Post-Installation Guide
System Landscape Directory

SAP NetWeaver 7.1 SPS 5

Copyright

Icons in Body Text

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

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

Typographic Conventions

Type Style	Description
Example text	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`.

Post-Installation Guide System Landscape Directory of SAP NetWeaver 7.0

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.

The SLD contains a description of your system landscape (the software components that are actually installed) and a repository of software components that you can theoretically install in your landscape (such as the software components that are available from SAP). Since the data about your system landscape is updated automatically, the SLD always provides you with reliable and up-to-date information. Thus, the 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.

The SLD is part of the installation of every SAP NetWeaver 7.0 system with usage type Application Server Java (AS Java). If you want to activate the 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, you can also perform the initial configuration of SLD during the installation of SAP systems with usage type AS Java. For more information, see *Installation Guide – SAP NetWeaver 7.0* at **`http://service.sap.com/instguidesnw70`**.

For each system in your landscape that reports data to the 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 the *User Manual – SLD of SAP NetWeaver 7.0* at **`http://www.sdn.sap.com/irj/sdn/nw-sld`**.

For newer SAP products, you can also perform the configuration of the SLD data suppliers during the installation of SAP systems. For more information, see *Installation Guide – SAP NetWeaver 7.0* at **`http://service.sap.com/instguidesnw70`**.

Post-Installation Checklist

Purpose

Use the table below as a checklist for the configuration steps you have to perform after you have installed AS Java.

All necessary configuration phases on the SLD server side are listed in the table. Use the links to the general descriptions of the actions and to any additional information to help you perform the actions. This prevents you missing important information.

Process Flow

Activities on the SLD Server Side

✔	Activity
☐	**Configuration of SLD security – Assigning SLD security roles and actions to users and user groups:** 1. Open the SLD home page **`http://<host>:<port>/sld`** in a Web browser. 2. Navigate to *Administration* → *Settings to apply the standard SLD role mapping*. More information: Configuring SLD Security Roles [page 7]
☐	**Configuring the server parameters – Starting the SLD server:**  If you have already performed the initial configuration of SLD as part of the AS Java system installation, ignore the steps below. 1. Open the SLD home page **`http://<host>:<port>/sld`** in a web browser. 2. Choose *Administration* → *Settings* → *Server Settings*. 3. 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. Start the SLD server. More information: Configuring Server Parameters [page 10]
☐	**Performing initial data import:**  If you have already performed the initial configuration of SLD as part of the AS Java system installation, ignore the steps below. 1. On the SLD home page, choose *Administration* → *Import*. 2. Press *Import CR Content*. More information: Performing Initial Data Import [page 12]

☐	**Configuring the SLD Bridge:** If you have already performed the initial configuration of SLD as part of the AS Java system installation, ignore the steps below. You need to change these settings only if the RFC server configuration needs to be changed. To check the current settings on the SLD home page, choose *Administration* → *Details* → *Data Suppliers*. 1. On the SLD home page, choose *Administration* → *Settings* and from the *Section* field choose *datasupplier*. 2. Maintain the gateway host and a name of the gateway service. The SAP NetWeaver AS Java standalone includes a gateway on the Central Services Instance which is used if no gateway is configured explicitly. More information: Configuring the SLD Bridge [page 13]

Changing the JVM Max Heap Size

Use

Use this procedure to increase the JVM max heap size of a J2EE Engine instance to handle the needs of the SLD.

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

Prerequisites

The *Config* tool is started.

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 J2EE Engine.

Configuring SLD Security Roles

Use

The SLD functions are protected from unauthorized access. There are several AS Java security roles and User Management Engine (UME) actions that are assigned to different SLD functions. Before you can use SLD, you have to map these roles and actions to individual users or user groups.

The following table lists the SLD security roles together with their recommended SLD user group and UME role.

AS Java security Role	UME Action	User Group/UME Role
LcrUser	`LcrUser`	SAP_SLD_GUEST
LcrSupport	`LcrSupport`	SAP_SLD_SUPPORT
DataSupplierLD	No corresponding UME action.	SAP_SLD_DATA_SUPPLIER
LcrContentSync	`LcrContentSync`	SAP_SLD_CONTENT_SYNC
LcrInstanceWriterNR	`LcrInstanceWriterNR`	SAP_SLD_DEVELOPER
LcrInstanceWriterLD	`LcrInstanceWriterLD`	SAP_SLD_CONFIGURATOR
LcrInstanceWriterCR	`LcrInstanceWriterCR`	SAP_SLD_ORGANIZER
LcrInstanceWriterAll	`LcrInstanceWriterAll`	SAP_SLD_ORGANIZER
LcrClassWriter	`LcrClassWriter`	SAP_SLD_ADMINISTRATOR
LcrAdministrator	`LcrAdministrator`	SAP_SLD_ADMINISTRATOR

We recommend that you use user groups and map them to the appropriate UME roles and actions instead of assigning them to individual users. Users that belong to a particular group receive all permissions that are granted to the group.

We recommend that you use the following user groups that correspond to the following identically named UME roles:

UME Role / User Group	Permissions
SAP_SLD_GUEST	Read access to SLD data
SAP_SLD_SUPPORT	Read-only access to all SLD data and UI, including the Administration area (used for SAP support)
SAP_SLD_CONFIGURATOR	Create, modify and delete CIM instances of the Landscape Description and Name Reservation subsets (includes read permissions).
SAP_SLD_CONTENT_SYNC	Synchronize SLD content changes with other SLD CIM namespaces. Includes read access to the SLD UI.
SAP_SLD_DATA_SUPPLIER	Create, modify and delete CIM instances of the Landscape Description subset as a data supplier without access to the SLD UI.
SAP_SLD_DEVELOPER	Create, modify and delete CIM instances of the Name Reservation subset (includes read permissions).
SAP_SLD_ORGANIZER	Create, modify and delete all types of CIM instances (includes read permissions).
SAP_SLD_ADMINISTRATOR	Administrative tasks (includes all other roles)

If the UME is used with an ABAP-based system as the back-end user storage, these groups already exist. ABAP user roles appear as user groups on the AS Java side. SAP NetWeaver Application Server ABAP (AS ABAP) contains these default user roles.

If you are allowed to create user groups as a local AS Java administrator, the SLD user groups are created by the standard SLD configuration described below.

If your LDAP user store is configured in a way that no user groups can be created by the local UME, you have to create the user groups listed above first.

If you want to set up SLD security for test purposes, you can simply use an AS Java administrative user which also has administrative permissions for SLD by default.

Creating Standard SLD Security Roles - Automatically

1. Enter the URL of the application using the following pattern: **`http://<host>:<port>/sld`** (details are described below).

   

   Log on as an administrator for AS Java and an SLD administrator.

2. Choose *Administration* → *Settings* and choose *Perform Role Mapping*.

   The system tries to create or complete the user group list and the mappings described above. Depending on the settings of your user store, the group creation may fail. In this case, you have to create the groups manually and press the button again.

3. Assign users to the groups as needed.

Creating SLD Security Roles - Manually

1. In your Web browser, enter the URL of the Identity Management using the following pattern: **`http://<host>:<port>/useradmin`**.
2. Create user groups and UME roles of your choice and assign each UME role to the appropriate user group or groups as well as to the UME action or actions.

   

   Additionally, assign the GUEST UME role to each of these user groups.

3. Assign users to the user groups.

For more information about managing security roles, see Managing Users, Groups, and Roles [external].

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 AS Java 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 AS Java.
2. Enter your *User ID* and *Password* and choose *Logon*.

Configuring Server Parameters

Use

Use this procedure to configure the SLD server parameters.

If you have already performed the initial configuration of SLD as part of the AS Java system installation, use this procedure only to adapt the configuration.

Prerequisites

You have a user assigned to the `LcrAdministrator` role.

Procedure

1. Choose *Administration* → *Settings*.
2. From the *Section* dropdown box, select *Server Settings*.
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 **`http://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.
4. Specify a *Working Directory* for the application configuration.
5. Specify writing authorization:
   a. *None* – there are no write restrictions (normal mode).
   b. *Single User* – only the current user has write access (exclusive write mode).
   c. *Read-only* – no user have write access (read-only access).
6. Choose *Save*.

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.

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

1. Choose *Administration* → *Settings*.

Changing a System Profile

To change the system profile online:

1. From the *Section* dropdown menu choose *Server Settings*.
2. Change the server parameters and choose *Save*.
3. If you want to discard the changes you have made, choose *Reset to Defaults*.

Downloading a System Profile

To change the system profile offline:

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

   Now you can change the server parameters offline in the configuration file.

Uploading a System Profile

1. Choose *Upload*.
2. Browse to the configuration file. You can select *Overwrite* if you want to replace the existing configuration.
3. Choose *Upload*.

Adding a New Profile Parameter

You can introduce new profile parameters to extend the profile with parameters described in a SAP note.

1. Choose *Add Parameter*.
2. Specify values.
3. Choose *Save*.

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\sld\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, such as 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 **`http://service.sap.com`**. For more information, see SAP Note 669669.

If you have already performed the initial configuration of SLD as part of the AS Java system installation, use this procedure only to adapt the configuration.

Prerequisites

- The CIM model and CR content files must be either XML files or compressed XML files in ZIP format.

Procedure

1. Choose *Administration* → *Import*.

   The *Import* screen appears.

2. To import the following file (Microsoft Windows): `<Drive>:\usr\sap\<SID>\SYS\global\sld\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 AS Java. 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.

Configuring the SLD Bridge

Use

To receive data that is automatically reported and sent by the SLD data suppliers running on individual systems, you have to configure the SLD bridge. The SLD bridge converts the system data 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 a gateway service.

We recommend that you use a local gateway.

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

If you have already performed the initial configuration of SLD as part of the AS Java system installation, use this procedure only to adapt 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 a namespace of this SLD server, check the indicator in the *Update* column for the respective namespace.
3. You can also add URLs of an external SLD (called SLD bridge forwarding):
   a. Choose *Add*.
   b. Set details.
   c. Choose *Add*.
4. Choose *Administration* → *Settings.*
5. From the *Section* dropdown box, select *Datasupplier*.
6. If you want to use a remote gateway, enter gateway host and gateway service.

   

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

   

   One gateway server must be linked only to one SLD server as a data receiver. Sharing one 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
7. If you do not want to receive data from ABAP systems in your SLD, set the parameter *StartRfcServer* to *false*.
8. Choose *Save*.

Additional Online Information about SLD

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 935245
http://www.sdn.sap.com/irj/sdn/nw-sld	*Planning Guide – System Landscape Directory* *Post Installation Guide – SLD of SAP NetWeaver 7.10*