

Software Provisioning Manager 1.0 SP22
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SAP NetWeaver Standalone Engine Search and Classification TRENDS 7.0 - Single Host

Using Software Provisioning Manager 1.0



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1 About this Document

Purpose

This guide describes the single-host installation of SAP NetWeaver 7.0 Search and Classification (TREX) using the installation tool Software Provisioning Manager 1.0 SP22 (“installer” for short), which is part of SL Toolset 1.0 SP22.

The target audience for the guide consists of system administrators and consultants.

The guide is structured as follows:

- The section [Implementation Considerations \[page 5\]](#) explains what you need to take into account before the installation.
- The section [Naming Conventions \[page 13\]](#) contains information on special naming conventions used in this guide.
- The section [Checklists for the Installation \[page 15\]](#) contains a separate checklist for each installation variant, including an overview of the installation steps.
- The section [Checklists for the Installation \[page 15\]](#) describes how you plan, prepare, and perform the installation of the server software. It also describes the configuration steps that you have to perform immediately after the installation.
- The section [Installing a TREX Global File System with a First TREX Instance \[page 32\]](#) describes how to perform out the installation of the client software, if this is necessary. It also describes the configuration steps that you have to perform on the client side.
- The section [Installation Check \[page 92\]](#) describes how to check whether the installation of the server software was successful.
- The section [Additional Information \[page 96\]](#) contains information on troubleshooting problems that might occur during the installation and explains how to control the installation from another host. It also describes how to start, stop, and uninstall TREX.

Constraints

Additional configuration steps may be necessary depending on the application for which you are installing TREX. These additional steps are not described in this guide. You can find them in the documentation on the application in question.

2 Implementation Considerations

Refer to the following information before starting the installation:

Master Guides

If you are installing TREX as part of a mySAP Business Suite solution, a business scenario, or an IT scenario, familiarize yourself with the relevant master guide available at <https://help.sap.com> before beginning the installation.

Master guides are the central documents for implementing mySAP Business Suite solutions, business scenarios, and IT scenarios. They list the components and third-party applications that are necessary for a business scenario or an IT scenario, and refer to any necessary installation and upgrade guides. They also define the installation sequence.

[Integration of TREX and Applications That Use It \[page 5\]](#)

[BI Accelerator \(BIA\) \[page 7\]](#)

2.1 Integration of TREX and Applications That Use It

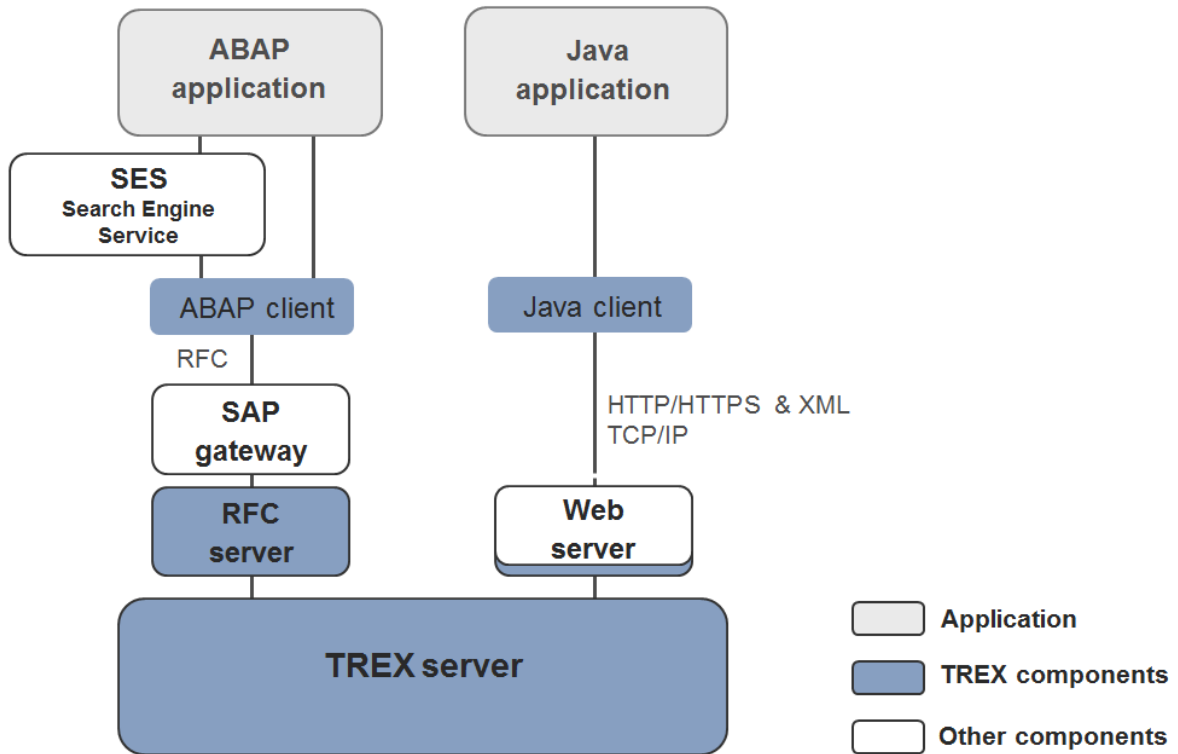
TREX is based on a client/server architecture. The client software is integrated into the application that uses the TREX functions, and allows communication with the TREX servers. The TREX servers execute the requests of the clients: They index and classify documents and respond to search queries.

TREX offers an ABAP and a Java client. This allows ABAP and Java applications to use TREX functions. ABAP and Java applications communicate with the TREX servers using different protocols and components.

- ABAP applications communicate with TREX servers using the RFC protocol. Communication takes place using an instance of the SAP Gateway and an RFC server.
- Java applications communicate with TREX using the HTTP or HTTPS protocol. This communication takes place using a Web server that is enhanced with TREX-specific functions.

RFC and Web servers have similar functions: They receive the requests of the application, convert them to a TREX-internal format, and send them on to the responsible TREX server.

The graphic below depicts the interaction between applications and TREX.



i Note

There is no dependency between TREX and the application using TREX with regard to the operating system used. You can install TREX on a different operating system to the application that accesses TREX.

⚠ Caution

Use all installable units within SAP NetWeaver that have the same support package level. Only by using the same support packages you can ensure the integration and smooth collaboration between all systems, stand-alone engines, and clients within SAP NetWeaver.

Connecting TREX to More Than One Application

In principle, you can connect one TREX system to more than one application.

Note the following:

- The TREX system must have appropriate dimensions so that it can process the load of all the applications.
- You must take organizational measures to ensure that the applications use separate index namespaces.

2.2 BI Accelerator (BIA)

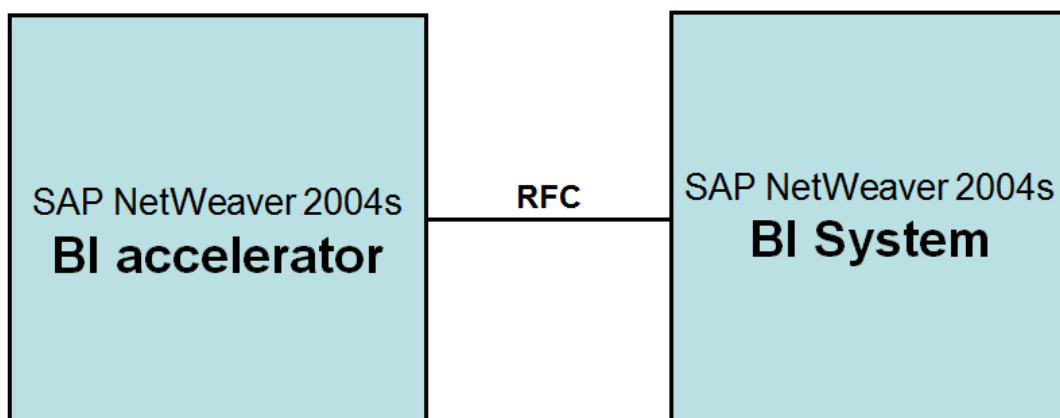
BI Accelerator: a Key Functionality for High-Performance Analytics

The BI accelerator is based on TREX technology. It is the aggregation engine for the accelerator functionality of SAP NetWeaver 7.0 Business Intelligence (BI), a key functionality for high-performance analytics, which belongs to the Enterprise Data Warehousing IT scenario.

For more information see the SAP Net Weaver Master Guide on SAP Service Marketplaceservice.sap.com/installnw70.

A TREX aggregation engine for processing structured business data powers this functionality. The data of the BI InfoCubes is replicated to the TREX engine and stored as TREX indexes. BI accelerator benefits companies that handle large volumes of data. The average response time is significantly improved in comparison with traditional approaches.

The following graphic depicts the relationship between the BI accelerator and the BI System:



How To Use, Install, and Update the BI Accelerator

- Use only with BI
The BI accelerator is based on TREX technology. For the BI accelerator, you require an installation based on a 64-Bit architecture. The hardware partners deliver this variant in preconfigured form as the BI accelerator box. You must note that a TREX installation configured for searching metadata and documents based on a 32-Bit architecture cannot be used for the BI accelerator. In turn, you cannot use a BI accelerator box to search metadata and documents. In order to use both the search functions and the BI accelerator, you require two separate installations.

⚠ Caution

You cannot use the BI accelerator for the regular TREX search and classification functions.

In order to use the preinstalled BI Accelerator Box, you must enter the fixed RFC destination defined for this purpose (default: TREX_HPA) in table RSADMINA.

- Installation on preconfigured hardware
The BI accelerator is a special LINUX 64-Bit version of SAP NetWeaver 7.0 Search and Classification (TREX), which is delivered on preconfigured hardware. All installation and configuration steps will be done during the preconfiguration of the hardware by the hardware vendor.
- Download update from SAP Service Marketplace
BI customers have to update and patch the BI accelerator. They can download the updates and patches for the BI accelerator from the SAP Service Marketplace at:
<https://launchpad.support.sap.com/#/softwarecenter> ► *Support Packagea and Patches* ► *Browse our Download Catalog* ► *SAP NetWeaver and complementary products* ► *SAP NetWeaver* ► *SAP NETWEAVER 7.0<Release>* ► *Entry by Component* ► *Search and Classif. (TREX)* ► *TREX 7.00* ► *Support Package Patches* ► *Linux on x86_64 64bit* ►

i Note

For more information about the BI accelerator, see the following SAP Notes:

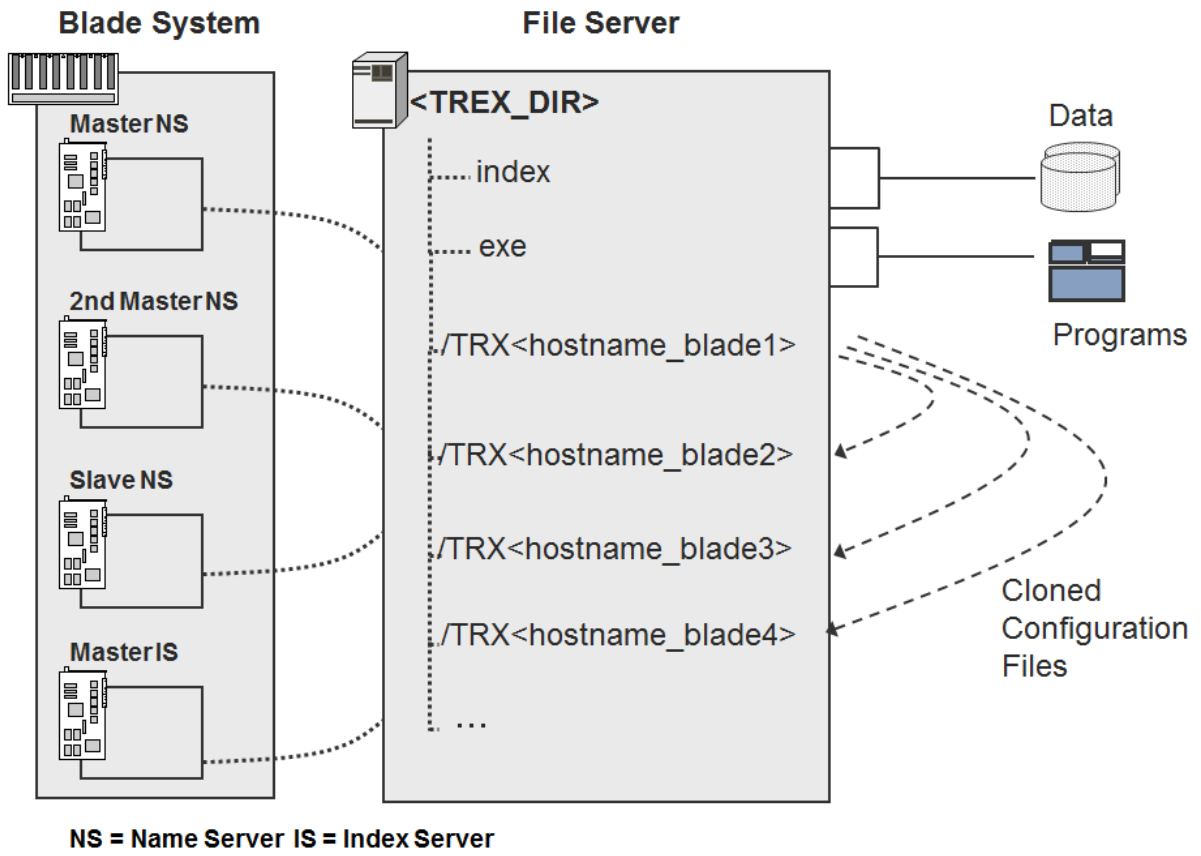
- SAP Note [883726](#) ► TREX 7.0: Central Note BI accelerator
- SAP Note [875400](#) ► TREX 7.0: Installing SAPNetWeaver7.0 BI accelerator
- SAP Note [883725](#) ► TREX 7.0: Updating SAP NetWeaver 7.0 BI accelerator
- SAP Note [902533](#) ► TREX 7.0: HowToGuide Connecting/Operating BIA Box
- SAP Note [984034](#) ► TREX 7.0: BI Accelerator High Availability

BI Accelerator: Preconfigured Blade System

The BI accelerator is installed on a preconfigured blade system. A blade system consists of hosts in the form of server blades. The server blades are connected to centralized disk storage. This is referred to here as a file server, regardless of the underlying hardware.

The special feature of a TREX installation on a blade system is that both the TREX software and the TREX data can be stored centrally. This means that the software is installed only once on the file server. Maintaining the system is efficient because you have to implement software updates once only.

All server blades on which TREX is running access the same program files. However, each server blade has its own configuration files. The configuration files in the directory `<TREX_DIR>` are only used as templates. A script creates a separate subdirectory for each server blade and copies the configuration files to this subdirectory. The graphic below depicts how data, programs, and configuration files might be stored in a BI accelerator blade system.



3 Minimal and Distributed TREX Systems

Minimal TREX System (Single-Host Installation)

A minimal system consists of one TREX instance (**one** installation of the server software). You can use a minimal system as a demo, test, and production system.

Note

For a production system, SAP recommends that you install the server software on a single host that is used exclusively for TREX.

Caution

If TREX is running on the same host as other components, you must make sure of the following:

- There is enough main memory for all components.
- TREX can use the required main memory space exclusively.

Sizing

The required hardware for the server software depends on the following factors:

- How many documents of what type are to be indexed?
- What quantities of documents are to be indexed initially, and what quantities during routine operation?
- How many search queries are expected? How many parallel search queries are expected?


Plan the required number of hosts and the equipping thereof with your SAP hardware partner. Use the information in [Hardware and Software Requirements \[page 21\]](#) as a basis for this.

Distributed TREX System (Multiple Host Installation)


Search and Classification (TREX) consists of a client component and a server component. The server component is based on a flexible architecture that allows a distributed installation. You can use a distributed installation to achieve the following:

- Load balancing
You can distribute the search and indexing load among several hosts.
- High availability

You can make sure that both indexing and searching are highly available.

 **Caution**

Your TREX system can quickly reach its performance limit if you install TREX on a single server in a productive scenario with large document sets and a large number of search queries. SAP therefore recommends that you calculate the expected load and availability requirements for your TREX system early on in the planning process and start with a distributed TREX installation immediately if that is what you require.

 **Caution**

In a distributed scenario, the same TREX version and patch level must run on all TREX hosts. Mixed installations with different TREX versions are not supported.

For more information on installing and configuring a distributed TREX system, see the *SAP NetWeaver Distributed Search and Classification (TREX) Systems Installation Guide* at https://help.sap.com/viewer/p/SAP_NetWeaver_TREX

4 Installation and Configuration of Server and Client Software

Installation of the Server Software

The TREX servers can be used by one or more applications. When you are installing TREX, you need to know the type of application and communication protocol. There are the following possibilities:

- The TREX servers are only used by Java applications.
Since Java applications communicate with the TREX servers using HTTP, you definitely need to carry out the installation steps that enable an HTTP connection.
- The TREX servers are only used by ABAP applications.
Since ABAP applications communicate with the TREX servers using RFC, you definitely need to carry out the installation steps that enable an RFC connection.
- The TREX servers are used by Java and ABAP applications.
In this case, execute the installation steps necessary for an HTTP and an RFC connection.

Example

The documents to be indexed are sent by an ABAP application to TREX. The search takes place using a Web application (Java application).

This guide contains a checklist with an overview of necessary installation steps for each case.

Installation of the Client Software

- ABAP client
The ABAP client is part of the SAP system, and must not be installed separately. The necessary configuration is described in this guide.
- Java client
As a TREX service, the Java client is part of the J2EE engine of the SAP NetWeaver Application Server and does not have to be installed separately. The necessary configuration is described in this guide.

5 Naming Conventions

Terminology

Term	Meaning
TREX host	Host on which the TREX server software is installed
TREX instance	One installation of the TREX server software
software provisioning manager 1.0 (“the installer” for short)	A tool that performs software provisioning processes such as installation, uninstallation, system copy, or system transformation. Software Provisioning Manager is delivered with the Software Logistics Toolset 1.0, available at: https://support.sap.com/sltoolset >>> System Provisioning >

Variables

Variable	Meaning
<SAPSID>	System ID in uppercase letters
<sapsid>	System ID in lowercase letters
<TREX_DIR>	Installation directory for TREX. The path to the directory is: <ul style="list-style-type: none"> On UNIX: /usr/sap/<sapsid>/trx<instance_number> On Windows: <disk_drive>:\usr\sap\<SAPSID>\TRX<instance_number>
<SAP_System_Directory>	SAP system directory: <ul style="list-style-type: none"> On UNIX: /<sapmnt>/<sapsid> On Windows: <disk_drive>:\usr\sap\<SAPSID>\SYS
<OS>	Name of the operating system in a path.
User <sapsid>adm	Operating system user that you log on with to administrate TREX.
User SAPService<SAPSID>	Operating system user under which the TREX processes run.

Variable	Meaning
User <code><j2eeadm></code>	Operating system user that you use to log on to the host on which the J2EE Engine is running.

The following example shows how variables are used:

Example

Go to the directory `Go to the directory /usr/sap/<sapsid>/trx<instance_number>`.

If the SAP system ID is kb1 and the instance number is 01, you have to go to the directory `/usr/sap/kb1/trx01`.

Path specifications

The forward slash (/) is usually used in path specifications such as `<TREX_DIR>/<host_name>/saprofile.ini`.

Commands

Commands such as script calls are sometimes distributed over several lines in this documentation. When you execute the commands, enter them in one line.

6 Checklists for the Installation

Purpose

Use the tables below as checklists for the installation of the system. All necessary installation phases (planning, preparation, installation, and post-installation activities) are listed in these tables.

Use the links to the general descriptions of actions and to additional information that will help you when executing the actions. By doing this, you ensure that you do not overlook any important information.

Process Flow

Print the relevant checklists:

- Installation with HTTP Connection [Installation with HTTP Connection \[page 15\]](#)
- Installation with RFC Connection [Installation with RFC Connection \[page 17\]](#)
- Installation with HTTP and RFC Connections [Installation with HTTP and RFC Connections \[page 18\]](#)

Carry out the installation steps in the order specified in the tables.

- When carrying out an obligatory step during the installation, follow the link to the relevant section.
- Then carry out the work steps described there.
- When the installation step has been successfully completed, place a check (✓) next to the relevant entry in the table in order to record your progress.
- Then continue with the next step listed in the table.

6.1 Installation with HTTP Connection

Server Side

Installation Planning

✓	Action
	Check hardware and software requirements (see Hardware and Software Requirements [page 21]).

✓	Action
	Check what documentation you need for the installation (see Required Documentation [page 26]).

Installation Preparations

✓	Action
	If you want to install multiple TREX instances, read section Information on Installing Multiple TREX Instances [page 35] .
	Download and extract the required software (see Downloading the Required Software [page 28]).
	If you want to install TREX on Windows, ensure that you have the required authorization for running the installer (see Windows: Required User Authorization for Running the Installer [page 29]).
	Check whether there is sufficient disk space for installing the TREX software (see Checking Disk Space [page 35]).

Installation

✓	Action
	Install TREX (see Running the Installer [page 37]).

Post-Installation Activities

✓	Action
	Configure TREX for the System Landscape Directory (SLD) (see Configuring TREX for the System Landscape Directory (SLD) [page 74]).
	General UNIX Configuration
	Check the UNIX kernel parameters and change them if necessary (see Checking and Changing UNIX Kernel Parameters [page 78]).
	TREX starts automatically if you have restarted the host. If you have not restarted the host, start TREX manually (see Starting and Stopping TREX [page 104]).
	General Windows Configuration
	On Windows no actions are needed to start TREX. The SAP service for the corresponding TREX instance is registered as a Windows service and starts automatically after installation.

Client Side

Configuration

✓	Action
	Enter the address of the TREX name server in the Java client configuration settings (TREX service in J2EE) (see Specifying the Address of the TREX Name Server [page 89]).
	Check the proxy settings (see Checking Proxy Settings [page 90]).

6.2 Installation with RFC Connection

Server Side

Installation Planning

✓	Action
	Check hardware and software requirements (see Hardware and Software Requirements [page 21])
	Check what documentation you need for the installation (see Required Documentation [page 26]).

Installation Preparations

✓	Action
	If you want to install multiple TREX instances, read section Information on Installing Multiple TREX Instances [page 35] .
	Download and extract the required software (see Downloading the Required Software [page 28]) .
	If you want to install TREX on Windows, ensure that you have the required authorization for running the installer (see Windows: Required User Authorization for Running the Installer [page 29]) .
	Check whether there is sufficient disk space for installing the TREX software (see Checking Disk Space [page 35])

Installation

✓	Action
	Install TREX (see Running the Installer [page 37]).

Post-Installation Activities

✓	Action
	Configure TREX for the System Landscape Directory (SLD) (see Configuring TREX for the System Landscape Directory (SLD) [page 74]).
	General UNIX Configuration
	Check the UNIX kernel parameters and change them if necessary (see Checking and Changing UNIX Kernel Parameters [page 78]).
	TREX starts automatically if you have restarted the host. If you have not restarted the host, start TREX manually (see Starting and Stopping TREX [page 104]).
	General Windows Configuration
	On Windows no actions are needed to start TREX. The SAP service for the corresponding TREX instance is registered as a Windows service and starts automatically after installation.

✓	Action
	Configuration of the RFC Connection
	Define the SAP system user (see Creating a SAP System User for the TREX Admin Tool (Stand-Alone) [page 84]).
	Determine the connection data for the SAP system (see Determining the SAP System Connection Information [page 85]).
	Configure the RFC connection in the TREX admin tool (see Configuring the RFC Connection in the TREX Admin Tool [page 86]).

Client Side

Configuration

✓	Action
	On the client side, no further configuration steps are required.

6.3 Installation with HTTP and RFC Connections

Server Side

Installation Planning

✓	Action
	Check hardware and software requirements (see Hardware and Software Requirements [page 21]).
	Check what documentation you need for the installation (see Required Documentation [page 26]).

Installation Preparations

✓	Action
	If you want to install multiple TREX instances, read section Information on Installing Multiple TREX Instances [page 35] .
	Download and extract the required software (see Downloading the Required Software [page 28]).

✓	Action
	If you want to install TREX on Windows, ensure that you have the required authorization for running the installer (see Windows: Required User Authorization for Running the Installer [page 29])
	Check whether there is sufficient disk space for installing the TREX software (see Checking Disk Space [page 35])

Installation

✓	Action
	Install TREX (see Running the Installer [page 37]).

Post-Installation Activities

✓	Action
	Configure TREX for the System Landscape Directory (SLD) (see Configuring TREX for the System Landscape Directory (SLD) [page 74]).
	General UNIX Configuration
	Check the UNIX kernel parameters and change them if necessary (see Checking and Changing UNIX Kernel Parameters [page 78]).
	TREX starts automatically if you have restarted the host. If you have not restarted the host, start TREX manually (see Starting and Stopping TREX [page 104]).
	General Windows Configuration
	On Windows no actions are needed to start TREX. The SAP service for the corresponding TREX instance is registered as a Windows service and starts automatically after installation.
	Configuration of the RFC Connection
	Define the SAP system user (see Creating a SAP System User for the TREX Admin Tool (Stand-Alone) [page 84]).
	Determine the connection data for the SAP system (see Determining the SAP System Connection Information [page 85]).
	Configure the RFC connection in the TREX admin tool (see Configuring the RFC Connection in the TREX Admin Tool [page 86]).

Client Side - ABAP Application

Configuration

✓	Action
	On the client side, no further configuration steps are required.

Client Side - Java Application

Configuration

✓	Action
	Enter the address of the TREX name server in the Java client configuration settings (TREX service in J2EE) (see Specifying the Address of the TREX Name Server [page 89]).
	Check the proxy settings (see Checking Proxy Settings [page 90]).

7 Installation Planning

The following sections contain information that is relevant when planning the installation.

[Hardware and Software Requirements \[page 21\]](#)

[Required Documentation \[page 26\]](#)


7.1 Hardware and Software Requirements

The tables below contain the hardware and software requirements for the TREX server software.

i Note

The requirements for hardware and software listed here are valid for a TREX installation on a single host (single-server system). The requirements for a distributed system that supports load balancing and high availability are listed in the guide for the installation and configuration of a distributed TREX system. You can find the *Installation Guide – SAP NetWeaver 7.0 TREX Multiple Hosts* at https://help.sap.com/viewer/p/SAP_NetWeaver_TREX.

Hardware Requirements

Requirement Type	Requirement
Hard disk capacity	<ul style="list-style-type: none"> • Installer work directory You require the following for software provisioning manager (“the installer” for short): <ul style="list-style-type: none"> ◦ On UNIX, 200 MB in temporary directories or in a directory of your choice. ◦ On Windows, 200 MB in the directory <code>C:\Program Files</code> • SAP system directory <ul style="list-style-type: none"> ◦ On UNIX, at least 1 GB in the directory <code>/<sapmnt>/<sapsid></code> ◦ On Windows, at least 1 GB in the directory <code><disk_drive>:\usr\sap\<SAPSID>\SYS</code> • TREX directory You need the following for the TREX software: <ul style="list-style-type: none"> ◦ On UNIX, at least 1 GB in the directory <code>/usr/sap/<sapsid>/trx<instance_number>.</code> ◦ On Windows, at least 1 GB in the directory <code><disk_drive>:\usr\sap\<SAPSID>\TRX<instance_number></code> <p>You also need disk space in this directory for the trace files that TREX writes during routine operation.</p> • Index directory A minimum of 80 GB, depending on the number and type of documents to be indexed. If documents exist in different formats (Microsoft Word, PDF, and so on), the index needs approximately half as much disk space as the documents. For pure HTML documents, the index needs about twice as much disk space as the documents. In addition, the same amount of disk space as for the index is needed temporarily for the optimization process. <div style="background-color: #fff9c4; padding: 10px; margin: 10px 0;"> <p> Example</p> <p>A document set that consists only of HTML documents and has a total size of 10 GB generates an index size of 20 GB (2 x 10GB). An additional 20 GB disk space is needed temporarily for optimization. Therefore, you need 40 GB disk space altogether: 20 GB permanently and 20 GB temporarily.</p> </div> <ul style="list-style-type: none"> • Queue directory The queues require approximately three quarters of the disk space required by the indexes. The documents to be indexed are kept temporarily in the queue directory before being forwarded to actually be indexed. In the case of an installation with an RFC connection, you can use TREX with or without a queue server. If you are not using a queue server, the queue directory is not relevant. SAP Note 658052 contains information on which configuration is suitable for which application. <p>The directories can be located on different partitions. The index directory and queue directory can also be located on a file server. The TREX host must be able to access the file server as quickly as it can access the local hard drive.</p>

Requirement Type	Requirement
RAM	<ul style="list-style-type: none"> • Demo or test system: At least 1 GB • Production system: 4 GB, at least 2 GB per CPU With two index servers per TREX instance: At least 4 CPUs <p>i Note</p> <p>The amount of main memory that is actually used depends on several factors. For example, in the case of the index server, influencing factors are index size, number of parallel search requests, and amount of the number of hits.</p>

Windows: Software Requirements

Requirement Type	Requirement
Operating system	<p>TREX (32 Bit binaries) supports the following Windows versions:</p> <ul style="list-style-type: none"> • Microsoft Windows Server 2003/IA32 32BIT (US English version) Service Pack 1 (SP1) • Microsoft Windows Server 2003/X64 64BIT (US English version) <p>i Note</p> <p>Microsoft Windows Server 2003/X64 64BIT (US English version) is supported with TREX 32 Bit binaries running in compatibility mode.</p> <p>i Note</p> <p>For security reasons, the supported partition installed on Windows is NTFS (NT file system) not FAT32 (file allocation table).</p> <p>For the most current information about platform and operating system availability of TREX check the Platform Availability Matrix (PAM) at:</p> <p>https://support.sap.com/pam</p>
Python	<p>Python 2.4.A Python version by ActiveState is part of the delivery. If Python has not been installed, it is installed by the TREX setup program in the directory <TREX_DIR>\exe\Python.</p>

Requirement Type	Requirement
Web server	<p>Only relevant for an installation with an HTTP connection.</p> <p>Microsoft Internet Information Server (IIS) 5.0 or 6.0</p> <div style="background-color: #fff9c4; padding: 10px;"> <p>⚠ Caution</p> <p>Only IIS 6.0:</p> <p>You have to ensure that the Internet Information Server (IIS) is installed and that the Default Web Site is running. To check this navigate to:</p> <p>▶ <i>Control Panel</i> ▶ <i>Administrative Tools</i> ▶ <i>Computer Management</i> ▶ <i>Services and Application</i> ▶ <i>Internet Information Services (IIS) Manager</i> ▶</p> </div>

UNIX: Software Requirements

Requirement Type	Requirement
Operating system	<p>TREX (32 Bit binaries) supports one of the following UNIX versions:</p> <ul style="list-style-type: none"> • AIX <ul style="list-style-type: none"> ◦ AIX 5.2 64 Bit ◦ AIX 5.3 64 Bit • HP-UX <ul style="list-style-type: none"> ◦ HP-UX 11i (11.11) 64 Bit with patch PHSS_33263 ◦ HP-UX 11.23 64 Bit for PA-RISC with patch PHSS_34041 • ORACLE SOLARIS <ul style="list-style-type: none"> ◦ ORACLE SOLARIS 9 64 Bit with patches 111711, 111712, and 112963 ◦ ORACLE SOLARIS 10 64 Bit (no patches needed) • LINUX REDHAT <ul style="list-style-type: none"> ◦ LINUX RED HAT EL4/IA32 32BIT ◦ LINUX RED HAT EL4/X86_64 64BIT <div style="background-color: #fff9c4; padding: 10px; margin: 10px 0;"> <p>i Note</p> <p>LINUX RED HAT EL4/ X86_64 64BIT is supported with TREX 32 Bit binaries running in compatibility mode.</p> </div> <ul style="list-style-type: none"> • LINUX SUSE <ul style="list-style-type: none"> ◦ LINUX SUSE SLES9/IA32 32BIT Service Pack 1 (SP1) ◦ LINUX SUSE SLES9/ X86_64 64BIT Service Pack 1 (SP1) <div style="background-color: #fff9c4; padding: 10px; margin: 10px 0;"> <p>i Note</p> <p>LINUX SUSE SLES9/ X86_64 64BIT is supported with TREX 32 Bit binaries running in compatibility mode.</p> </div> <div style="background-color: #fff9c4; padding: 10px; margin: 10px 0;"> <p>⚠ Caution</p> <p>TREX only supports LINUX distributions that have been released by SAP.</p> <p>For the most current information about platform and operating system availability of TREX check the Platform Availability Matrix (PAM) at: https://support.sap.com/pam</p> </div>
Python	<p>Python 2.4.A Python version from ActiveState is part of the delivery and is installed by the TREX setup program in the <TREX_DIR>/exe/Python directory.</p>
Web server	<p>Only relevant for an installation with an HTTP connection.</p> <p>Apache Web Server 1.3.29: The Web server is part of the delivery, and is installed by the TREX setup program in the <TREX_DIR>/Apache directory.</p>

7.2 Required Documentation

You require this installation guide and the following additional documentation for the installation:

- SAP Notes on installation
- Online information from SAP

SAP Notes on Installation

You **must** read the SAP Notes on installation **before** you begin the installation. The SAP Notes contain current installation information and corrections to the installation documentation.

Make sure that you use the current version of these SAP Notes. .

Relevant SAP Notes

SAP Note Number	Title	Comments
1680045	Release Note for Software Provisioning Manager 1.0	Latest information on software provisioning manager 1.0, supported SAP products, and current restrictions
843360	Installing TREX 7.0	Contains information for all TREX 7.1 installations
892474	TREX 7.0: RFC errors reported by TREX admin tool (stand alone)	Contains information about correct using of TREX admin tool (stand alone)
898401	TREX 7.0: Addressing 3GB Working Memory under Windows	Contains information on how to enable 3 GB working memory under Windows
917389	TREX 7.0: TREX application pool in IIS not started	Contains information about starting the TREX application pool manually when the Internet Information Server (IIS) (Windows) is used as TREX Web Server

Online Information from SAP

Information on the following areas is available:

General Quick Links

Description	Internet Address	Title
The SAP NetWeaver 7.0 Search and Classification (TREX) Multiple Hosts installation guide	https://help.sap.com/viewer/p/SAP_NetWeaver_TREX	
SAP Notes	https://support.sap.com/notes	-
Released platforms	https://support.sap.com/pam	-

Description	Internet Address	Title
System sizing	https://sap.com/sizing	Quick Sizer tool
Front-end installation	https://support.sap.com/sltoolset ►► <i>Front End Installation</i> ►	Front End Installation Guide
Security	https://sap.com/security	-

8 Installation Preparations

The following sections describe the steps you carry out before the TREX installation.

[Downloading the Required Software \[page 28\]](#)

[Windows: Required User Authorization for Running the Installer \[page 29\]](#)

[TREX Global File System and TREX Instances \[page 31\]](#)








[Checking Disk Space \[page 35\]](#)

8.1 Downloading the Required Software

Prerequisites

Make sure the latest version of the SAPCAR archiving tool is available on each installation host.


You require the SAPCAR archiving tool to be able to unpack software component archives (*.SAR files) which is the format of software lifecycle media and tools that you can download from the SAP software distribution center.

If required, you can download the latest version of SAPCAR from: <https://launchpad.support.sap.com/#/softwarecenter>   [Support Packages and Patches](#)  [A – Z](#)  [Index](#)  [S](#)  [SAPCAR](#) .


For more information about SAPCAR, see SAP Note [212876](#) .

Context

This section describes how to download and unpack the software required for the installation:

- The software provisioning manager 1.0 archive containing the installer. You always have to download the latest version of the software provisioning manager 1.0 archive (see also SAP Note [1680045](#) .
- The TREX binaries
- SAP Kernel 7.20 for your operating system

Note

The signature of media is checked **automatically** by the installer during the *Define Parameters* phase while processing the *Media Browser* screens. As of now the installer only accepts media whose signature has been checked. See also the description of this new security feature in SAP Note [2393060](#) .

Procedure

1. Make the installer software available as follows:
 - a. Download the latest version of the Software Provisioning Manager 1.0 archive 70SWPM10SP<support package number>_<version number>.SAR from:

<https://launchpad.support.sap.com/#/softwarecenter> > SUPPORT PACKAGES & PATCHES > By Alphabetical Index (A-Z) > S > SOFTWARE PROVISIONING MANAGER

- b. Use SAPCAR to Unpack the software provisioning manager archive to a local directory (<unpack directory1>) with the following command:

```
SAPCAR -xvf <download directory>/<path>/<Archive>.SAR -R <unpack directory1>
```

2. Make the TREX binaries available as follows:

- a. Download the latest version from:

<https://launchpad.support.sap.com/#/softwarecenter> > Installations & Upgrades > By Category > SAP NetWeaver and complementary products > SAP NetWeaver > SAP NetWeaver 7.0 <Release> > Installation > <OS> > Database > NW 7.0 <Release> Search/Class (TREX 7.00)

- b. Use SAPCAR to unpack the downloaded archive to a local directory (<unpack directory2>) using the following command:

```
SAPCAR -xvf <download directory>/<path>/<Archive>.SAR -R <unpack directory2>
```

3. Make SAP Kernel 7.20 for your operating system available as follows:

- a. Make SAP Kernel 7.20 for your operating system available as follows:

<https://launchpad.support.sap.com/#/softwarecenter> > Installations & Upgrades > By Category > SAP NetWeaver and complementary products > SAP NetWeaver > SAP NetWeaver 7.0 <Release> > Kernel for installation/SWPM > SAP KERNEL 7.20 <32/64-BIT/UNICODE> > Installation > <OS>

- b. Use SAPCAR to unpack the downloaded archive to a local directory (<unpack directory3>) using the following command:

```
SAPCAR -xvf <download directory>/<path>/<Archive>.SAR -R <unpack directory3>
```

8.2 Windows: Required User Authorization for Running the Installer

Although the installer automatically grants the required rights to the user account used for the installation, you have to check whether this account has the required authorization to perform the installation. The authorization required depends on whether you intend to perform a domain or local installation. If necessary, you have to ask the system administrator to grant the account the necessary authorization before you start the installation. If you attempt the installation with an account that has not the required authorization, the installation aborts.

This section informs you about the authorization required for a domain and a local installation.

Caution

Do not use the user `<sapsid>adm` for running the installer.

Domain Installation

For a domain installation the account used for the installation needs to be a member of the local Administrators and the domain Admins group of the domain involved. All machines in the system must belong to the same domain. In a domain installation, the user information is stored centrally on the domain controller and can be accessed by all hosts in the system.

If the SAP system is to be distributed across more than one machine, SAP strongly recommends you to perform a domain installation to avoid authorization problems.

Caution

- If you install a system distributed over several hosts as a local installation, this can lead to authorization problems for the operating system users `<sapsid>adm` and `SAPService<SAPSID>`. It can also lead to problems with the transport directory, which is usually shared by several SAP systems. Therefore, SAP does not support a local installation for a system distributed over several hosts and recommends you to install a system distributed over several hosts as a domain installation.
If you still want to perform a local installation for a system distributed over several hosts, make sure that:
 - You use the same password for the `<sapsid>adm` or the `SAPService<SAPSID>` user on all hosts. The password for the `<sapsid>adm` and `SAPService<SAPSID>` user can differ.
 - You use the same master password on all hosts.
 - All hosts belong to the same Windows work group.
- In a Microsoft failover cluster configuration, you always have to perform a domain installation.
- For performance and security reasons, SAP does not support an SAP system installation on a domain controller.
- If for any reason, the account used for the installation is not a member of the domain Admins group, you can perform the installation with a domain user who is a member of the local Administrators group. However, the domain administrator has to prepare the system appropriately for you.

For a domain installation, you need to:

1. Check that the account used for the installation is a member of the domain Admins group.
2. If required, obtain these rights by asking the system administrator to enter the account as a member of the domain Admins group.

8.3 TREX Global File System and TREX Instances

The TREX server software comprises two parts:

- TREX global file system
This is a directory structure, in which information about the TREX system instances is stored. For example, this information is required by management tools to start the TREX system.
- Installation files for the TREX instance
These are the TREX program files, configuration files, and so on.

The global file system must be highly available. All instances of a TREX system must have permanent access to it. When installing TREX and planning a distributed TREX system, you must decide which host the global TREX file system should be located on.

i Note

For information about installation and configuration of a distributed TREX system, see the *Installation Guide – SAP NetWeaver 7.0 TREX Multiple Hosts* at https://help.sap.com/viewer/p/SAP_NetWeaver_TREX.

TREX Instance and SAP System Profile Directories

During the installation of the global file system and TREX instances, the following directories are important:

- SAP system profile directory in the global file system:
 - On UNIX `<SAP System Mount Directory>/<sapsid>/profile`
 - On Windows `<SAPGLOBALHOST>\sapmnt\<SAPSID>\SYS\profile`
- Installation directory for the TREX instance:
 - On UNIX `/usr/sap/<sapsid>/trx<instance_number>`
 - On Windows `<disk_drive>:\usr\sap\<SAPSID>\TRX<instance_number>`

Installation Procedure

You distinguish between the following scenarios when installing the global file system and the TREX instance:

- [Installing a TREX Global File System with a First TREX Instance \[page 32\]](#)
- [Installing a TREX Instance Only \[page 33\]](#)
- [Installing a TREX Global File System Only \[page 34\]](#)

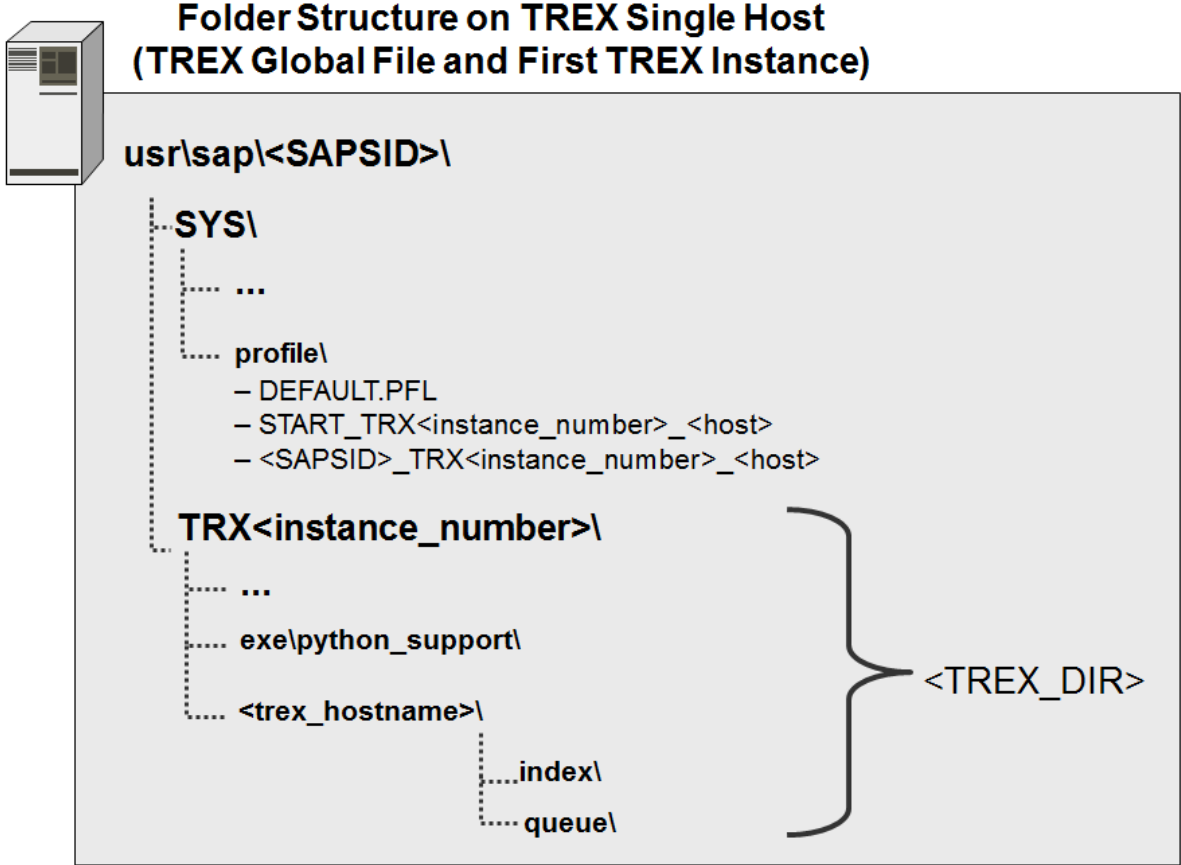
8.3.1 Installing a TREX Global File System with a First TREX Instance

In this scenario, you install a TREX global file system with a first TREX instance, which consists of the installation of a TREX instance together with a TREX global file system on a local host. Basic information about a TREX landscape is stored in the directory for the SAP system profiles for the global file system. If you set up a new TREX system for a production scenario or if you are installing TREX for the first time, you always start with the installation of a TREX global file system together with a first TREX instance. In a distributed landscape with decentralized data storage and more than one TREX instance, you must install the TREX global file system with a first TREX instance on the same host as the TREX master name server. TREX is then administrated, started, and stopped from this host.

i Note
More information about configuring a distributed TREX system, see the *Installation Guide – SAP NetWeaver 7.0 TREX Multiple Hosts* at https://help.sap.com/viewer/p/SAP_NetWeaver_TREX.

Directory structure and files

If you install the TREX global file system and the first TREX instance on a single host, a directory structure and SAP system profiles are created on Windows as shown in the graphic below:



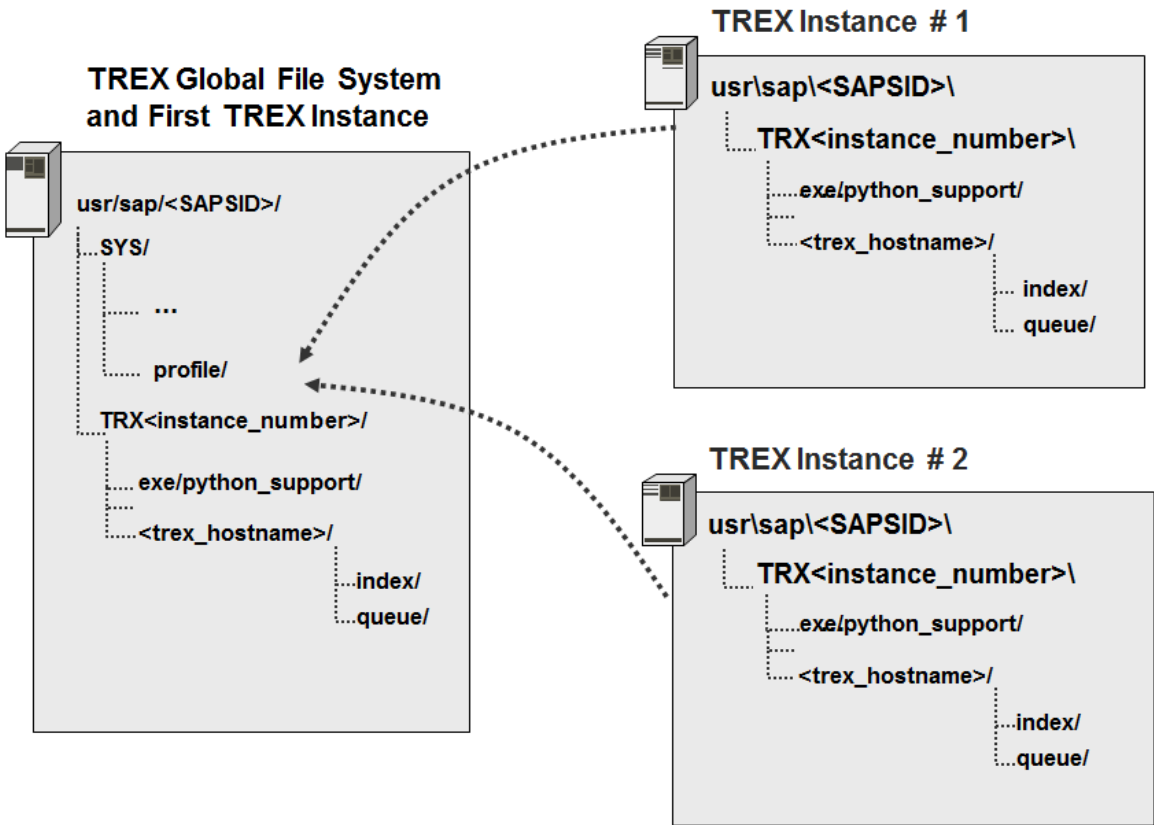
8.3.2 Installing a TREX Instance Only

In this scenario, you install a TREX instance only. A TREX instance consists of a TREX instance without a TREX global file system on the local host. You install a TREX instance to add one or more TREX instances to an existing TREX system landscape. During installation, you must specify the path to the directory for the SAP system profiles for the TREX global file system. In the default scenario, the TREX global file system and the directory for the SAP system profiles are located on the same host.

In this case, the TREX global file system together with the first TREX instance on the one hand and the newly-installed TREX instance on the other hand form a unit from an administration perspective. This is visible in that they both have the same system ID (<SAPSID>) and use the same TREX global file system.

Directory structure and files

If you install an additionally TREX instance and connect it to an existing TREX global file system with a first TREX instance, there are directory structures on Windows as illustrated in the graphic below:

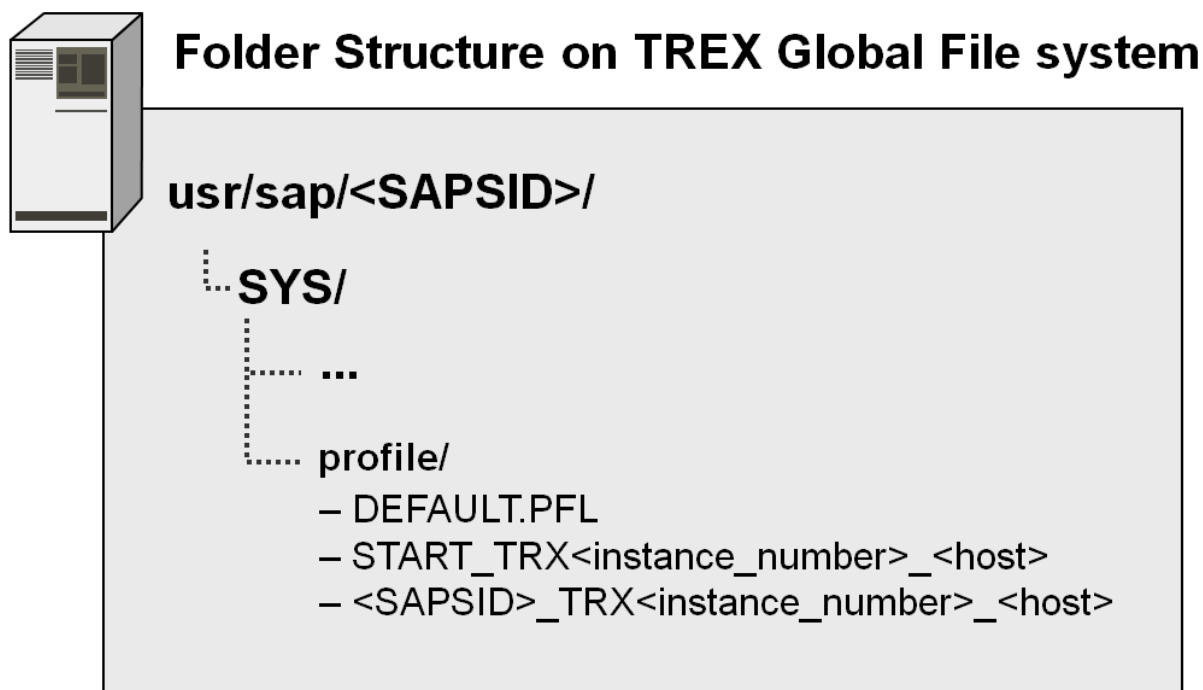


8.3.3 Installing a TREX Global File System Only

In this scenario, you install a TREX global file system only, without a TREX instance on your local host. You can install the TREX global file system on any host, as long as you ensure that the TREX global file system is highly available and accessible for all TREX instances at all times.

Directory structure and files

If you install only a TREX global file system on a host, the installation creates directory structures on Windows as illustrated in the graphic below:



8.3.4 SAP System Profiles for the TREX Global File System

During installation of a TREX dialog instance, you specify the central directory for the SAP system profiles. In this directory, the system automatically generates start profiles and instance profiles for the TREX instances installed. System profiles contain information about the configuration of individual SAP instances. A start profile determines which processes are to be started or stopped. (See [Starting and Stopping TREX \[page 104\]](#))

Depending on the entries made during installation, the system creates the following profiles:

- System profile `DEFAULT.PFL`
The system profile contains settings and information that are important throughout the system. The system profile exists once only in the global file system.

- Start profile `START_TRX<instance_number>_<host>`
This is the start profile for a TREX instance. It specifies the TREX instance number and the host name on which the TREX instance runs.
- Instance profile `<SAPSID>_TRX<instance_number>_<host>`
The instance profile contains specific information about the runtime environment for a TREX instance.

8.3.5 Information on Installing Multiple TREX Instances

You can install several independent TREX instances on the same host. This is useful for test purposes. Note the following:

During the setup

- Give each instance a different instance number.
- Each instance must be installed in its own directory. The TREX setup program ensures this by including the instance number in the directory name.
- Each instance must use a different port. The TREX setup program suggests suitable ports so that they do not clash with other TREX instances on the same host.

After the installation (HTTP connection)

If you are installing TREX on Windows, you must make sure that the Web pages of the individual instances run independently of one another. The following configuration is required for this:

- Microsoft IIS 5.x: For each Web site, the *Application Protection* must be set to *High (Isolated)* in the corresponding virtual directory.
- Microsoft IIS 6.0: There must be a separate Web service extension for each instance. Each TREX Web site must also use its own application pool.

The configuration steps are described in this guide.

8.4 Checking Disk Space

The installer creates the installation directory for the TREX software in the following directory:

- Windows: `<disk_drive>:\usr\sap\<SAPSID>`
- UNIX: `/usr/sap/<sapsid>`

Before the installation starts, make sure that there is enough disk space in this directory for the TREX software. For information on the required disk space, see [Hardware and Software Requirements \[page 21\]](#).

Procedure on UNIX

Starting Point	Procedure
The directory <code>/usr</code> does not yet exist.	For the directory <code>/usr</code> , select a partition that has sufficient disk space for the TREX software and other SAP software if necessary.
The directory <code>/usr</code> exists, but the directory <code>/usr/sap</code> does not.	Choose one of the following options: <ul style="list-style-type: none">• Create a new partition with sufficient disk space for the directory <code>sap</code>. Insert the directory <code>sap</code> into the directory <code>/usr</code>.• Create the directory <code>sap</code> in a file system that has sufficient disk space. Generate a symbolic link to the directory <code>sap</code> in the directory <code>/usr</code>.
The directory <code>/usr/sap</code> already exists.	Go to the directory <code>/usr/sap</code> and check the amount of free disk space by executing the following command: df -k If there is not enough disk space, proceed as follows: <ol style="list-style-type: none">1. Create the installation directory in a file system that has sufficient disk space. You must assign the installation directory the name <code>trx<instance_number></code>. <code><instance_number></code> must match the instance number that you specified during the installation.2. Generate a symbolic link to the installation directory in the directory <code>/usr/sap</code>.

Procedure on Windows

On Windows you can choose the target drive during the installation. Use the Windows Explorer to check whether there is sufficient disk space on the target drive.

9 Installation

The sections that follow describe how to install TREX with the installer and tell you which entries are required during the setup.

[Running the Installer \[page 37\]](#)

[Installing TREX with a Virtual Host Name \[page 46\]](#)

[Installing a TREX Global File System with a First TREX Instance \[page 50\]](#)

[Installing a TREX Instance Only \[page 59\]](#)

[Installing a TREX Global File System \[page 68\]](#)

9.1 Running the Installer

The following sections tell you how to run software provisioning manger 1.0 (“the installer” for short) to install TREX on the released platforms.

Processing

You can now start the installation:

- [Useful Information about the Installer \[page 37\]](#)
- [Running the Installer on UNIX \[page 39\]](#)
- [Running the Installer on Windows \[page 44\]](#)

9.1.1 Useful Information about the Installer

- The SL Common GUI of the Software Provisioning Manager (or “SL Common GUI” for short) uses the SAP UI Development Toolkit for HTML5 - also known as SAPUI5 - a client-side HTML5 rendering library based on JavaScript. The benefits of this new user interface technology for the user are:
 - Zero foot print, since only a web browser is required on the client
 - New controls and functionality, for example, view logs in web browser.The SL Common GUI connects the web browser on a client with the `sapinst` executable - which is part of Software Provisioning Manager - running on the installation host using the standard protocol HTTPS.
 - **Windows only:** For the SL Common GUI, the installer provides a pre-generated URL in the *Program Starter* window. If you have a supported web browser installed on the host where you run the installer, the SL Common GUI starts automatically. By default, the SL Common GUI uses the default browser

defined for the host where you run the installer. However, you can also specify another supported web browser available on the host where you start the installer. You can do this by starting the `sapinst` executable with command line option **SAPINST_BROWSER=<Path to Browser Executable>**, for example **SAPINST_BROWSER=firefox.exe**. Alternatively you can open a supported web browser on any device and run the URL from there.

- **UNIX only:** For the SL Common GUI the installer provides a pre-generated URL at the bottom of the shell from which you are running the installer. If you have a supported web browser installed on the host where you run the installer, you can start the SL Common GUI directly from this URL. Otherwise, open a web browser supported by the SL Common GUI on any device and run the URL from there.
- For more information about supported web browsers see the *Prerequisites* section in [Procedure on UNIX \[page 48\]](#) or [Procedure on Windows \[page 48\]](#).
- As soon as you have started the `sapinst` executable, the installer creates a `.sapinst` directory underneath the `<Drive>:\Users\<User>` directory where it keeps its log files. `<User>` is the user with which you have started the installer.

After you have reached the *Welcome* screen and selected the relevant installer option, the installer creates a directory `sapinst_instdir`, where it keeps its log files, and which is located directly in the `%ProgramFiles%` directory. After you have reached the *Welcome* screen and selected the relevant installer option, the installer creates a directory `sapinst_instdir` where it keeps its log files. All log files which have been stored so far in the `.sapinst` folder are moved to the `sapinst_instdir` directory as soon as the latter has been created.

Windows only: If the installer is not able to create `sapinst_instdir` there, it tries to create `sapinst_instdir` in the directory defined by the `TEMP` environment variable.

UNIX only: The `sapinst_instdir` directory is located directly below the temporary directory. The installer finds the temporary directory by checking the value of the `TEMP`, `TMP`, or `TMPDIR` environment variable. If no value is set for these variables, the installer uses `/tmp` by **default**. If you want the `sapinst_instdir` directory to be created in another directory than `/tmp`, set the environment variable `TEMP`, `TMP`, or `TMPDIR` to this directory before you start the installer.

Shell Used	Command
Bourne shell (sh)	TEMP=<Directory> export TEMP
C shell (csh)	setenv TEMP <Directory>
Korn shell (ksh)	export TEMP=<Directory>

➔ Recommendation

We recommend that you keep all installation directories until the system is completely and correctly installed.

- The installer extracts itself to the temporary directory. These executables are deleted again after the installer has stopped running. Directories called `sapinst_exe.xxxxxx.xxxx` sometimes remain in the temporary directory. You can safely delete them.

The temporary directory also contains the log file `dev_selfex.out` from the extraction process, which might be useful if an error occurs.

Caution

If the installer cannot find a temporary directory, the installation terminates with the error `FCO-00058`.

- Proceed as follows to see a list of all available installer properties:
 - **Windows:** Go to the directory `%TEMP%\sapinst_exe.xxxxxx.xxxx` after you have started the installer, and enter the following command: `sapinst.exe -p`
 - **UNIX:** Start the installer with the option `-p`: `./sapinst -p`
- If you need to run **SL Common GUI** in **accessibility mode**, apply the standard accessibility functions of your web browser.
- If you want to install an SAP system in unattended mode, see SAP Note [950619](#).
- If required, stop the installer by choosing the *Cancel* button.

Note

UNIX: If you need to terminate the installer, press `Ctrl` + `C`.

Windows: If you need to terminate the installer, choose `File > Exit` in the menu of the *Program Starter* window.

9.1.2 Running the Installer on UNIX

Prerequisites

- If you want to use the SL Common GUI, make sure that the following web browser requirements are met:
 - You have one of the following supported browsers on the device where you want to run the SL Common GUI: Google Chrome, Mozilla Firefox, Microsoft Edge, or Microsoft Internet Explorer 11. Always use the latest version of these web browsers.

Recommendation

We recommend using Google Chrome.

- If you copy the SL Common GUI URL manually in the browser window, make sure that you open a new Web browser window in private browsing mode (Internet Explorer), incognito mode (Chrome) or private browsing mode (Firefox). This is to prevent Web browser plugins and settings from interfering with the SL Common GUI.

For more information about the SL Common GUI, see [Useful Information about the Installer \[page 37\]](#).

- You have downloaded the required software as described in [Downloading the Required Software \[page 28\]](#)
- We recommend that you use the `csh` shell for the installation with the installer. If you want to use another shell, make sure that you have read SAP Note [202227](#).

- The installer uses csh scripts during the installation to obtain the environment for user `<sapsid>adm`. This is also true if user `<sapsid>adm` already exists from an earlier SAP system installation, and the shell of this user is not csh. Before you start the installer, execute the following command as user `<sapsid>adm` to make sure that the csh scripts are up-to-date:

```
/bin/csh -c "source /<home>/<sapsid>adm/.cshrc;env"
```

- Make sure that your operating system does not delete the contents of the temporary directory `/tmp` or the contents of the directories to which the variables `TEMP`, `TMP`, or `TMPDIR` point, for example by using a `crontab` entry.
- Make sure that the temporary directory has the permissions `777`.
- Make sure that you have at least 300 MB of free space in the installation directory for each installation option. In addition, you need 300 MB free space for the installer executables. If you cannot provide 300 MB free space in the temporary directory, you can set one of the environment variables `TEMP`, `TMP`, or `TMPDIR` to another directory with 300 MB free space for the installer executables. You can set values for the `TEMP`, `TMP`, or `TMPDIR` environment variable to an alternative installation directory as described above in section [Useful Information about the Installer \[page 37\]](#)
- Make sure that your `DISPLAY` environment variable is set to `<host_name>:0.0`, where `<host_name>` is the host on which you want to display the installer GUI.

You can set values for the `DISPLAY` environment variables as follows:

Shell Used	Command
Bourne shell (sh)	DISPLAY=<host_name>:0.0 export DISPLAY
C shell (csh)	setenv DISPLAY <host_name>:0.0
Korn shell (ksh)	export DISPLAY=<host_name>:0.0

- Make sure that `umask` is set to `022` for user `root`. As user `root`, enter the following command: **umask 022**
- Make sure that you have checked the following values for user `root`:
 - In csh, execute **limit**.

Output	Properties
<code>cputime</code>	unlimited
<code>filesize</code>	unlimited
<code>datasize</code>	unlimited
<code>stacksize</code>	8192 kb
<code>coredumpsize</code>	unlimited
<code>descriptors</code>	8192
<code>memorysize</code>	unlimited

- In sh or ksh execute **ulimit -a**.

Output	Properties
<code>time(seconds)</code>	unlimited

Output	Properties
file(blocks)	unlimited
data(kbytes)	unlimited
stack(kbytes)	8192
coredump(blocks)	unlimited
nofiles(descriptors)	8192
memory(KBytes)	unlimited

- If your parameter settings differ from the settings above, change these values accordingly.

Example

If you have to change the value for descriptors to 8192, proceed as follows:

- In csh execute: **limit descriptors 8192**
- In sh or ksh execute: **ulimit -n 8192**

- If you want to install an additional application server instance in an existing SAP system, make sure that:
 - There is exactly one entry in the `/usr/sap/sapservices` file for each SAP instance installed on this host. Be sure to check that the entry refers to the correct profile.
 - There are no profile backup files with an underscore “_” in their profile name. If so, replace the “_” with a “.”.

Example

```
Rename /usr/sap/S14/SYS/profile/S14_DVEBMGS20_zsi-aix693p2_D20081204
to /usr/sap/S14/SYS/profile/S14_DVEBMGS20_zsi-aix693p2.D20081204
```

- Make sure that the following ports are not used by other processes:
 - Port 4237 is used by default as HTTPS port for communication between the installer and the SL Common GUI.
If this port cannot be used, you can assign a free port number by executing the `sapinst` executable with the following command line parameter:
SAPINST_HTTPS_PORT=<Free Port Number>
 - Port 4239 is used by default for displaying the feedback evaluation form at the end of the installer processing.
The filled-out evaluation form is then sent to SAP using HTTPS.
If this port cannot be used, you can assign a free port number by executing the `sapinst` executable with the following command line parameter:
SAPINST_HTTP_PORT=<Free Port Number>

Context

If errors occur during the installation, see [Troubleshooting with the Installer \[page 101\]](#).

Procedure

1. Log on to the installation host as a user with `root` authorizations

Caution

Make sure that the root user has not set any environment variables for a different SAP system or database.

SL Common GUI only: If your security policy requires that the person running the installer is not allowed to know the credentials of a user with `root` permissions on the installation host, you can specify another operating system user for authentication purposes. You do this using the `SAPINST_REMOTE_ACCESS_USER` parameter when starting the `sapinst` executable from the command line. You have to confirm that the user is a trusted one. For more information, see SAP Note [1745524](#).

2. Start the installer from the directory to which you unpacked the `70SWPM10SP<support package number>_<version number>.SAR` file by executing the following command: `/<path to unpack directory>/sapinst`

Caution

Make sure that the installation directory is not mounted with NFS, otherwise there might be problems when the Java Virtual Machine is started.

3. The installer is starting up.

You can find the URL you require to access the SL Common GUI at the bottom of the shell from which you are running the installer.

```
...
*****
**
Open your browser and paste the following URL address to access the GUI
https://[<hostname>]:4237/sapinst/docs/index.html
Logon users: [<users>]
*****
**
...
```

If you have a supported web browser installed on the host where you run the installer, you can open this URL directly in the shell. Otherwise open the URL in a supported web browser that runs on another device.

The SL Common GUI opens in the browser by displaying the *Welcome* screen.

Note

Before you reach the *Welcome* screen, your browser might warn you that the certificate of the `sapinst` process on this computer could not be verified. Accept this warning to inform your browser that it can trust this site, even if the certificate could not be verified.

4. In the *Welcome* screen choose **► Generic Installation Options ► Search and Classification (TREX) ►**.
5. Follow the instructions in the input dialogs of the installer and enter the required parameters.

The required input parameters are listed in the following sections:

- [Installing a TREX Global File System with a First TREX Instance \[page 50\]](#)
- [Installing a TREX Instance Only \[page 59\]](#)
- [Installing a TREX Global File System \[page 68\]](#)

Note

To find more information on each parameter during the *Define Parameters* phase, position the cursor on the required parameter input field, and choose either or the *HELP* tab. Then the available help text is displayed in the *HELP* tab.

Caution

The signature of media is checked **automatically** during the *Define Parameters* phase while processing the *Media Browser* screens.

Keep in mind that this automatic check is only committed once and **not** repeated if you modify artefacts such as SAR archives or files on the media **after** the initial check has been done. This means that - if you modify artefacts later on either during the remaining *Define Parameters* phase or later on during the *Execute Service* phase - the signature is not checked again.

See also the description of this new security feature in SAP Note [2393060](#).

6. After you have entered all input parameters, the installer starts the installation and displays the installation progress during the processing phase.
If the installation was successful, the screen *Execution of <option> has completed* is displayed.
7. For security reasons, we recommend that you delete the `.sapinst` directory within the home directory of the user with which you ran the installer:

```
<User_Home>/ .sapinst/
```

8. For security reasons, we recommend that you remove the operating system users from the group `sapinst` **after** you have completed the installation.

Note

This step is only required, if you did **not** specify during the *Define Parameters* phase that the operating system users are to be removed from the group `sapinst` **after** the execution of the installer has completed.

Next Steps

If you have copied the installer software to your hard disk, you can delete these files when the installation has successfully completed.

9.1.3 Running the Installer on Windows

Prerequisites

- For the SL Common GUI, make sure that the following web browser requirements are met:
 - You have one of the following supported browsers on the device where you want to run the SL Common GUI: Google Chrome, Mozilla Firefox, Microsoft Edge, or Microsoft Internet Explorer 11. Always use the latest version of these web browsers.

➔ Recommendation

We recommend using Google Chrome.

- If you copy the SL Common GUI URL manually in the browser window, make sure that you open a new Web browser window in private browsing mode (Internet Explorer), incognito mode (Chrome) or private browsing mode (Firefox). This is to prevent Web browser plugins and settings from interfering with the SL Common GUI.

For more information about the SL Common GUI, see [Useful Information about the Installer \[page 37\]](#).

- You are logged on as user with the required rights and privileges that authorize you to run the installer. For more information, see [Windows: Required User Authorization for Running the Installer \[page 29\]](#).
- You have downloaded the required software as described in [Downloading the Required Software \[page 28\]](#)
- You need at least 300 MB of free space in the installation directory for each installation option. In addition, you need 300 MB free space for the installer executables.
- If you want to install an additional application server instance in an existing SAP system, make sure that:
 - The service definitions for the SAP start services are configured correctly and refer to the correct profile files.
 - There are no profile backup files with an underscore “_” in their profile name. If so, replace the “_” with a “.”.

🔗 Example

Rename <Drive:>\usr\sap\S14\SYS\profile\S14_DVEBMGS20_wsi6408_12 to <Drive:>\usr\sap\S14\SYS\profile\S14_DVEBMGS20_wsi6408.12.

- Make sure that the following ports are not used by other processes:
 - Port 4237 is used by default as HTTPS port for communication between the installer and the SL Common GUI.
If this port cannot be used, you can assign a free port number by executing the `sapinst` executable with the following command line parameter:
SAPINST_HTTPS_PORT=<Free Port Number>
 - Port 4239 is used by default for displaying the feedback evaluation form at the end of the installer processing.
The filled-out evaluation form is then sent to SAP using HTTPS.
If this port cannot be used, you can assign a free port number by executing the `sapinst` executable with the following command line parameter:
SAPINST_HTTP_PORT=<Free Port Number>

Context

If errors occur during the installation, see [Troubleshooting with the Installer \[page 101\]](#).

Procedure

1. Log on to the installation host as a user with administrator rights .

SL Common GUI only: If your security policy requires that the person running the installer is not allowed to know administrator credentials on the installation host, you can specify another operating system user for authentication purposes. You do this using the `SAPINST_REMOTE_ACCESS_USER` parameter when starting `sapinst.exe` from the command line. You have to confirm that the user is a trusted one. For more information, see SAP Note [1745524](#).

2. Start the installer by double-clicking `sapinst.exe` from the directory to which you unpacked the `70SWPM10SP<support package number>_<version number>.SAR` file.
3. The installer is starting up.

The installer now starts and waits for the connection with the SL Common GUI. If you have a supported web browser installed on the host where you run the installer, the SL Common GUI starts automatically by displaying the *Welcome* screen.

If the SL Common GUI does not open automatically, you can find the URL you require to access the SL Common GUI at the bottom of the *Program Starter* window of the installer. You find the icon of the *Program Starter* window in the taskbar of your Windows host. Open a supported web browser and run the URL from there.

```
...
*****
**
Open your browser and paste the following URL address to access the GUI
https://[<hostname>]:4237/sapinst/docs/index.html
Logon users: [<users>]
*****
**
...
```

The SL Common GUI opens in the browser by displaying the *Welcome* screen.

Note

Before you reach the *Welcome* screen, your browser might warn you that the certificate of the `sapinst` process on this computer could not be verified. Accept this warning to inform your browser that it can trust this site, even if the certificate could not be verified.

4. In the *Welcome* screen choose **► Generic Installation Options ► Search and Classification (TREX) ►**.

If the installer prompts you to log off from your system, log off and log on again.

5. Follow the instructions in the input dialogs of the installer and enter the required parameters.

The required input parameters are listed in the following sections:

- [Installing a TREX Global File System with a First TREX Instance \[page 50\]](#)

- [Installing a TREX Instance Only \[page 59\]](#)
- [Installing a TREX Global File System \[page 68\]](#)

i Note

To find more information on each parameter during the *Define Parameters* phase, position the cursor on the required parameter input field, and choose either **F1** or the *HELP* tab. Then the available help text is displayed in the *HELP* tab.

⚠ Caution

The signature of media is checked **automatically** during the *Define Parameters* phase while processing the *Media Browser* screens.

Keep in mind that this automatic check is only committed once and **not** repeated if you modify artefacts such as SAR archives or files on the media **after** the initial check has been done. This means that - if you modify artefacts later on either during the remaining *Define Parameters* phase or later on during the *Execute Service* phase - the signature is not checked again.

See also the description of this new security feature in SAP Note [2393060](#).

6. After you have entered all input parameters, the installer starts the installation and displays the installation progress during the processing phase.

If the installation was successful, the screen *Execution of <option> has completed* is displayed.

7. For security reasons, we recommend that you delete the `.sapinst` directory within the home directory of the user with which you ran the installer:

```
%userprofile%\ .sapinst\
```

Next Steps

If you have copied the installer software to your hard disk, you can delete these files when the installation has successfully completed.

9.2 Installing TREX with a Virtual Host Name

To make your TREX installation accessible by a virtual host name you change the host name of the host on which you intend to install TREX. You do this by executing the following steps:

- Change the host name to the virtual host name
Before you install TREX you change the name of the installation host to a virtual host name on operating system level.
- Install TREX and change the host name back
After you have installed TREX on the installation host you change the host name back to the original host name.

-
- **Change the TREX Settings**
To make the virtual host name work for your TREX installation you need to change some TREX settings.

Prerequisites

The virtual host name must be valid at the operating system level and in the network the host is a part of. It can be a new primary host name, an additional alias name, or its IP address. The host must be accessible with this name using the ping command. Only then TREX can monitor itself and can be used by other applications.

Related Information

[Changing the Host Name to the Virtual Host Name \[page 47\]](#)

[Installing TREX and Changing the Host Name Back \[page 48\]](#)

[Changing the TREX Settings \[page 49\]](#)

9.2.1 Changing the Host Name to the Virtual Host Name

Context

Before you install TREX you change the host name of the host on which you intend to install TREX to a virtual host name on operating system level.

Related Information

[Procedure on UNIX \[page 48\]](#)

[Procedure on Windows \[page 48\]](#)

9.2.1.1 Procedure on UNIX

Procedure

1. Log on to the installation host as a user with `root` authorizations.
2. Change the host name of your installation host by the following command: `hostname <virtual_hostname>`

i Note

The host name is usually set once at system startup by reading the contents of a file which contains the host name, for example `/etc/hostname`.

9.2.1.2 Procedure on Windows

Procedure

1. Log on to the installation host as user with `administrator` rights.
2. Open **Start** > **Control Panel** > **System**.
3. On the *Computer Name* tab, choose *Change*.
4. In the *Computer name* field, type your new virtual host name `<virtual_hostname>`.

i Note

The name must be unique. You cannot use a name already in use on the network.

5. You need to restart your host for the new settings to take effect.

9.2.2 Installing TREX and Changing the Host Name Back

Context

After you have installed TREX on the installation host you change the host name back to the original host name.

Procedure

1. Install TREX as described in [Running the Installer \[page 37\]](#).
2. Stop TREX if necessary (incl. sapstartsrv) as described in [Stopping TREX \[page 109\]](#)

i Note

As long as the host name is changed to the virtual host name do not start or stop any other TREX instances. Otherwise those TREX instances would change the TREX configuration file topology.ini so that the instances will be registered with the virtual host name there.

3. Change the virtual host name `<virtual_hostname>` of your installation host back to the original host name as described in [Changing the Host Name to the Virtual Host Name \[page 47\]](#).

9.2.3 Changing the TREX Settings

Context

To make the virtual host name work for your TREX installation you have to specify the following TREX settings.

Related Information

[Procedure on UNIX \[page 49\]](#)

[Procedure on Windows \[page 50\]](#)

9.2.3.1 Procedure on UNIX

Procedure

1. Create a file with the name hostname in the home directory of the `<sapsid>adm` user with the following content:

```
#!/bin/sh
```

```
echo <virtual_hostname>
```

2. Make the file hostname executable by entering the following command:

```
chmod+x hostname
```

9.2.3.2 Procedure on Windows

Procedure

1. Change the TREX profile files `START_TRX<instance_number>_<virtual_hostname>` and `sapprofile.ini` as follows:

Change TREX start profile `START_TRX<instance_number>_<virtual_hostname>`. You find the TREX start profile in the global file system for your TREX installation `TREX_GLOBAL (/usr/sap/<SAPSID>/SYS/profile)`.

2. Change the line `SAPLOCALHOST=<virtual_hostname>`. If there is a line `SAPGLOBALHOST=<old_hostname>` then also change it.
 - Change the configuration file `<TREX_DIR>/<virtual_hostname>/sapprofile.ini`.
 - Change the line `SAPLOCALHOST=<virtual_hostname>`.
If there is a line `SAPGLOBALHOST=<old_hostname>` then also change it.
3. Start TREX as described in [Starting TREX \[page 106\]](#).

9.3 Installing a TREX Global File System with a First TREX Instance

The table below shows the names of the screens that are displayed during the installation of a TREX global file system with first TREX instance and the entries that you need to make.

i Note

For more information about the concept of the central TREX instance, see [Installing a TREX Global File System with a First TREX Instance \[page 32\]](#).


i Note


For more information about the input parameters, position the cursor on the parameter in the installer GUI and press **F1**.





After the installer has started, the *Welcome* screen appears:



Screen	Input
<i>Welcome</i>	In the folder hierarchy, choose ► <i>SAP NetWeaver 7.0 <Release></i> ► <i>Standalone Engines</i> ► <i>Search and Classification (TREX)</i> ► <i>TREX Global File System with First TREX Instance</i> ►
<i>Parameter Mode > Default Settings</i>	<p>You can choose between <i>Typical Mode</i> or <i>Custom Mode</i>:</p> <ul style="list-style-type: none"> • <i>Typical Mode</i> If you choose Typical, the option is performed with default settings. As a result, you only have to respond to a small selection of prompts. If you want to change any of the default settings, you can do so on the Parameter Summary screen. Note that if you choose the Typical setting and then choose Back after processing one or more input screens, the Custom setting is activated. You are now guided through all screens with the default parameters that have been applied in the background so far . • <i>Custom Mode</i> If you choose Custom, you are prompted for all parameters. At the end, you can still change any of these parameters on the Parameter Summary screen .
<i>Media Browser > Software Package Request</i>	<ul style="list-style-type: none"> • Provide the path to the media with the TREX 7.0 installation files in <i>Package Location</i>. • Provide the path to the media with the SAP NetWeaver Kernel 7.20 installation files in <i>Package Location</i>. <div style="background-color: #fff9c4; padding: 10px; margin-top: 10px;"> <p>⚠ Caution</p> <p>During the TREX installation, which you perform as the root user (UNIX) or as a user with administration rights (Windows), the operating system user <code><SAPSID>adm</code> is created. For all operating systems, make sure that the user <code><SAPSID>adm</code> has at least read-access to the TREX and the SAP NetWeaver Kernel installation software. Otherwise, a Python error message can occur during installation.</p> <p>If the <code><SAPSID>adm</code> user does not have at least read-access for the folder containing the TREX installation files, you can copy the TREX binaries to your local hard-drive. To do this, specify in CopyPackageTo the path to the directory to which you want to copy the files.</p> </div>
<i>SAP System > DNS Domain Name</i>	<p><i>DNS Domain Name for SAP System</i></p> <p>FQDN is the fully qualified domain name for an IP address. It consists of the host name and the domain name: <code><host name>.<domain name></code></p> <p>Enter the DNS domain name for the SAP system. The DNS domain name is appended to the server name to calculate the FQDN.</p> <p>The DNS Domain Name is used to calculate the Fully Qualified Domain Name (FQDN), which is configured in profile parameter SAPLOCALHOSTFULL. This parameter is needed to define the URLs for the ABAP and Java application servers. See SAP Note 654982.</p> <p>DNS has to be configured so that the FQDN can be resolved to an IP address .</p> <div style="background-color: #fff9c4; padding: 10px; margin-top: 10px;"> <p>i Note</p> <p>If your application server host is named <code>kirk.wdf.sap.com</code> , you have to enter <code>wdf.sap.com</code>.</p> </div>

Screen	Input
<p><i>SAP System > General Parameters</i></p>	<p><i>SAP System ID (SAPSID)</i></p> <p>The SAP system ID <SAPSID> is the identifier for the SAP system.</p> <ul style="list-style-type: none"> • If you install a new SAP system, enter the SAP system ID <SAPSID> for this system. • If you install the instances of this system on more than one host, make sure that you assign the same <SAPSID> to all these instances. • If you add instances to an existing SAP system - for example, if you install dialog instances for an existing SAP system - enter the <SAPSID> of the existing SAP system. • If you uninstall an SAP system, enter the SAP system ID <SAPSID> of the SAP system you want to uninstall. • Choose your <SAPSID> carefully. Renaming is complicated and requires you to re-install the SAP system. The ID must be unique throughout your organization and consistent throughout your SAP system installation landscape. • The ID must consist of exactly three alphanumeric characters. • Only uppercase letters are allowed . • The first character must be a letter (not a digit). • The following IDs are reserved and cannot be used: ADD ADM ALL AMD AND ANY ARE ASC AUX AVG BIT CDC COM CON DBA END EPS FOR GET GID IBM INT KEY LOG LPT MAP MAX MIN MON NIX NOT NUL OFF OLD OMS OUT PAD PRN RAW REF ROW SAP SET SGA SHG SID SQL SUM SYS TMP TOP UID USE USR VAR. <p>⚠ Caution</p> <p>When you choose a system ID <SAPSID> for your TREX landscape, check which system IDs are already in use by other SAP applications on the same host where TREX is to be installed.</p> <p>Do not use a system ID <SAPSID> that is already used for another SAP system landscape. Otherwise an error message will occur.</p>
<p><i>SAP System > General Parameters</i></p>	<p>⚠ Caution</p> <p>This parameter is only required on Windows.</p> <p><i>Installation Drive</i></p> <p>This is the drive where the SAP base directory (\usr\sap) is installed.</p> <p>If saploc already exists, you cannot select the local drive.</p> <p>🧩 Example</p> <p>If you select D: , the directory \usr\sap is created on drive D.</p>






Screen	Input
<p><i>SAP System > General Parameters</i></p>	<div style="background-color: #fff9c4; padding: 5px;"> <p> Caution</p> <p>This parameter is only required on UNIX.</p> </div> <p><i>SAP System Mount Directory</i></p> <p>The installer retrieves parameters from the SAP system profile directory of an existing SAP system.</p> <p>SAP profiles are operating system files that contain instance configuration information.</p> <p>The installer prompts you to enter the location of the profile directory when the installation option that you execute is not the first one belonging to your SAP system installation, for example if you are installing a distributed system or a dialog instance to an existing SAP system. See also the description of the parameters SAP System ID and Database ID.</p> <p><code>/usr/sap/<SAPSID>/SYS/profile</code> is the soft link referring to <code>/<sapmnt>/<SAPSID>/profile</code></p>
<p><i>SAP System > Master Passwords</i></p>	<p><i>Master Password</i></p> <p>Common password for all users that are created during the installation.</p> <p>We recommend that you use the same master password for each installation of a distributed scenario.</p> <ul style="list-style-type: none"> • Basic password policy: The master password must meet the following requirements: <ul style="list-style-type: none"> ○ It must be 8 to 14 characters long ○ It must contain at least one letter (a-z, A-Z) ○ It must contain at least one digit (0-9) ○ It must not contain \ (backslash) and " (double quote). • Additional restrictions depending on your operating system: <ul style="list-style-type: none"> ○ Windows: <ul style="list-style-type: none"> ○ If a user already exists, you are prompted to confirm the password for this user. ○ Depending on the configuration of the password policy, additional restrictions may apply. • Other restrictions: <ul style="list-style-type: none"> ○ Depending on the installation option, additional restrictions may apply (for example, the master password must not contain the name of a Java user created during the installation).

Screen	Input
<p>SAP System > Windows Domain</p>	<div style="background-color: #fff9c4; padding: 10px; border: 1px solid #ccc;"> <p> Caution</p> <p>This screen and these parameters are only required on Windows</p> </div> <p><i>Domain Model</i></p> <p>Choose whether you want to create the <sapsid>adm and SAPService <SAPSID> users:</p> <ul style="list-style-type: none"> • On the local computer (<i>Local Installation</i>). • In the domain of the user who is performing the installation (<i>Use Domain for Current User</i>) • In a domain that is different from the domain of the user who is installing the SAP system (<i>Use Different Domain</i>) <p>If you want to use the domain of the current user, the <sapsid>adm and SAPService <SAPSID> users can only be created by the installer if the account used for the installation has domain administrator rights in the domain involved. If not, a user with domain administrator rights has to create these users before the installation is started. For more information, see the installation guide. If the account used is a local user, a local installation is performed (on the local computer).</p> <p>If you want to use a different domain, you have to specify the Windows domain.</p> <p>The <sapsid>adm and SAPService <SAPSID> users can only be created in the different domain by the installer if the account used for the installation has domain administrator rights in in the other domain. If not, a user with domain administrator rights for this domain has to create these users in this domain before the installation is started. For more information, see the installation guide.</p> <p>Only choose to create the users on the local computer, if you do not want to install:</p> <ul style="list-style-type: none"> • Several application servers (dialog instances) or SAP systems that are using a common transport directory. If you choose this option, you can only access the SAP system from another computer, if the same user with the same password exists on both computers and both computers belong to the same domain or workgroup, or if you authenticate the session with user name and password • A high-availability system with Microsoft Cluster Service (MSCS)
<p>SAP System > OS User Passwords</p>	<p>Password of the SAP System Administrator user <sapsid>adm</p> <ul style="list-style-type: none"> • Password for the operating system user If the user already exists, enter the exact password of this user . • Otherwise choose a new password for this user. The installer then creates this user with the new password <p>The password policy for creating a new password depends on the settings of your operating system.</p> <p>Ask your system administrator if you are not sure about the policy.</p>

Screen	Input
<p>SAP System > OS User Passwords</p>	<div style="background-color: #fff9c4; padding: 5px;"> <p> Caution</p> <p>This parameter is only required on Windows.</p> </div> <p>Password of the SAP System Service user <code>SAPService<SAPSID></code></p> <ul style="list-style-type: none"> • Password for the operating system user. If the user already exists, enter the exact password of this user. • Otherwise choose a new password for this user. The installer then creates this user with the new password. <p>The password policy for creating a new password depends on the settings of your operating system.</p> <p>Ask your system administrator if you are not sure about the policy.</p>
<p>SAP System > OS User Passwords</p>	<div style="background-color: #fff9c4; padding: 5px;"> <p> Caution</p> <p>These parameters are only required on UNIX.</p> </div> <p><i>User ID:</i></p> <p>Enter the <i>User ID</i> for the user shown, making sure that the ID is unique.</p> <p>If you do not enter a User ID, the installer assigns a free ID.</p> <p><i>Login Shell:</i></p> <p>If you use a login shell other than the recommended C shell (csh), see SAP Note 202227  for more information.</p> <p><i>Home Directory:</i></p> <p>The home directory for the specified user</p> <p>Enter the home directory for the specified user. Make sure that you enter a home directory that is not critical for recursive changes on permissions.</p> <p>When operating system users are created by the installer, the permissions on the home directories of these users are changed recursively. This can cause unpredictable errors if you define a critical home directory.</p> <div style="background-color: #fff9c4; padding: 5px;"> <p> Example</p> <p>Do not enter <code>/</code> or <code>/usr/sap</code> as the home directory.</p> </div>

Screen	Input
<p>TREX > Instance</p>	<p><i>Instance Number</i></p> <p>Technical identifier for internal processes. Consists of a two-digit number between 00 and 97.</p> <p>Enter the instance number that you want to create for this specific instance.</p> <p>Choose a new TREX instance to install or an existing TREX instance to upgrade.</p> <ul style="list-style-type: none"> • If more than one SAP instance is running on the same host, you must assign these instances different numbers • AIX: <ul style="list-style-type: none"> If you are using NIM Service Handler (NIMSH), do not use 01 or 02 for the instance number. SAPinst uses the instance number for the internal message server port 39<instance number> . • HP-UX: <ul style="list-style-type: none"> Do not use the following numbers: <ul style="list-style-type: none"> ○ 02 – used by the operating system <ul style="list-style-type: none"> This number is used to determine the port number for report RSLGCOLL , which is 14<instance_number> by default. However, the port 1402 is already used by the OS process rstlisten. If you decide to use 02 as the instance number anyway, the instance fails to start during the installation process. You then have to change the port number for report RSLGCOLL manually to continue with the installation. ○ 75 - used by the operating system <ul style="list-style-type: none"> For more information, see SAP Note 29972  • Windows:Do not use the following numbers: <ul style="list-style-type: none"> ○ 43 - used by Microsoft Cluster Service (MSCS) ○ 89 - used by Windows Terminal Server (WTS) <p>The installer checks whether the installation directory already exists. If not, it creates it. The directory is:</p> <ul style="list-style-type: none"> • On UNIX: <pre>/usr/sap/<SAPSID>/trx<instance_number></pre> • On Windows: <pre><disk_drive>:\usr\sap\<SAPSID>\TRX<instance_number></pre> <p>The path to the directory is fixed and cannot be changed (apart from the Windows disk drive).</p> <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #ccc;"> <p> Caution</p> <p>The directory should not be available before the installation unless you explicitly created it for space reasons previously (see Checking Disk Space [page 35]).</p> <p>This allows you to ensure that the directory does not contain any data that doesn't belong to TREX, which would then also be deleted if TREX were uninstalled.</p> </div>

Screen	Input
<p>TREX > Instance Details</p>	<p><i>Install HTTP Server</i></p> <p>If the application communicates with TREX using an HTTP connection, select this field.</p> <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #ccc;"> <p>⚠ Caution</p> <p>Only Windows:</p> <p>You have to ensure that the Internet Information Server (IIS) is installed and that the Default Web Site is running. To check this navigate to: ▶ <i>Control Panel</i> ▶ <i>Administrative Tools</i> ▶ <i>Computer Management</i> ▶ <i>Services and Application</i> ▶ <i>Internet Information Services (IIS) Manager</i> ▶</p> </div>

Screen	Input
<p>TREX > Proxy Settings</p>	<p>Enter the proxy configuration settings.</p> <p>If there is a proxy server between the TREX servers and the documents to be indexed, specify the proxy server and define exclusion rules if necessary.</p> <div style="background-color: #fff9c4; padding: 10px;"> <p> Example</p> <p>You want to index the following:</p> <ul style="list-style-type: none"> • Documents on internal servers that can be accessed without a proxy server • Web pages on external servers that can only be accessed using a proxy server <p>In this case, specify the proxy server. Define exclusion rules for company-internal addresses, because the proxy server should not be used for those addresses</p> </div> <ul style="list-style-type: none"> • Proxy Server – host name and domain of the proxy server <div style="background-color: #fff9c4; padding: 10px;"> <p> Example</p> <p><code>proxy.mylocation.mycompany.com</code></p> </div> <ul style="list-style-type: none"> • Proxy Server Port – port of the proxy server <div style="background-color: #fff9c4; padding: 10px;"> <p> Example</p> <p>8080</p> </div> <ul style="list-style-type: none"> • Proxy User – user name needed to access the proxy server • Proxy User Password – password defined for the user • Proxy Exclusions – exclusion rules. <p>These rules define when TREX is not to use the proxy server. Use a semicolon to separate multiple entries.</p> <div style="background-color: #fff9c4; padding: 10px;"> <p> Example</p> <p>Examples of exclusion rules:</p> <ul style="list-style-type: none"> ○ Do not use the proxy server to get URLs that end in <code>mycompany.com;mycompany.com</code> . ○ Do not use the proxy server to get IP addresses that start with <code>10. : 10.</code> </div> <div style="background-color: #fff9c4; padding: 10px;"> <p> Caution</p> <p>Do not use asterisks as placeholders.</p> </div>

Screen	Input
<i>TREX > Languages for Document Analysis</i>	<p>TREX supports all main European and Asian languages for indexing and searching.</p> <p>Only select the languages that are relevant. This optimizes performance during the language recognition process and therefore during the search and indexing process. The language recognition process gives better results if as few languages as possible are used. You can also change settings for the language recognition after the installation.</p> <p>If the application does not transmit the document language to TREX, TREX has to identify the language before indexing. You can select the languages that you want TREX to recognize.</p> <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #ccc;"> <p>⚠ Caution</p> <p>Only select the languages that are relevant. This optimizes performance during the language recognition process, and therefore during the search and indexing process. The language recognition process gives better results if as few languages as possible are used.</p> </div> <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #ccc; margin-top: 10px;"> <p>i Note</p> <p>However, TREX can also index documents whose language is not specified here. TREX then inserts the documents in question into the index for the default language (normally English). For example, if you select English and German and a document in Spanish is then indexed, the document is inserted into the English index.</p> <p>This affects the documents in question in the following manner:</p> <ul style="list-style-type: none"> • A linguistic search is not possible. • TREX may extract keywords (document features) that are not characteristic of the document. </div>
<i>SAP System > SAP Cryptographic Software</i>	<p>Path to SAPCRYPTO . SAR</p> <p>The SAP Cryptographic Library is required to enable Secure Sockets Layer (SSL) encryption of HTTP connections. If you do not have the required SAPCRYPTO . SAR archive available, you can download it as described in SAP Note 455033 .</p> <p>If you want to use SSL, you have to enter the path to the location of SAPCRYPTO . SAR for your platform.</p>

9.4 Installing a TREX Instance Only

The table below shows the names of the screens that are displayed during the installation of a TREX instance only and the entries that you need to make.


Note

For more information about the concept of the TREX dialog instance, see [Installing a TREX Instance Only \[page 33\]](#)

Note


For more information about the input parameters, position the cursor on the parameter in the installer GUI and press **F1**.





After the installer has started, the *Welcome* screen appears:

Screen	Input
<i>Welcome</i>	In the folder hierarchy, choose ► <i>SAP NetWeaver 7.0 <Release></i> ► <i>Standalone Engines</i> ► <i>Search and Classification (TREX)</i> ► <i>TREX Global File System with First TREX Instance</i> ►
<i>Parameter Mode > Default Settings</i>	<p>You can choose between <i>Typical Mode</i> or <i>Custom Mode</i>:</p> <ul style="list-style-type: none">• <i>Typical Mode</i> If you choose Typical, the option is performed with default settings. As a result, you only have to respond to a small selection of prompts. If you want to change any of the default settings, you can do so on the Parameter Summary screen. Note that if you choose the Typical setting and then choose Back after processing one or more input screens, the Custom setting is activated. You are now guided through all screens with the default parameters that have been applied in the background so far .• <i>Custom Mode</i> If you choose Custom, you are prompted for all parameters. At the end, you can still change any of these parameters on the Parameter Summary screen .
<i>Media Browser > Software Package Request</i>	<ul style="list-style-type: none">• Provide the path to the media with the TREX 7.0 installation files in <i>Package Location</i>.• Provide the path to the media with the SAP NetWeaver Kernel 7.20 installation files in <i>Package Location</i>. <div style="background-color: #fff9c4; padding: 10px;"><p> Caution</p><p>During the TREX installation, which you perform as the root user (UNIX) or as a user with administration rights (Windows), the operating system user <i><SAPSID>adm</i> is created. For all operating systems, make sure that the user <i><SAPSID>adm</i> has at least read-access to the TREX and the SAP NetWeaver Kernel installation software. Otherwise, a Python error message can occur during installation.</p></div> <p>If the <i><SAPSID>adm</i> user does not have at least read-access for the folder containing the TREX installation files, you can copy the TREX binaries to your local hard-drive. To do this, specify in <i>CopyPackageTo</i> the path to the directory to which you want to copy the files.</p>


Screen	Input
<p><i>SAP System > DNS Domain Name</i></p>	<p><i>DNS Domain Name for SAP System</i></p> <p>FQDN is the fully qualified domain name for an IP address. It consists of the host name and the domain name: <code><host name>.<domain name></code></p> <p>Enter the DNS domain name for the SAP system. The DNS domain name is appended to the server name to calculate the FQDN.</p> <p>The DNS Domain Name is used to calculate the Fully Qualified Domain Name (FQDN), which is configured in profile parameter SAPLOCALHOSTFULL. This parameter is needed to define the URLs for the ABAP and Java application servers. See SAP Note 654982.</p> <p>DNS has to be configured so that the FQDN can be resolved to an IP address .</p> <div style="background-color: #fff9c4; padding: 10px;"> <p>i Note</p> <p>If your application server host is named <code>kirk.wdf.sap.com</code> , you have to enter <code>wdf.sap.com</code>.</p> </div>
<p><i>SAP System > General Parameters</i></p>	<p><i>Profile Directory</i></p> <p>The path to the directory in which the SAP system profiles are stored.</p> <ul style="list-style-type: none"> • Windows: <code>\\<SAPGLOBALHOST>\sapmnt\<SAPSID>\SYS\profile</code> • UNIX: <code>/<SAP System Mount Directory>/<SAPSID>/profile</code> <p>In the default scenario, the SAP system profiles are located on the host on which the TREX global file system with first TREX instance has been installed. You can choose Browse to search for the directory.</p> <div style="background-color: #fff9c4; padding: 10px;"> <p>i Note</p> <p>The global file system must be highly available. All instances of a TREX system must have permanent access to it. You guarantee this by inserting the profile directory as a network drive (Windows) or by mounting it (mount on UNIX).</p> </div>
<p><i>SAP System > General Parameters</i></p>	<div style="background-color: #fff9c4; padding: 10px;"> <p>⚠ Caution</p> <p>This parameter is only required on Windows.</p> </div> <p><i>Installation Drive</i></p> <p>This is the drive where the SAP base directory (<code>\usr\sap</code>) is installed.</p> <p>If saploc already exists, you cannot select the local drive.</p> <div style="background-color: #fff9c4; padding: 10px;"> <p>🧩 Example</p> <p>If you select D: , the directory <code>\usr\sap</code> is created on drive D.</p> </div>






Screen	Input
<p><i>SAP System > Master Passwords</i></p>	<p><i>Master Password</i></p> <p>Common password for all users that are created during the installation.</p> <p>We recommend that you use the same master password for each installation of a distributed scenario.</p> <ul style="list-style-type: none"> • Basic password policy: The master password must meet the following requirements: <ul style="list-style-type: none"> ○ It must be 8 to 14 characters long ○ It must contain at least one letter (a-z, A-Z) ○ It must contain at least one digit (0-9) ○ It must not contain \ (backslash) and " (double quote). • Additional restrictions depending on your operating system: <ul style="list-style-type: none"> ○ Windows: <ul style="list-style-type: none"> ○ If a user already exists, you are prompted to confirm the password for this user. ○ Depending on the configuration of the password policy, additional restrictions may apply. • Other restrictions: <ul style="list-style-type: none"> ○ Depending on the installation option, additional restrictions may apply (for example, the master password must not contain the name of a Java user created during the installation).

Screen	Input
<p><i>SAP System > Windows Domain</i></p>	<div style="background-color: #fff9c4; padding: 10px; border: 1px solid #ccc;"> <p> Caution</p> <p>This screen and these parameters are only required on Windows</p> </div> <p><i>Domain Model</i></p> <p>Choose whether you want to create the <code><sapsid>adm</code> and <code>SAPService <SAPSID></code> users:</p> <ul style="list-style-type: none"> • On the local computer (<i>Local Installation</i>). • In the domain of the user who is performing the installation (<i>Use Domain for Current User</i>) • In a domain that is different from the domain of the user who is installing the SAP system (<i>Use Different Domain</i>) <p>If you want to use the domain of the current user, the <code><sapsid>adm</code> and <code>SAPService <SAPSID></code> users can only be created by the installer if the account used for the installation has domain administrator rights in the domain involved. If not, a user with domain administrator rights has to create these users before the installation is started. For more information, see the installation guide. If the account used is a local user, a local installation is performed (on the local computer).</p> <p>If you want to use a different domain, you have to specify the Windows domain.</p> <p>The <code><sapsid>adm</code> and <code>SAPService <SAPSID></code> users can only be created in the different domain by the installer if the account used for the installation has domain administrator rights in in the other domain. If not, a user with domain administrator rights for this domain has to create these users in this domain before the installation is started. For more information, see the installation guide.</p> <p>Only choose to create the users on the local computer, if you do not want to install:</p> <ul style="list-style-type: none"> • Several application servers (dialog instances) or SAP systems that are using a common transport directory. If you choose this option, you can only access the SAP system from another computer, if the same user with the same password exists on both computers and both computers belong to the same domain or workgroup, or if you authenticate the session with user name and password • A high-availability system with Microsoft Cluster Service (MSCS)
<p><i>SAP System > OS User Passwords</i></p>	<p>Password of the SAP System Administrator user <code><sapsid>adm</code></p> <ul style="list-style-type: none"> • Password for the operating system user If the user already exists, enter the exact password of this user . • Otherwise choose a new password for this user. The installer then creates this user with the new password <p>The password policy for creating a new password depends on the settings of your operating system.</p> <p>Ask your system administrator if you are not sure about the policy.</p>

Screen	Input
<p><i>SAP System > OS User Passwords</i></p>	<div style="background-color: #fff9c4; padding: 5px;"> <p> Caution</p> <p>This parameter is only required on Windows.</p> </div> <p>Password of the SAP System Service user <code>SAPService<SAPSID></code></p> <ul style="list-style-type: none"> • Password for the operating system user. If the user already exists, enter the exact password of this user. • Otherwise choose a new password for this user. The installer then creates this user with the new password. <p>The password policy for creating a new password depends on the settings of your operating system.</p> <p>Ask your system administrator if you are not sure about the policy.</p>
<p><i>SAP System > OS User Passwords</i></p>	<div style="background-color: #fff9c4; padding: 5px;"> <p> Caution</p> <p>These parameters are only required on UNIX.</p> </div> <p><i>User ID:</i></p> <p>Enter the <i>User ID</i> for the user shown, making sure that the ID is unique.</p> <p>If you do not enter a User ID, the installer assigns a free ID.</p> <p><i>Login Shell:</i></p> <p>If you use a login shell other than the recommended C shell (csh), see SAP Note 202227  for more information.</p> <p><i>Home Directory:</i></p> <p>The home directory for the specified user</p> <p>Enter the home directory for the specified user. Make sure that you enter a home directory that is not critical for recursive changes on permissions.</p> <p>When operating system users are created by the installer, the permissions on the home directories of these users are changed recursively. This can cause unpredictable errors if you define a critical home directory.</p> <div style="background-color: #fff9c4; padding: 5px;"> <p> Example</p> <p>Do not enter <code>/</code> or <code>/usr/sap</code> as the home directory.</p> </div>

Screen	Input
<p>TREX > Instance</p>	<p><i>Instance Number</i></p> <p>Technical identifier for internal processes. Consists of a two-digit number between 00 and 97.</p> <p>Enter the instance number that you want to create for this specific instance.</p> <p>Choose a new TREX instance to install or an existing TREX instance to upgrade.</p> <ul style="list-style-type: none"> • If more than one SAP instance is running on the same host, you must assign these instances different numbers • AIX: <ul style="list-style-type: none"> If you are using NIM Service Handler (NIMSH), do not use 01 or 02 for the instance number. SAPinst uses the instance number for the internal message server port 39<instance number> . • HP-UX: <ul style="list-style-type: none"> Do not use the following numbers: <ul style="list-style-type: none"> ○ 02 – used by the operating system <ul style="list-style-type: none"> This number is used to determine the port number for report RSLGCOLL , which is 14<instance_number> by default. However, the port 1402 is already used by the OS process rstlisten. If you decide to use 02 as the instance number anyway, the instance fails to start during the installation process. You then have to change the port number for report RSLGCOLL manually to continue with the installation. ○ 75 - used by the operating system <ul style="list-style-type: none"> For more information, see SAP Note 29972 • Windows:Do not use the following numbers: <ul style="list-style-type: none"> ○ 43 - used by Microsoft Cluster Service (MSCS) ○ 89 - used by Windows Terminal Server (WTS) <p>The installer checks whether the installation directory already exists. If not, it creates it. The directory is:</p> <ul style="list-style-type: none"> • On UNIX: <pre>/usr/sap/<SAPSID>/trx<instance_number></pre> • On Windows: <pre><disk_drive>:\usr\sap\<SAPSID>\TRX<instance_number></pre> <p>The path to the directory is fixed and cannot be changed (apart from the Windows disk drive).</p> <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #ccc;"> <p>⚠ Caution</p> <p>The directory should not be available before the installation unless you explicitly created it for space reasons previously (see Checking Disk Space [page 35]).</p> <p>This allows you to ensure that the directory does not contain any data that doesn't belong to TREX, which would then also be deleted if TREX were uninstalled.</p> </div>

Screen	Input
<p>TREX > Instance Details</p>	<p><i>Install HTTP Server</i></p> <p>If the application communicates with TREX using an HTTP connection, select this field.</p> <div style="background-color: #fff9c4; padding: 10px; border: 1px solid #ccc;"> <p> Caution</p> <p>Only Windows:</p> <p>You have to ensure that the Internet Information Server (IIS) is installed and that the Default Web Site is running. To check this navigate to: ► <i>Control Panel</i> ► <i>Administrative Tools</i> ► <i>Computer Management</i> ► <i>Services and Application</i> ► <i>Internet Information Services (IIS) Manager</i> ►</p> </div>

Screen	Input
<p>TREX > Proxy Settings</p>	<p>Enter the proxy configuration settings.</p> <p>If there is a proxy server between the TREX servers and the documents to be indexed, specify the proxy server and define exclusion rules if necessary.</p> <div style="background-color: #fff9c4; padding: 10px;"> <p> Example</p> <p>You want to index the following:</p> <ul style="list-style-type: none"> • Documents on internal servers that can be accessed without a proxy server • Web pages on external servers that can only be accessed using a proxy server <p>In this case, specify the proxy server. Define exclusion rules for company-internal addresses, because the proxy server should not be used for those addresses</p> </div> <ul style="list-style-type: none"> • Proxy Server – host name and domain of the proxy server <div style="background-color: #fff9c4; padding: 10px;"> <p> Example</p> <p><code>proxy.mylocation.mycompany.com</code></p> </div> <ul style="list-style-type: none"> • Proxy Server Port – port of the proxy server <div style="background-color: #fff9c4; padding: 10px;"> <p> Example</p> <p>8080</p> </div> <ul style="list-style-type: none"> • Proxy User – user name needed to access the proxy server • Proxy User Password – password defined for the user • Proxy Exclusions – exclusion rules. <p>These rules define when TREX is not to use the proxy server. Use a semicolon to separate multiple entries.</p> <div style="background-color: #fff9c4; padding: 10px;"> <p> Example</p> <p>Examples of exclusion rules:</p> <ul style="list-style-type: none"> ○ Do not use the proxy server to get URLs that end in <code>mycompany.com;mycompany.com</code> . ○ Do not use the proxy server to get IP addresses that start with <code>10. : 10.</code> </div> <div style="background-color: #fff9c4; padding: 10px;"> <p> Caution</p> <p>Do not use asterisks as placeholders.</p> </div>

Screen	Input
<i>TREX > Languages for Document Analysis</i>	<p>TREX supports all main European and Asian languages for indexing and searching.</p> <p>Only select the languages that are relevant. This optimizes performance during the language recognition process and therefore during the search and indexing process. The language recognition process gives better results if as few languages as possible are used. You can also change settings for the language recognition after the installation.</p> <p>If the application does not transmit the document language to TREX, TREX has to identify the language before indexing. You can select the languages that you want TREX to recognize.</p> <p>⚠ Caution</p> <p>Only select the languages that are relevant. This optimizes performance during the language recognition process, and therefore during the search and indexing process. The language recognition process gives better results if as few languages as possible are used.</p> <p>i Note</p> <p>However, TREX can also index documents whose language is not specified here. TREX then inserts the documents in question into the index for the default language (normally English). For example, if you select English and German and a document in Spanish is then indexed, the document is inserted into the English index.</p> <p>This affects the documents in question in the following manner:</p> <ul style="list-style-type: none"> • A linguistic search is not possible. • TREX may extract keywords (document features) that are not characteristic of the document.

9.5 Installing a TREX Global File System

The table below shows the names of the screens that are displayed during the installation of a TREX global file system and the entries that you need to make.

i Note

For more information about the concept of the global file system, see [Installing a TREX Global File System Only \[page 34\]](#).

i Note


For more information about the input parameters, position the cursor on the parameter in the installer GUI and press **F1**.





After the installer has started, the *Welcome* screen appears:

Screen	Input
<i>Welcome</i>	In the folder hierarchy, choose ► <i>SAP NetWeaver 7.0 <Release></i> ► <i>Standalone Engines</i> ► <i>Search and Classification (TREX)</i> ► <i>TREX Global File System with First TREX Instance</i> ►
<i>Parameter Mode > Default Settings</i>	<p>You can choose between <i>Typical Mode</i> or <i>Custom Mode</i>:</p> <ul style="list-style-type: none"> • <i>Typical Mode</i> If you choose Typical, the option is performed with default settings. As a result, you only have to respond to a small selection of prompts. If you want to change any of the default settings, you can do so on the Parameter Summary screen. Note that if you choose the Typical setting and then choose Back after processing one or more input screens, the Custom setting is activated. You are now guided through all screens with the default parameters that have been applied in the background so far . • <i>Custom Mode</i> If you choose Custom, you are prompted for all parameters. At the end, you can still change any of these parameters on the Parameter Summary screen .
<i>Media Browser > Software Package Request</i>	<ul style="list-style-type: none"> • Provide the path to the media with the TREX 7.0 installation files in <i>Package Location</i>. • Provide the path to the media with the SAP NetWeaver Kernel 7.20 installation files in <i>Package Location</i>. <div style="background-color: #fff9c4; padding: 10px; margin-top: 10px;"> <p>⚠ Caution</p> <p>During the TREX installation, which you perform as the root user (UNIX) or as a user with administration rights (Windows), the operating system user <code><SAPSID>adm</code> is created. For all operating systems, make sure that the user <code><SAPSID>adm</code> has at least read-access to the TREX and the SAP NetWeaver Kernel installation software. Otherwise, a Python error message can occur during installation.</p> <p>If the <code><SAPSID>adm</code> user does not have at least read-access for the folder containing the TREX installation files, you can copy the TREX binaries to your local hard-drive. To do this, specify in CopyPackageTo the path to the directory to which you want to copy the files.</p> </div>
<i>SAP System > DNS Domain Name</i>	<p><i>DNS Domain Name for SAP System</i></p> <p>FQDN is the fully qualified domain name for an IP address. It consists of the host name and the domain name: <code><host name>.<domain name></code></p> <p>Enter the DNS domain name for the SAP system. The DNS domain name is appended to the server name to calculate the FQDN.</p> <p>The DNS Domain Name is used to calculate the Fully Qualified Domain Name (FQDN), which is configured in profile parameter SAPLOCALHOSTFULL. This parameter is needed to define the URLs for the ABAP and Java application servers. See SAP Note 654982.</p> <p>DNS has to be configured so that the FQDN can be resolved to an IP address .</p> <div style="background-color: #fff9c4; padding: 10px; margin-top: 10px;"> <p>i Note</p> <p>If your application server host is named <code>kirk.wdf.sap.com</code> , you have to enter <code>wdf.sap.com</code>.</p> </div>

Screen	Input
<p><i>SAP System > General Parameters</i></p>	<p><i>SAP System ID (SAPSID)</i></p> <p>The SAP system ID <SAPSID> is the identifier for the SAP system.</p> <ul style="list-style-type: none"> • If you install a new SAP system, enter the SAP system ID <SAPSID> for this system. • If you install the instances of this system on more than one host, make sure that you assign the same <SAPSID> to all these instances. • If you add instances to an existing SAP system - for example, if you install dialog instances for an existing SAP system - enter the <SAPSID> of the existing SAP system. • If you uninstall an SAP system, enter the SAP system ID <SAPSID> of the SAP system you want to uninstall. • Choose your <SAPSID> carefully. Renaming is complicated and requires you to re-install the SAP system. The ID must be unique throughout your organization and consistent throughout your SAP system installation landscape. • The ID must consist of exactly three alphanumeric characters. • Only uppercase letters are allowed . • The first character must be a letter (not a digit). • The following IDs are reserved and cannot be used: ADD ADM ALL AMD AND ANY ARE ASC AUX AVG BIT CDC COM CON DBA END EPS FOR GET GID IBM INT KEY LOG LPT MAP MAX MIN MON NIX NOT NUL OFF OLD OMS OUT PAD PRN RAW REF ROW SAP SET SGA SHG SID SQL SUM SYS TMP TOP UID USE USR VAR. <p>⚠ Caution</p> <p>When you choose a system ID <SAPSID> for your TREX landscape, check which system IDs are already in use by other SAP applications on the same host where TREX is to be installed.</p> <p>Do not use a system ID <SAPSID> that is already used for another SAP system landscape. Otherwise an error message will occur.</p>
<p><i>SAP System > General Parameters</i></p>	<p>⚠ Caution</p> <p>This parameter is only required on Windows.</p> <p><i>Installation Drive</i></p> <p>This is the drive where the SAP base directory (\usr\sap) is installed.</p> <p>If saploc already exists, you cannot select the local drive.</p> <p>🧩 Example</p> <p>If you select D: , the directory \usr\sap is created on drive D.</p>

Screen	Input
<p><i>SAP System > General Parameters</i></p>	<div style="background-color: #fff9c4; padding: 5px;"> <p>⚠ Caution</p> <p>This parameter is only required on UNIX.</p> </div> <p><i>SAP System Mount Directory</i></p> <p>The installer retrieves parameters from the SAP system profile directory of an existing SAP system.</p> <p>SAP profiles are operating system files that contain instance configuration information.</p> <p>The installer prompts you to enter the location of the profile directory when the installation option that you execute is not the first one belonging to your SAP system installation, for example if you are installing a distributed system or a dialog instance to an existing SAP system. See also the description of the parameters SAP System ID and Database ID.</p> <p><code>/usr/sap/<SAPSID>/SYS/profile</code> is the soft link referring to <code>/<sapmnt>/<SAPSID>/profile</code></p>
<p><i>SAP System > Master Passwords</i></p>	<p><i>Master Password</i></p> <p>Common password for all users that are created during the installation.</p> <p>We recommend that you use the same master password for each installation of a distributed scenario.</p> <ul style="list-style-type: none"> • Basic password policy: The master password must meet the following requirements: <ul style="list-style-type: none"> ○ It must be 8 to 14 characters long ○ It must contain at least one letter (a-z, A-Z) ○ It must contain at least one digit (0-9) ○ It must not contain \ (backslash) and " (double quote). • Additional restrictions depending on your operating system: <ul style="list-style-type: none"> ○ Windows: <ul style="list-style-type: none"> ○ If a user already exists, you are prompted to confirm the password for this user. ○ Depending on the configuration of the password policy, additional restrictions may apply. • Other restrictions: <ul style="list-style-type: none"> ○ Depending on the installation option, additional restrictions may apply (for example, the master password must not contain the name of a Java user created during the installation).

Screen	Input
<p>SAP System > Windows Domain</p>	<div style="background-color: #fff9c4; padding: 10px;"> <p> Caution</p> <p>This screen and these parameters are only required on Windows</p> </div> <p><i>Domain Model</i></p> <p>Choose whether you want to create the <sapsid>adm and SAPService <SAPSID> users:</p> <ul style="list-style-type: none"> • On the local computer (<i>Local Installation</i>). • In the domain of the user who is performing the installation (<i>Use Domain for Current User</i>) • In a domain that is different from the domain of the user who is installing the SAP system (<i>Use Different Domain</i>) <p>If you want to use the domain of the current user, the <sapsid>adm and SAPService <SAPSID> users can only be created by the installer if the account used for the installation has domain administrator rights in the domain involved. If not, a user with domain administrator rights has to create these users before the installation is started. For more information, see the installation guide. If the account used is a local user, a local installation is performed (on the local computer).</p> <p>If you want to use a different domain, you have to specify the Windows domain.</p> <p>The <sapsid>adm and SAPService <SAPSID> users can only be created in the different domain by the installer if the account used for the installation has domain administrator rights in in the other domain. If not, a user with domain administrator rights for this domain has to create these users in this domain before the installation is started. For more information, see the installation guide.</p> <p>Only choose to create the users on the local computer, if you do not want to install:</p> <ul style="list-style-type: none"> • Several application servers (dialog instances) or SAP systems that are using a common transport directory. If you choose this option, you can only access the SAP system from another computer, if the same user with the same password exists on both computers and both computers belong to the same domain or workgroup, or if you authenticate the session with user name and password • A high-availability system with Microsoft Cluster Service (MSCS)
<p>SAP System > OS User Passwords</p>	<p>Password of the SAP System Administrator user <sapsid>adm</p> <ul style="list-style-type: none"> • Password for the operating system user If the user already exists, enter the exact password of this user . • Otherwise choose a new password for this user. The installer then creates this user with the new password <p>The password policy for creating a new password depends on the settings of your operating system.</p> <p>Ask your system administrator if you are not sure about the policy.</p>

Screen	Input
<p><i>SAP System > OS User Passwords</i></p>	<div style="background-color: #fff9c4; padding: 5px;"> <p> Caution</p> <p>This parameter is only required on Windows.</p> </div> <p>Password of the SAP System Service user <code>SAPService<SAPSID></code></p> <ul style="list-style-type: none"> • Password for the operating system user. If the user already exists, enter the exact password of this user. • Otherwise choose a new password for this user. The installer then creates this user with the new password. <p>The password policy for creating a new password depends on the settings of your operating system.</p> <p>Ask your system administrator if you are not sure about the policy.</p>
<p><i>SAP System > OS User Passwords</i></p>	<div style="background-color: #fff9c4; padding: 5px;"> <p> Caution</p> <p>These parameters are only required on UNIX.</p> </div> <p><i>User ID:</i></p> <p>Enter the <i>User ID</i> for the user shown, making sure that the ID is unique.</p> <p>If you do not enter a User ID, the installer assigns a free ID.</p> <p><i>Login Shell:</i></p> <p>If you use a login shell other than the recommended C shell (csh), see SAP Note 202227  for more information.</p> <p><i>Home Directory:</i></p> <p>The home directory for the specified user</p> <p>Enter the home directory for the specified user. Make sure that you enter a home directory that is not critical for recursive changes on permissions.</p> <p>When operating system users are created by the installer, the permissions on the home directories of these users are changed recursively. This can cause unpredictable errors if you define a critical home directory.</p> <div style="background-color: #fff9c4; padding: 5px;"> <p> Example</p> <p>Do not enter <code>/</code> or <code>/usr/sap</code> as the home directory.</p> </div>

10 Post-Installation Configuration

After the *Search and Classification (TREX)* function has been installed, you perform a number of technical configuration steps. The following sections describe:

- General configuration steps that you carry out for your operating platform.
- Configuration steps that you only carry out if the application in question communicates with TREX using an HTTP or an RFC connection.

[Server Side \[page 74\]](#)

[Client Side \[page 89\]](#)

10.1 Server Side

The following sections describe the configuration steps that you have to carry out on the server side.

10.1.1 Configuring TREX for the System Landscape Directory (SLD)

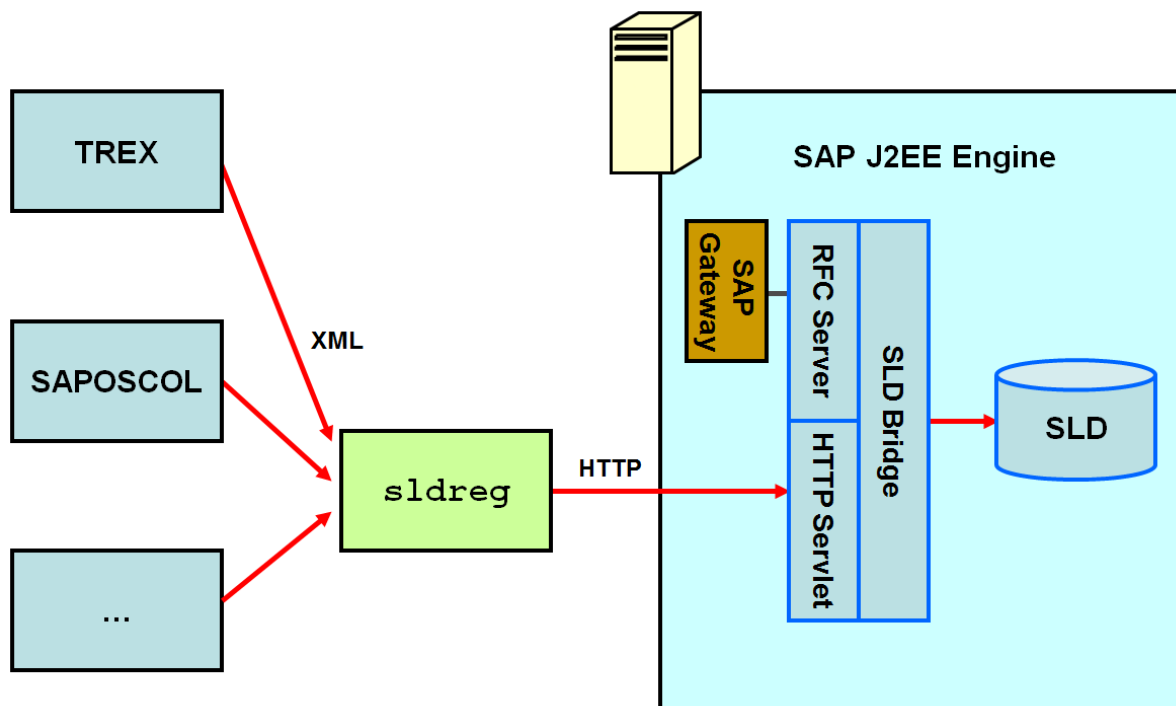
A modern computing environment consists of a number of hardware and software components that depend on each other with regard to installation, software updates, and demands on interfaces. The SAP System Landscape Directory (SLD) simplifies the administration of your system landscape.

The SLD is a server application that communicates with a client application using the Hypertext Transfer Protocol (HTTP). The SLD server contains component information, a landscape description, and a name reservation, which are based on the standard Common Information Model (CIM). The CIM standard is a general schema for describing the elements in a system landscape. This standard is independent of any implementation.

The component description provides information about all available SAP software modules, as well as their combination options and dependencies. This includes version numbers, current patch level, and dependencies between landscape components.

For more information about the SAP System Landscape Directory , see <https://help.sap.com/netweaver> ▶▶
[SAP NetWeaver 7.0 <Release>](#) ▶ [Application Help](#) ▶ [Function-Oriented View](#) ▶ [SAP NetWeaver by Key Capability](#) ▶ [Solution Life Cycle Management by Key Capability](#) ▶ [Software Life Cycle Management](#) ▶ [System Landscape Directory](#) ▶

To supply data to the SLD that originates from a system other than a J2EE or ABAP system, the executable `sldreg` is used. The `sldreg` sends data in XML format using a predefined DTD. For this purpose it uses an HTTP connection, as shown in the figure below:



On the TREX host, there is an SLD client, which generates an XML file of this type and which registers itself with the SLD server using `sldreg`.

Prerequisites

- After the TREX installation, the SLD client and the associated executable files are located on your TREX host.
- The SLD server is running.
- You or your SLD administrator have generated the SLD configuration files `slddest.cfg` and `slddest.cfg.key`.

i Note

The `slddest.cfg.key` file is only available if the configuration of `sldreg` was generated using the `-usekeyfile` parameter.

- The user specified in the SLD configuration file `slddest.cfg` belongs to the `DataSupplierLD` user role, in order to have permission to send the files to the SLD.

Generating SLD Configuration Files

In case you generate the SLD configuration files (slddest.cfg and slddest.cfg.key) by yourself you have to know the host, port, user and password of the SLD server. You generate these configuration files by using the executable files which are located on your TREX host.

Set the environment variables required by TREX by executing the following scripts in a command prompt in the `<TREX_DIR>` directory:

- UNIX:
 - Bourne shell sh , Bourne-again shell bash , Korn shell ksh :
 `. TREXSettings.sh`
 - C shell csh :
 `source TREXSettings.csh`
- Windows:
 - `TREXSettings.bat`

Execute the following commands:

- Without usekeyfile: `sldreg -configure <path>/slddest.cfg`
- With usekeyfile: `sldreg -usekeyfile -configure <path>/slddest.cfg`

Copying the SLD Configuration Files to the Global SLD Directory

To configure TREX for the System Landscape Directory (SLD) , you copy the SLD configuration files slddest.cfg and slddest.cfg.key (if available) to the global SLD directory on your TREX host.

This directory is called `<disk_drive>:\usr\sap\<SAPSID>\SYS\global` on Windows and `/usr/sap/<SAPSID>/SYS/global` on UNIX. In the case of a distributed TREX installation on Windows, all TREX instances use the configuration files for the TREX global file system with first TREX instance as `\<host_central_instance>\sapmnt\<SAPSID>\SYS\global`.

Result

By copying the files slddest.cfg and slddest.cfg.key , and by you have configured TREX for integration in the System Landscape Directory (SLD).

TREX checks every five minutes whether anything has changed in the TREX system landscape and reports any changes automatically to the SLD server. If nothing has changed, TREX reports every twelve hours to the SLD server. This allows you to see that this landscape is still active.

Display Results

To display the information about TREX systems and services navigate to the screen Content Maintenance:

- In the initial screen for the System Landscape Directory *Development: *Content Maintenance*
- In the initial screen for the System Landscape Directory *Administration * Content: *Content Maintenance*

In the screen Content Maintenance navigate to Subset and choose All With Instances in the dropdown list.

Navigate to Class. In the dropdown list you can display the TREX Services (for example TREX Index Service, TREX Name Service) and TREX systems known by SLD.

Information Transferred to the SLD Server

TREX transfers the following information to the SLD server:

- Information about naming and version:
 - Software component version (for example, TREX 7.0)
 - SAP name (for example, TREX)
 - Version (for example, 7.0)
- Information about the TREX servers:
 - Host name, on which the server is running
 - Port number that the server is using
 - Type of server, for example, indexserver
 - Web server URL (instead of the port)
 - RFC destination of the RFC server (instead of the port)
- Information about the TREX instances on individual hosts:
 - System ID
 - Instance number
 - Installation directory
 - Version information for the TREX software

Information about the TREX configuration:

- Name of the TREX hosts (Hosts) that belong to the TREX system landscape
- TREX server roles
 - Roles of the TREX name server (Name Server Mode)
Possible roles are: 1st, 2nd, 3rd Master Name Server, Slave Server
 - Use as master index server or master queue server
 - Roles of the master, slave, and backup index servers
- TREX preprocessor mode (Preprocessor Mode)
- Information about the TREX installation directory (Base Path)
- Services that have been started by the TREX daemon (Services)

10.1.2 General UNIX Configuration

The following sections describe the steps that are necessary after an installation on UNIX.

10.1.2.1 Checking and Changing UNIX Kernel Parameters

Check the following UNIX kernel parameters and modify them if necessary:

- Number of open files per process
On UNIX platforms, each process may only have a certain number of files open at once. If you create a large number of indexes and queues during routine operation, the TREX processes, in particular the queue server and index server, open a lot of files.
With many UNIX installations, the value for the maximum number of files that the processes are allowed to have open is too low. The parameter must have the following value:

Operating System	Value
AIX, HP-UX, Oracle Solaris	At least 2048
Linux	At least 1024

- HP-UX only:
 - Process Size
The process size should be at least 2GB.
- i Note**
The process size is not limited for AIX and Oracle Solaris.
- Files larger than 2 GB
Since TREX can also use files that are larger than 2GB, these must be activated at operating system level.

The TREX directory contains a test program that you can use to check whether the kernel parameters are set at a suitable level. If this is not the case, you should change the kernel parameters.

Related Information

[Checking Kernel Parameters \[page 79\]](#)

[Changing Kernel Parameters \[page 79\]](#)

10.1.2.1.1 Checking Kernel Parameters

Procedure

1. Log on as user `<sapsid>adm`.
2. Go to the TREX directory.
3. Set the environment variables required by TREX:

Option	Description
Bourne shell <code>sh</code> , Bourne-again shell <code>bash</code> , Korn shell <code>ksh</code>	<code>. TREXSettings.sh</code>
C shell <code>csh</code>	<code>source TREXSettings.csh</code>

4. Test the size and number of open files per process using the following command:

```
portlibtester.x -file
```

Number of open files:

This command creates test files in the directory `/tmp/portlibtester`. The test must give a result of at least 1000 files (Linux) or 2000 files for other UNIX platforms. If this is not the case, you should change the kernel parameters.

5. **Only HP-UX:** Test the possible process size using the following command:

```
portlibtester.x -mem
```

This command calls upon as much main memory as possible. The test must output the value 1900 MB at least. If this is not the case, you should change the kernel parameters.

10.1.2.1.2 Changing Kernel Parameters

Related Information

[Changing Kernel Parameters on AIX \[page 80\]](#)

[Changing Kernel Parameters on HP-UX \[page 80\]](#)

[Changing Kernel Parameters on Linux \[page 81\]](#)

[Changing Kernel Parameters on Oracle Solaris \[page 82\]](#)

10.1.2.1.2.1 Changing Kernel Parameters on AIX

Procedure

1. Log on as a user with `root` authorizations.
2. Carry out the following steps as appropriate, depending on whether you are working with or without a Network Information System (NIS).
 - (Without NIS) Execute the following command:
`chuser nofiles=2000 trx<instance_number>`
 - (With NIS) Add the following entry to the file `/etc/security/limits`:
`trx<instance_number>: nofiles=2000`
3. Restart the host using `reboot`.

Results

After making the change, execute `portlibtester.x -file` again. If the number of open files is still too low, the UNIX system administrator must have restricted this parameter in another way. Contact the UNIX system administrator to remove this restriction.

10.1.2.1.2.2 Changing Kernel Parameters on HP-UX

Procedure

- Changing the process size
 - a. Log on as a user with root authorizations.
 - b. Open the administration tool SAM (`usr/sbin/sam`).
 - c. Set at least the following values in the dialog box [kernel configuration/configurable](#).

Kernel Parameter	Lowest Acceptable Value
Process Size	
maxdsiz	0X80000000 or 2147483648
maxdsiz_64bit	0X80000000 or 2147483648

Kernel Parameter	Lowest Acceptable Value
maxtsiz	0X40000000 or 1073741824
maxtsiz_64bit	0X40000000 or 1073741824
Number of Open Files	
maxfiles	2048
maxfiles_lim	2048
nfile	20000

- Activating files larger than 2 GB
 - a. Log on as a user with root authorizations.
 - b. Execute the following command:


```
fsadm -o largefiles <mount-point>
```

In doing this, you activate usage of files larger than 2 GB on a certain file system.

Results

After making the change, execute `portlibtester.x -file` again. If the number of open files is still too low, the UNIX system administrator must have restricted this parameter in another way. Contact the UNIX system administrator to remove this restriction.

10.1.2.1.2.3 Changing Kernel Parameters on Linux

Procedure

1. Add the following line to the end of the script `<TREX_DIR>/TREXSettings.sh`:


```
ulimit -n 1024
```
2. Add the following line to the end of the script `<TREX_DIR>/TREXSettings.csh`:


```
unlimit openfiles
```

i Note

`TREXSettings.csh` is not relevant for the TREX daemon. It is only relevant if you start the TREX servers manually or execute test scripts.

3. If the TREX daemon is running, restart it.

Results

After making the change, execute `portlibtester.x -file` again. If the number of open files is still too low, the UNIX system administrator must have restricted this parameter in another way. Contact the UNIX system administrator to remove this restriction.

Next Steps

If you receive error messages during indexing, the value 1024 for the number of open files may not be sufficient. If this is the case, run TREX on root (you can only raise the parameter value to 2048 on root). Proceed as follows:

- Make sure that the script `<TREX_DIR>/TREXSettings.sh` contains the following line at the end:
`ulimit -n 2048`
- Make sure that the script `<TREX_DIR>/TREXSettings.csh` contains the following line at the end:
`unlimit openfiles`
`TREXSettings.csh` is not relevant for the TREX daemon. It is only relevant if you start the TREX servers manually or execute test scripts.
- Add a comment sign to the configuration file `<TREX_DIR>/<host_name>/TREXDaemon.ini` before the following lines:

```
#userid = trx<instance_number>
```

```
#groupid = <group>
```

This change causes the TREX daemon to run on root next time it starts.

10.1.2.1.2.4 Changing Kernel Parameters on Oracle Solaris

Procedure

1. Log on as a user with `root` authorizations.
2. Add the following lines to the configuration file `/etc/system`:
 - `set rlim_fd_max=2048`
 - `set rlim_fd_cur=2048`
3. Restart the host using `reboot`.

Results

After making the change, execute `portlibtester.x -file` again. If the number of open files is still too low, the UNIX system administrator must have restricted this parameter in another way. Contact the UNIX system administrator to remove this restriction.

10.1.3 Configuration of the RFC Connection

Context

The following sections describe the steps that you carry out if the application and TREX are communicating using an RFC connection.

Procedure

1. Define the SAP system users.
For more information, see [Creating a SAP System User for the TREX Admin Tool \(Stand-Alone\) \[page 84\]](#)
2. Determine the SAP system connection data.
For more information, see [Determining the SAP System Connection Information \[page 85\]](#)
3. Configure the RFC connection in the TREX admin tool using the TREX admin tool (stand-alone).
For more information, see [Configuring the RFC Connection in the TREX Admin Tool \[page 86\]](#)

i Note

For more information about how you start the TREX admin tool (stand-alone), see [Starting the TREX Admin Tool \[page 103\]](#).

Results

For more information about the RFC connection and handling connection and configuration errors, see the documentation on the TREX admin tool (stand-alone). You can find this documentation in the SAP Library at:

<http://help.sap.com/netweaver> ► ► [SAP NetWeaver 7.0<Release>](#) ► [Application Help](#) ► [Function-Oriented View](#) ► [*SAP NetWeaver by Key Capability](#) ► [Information Integration by Key Capability](#) ► -> [Search](#) ► -> [Search and Classification TREX](#) ► -> [TREX 7.0 for SAP NetWeaver 7.0](#) ► -> [TREX Administration](#) ► -> [TREX Admin Tools](#) ► -> [TREX Admin Tool \(Stand-Alone\)](#) ►

10.1.3.1 Creating a SAP System User for the TREX Admin Tool (Stand-Alone)

Context

You must create an SAP user that the TREX admin tool (stand-alone) can use to log on to the SAP system. In addition, the SAP user is required so that the TREX alert server has permission to regularly test and check the RFC configuration. When doing this, the user can have been created in the default client or in another client. In this case, make sure that you enter the associated client for the user during the configuration of the RFC connection in the `TREX admin tool`.

The TREX admin tool (stand-alone) is used to configure and monitor TREX. You also use this admin tool to configure the RFC connection between TREX and the ABAP application that is using TREX. To use the `TREX admin tool (stand-alone)` to create the RFC destination, the `TREX admin tool` requires a SAP system user that you create based on the predefined role `SAP_BC_TREX_ADMIN`. This user then has the authorization required to configure the RFC connection.

Note

You can find current information about the role `SAP_BC_TREX_ADMIN` in SAP Note [766516](#).

Overview of the permissions assigned by the `SAP_BC_TREX_ADMIN` role

Type and Scope of the Permission	Activity	Explanation
Permission check for RFC access	Execute	Name of the RFC object to be protected: SYST, TREX_ARW_ADMINISTRATION
Administration for the RFC destination	Add or generate, change, display, delete, extended maintenance	Type of entry in RFCDES: Start of an external program via TCP/IP
Check on the transaction code at transaction launch	-	Transaction code: SM59, TREXADMIN, TREXADMIN_AUTH
TREX administration	Change, display, execute	-
ABAP: Program run checks	Schedule programs for background processing, execute ABAP program, maintain variants for and execute ABAP program	-
ALV standard layout	Maintain	-
Application log	Display, delete	-

Procedure

1. Create a SAP system user for the `TREX admin tool (stand-alone)` and assign the `SAP_BC_TREX_ADMIN` role to this user.

-
2. Launch transaction `SU01` (user maintenance) or choose in the SAP menu **Administration > System Administration > User Maintenance > User**.
The *User Maintenance: Initial Screen* appears.
 3. Enter a new user name and choose *Create*.
 4. On the *Address* tab page, enter the personal data for the user.
 5. On the *Roles* tab page, assign the `SAP_BC_TREX_ADMIN` role and thus the permission to access the SAP system to the SAP system user for the `TREX admin tool (stand-alone)`.

Results

This user for the `TREX admin tool (stand-alone)` now has the authorization required to configure the RFC connection.

Related Information

[Configuring the RFC Connection in the TREX Admin Tool \[page 86\]](#)

10.1.3.2 Determining the SAP System Connection Information

Context

The `TREX admin tool (stand-alone)` can connect to an SAP system in two ways.

- Through a specific application server of the SAP system (variant A)
- Through the message server of the SAP system (variant B)
 - This variant uses the load-balancing function for the SAP system. The message server assigns the request from the `TREX admin tool` to any application server.

Depending on the variant used, the `TREX admin tool` requires different connection information for the SAP system. You must determine the connection information and specify it later in the `TREX admin tool`.

➔ Recommendation

SAP recommends using variant B. Variant A has the disadvantage that the connection does not work if the application server is not available.

Procedure

1. Open the SAP Logon.
SAP Logon is the program that you use to log on to an SAP system.
2. Note the following connection information:

Connection Setup Type	Required Connection Information
Through an application server (variant A)	<ul style="list-style-type: none">○ SAP system ID (SID)○ System number○ Application server host name
Through the message server (variant B)	<ul style="list-style-type: none">○ SAP system ID (SID)○ Logon group, such as PUBLIC○ Message server host name

10.1.3.3 Configuring the RFC Connection in the TREX Admin Tool

Context

You work through the steps below using the `TREX admin tool (stand-alone)`.

Related Information

[Creating a Connection \[page 86\]](#)

[Creating an RFC Destination \[page 87\]](#)

[Completing the RFC Configuration \[page 88\]](#)

10.1.3.3.1 Creating a Connection

Procedure

1. In the *Landscape RFC* window, choose the *Create Connection* function.

- Choose connection type A or B. Specify the connection data for the SAP system.
For more information, see [Determining the SAP System Connection Information \[page 85\]](#)
- Specify the SAP system user, the associated password, and the client that the `TREX admin tool` is to use to log on.
For more information, see [Creating a SAP System User for the TREX Admin Tool \(Stand-Alone\) \[page 84\]](#)

i Note

If the SAP system user in question exists in the default client, you do not need to specify the client.

10.1.3.3.2 Creating an RFC Destination

Procedure

- In the Landscape RFC window, choose the `RFC Destination (SM59)` function.
- Enter the following parameters:

Option	Description
SAP System	SAP system that you want to set up the connection to. The list contains all SAP systems that you have registered using Create Connection .
RFC Destination	Name of the RFC destination.
Description	Meaningful description of the purpose

- Decide which SAP gateway you want to use. You have the following options:

Option	Description
Option	Comment
<i>Gateway local</i> (Default setting)	Use local SAP gateways for the application servers.
<i>Gateway central</i>	Use the central SAP gateway.

i Note

We advise against using a central SAP gateway for distributed TREX systems. The central SAP gateway is a "single point of failure".

Option	Description
	If you choose this option, enter the following additional parameters: <ul style="list-style-type: none"> ○ Host name (with domain name if necessary) or the IP address of the host on which the gateway is installed. ○ Name of the SAP gateway in the form <code>sapgw<instance_number></code>

Next Steps

SAP advises against creating the RFC destination directly in the SAP system. The name of the RFC destination and the program ID must satisfy certain naming conventions. The TREX admin tool ensures that these are fulfilled.






If you nevertheless create the RFC destination directly in the SAP system, note the following:

- We recommend starting the name of the RFC destination with `TREX_`.
- Choose the activation type Registered Server Program .
- Choose a program ID that is unique for the SAP gateway used.

Use the RFC Destinations function to register the RFC destination in the TREX admin tool.

10.1.3.3.3 Completing the RFC Configuration

Procedure

1. In the Landscape RFC window, choose the *Connect* function.
 The TREX admin tool creates the connection to all SAP systems that are known to it. Because the RFC configuration is still incomplete, the configuration status is  yellow or  red.
2. Choose *Repair All* .
 The TREX admin tool completes the RFC configuration and starts the TREX RFC server. This can take several minutes. During this time, the configuration status remains  yellow or  red. After completion of the configuration process, the status changes to  green.
 Do not choose *Repair All* several times in quick succession. This would trigger the configuration process more than once and delay it.
3. Check the progress by choosing *Refresh* to update the display.

10.2 Client Side

The following sections describe the configuration steps that you have to carry out on the client side.

10.2.1 Java Application

If a Java application communicates with TREX, you configure the TREX Java client, which is integrated as a TREX service in the J2EE engine. You also check the client-side proxy settings.

10.2.2 Specifying the Address of the TREX Name Server

Context

TREX provides APIs (Application Programming Interfaces) for the languages Java and ABAP, which allow access to all TREX functions. The Java interface (TREX Java client) is part of the SAP Web AS Java as TREX service. The TREX Java client needs to know the address of the TREX name server in order to communicate with the TREX servers.

The following procedure describes how you determine the TREX name server address and how you specify it in the SAP NetWeaver Visual Administrator .

i Note

The TREX Java client communicates with the TREX server by HTTP and TCP/IP. Make sure that the TCP port that the name server uses is open.

Procedure

1. You have to specify the address of the TREX name server in the SAP NetWeaver Visual Administrator by naming the following values:
`<host_name_of_trex_host>:<name_server_port>`
 - `<host_name_of_trex_host>`: name of the host on which TREX is installed and where the TREX name server runs.
 - `<name_server_port>`: port of the TREX name server
2. You can determine the TREX name server address in two ways:

- a. Start the TREX admin tool (see [Starting the TREX Admin Tool \[page 103\]](#)) and determine the address of the name server using `► Landscape ► Tree ► topology ► globals ► all_masters ►`.

Example

```
mytrexhost:34801
```

- b. Determine the port of the TREX name server by means of the following rule:

```
<name_server_port>:3<instance_number>01
```

The value `<instance_number>` signifies the TREX instance number which had been specified during the TREX installation:

Installation directory for TREX

- On UNIX: `/usr/sap/<sapsid>/trx<instance_number>`
- On Windows: `<disk_drive>:\usr\sap\<SAPSID>\TRX<instance_number>`

The value for `<host_name_of_trex_host>` you know from the host where TREX is installed (mytrexhost).

3. Use the user `<j2eeadm>` to log onto the host on which the J2EE Engine is running.
4. Start the SAP NetWeaver Visual Administrator and log on to the J2EE Engine.

For more information about using SAP NetWeaver Visual Administrator, see <http://help.sap.com/netweaver> `►► SAP NetWeaver 7.0 <Release> ► Application Help ► Function-Oriented View ► SAP NetWeaver by Key Capability ► Application Platform by Key Capability ► Java Technology ► Administration Manual ► J2EE Engine ► J2EE Engine Administration Tools ► Visual Administrator ►`

5. Click Cluster and navigate to `► Services ► TREX Service ►`.
6. Enter the address of the TREX name server into the parameter `nameserver.address`.

```
tcpip://<host_name_of_trex_host>:<name_server_port>
```

You enter only the host name or the host name and the domain depending on your network environment.

Example

```
tcpip://mytrexhost:34801 or tcpip://mytrexhost.mydomain:34801
```

Caution

The address of the TREX name server must be configured for all server processes of the cluster. Otherwise the connection between the J2EE Engine and TREX cannot be established.

7. Save your changes and confirm the restart of the service.

10.2.3 Checking Proxy Settings

If an application is unable to communicate with TREX, it may be due to the application trying to access TREX using a proxy server. If this is the case, you have to change the configuration so that access does not take place using the proxy server.

The procedure depends on the application concerned:

- SAP Enterprise Portal 6.0 with Content Management
- Other Java applications based on J2EE 6.40

SAP Enterprise Portal 6.0 with Content Management

Check the settings in the portal at [▶ System Administration ▶ System Configuration ▶ Service Configuration ▶ Applications \(Content Catalog\) ▶ com.sap.portal.ivs.httpservice ▶ Services ▶ proxy ▶](#).

If a proxy server is entered there, you have to enter the TREX host in the field *http – Bypass Proxy Servers*.

Other Java applications based on J2EE 6.40

For other Java applications, you have to check the configuration of the J2EE Engine. The proxy settings belong to the Java parameters. If a proxy server is configured in the Java parameters, enter the TREX host in the parameter `nonProxyHosts`. You can choose one of the following options:

- Alternative 1: `D"http.nonProxyHosts=<hostname>.<mydomain>|localhost`
For `<hostname>.<domain>`, enter the host name and domain (if necessary) of the TREX host.
- Alternative 2: `D"http.nonProxyHosts=*.<mydomain>|localhost`

You can change the Java parameters using the SAP J2EE Engine GUI Config Tool.. For more information about using this tool, see <http://help.sap.com/netweaver> [▶ ▶ SAP NetWeaver 7.0 <Release> ▶ Application Help ▶ Function-Oriented View ▶ SAP NetWeaver by Key Capability ▶ Application Platform by Key Capability ▶ Java Technology ▶ Administration Manual ▶ J2EE Engine ▶ J2EE Engine Administration Tools ▶ Config Tool ▶](#).

Caution

Note that you have to specify the name of the TREX host in the same way both on TREX side in the TREX configuration files (`topology.ini`, `sapprofile.ini`) and in the configuration of the J2EE Engine as described above. In case you specify the TREX host name as fully qualified (for example `PWDF12345.sap.corp`) you have to do so on both sides. A mixed usage of host names does not work.

11 Installation Check

If you have carried out all the steps described, TREX is ready for operation. You can carry out checks to ascertain whether the installation was successful.

[Checking Processes \[page 92\]](#)

[Executing an Installation Test Script \[page 93\]](#)

11.1 Checking Processes

You can check on operating systems whether the TREX daemon is running and whether the required process has started.

Procedure on UNIX

Process	HTTP Connection	RFC Connection
httpdTREXDaemon .x	✓	
i Note For the process TREXDaemon.x the symlink <code>trx.sap<SAPSID>_TRX<instance_number></code> will be shown. This is a symlink to <code>usr/sap/<SAPSID>/TRX<instance_number>/exe/TREXDaemon.x</code>		
TREXIndexServer.x	✓	✓
TREXNameServer.x	✓	✓
TREXPreprocessor.x	✓	✓
TREXQueueServer.x	✓	✓
TREXRfcServer.x		✓

Procedure on Windows

Open the Task Manager and check whether the following programs are running:

Process	HTTP Connection	RFC Connection
TREXDaemon.exe	✓	✓
TREXIndexServer.exe	✓	✓
TREXNameServer.exe	✓	✓
TREXPreprocessor.exe	✓	✓
TREXQueueServer.exe	✓	✓
TREXRfcServer.exe		✓

11.2 Executing an Installation Test Script

Context

TREX delivers a Python script that you can use to test the basic functions of TREX. If the Python script is executed successfully, you know that TREX has been installed properly, the configuration files contain the necessary entries, and the TREX servers are running.

Related Information

[Procedure on UNIX \[page 94\]](#)

[Procedure on Windows \[page 95\]](#)

11.2.1 Procedure on UNIX

Procedure

1. Log on as user `<sapsid>adm`.
2. Go to the TREX directory.
`cd /usr/sap/<SAPSID>/trx<instance_number>`
3. Set the environment variables required by TREX by executing one of the following scripts.
 - Bourne shell sh , Bourne-again shell bash , Korn shell ksh :
`./TREXSettings.sh`
 - Bourne shell sh , Bourne-again shell bash , Korn shell ksh :
`source TREXSettings.csh`
4. Go to the directory in which the test script is located:
`cd /usr/<SAPSID>/trx<instance_number>/exe/python_support`
5. To run the test script, enter the following:
`python runInstallationTest.py`

Results

The script carries out the following tests:

- Deleting any test indexes that were generated for a previous script run
- Creating a test index
- Indexing documents
- Testing search functions
 - Exact, error-tolerant (fuzzy), and linguistic searches
 - Search using Boolean operators such as AND and OR

The results are displayed at the end of the script run. You see the tested calls and their statuses (OK or Failed).

When you run the script for the first time, the call "Delete Index" has the status `Failed`. This is because there was no existing text index to be deleted. If this is the only cell with the status `Failed`, the test was successful.

11.2.2 Procedure on Windows

Procedure

1. Log on as user `<sapsid>adm`.
2. Open a test console by choosing `Start > Programs` or `All Programs > SAP TREX > Instance <instance_number> > Tools > TREX_<instance_number> Console`.
3. Run the test script in this directory:
`python runInstallationTest.py`

Results

The script carries out the following tests:

- Deleting any test indexes that were generated for a previous script run
- Creating a test index
- Indexing documents
- Testing search functions
 - Exact, error-tolerant (fuzzy), and linguistic searches
 - Search using Boolean operators such as AND and OR

The results are displayed at the end of the script run. You see the tested calls and their statuses (`OK` or `Failed`).

When you run the script for the first time, the call "Delete Index" has the status `Failed`. This is because there was no existing text index to be deleted. If this is the only cell with the status `Failed`, the test was successful.

12 Additional Information

[Additional Information about the Installer \[page 96\]](#)

[Starting the TREX Admin Tool \[page 103\]](#)

[Starting and Stopping TREX \[page 104\]](#)

[Uninstalling TREX \[page 111\]](#)

12.1 Additional Information about the Installer

[Interrupted Installation \[page 96\]](#)

[Troubleshooting with the Installer \[page 101\]](#)

[Using the Step State Editor \(SAP Support Experts Only\) \[page 102\]](#)

12.1.1 Interrupted Installation

The SAP system installation might be interrupted for one of the following reasons:

- An error occurred during the *Define Parameters* or *Execute* phase.
The installer does not abort the installation in error situations. If an error occurs, the installation pauses and a dialog box appears. The dialog box contains a short description of the choices listed in the table below as well as a path to a log file that contains detailed information about the error.
- You interrupted the processing of the installer by choosing *Cancel* in the SL Common GUI.

Caution

If you stop an option in the *Execute* phase, any system or component **installed** by this option is incomplete and not ready to be used. Any system or component **uninstalled** by this option is not completely uninstalled.

The following table describes the options in the dialog box:

Option	Definition
Retry	<p>The installer retries the installation from the point of failure without repeating any of the previous steps.</p> <p>This is possible because the installer records the installation progress in the <code>keydb.xml</code> file.</p> <p>We recommend that you view the entries in the log files, try to solve the problem, and then choose Retry.</p> <p>If the same or a different error occurs, the installer displays the same dialog box again.</p>
Stop	<p>The installer stops the installation, closing the dialog box, the installer GUI, and the GUI server.</p> <p>The installer records the installation progress in the <code>keydb.xml</code> file. Therefore, you can continue the installation from the point of failure without repeating any of the previous steps. See the procedure below.</p>
Continue	<p>The installer continues the installation from the current point.</p>
View Log	<p>Access installation log files.</p>

Note

UNIX only: You can also terminate the installer by choosing Ctrl+C. However, we do not recommend this, because it kills the process immediately.

Related Information

[Procedure on UNIX \[page 97\]](#)

[Procedure on Windows \[page 99\]](#)

12.1.1.1 Procedure on UNIX

Procedure

1. Make sure that you are logged on to your local UNIX host as user `root`.

2. Restart the installer from the directory to which you unpacked the 70SWPM10SP<support package number>_<version number>.SAR file by executing the following command: /<path to unpack directory>/sapinst
3. The installer is restarting.

The installer now starts and waits for the connection with the SL Common GUI.

You can find the URL you require to access the SL Common GUI at the bottom of the shell from which you are running the installer.

Sample Code

```

. . .
*****
Open your browser and paste the following URL address to access the GUI
https://[<hostname>]:4237/sapinst/docs/index.html
Logon users: [<users>]
*****
. . .

```




If you have a supported web browser installed on the host where you run the installer, you can open this URL directly in the shell. Otherwise open the URL in a supported web browser that runs on another device.

The SL Common GUI opens in the browser by displaying the *Welcome* screen.

Note

Before you reach the *Welcome* screen, your browser might warn you that the certificate of the `sapinst` process on this computer could not be verified. Accept this warning to inform your browser that it can trust this site, even if the certificate could not be verified.

4. From the tree structure in the *Welcome* screen, select the installation option that you want to continue and choose *Next* .
The *What do you want to do?* screen appears.
5. In the *What do you want to do?* screen, decide between the following alternatives and choose *OK*:

Alternative	Behavior
<i>Perform a new run</i>	<p>The installer does not continue the interrupted installation option. Instead, it moves the content of the old installer directory and all installer-specific files to a backup directory. Afterwards, you can no longer continue the old option.</p> <p>The following naming convention is used for the backup directory:</p> <pre>log_<Day>_<Month>_<Year>_<Hours>_<Minutes>_<Seconds></pre> <div style="background-color: #fff9c4; padding: 5px;"> <p> Example</p> <pre>log_01_Oct_2016_13_47_56</pre> </div> <div style="background-color: #fff9c4; padding: 5px;"> <p> Note</p> <p>All actions taken by the installation before you stopped it (such as creating directories or users) are not revoked.</p> </div> <div style="background-color: #fff9c4; padding: 5px;"> <p> Caution</p> <p>The installer moves all the files and folders to a new log directory, even if these files and folders are owned by other users. If there are any processes currently running on these files and folders, they might no longer function properly.</p> </div>
<i>Continue with the existing one</i>	The installer continues the interrupted installation from the point of failure.

12.1.1.2 Procedure on Windows

Procedure

1. Make sure that you are logged on to your remote host as a user who is a member of the local `administrators` group.
2. Restart the installer by double-clicking `sapinst.exe` from the directory to which you unpacked the `70SWPM10SP<support package number>_<version number>.SAR` file.
3. The installer is restarting.

The installer now starts and waits for the connection with the SL Common GUI. If you have a supported web browser installed on the host where you run the installer, the SL Common GUI starts automatically by displaying the *Welcome* screen.

If the SL Common GUI does not open automatically, you can find the URL you require to access the SL Common GUI at the bottom of the *Program Starter* window of the installer. You find the icon of the *Program*

[Starter](#) window in the taskbar of your Windows host. Open a supported web browser and run the URL from there.

Sample Code




```
...
*****
Open your browser and paste the following URL address to access the GUI
https://[<hostname>]:4237/sapinst/docs/index.html
Logon users: [<users>]
*****
...
```

The SL Common GUI opens in the browser by displaying the [Welcome](#) screen.

Note

Before you reach the [Welcome](#) screen, your browser might warn you that the certificate of the `sapinst` process on this computer could not be verified. Accept this warning to inform your browser that it can trust this site, even if the certificate could not be verified.

4. From the tree structure in the [Welcome](#) screen, select the installation option that you want to continue and choose [Next](#) .
The [What do you want to do?](#) screen appears.
5. In the [What do you want to do?](#) screen, decide between the following alternatives and choose [OK](#):

Alternative	Behavior
<i>Perform a new run</i>	<p>The installer does not continue the interrupted installation option. Instead, it moves the content of the old installer directory and all installer-specific files to a backup directory. Afterwards, you can no longer continue the old option.</p> <p>The following naming convention is used for the backup directory:</p> <pre>log_<Day>_<Month>_<Year>_<Hours>_<Minutes>_<Seconds></pre> <div style="background-color: #fff9c4; padding: 5px;"> <p> Example</p> <pre>log_01_Oct_2016_13_47_56</pre> </div> <div style="background-color: #fff9c4; padding: 5px;"> <p> Note</p> <p>All actions taken by the installation before you stopped it (such as creating directories or users) are not revoked.</p> </div> <div style="background-color: #fff9c4; padding: 5px;"> <p> Caution</p> <p>The installer moves all the files and folders to a new log directory, even if these files and folders are owned by other users. If there are any processes currently running on these files and folders, they might no longer function properly.</p> </div>
<i>Continue with the existing one</i>	The installer continues the interrupted installation from the point of failure.

12.1.2 Troubleshooting with the Installer

Context

This section tells you how to proceed when errors occur during the installation with the installer.

If an error occurs, the installer:

- Stops the installation.
- Displays a dialog informing you about the error.

Procedure

1. Check SAP Note [1548438](#) for known installer issues.

2. If an error occurs during the *Define Parameters* or the *Execute Service* phase, do one of the following:
 - Try to solve the problem:
 - To check the installer log files (`sapinst.log` and `sapinst_dev.log`) for errors, choose the *LOG FILES* tab in the SL Common GUI.
 - To check the log and trace files of the installer GUI for errors. You can find them in the directory `%userprofile%\sapinst\` (on Windows) or `<User_Home>/sapinst/` (on UNIX) in the SL Common GUI .
 - Then continue by choosing *Retry*.
 - If required, abort the installer by choosing *Cancel* in the tool menu of the SL Common GUI. Restart the installer as described in [Interrupted Installation \[page 96\]](#).
3. If you cannot resolve the problem, report an incident using the appropriate subcomponent of BC-INS*. For more information about using subcomponents of BC-INS*, see SAP Note [1669327](#).

12.1.3 Using the Step State Editor (SAP Support Experts Only)

i Note

Only use the Step State Editor if SAP Support requests you to do so, for example to resolve a customer incident.

Prerequisites

SAP Support requests you to use the Step State Editor.

Procedure

1. Start the installer from the command line as described in [Running the Installer \[page 37\]](#) with the additional command line parameter `SAPINST_SET_STEPSTATE=true`.
2. Follow the instructions on the installer screens and fill in the parameters prompted during the *Define Parameters* phase until you reach the *Parameter Summary* screen.
3. Choose *Next*.

The *Step State Editor* opens as an additional dialog. Within this dialog you see a list of all steps to be executed by the installer during the *Execute Service* phase. By default all steps are in an initial state. Underneath of each step you see the assigned installer component. For each step you have a *Skip* and a *Break* option.

- Mark the checkbox in front of the *Break* option of the steps where you want the installer to pause.
- Mark the checkbox in front of the *Skip* option of the steps which you want the installer to skip.

- After you have marked all required steps with either the *Break* or the *Skip* option, choose *OK* on the *Step State Editor* dialog.

The installer starts processing the *Execute Service* phase and pauses one after another when reaching each step whose *Break* option you have marked. You can now choose one of the following:

- Choose *OK* to continue with this step.
 - Choose *Step State Editor* to return to the Step State Editor and make changes, for example you can repeat the step by marking the checkbox in front of the *Repeat* option.
 - Choose *Cancel* to abort the installer.
- Continue until you have run through all the steps of the *Execute Service* phase of the installer.

12.2 Starting the TREX Admin Tool

Prerequisites

On UNIX: Since the TREX admin tool has a graphical interface, you need an `x` server. You cannot use a terminal program that only supports text mode, such as `telnet`.

Procedure

- Log on as user `<sapsid>adm`.
- Carry out one of the following steps:

Option	Description
UNIX	Enter the following: <pre>cd <TREX_DIR> ./TREXAdmin.sh</pre>
Windows	Choose <code>Start > Programs</code> or <code>All Programs > SAP TREX > Instance <instance_number> > Tools > TREX Administration</code> . <div style="background-color: #fff9c4; padding: 5px; margin-top: 10px;"> <p>i Note</p> <p>You can also start the TREX admin tool by double-clicking <code><TREX_DIR>\TREXAdmin.bat</code> in Windows Explorer.</p> </div>

12.3 Starting and Stopping TREX

You can use the following methods to start and stop TREX:

Windows

- SAP Microsoft Management console
- SAP Management Console
- Executable files `startsap.exe` and `stopsap.exe`

UNIX

- SAP Management Console
- Executable files `startsap` and `stopsap`









Starting and Stopping the TREX Web Server and Individual TREX Servers

When administrating TREX, you may need to stop (and then restart) the TREX Web server (Windows: IIS/UNIX: Apache) and individual TREX servers. The procedures differ depending on whether you are using Windows or UNIX.

SAP Management Console

The SAP Management Console (SAP MC) provides a common framework for centralized system management. It allows you to monitor and perform basic administration tasks on the SAP system centrally, which simplifies system administration.




The SAP MC is a Java applet that can be run from any Web browser supporting Java. You can therefore administer remote systems without needing a local installation.

For more information about the SAP Management Console, see <http://%20help.sap.com/netweaver>  [SAP NetWeaver 7.0 <Release>](#)  [Application Help](#)  [SAP NetWeaver by Key-Capability](#)  [Solution Lifecycle Management](#)  [Solution Monitoring](#)  [Monitoring in the CCMS](#)  [SAP Management Console](#) .

SAP Microsoft Management Console

You use the SAP Microsoft Management console, a snap-in in the Microsoft Management Console (MMC) , to start and stop SAP systems and TREX instances. The snap-in consists of a root node of the SAP system, below which the various SAP systems and their TREX instances appear as subnodes. The system displays detailed information about the processes, the current status, and open alerts for the instances.

A newly-installed MMC allows you only to start a locally-installed SAP instance on the host that you are logged on to. If the MMC is configured for central system administration, you can start and stop the entire SAP system from a single host.

For more information about the SAP Management Console, see <http://%20help.sap.com/netweaver>   *SAP NetWeaver 7.0 <Release> > Application Help > SAP NetWeaver by Key-Capability > Solution Lifecycle Management > Solution Monitoring > Monitoring in the CCMS > SAP Microsoft Management Console : Windows* .

As part of the installation of the global file system, the SAP service for the corresponding TREX instance (SAP<sapsid>_TRX<instance_number>) is registered as a Windows service. The service is configured so that it starts automatically when the host is started up, and stops automatically when the host is shut down. You can start and stop the service manually if necessary. You can also start the TREX servers individually for test purposes or troubleshooting.

Prerequisites

During the installation of the global file system, a SAP Management console has been installed on your host machine.

Executable Files startsap and stopsap

You use the executable files `startsap.exe` and `stopsap.exe` (Windows), `startsap` and `stopsap` (UNIX) to start and stop TREX. After installation of the TREX instance, these files are located in the directory `<TREX_DIR>\exe` (Windows), `<TREX_DIR>/exe` (UNIX).

Related Information

[Starting TREX \[page 106\]](#)

[Stopping TREX \[page 109\]](#)

12.3.1 Starting TREX

The following sections describe in detail how to start TREX in the different ways listed above.

12.3.1.1 Using the SAP Management Console to Start TREX

You can use the SAP Management Console (SAP MC) to start TREX.

Related Information

[Starting the Web-Based SAP Management Console \[page 106\]](#)

[Registering Systems and Instances in the SAP Management Console \[page 107\]](#)

[Starting a TREX Instance \[page 107\]](#)

12.3.1.1.1 Starting the Web-Based SAP Management Console

Procedure

1. Start a Web browser and enter the following URL:

`http://<hostname>:5<instance_number>13`

Example

If the instance number is 53 and the host name is saphost06 , you enter the following URL: `http://saphost06:55313`

This starts the SAP MC Java applet.

Note

If your browser displays a security warning message, choose the option that indicates that you trust the applet.

2. Choose *Start*.

The SAP Management Console appears.

i Note

When you start the SAP MC for the first time for a newly installed SAP system, you have to register your system as described in Registering Systems and Instances below. After you have done this, the instances installed on the host you have connected to are already present in the SAP Management Console when you next start the SAP MC.

12.3.1.1.2 Registering Systems and Instances in the SAP Management Console

Context

You can extend the list of systems and instances displayed in the SAP MC, so that you can monitor and administer all systems and instances from a single console. You can configure the SAP MC startup view to display the set of systems and instances you want to manage.

Procedure

1. In the SAP MC, choose **File > New**.
2. In the *New System* dialog box, enter the required data.

If you have already registered systems in the SAP MC, they are stored in the history. To open the *System's History* dialog box, choose the browsing button next to the Instance Nr. field. Select an instance of the system that you want to add and choose *OK*.

3. Choose *Finish*.

12.3.1.1.3 Starting a TREX Instance

Procedure

1. Select the TREX instance you want to start and choose *Stop* from the context menu.
2. In the *Start SAP System(s)* dialog box, choose the required options.
3. Choose *OK*.

The system might prompt you for the SAP system administrator credentials. To complete the operation, you require administration permissions. Log in as user `<sapsid>adm`.

The SAP MC starts the specified TREX instance.

12.3.1.2 Using the SAP Microsoft Management Console to Start TREX

Procedure

1. Log on as user `<sapsid>adm`.
2. Launch the SAP Management console by double-clicking the program icon on your desktop or by choosing **Start > Programs > SAP Management Console**.
3. In the tree structure, choose the node for the central SAP instance `<SAPSID>` and navigate to the subnode for the TREX instance `<host>_<instance_number>` (for example, `p123456_77`).
4. Choose the right-hand mouse button to access the context menu.
5. Choose **Start**.

12.3.1.3 Windows: Using startsap.exe to Start TREX

Procedure

1. Log on as user `<sapsid>adm`.
2. Open a command prompt by choosing **Start > Programs > <Instance_number> > Tools > TREX_<instance_number>** so that the environment variables are set correctly.
3. Switch to the `<TREX_DIR>/exe` directory and enter the following:
`startsap.exe name=<SAPSID> nr=TRX<instance_number> SAPDIAHOST =<host>`
In the SAPDIAHOST parameter, you specify the host name on which the TREX instance should be started.

Example

```
startsap.exe name=ABC nr=TRX77 SAPDIAHOST =p123456
```

12.3.1.4 UNIX: Using startsap to Start TREX

Procedure

1. Log on as user `<sapsid>adm`.
2. Enter the following command:

```
startsap <TREX_instance>
```

Example

The following command starts a TREX instance with instance number 77:

```
startsap TRX77
```

12.3.2 Stopping TREX

The following sections describe in detail how to stop TREX in the different ways listed above.

12.3.2.1 Using the SAP Management Console to Stop TREX

Procedure

1. Start the SAP Management Console (SAP MC) as described in [Starting the Web-Based SAP Management Console \[page 106\]](#)
2. Select the TREX instance you want to stop and choose *Stop* from the context menu.
3. In the *Stop SAP System(s)* dialog box, choose the required options.
4. Choose *OK*.

The system might prompt you for the SAP system administrator credentials. To complete the operation, you require administration permissions. Log in as user `<sapsid>adm`.

The SAP MC stops the specified TREX instance.

12.3.2.2 Using the SAP Microsoft Management Console to Stop TREX

Procedure

1. Log on as user `<sapsid>adm`.
2. Launch the SAP Management console by double-clicking the program icon on your desktop or by choosing **Start > Programs > SAP Management Console**.
3. In the tree structure, choose the node for the central SAP instance `<SAPSID>` and navigate to the subnode for the TREX instance `<host>_<instance_number>` (for example, `p123456_77`).
4. Choose the right-hand mouse button to access the context menu.
5. Choose *Stop*.

12.3.2.3 Windows: Using stopsap.exe to Stop TREX

Procedure

1. Log on as user `<sapsid>adm`.
2. Open a command prompt by choosing **Start > Programs > <Instance_number> > Tools > TREX_<instance_number>** so that the environment variables are set correctly.
3. Switch to the `<TREX_DIR>/exe` directory and enter the following:
`stopsap.exe name=<SAPSID> nr=TRX<instance_number> SAPDIAHOST =<host>`
In the SAPDIAHOST parameter, you specify the host name on which the TREX instance should be started.

Example

```
stopsap.exe name=ABC nr=TRX77 SAPDIAHOST =p123456
```

12.3.2.4 UNIX: Using stopsap to Stop TREX

Procedure

1. Log on as user <sapsid>adm.
2. Enter the following command:

```
stopsap <TREX_instance>
```

Example

The following command starts a TREX instance with instance number 77:

```
stopsap TRX77
```

12.4 Uninstalling TREX

Context

You can uninstall the TREX server software using software provisioning manager (“the installer” for short).

Caution

When you uninstall TREX, the entire TREX directory is deleted, **including all configuration data**. If the index directory and queue directory are located in the TREX directory, **all indexes and queues are deleted**.

Procedure

1. Log on as a user with the required authorizations:

Option	Description
UNIX	As a user with <code>root</code> authorizations
Windows	As a user with <code>administrator</code> authorizations

2. Stop TREX (see [Stopping TREX \[page 109\]](#)).

It can take a while to stop the TREX processes. Make sure that all of the TREX processes have stopped before you start the uninstallation process.

UNIX:

For an installation with an HTTP connection: Check that the Web server (HTTP daemon) has stopped. You can use the following command to do this:

```
ps -fu trx<instance_number> | grep httpd
```

3. Start the installer.

For a detailed description of these steps, see [Running the Installer \[page 37\]](#).

4. Once the installer has started, navigate in the *Welcome* screen to the following directory:

▶ <SAP Product> ▶ *Software Life-Cycle Options* ▶ *Uninstall* ▶ *Uninstall - System /Standalone Engine / Optional Standalone Unit* ▶

5. In the ▶ *SAP System* ▶ *General Parameters* ▶ screen, enter the path to the directory in which the SAP system profiles are stored in the field ▶ *SAP System Parameters* ▶ *Profile Directory* ▶.

6. In the ▶ *Uninstall* ▶ *SAP System or Standalone Engine* ▶ screen, the TREX instances that you can uninstall appear.

By choosing the options *Remove all instances of the SAP system or standalone engine on this host?* and *Remove OS user of SAP System or standalone engine on this host?*, you can remove all TREX instances together with the associated operating system users from your host.

You can only select the option *Remove OS user of SAP System or standalone engine on this host?*, if you have already selected *Remove all instances of the SAP system or standalone engine on this host?*.

7. The installer displays the selected settings in the *Start Execution* screen:
 - You can check the selected settings and choose *Edit* to change them if necessary.
 - To start the uninstallation, choose *Next*.

Related Information

[Using the SAP Management Console to Start TREX \[page 106\]](#)

[Using the SAP Microsoft Management Console to Start TREX \[page 108\]](#)

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