

UNIX

- Prerequisites
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Prerequisites

▶ To set up your environment

1. Make an account for the administrator of Software AG products called *sag*.
2. Assign the administrator and all users of Software AG products to the group *sag*.
3. Create a home directory for the user *sag* called */usr/SAG*.
4. The root directory for Software AG products must be */usr/SAG*.

Note:

As disk full conditions can lead to serious errors on UNIX and Windows systems, be sure to allocate adequate resources before completing the installation. We recommend 100 MB.

▶ Create the administrator's account and group:

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Note:

To perform these steps, use an appropriate system administration tool.

1. Create one administrator's account and one group for all Software AG products when you install your first Software AG product.
2. Define an administrator account to which all of the Software AG products installed at your site belong. Since all environment definition files for the products are written in Bourne shell, this shell is recommended as the logon shell for the administrator account.
3. Define a group to which the administrator and all users of Software AG products belong.
4. Create a logon directory for the user *sag*.

Examples:

A possible entry in the system file */etc/group* is `sag:*:21:sag`

A possible entry in the system file `/etc/passwd` is `sag::100:21:SAG - Product Administrator:/usr/SAG:/bin/sh`

▶ **Define the `$SAG` environment variable:**

- The environment variable `$SAG` defines the root directory for all Software AG products (which is also the home directory of the user `sag`) and is usually the home directory of the administrator account. Define this variable.

Note:

If you install Common Tomcat and wish to use Apache as HTTP server for management, Apache must be installed on your system before you install System Management Hub to enable automatic update of the Apache configuration. If you install Apache after the System Management Hub you will need to update the Apache configuration manually.

Installation of System Management Hub on UNIX

Once you have set up your installation environment as described above, you can proceed with the actual installation itself.

Note:

The installation procedure examines the environment variable `DISPLAY` to determine whether to run in graphical or text-only mode.

Insert the CD-ROM into your CD drive and mount it.

Command	Description
<code>su -root</code>	To mount a CD-ROM you must be root.
<code>mkdir /<mount dir></code>	Create a mount directory for the CD-ROM.
<code>chmod a=rwx /<mount dir></code>	Change the access rights for the mount directory.
<code>mount <platform options> <cdrom device name> /<mount dir></code>	Execute the mount command.

Platform-specific mount command and option to mount the CD-ROM as an ISO9660 or High-Sierra file system for Solaris is `/usr/sbin/mount -F hsfs -o ro <device> <mount dir>`:

Note:

On Solaris, the volume management daemon "vold" may already be active. This daemon mounts the CD-ROM automatically.

Start the installation procedure from a working directory with write access.

We recommend `$SAG/INSTALL`. Run the installation as `root` or user `sag`.

Enter the command `sh <CD mount dir>/SETUP.UX*` or `sh <CD mount dir>/setup.ux*`

The setup program is started and guides you through the installation.

For the most recent information on UNIX installation procedure, read the file `Readme.txt` located in the UNIX directory of System Management Hub's distribution media.

To install System Management Hub under UNIX

1. Source Directory

Indicate whether System Management Hub is to be installed for Solaris 8 or higher, and whether for 64-bit mode or 32-bit mode. You can press the F1 key for more information.

2. License Agreement

Read and accept the license agreement.

3. \$SAG Environment Variable

Next check the value of the `$SAG` environment variable (the path name for all Software AG programs). If you already have an SAG directory, you can click the **Browse** button. This will allow you to select a directory other than the default directory suggested.

4. Root Authentication

Parts of the installation require a user with root privileges (*superuser*). Choose the `su` command and enter the root password or, if you are an authorized sudo user, choose the `sudo` command and enter your own password.

5. User Name

Enter the user name you wish to assign to the System Management Hub Administrator. This user name must be known to the operating system.

6. TCP/IP Ports for the Server Daemons

Specify the HTTP and TCP/IP ports for your installation. The default values are:

HTTP ports	Description
49901	System Management Hub HTTP port
49991	Common Tomcat HTTP port

TCP/ IP ports	Description
49900	System Management Hub TCP/IP port
49990	Common Tomcat TCP/IP port
49902	Event Dispatcher TCP/IP Port

We recommend that you accept the default values. They can, however, be changed if your configuration requires it.

7. UDP Ports for SNMP Interface

Specify the UDP port to be used by the System Management Hub's SNMP interface. The values must be within the range "1" to "65534". The default values are:

TCP/ IP ports	Description
49903	SNMP Port for ClientServerLayer
49904	SNMP Port for EventLayer
49992	SNMP Port for CommonTomcat

8. SNMP Settings

Specify the communities (public or private) and the address and port for the notification target of the SNMP interface.

9. Install Server Daemons

System Management Hub services can be installed as daemons, so that they will be started automatically at system boot time. Choose **Install Server daemons** and indicate the run level to activate them in (2, 3), in order to start the daemons automatically at system boot time.

10. Select Java Installation

The installation will detect an installed Java Runtime Environment automatically. The version must be at least 1.3. If no Java Runtime Environment is detected, with the selection dialog, select the directory of the java library *libjvm.so* (or *libjvm.sl*, depending on the operating system) being used. The Java Runtime Environment is not a prerequisite for the installation. Installation can be performed without it. The user can configure the Java Runtime Environment used later with the web interface and the provided *Control Panel*.

11. Confirm Installation Settings

You will be given the opportunity to review and confirm the installation settings you have chosen. To change the settings, press the **Back** button or press the **Next** button to confirm them and begin the installation.

12. Begin Installation/Installation Progress

Once the installation has begun, progress will be displayed on your screen.

13. Extraction Complete

Once all of the files have been extracted, press the **Next** button to continue.

14. Software AG Environment File

Select the products for which you want to create the Software AG environment file. You can change the path and name of the Software AG environment file in the dialog box, or press the **Browse** button to select a different path.

15. Post Installation

A post-installation screen will be displayed to confirm successful update of the registry.

16. Installation Complete/ Readme File

After successful installation, the *Readme.txt* file will be displayed with the latest information on and technical details for this release.

Press the **Finish** button to exit the installation program.

Installation of Common Tomcat Package on UNIX

- Setting Up Your Environment
- Special Notes
- Installing CTP

Setting Up Your Environment

In this section you will learn how to set up your installation:

- Set the account for the administrator of Software AG products to *sag*.
- Set the group to which the administrator and all users of Software AG products are assigned to *sag*.
- Set the home directory for the user *sag* to */opt/softwareag*.
- The root directory for Software AG products is */opt/softwareag*.

Note:

Dependencies to the environment:

Directories are created with permissions according to the `umask` setting. Therefore, the recommended `umask` setting is "022". It creates directories with permissions like "rwxr-xr-x". To set temporarily the `umask` command to the recommended value, run the command `umask 022`.

- Create the administrator's account and group:
- Define the `$$SAG` environment variable

Create the administrator's account and group:

1. Create one administrator's account (*sag*) and one group (*sag*) for all Software AG products before you install your first Software AG product.
2. */bin/sh*, */bin/ksh*, or */bin/bash* are the preferred logon shells for the administrator's account, since all environment definition files and other administrative shell scripts for Software AG products are created for a Bourne compatible shell.
3. Create a home directory for the administrator. */opt/softwareag* is the preferred location and will be used in the documentation. For Linux systems, this location is the registered name with LANANA.
4. If the utility `sudo` is available, add the user *sag* to the list of *sudoers* and run it at least one time to ensure the account is set up properly.

Notes:

1. Use an appropriate system administration tool to perform all preceding steps.
2. "sag:*:21:sag" is a possible entry in the system file */etc/group*.
3. "sag::100:21:SAG - Product Administrator:/opt/softwareag:/bin/sh" is a possible entry in the system file */etc/passwd*.

Define the \$SAG environment variable

The environment variable `$SAG` defines the root directory for all Software AG products. It must also be the home directory of the administrator *sag*.

Following is a possible scenario:

- Log on as the administrator *sag* and define temporarily the variable "SAG=/opt/softwareag; export SAG".

The default search path for dependent libraries of some Software AG products is */opt/softwareag*. They are loaded from this location or using the environment variable `$LD_LIBRARY_PATH` ("`$SHLIB_PATH`" on HP-UX systems).

Special Notes

Special note for the users of SUSE Linux Enterprise Server 10

The installation may fail if you choose *sudo* authentication while there is the option "Defaults env_reset" active in *sudo*'s configuration file (*/etc/sudoers*). If you insist on the *sudo* option "Defaults env_reset", then you must either run this installation as user *root* or you need to choose *su* authentication during installation.

If the system is configured to run in parallel boot mode, the installed initscripts will not work by default. To work around this problem, simply set `RUN_PARALLEL="no"` in file */etc/sysconfig/boot*.

Special note for Red Hat Enterprise Linux AS 4 and 5 users

The installation may fail if you choose *sudo* authentication while there is the option "Defaults env_reset" active in *sudo*'s configuration file (*/etc/sudoers*). If you insist on the *sudo* option "Defaults env_reset", then you must either run this installation as user *root* or you choose *su* authentication during installation.

Please ensure your host name is correctly configured. Run the command `hostname` or `uname -n`

If they return a full qualified domain name (FQDN), everything is fine. If these commands return only the node name (other than *localhost*), take a look into the file */etc/hosts*.

Special note for Red Hat Enterprise Linux AS 4 users

On Red Hat 4 the product was tested with U4 (Update 4). This update solves a problem that has the following effects on Software AG products:

- Installation failed because the JRE version could not be detected with a child process.
- Child processes did not stop correctly and remained in status "defunct".

Special note for Red Hat Enterprise Linux AS 4 for IBM zSeries users

If you want to execute a graphical installation, you will need these additional 31-bit packages (the version or release may differ):

- *xorg-x11-libs-6.8.1-23.EL.s390.rpm*
- *xorg-x11-Mesa-libGL-6.8.1-23.EL.s390.rpm*
- *zlib-1.2.1.2-1.s390.rpm*
- *expat-1.95.7-4.s390.rpm*
- *fontconfig-2.2.3-7.s390.rpm*
- *freetype-2.1.9-1.s390.rpm*

Otherwise, just start the installation as described below and add the option "-nw" to *setup.ux*.

Special Notes for HP-UX Systems

With system version 11.31 HP introduced another UNIX standards layer. To get a UNIX standard compliant behavior of the system tools, an environment variable has to be defined.

The old way with defining the environment variable UNIX95 now only works if it gets a value assigned:

```
- export UNIX95=1
```

The now recommended way, however, is to use a different environment variable and specify the wanted version of the UNIX standard:

```
- export UNIX_STD=1995
```

or

```
- export UNIX_STD=2003
```

Set either of the variables before starting the installation to ensure UNIX standards compliant behavior of the system tools.

Installing CTP

Once you have set up your installation environment as described above, you can proceed with the actual installation itself.

The installation procedure examines the environment variable `DISPLAY` to determine whether to run in graphical or text-only mode.

1. Insert the distribution media into the drive and mount it.

Command	Description
<code>su -root</code>	To mount a CD-ROM you must be root.
<code>mkdir /<mount dir></code>	Create a mount directory for the distribution media.
<code>chmod a=rwx /<mount dir></code>	Change the access rights for the mount directory.
<code>mount <platform options> <cdrom device name> /<mount dir></code>	Execute the mount command.

Here is an example for a system-specific mount command and options to mount the Distribution Media as an ISO9660 or High-Sierra file system for Solaris

```
/usr/sbin/mount -F hsfs -o ro -notraildot <device> <mount dir>
```

Note:

On Solaris, the volume management daemon "vold" might be active. This daemon mounts the Distribution Media automatically.

2. Start the installation procedure from a writable working directory. We recommend `$SAG/INSTALL`. Run the installation as "root" or as the administrator "sag".

Enter the command `sh <mount dir>/SETUP.UX*` or `sh <mount dir>/setup.ux*`

The setup program is started and guides you through the installation.

Note:

If you want to run the installation procedure in text-only mode, just append the option "-nw" to the call above. At each command prompt, you have to type the exact wording (for example: "accept" for accepting, not just "y" or the ENTER key. Enter "help" at any prompt to get a list of active commands.

Once the installation has been successfully completed (with the help of a temporary working directory (e.g. `$SAG/INSTALL`), you can safely remove this directory and all of its contents.

3. The installation procedure may create a file with the default name *sagenv.new*. This file contains settings required in the environment of the Software AG products. Insert these settings into the profile (e.g. *.login*; *.profile*) of every user of the products including the administrator *sag*.

Uninstallation Procedure for UNIX

The de-installation tool can be found in the directory `$SAG/common/bin` that is created at the end of the installation procedure. It is not necessary to call it with an absolute path, since it is along the path - at least after sourcing the Software AG environment file (*sagenv*). It should be called with the working directory set to a directory outside `$SAG`, since otherwise on some systems it may be impossible to delete the current directory.

The executable is a tool capable of de-installing any Software AG product that generates a de-install log. It checks for the *deinstall catalog* below the current `$SAG` (`$SAG/common/INSTALL/SAGInst.xml`) and offers a selection screen to the user, on which exactly one product can be selected.

If the user specifies the product directory (i.e. the version-specific toplevel directory) as argument, the product selection dialog is skipped, and the product installed below the specified directory is de-installed. Normally, there are some environment variables defined that point to the product directory. The following example de-installs a product with the TLC xyz: `sagrm $XYZDIR/$XYZVERS`.

If the option "-batch" is given before the product directory, then `sagrm` will de-install the specified product in batch mode, i.e. without further interaction.

The de-installation tool de-installs only one product. It may therefore be necessary for the user to call this tool multiple times to remove all Software AG products that were installed during a single installation.

Troubleshooting

Problem	Solution
<p><i>TCP registration error.</i></p> <p>You get the following message: Error: Bind failed (Task already started or attempt to open privileged socket).</p>	<p>Check to see whether the specified server is already running.</p> <p>If the server is not running, then the default ports are being used by another program. Choose other ports and restart the server. (Consult the appropriate sections of the documentation for more information).</p>
<p><i>You cannot use Apache as HTTP server for Common Tomcat.</i></p> <p>You cannot get the logon page</p>	<p>Check the Apache configuration.</p>
<p><i>You cannot use the web interface or batch environment.</i></p> <p>e.g. You cannot get the host list</p>	<p>The \$ARGDIR system environment variable must be defined (the installation procedure will set the variables).</p> <p>\$ARGDIR must point to your installation base directory.</p>