

Software AG Update Manager Help

Version 11.0

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This document applies to Software AG Update Manager 11.0 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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About Software AG Update Manager

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Software AG Update Manager 11.0 is a standalone tool that you use to manage fixes and support patches for Software AG Products release version 10.5 and higher.

Document Conventions

Convention	Description
Bold	Identifies elements on a screen.
Narrowfont	Identifies service names and locations in the format <i>folder.subfolder.service</i> , APIs, Java classes, methods, properties.
<i>Italic</i>	Identifies: Variables for which you must supply values specific to your own situation or environment. New terms the first time they occur in the text. References to other documentation sources.
Monospace font	Identifies: Text you must type in. Messages displayed by the system. Program code.
{ }	Indicates a set of choices from which you must choose one. Type only the information inside the curly braces. Do not type the { } symbols.
	Separates two mutually exclusive choices in a syntax line. Type one of these choices. Do not type the symbol.
[]	Indicates one or more options. Type only the information inside the square brackets. Do not type the [] symbols.
...	Indicates that you can type multiple options of the same type. Type only the information. Do not type the ellipsis (...).

Online Information and Support

Product Documentation

You can find the product documentation on our documentation website at <https://documentation.softwareag.com>.

In addition, you can also access the cloud product documentation via <https://www.softwareag.cloud>. Navigate to the desired product and then, depending on your solution, go to “Developer Center”, “User Center” or “Documentation”.

Product Training

You can find helpful product training material on our Learning Portal at <https://knowledge.softwareag.com>.

Tech Community

You can collaborate with Software AG experts on our Tech Community website at <https://techcommunity.softwareag.com>. From here you can, for example:

- Browse through our vast knowledge base.
- Ask questions and find answers in our discussion forums.
- Get the latest Software AG news and announcements.
- Explore our communities.
- Go to our public GitHub and Docker repositories at <https://github.com/softwareag> and <https://hub.docker.com/publishers/softwareag> and discover additional Software AG resources.

Product Support

Support for Software AG products is provided to licensed customers via our Empower Portal at <https://empower.softwareag.com>. Many services on this portal require that you have an account. If you do not yet have one, you can request it at <https://empower.softwareag.com/register>. Once you have an account, you can, for example:

- Download products, updates and fixes.
- Search the Knowledge Center for technical information and tips.
- Subscribe to early warnings and critical alerts.
- Open and update support incidents.
- Add product feature requests.

1 Understanding Update Manager

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What is Update Manager?

Software AG Update Manager is a standalone tool for managing fix updates on local development machines. With Update Manager, you can update product installations with the required fixes, or install a support patch to troubleshoot problems in a product installation. Support patches include diagnostic collectors, test patches, and hotfixes. Update Manager is also integrated into Command Central. You can use Command Central (with Update Manager) to install fixes on remote machines in large-scale, distributed test or production environments. For details about managing fixes through Command Central, see the *Software AG Command Central Help*.

Logging

The Update Manager logs contain information about operations and errors that occur when installing or uninstalling fixes. Update Manager has the following types of logs:

- **debug** - contains messages that help you monitor and troubleshoot the Update Manager operations.
- **error**- contains details about errors that occur during an operation.
- **info** - contains information messages about Update Manager operations.
- **launcher**- contains infrastructure, connectivity and component state messages for Update Manager.

The debug, error and info log files are located in the following directory:

`<SAGUpdateManager_directory>\UpdateManager\logs\<log_type>` , where `<log_type>` is debug, error, or info.

The launcher log file is located in `<SAGUpdateManager_directory>/logs/launcher.log`

Each log contains the entries for all product installations on the machine. Update Manager also logs audit data for the products for which you install or uninstall fixes in an audit log, which is located in the product directory.

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Requirements

Before installing Update Manager, consider the following requirements:

- Install Update Manager on the same machine that hosts the Software AG product installations, for which you want to manage fix updates or install support patches. Update Manager supports managing fixes and support patches for Software AG product installations of release version 10.5 or higher.
- You can install Software AG as a user with no administrative rights in any directory that is not controlled by the system. Do not install Software AG in a system-controlled directory such as Program Files.
- If you are going to install on a UNIX system, create a non-root user account for performing the installation and install as that user. The installation user will own all files you install.
- If you want to use the graphic user interface of Software AG on a Unix system, the Unix system must have an X Windows environment.
- The performance of the products installed on your environment is related to the available hardware resources. Running Software AG Update Manager with limited hardware resources might affect the performance of the product, for example, when running Update Manager on a system with a single CPU core. Performance might be affected when running Update Manager simultaneously with other installed products and/or antivirus programs.

Installing from Empower (Windows)

To install from Empower, you must have a user account for Empower and internet connection.

1. Log on the Empower website and go to the Software Download Center.
2. Download the Software AG Update Manager bootstrap installer for Windows.
3. At the command line, go to the directory, in which you saved the Update Manager bootstrap installer, and run:

```
start SAGUpdateManagerInstaller<release_date>(Windows).exe
```

By default, Update Manager is installed in C:\SAGUpdateManager.

Installing from an Image (Windows)

When you cannot access Empower from the machine, on which you want to install Update Manager, you can install it from an image file.

1. On a machine that can access Empower, download the Update Manager bootstrap installer for Windows and create an installation image. See [“Creating an Installation Image for Update Manager” on page 15](#).

2. Copy the downloaded bootstrap installer and the installation image file on the machine that does not have internet connection.
3. At the command line, go to the directory, in which you saved the Update Manager bootstrap installer, and run:

```
start SAGUpdateManagerInstaller<release_date>(Windows).exe
```

Installing from Empower (*nix)

To install from Empower, you must have a user account for Empower and internet connection.

1. Log on the Empower website and go to the Software Download Center.
2. Download the Software AG Update Manager bootstrap installer for the Unix-like operating system that you require.

Important:

Using FTP to transfer your file could damage or corrupt it. If you upload the file to a different location using FTP, make sure you configure your FTP client to transfer the installation file as a binary file.

3. Run the following command to make sure your file is executable:

```
chmod 755 ./SoftwareAGUpdateManagerInstaller<release_date>(*nix).bin
```

4. At the command line, go to the directory, in which you saved the Update Manager bootstrap installer, and run:

```
./SoftwareAGUpdateManagerInstaller<release_date>(*nix).bin --accept-license -d  
</path/to/install/directory>
```

For more information on arguments for the bootstrap installer, see [“Arguments for the Bootstrap Installer \(*nix\)”](#) on page 14

Installing from an Image (*nix)

When you cannot access Empower from the machine, on which you want to install Update Manager, you can install it from an image file.

1. On a machine that can access Empower, download the Update Manager bootstrap installer for your *nix and create an installation image. See [“Creating an Installation Image for Update Manager”](#) on page 15.
2. Copy the downloaded bootstrap installer and the installation image file on the machine that does not have internet connection.

3. At the command line, go to the directory, in which you saved the Update Manager bootstrap installer, and run:

```
./SoftwareAGUpdateManagerInstaller<release_date>(*nix).bin
--accept-license -i /path/to/image.zip
```

Arguments for the Bootstrap Installer (*nix)

Use the arguments for the Update Manager bootstrap installer only when installing on a *nix operating system.

The Update Manager bootstrap installer supports the following arguments that help you change the default installation directory or set up communication through a proxy server (if required):

Argument	Required/Optional	Description
-h, --help	Optional	Lists all supported arguments, with a short description of what each argument does.
--accept-license	Required	The accept license argument indicates that you accept the license agreement at http://documentation.softwareag.com/legal/general_license.txt
-d </path/to/install/directory>	Optional	The directory in which the bootstrapper installs Update Manager. If you do not include this argument, by default Update Manager is installed in /opt/softwareag/SAGUpdateManager.
-i </path/to/image/file>	Optional	If you want to install Update Manager from an image, the path to the location of the Update Manager image.
-proxyHost <host>	Optional	The host of the proxy server.
-proxyPort <port>	Optional	The port of the proxy server.
-proxyUsername <username>	Optional	The name of a user account that can access the proxy server.
-proxyPassword <password>	Optional	The password of the user account you specified in -proxyUsername
-proxyProtocol {HTTP SOCKS}	Optional	The type of protocol over which to communicate with the proxy server.
-autoDetectProxy true	Optional	Indicates that the bootstrap installer will detect the proxy server settings automatically.

If you run the Update Manager Installer wizard, follow the wizard screens to specify the proxy configuration settings (if required) or change the default installation directory.

Creating an Installation Image for Update Manager

When the machine, on which you want to install Update Manager, does not have internet connection, you can create an Update Manager installation image on a different machine that is connected to the internet. You can then copy the created image to the machine that is not connected to the internet and install Update Manager.

➤ To create an installation image:

1. Start the Update Manager Installer wizard.
2. From the Update Manager Installer wizard home page, open the Advanced Options and select the **Images** tab.
3. Select **Use installation image**.
4. Click **Create image** and:
 - Browse to the directory, in which to save the image file, and type a name for the image file.
 - Select the operating system on which you want to install Update Manager from the image. By default, the bootstrap installer selects the operating system of the machine, on which you started the installer wizard.
 - Select **Include product fixes** if you want to include in the image the fixes from Empower for all Software AG products that apply for the operating system you selected.

When **Include product fixes** is not selected, the created image can only be used to install and update Update Manager.

After you create an installation image, you can select it in **Install from image** (in the Advanced Options of the wizard) and then the Update Manager installer will use the image to install Update Manager. Note that the image file should be always located on the same machine, on which you install Update Manager.

Creating an Installation Script for Update Manager

In the Advances Options of the Update Manager Installer, you can create a script, which you can use to automate the installation of Update Manager on multiple machines.

➤ To create an installation script:

1. Start the Update Manager Installer wizard.
2. From the Update Manager Installer wizard home page, open the Advanced Options and select the Scripts tab.

3. Select **Use installation script**.
4. Click **Create script**, browse to an existing directory, in which to save the script, and type a file name for the script.
5. Continue with the wizard screens to finish the wizard.

Installing Update Manager from a Script

After you create a script, you can select it in **Install from script** (in the Advanced Options of the wizard) or use it in an automated script, for example as part of test automation. Note that the script should be always located on the same machine, on which you install Update Manager.

Troubleshooting Installation Issues

During component download, activity might appear at times to stop completely. The cause might be that your virus scanner is scanning the components. Add the Update Manager installation directory to the virus scanner's exclusion list. If you do not have such a list, disable your anti-virus software while using Update Manager.

If the bootstrap installer will not start, it was corrupted during download. Go to the Empower Product Support website and download the SHA256 file for the bootstrapper you tried to run. Calculate the SHA256 checksum for the bootstrapper and compare it to the checksum value in the downloaded SHA256 file, for example, run `sha256sum bootstrapper_file`. If the values do not match, delete the corrupted bootstrapper, download it again, and re-transfer it using binary mode.

If you see error messages about problems connecting to Empower or corrupted Zip files, the cause might be that your network interferes with the Update Manager download.

- Most download issues are caused by interference from the network security, such as a virus scanner or a firewall. Ask the network administrator to check the security settings for your proxy or firewall, because they might be incompatible with Update Manager. One solution could be temporary access to a port outside the firewall to download the components. Also check if you have specified the correct proxy server settings.
- Run Update Manager again, but this time when specifying the proxy server settings, select to use SSL. With SSL the streams will be encrypted, which should not trigger anti-virus, antimalware, or other scanners. Also, test whether your network is handling SSL traffic properly. The verbose log will give you a great deal of troubleshooting information. Even if you cannot spot the problem, make sure to provide the verbose log to Software AG Global Support.
- If you have access to another network, try running the same installation on the other network. If the installation succeeds, create an installation image to use on machines in the network that is experiencing problems.

You can verify if an installation is successful in the `launcher.log` in `<SAGUpdateManager_directory>\logs`. If the installation is successful, the exit code is 0. If errors occur during the installation, the exit code is 1.

An issue occurs with the installation of Update Manager on macOS when the target folder of the installation is `../Users/<usr_name>/Documents`. To avoid this install Update Manager in a different directory.

If the issue cannot be resolved after exploring all possibilities, or if you need an installation image urgently, Software AG Global Support can contact Software AG Logistics to provide Update Manager on a DVD or through a private FTP site.

Uninstalling Update Manager

To uninstall Update Manager, delete the directory that contains the Update Manager installation.

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Best Practices for Using Update Manager

After installing Update Manager, consider the following guidelines:

- To avoid file or product conflicts, do not run the Update Manager and Software AG Installer at the same time.
- Do not modify or remove files from the Update Manager installation directory or the <Software AG_directory>\install directory, because they have metadata that is used by Update Manager and the Installer.
- Back up the Update Manager installation directory regularly, in synchronization with your regular backups of your Software AG products. These backups ensure that Software AG can restore the products as well as the Update Manager metadata to a known point of time. Keep at least the latest backup so you can restore Update Manager from it.

Warning:

Do not copy/paste files from the Update Manager installation. This leads to errors in the installation when using it in the future.

Configuring Update Manager

Go to *Software AG_directory/UpdateManager/conf* directory, open the *sum.cnf* file in a text editor, and modify the properties as necessary.

The following table describes each configuration property you can modify for Update Manager.

Property	Description
cacheRetainDays	Update Manager caches fixes in its file system. By default, cached fixes are deleted each time you start Update Manager. To keep fixes in the cache, specify the number of days to keep the fixes.
debugLevel	The default is DEBUG. Software AG recommends not changing this level so that you will have the maximum amount of information in case of problems.
selfUpdateMode	Whether Update Manager should update itself to the newest available release. Update Manager checks for a new release when it starts up and connects to Empower. Values are: <ul style="list-style-type: none">■ ON - If a new release is available, Update Manager will automatically update itself.■ PROMPT - If a new release is available, Update Manager will ask whether to update itself.

Note:
If a fix requires the latest release of Update Manager, and you respond no to this prompt, you will not be able to install the fix.

Property	Description
MaxReadmeToView	Maximum number of readmes to display in Update Manager at one time when using the graphic user interface. If you select more fixes than this number on the fix selection tree in the Update Manager graphic user interface, and then try to view the fix readmes, Update Manager will ask you to deselect some of the readmes.
FontPrintReadme	Type of font to use when printing readmes.
FontSizePrintReadme	Font size to use when printing readmes.
ReadmeLinePerPage	Number of lines of readme text to show at one time when using Update Manager in command line mode.

Starting Update Manager on Windows

Log onto the machine that hosts Software AG as the same user that installed the Software AG products you want to work with. Go to the <SAGUpdateManager_directory>\bin directory and run:

- UpdateManagerCMD.bat (Update Manager command line interface)
- UpdateManagerGUI.bat (Update Manager graphic user interface)

Tip:

You can also start Update Manager from the start menu.

Before starting, Update Manager updates itself to the latest version. You can also run the Update Manager start-up scripts at the command line with the arguments described in [“Supported Arguments for the Start-up Scripts”](#) on page 23.

Starting Update Manager on *nix

Log onto the machine that hosts Software AG as the same user that installed the Software AG products you want to work with. Go to the <SAGUpdateManager_directory>/bin directory and run:

- UpdateManagerCMD.sh(Update Manager command line interface)
- UpdateManagerGUI.sh (Update Manager graphic user interface)

Before starting, Update Manager updates itself to the latest fix. You can also run the Update Manager start-up scripts at the command line with the arguments described in [“Supported Arguments for the Start-up Scripts”](#) on page 23.

Supported Parameters for Starting Update Manager

Update Manager can be started with a set of parameters, depending on what you are trying to do. The table below contains the parameters you can include in your start command.

Parameter	Description	Example
<code>-readScript</code>	When you specify this parameter, Update Manager uses scripted execution of tasks instead of manual.	<code>./UpdatemanagerGUI.sh -readScript myScript.txt</code>
<code>-showAll</code>	Shows all fix versions for the corresponding product, not only the latest one. <code>-showAll</code> works for fixes that are released after fix that is already installed on the current environment. For example, if there is fix 3 installed and there are fix 4 and fix 5 available, Update Manager will show fix 3 installed fix 4 available and fix 5 available. Fixes with version lower than the one installed on the environment are not shown.	<code>./UpdatemanagerCMD.sh -showAll true</code>
<code>-checksumEnabled</code>	Enables verification of the checksum of the downloaded fixes. This check is only for the fixes. The check is done in the Update Manager client. No launcher checks are triggered by this property. Launcher checks are performed automatically after the components and the checksums from the V2 Server.	<code>./UpdatemanagerGUI.sh -checksumEnabled true</code>
<code>-dumpAll</code>	Redirects the error log to the command line.	<code>./UpdatemanagerGUI.sh -dumpAll true</code>
<code>-installDir</code>	Specifies the directory with Software AG products to run Update Manager with.	<code>./UpdatemanagerGUI.sh -installDir /opt/softwareag</code>
<code>-clearCache</code>	Clears the Update Manager cache. Only available in command line mode.	<code>./UpdatemanagerCMD.sh -clearCache true -installDir <product Install Dir></code>
<code>-spKey</code>	Accepts the support patch key from the launcher.	<code>./UpdatemanagerGUI.sh -spKey <support-patch-key></code>
<code>-image</code>	Specifies the location of an image file with product fixes.	<code>./UpdatemanagerGUI.sh -image /opt/SUM/myImage.zip</code>

Parameter	Description	Example
<code>-selfUpdate</code>	<p>Only available in command line mode.</p> <p>Self-updates Update Manager without starting it. It is used along with <code>-empowerUser</code> and <code>-empowerPass</code>.</p> <p>When using <code>-selfUpdate</code> and an update is available, Update Manager is updated. When no update is available, Update Manager closes and no operation is performed.</p>	<pre>./UpdatemanagerCMD.sh -selfUpdate true -empowerUser user -empowerPass pass</pre> <p>This parameter can also be used when Update Manager is in offline mode by using an image as follows:</p> <pre>./UpdatemanagerCMD.sh -selfUpdate true -installFromImage <imagePath></pre>
<code>-empowerUser</code>	The provided user when Update Manager is connecting to Empower	<pre>./UpdatemanagerGUI.sh -selfUpdate true -empowerUser user -empowerPass pass</pre>
<code>-empowerPass</code>	The provided password when Update Manager is connecting to Empower	<pre>./UpdatemanagerGUI.sh -selfUpdate true -empowerUser user -empowerPass pass</pre>
<code>-empowerPwd</code>	The provided password when Update Manager is connecting to Empower	<pre>./UpdatemanagerGUI.sh -selfUpdate true -empowerUser user -empowerPwd pass</pre>
<code>-imageFile</code>	Points to an infrastructure image where fixes are installed.	<pre>./UpdatemanagerGUI.sh -imageFile /opt/SUM/myImage.zip</pre>

Supported Arguments for the Start-up Scripts

You can run the Update Manager start-up scripts (for the command line and graphic user interface) at the command line with the arguments described in the following sections. All of the supported arguments are optional.

Create Image

- `-createImage full/path/to/image.zip`

Creates an image file that contains all Update Manager components and starts the Update Manager application. From the Update Manager application, you can add product fixes to this image. If you do not include the `-imagePlatform` argument, by default the image is created for the same operating system as the machine, on which you run the start-up script. The image is created with the name and at the location you specify.

Example:

Update Manager connects to Empower to create the "SUM_image.zip" file in the specified directory and for the operating system on which you run the script. After the image is created and saved, the Update Manager application starts:

- Windows syntax:

```
UpdateManagerGUI.bat -createImage C:\SUM_image.zip
```

- *nix Syntax:

```
./UpdateManagerGUI.sh -createImage /opt/SUM_image.zip
```

- -createImageOnly full/path/to/image.zip

Creates an image file that contains all Update Manager components, but does not start the Update Manager application and you cannot add product fixes to this image. If you do not include the `-imagePlatform` argument, by default the image is created for the same operating system as the machine, on which you run the start-up script. The image is created with the name and at the location you specify.

Example:

Update Manager connects to Empower to create the "SUM_only_image.zip" file in the specified directory and for the operating system on which you run the script:

- Windows syntax:

```
UpdateManagerGUI.bat -createImageOnly C:\SUM_only_image.zip
```

- *nix Syntax:

```
./UpdateManagerGUI.sh -createImageOnly /opt/SUM_only_image.zip
```

- -imagePlatform <OS_code>

The operating system for which to create an image. If you do not include this argument, by default the image is created for the same operating system as the machine, on which you run the start-up script. The valid values are listed in the following table:

Value	Operating System
OSX	Apple Mac OS X
HP11IT	HP HP-UX Intel Itanium 2
LNXS390X	Linux RHEL and SLES IBM System z
AIX	IBM AIX
LNAMD64	Linux RHEL and SLES x86-64 (EM64T, AMD64)
W64	Microsoft Windows x86-64 (EM64T, AMD64)
SOL	Oracle Solaris SPARC

Value	Operating System
SOLAMD64	Oracle Solaris x86-64 (EM64T, AMD Opteron)

Example:

Update Manager connects to Empower to create an image with name "SUM_only_image.zip" for the Linux RHEL x86-64 operating system:

- Windows syntax:

```
UpdateManagerGUI.bat -createImageOnly C:\SUM_only_image.zip -imagePlatform LNXAMD64
```

- *nix Syntax:

```
./UpdateManagerGUI.sh -createImageOnly /opt/SUM_only_image.zip -imagePlatform LNXAMD64
```

Usage Notes:

If you are creating a fix image, you can specify any name for the image file; do not supply an extension. The directory that will contain the image file must exist, and no part of the path or file name can include spaces.

Install from Image

- `-installFromImage full/path/to/image.zip`

Update Manager updates itself and then installs product fixes using the specified image file.

Example:

Update Manager uses the "SUM_image.zip" to update itself and install product fixes:

- Windows syntax:

```
UpdateManagerGUI.bat -installFromImage C:\SUM_image.zip
```

- *nix Syntax:

```
./UpdateManagerGUI.sh -installFromImage /opt/SUM_image.zip
```

Configure Proxy Server Settings

Use the proxy arguments when you must use a proxy server to connect to Empower.

Argument	Description
<code>-proxyHost <host></code>	The host of the proxy server.
<code>-proxyPort <port></code>	The port of the proxy server.
<code>-proxyUsername <username></code>	The name of a user account that can access the proxy server.

Argument	Description
<code>-proxyPassword <password></code>	The password of the user account you specified in <code>-proxyUsername</code>
<code>-proxyProtocol {HTTP SOCKS}</code>	The type of protocol over which to communicate with the proxy server.

Example:

Update Manager connects to Empower through a proxy server with host "192.168.0.1" and port "8000", over the HTTP transport and uses the credentials of "MyUser":

■ Windows syntax:

```
UpdateManagerGUI.bat -proxyHost 192.168.0.1 -proxyPort 8000 -proxyUsername MyUser  
-proxyPassword secret -proxyProtocol HTTP
```

■ *nix Syntax:

```
./UpdateManagerGUI.sh -proxyHost 192.168.0.1 -proxyPort 8000 -proxyUsername MyUser  
-proxyPassword secret -proxyProtocol HTTP
```

Usage Notes:

When you specify the proxy server settings as arguments at the command line, Update Manager creates the `<SAGUpdateManager_directory>/UpdateManager/conf/proxy.cnf` file and saves the proxy settings in the file. Note that:

- If the next time you start Update Manager at the command line, you include the proxy configuration arguments with new settings, Update Manager will overwrite the settings saved in the `proxy.cnf` file.
- If you do not include the proxy configuration arguments, Update Manager uses the proxy settings from the `proxy.conf` file.

Debug Update Manager Operations

Operation	Description
<code>-debug true false</code>	Starts Update Manager in debug mode. Default: true

Troubleshooting Start-up Operations

If Update Manager experiences issues when starting or updating itself, you can use the `-DsumProc` property to identify the process, in which the issues occur. Every process that the Update Manager launcher starts is flagged with the `-DsumProc` property and you can use a command line tool, such as Top, Htop, or PsTools to search for this property. Following is an example with PsTools:

```
ps -aux | grep sumProc
```

Troubleshooting Graphic User Interface Issues on *nix Systems

To use the graphic user interface of Software AG Update Manager, first your system needs to be properly configured to run software with graphic user interface. If an issue occurs with running the Update Manager graphic user interface, make sure your that your system is not missing any essential libraries by, for example, running a different product with a graphic user interface.

If the problem persists after installing all libraries required by your operating systems, try the following solutions:

- Check your internet connection. Issues might be caused by a network timeout or a delay in VPN communication.
- Install missing xlib libraries that are required by your operating system. The Update Manager startup error message might contain information on which xlib libraries are missing.
- Check whether xclock is installed on your machine and install it if necessary.

Troubleshooting Connectivity Issues

An SSL connection only succeeds when the client trusts the server. When we establish a connection over HTTPS, the web server responds by providing its site and intermediate certificates. It is then up to the client to complete the chain by having the root certificate. This chain validation is necessary for the client to trust the site. When the `CertPathBuilderException`, `CertificateException`, and `SSLHandshakeException` exceptions occur, you can try the following:

- Set up a certificate and configure a proxy that Software AG Update Manager uses to connect to your network.
- Configure a trust store or certificate chain for Update Manager to use when it establishes TLS/SSL communication.

Update Manager uses a dedicated `JAVA_OPTIONS_SUM_V11` environment variable instead of using the `JAVA_OPTIONS` environment variable. This allows you to set the `JAVA_OPTIONS_SUM_V11` environment variable globally and not interfere with other products/services/processes that use `JAVA_OPTIONS`.

Setting the `JAVA_OPTIONS_SUM_V11` environment variable globally has no side effects and allows you to shadow or mask truststores, for example:

- For *nix systems:

```
export JAVA_OPTIONS_SUM_V11="$JAVA_OPTIONS_SUM_V11
-Djavax.net.ssl.trustStore=<path_to_the_custom_proxy_truststore>"
```

- For Windows systems:

```
set JAVA_OPTIONS_SUM_V11="$JAVA_OPTIONS_SUM_V11
-Djavax.net.ssl.trustStore=<path_to_the_custom_proxy_truststore>"
```

Important:

The keystore is only read when the JVM is initialized. Restart the source application service after importing new certificates.

Checking the Launcher Version

To check the Update Manager launcher version, open the `<YOUR_SUM_HOME>\bin\config.properties` file. The file lists important information about Update Manager and looks similar to the following example:

```
#Thu Feb 27 11:14:48 EET 2020
osgi=equinox-W64_10.0.0.0000-0036
version=11.0.0.0000-0152
SUM_HOME=C:\SAGUpdateManager_V11
java=java-W64_10.1.0.0000-0014
sum=core_11.0.0.0000-0117
launcher=launcher_11.0.0.0000-0199
```

Using Software AG Command Central to Call Update Manager

When Update Manager is used with Command Central, you can set the `com.softwareag.plm.sum.cc.java.truststore=<location_to_trustore>` system property in Platform Manager and restart it. Using this property allows you to change the default java trust store used by Update Manager. It is recommended to point this location to the installation java directory where the certificates are already imported. For example:

```
com.softwareag.plm.sum.cc.java.truststore=<CCE_installDir>/jvm/jvm/jre/lib/security/cacerts,
```

where `<CCE_installDir>` is the full path to the installation directory.

When you call Update Manager from Command Central, this truststore location will be used by Update Manager to establish SSL connections.

Connection Issues when Using NTLM Proxy Server on a *nix Machine

When using Update Manager on a *nix machine, you may encounter connectivity issues with reaching SDC or any other internal server if you have an NTLM proxy setup in your environment. This is related to some specific behavior of the NTLM proxy on *nix machines. To resolve this problem, you have to set the following two variables in the same session that you are running Update Manager:

```
export http_proxy=http://<USERNAME>:<PASSWORD>@<SERVER>:<PORT>/
export https_proxy=https://<USERNAME>:<PASSWORD>@<SERVER>:<PORT>/
```

This results in the OS being explicitly notified for using an NTLM proxy and should resolve the connectivity problem.

4 Managing Fix Updates

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Before Installing Fixes

Read the readmes for all fixes you want to install before installing the fixes. The readmes describe the issues that have been fixed and provide cautions and warnings.

Some readmes also provide steps you must perform before or after you install the fixes.

- Verify fixes in a development or test environment of Software AG products before promoting the fixes to production environments. Software AG recommends creating a fix image from a verified development or test environment and using that image to install fixes into production environments.
- If you encounter problems after installing a fix, contact Software AG Global Support.
- When you select fixes to install, Update Manager also lists any other fixes that the selected fixes require. If the products of those required fixes are not installed in the product installation that you want to update, Update Manager will list those fixes at the end of the installation.

Installing Fixes from Empower

You can install the latest fixes directly from the Software AG Empower Product Support website on a single machine. Use this method when you want to install the latest versions of fixes, or if you want to install on a single machine, and the machine can go outside your corporate firewall.

> To install fixes from Empower:

1. Start the Update Manager application (command line or graphic interface) in online mode as described in [“Connecting to Empower” on page 31](#).
2. Go to **Manage fixes** and select **Install fixes from Empower**.
3. Select a product directory for which to list available fixes on Empower or specify a test patch key to find a specific support patch for the selected product installation.

To list the latest fixes that are available for all products you have licensed from Software AG, do not select a product directory. This list of fixes can change over time when a given product version reaches its end of maintenance date. After the end of maintenance date you can only see the latest fixes if you have extended maintenance available for your products.

You can also specify the location of a script that Update Manager will run to install fixes from Empower.

4. Check which fixes are available for a product. You can view the fix contents and readme of each fix on the list.

Read the readmes of the fixes you intend to install to check for critical information or steps you must perform before or after you install the fixes.

5. Select the fixes you want to install from the product tree.

If a product requires a shutdown before fix updates, Update Manager will ask for the product connection details to shut down the product. Update Manager installs the selected fixes and any other fixes that the selected fixes depend on or require.

Connecting to Empower

You can use Update Manager in two different modes:

- **Offline mode:** In this mode, Update Manager does not connect to Empower. Choose this mode when you do not have internet connection or access to Empower. You can also choose to use offline mode when you want to skip waiting for any online connection checks or Update Manager components updates.
- **Online mode:** In this mode, Update Manager connects to Empower, which means you must have an internet connection (direct or through proxy settings) and valid Empower user credentials.

> To connect to Empower:

1. Start the Update Manager application (command line or graphic interface).
2. Go to **Connectivity**.
3. Specify **Username** and **Password** for Empower.

Update Manager is set to online mode.

You can also configure a proxy for your connection to Empower.

Installing Fixes from an Image

You can download fixes from Empower into an image and then install the fixes from the image on one or more machines. Use this method when:

- The machines that host the products on which you want to install fixes cannot go outside your corporate firewall (that is, cannot connect to Empower).
- You want to install some or all of the same fixes on multiple machines that are running the same operating system, and want to avoid the time required to download from Empower.
- You want to store a specific version of each fix so you can install the same fixes versions on multiple machines over time. Empower provides only the latest versions of fixes, so the version of a fix that is available now on Empower might be replaced by a later version in the future. An image always contains the versions of the fixes that you downloaded into it. Software AG recommends creating images to ensure consistency across product installations over time, especially if you have a long fix verification and promotion cycle.

You want to make sure you can install fixes at any time, regardless of whether production servers are locked down or have special access controls.

Make sure the machine on which you install fixes from an image has free disk space at least twice the size of the installation image. For example, if you have a 1GB image MyImage.zip in C:\MyDirectory, the file system on C:\ must have at least 2GB free disk space available.

> To install fixes from an image:

1. Start the Update Manager application (command line or graphic interface).
2. Browse to the location of the saved fix image file.
3. Select a product directory for which to install fixes or specify a test patch key to find a specific support patch for the selected product installation.

You can also specify the location of a script that uses the image from which you want to install fixes.

4. Check which fixes are available for a product. You can view the fix contents and readme of each fix on the list.

Read the readmes of the fixes you intend to install to check for critical information or steps you must perform before or after you install the fixes.

5. Select the fixes you want to install from the product tree.

If a product requires a shutdown before fix updates, Update Manager will ask you for the product connection details to shut down the product. Update Manager installs the selected fixes and any other fixes that the selected fixes depend on or require.

Installing Fixes from a Script

You can install fixes from a script you created as described in [“Creating a Script” on page 42](#). If you created the script from an image, make sure the image file is still available under the same name and in the same location before running the script. After running the script, restart the products on which you installed fixes.

Reverting the State of Product Fixes on an Installation

You can use Update Manager to revert the current state of fixes on your product installation to the fix state of the product installation from a previous Update Manager session. By reverting you restore the state of fixes on your product installation to the state of fixes at a specific time and date. Reverting is a very complex process that relies on the structural integrity of the installation and the quality of the fixes. It is strongly recommended to create a backup of your product installation in advance so you don't have to do pre-installation from the beginning. Some sessions are not available for revert. The sessions that you cannot revert to are indicated in the Update Manager user interface.

> To revert the fix state of a product installation:

1. Start the Update Manager application (command line or graphic interface).
2. Go to **Revert**.
3. Select a product directory for which to revert the state of product fixes.

Warning:
Make sure you backup your product installation before reverting.

4. From the drop down menu, select the time and date of the Update Manager session with the state of product fixes you want to revert to.

If the selected state of fixes requires the installation of fixes that are not a part of the internal installation storage and there is no connection to Empower, Update Manager will require you to navigate to an image that contains these fixes.

After a successful revert, the state of each fix on the product installation is displayed after the fix name as installed, uninstalled or unchanged. This helps you to identify what was changed in order to revert back to the selected state of product fixes.

Deleting Fix Backups

Every installed fix creates a backup, which allows you to uninstall that fix and revert to the previous fix version. You can use Update Manager to delete the backups of installed fixes to, for example, free up space on your machine.

Important:

Make sure to always use the latest version of Update Manager when deleting backups and always keep at least the latest backup. Preserving the latest backup allows you to return to the previous state when needed, for example, if the latest fix introduced a problem that is not yet fixed in a newer fix.

➤ **To delete fix backups:**

1. Start the Update Manager application (command line or graphic interface).
2. Go to **Delete backups**.
3. Point to the product installation directory.
4. Specify how old are the fix backups you want to delete in days, weeks, or months. Specifying 0 means all fix backups are to be deleted.

All fixes older than the time you specified are displayed.

5. Make sure that the correct fix backups are displayed and confirm.

Deleting fix backups is not possible in the following situations:

- When a fix depends on more than one product, you cannot delete its backup even if you try to delete the full backup.
- You cannot delete the backups of support patches, which include diagnostic collectors, test patches, and hotfixes.

Update Manager informs you if there are any fixes that cannot be removed from the backup.

Warning:

Backups play a main role in the Fix Uninstallation process. To uninstall a fix, the previous version should be available in the backup. When the backup of the latest version is deleted you cannot uninstall the latest fix. Only delete fix backups when necessary.

Uninstalling Fixes

1. Start the Update Manager application (command line or graphic interface).
2. Select a product directory for which to uninstall fixes or specify a test patch key to find a specific support patch to uninstall.

You can also specify the location of a script that will uninstall the fixes.

3. Check which fixes are available for a product. You can view the fix contents and readme of each fix on the list.

Read the readmes of the fixes you intend to uninstall to check for critical information or steps you must perform before or after you uninstall the fixes.

4. Select the fixes you want to uninstall from the product tree.

Warning:

Backups play a main role in the Fix Uninstallation process. To uninstall a fix, the previous version should be available in the backup. When the backup of the latest version is deleted you cannot uninstall the latest fix. Only delete fix backups when necessary.

5 Checking for Fix Updates for a Product Installation

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About Fix Updates

You can check the fixes available for a product installation on Empower. You can also check which fixes are already installed in a product installation.

Checking for Fixes Available on Empower

1. Start the Update Manager application (command line or graphic interface) in online mode as described in [“Connecting to Empower”](#) on page 31.
2. Go to **View fixes** and select **View fixes from Empower**.
3. Select a product directory for which to list all fixes on Empower or specify a test patch key to find a specific support patch for the selected product installation.

To view the latest fixes that are available for all products you have licensed from Software AG, do not select a product directory.

You can also specify the location of a script that Update Manager will run to check for fixes on Empower.

4. You can check which fixes are available for a product and view the fix contents and readme of each fix on the list.

Fixes released after the Standard Maintenance period are only available via Update Manager to customers who have extended maintenance contracts with Software AG. Therefore you might see more fixes when you go to the Empower Fix Explorer page than are available to you through Update Manager.

Checking for Installed Fixes

1. Start the Update Manager application (command line or graphic interface).
2. Go to **View fixes** and select **View installed fixes**.
3. Select a product directory for which to list all installed fixes or specify a test patch key to find a specific support patch for the selected product installation.

You can also specify the location of a script that Update Manager will run to check for installed fixes.

4. You can check which fixes are installed for a product, view the fix contents and readme of each fix on the list, or save the fix list for future reference.

6 Creating a Fix Image

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About Fix Images

You can create an image using these methods:

- Connect to Empower and download fixes from a list of fixes that are available either for any product you have licensed from Software AG, or for only products in a model installation directory.
- Run Update Manager on an offline machine to create an inventory of products in a model installation directory and of fixes that are already installed on those products. For details, see [“Creating an Inventory” on page 44](#).

When you select fixes to include in an image, Update Manager also lists any other fixes that the selected fixes require. If the products of those required fixes are not installed in the product installation that you update from the image, Update Manager will list those fixes at the end of the installation.

Update Manager does not install any fixes on the local machine during image creation. When additional fixes become available on Empower, you can add them to existing images. Update Manager saves images as zip files. When creating a fix image, Update Manager downloads the products to a directory with the same name as the image (for example, C:\MyDirectory\MyImage) before adding the products to the image. If you lose your connection to the Empower Product Support website, you can resume where you left off. To estimate the image size, check the numbers for Free Space Required (for the image) and Free Space Available (in the file system) in the product selection tree after you select the products to include in the image. If Free Space Required exceeds this number, Update Manager will display an error message.

Creating a Fix Image

1. Start the Update Manager application (command line or graphic interface) in online mode as described in [“Connecting to Empower” on page 31](#).
2. Go to **Create image**.
3. Choose a directory in which Update Manager creates the image, type a name for the image, and select the checkbox if you want to create a complete image (that includes Update Manager and product fixes).
4. By default, Update Manager creates the image for the operating system on which you run the Update Manager application. Select a different operating system for the image if required. For example, if you want to filter the fixes that go into an image using an inventory file, select the same operating system as the one you selected when creating the inventory file.
5. To filter which fixes should go into the image, select a product installation or specify an inventory file. The inventory file should be located on the same machine, on which Update Manager is running. To include all fixes for licensed products, select the **All licensed** checkbox.

6. Check which fixes are available for a product. You can view the fix contents and readme of each fix on the list.
7. Select the fixes that you want to include in the image from the product tree.

Update Manager includes in the image the selected fixes and any other fixes that the selected fixes depend on or require.

7 Creating a Script

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Creating a Script

You create a script by recording yourself installing fixes from Empower or an image, and you then use that script to install fixes on one or more machines. Use this method if you want to install fixes on multiple machines that have identical product installations, or if you want to automate fix installation. If you want a script to always install the latest version of fixes, record yourself installing from Empower. When you run the script, the script gets the fixes from Empower.

If you want the script to always install a specific version of each fix, record yourself installing from an image that contains those fix versions. When you run the script, the script gets the fixes from the image. You can also record yourself installing from an image if you do not want a script to go outside your corporate firewall.

When you run the script, you cannot provide any input. Because you use scripts only to install on machines with identical product installations, all fixes you include in the script are automatically installed in each product installation. In addition, scripts include installation-specific options such as product connection values, and the same installation-specific options are used for each product installation.

When additional fixes become available on Update Manager, you cannot add them to existing scripts. Instead you must create new scripts.

To create a script, start the Update Manager application (command line or graphic interface), go to **Manage fixes**, and select the **Create script** option. Update Manager saves scripts as .txt files. Update Manager automatically encrypts passwords you enter when you create a script.

8 Creating an Inventory

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Creating an Inventory

You can run Update Manager on an offline machine to create an inventory of products in a model installation directory and of fixes that are already installed on those products. Then copy the inventory file to a machine with internet connection, connect to Empower, and create an image that contains the fixes you want to install on the machine you used to create the inventory file.

To create an inventory file, start the Update Manager application and select **Create inventory**. Specify a product directory for which to create an inventory file. Update Manager creates the file in the <SAGUpdateManager_directory>\UpdateManager\inventory directory. The inventory file contains details about the product installation, such as host, platform, Update Manager version, installed products, fixes, and support patches.