



Readme

Note

Before using this information, be sure to read the general information under Appendix A, "Notices," on page 29.

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How to send your comments

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- To send comments on articles in the WebSphere Application Server information center:
 1. Display the article in your Web browser and scroll to the end of the article.
 2. Click on the **Feedback** link at the bottom of the information center article, and a separate window containing an e-mail form appears.
 3. Fill out the e-mail form as instructed, and click on **Submit feedback** .
- To send comments on PDF books or readme files, you can e-mail your comments to: **wasdoc@us.ibm.com** or fax them to 919-254-0206.

Be sure to include the document name and number, the WebSphere Application Server version you are using, and, if applicable, the specific page, table, or figure number on which you are commenting.

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Chapter 1. Applying service

This topic describes how to use the IBM Update Installer for WebSphere Software to install interim fixes, fix packs, and refresh packs. The Update Installer for WebSphere Software is also known as the update installer program, the UpdateInstaller program, and the Update installation wizard.

Use the proper authorizations to successfully install product updates. Use the update installer program as the root user on a Linux or UNIX platform, or as the administrator on a Windows platform.

The Update Installer wizard is an InstallShield for Multiplatforms wizard that runs with either a graphical user interface or in silent mode with or without a response file. When you omit the response file in silent mode, the wizard installs the last maintenance package that you downloaded to the default maintenance directory.

The following descriptions contain reference information about installing interim fixes, fix packs, and refresh packs on WebSphere Application Server products:

Overview of the installation procedure

To install an interim fix:

1. To update an existing copy of the update installer, back up and delete the `updateinstaller` directory of the existing update installer before downloading the new ZIP or TAR file into the `install_root` directory.
2. Download the most current version of the update installer, fix pack, or refresh pack ZIP or TAR file from the Support site into the `install_root` directory.
3. Unpack the ZIP or TAR file that you downloaded to create the `updateinstaller` directory and several subdirectories, including the maintenance directory.
4. **Interim fix only:** Download the interim fix from the Support Web site into the maintenance directory.
5. Use the update installer to install the interim fix, fix pack, or refresh pack. The update installer creates a backup file in the `install_root/properties/version/update/backup` directory. IBM does not support user modifications to backup files.

Updating existing profiles in WebSphere Application Server products

The update installer updates the core product files in a WebSphere Application Server product. Service in a maintenance package might update the following core product files in the installation root directory:

- JAR files in the `lib` directory
- The SDK, Java technology edition, in the `java/jre` directory
- Scripts in the `bin` directory
- Profile templates

Some maintenance packages provide required service for existing profiles in addition to service for the core product files. Each maintenance package that has profile maintenance provides a script that changes the profile. The update installer prompts you to back up your configuration when installing a maintenance package that has required maintenance for profiles.

Some maintenance packages provide optional service for existing profiles. The readme file for the maintenance package describes whether the maintenance package contains optional service for existing profiles. If so, the readme file describes how to use the script provided with the maintenance package.

Use the **backupConfig** command to back up the configuration of each profile that the maintenance package can update. Or archive the `install_root/profiles` directory to back up all of the profiles at once.

If you uninstall a maintenance package, the update installer does not uninstall the maintenance package from profiles. The reason for not removing the maintenance is that you might have

configured the profile after installing the maintenance. To restore an original profile, use the **restoreConfig** command or copy the profile from the archived profiles directory to replace the changed profile.

Viewing the fix level of the node

You can use the **versionInfo** command in the *install_root/bin* directory to display the exact fix and version level of the product. However, do not use the **versionInfo** command while installing or uninstalling a maintenance package.

Updating cluster members

Apply the same maintenance packages to all of the WebSphere Application Server nodes in a cluster. When all of the cluster members are not at the same service level, the following exception can occur:

```
DRSCacheApp  E DRSW0008E:
Exception is: com.ibm.disthub.impl.jms.JMSWrappedException:
{-1361012295|unknown|java.io.OptionalDataException|}
```

This error can cause memory replication to not function properly.

Do not launch multiple copies of the Update Installer wizard at one time: Concurrent launches of the update installer program are not supported. Performing more than one update at the same time can produce unpredictable results, which might include a failed or faulty installation.

Required information

The graphical interface requires the following information that you must supply:



Table 1. Information required when installing a maintenance package

Field	Valid values	Description
File path of the installation root directory of the WebSphere product and the Update Installer	Identify the installation root directory for one of the following products: <ul style="list-style-type: none"> • IBM WebSphere Application Server • IBM WebSphere Application Server - Express • Embedded version of the IBM WebSphere Application Server - Express • IBM WebSphere Application Server Network Deployment • IBM WebSphere Extended Deployment • IBM Application Client for WebSphere Application Server • IBM WebSphere Business Integration Server Foundation • Web server plug-ins for WebSphere Application Server 	Download and unpack the Update Installer for WebSphere Software within each set of core product files that you intend to update. The Update Installer application selects the product in its parent directory by default.
File name of the maintenance package to install.	Select a maintenance package to install from the maintenance directory.	The default maintenance package is the package with the latest date stamp and time stamp.

Important: See Chapter 4, “Known problems and workarounds for the update command,” on page 27 for information about known problems and workarounds.

The following procedure describes how to install a maintenance package. See Chapter 2, “Uninstalling service,” on page 13 for a description of how to remove a maintenance package.

1. Log on as root on a Linux or UNIX operating system, or as a member of the administrator group on a Windows system.

  In addition, verify that the umask setting is 022. To verify the umask setting, issue the following command:

```
umask
```

To set the umask setting to 022, issue the following command:

```
umask 022
```

2. Install the product that you intend to update.
You have very likely already installed the software that you are now updating. But if not, install the software now.
3. Back up and delete any older copy of the update installer before downloading the current update installer. To use a newer version of the update installer, you must first remove the older version.
 - a. Back up any files and subdirectories in the *install_root/updateinstaller/maintenance* directory, if necessary.
 - b. Delete the *install_root/updateinstaller/maintenance* directory and all of its subdirectories.

4. **Refresh packs and fix packs only:** Download the fix pack or refresh pack ZIP file or TAR file from the Support site into a temporary directory.

The ZIP file or TAR file for a refresh pack or a fix pack contains the update installer. You can check for a newer version of the update installer code. Download the latest version of the Update Installer for WebSphere Software as a ZIP file or a TAR file from one of the following IBM Web sites:





- Update Installer for WebSphere Extended Deployment V5.1 Releases
- Update Installer for WebSphere Software

5. **Interim fixes only:** Download the update installer from the Support site into a temporary directory. Download the ZIP file or TAR file for the Update Installer for WebSphere Software from one of the following IBM Web sites:






- Update Installer for WebSphere Extended Deployment V5.1 Releases
- Update Installer for WebSphere Software

6. Unpack the ZIP file or the TAR file.

Unzip or untar the file into one of the following directories in a Version 6 environment:

-  /usr/IBM/WebSphere/AppServer
-  /opt/IBM/WebSphere/AppServer
-  /opt/IBM/WebSphere/AppServer
-  /opt/IBM/WebSphere/AppServer
-  C:\Program Files\IBM\WebSphere\AppServer

Or unzip or untar the file into one of the following directories in a Version 5.1.1.1 Extended Deployment environment:

-  /usr/WebSphere/DeploymentManager
-  /opt/WebSphere/DeploymentManager
-  /opt/WebSphere/DeploymentManager
-  /opt/WebSphere/DeploymentManager
-  C:\Program Files\WebSphere\DeploymentManager

Unpacking the file creates the following directory structure:

```
install_root
  /updateinstaller
    /framework
    /lib
    /maintenance
    /responsefiles
```

Version information is stored in the `version.txt` file in the `updateinstaller` directory. A new version might ship to correspond to any new fix. Information in the `version.txt` file is displayed prominently in the title bar of the wizard and is also recorded in the `update1og.txt` file.


Always download and use the latest version of the Update Installer wizard when installing an interim fix.

7. **Interim fixes only:** Download the maintenance package `*.pak` file from the Support Web site into the maintenance directory.

Download maintenance packages for the Update Installer for WebSphere Software to install from the following IBM Web pages:

- Download maintenance packages for IBM WebSphere Extended Deployment, Version 5.1 from the IBM Support site for IBM WebSphere Extended Deployment.
- Download maintenance packages for Version 6 of the WebSphere Application Server products from the IBM Support site for WebSphere Application Server.

Tip: Do not attempt to unzip or unpack the `*.pak` file.

8.  Use the Windows Services panel to stop all services for WebSphere Application Server processes.

9. Stop all Java processes that use the IBM Software Developer Kit (SDK) that the WebSphere Application Server product provides.

Before installing or uninstalling interim fixes, fix packs, and refresh packs on a machine, stop all Java processes on the machine that use the IBM SDK, Java Technology Edition that WebSphere Application Server provides.

WebSphere Application Server processes include:

- Application server processes
- The `nodeagent` process on an application server node when the node is federated into a deployment manager cell
- The `dmgr` process for the deployment manager server

The update installer program requires you to stop all WebSphere Application Server-related Java processes that are running on the system where you are using the update installer program. For example, Java processes can include:

- All Java Virtual Machines (JVMs)
- WebSphere Application Server processes:

WebSphere Application Server processes include:

- Application server processes
- The `nodeagent` process on an application server node when the node is federated into a deployment manager cell
- The `dmgr` process for the deployment manager server
- IBM HTTP Server processes
- First steps consoles
- Installation verification test (IVT) processes
- The Profile creation wizard
- Other InstallShield for Multiplatforms (ISMP) installation programs
- InstallShield for Multiplatforms uninstall programs
- The IBM Rational Application Developer Agent Controller

Stop all Java processes, if necessary. If you install an interim fix while a WebSphere Application Server-related Java process runs, IBM does not guarantee that the product can continue to run successfully, or without error.

See the following technote for more information, Stop all WebSphere Application Server-related Java processes before using the Update Installer for WebSphere software.

10. Locate a valid IBM SDK, Java Technology Edition for the Update Installer to use.



The Update Installer for WebSphere software requires a valid Java run time that is provided with WebSphere software. If the update installer program cannot locate a valid IBM or Sun SDK, such as the one shipped with WebSphere Application Server products, the update installer cannot install maintenance packages.

The Update Installer for WebSphere Software searches known locations for a suitable IBM SDK to use. In order, the Update Installer wizard looks for a valid Java Virtual Machine (JVM) in the following locations:

- a. The *install_root*/updateinstaller/java/jre directory (when updating the product SDK)
- b. The *./java/jre* directory, which is the *install_root*/java/jre directory if you unpacked the Update Installer in the installation root directory:

```
install_root
  /updateinstaller
```

This SDK is the preferred SDK. However, if you did not unpack the Update installer or the maintenance package that includes the Update Installer into the installation root directory, the default relative addressing scheme does not work. In such a case, source the `setupCmdLine` script or use the `-is:javahome` option on the **update** command to set the correct `JAVA_HOME` variable setting.

- c.   The directory identified by one of the following environment variables on a Linux or UNIX system:

- 1) `JAVA_HOME`
- 2) `JAVAHOME`
- 3) `JRE_HOME`
- 4) `JREHOME`

When no JVM is present in one of the first two locations, set one of the environment variables to point the Update Installer wizard to a valid JVM.

The preferred method of setting the `JAVA_HOME` environment variable is using the `setupCmdLine` script provided with the WebSphere Application Server product. In some cases, failure to run `setupCmdLine` can result in the update installer program matching an SDK in an order that is different than the order described.

You can also force the installation to use the correct SDK with the following command:

```
./update -is:javahome install_root/java/jre
```

To use the `setupCmdLine` script to set the `JAVA_HOME` variable, perform the following procedure that is appropriate for your operating system:

Windows

- a. Open a command prompt window.
- b. Change directories to the *install_root*\bin directory.
- c. Issue the `setupCmdLine.bat` command.
- d. Use the same command prompt window to start the update installer, as described in a later step.

Linux

- a. Open a command shell window.
- b. Change directories to the *install_root*/bin directory.

- c. Issue the `./setupCmdLine.sh` command. Notice the space between the periods. The special format for this command sources the command to make the setting active for all processes started from the command shell.
 - d. Use the same command shell window to start the update installer, as described in a later step. See the following technote for more information, Using the `setupCmdLine` script to set `JAVA_HOME` before running the Update Installer for WebSphere software.
11. Verify that the following prerequisite conditions are met:
- All of the product hardware and software prerequisites exist.
The official statement of supported hardware and software is on the IBM WebSphere Application Server supported hardware and software Web site, at <http://www.ibm.com/software/webservers/appserv/doc/latest/prereq.html>.
 - The WebSphere software that you are updating is correctly installed and is not corrupt.
 - The WebSphere SDK, Java technology edition is not corrupt.
 - The user is root on a Linux or UNIX system or a member of the administrator group on a Windows system.
12. Change directories to the `updateinstaller` directory and use the **update** command to install the maintenance package.

Install the maintenance package on the deployment manager node before installing the maintenance package on each application server node that you intend to update.

Use the following command syntax to install the last maintenance package that you downloaded. The Update Installer wizard runs as a background process and does not display the graphical user interface when running in silent mode:

```
update -silent
```

Or, issue the **update** command to start the graphical user interface:

```
update
```

The following tables show all of the options that are available when using the **update** command. The commands in the first table each start the Update Installer wizard with a graphical user interface. Commands in the second table cause the Update Installer wizard to run in silent mode.

Table 2. Update installer commands for installing with the graphical interface

Command example	Type of installation	Description
<code>update</code>	Graphical interface mode	Initializes the maintenance package field with the name of the maintenance package that has the most recent date stamp and time stamp. Accept all of the default values to install the maintenance package with the most recent time stamp.
<code>update -W prereqsfailedpanelInstallWizardBean.active= "false"</code>	Graphical interface mode that bypasses prerequisites checking	Initializes the maintenance package field with the name of the maintenance package that has the most recent date stamp and time stamp. Bypasses prerequisites checking.

Table 2. Update installer commands for installing with the graphical interface (continued)

Command example	Type of installation	Description
<code>update -options "responsefiles/file_name"</code>	Graphical interface mode with an options file	Overrides all graphical interface values with values that you specified in the options response file. If you omit either value, the default maintenance package is the one with the most recent date stamp and time stamp. The default software is the software installed in the parent directory.
<code>update -W maintenance.package="e:\IBM\WebSphere\AppServer\updateinstaller\maintenance\PQ20029.pak"</code>	Graphical interface mode	Overrides the name of the maintenance package to apply.
<code>update -W product.location="e:\IBM\WebSphere\AppServer"</code>	Graphical interface mode	Overrides the location of the WebSphere software to update.
<code>update -W product.location="e:\IBM\WebSphere\AppServer" -W maintenance.package="e:\IBM\WebSphere\AppServer\updateinstaller\maintenance\PQ20029.pak"</code>	Graphical interface mode	Overrides the location of the WebSphere software to update and the name of the maintenance package to apply.

The commands in the following table each start the Update Installer wizard in silent mode without the graphical user interface:

Table 3. Update installer commands for installing in silent mode

Command example	Type of installation	Description
<code>update -silent</code>	Silent mode	Installs the maintenance package with the most recent time stamp to update the software that is installed in the parent directory.
<code>update -silent -W prereqsfailedpanelInstallWizardBean.active="false"</code>	Silent mode that bypasses prerequisites checking	Installs the maintenance package with the most recent time stamp to update the software that is installed in the parent directory. Bypasses prerequisites checking.
<code>update -W maintenance.package="e:\IBM\WebSphere\AppServer\updateinstaller\maintenance\PQ20029.pak" -silent</code>	Silent mode	By default, the wizard installs the maintenance package with the most recent date stamp and time stamp. Use the package override to install another maintenance package. You do not need a response file. The default software is the software installed in the parent directory.
<code>update -silent -options "responsefiles/file_name"</code>	Silent mode with an options file	Overrides all default values with values that you specified in the options response file. If you omit either value from the response file, the default maintenance package is the one with the most recent date stamp and time stamp. The default software is the software installed in the parent directory.

Table 3. Update installer commands for installing in silent mode (continued)

Command example	Type of installation	Description
update -W product.location="e: \IBM\WebSphere\AppServer" -silent	Silent mode	Updates the WebSphere software specified in the command with the maintenance package that has the most recent date stamp and time stamp. The silent installation does not refer to a response file.
update -W product.location="e: \IBM\WebSphere\AppServer" -W maintenance.package="e: \IBM\WebSphere\AppServer \updateinstaller\maintenance\ PQ20029.pak" -silent	Silent mode	Updates the WebSphere software specified in the command with the maintenance package specified in the command. The silent installation does not refer to a response file.

- Click **Relaunch** to start the Update Installer again if the maintenance package causes the Update Installer to copy the Java 2 SDK.

If the maintenance package includes service to the SDK, the Update Installer copies the SDK and stops. Click **Relaunch** to start the Update Installer again. The Update Installer can then install the maintenance package.

This procedure results in installing maintenance packages to update WebSphere software.

Click **Relaunch** on the last panel of the Update Installer to begin installing a second maintenance package.

After installing all maintenance packages, continue to use your WebSphere software.

install.txt

This topic describes the response file for installing service using the Update Installer for WebSphere Software.

Install an update silently using the options response file.

The `install.txt` file has one directive that identifies the backup file for installing a service update. Comments in the file describe how to set the string value.

The Update Installer for WebSphere Software wizard reads the options file to determine responses and does not display the graphical user interface. The following command uses a copy of the options file named `myresponsefile.txt` for a silent installation:

```
./update -options "responsefiles/myresponsefile.txt" -silent
```

If you do not use the `-silent` option, the response file provides initial values for the graphical interface.

Location of the response file

The sample options response file is named `install.txt`. The file is in the `install_root/updateinstaller/responsefiles` directory after you unzip the Update Installer for WebSphere Software into the installation root directory of the WebSphere software product.

Installing silently

The options file supplies the values to the Update installer wizard when installing silently. The wizard reads the options file to determine responses and does not display the graphical user interface. The following command uses a copy of the options file named `myresponsefile.txt` for a silent installation:

```
update -options "myresponsefile.txt" -silent
```

Response file user entry validation

In a silent installation, response file validation is coded into the installation. If the validation does not pass, the failure is recorded in the log files in the `install_root/logs/update/tmp` directory.

Location of the maintenance package to be installed

Default directive setting

```
-W maintenance.package=""
```

Valid setting

You must set this directive to the location of the PAK file. For example, you might specify the following location on a Linux system:

```
/opt/IBM/WebSphere/AppServer/updateinstaller/maintenance/PQ20029.pak
```

Error identifiers:

- Maintenance package *maintenance_package_name* is already installed on the system.
- Selected product is not supported.
- Configuration failed. The config action that failed was: *configuration_action*.
- Install the following prerequisite APARs before installing the current maintenance to the target product: *list_of_prerequisite_maintenance_packages_to_install*
- Install the following prerequisite maintenance packages before installing the package you are currently attempting to install: *list_of_prerequisite_maintenance_packages_to_install*
- Uninstall the following APARs before applying the current maintenance to the target product: *list_of_prerequisite_maintenance_packages_to_uninstall*
- Uninstall the following maintenance packages before applying the current maintenance to the target product: *list_of_prerequisite_maintenance_packages_to_uninstall*
- Unable to locate the correct version of *the_update_installer*. Looking for version *version_identifier*.
- *Maintenance_package* is not a valid maintenance package.

Alternate product location

Although applying maintenance to another product is possible, always use the Update installer wizard within the directory structure of the product that you are updating. Do not use this directive unless absolutely necessary.

Default directive setting

```
-W product.location=""
```

Valid setting

You must set this directive to the installation root directory of the alternate product. For example, you might specify the following location on a Linux system:

```
/opt/IBM/WebSphere/AppServer2
```

Error identifiers:

- Maintenance package *maintenance_package_name* is already installed on the system.
- Selected product is not supported.
- Configuration failed. The config action that failed was: *configuration_action*.
- Install the following prerequisite APARs before installing the current maintenance to the target product: *list_of_prerequisite_maintenance_packages_to_install*
- Install the following prerequisite maintenance packages before installing the package you are currently attempting to install: *list_of_prerequisite_maintenance_packages_to_install*
- Uninstall the following APARs before applying the current maintenance to the target product: *list_of_prerequisite_maintenance_packages_to_uninstall*

- Uninstall the following maintenance packages before applying the current maintenance to the target product: *list_of_prerequisite_maintenance_packages_to_uninstall*
- Unable to locate the correct version of *the_update_installer*. Looking for version *version_identifier*.
- *Maintenance_package* is not a valid maintenance package.
- *Alternate_product_directory* could not be validated as an existing directory.

Usage notes

- The file is not a read-only file.
- Edit this file directly with your flat file editor of choice, such as Kate on SLES or WordPad on a Windows platform.
- The file must exist to perform a silent installation. The Update installer wizard reads this file to determine installation parameters. Provide the fully qualified file path to the backup file.
- Save the copy of the options file in the responsefiles directory for best results.

Example install.txt file

Edit the version of the file that is included in the Update Installer for WebSphere Software ZIP file. The following example is not guaranteed to be an accurate representation of the actual file.

```
#####
#
# This is the silent install response file for installing maintenance packages
# using the update installer.
#
# A common use of an options file is to run the wizard in silent mode. This lets
# the options file author specify wizard settings without having to run the
# wizard in graphical or console mode. To use this options file for silent mode
# execution, *uncomment* and modify the parameters defined within.
#
# Use the following command line when running the wizard from the update
# installer directory:
#
#   update -options responsefiles/install.txt -silent
#
#####

#####
#
# Used to input the maintenance package full filename specification to be installed.
# Edit as appropriate.
#
# ie. -W maintenance.package="C:\Program Files\WebSphere\AppServer\
#       updateinstaller\maintenance\PQ20029.pak"
#
# Note: If no package is specified, a default of the last downloaded maintenance
# package will be used (based on timestamp).
#
#-W maintenance.package=

#####
#
# Used to modify the product install location that will be updated.
# This value should be left commented out if the Update Installer is
# being run from the recommended location
#
# ie. -W product.location="C:\Program Files\WebSphere\AppServer"
#
# Note: If no location is specified, the parent directory to update installer
# will be used as default
#
```



```
#-W product.location=""
```

```
#####  
#  
# Do not edit these values.  
#  
#  
-W update.type="install"
```

Chapter 2. Uninstalling service

This topic describes how to use the Update Installer for WebSphere Software to uninstall interim fixes, fix packs, and refresh packs. The Update Installer for WebSphere Software is also known as the update installer program, the updateInstaller program, and the Update installation wizard.

Use the proper authorizations to successfully uninstall product updates. Use the update installer program as the root user on a Linux or UNIX platform, or as the administrator on a Windows platform.

The Update Installer wizard is an InstallShield for Multiplatforms wizard that runs with either a graphical user interface or in silent mode with a response file.

Important: See Chapter 4, “Known problems and workarounds for the update command,” on page 27 for information about known problems and workarounds.

The following descriptions contain reference information about uninstalling interim fixes, fix packs, and refresh packs on WebSphere Application Server products:

Overview of the uninstall procedure

To uninstall a maintenance package:

1. Use the update installer to install the maintenance package, which creates a backup file in the *install_root/properties/version/update/backup* directory. IBM does not support user modifications to backup files.
2. Use the update installer program to remove the maintenance package as described in this topic.

Viewing the fix level of the node

You can use the **versionInfo** command in the *install_root/bin* directory to display the exact fix and version level of the product. However, do not use the **versionInfo** command while installing or uninstalling a maintenance package.

Do not launch multiple copies of the Update Installer wizard at one time: Concurrent launches of the update installer program are not supported. Performing more than one update at the same time can produce unpredictable results, which might include a failed or faulty installation.

Required information



The graphical interface requires the following information that you must supply:

Table 4. Information required when uninstalling a maintenance package

Field	Valid values	Description
File path of the installation root directory of the WebSphere product and the Update Installer	Identify the installation root directory for one of the following products: <ul style="list-style-type: none"> • IBM WebSphere Application Server • IBM WebSphere Application Server - Express • Embedded version of the IBM WebSphere Application Server - Express • IBM WebSphere Application Server Network Deployment • IBM WebSphere Extended Deployment • IBM Application Client for WebSphere Application Server • IBM WebSphere Business Integration Server Foundation • Web server plug-ins for WebSphere Application Server 	The Update Installer application defaults to select the product in its parent directory.
File name of the maintenance package to uninstall.	Select a maintenance package to uninstall from the <i>install_root/properties/version/update/backup</i> directory.	The default maintenance package is the package with the latest date stamp and time stamp in the <i>install_root /properties/version/update/backup</i> directory.

The following procedure describes how to uninstall a maintenance package.

1. Log on as root on a Linux or UNIX operating system, or as a member of the administrator group on a Windows system.

  In addition, verify that the umask setting is 022. To verify the umask setting, issue the following command:






```
umask
```

To set the umask setting to 022, issue the following command:



```
umask 022
```




2. Change directories to the updateinstaller directory in the installation root directory.


For example, change directories to one of the following directories in a Version 6 environment:

-  /usr/IBM/WebSphere/AppServer/updateinstaller
-  /opt/IBM/WebSphere/AppServer/updateinstaller
-  /opt/IBM/WebSphere/AppServer/updateinstaller
-  /opt/IBM/WebSphere/AppServer/updateinstaller
-  C:\Program Files\IBM\WebSphere\AppServer\updateinstaller

Or change directories to one of the following directories in a Version 5.1.1.1 Extended Deployment environment:

-  /usr/WebSphere/DeploymentManager/updateinstaller
-  /opt/WebSphere/DeploymentManager/updateinstaller

-  /opt/WebSphere/DeploymentManager/updateinstaller
-  /opt/WebSphere/DeploymentManager/updateinstaller
-  C:\Program Files\WebSphere\DeploymentManager\updateinstaller

3.  Use the Windows Services panel to stop all services for WebSphere Application Server processes.

4. Stop all Java processes that use the IBM Software Developer Kit (SDK) that the WebSphere Application Server product provides.

Before uninstalling interim fixes, fix packs, and refresh packs on a machine, stop all Java processes on the machine that use the IBM SDK, Java Technology Edition that WebSphere Application Server provides.

WebSphere Application Server processes include:



- Application server processes
- The nodeagent process on an application server node when the node is federated into a deployment manager cell
- The dmgr process for the deployment manager server

Stop all Java processes, if necessary. If you uninstall a maintenance package while a WebSphere Application Server-related Java process runs, IBM does not guarantee that the product can continue to run successfully, or without error.

5. Determine if you are removing a maintenance package that updated the IBM SDK, Java Technology Edition. If so, you can clone the IBM SDK from the parent product to the Update Installer wizard directory. Cloning the SDK copies the *install_root/java/jre* directory to the *install_root/updateinstaller/java/jre* directory.

The Update Installer for WebSphere Software searches known locations for a suitable IBM SDK to use. In order, the Update Installer wizard looks for a valid Java Virtual Machine (JVM) in the following locations:

- a. The *install_root/updateinstaller/java/jre* directory (when updating the product SDK)
- b. The *install_root/java/jre* directory (preferred SDK to use)

c.   The directory identified by one of the following environment variables on a Linux or UNIX system:

- 1) JAVA_HOME
- 2) JAVAHOME
- 3) JRE_HOME
- 4) JREHOME

When no JVM is present in one of the first two locations, set one of the environment variables to point the Update Installer wizard to a valid JVM.

The preferred SDK for starting the Update Installer wizard is the SDK in the parent product. Always use the product SDK when possible.

Important: To uninstall a fix pack or interim fix for the IBM SDK in the parent product, do not start the Update Installer wizard using the product SDK that you intend to update. Using the SDK locks the SDK and prevents the update. Copy the SDK from the *install_root/java/jre* directory to the *install_root/updateinstaller/java/jre* directory. The Update Installer wizard uses the SDK in the *install_root/updateinstaller/java/jre* directory if it is present.

Alternatively, copy the IBM SDK from the parent product to a temporary location and use the `-is:javahome` ISMP parameter to identify the location as you run the update installer command:

```
update -is:javahome="my_fully_qualified_temp_SDK_location"
```

6. Use the update installer to uninstall the maintenance package.

Uninstall the interim fix on each application server node in a cell before uninstalling the maintenance package from the deployment manager node.

Issue one of the following commands to uninstall with the graphical interface:

Table 5. Update installer commands for uninstalling with the graphical interface

Command example	Type of installation	Description
<code>update -W update.type="uninstall"</code>	Graphical interface mode	Initializes the maintenance package field with the name of the maintenance package that was most recently installed. Accept all of the default values to uninstall the maintenance package with the most recent date stamp and time stamp.
<code>update -W product.location="e:\IBM\WebSphere\AppServer" -W update.type="uninstall"</code>	Graphical interface mode	Overrides the graphical interface with the location of the WebSphere software to update. The default maintenance package to uninstall is the most recently installed maintenance package for that software.
<code>update -W backup.package="PQ20029.pak" -W update.type="uninstall"</code>	Graphical interface mode	Overrides the maintenance package field with the name of the maintenance package to uninstall.
<code>update -W product.location="e:\IBM\WebSphere\AppServer" -W backup.package="PQ20029.pak" -W update.type="uninstall"</code>	Graphical interface mode	Overrides the location of the WebSphere software to update and the name of the maintenance package to uninstall.
<code>update -options "responsefiles/file_name"</code>	Graphical interface mode with an options file	Overrides all default values with values that you specified in the options response file. If you omit either value from the response file, the default maintenance package is the installed package with the most recent date stamp and time stamp. The default software is the software installed in the parent directory.

Issue one of the following commands to use the silent interface:

Table 6. Update installer commands for installing in silent mode

Command example	Type of installation	Description
<code>update -W update.type="uninstall" -silent</code>	Silent mode	Uninstalls the maintenance package with the most recent date stamp and time stamp to update the software that is installed in the parent directory.

Table 6. Update installer commands for installing in silent mode (continued)

Command example	Type of installation	Description
<code>update -W product.location="e:\IBM\WebSphere\AppServer" -W update.type="uninstall" -silent</code>	Silent mode	Overrides the default location of the WebSphere software to update. The default maintenance package to uninstall is the most recently installed maintenance package for that software.
<code>update -W backup.package="PQ20029.pak" -W update.type="uninstall" -silent</code>	Silent mode	Overrides the interim fix field with the name of the maintenance package to uninstall.
<code>update -W product.location="e:\IBM\WebSphere\AppServer" -W backup.package="PQ20029.pak" -W update.type="uninstall"</code>	Silent mode	Overrides the location of the WebSphere software to update and the name of the maintenance package to uninstall.
<code>update -silent -options "responsefiles/file_name"</code>	Silent mode with an options file	Overrides all default values with values that you specified in the options response file. If you omit either value from the response file, the default maintenance package is the installed package with the most recent date stamp and time stamp. The default software is the software installed in the parent directory.

uninstall.txt

This topic describes the response file for uninstalling service using the Update Installer for WebSphere Software.

Uninstall an update silently using the options response file.

The `uninstall.txt` file has one directive that identifies the backup file for uninstalling a service update. Comments in the file describe how to set the string value.

The Update Installer for WebSphere Software wizard reads the options file to determine responses and does not display the graphical user interface. The following command uses a copy of the options file named `myresponsefile.txt` for a silent uninstall:

```
./update -options "responsefiles/myresponsefile.txt" -silent
```

If you do not use the `-silent` option, the response file provides initial values for the graphical interface.

Location of the response file

The sample options response file is named `uninstall.txt`. The file is in the `install_root/updateinstaller/responsefiles` directory after you unzip the Update Installer for WebSphere Software into the installation root directory of the WebSphere software product.

Uninstalling silently

The options file supplies the values to the Update installer wizard when uninstalling silently. The wizard reads the options file to determine responses and does not display the graphical user interface. The following command uses a copy of the options file named `myresponsefile.txt` for a silent uninstall:

```
update -options "myresponsefile.txt" -silent
```

Response file user entry validation

In a silent uninstall, response file validation has been coded into the installation. If the validation does not pass, the failure is recorded in the log files in the *install_root/logs/update/tmp* directory.

Location of the maintenance package to be uninstalled

Default directive setting

```
-W backup.package=""
```

Valid setting

You must set this directive to the location of the backup file. The backup file reverses the application of the maintenance. For example, you might specify the following location on a Linux system:

```
/opt/properties/version/update/backup/maintenance_package_to_uninstall
```

Error identifiers:

- The maintenance package cannot be uninstalled. Uninstalling the maintenance would break the following superseding maintenance packages. Uninstall the superseding maintenance packages first: *list_of_superseding_maintenance_packages*
- This maintenance package cannot be uninstalled. The following maintenance packages are dependent on the package that you are attempting to uninstall: *list_of_dependent_maintenance_packages*
- This maintenance package cannot be uninstalled. The following maintenance packages are dependent on the APARs you are attempting to uninstall: *list_of_dependent_maintenance_packages*
- No installation backup packages are available for uninstalling maintenance.

Alternate product location

Although uninstalling maintenance from another product is possible, always use the Update installer wizard from the directory structure of the product that you are updating. Do not use this directive unless absolutely necessary.

Default directive setting

```
-W product.location=""
```

Valid setting

You must set this directive to the installation root directory of the alternate product. For example, you might specify the following location on a Linux system:

```
/opt/IBM/WebSphere/AppServer2
```

Error identifiers:

- The maintenance package cannot be uninstalled. Uninstalling the maintenance would break the following superseding maintenance packages. Uninstall the superseding maintenance packages first: *list_of_superseding_maintenance_packages*
- This maintenance package cannot be uninstalled. The following maintenance packages are dependent on the package that you are attempting to uninstall: *list_of_dependent_maintenance_packages*
- This maintenance package cannot be uninstalled. The following maintenance packages are dependent on the APARs you are attempting to uninstall: *list_of_dependent_maintenance_packages*
- No installation backup packages are available for uninstalling maintenance.
-

Usage notes

- The file is not a read-only file.

- Edit this file directly with your flat file editor of choice, such as Kate on SLES or WordPad on a Windows platform.
- The file must exist to perform a silent uninstall. The Update installer wizard reads this file to determine uninstall parameters. Provide the fully qualified file path to the backup file.
- Save the copy of the options file in the responsefiles directory for best results.

Example uninstall.txt file

Edit the version of the file that is included in the Update Installer for WebSphere Software ZIP file. The following example is not guaranteed to be an accurate representation of the actual file.

```
#####
#
# This is the silent install response file for uninstalling maintenance packages
# using the update installer.
#
# A common use of an options file is to run the wizard in silent mode. This lets
# the options file author specify wizard settings without having to run the
# wizard in graphical or console mode. To use this options file for silent mode
# execution, *uncomment* and modify the parameters defined within.
#
# Use the following command line when running the wizard from the update
# installer directory:
#
#   update -options responsefiles/uninstall.txt -silent
#
#####

#####
#
# Used to input the maintenance backup package filename to be uninstalled.
# This is the same filename as the package that was originally installed.
# A maintenance package can only be uninstalled if a backup package exists.
#
# ie. -W backup.package="PQ20029.pak"
#
# Note: If no package is specified, a default of the last installed maintenance
# package will be used.
#
#-W backup.package=""

#####
#
# Used to modify the product install location that will be updated.
# This value should be left commented out if the Update Installer is
# being run from the recommended location
#
# ie. -W product.location="C:\Program Files\WebSphere\AppServer"
#
# Note: If no location is specified, the parent directory to update installer
# will be used as default
#
#-W product.location=""

#####
#
# Do not edit these values.
#
#-W update.type="uninstall"
```

Chapter 3. update command

The **update** command is the Update Installer for WebSphere Software program. The Update installer wizard is also known as the Update installation wizard, the update installer program, and the updateInstaller program.

The update installer program installs and uninstalls interim fixes, fix packs, and refresh packs to update WebSphere software.

Overview

The **update** command calls the update installer program to install and uninstall service to update WebSphere software. This topic describes the update installer command and its command-line parameters.

The following descriptions contain reference information about the command.

See Chapter 1, “Applying service,” on page 1 and Chapter 2, “Uninstalling service,” on page 13 for information about using the command.

Important: See Chapter 4, “Known problems and workarounds for the update command,” on page 27 for information about known problems and workarounds.

Command options

The following table list commands for installing and uninstalling interim fixes.

Commands for installing interim fixes

Issue one of the following commands to use the graphical interface:

Table 7. Update installer commands for installing with the graphical interface

Command example	Type of installation	Description
update	Graphical interface mode	Initializes the interim fix field with the name of the interim fix that has the most recent date stamp and time stamp. Accept all of the default values to install the interim fix with the most recent time stamp.
update -W prereqsfailedpanelInstallWizardBean.active= "false"	Graphical interface mode that bypasses prerequisites checking	Initializes the interim fix field with the name of the interim fix that has the most recent date stamp and time stamp. Bypasses prerequisites checking.
update -options "responsefiles/file_name"	Graphical interface mode with an options file	Overrides all graphical interface values with values that you specified in the options response file. If you omit either value, the default maintenance package is the one with the most recent date stamp and time stamp. The default software is the software installed in the parent directory.

Table 7. Update installer commands for installing with the graphical interface (continued)

Command example	Type of installation	Description
<code>update -W maintenance.package="e: \IBM\WebSphere\AppServer \updateinstaller\maintenance \PQ20029.pak"</code>	Graphical interface mode	Overrides the name of the maintenance package to apply.
<code>update -W product.location="e: \IBM\WebSphere\AppServer"</code>	Graphical interface mode	Overrides the location of the WebSphere software to update.
<code>update -W product.location="e: \IBM\WebSphere\AppServer" -W maintenance.package="e: \IBM\WebSphere\AppServer \updateinstaller\maintenance \PQ20029.pak"</code>	Graphical interface mode	Overrides the location of the WebSphere software to update and the name of the maintenance package to apply.

Issue one of the following commands to use the silent interface:

Table 8. Update installer commands for installing in silent mode

Command example	Type of installation	Description
<code>update -silent</code>	Silent mode	Installs the interim fix with the most recent time stamp to update the software that is installed in the parent directory.
<code>update -silent -W prereqsfailedpanelInstallWizardBean.active= "false"</code>	Silent mode that bypasses prerequisites checking	Installs the interim fix with the most recent time stamp to update the software that is installed in the parent directory. Bypasses prerequisites checking.
<code>update -W maintenance.package="e: \IBM\WebSphere\AppServer\updateinstaller \maintenance\PQ20029.pak" -silent</code>	Silent mode	By default, the wizard installs the interim fix with the most recent date stamp and time stamp. Use the package override to install another maintenance package. You do not need a response file. The default software is the software installed in the parent directory.
<code>update -silent -options "responsefiles/file_name"</code>	Silent mode with an options file	Overrides all default values with values that you specified in the options response file. If you omit either value from the response file, the default maintenance package is the one with the most recent date stamp and time stamp. The default software is the software installed in the parent directory.
<code>update -W product.location="e: \IBM\WebSphere\AppServer" -silent</code>	Silent mode	Updates the WebSphere software specified in the command with the maintenance package that has the most recent date stamp and time stamp. The silent installation does not refer to a response file.

Table 8. Update installer commands for installing in silent mode (continued)

Command example	Type of installation	Description
<pre>update -W product.location="e: \IBM\WebSphere\AppServer" -W maintenance.package="e: \IBM\WebSphere\AppServer\updateinstaller \maintenance\PQ20029.pak" -silent</pre>	Silent mode	Updates the WebSphere software specified in the command with the maintenance package specified in the command. The silent installation does not refer to a response file.

Commands for uninstalling interim fixes

Issue one of the following commands to uninstall with the graphical interface:

Table 9. Update installer commands for uninstalling with the graphical interface

Command example	Type of installation	Description
<pre>update -W update.type="uninstall"</pre>	Graphical interface mode	<p>Initializes the interim fix field with the name of the interim fix that was most recently installed.</p> <p>Accept all of the default values to uninstall the interim fix with the most recent date stamp and time stamp.</p>
<pre>update -W product.location="e: \IBM\WebSphere\AppServer" -W update.type="uninstall"</pre>	Graphical interface mode	Overrides the graphical interface with the location of the WebSphere software to update. The default interim fix to uninstall is the most recently installed interim fix for that software.
<pre>update -W backup.package="PQ20029.pak" -W update.type="uninstall"</pre>	Graphical interface mode	Overrides the interim fix field with the name of the maintenance package to uninstall.
<pre>update -W product.location="e: \IBM\WebSphere\AppServer" -W backup.package="PQ20029.pak" -W update.type="uninstall"</pre>	Graphical interface mode	Overrides the location of the WebSphere software to update and the name of the maintenance package to uninstall.
<pre>update -options "responsefiles/file_name"</pre>	Graphical interface mode with an options file	<p>Overrides all default values with values that you specified in the options response file.</p> <p>If you omit either value from the response file, the default maintenance package is the installed package with the most recent date stamp and time stamp. The default software is the software installed in the parent directory.</p>

Issue one of the following commands to use the silent interface:

Table 10. Update installer commands for installing in silent mode

Command example	Type of installation	Description
<pre>update -W update.type="uninstall" -silent</pre>	Silent mode	Uninstalls the interim fix with the most recent date stamp and time stamp to update the software that is installed in the parent directory.

Table 10. Update installer commands for installing in silent mode (continued)

Command example	Type of installation	Description
update -W product.location="e:\IBM\WebSphere\AppServer" -W update.type="uninstall" -silent	Silent mode	Overrides the default location of the WebSphere software to update. The default interim fix to uninstall is the most recently installed interim fix for that software.
update -W backup.package="PQ20029.pak" -W update.type="uninstall" -silent	Silent mode	Overrides the interim fix field with the name of the maintenance package to uninstall.
update -W product.location="e:\IBM\WebSphere\AppServer" -W backup.package="PQ20029.pak" -W update.type="uninstall"	Silent mode	Overrides the location of the WebSphere software to update and the name of the maintenance package to uninstall.
update -silent -options "responsefiles/file_name"	Silent mode with an options file	Overrides all default values with values that you specified in the options response file. If you omit either value from the response file, the default maintenance package is the installed package with the most recent date stamp and time stamp. The default software is the software installed in the parent directory.

Installing multiple interim fixes

Use a script to issue more than one command. Each command identifies one maintenance package to install. For example:

```
...
update -W maintenance.package="e:\IBM\WebSphere\AppServer\updateinstaller\maintenance\PQ20028.pak" -silent
update -W maintenance.package="e:\IBM\WebSphere\AppServer\updateinstaller\maintenance\PQ20029.pak" -silent
```

Automating maintenance operations

Most fix packs and refresh packs include some maintenance for the IBM SDK, Java technology edition in the *install_root/java/jre* directory. When a refresh pack, fix pack, or interim fix updates the SDK, the Update Installer for WebSphere Software program clones the SDK in the product by starting an ISMP process to copy the SDK to the *install_root/updateinstaller/java/jre* directory:

```
install_root
  /updateinstaller
    /java
      /jre
```

To use a script to perform a silent maintenance installation, you must launch the update installer program twice. The first command clones the SDK only and does not automatically relaunch the update installer program. The second command uses the cloned SDK to update the product and the SDK in the product.

The Update Installer for WebSphere always uses the SDK in the *install_root/updateinstaller* directory if the SDK is present.

Issue the following commands from the script:

1. update -silent [*other_options*] -W relaunch.active=false

For example, use the following command to clone the SDK:

```
/opt/WebSphere/AppServer/updateinstaller/update \  
-silent \  
-W relaunch.active=false \  
}
```

Identify the interim fix in the first command if the interim fix is not the last maintenance package that you downloaded. {Omit the Linux and UNIX line-continuation characters (\) when issuing the command on one line.}

2. update -silent

The update installer program uses the cloned copy of the SDK in the *install_root*/updateinstaller directory at the next invocation of the command. For example, use the following command to install the update using the cloned SDK:

```
/opt/WebSphere/AppServer/updateinstaller/update \  
-silent -W maintenance.package=\  
"/opt/WebSphere/AppServer/updateinstaller/maintenance/  
6.0.1.0-WAS-LinuxIA32-RP0000001.pak" \  
-W update.type="install" \  
-W product.location="/opt/WebSphere/AppServer"
```

{Omit the Linux and UNIX line-continuation characters (\) when issuing the command on one line.}

Logging

The following sections describe logging that occurs when installing and uninstalling service.

Logs created when installing service

If no installation log file exists, refer to the temporary log file in the *install_root*/logs/update/tmp directory. If all validations pass, the installation occurs.

Then the update installer program creates the *install_root*/logs/update/*maintenance_package.install* directory.

Within the directory are the *update.log.txt* file, the compressed *update.trace.log.gz* file, and the compressed *update.config.log.gz* file. The *update.config.log.gz* file exists only when the installation of service uses the internal configuration manager utility to run ANT scripts.

Logs created when uninstalling service

If no log file exists after uninstalling an interim fix, refer to the temporary log file in the *install_root*/logs/update/tmp directory. If all validations pass, the uninstall procedure occurs.

Then the update installer program creates the *install_root*/logs/update/*maintenance_package.uninstall* directory.

Within the directory are the *update.log.txt* file, the compressed *update.trace.log.gz* file, and the compressed *update.config.log.gz* file. The *update.config.log.gz* file exists only when the removal of service uses the internal configuration manager utility to run ANT scripts.

Indicators of success

The log file includes an indicator of success:

INSTCONFSUCCESS

The current operation was successful. You do not need to review the log file any further.

INSTCONFPARTIALSUCCESS

The current operation was partially successful. System should still be in a usable state, however some non-critical actions have failed. Consult the log file to determine what has failed and how to recover from the failure, if possible.

INSTCONFFAILED

The current operation failed. The system is no longer in a usable state. Consult the log file for more information.

Chapter 4. Known problems and workarounds for the update command

This topic describes known problems and issues associated with the Update Installer for WebSphere Software program.


The update installer program displays its version information in the title bar of the graphical interface. Version information is stored in the `version.txt` file in the `updateinstaller` directory.

A new version might ship to correspond to any new fix. Information in the `version.txt` file is displayed prominently in the title bar of the wizard and is also recorded in the `update1og.txt` file.

Always download and use the latest version of the Update installer wizard when installing an interim fix.

Known problems in Version 6.0.0.2.0

The following table describes known problems and when the problems were resolved. See the Workarounds section that follows the table for more information.

Description of problem	Workaround	Version with resolution
Product uninstall does not remove the updated product correctly.	"Product uninstall"	Current problem
Relaunch action for SDK updates does not relaunch the update installer.	"Relaunch fails"	Current problem
 This is a known problem on some HP-UX systems.		
Always use the most current version of the Update Installer for WebSphere Software to install maintenance packages	"Use the most current version" on page 28	Current problem

Workarounds

The following section describes workarounds for current problems.

Product uninstall

Problem: The product uninstaller for Version 6.0.x.x cannot delete all files and directories that exist after installing a refresh pack or a fix pack.

Description: If you apply a refresh pack or a fix pack using the update installer program and then uninstall the whole product using the Version 6.0.0.0 product uninstaller program, many files are left on the system.

Cause: The product uninstaller program will be fixed in a later release.

Customer action: Two workarounds exist. Use either of the following workarounds to circumvent the problem:

- Uninstall all maintenance packages using the update installer program before uninstalling the product.
- Delete all remaining directories after uninstalling the product.

Relaunch fails

Problem: The update installer program cannot launch a second ISMP process that uses the cloned copy of the SDK in the `install_root/updateinstaller/java/jre` directory.

Description: When a refresh pack, fix pack, or interim fix updates the IBM SDK, Java Technology edition (SDK), the update installer program clones the SDK in the product by starting an ISMP process to copy the SDK to the *install_root/updateinstaller/java/jre* directory:

```
install_root
  /updateinstaller
    /java
      /jre
```

After copying the SDK, the update installer program stops the first ISMP process and launches a second process that uses the SDK in the *install_root/updateinstaller/java/jre* directory.

Cause: The update installer program will be fixed in a later release.

Customer action: If this problem occurs, launch the update installer program again. The update installer program uses the cloned copy of the SDK in the *install_root/updateinstaller/java/jre* directory if the copy is present.

Use the most current version

Problem: Older versions of the update installer program can fail to install newer maintenance packages properly.

Description: If the installation fails, messages about missing prerequisites do not display. Instead of messages about specific prerequisite failures, a blank failure panel displays the following message:

"Prerequisite checking has failed. Failure messages follow:"

Contrary to the message, no additional messages display.

Cause: New maintenance packages often require a newer version of the update installer program.

Customer action: If the installation fails with the preceding error message, download the latest update installer program and reinstall the maintenance package. See the download page for the Update Installer to download the latest version.

Appendix A. Notices

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