SLD User Manual SAP NetWeaver 2004s* → *Configuring Systems to Connect to SLD*.



For newer SAP products, the configuration of the SLD data suppliers can also be performed during the installation of SAP systems. For more information, see service.sap.com/instguidesnw2004s → *Installation Guide – SAP NetWeaver 2004s*.

2 Post-Installation Checklist

Purpose

Use the table below as a checklist for the configuration activities you have to perform on the SLD server side before you start working with SLD.

Process Flow

Activities on the SLD Server Side

✔	Activity
☐	<p>Changing the JVM max heap size of all server processes:</p> <p>The SLD server requires JVM max heap size of at least 512 MB. You can set the value using the J2EE Engine Config Tool.</p> <p>For more information, see Changing the JVM Max Heap Size [Page 4].</p>
☐	<p>Configuring SLD security roles – Assigning SLD security roles and actions to users or user groups:</p> <ol style="list-style-type: none"> 1. Configure the SLD security roles using the User Management Administration Console. 2. Start the J2EE Engine Visual Administrator. 3. To apply the standard SLD role mapping, choose <i>Cluster</i> → <i>Server</i> → <i>Services</i> → <i>SLD Data Supplier</i>. <p>For more information, see Configuring SLD Security Roles [Page 5].</p>
☐	<p>Configuring the server parameters – Starting the SLD server:</p> <div style="text-align: center;">  </div> <p>If you have already performed the initial configuration of SLD as part of the AS Java system installation, ignore the steps below.</p> <ol style="list-style-type: none"> 1. In your Web browser, enter the URL of the SLD using the following pattern: <code>http://<host>:<port>/sld</code>. 2. Choose <i>Administration</i> → <i>Profile</i>. 3. From the <i>Section</i> dropdown box, select <i>Server Settings</i> and enter a name for the Object Server. Preferably use a prefix that has been reserved on SAP Service Marketplace as an Object Server name. 4. If you have multiple server processes, from the <i>Section</i> dropdown box, select <i>ObjectManager</i> and set the <code>BufferInstances</code> profile parameter to <code>false</code> (the default value is <code>true</code>). 5. Start the SLD server. <p>For more information, see Configuring Server and Persistence Parameters [Page 8].</p>

<input type="checkbox"/>	<p>Performing initial data import:</p> <p></p> <p>If you have already performed the initial configuration of SLD as part of the AS Java system installation, ignore the steps below.</p> <p>On the SLD home page, choose <i>Administration</i> → <i>Import</i>.</p> <p>For more information, see Performing Initial Data Import [Page 11].</p>
<input type="checkbox"/>	<p>Configuring the SLD Bridge:</p> <p></p> <p>If you already performed the initial configuration of SLD as part of the AS Java system installation, ignore the steps below.</p> <ol style="list-style-type: none">1. On the SLD home page, choose <i>Administration</i> → <i>Profile</i>.2. From the <i>Section</i> dropdown box, select <i>datasupplier</i> and enter a gateway host and a name of the gateway service. If you have a standalone installation of AS Java, a standalone SAP gateway must be installed first from the Presentation DVD. <p>For more information, see Configuring the SLD Bridge [Page 13].</p>

2.1 Changing the JVM Max Heap Size

Use

Use this procedure to change the JVM max heap size of an instance of the J2EE Engine to 512 MB.



The value of 512 MB applies only to a scenario in which the SLD server runs as the single application in the relevant J2EE Engine. If you run multiple applications in the same J2EE Engine, extend the value appropriately.

Procedure

1. In the Config Tool, select *Servers General*.
2. In the *Java settings* pane, set the value of the *Max heap size* property to **512**.
3. Choose *File* → *Apply*.
4. Restart the J2EE Engine.

2.2 Configuring SLD Security Roles

Use

The SLD functions are protected from unauthorized access. There are several J2EE security roles and corresponding User Management Engine (UME) actions that are assigned to different SLD functions.



There is no corresponding UME action for the DataSupplierLD J2EE security role.

J2EE Security Roles and UME Actions	Permissions
LcrUser	Read access to SLD data.
LcrSupport	Read-only access to all SLD data and UI, including the Administration area (used for SAP support).
LcrClassWriter	Create, modify and delete CIM classes (includes the LcrUser role).
LcrInstanceWriterLD	Create, modify and delete CIM instances of the Landscape Description subset (includes the LcrUser role).
DataSupplierLD J2EE security role with no corresponding UME action	Create, modify and delete CIM instances of the Landscape Description subset as a data supplier without access to the SLD UI.
LcrInstanceWriterCR	Create, modify and delete CIM instances of the Component Information subset (includes the LcrUser role).
LcrInstanceWriterNR	Create, modify and delete CIM instances of the Name Reservation subset (includes the LcrUser role).
LcrInstanceWriterAll	Create, modify and delete all types of CIM instances (includes the LcrUser, LcrInstanceWriterCR, LcrInstanceWriterLD, and LcrInstanceWriterNR roles).
LcrAdministrator	Administrative tasks (includes all other roles).

Before you can use the SLD, you have to map these security roles and actions to individual users or user groups.



We recommend that you create user groups and map them to the appropriate security roles and actions instead of assigning them to individual users.

Users that belong to a particular group receives all permissions that are granted to the group. We recommend that you use the following user groups with the corresponding role assignment:

User Group	Assigned Security Role
------------	------------------------

SAP_SLD_GUEST	LcrUser
SAP_SLD_DEVELOPER	LcrInstanceWriterNR
SAP_SLD_CONFIGURATOR	LcrInstanceWriterLD and LcrInstanceWriterNR
SAP_SLD_ORGANIZER	LcrInstanceWriterAll
SAP_SLD_ADMINISTRATOR	LcrAdministrator
SAP_SLD_DATA_SUPPLIER	DataSupplierLD
SAP_SLD_SUPPORT	LcrSupport

You have to create these groups with the appropriate tool for your user store (J2EE, ABAP or LDAP). If the UME is used with an ABAP-based system as the back-end user storage, these groups already exist except for SAP_SLD_DATA_SUPPLIER and SAP_SLD_SUPPORT. (ABAP user roles appear as user groups on the J2EE side. SAP Web AS ABAP 6.40 and above contains these default user roles.)

If these groups exist, you can perform the mappings that are defined in the table above.



If you want to set up SLD security for test purposes, you only have to map the LcrAdministrator role to the SAP_SLD_ADMINISTRATOR group and assign an administrator user to this group.

Procedure

1. In your Web browser, enter the URL of the Identity Management using the following pattern: **http://<host>:<port>/useradmin**.
2. Create UME roles and assign to them the corresponding UME actions.



The UME actions are already defined in the UME.



We recommend that you define these roles with the same name as the corresponding J2EE role. Associate each role with the corresponding UME action, for example the LcrUser role with the LcrUser action.

3. Create user groups and assign each new UME role to the appropriate user group as defined in the table above. For example, assign the SAP_SLD_GUEST group to the LcrUser UME role.
4. Assign users to the user groups.
5. Log on to the J2EE Engine Visual Administrator as an administrator.
6. Choose *Services* → *SLD Data Supplier*.
7. Choose  *Assign User Groups to Roles*.

The SLD configuration service performs the default mappings of user groups to J2EE security roles.

For more information about managing security roles, see [Managing Users, Groups, and Roles \[External\]](#).

2.3 Launching the SLD

Use

SLD is a Web application. You can access it from your Web browser.

Prerequisites

You have a user assigned to a particular security role. For example, to access the Administration area, you require a user assigned to the LcrAdministrator role. The standard role mapping provides this security role to the J2EE Engine administrator user. If you do not have a user assigned to a role, contact your system administrator.

Procedure

1. In your Web browser, enter the URL of the SLD using the following pattern:
http://<host>:<port>/sld, where **host** is the host name or the IP address of the host and **port** is the HTTP service port. By default, the port number is **<5xx00>**, where **<xx>** is the instance number of the J2EE Engine.
2. Enter your *User ID* and *Password* and choose *Logon*.

2.4 Configuring Server and Persistence Parameters

Use

Use this procedure to configure the SLD server and persistence parameters. The SLD server supports two ways of saving data:

- Database persistence
- File system persistence.



We recommend that you use database persistence. File system persistence is useful for local test purposes only.

Prerequisites

- You have a user assigned to the LcrAdministrator role.
- You have stopped the SLD server.

Procedure

1. Choose *Administration* → *Profile*.
2. From the *Section* dropdown box, select *Server Settings*.

Configuring Server Parameters

3. Enter the name of the object server.



Make sure that the object server name is unique within your system landscape or even globally. The value of the parameter must be equal to an ABAP namespace (without the enclosing slashes) that is reserved on SAP Service Marketplace at service.sap.com/namespaces. If you do not have an ABAP namespace, enter the name of the host where your SLD is running.

If SLD acts as:

- A landscape directory in your system landscape, the name of the host where your SLD is running is sufficient.
- A name server for the SAP NetWeaver Development Infrastructure, the name must be reserved on SAP Service Marketplace. For more information, see SAP Notes 105132 and 710315.

Configuring Persistence Parameters

4. To store data in the database, from the *Persistence Type* dropdown box, select *Database*.
5. To store data in the file system, from the *Persistence Type* dropdown box, select *Filesystem*.
6. Choose *Save*.

2.5 Fine Tuning the SLD Server

Use

You can fine tune the SLD server by changing the server parameters. The configuration of the server parameters is called a system profile. When you start the SLD server for the first time, the system profile is automatically uploaded. This system profile contains the default server parameters. However, you can:

- Change the system profile online in the SLD UI
- Download the system profile, change it offline, and upload it back to the SLD server.



The default system profile is located in the `sldprofile.xml` file in the following directory (on Microsoft Windows):

`<Drive>:\usr\sap\<SID>\SYS\global\sld`. You can upload the configuration file to the SLD server directly as an XML or a ZIP file.



We recommend that you use the default server parameters, except in the following case: if you run the SLD server on more than one J2EE Engine instances or nodes, in the *ObjectManager* section, set the `BufferInstances` parameter to `false`.



The changes to the system profile take effect only after you restart the SLD server.

Prerequisites

You have a user assigned to the LcrAdministrator role.

Procedure

Changing a System Profile

To change the system profile online:

1. Choose *Administration* → *Profile*.
The *Profile* screen appears.
2. Change the server parameters and choose *Save*.
3. If you want to discard the changes you have made, choose *Reset to Defaults*.
The server parameters are reset to the default ones.

Downloading and Uploading a System Profile

To change the system profile offline:

1. Choose *Administration* → *Profile*.
The *Profile* screen appears.

2. Choose *Download* → *Download Profile*.
3. Choose *Save This File to Disk*, enter a file name and browse to the directory where you want to save the configuration file.

You can change the server parameters offline in the configuration file.

4. To upload the configuration file back to the server, choose *Administration* → *Profile*.
5. Choose *Upload*.
The *Profile Upload* screen appears.
6. Browse to the configuration file and then choose *Upload*.

2.6 Performing Initial Data Import

Use

The SLD server implements the Common Information Model (CIM) of the Distributed Management Task Force (see www.dmtf.org). The SAP CIM model and SAP component information (`CR_Content.zip`) are automatically imported when the SLD is started for the first time during installation. Use this procedure if you want to import a different CIM model or to import the CR content files after the installation.

The CIM model and CR content files are located in the `<Drive>:\usr\sap\<SID>\SYS\global\sls\model` directory.



Since the `CR_Content.zip` file contains all SAP components that are available, the content of this file increases over time to include information about new components, for example, new releases and support packages. You have to update the content in the SLD from time to time. You can download the most up-to-date files on SAP Service Marketplace at service.sap.com. For more information, see SAP Note 669669.

Prerequisites

- The CIM model and CR content files must be either XML files or compressed XML files in ZIP format.
- You have set the heap size for all nodes to 512 MB using the J2EE Engine Config Tool.

Procedure

1. Choose *Administration* → *Import*.
The *Import* screen appears.
2. To import the following file (Microsoft Windows):
`<Drive>:\usr\sap\<SID>\SYS\global\sls\model\CR_Content.zip`, choose *Import CR Content*, and then choose *Continue Import*.
3. To import a different file, choose *Browse*, navigate to the file you want to import, and then choose *Import Selected File*.



Objects that already exist in the system are automatically overwritten.



If the import has been interrupted due to insufficient memory (for instance, the Java VM runs out of memory), you have to increase the heap size of the Java VM and restart the J2EE Engine. To have the complete data, you have to import the `CR_Content.zip` file again. You can ignore the warning about a non-fitting content update.

4. If you do not want to import the content into the current namespace, you can change the namespace.

Result

After you have triggered the import, the *Administration* screen appears. The status bar shows the status of the import.

2.7 Configuring the SLD Bridge

Use

To receive data that is automatically reported and sent by the SLD data suppliers that run on individual systems, you have to configure and start the SLD bridge. The SLD bridge converts the system data that is sent by the SLD data suppliers to the SLD server into a CIM-compliant format.

The data between the SLD data suppliers of ABAP-based systems and the SLD bridge is exchanged by means of an RFC connection. Therefore, you have to configure an SAP gateway service. We recommend that you use a local gateway. If you have a standalone installation of AS Java and if no local gateway is available, install a standalone gateway with an instance number from the Presentation DVD. Choose an instance number for the gateway that has not been used on your computer so far.

The configuration of the SLD bridge can also be performed during installation. Use this procedure if you want to change the configuration.

Procedure

1. Choose *Administration* → *Data Suppliers*.
2. If you want the SLD data supplier bridge to forward system data that is received from data suppliers to the default `sld/active` namespace of this SLD server, set the `Update Local Namespaces` parameter for `sld/active` to `true`.
3. Choose *Administration* → *Profile*.
4. From the *Section* dropdown box, select *datasupplier*.
5. Enter SAP gateway host and gateway service.



The changes to the gateway service take effect only after you restart the SLD server.



One SAP gateway server must be linked only to one SLD server as a data receiver. Sharing one SAP gateway server for multiple SLD servers leads to errors.



Make sure that you have set up correctly the SLD data suppliers in the systems that have to report system data automatically. For more information, see *SAP Service Marketplace* at service.sap.com/sld → *Media Library* → *SLD User Manual SAP NetWeaver 2004s* → *Configuring Systems to Connect to SLD*.

6. If you want the SLD bridge to send data to multiple SLD servers, choose *Administration* → *Data Suppliers* → *Add SLD*.
7. Enter the URL and logon data of the SLD server you want to add and choose *Save*.

3 Additional Information on SAP Service Marketplace

For more information about SLD, see SAP Service Marketplace at:

URL	Title
service.sap.com/notes	SAP Note 105132 SAP Note 710315 SAP Note 669669 SAP Note 712594
service.sap.com/sld → <i>Media Library</i>	Planning Guide – System Landscape Directory SLD User Manual SAP NetWeaver 2004s