IBM

Readme

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Contents

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Chapter 1. Installing maintenance packages

You can use a single instance of the IBM® Update Installer for WebSphere® Software to install interim fixes, fix packs, and refresh packs for Version 6.0.2.21, V6.1, and V7.0.

Learn about important prerequisites, permissions, and precautions before installing a maintenance package by reviewing the topic *Installing maintenance packages overview*.

newfeat:

> The V7.0 Update Installer supports multiple releases. The V7.0 Update Installer is also compatible with earlier releases; it works with V6.0.2.21 and newer maintenance and any maintenance for V6.1.0.x and V7.0 releases. This allows a single instance of the Update Installer to apply maintenance to more than one version of the application server. For V6.0.2.19 and previous releases, apply maintenance with the V6.0.2.x Update Installer.

> The Update Installer has a file permission verification feature. This feature saves time and allows you to resolve potential file permission problems for Application Server maintenance before you install it.

> The Update Installer can update language packs to add new languages.

> The Update Installer supports updates for DMZ Secure Proxy Server.

> The Update Installer is available in .tar format on Unix type operating systems.

> When installing the Update Installer, you can choose to create or not create start menu shortcuts.

The following procedure describes how to install a maintenance package. See Chapter 2, "Uninstalling maintenance packages," on page 23 for a description of how to roll back a maintenance package.

1. Log on as root on an operating system such as AIX® or Linux®, or log on as a member of the administrator group on a Windows® system.

   AIX **HP-UX** **Linux** **Solaris** 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.

   If you already have the product installed, proceed to the next step.

3. 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 from the IBM Support site for IBM WebSphere Extended Deployment.
- Download maintenance packages for Version 7.0 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. If your browser changes the download package from *.pak file to *.zip, do not attempt to unzip the package. Instead, rename the file to *.pak and proceed to the next step without unzipping the renamed *.pak file.

4. `Windows` Make sure that all application servers are stopped.

   Run the **stopServer** command on all WebSphere Application Server profiles.

5. 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.

   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
   - Web server processes that use a plug-in that you are updating
   - First steps consoles
   - Installation verification test (IVT) processes
   - The Profile Management Tool
   - 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.

6. 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 Supported hardware and software Web site.
   - 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 system such as AIX or Linux or a member of the administrator group on a Windows system.

7. Change directories to the *updi_root* directory and use the updatecommand 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.

   For more information on root versus non-root for installing maintenance with the Update Installer, refer to Chapter 4, "Using root or non-root when installing with the Update Installer," on page 41.

   Use the following command syntax to install the last maintenance package that you downloaded. The Update Installer wizard runs in two modes: the silent mode, as a background process, and the regular mode, using the graphical user interface.

   The Update Installer wizard does not display the graphical user interface when running in silent mode: **Windows**

   ```
   update.bat -silent -options responsefile
   ```

   Vista **2008**
   ```
   update.exe -silent -options responsefile
   ```

   AIX **HP-UX** **Linux** **Solaris**
   ```
   ./update.sh -silent -options responsefile
   ```

   There are three types of silent installation procedures that can be used with the Feature Pack for Web Servers. They are listed below:

   a. Installing a fix pack or refresh pack, refer to "Installing a fix pack with silent install" on page 10 for more information.

   b. Installing an interim fix or interim feature or test fix, refer to "Installing an interim fix, interim feature, or test fix with silent install" on page 12 for more information.

   c. Installing multiple maintenance packs, refer to "Installing multiple maintenance packs with silent install" on page 14 for more information.

   The procedure using the Feature Pack for Web Services to uninstalling a fix pack, or interim fix, or interim feature are similar when using the silent uninstall.

   Or, issue the update command to start the graphical user interface: **Windows**
   ```
   update.bat
   ```

   Vista **2008**
   ```
   update.exe
   ```

   AIX **HP-UX** **Linux** **Solaris**
   ```
   ./update.sh
   ```

   There are three types of installation procedures that use the installation wizard graphical user interface with the Feature Pack for Web Services:

   a. Installing a fix pack or refresh pack, refer to "Installing a fix pack using the graphical user interface" on page 16 for more information.

   b. Installing an interim fix, interim feature, or test fix, refer to "Installing an interim fix, interim feature, or test fix using the graphical user interface" on page 19 for more information.

c. Installing multiple maintenance packs, refer to "Installing multiple maintenance packs using the graphical user interface" on page 21 for more information.

The procedure for uninstalling is similar for fix packs, interim fixes, and interim features. Uninstall only one fix pack, interim fix, or interim feature at a time. To find out more about uninstalling a fix pack or refresh pack, refer to "Uninstalling a fix pack, interim fix, interim feature or test fix using the graphic user interface" on page 31 for more information.

The following tables show 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. The command in the second table causes the Update Installer wizard to run in silent mode.

Table 1. Update installer commands for installing with the graphical interface

Command example	Description
update.bat	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.
update.bat -options "responsefiles/*file_name*"	Overrides all graphical interface values with values that you specified in the options response file. Always use a response file that is based on the response file under *updi_root*/responsefiles.
update.bat -W maintenance.package="e: \IBM\WebSphere\ AppServer \updateinstaller\maintenance\ PQ20029.pak"	Overrides the name of the maintenance package to apply.
update.bat -W product.location="e: \IBM\WebSphere\ AppServer"	Overrides the location of the WebSphere software to update.
update.bat -W product.location="e: \IBM\WebSphere\ AppServer" -W maintenance.package="e: \IBM\WebSphere\AppServer \updateinstaller\maintenance\ PQ20029.pak"	Overrides the location of the WebSphere software to update and the name of the maintenance package to apply.
update.bat -OPT disableDiskSpaceCheck=true	Overrides the prerequisite check for disk space.

Specify an appropriate JOBQ parameter value to have the job run in a different subsystem. Verify that the storage pool that the job runs in has as much memory as possible.

The command in the following table starts the Update Installer wizard in silent mode without the graphical user interface:

Table 2. Update Installer command for installing in silent mode

Command example	Description
update.bat -silent -options "responsefiles/*file_name*"	Overrides all default values with values that you specified in the options response file. Always use a response file that is based on the response file under *updi_root*/responsefiles.

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.

Installing maintenance packages overview

Before you install maintenance to your WebSphere product, you should be familiar with the following important considerations and precautions.

Overview of the installation procedure

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.

1. Download, unpack, and install the Update Installer for WebSphere Software; or install the Update Installer that is on the WebSphere Application Server supplements disc. For more information, see the documentation on installing the Update Installer.

2. Download the most current version of the interim fix, fix pack, or refresh pack file from the Support site into the maintenance directory.

   Note: If you have not installed features, such as language packs and samples, consider installing the features if there is a chance you might use them in the future. If you choose not to install the features and then later install maintenance, you will have to uninstall all maintenance, install the features, and then reapply all maintenance or the features might be corrupted.

3. Use the Update Installer to install the interim fix, fix pack, or refresh pack. The Update Installer creates a backup file in the *app_server_root*/properties/version/ nif/backup directory. IBM does not support restoring a backup file that you have modified.

Permissions

Permissions can only be given to one user account. To install and launch the Update Installer, use the same user account that installed WebSphere Application Server, or give permission to another user. If permission is given to a non-root user, then the non-root user should give permission to the root user when finished installing maintenance. If the non-root user does not return permission to the root user, then the root user cannot read or write to the file system.

- To use the *updi_root* location, user accounts other than the account used to install WebSphere Application Server must have reading and running access. These accounts must also have writing access to the *updi_root*/logs directory and its subdirectory.

- To update the target WebSphere Application Server product location, user accounts other than the account used to install WebSphere Application Server must have full access (reading, writing, and running) to the target location where a maintenance package is to be applied. For example, if the user account does not have write access to *updi_root*/logs, then you might see the following exceptions from the standard output:

```
W     -1    mkdirs failed for: file:/home/nonroot/IBM/
  WebSphere/UpdateInstaller1/logs/tmp1
java.io.IOException: mkdirs failed for: file:/home/nonroot/
  IBM/WebSphere/UpdateInstaller1/logs/tmp1
      at com.ibm.ws.install.ni.framework.io.DiskFileSystem.
       mkdirs(DiskFileSystem.java:369)
```

```
        at com.ibm.ws.install.ni.framework.io.FileSystemEntry.
          mkdirs(FileSystemEntry.java:399)
        at com.ibm.ws.install.ni.framework.logging.TextLoggingBridge.
          createLogger(TextLoggingBridge.java:159)
        at com.ibm.ws.install.ni.framework.logging.TextLoggingBridge.
          init(TextLoggingBridge.java:45)
        at com.ibm.ws.install.ni.framework.plugin.NIFPlugin.
          createPlugin(NIFPlugin.java:782)
```

- **AIX** If a non-root user launches the Update Installer program, that user account must be able to run the slibclean command; otherwise, a root user must run the slibclean command whenever the Update Installer program is used.

- Ensure that processes from users are not locking files in the target location of a maintenance package.

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 files in the installation root directory:

- The SDK, Java technology edition, in the java/jre directory
- JAR files in the lib 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 *app_server_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 *profile_root* directory to replace the changed profile.

Updating cluster members

Apply the same maintenance packages to all of the WebSphere Application Server installations 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 function improperly.

Required information

The graphical interface requires you to supply the following information:

Table 3. Information required when installing a maintenance package

Field	Valid values	Description
File path of the installation root directory of the WebSphere product or component. Installation root directory of the Update Installer. See *updi_root* for more information.	Identify the installation root directory for one of the following products: • 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, unpack, and install the Update Installer for WebSphere Software. Or install the Update Installer that is on the WebSphere Application Server supplements disc. Install the Update Installer into each component that you intend to update. The Update Installer application updates 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.

install.txt

The Update Installer for WebSphere Software can use a response file to install maintenance packages from a command line interface.

The Update Installer for WebSphere Software reads the response file to determine installation choices. The Update Installer installs the maintenance package in silent mode instead of displaying a graphical user interface.

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.

Location of the response file

The sample response file is named install.txt. The file is in the *updi_root*/responsefiles directory after you install the Update Installer for WebSphere Software into the installation root directory of the WebSphere software product.

Installing silently

The response file supplies the values to the Update installer when installing silently. The Update Installer reads the response file to determine responses and does not display the graphical user interface.

The following command uses a copy of the response file named myresponsefile.txt to provide installation option responses during a silent installation:

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

If you do not use the -silent option, the wizard uses the response file to provide initial values for the graphical interface:

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

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 *app_server_root*/logs/update/tmp directory.

Location of the maintenance package to be installed

> **Default directive setting**
> > -W maintenance.package=""
>
> > **Note:** If no package is specified, maintenance packages from the default folder (such as, UpdateInstaller_HOME\maintenance) are installed.
>
> **Valid setting**
> > You must set this directive to the location of the maintenance package 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.

Product location

> **Default directive setting**
> > -W product.location="*SPECIFY_PRODUCT_INSTALL_LOCATION_HERE*"

Valid setting

Set this directive to the installation root directory of the 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 response 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 reads this file to determine installation parameters. Provide the fully qualified file path to the backup file.
- Save the copy of the response file in the responsefiles directory for best results.

Example install.txt file

Edit the version of the response 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
```

```
#
# Please enclose all values within a single pair of double quotes.
#
############################################################################


############################################################################
#
# This section describes how to apply a maintenance package using the full filename specifications to be installed.
# There are three ways you can specify installing a maintenance package.  They are the following:
# (Use the examples below and edit where appropriate.)
#
# 1. Specify a single maintenance package full filename to be installed.
#
#    For example:
#    -W maintenance.package="/QIBM/ProdData/WebSphere/UpdateInstaller/V61/UPDI/maintenance/PQ20029.pak"
#
# 2. Specify a multiple maintenance package full filename to be installed.
#    -  Use a semicolon to separate the full filename specifications.
#    -  Update Installer will install the latest applicable maintenance in the order listed.
#
#    For example:
#    -W maintenance.package="/QIBM/ProdData/WebSphere/UpdateInstaller/V61/UPDI/maintenance/PQ20029.pak;/
#    QIBM/ProdData/WebSphere/UpdateInstaller/V61/UPDI/maintenance/PQ20030.pak";"
#
# 3. Specify a full folder name that contains the maintenance packages.
#    Update Installer will install the latest applicable maintenance in the order listed in the folder.
#
#    For example:
#    -W maintenance.package="/QIBM/ProdData/WebSphere/UpdateInstaller/V61/UPDI/maintenance"
#
# Notes: If no package is specified, maintenance packages from the default folder (such as,
# UpdateInstaller_HOME\maintenance )
#        will be installed.
#
#-W maintenance.package=""


############################################################################
#
# Prerequisite Checking
#
# The update installer checks the system for prerequisites by default.
#
# Uncomment the following option to notify the installer to continue with
# the update and log the warnings even though prerequisite checking
# failed.
#
#-OPT disableNonBlockingPrereqChecking="true"


############################################################################
#
# Used to input the product install location that will be updated.
#
# ie. -W product.location="/QIBM/ProdData/WebSphere/AppServer/V61/Express"
#
# Note: The product install location should always been specified, and it should
# always be the full path.
#
-W product.location=""


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

Installing a fix pack with silent install

If you would like to install maintenance without the graphical user interface, you can use the Update Installer for WebSphere Software to install a fix pack in silent mode.

Ensure that the most recent version of the Update Installer is installed on a target system locally.

1. Download the required fix pack from the official IBM support Web site into the *updi_root*/maintenance directory.
2. Ensure that all running processes have been stopped.

3. Edit a response file. The one located at the bottom of this page can be used as an example. There are also sample response files found in the *updi_root*/responsefiles directory.

   a. Specify the location of the product to the response file.

   b. Specify the choice of *install* maintenance in the response file. For example: -W update.type="install"

   c. Add the maintenance location where packages can be found to the response file.

4. Run the Update Installer.

   For example:

   Windows

   ```
   update.bat -silent -options "responsefiles\file_name"
   ```

   Vista **2008**

   ```
   update.exe -silent -options "responsefiles\file_name"
   ```

   AIX **HP-UX** **Linux** **Solaris**

   ```
   ./update.sh -silent -options "responsefiles/file_name"
   ```

5. Review the log file to verify that maintenance is installed successfully. You can find the log at *app_server_root*/logs/update/*maintenance_package*.install. If the maintenance package is not applicable to the installation, a log file found in *updi_root*/logs/temp*X* lists the reason for the failure. The most recent log file, tmp*X*, where *X* refers to the first available empty directory, is created to reflect the status for this attempted install. You might not receive an error message for a failed installation in some cases. If you silently install a maintenance package and you do not receive a response after a short period of time, view the logs. If logs are not generated, then an invalid or missing argument might be causing the installation to fail. Verify the Update Installer syntax for the command line with the response files install.txt and uninstall.txt, located under <Installed_UPDI_root>/responsefiles

One of the following results appears in the log:

INSTCONFSUCCESS
> The operation was a success.

INSTCONFPARTIALSUCCESS
> The operation was partially successful, refer to the log for more details.

INSTCONFFAILED
> The operation failed, refer to the log for more details. In some cases, you might not receive an error message for a failed installation. If you silently install a maintenance package and you do not receive a response after a short period of time, view the logs. If logs are not generated, then an invalid or missing argument might be causing the installation to fail. Verify the Update Installer syntax for the command line with the response files install.txt and uninstall.txt, located under <Installed_UPDI_root>/responsefiles

The following example is a sample response file used in a silent installation:

```
###########################################################################
#
# 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
#
# Please enclose all values within a single pair of double quotes.
#
##########################################################################


##########################################################################
#
# This section describes how to apply a maintenance package using the full filename specifications to be installed.
# There are three ways you can specify installing a maintenance package.  They are the following:
# (Use the examples below and edit where appropriate.)
#
# 1. Specify a single maintenance package full filename to be installed.
#
#    For example:
#    -W maintenance.package="/QIBM/ProdData/WebSphere/UpdateInstaller/V61/UPDI/maintenance/PQ20029.pak"
#
# 2. Specify a multiple maintenance package full filename to be installed.
#    -  Use a semicolon to separate the full filename specifications.
#    -  Update Installer will install the latest applicable maintenance in the order listed.
#
#    For example:
#    -W maintenance.package="/QIBM/ProdData/WebSphere/UpdateInstaller/V61/UPDI/maintenance/PQ20029.pak;/
#    QIBM/ProdData/WebSphere/UpdateInstaller/V61/UPDI/maintenance/PQ20030.pak";"
#
# 3. Specify a full folder name that contains the maintenance packages.
#    Update Installer will install the latest applicable maintenance in the order listed in the folder.
#
#    For example:
#    -W maintenance.package="/QIBM/ProdData/WebSphere/UpdateInstaller/V61/UPDI/maintenance"
#
# Notes: If no package is specified, maintenance packages from the default folder (such as,
# UpdateInstaller_HOME\maintenance )
#        will be installed.
#
#-W maintenance.package=


##########################################################################
#
# Prerequisite Checking
#
# The update installer checks the system for prerequisites by default.
#
# Uncomment the following option to notify the installer to continue with
# the update and log the warnings even though prerequisite checking
# failed.
#
#-OPT disableNonBlockingPrereqChecking="true"


##########################################################################
#
# Used to input the product install location that will be updated.
#
# ie. -W product.location="/QIBM/ProdData/WebSphere/AppServer/V61/Express"
#
# Note: The product install location should always been specified, and it should
# always be the full path.
#
-W product.location=""



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

Installing an interim fix, interim feature, or test fix with silent install

You can use the Update Installer for WebSphere Software to install an interim fix, interim feature, or test fix using the silent installation option.

Ensure that the most recent version of the Update Installer is installed on a target system locally.

The following steps lead you through the process of applying maintenance to an interim fix, interim feature, or test fix pack using the silent mode.

1. Ensure that the most recent version of the Update Installer is installed on a target system locally.

2. Download the required interim fix, interim feature, or test fix pack from the official IBM support Web site into the *updi_root*/maintenance directory.

3. Ensure that all running processes have been stopped.

4. Edit the response file. An example of a response file is located at the bottom of this article.

   a. The location of the product needs to be added to the response file.

   b. Specify the choice of *Install* maintenance in the response file.

   c. Add the maintenance location where packages can be found to the response file. Provide the directory name that contains the packages.

      In the response file, point to the interim fix, interim feature, or test fix directory that contains the package to be installed.

5. Run the Update Installer.

   For example:

   Windows
   ```
   update.bat -silent -options "responsefiles\file_name"
   ```

   Vista   **2008**
   ```
   update.exe -silent -options "responsefiles\file_name"
   ```

   AIX   **HP-UX**   **Linux**   **Solaris**
   ```
   ./update.sh -silent -options "responsefiles/file_name"
   ```

6. Review the log to verify that the maintenance is applied successfully. The log can be found at *app_server_root*/logs/update/*maintenance_package*.install.

You can find one of the following results in the log:

INSTCONFSUCCESS
>   The operation was a success.

INSTCONFPARTIALSUCCESS
>   The operation was partially successful, refer to the log for more details.

INSTCONFFAILED
>   The operation failed, refer to the log for more details.

The following is a sample of a response file used by the Update Installer to install an interim fix, interim feature, or test fix using the silent installer.

```
################################################################################
#
# 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
#
# Please enclose all values within a single pair of double quotes.
#
################################################################################


################################################################################
```

```
#
# This section describes how to apply a maintenance package using the full filename specifications to be installed.
# There are three ways you can specify installing a maintenance package.  They are the following:
# (Use the examples below and edit where appropriate.)
#
# 1. Specify a single maintenance package full filename to be installed.
#
#    For example:
#    -W maintenance.package="/QIBM/ProdData/WebSphere/UpdateInstaller/V61/UPDI/maintenance/PQ20029.pak"
#
# 2. Specify a multiple maintenance package full filename to be installed.
#    -  Use a semicolon to separate the full filename specifications.
#    -  Update Installer will install the latest applicable maintenance in the order listed.
#
#    For example:
#    -W maintenance.package="/QIBM/ProdData/WebSphere/UpdateInstaller/V61/UPDI/maintenance/PQ20029.pak;/
#    QIBM/ProdData/WebSphere/UpdateInstaller/V61/UPDI/maintenance/PQ20030.pak";"
#
# 3. Specify a full folder name that contains the maintenance packages.
#    Update Installer will install the latest applicable maintenance in the order listed in the folder.
#
#    For example:
#    -W maintenance.package="/QIBM/ProdData/WebSphere/UpdateInstaller/V61/UPDI/maintenance"
#
# Notes: If no package is specified, maintenance packages from the default folder (such as,
# UpdateInstaller_HOME\maintenance )
#        will be installed.
#
#-W maintenance.package=


###########################################################################
#
# Prerequisite Checking
#
# The update installer checks the system for prerequisites by default.
#
# Uncomment the following option to notify the installer to continue with
# the update and log the warnings even though prerequisite checking
# failed.
#
#-OPT disableNonBlockingPrereqChecking="true"


###########################################################################
#
# Used to input the product install location that will be updated.
#
# ie. -W product.location="/QIBM/ProdData/WebSphere/AppServer/V61/Express"
#
# Note: The product install location should always been specified, and it should
# always be the full path.
#
-W product.location=""


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

Installing multiple maintenance packs with silent install

This topic describes how to use the Update Installer for WebSphere Software to install multiple maintenance packages using the silent install option. This feature can install maintenance for WebSphere Application Server and all stack products installed in the same WebSphere Application Server home directory.

Ensure that the most recent version of the Update Installer is installed on a target system locally.

The Update Installer is capable of automatically selecting the recommended maintenance for a product stack and determining the appropriate installation sort order of the maintenance packages. For example, if multiple feature packs are both installed and there is a recommended fix pack and interim fix for each product, the Update Installer can determine if this maintenance is applicable and install them in the correct order. The following steps lead you through the process of installing multiple maintenance packages using the silent mode.

1. Ensure that the most recent version of the Update Installer is installed on a target system locally.
2. Download all the required maintenance packages from the official IBM support Web site into the *updi_root*/maintenance directory.
3. Ensure that all running processes have been stopped.
4. Edit the response file. An example of a response file is located at the bottom of this pane.
   a. The location of the product needs to be added to the response file.
   b. Specify the choice of *Install* maintenance in the response file.
   c. Add the maintenance location where packages can be found to the response file.

      There are two options for installing the fix pack:
      1) In the response file, point to the directory containing the fix packages and allow the Update Installer to determine which maintenance packages to install.
      2) In the response file, provide a list of all the maintenance packages you want installed, with their complete file path.
5. Run the Update Installer.

   For example:

   Windows

   ```
   update.bat -silent -options "responsefiles\file_name"
   ```

   Vista   **2008**

   ```
   update.exe -silent -options "responsefiles\file_name"
   ```

   AIX   **HP-UX**   **Linux**   **Solaris**

   ```
   ./update.sh -silent -options "responsefiles/file_name"
   ```
6. Review the log to ensure maintenance was applied successfully. The log can be found at *app_server_root*/logs/update/*maintenance_package*.install.

One of the following results will appear in the log.

INSTCONFSUCCESS
>   The operation was a success.

INSTCONFPARTIALSUCCESS
>   The operation was partially successful, refer to the log for more details.

INSTCONFFAILED
>   The operation failed, refer to the log for more details.

The following is a sample response file used by the Update Installer to install multiple maintenance packages using the silent installer.

```
################################################################################
#
# 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
#
# Please enclose all values within a single pair of double quotes.
#
```

```
############################################################################

############################################################################
#
# This section describes how to apply a maintenance package using the full
# filename specifications to be installed.
# There are three ways you can specify installing a maintenance package.
# They are the following:
# (Use the examples below and edit where appropriate.)
#
# 1. Specify a single maintenance package full filename to be installed.
#
#    For example:
#    -W maintenance.package="C:\Program Files\IBM\WebSphere\AppServer\UpdateInstaller\
#    maintenance\PQ20029.pak"
#
# 2. Specify a multiple maintenance package full filename to be installed.
#    -  Use a semicolon to separate the full filename specifications.
#    -  Update Installer will install the latest applicable maintenance in the order listed.
#
#    For example:
#    -W maintenance.package="C:\maintenance\PQ20029.pak;C:\maintenance\PK31008.pak;D:\
#    6.1.0-WS-WAS-WinX32-FP0000001.pak"
#
# 3. Specify a full folder name that contains the maintenance packages.
#    Update Installer will install the latest applicable maintenance in the order listed in the folder.
#
#    For example:
#    -W maintenance.package="D:\UpdateInstaller\maintenance"
#
# Notes: If no package is specified, maintenance packages from the default folder (such as,
# UpdateInstaller_HOME/maintenance )
#        will be installed.
#
-W maintenance.package="D:\UpdateInstaller\maintenance\6.1.0-WS-WAS-WinX32-FP0000001.pak"


############################################################################
#
# Prerequisite Checking
#
# The update installer checks the system for prerequisites by default.
#
# Uncomment the following option to notify the installer to continue with
# the update and log the warnings even though prerequisite checking
# failed.
#
#-OPT disableNonBlockingPrereqChecking="true"

############################################################################
#
# Used to input the product install location that will be updated.
#
# ie. -W product.location="C:\Program Files\IBM\WebSphere\AppServer"
#
# Note: The product install location should always been specified, and it should
# always be the full path.
#
-W product.location="D:\Program Files\IBM\WebSphere\AppServer"



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

Installing a fix pack using the graphical user interface

This topic describes how to install a fix pack using the Update Installer. WebSphere Application Server fix packs contain enabling code to ensure feature packs continue to function when maintenance is applied.
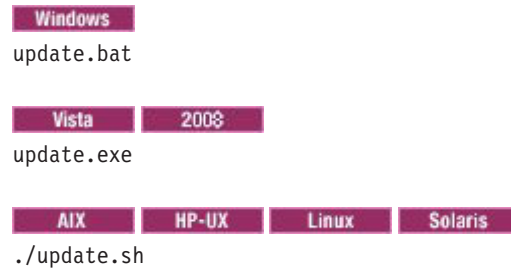
Ensure you have the most recent version of the Update Installer installed locally on a target system.

Follow these steps to install a maintenance fix pack:
1. Download the required fix pack from the official IBM support Web site into the *updi_root*/maintenance directory.

2. Make the current working directory: *updi_root*.
3. Ensure that you stop all running processes.
4. Launch the Update Installer.

   For example:

   Windows

   ```
   update.bat
   ```

   Vista   **2008**

   ```
   update.exe
   ```

   AIX   **HP-UX**   **Linux**   **Solaris**

   ```
   ./update.sh
   ```
5. The Welcome panel displays. Click **Next**.
6. The system prompts for the location of the product that you want updated. Click **Next**.
7. The system presents the choices of Install or Uninstall maintenance. The install option is the default. Click **Next**.
8. The system prompts for the maintenance location where packages can be found. Enter the directory name containing the packages, or browse for the required directory. Click **Next**.

   For a list of the recommended fixes for WebSphere Application Server, refer to the support Web site located at the following location: http://www.ibm.com/support/docview.wss?rs=180&uid=swg27004980#ver61

   When you install a fix pack, certain logic is used to determine which packages are selected for the install. To find out more, refer to "Logic that the Update Installer uses for system recommended installations" on page 18.

   You can choose from the following options when installing a fix pack:

   a. To install a fix pack without a feature pack, select the desired fix pack. Click **Next**. For more information about this type of installation, refer to "Installing a fix pack without a feature pack installed" on page 19.

   b. To install a fix pack with a feature pack, select the desired fix pack. Another panel is displayed that prompts you to install the enabling interim fix. Click **Next**. For more information about this type of install, refer to the topic "Installing a fix pack to a location with a feature pack installed" on page 19.

   If a maintenance package is grayed out with the designation *Not applicable* on the selection panel, you can review the logs in the *updi_root*/logs/ *latest_temp_folder* to find out why the maintenance package is not appropriate for installation.
9. Before the installation, the Confirmation panel confirms which packages will be installed.
10. On the Confirmation panel, you can also ensure that you have the correct permissions to perform the installation of a maintenance package.

    a. To ensure you have the correct permissions to apply maintenance, select **Verify My Permissions**. After the permission checking finishes, the confirmation panel displays the permission checking results. If permission checking succeeds, then **Verify My Permissions** is deselected. You can then click **Next** to install maintenance. If permission checking fails, then **Verify My Permissions** remains selected. You can perform the necessary actions to resolve your permission problems and then verify your permissions again.

b. If you deselect **Verify My Permissions** and click **Next**, then you skip permission checking and the Update Installer performs the installation. If you do not have all of the necessary permissions, then the installation fails.

11. After the installation, the Summary panel lists which packages have been installed.

12. After you install the fix pack, check the installation log to verify that the install is successful. The log can be found at *app_server_root*/logs/update/*maintenance_package*.install.

You can find the following results in the log:

INSTCONFSUCCESS
> The operation is a success.

INSTCONFPARTIALSUCCESS
> The operation is partially successful, refer to the log for more details.

INSTCONFFAILED
> The operation has failed, refer to the log for more details.

Logic that the Update Installer uses for system recommended installations

When you select the *Recommended update* option, the following logic is used by the Update Installer for WebSphere Software to install an update.

If you are using the Update Installer with the graphical user interface, after you select the *Recommended update* option on the maintenance panel of the wizard, certain packages may be grayed out for certain reasons. The following describes some of the reasons this occurs.

The package will not be shown or will be grayed out if:
- The maintenance packages have already been installed
- The maintenance packages are corrupted and not readable
- The maintenance packages are not applicable to products installed in the selected install location directory
- The maintenance packages are not applicable to target operating system and architecture
- The maintenance packages are enabling interim fixes

As further maintenance packages are selected, the installer will evaluate prerequisites and dependencies to determine the installation sort order based on the following rules:

1. Maintenance packages all belong to products already installed in the selected install location directory

2. Only permit the most recent versions of selected maintenance packages to be installed

3. Identify and warn about containment relationship conflicts between refresh packs, fix packs and interim fixes. For example,
   - Ensure APARs already in fix pack are not also selected as interim fixes
   - Ensure there are no duplicated maintenance packages selected
   - Ensure APARs and maintenance prerequisite and ex-requisite requirements are met
   - Ensure "depends on" dependency requirements are met

- Ensure current selecting maintenance package can be installed with previous selected maintenance packages
- Ensure the maintenance package is supported by the current Update Installer. *updi_root*/framework/supportedpakversion.xml is used to specify which version of maintenance packages is supported by the Update Installer.

Installing a fix pack to a location with a feature pack installed

You can use the Update Installer to install maintenance packages to a location where a feature pack is installed.

To install a fix pack on a location with a feature pack, follow these steps:

- On the Installation panel, select the fix pack to be installed. Click **Next**.
  - If there is an interim fix for a feature pack already installed, the panel informs you that the interim fix will be uninstalled. Most likely this interim fix is part of the fix pack being installed and will be replaced.
  - If an enabling interim fix is already installed because a feature pack is installed, an additional maintenance panel displays. This panel shows which feature pack requires an enabling interim fix.

Installing a fix pack without a feature pack installed

You can use the Update Installer to install maintenance packages without a feature pack installed.

To install a fix pack on a location without a feature pack, follow these steps:

- On the Installation panel select the fix pack to be installed. Click **Next**.
  - If there is an interim fix already installed, the panel informs you that the interim fix will be uninstalled. Most likely this interim fix is part of the fix pack being installed and will be replaced. In certain cases you will need to reinstall the interim fix.
  - Because there is no feature pack installed, there are no enabling interim fixes required.

Installing an interim fix, interim feature, or test fix using the graphical user interface

This topic describes how to install an interim fix, interim feature, or test fix using the Update Installer for WebSphere Software.

Ensure that you have installed the most recent version of the Update Installer on a target system locally.

The following steps outline the process of installing an interim fix, interim feature, or test fix pack.

1. Download the required interim fix, interim feature, or test fix pack from the official IBM support Web site into the *updi_root*/maintenance directory.
2. Make the current working directory: *updi_root*.
3. Ensure that you stop all running processes.
4. Launch the Update Installer.

   For example:

   Windows

   ```
   update.bat
   ```

Vista	2008

`update.exe`

AIX	HP-UX	Linux	Solaris

`./update.sh`

5. The Welcome panel is displayed. Click **Next**.

6. Specify the location of the product that you want updated.

7. Select either to Install or Uninstall maintenance, the default is the install option. Click **Next**.

8. The system will prompt for the maintenance location where packages can be found. Enter the directory name containing the packages. Click **Next**.

9. Select to install an interim fix, interim feature, or test fix.

   The system will automatically determine the appropriate maintenance packages based on the version of the product that is installed.

   When you select the interim fix, interim feature, or test fix, certain logic is used to determine which packages are installed. To find out more, refer to "Logic that the Update Installer uses for system recommended installations" on page 18.

10. Before the installation, the Confirmation panel confirms which packages will be installed.

    If a maintenance package is grayed out with the designation *Not applicable* on the selection panel, you can review the logs in the *updi_root*/logs/ *latest_temp_folder* to find out why the maintenance package is not currently appropriate for installation.

11. On the Confirmation panel, you can also ensure that you have the correct permissions to perform the installation of a maintenance package.

    a. To ensure you have the correct permissions to apply maintenance, select **Verify My Permissions**. After the permission checking finishes, the confirmation panel displays the permission checking results. If permission checking succeeds, then **Verify My Permissions** is deselected. You can then click **Next** to install maintenance. If permission checking fails, then **Verify My Permissions** remains selected. You can perform the necessary actions to resolve your permission problems and then verify your permissions again.

    b. If you deselect **Verify My Permissions** and click **Next**, then you skip permission checking and the Update Installer performs the installation. If you do not have all of the necessary permissions, then the installation fails.

12. After the installation, the Summary panel lists which packages have been installed.

13. After the interim fix, interim feature, or test fix has been installed, check the installation log to verify the install was successful. The log can be found at *app_server_root*/logs/update/*maintenance_package*.install.

One of the following results will appear in the log.

INSTCONFSUCCESS
> The operation was a success.

INSTCONFPARTIALSUCCESS
> The operation was partially successful, refer to the log for more details.

INSTCONFFAILED
> The operation failed, refer to the log for more details.

Installing multiple maintenance packs using the graphical user interface

You can install maintenance for WebSphere Application Server and all stack products installed in the same WebSphere Application Server home directory.

Ensure that the most recent version of the Update Installer is installed on a target system locally.

The Update Installer is capable of automatically selecting the recommended maintenance for stack products and determining the appropriate installation sort order of the maintenance packages. For example, if multiple feature packs are installed and there is a recommended fix pack and interim fix for each product, the Update Installer will determine if this maintenance is applicable and install them in the correct order. The following steps lead you through the process of installing multiple maintenance packages.

1. Download the required packages from the official IBM support Web site into the *updi_root*/maintenance directory. It is also recommended you download the maintenance for any stack products in this same directory.

2. Make the current working directory: *updi_root*.

3. Ensure that you stop all running processes.

4. Launch the Update Installer.

   For example:

   Windows

   `update.bat`

   Vista   **2008**

   `update.exe`

   AIX   **HP-UX**   **Linux**   **Solaris**

   `./update.sh`

5. The system displays the Welcome panel. Click **Next**.

6. The system prompts for the location of the product that needs to be updated.

7. Select Install. Click **Next**.

8. The system prompts for the maintenance location where packages can be found.

   Note: Before entering the directory name of the location that contains the maintenance packages, notice there are links to obtain recommended maintenance for WebSphere Application Server. We recommend to click the link to **Recommended fixes for Websphere application Server** to verify the latest maintenance available for WebSphere Application Server has been downloaded. Also download maintenance for any stack products installed under the same location as you selected in step 6.

   Enter the directory name containing the packages. Click **Next**.

9. The system displays a list of maintenance packages available for installation. Select Recommended updates or select the packages you need installed. The Recommended updates selects the most recent applicable pack. Click **Next**. To find out more about how the multiple installation works, refer to "Logic that the Update Installer uses for system recommended installations" on page 18.

If you choose to make your own selection, the system logically changes the remaining packages available for selection based on product, prerequisite and containment relationships.

10. Confirm the information from the pre-installation confirmation Summary panel. This panel highlights the maintenance packages to be installed and products to be updated.

    If a maintenance package is grayed out with the designation *Not applicable* on the selection panel, you can review the logs in *updi_root*/logs/*latest_temp_folder* to find out why the maintenance package is not currently appropriate for installation.

11. On the Confirmation panel, you can also ensure that you have the correct permissions to perform the installation of a maintenance package.

    a. To ensure you have the correct permissions to apply maintenance, select **Verify My Permissions**. After the permission checking finishes, the confirmation panel displays the permission checking results. If permission checking succeeds, then **Verify My Permissions** is deselected. You can then click **Next** to install maintenance. If permission checking fails, then **Verify My Permissions** remains selected. You can perform the necessary actions to resolve your permission problems and then verify your permissions again.

    b. If you deselect **Verify My Permissions** and click **Next**, then you skip permission checking and the Update Installer performs the installation. If you do not have all of the necessary permissions, then the installation fails.

12. The Update Installer shows progress as backup and installation of maintenance packages are completed.

    After all maintenance packages have been selected and verified to be installable as a group, the installer installs the packages in the following sequence:

    a. Refresh packs
    b. Fix packs
    c. Enabling interim fixes (automatically installed)
    d. Interim fixes
    e. Interim features.

    Prerequisite checking continues to apply as each maintenance package is installed. Any failure that is detected stops the install flow. The message is displayed and you can find details in the installation logs covering the failure.

13. A final panel displays the Summary panel. This panel reports information about the completed install action taken. The user is prompted to click **Finish** to exit the wizard.

14. Review the log to verify maintenance was installed successfully. The log can be found at *app_server_root*/logs/update/*maintenance_package*.install.

One of the following results will appear in the log.

INSTCONFSUCCESS
>   The operation was a success.

INSTCONFPARTIALSUCCESS
>   The operation was partially successful, refer to the log for more details.

INSTCONFFAILED
>   The operation failed, refer to the log for more details.

Chapter 2. Uninstalling maintenance packages

You can use the Update Installer for WebSphere Software to uninstall interim fixes, fix packs, and refresh packs or you can uninstall maintenance in silent mode.

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.

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.

Important: See "Update command - known problems and workarounds" on page 38 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:

Viewing the fix level of the node

You can use the versionInfo command in the *app_server_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: • 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 Application Client for WebSphere Application Server • Web server plug-ins for WebSphere Application Server	The Update Installer application defaults to the last-visited product location.

Table 4. Information required when uninstalling a maintenance package (continued)

Field	Valid values	Description
File name of the maintenance package to uninstall.	Select a maintenance package to uninstall from the *app_server_root*/properties/version/update/backup directory.	The default maintenance package is the package with the latest date stamp and time stamp in the *app_server_root* /properties/version/update/backup directory.

The following procedure describes how to uninstall a maintenance package using the graphical user interface and silent mode.

1. Log on to the operating system.

   Linux ▶ **AIX** ▶ **HP-UX** ▶ **Solaris** 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 *updi_root* directory.

3. **Windows** 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. 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
update.bat -W update.type="uninstall"	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.

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

Command example	Type of installation	Description
update.bat -W product.location="e:\IBM\WebSphere\AppServer" -W update.type="uninstall"	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.
update.bat -W backup.package="PQ20029.pak" -W update.type="uninstall"	Graphical interface mode	Overrides the maintenance package field with the name of the maintenance package to uninstall.
update.bat -W product.location="e:\IBM\WebSphere\AppServer" -W backup.package="PQ20029.pak" -W update.type="uninstall"	Graphical interface mode	Overrides the location of the WebSphere software to update and the name of the maintenance package to uninstall.
update.bat -options "responsefiles/*file_name*"	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 the following command to use the silent interface:

Table 6. Update installer command for uninstalling in silent mode

Command example	Type of installation	Description
update.bat -W backup.package="PQ20029.pak" -W update.type="uninstall"	Silent mode with an options file	Overrides all default values with values that you specified in the options response file. Always use a response file that is based on the response file under *updi_root*/responsefiles.

Note: The commands for installing and uninstalling maintenance silently are different. Installation requires specifying the maintenance package using maintenance.package and uninstallation requires backup.package

For example:
- Install maintenance silently: update.bat -W maintenance.package="e:\IBM\WebSphere\AppServer \updateinstaller\maintenance\PQ20029.pak"
- Uninstall maintenance silently: update.bat -W backup.package="PQ20029.pak" -W update.type="uninstall"

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

Note: The Update Installer should not check OS prerequisites when uninstalling Custom Installation Package created by the Install Factory. When you launch the Update Installer to uninstall a Custom Installation Package, additional command line options need to be passed into Update Installer to disable OS prerequisite checking. These command line options are:

-W maintenancewarningprereqcheckactionInstallWizardBean.active=false -W prereqswarningpanelInstallWizardBean.active=false -W maintenanceprereqcheckactionInstallWizardBean.active=false -W prereqsfailedpanelInstallWizardBean.active=false

On Windows issue the command:
update.bat -W maintenancewarningprereqcheckactionInstallWizardBean.active=false -W prereqswarningpanelInstallWizardBean.active=false -W maintenanceprereqcheckactionInstallWizardBean.active=false -W prereqsfailedpanelInstallWizardBean.active=false

On operating systems such as AIX or Linux, issue the command:
./update.sh -W maintenancewarningprereqcheckactionInstallWizardBean.active=false -W prereqswarningpanelInstallWizardBean.active=false -W maintenanceprereqcheckactionInstallWizardBean.active=false -W prereqsfailedpanelInstallWizardBean.active=false

After uninstalling maintenance packages, you can continue to use the WebSphere software.

Rolling back changes to existing profiles: Some maintenance packages for WebSphere Application Server products update existing profiles. If you roll back a maintenance package that contains a profile update, also use any undo scripts provided with the profile update script to roll back changes to the existing profiles.

The readme file for a maintenance package describes scripts that update and scripts that roll back profile fix levels**Deleting profiles created by a service level that is now rolled back:** Profiles should be at a service level that is less than or equal to the service level of the WebSphere Application Server product. For example, if you install a fix pack, create a profile, and then uninstall the fix pack, then you must also delete the profile.

uninstall.txt

The Update Installer for WebSphere Software can use a response file to uninstall maintenance packages from a command line interface.

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 your uninstallation choices. The Update Installer uninstalls the maintenance package in silent mode, instead of displaying a graphical user interface.

Location of the response file

The sample options response file is named uninstall.txt. The file is located in the *updi_root*/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 to provide uninstall option responses during a silent uninstall:

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

If you do not use the -silent option, the wizard uses the response file to provide initial values for the graphical interface:

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

Note: The commands for installing and uninstalling maintenance silently are different. Installation requires specifying the maintenance package using maintenance.package and uninstallation requires backup.package

For example:
- Install maintenance silently: update.bat -W maintenance.package="e:\IBM\WebSphere\AppServer \updateinstaller\maintenance\PQ20029.pak"
- Uninstall maintenance silently: update.bat -W backup.package="PQ20029.pak" -W update.type="uninstall"

Response file user entry validation

In a silent uninstall, response file validation has been coded into the uninstall process. If the validation does not pass, the failure is recorded in the log files in the *app_server_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/nif/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.

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 if possible. Problems can occur when a mismatch between product SDKs occurs, for example.

Do not use this directive unless absolutely necessary.

Default directive setting
-W
product.location="*SPECIFY_PRODUCT_INSTALL_LOCATION_HERE*"

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
#
# Please enclose all values within a single pair of double quotes.
#
###############################################################################


###############################################################################
#
# 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\IBM\WebSphere\AppServer"
#
# Note: The product install location should always been specified, and it should
# always be the full path.
#
-W product.location="<SPECIFY_PRODUCT_INSTALL_LOCATION_HERE>"



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

Silently uninstalling a fix pack, an interim fix, or a test fix

Use a response file to uninstall maintenance silently.

Refer to the example response file, located at the bottom of this topic, for more details.

Follow these steps to uninstall maintenance silently:

1. Edit a response file. Use the sample response file at the bottom of the pane as an example.
2. Specify the location of the product that will be uninstalled in the response file.
3. Specify the choice of *Uninstall* maintenance in the response file.
4. Specify the maintenance pack to be uninstalled in the response file.

This is the same filename as the package that was originally installed. A maintenance package can only be uninstalled if a backup package exists, such as, -W backup.package="PQ20029.pak"

Note: The commands for installing and uninstalling maintenance silently are different. Installation requires specifying the maintenance package using maintenance.package and uninstallation requires backup.package

For example:
- Install maintenance silently: update.bat -W maintenance.package="e:\IBM\WebSphere\AppServer \updateinstaller\maintenance\PQ20029.pak"
- Uninstall maintenance silently: update.bat -W backup.package="PQ20029.pak" -W update.type="uninstall"

If no package is specified, a default of the last installed maintenance (#) package is used.

To uninstall a maintenance pack using the silent mode, the order of uninstalling needs to be in the reverse order of installing. For example, if you installed maintenance packs A, B, and C in that order, you should uninstall C, B, and then A.

5. Ensure that all running processes have been stopped.
6. Launch the Update Installer and point to a response file.
7. Review the log file to verify maintenance has been installed successfully. The log can be found at WAS_HOME\logs\update\<Maintenance name.install>.

One of the following results will appear in the log.

INSTCONFSUCCESS
The operation was a success.

INSTCONFPARTIALSUCCESS
The operation was partially successful, refer to the log for more details.

INSTCONFFAILED
The operation failed, refer to the log for more details.

The following response file demonstrates how to uninstall a fix pack silently.

```
################################################################################
#
# 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
#
# Enclose all values within a single pair of double quotes.
#
################################################################################


################################################################################
#
```

```
# 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.
#
# For example: -W backup.package="PQ20029.pak"
#
# Note: If you do not specify a package, then a default of the last installed maintenance
#       package is used, as the following example demonstrate:
#
-W backup.package="6.1.0.1-WEBSV-FEP-WinX32-FP000001.pak"


################################################################################
#
# 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, as the following example demonstrates:
#
# For example: -W product.location="C:\Program Files\IBM\WebSphere\AppServer"
#
# Note: The product install location needs to be specified, and it needs to
#       be the full path.
#
-W product.location="D:\IBM\WebSphere\AppServerNonroot3"


################################################################################
#
# AIX Non-root user limitation
#
# The AIX user account running the Update Installer program also must be able to
# run the slibclean command; otherwise, a root user must run the slibclean command
# before the Update Installer program runs.
#
# Uncomment the following option to notify the installer that a root user has run
# the slibclean command before the Update Installer program runs.
#
#-OPT rootUserHasRunSlibcleanCommandSuccessfully="true"


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

Uninstalling a fix pack, interim fix, interim feature or test fix using the graphic user interface

This topic describes how to use the Update Installer for WebSphere Software to uninstall a fix pack, interim fix, or test fix.

The following steps are required to uninstall maintenance using the graphical user interface.

1. The latest version of the Update Installer needs to be installed on a target system locally.
2. Make the current working directory *updi_root*.
3. Ensure that all running processes are stopped.
4. Launch the Update Installer.
5. The Welcome panel appears. Click **Next**.
6. The system prompts for the location of the product you want to uninstall.

7. You can choose either to *Install* or *Uninstall*l maintenance. Select the *Uninstall* option. Click **Next**

8. The system prompts for the maintenance package that you want to uninstall.

   - For uninstalling maintenance in an environment without a feature pack installed, select the package to be uninstalled. Click **Next**.

   - For uninstalling maintenance in an environment with a feature pack installed, select the package to be uninstalled. In certain cases the enabling ifix requires that you uninstall in a particular order. The additional maintenance remove panel shows the feature packs that depend on an enabling ifix.

   Select the maintenance package, click **Next**.

   When you uninstall the pack, certain logic is used to determine which maintenance package to uninstall. To find out more, refer to "Logic used by the Update Installer for uninstalling."

9. Before the uninstallation, the Confirmation panel confirms which package has been uninstalled.

10. After the uninstallation, the Summary panel lists which package has been uninstalled.

11. Review the log file to verify maintenance has been uninstalled successfully. The log can be found in the *app_server_root*\logs\update\<Maintenance name.install> directory.

One of the following results appears in the log:

INSTCONFSUCCESS
   The operation was a success.

INSTCONFPARTIALSUCCESS
   The operation was partially successful, refer to the log for more details.

INSTCONFFAILED
   The operation failed, refer to the log for more details.

Logic used by the Update Installer for uninstalling

The Update Installer uses logical procedures when it uninstalls maintenance. The uninstall command works similar to the stack logic in computer science.

Uninstall fix packs in the reverse order that they were installed. The last fix pack installed should be the first one uninstalled.

For example, if maintenance packages A,B,C,D have been installed in that sequence, then the packages should be uninstalled in reverse order: D, C, B, A. This is true if these applications are made up of fix packs, interim fixes or feature packs.

Chapter 3. update command

The update command starts the Update Installer for WebSphere Software.

The Update Installer 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, "Installing maintenance packages," on page 1 and Chapter 2, "Uninstalling maintenance packages," on page 23 for information about using the command.

Important: See "Update command - known problems and workarounds" on page 38 for information about known problems and workarounds.

Command options

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

Commands for installing interim fixes

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

Windows

Note: **Vista** **2008** For the Microsoft® Windows Vista operating system, use update.exe rather than update.bat.

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

Command example	Type of installation	Description
Windows update.bat **AIX** **HP-UX** **Linux** **Solaris** ./update.sh	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.
Windows update.bat -options "responsefiles*file_name*" **AIX** **HP-UX** **Linux** **Solaris** ./update.sh -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

Windows
 	
`update.bat -W maintenance.package="e:\IBM\WebSphere`
`\AppServer\updateinstaller\maintenance\PQ20029.pak"`
 	
AIX　**HP-UX**　**Linux**　**Solaris**
 	
`./update.sh -W maintenance.package="/opt/IBM/WebSphere`
`/AppServer/updateinstaller/maintenance/PQ20029.pak"`
	Graphical interface mode	Overrides the name of the maintenance package to apply.

Windows
 	
`update.bat -W product.location="e:\IBM\WebSphere`
`\AppServer"`
 	
AIX　**HP-UX**　**Linux**　**Solaris**
 	
`./update.sh -W product.location="/opt/IBM/WebSphere`
`/AppServer"`
	Graphical interface mode	Overrides the location of the WebSphere software to update.

Windows
 	
`update.bat -W product.location="e:\IBM\WebSphere`
`\AppServer" -W maintenance.package="e:\IBM\WebSphere`
`\AppServer\updateinstaller\maintenance\PQ20029.pak"`
 	
AIX　**HP-UX**　**Linux**　**Solaris**
 	
`./update.sh -W product.location="/opt/IBM/WebSphere"`
`-W maintenance.package="/opt/IBM/WebSphere/AppServer`
`/updateinstaller/maintenance/PQ20029.pak"`
	Graphical interface mode	Overrides the location of the WebSphere software to update and the name of the maintenance package to apply.

Windows
 	
`update.bat -OPT disableDiskSpaceCheck=true`
 	
AIX　**HP-UX**　**Linux**　**Solaris**
 	
`./update.sh -OPT disableDiskSpaceCheck=true`
	Graphical interface mode	Overrides the prerequisite check for disk space.

Issue the following command to use the silent interface:

Table 8. Update installer command for installing in silent mode

Command example	Type of installation	Description

Windows
 	
`update.bat -silent -options "responsefiles\`*`file_name`*`"`
 	
AIX　**HP-UX**　**Linux**　**Solaris**
 	
`./update.sh -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.
		
		Always use a response file that is based on the response file under *updi_root*/responsefiles.

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	Description

Windows
 	
`update.bat -W update.type="uninstall"`
 	
AIX　**HP-UX**　**Linux**　**Solaris**
 	
`./update.sh -W update.type="uninstall"`
	Initializes the interim fix field with the name of the interim fix that was most recently installed.
	
	Accept all of the default values to uninstall the interim fix with the most recent date stamp and time stamp.

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

Command example	Description

Windows
 	
`update.bat -W product.location="e:\IBM\WebSphere\AppServer"`
`-W update.type="uninstall"`
 	
AIX **HP-UX** **Linux** **Solaris**
 	
`./update.sh -W product.location="/opt/IBM/WebSphere/AppServer"`
`-W update.type="uninstall"`
	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.

Windows
 	
`update.bat -W backup.package="PQ20029.pak"`
`-W update.type="uninstall"`
 	
AIX **HP-UX** **Linux** **Solaris**
 	
`./update.sh -W backup.package="PQ20029.pak"`
`-W update.type="uninstall"`
	Overrides the interim fix field with the name of the maintenance package to uninstall.

Windows
 	
`update.bat -W product.location="e:\IBM\WebSphere\AppServer"`
`-W backup.package="PQ20029.pak" -W update.type="uninstall"`
 	
AIX **HP-UX** **Linux** **Solaris**
 	
`./update.sh -W product.location="/opt/IBM/WebSphere/AppServer"`
`-W backup.package="PQ20029.pak" -W update.type="uninstall"`
	Overrides the location of the WebSphere software to update and the name of the maintenance package to uninstall.

Windows
 	
`update.bat -options "responsefiles\`*file_name*`"`
 	
AIX **HP-UX** **Linux** **Solaris**
 	
`./update.sh -options "responsefiles/`*file_name*`"`
	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 the following command to use the silent interface:

Table 10. Update installer command for installing in silent mode

Command example	Type of installation	Description

Windows
 	
`update.bat -silent -options "responsefiles\`*file_name*`"`
 	
AIX **HP-UX** **Linux** **Solaris**
 	
`./update.sh -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.
		
		Always use a response file that is based on the response file under *updi_root*/responsefiles.

Installing multiple interim fixes

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

AIX **HP-UX** **Linux** **Solaris**
Example 1

```
...

./update.sh -W maintenance.package=/opt/IBM/WebSphere/AppServer/updateinstaller/maintenance/PK20028.pak
-silent

./update.sh -W maintenance.package=/opt/IBM/WebSphere/AppServer/updateinstaller/maintenance/PK20029.pak
-silent
```

If any maintenance package contains service for the IBM Software Developer Kit (SDK), the resulting asynchronous return to the script causes multiple instances of the Update Installer to run, which is not allowed. Use the following procedure to avoid the problem:

1. Create the default cloned SDK location within the *updi_root* directory.

   For example:

   ```
   mkdir /opt/IBM/WebSphere/AppServer/updateinstaller/java
   ```

   The command creates the same directory for the SDK that the Update Installer creates when it clones the SDK automatically.

2. Copy the SDK from the product installation root to the default clone location.

   Copy the contents of the *app_server_root*/java/jre directory to the *updi_root*/java directory.

   For example, the command for a Linux system might resemble the following example:

   ```
   cp -rf /opt/IBM/WebSphere/AppServer/java/jre/*
   --target-directory='/opt/IBM/WebSphere/AppServer/updateinstaller/java'
   ```

3. Edit the script to change the command for the maintenance package that installs the update to the SDK. Or change all of the commands in the script.

   ...

   ```
   ./update.sh -is:javahome /opt/IBM/WebSphere/AppServer/updateinstaller/java
   -W maintenance.package=/opt/IBM/WebSphere/AppServer/updateinstaller/maintenance/PK20028.pak
   -silent

   ./update.sh -is:javahome /opt/IBM/WebSphere/AppServer/updateinstaller/java
   -W maintenance.package=/opt/IBM/WebSphere/AppServer/updateinstaller/maintenance/PK20029.pak
   -silent
   ```

See the UPDI: Control returns prematurely to the command line when the Update Installer rolls back an updated IBM Software Development Kit (SDK) technote for more information about asynchronous operations when the Update Installer is cloning the SDK.

Windows
Example 2

The InstallShield for Multiplatforms (ISMP) launcher program returns control to the command line or calling BAT script right away on Windows systems.

If a BAT script has the following two lines, the second line runs before the Update Installer has completed the first line.

```
"C:\IBM\WebSphere\AppServer60\updateinstaller\update"
-W maintenance.package="C:\IBM\WebSphere\AppServer\updateinstaller\maintenance\PK20028.pak"
-silent

"C:\IBM\WebSphere\AppServer60\updateinstaller\update"
-W maintenance.package="C:\IBM\WebSphere\AppServer\updateinstaller\maintenance\PK20029.pak"
-silent
```

The resulting asynchronous return to the script causes multiple instances of the Update Installer to run, which is not allowed. Use the following procedure to avoid the problem:

1. Use the XCOPY command to create the default clone location for the SDK and copy the product SDK from the installation root in one operation.

   Copy the contents of the *app_server_root*\java\jre directory to the *updi_root*\java directory, which is the default location when the Update Installer clones the SDK automatically.

For example, use the following command when the installation root directory is the `C:\IBM\WebSphere\AppServer60\` directory.

```
xcopy C:\IBM\WebSphere\AppServer60\java\jre\*.* C:\IBM\WebSphere\AppServer60\updateinstaller\java\*.* /S
```

2. Edit the batch script to change each **update** command to issue the Java calls directly instead of through ISMP:

```
"C:\IBM\WebSphere\AppServer60\updateinstaller\java\bin\java.exe" -cp update.jar -Xms48m -Xmx384m
run -W maintenance.package="C:\IBM\WebSphere\AppServer60\updateinstaller\maintenance\PK20028.pak"
-silent

"C:\IBM\WebSphere\AppServer60\updateinstaller\java\bin\java.exe" -cp update.jar -Xms48m -Xmx384m
run -W maintenance.package="C:\IBM\WebSphere\AppServer60\updateinstaller\maintenance\PK20029.pak"
-silent
```

The -Xms48m parameter and the -Xmx384m parameter are the minimum heap size and the maximum heap size, respectively.

3. Run the batch file to install the maintenance packages.

The reworked batch file avoids the ISMP asynchronous behavior by invoking the native Java process directly. Additional parameters are allowed at the end of each line, such as the -options parameter.

Automating maintenance operations

Most fix packs and refresh packs include some maintenance for the IBM SDK, Java technology edition in the *app_server_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 *updi_root*/java directory:

```
updi_root
  /java
```

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 *updi_root*/java directory if the SDK is present.

Issue the following commands from the script:

1. update -silent

   The update installer program uses the cloned copy of the SDK in the *updi_root* 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.sh \
   -silent -W maintenance.package=\
   "/opt/WebSphere/AppServer/updateinstaller/maintenance/\
   6.0.1.0-WS-WAS-LinuxIA32-RP0000002.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 *updi_root*/logs/update/tmp directory. If all validations pass, the installation occurs.

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

Within the directory are the updatelog.txt file, the compressed updatetrace.log.gz file, and the compressed updateconfig.log.gz file. The updateconfig.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 *updi_root*/logs/update/tmp directory. If all validations pass, the uninstall procedure occurs.

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

Within the directory are the updatelog.txt file, the compressed updatetrace.log.gz file, and the compressed updateconfig.log.gz file. The updateconfig.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.

Update command - known problems and workarounds

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 updatelog.txt file.

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

The Update Installer can not automatically detect locks on files by remote processes. So you must ensure that all AppServers processes have been stopped for all your profiles, including any remote profiles.

Chapter 4. Using root or non-root when installing with the Update Installer

You can use the IBM Update Installer for WebSphere Software to install interim fixes, fix packs, and refresh packs. Learn about important prerequisites, permissions, and precautions before installing a maintenance package.

Using root or non-root for maintenance installation

In order to avoid problems, always use the same user ID for applying maintenance that you used to install WebSphere Application Server, the Update Installer, and any fix packs. If you choose to use a different user, then the maintenance action might not be successful, depending on the ownership and permissions of the files to be updated. If the update action is successful, the file ownerships of the updated files belong to the last user to perform the update and will prevent the original user from performing further updates.

The technote Servers fail to start after applying fixes in version 6.1 describes how to restore file ownership to the original user and allow users to apply future updates.

If WebSphere Application Server is installed by root, and if you try to use a non-root user ID to update WebSphere Application Server, the install will fail because it does not have authority to update the files owned by root. Similarly, if WebSphere Application Server is installed by a non-root user and a different non-root user applies maintenance, the install could fail if the second non-root user ID does not have write authority to those files owned by the first non-root user. In these cases, the user will get a warning message similar to the following:

```
The current operation must be performed by the same
user who owns the existing files. Typically, the file
owner is the user who performed the original installation.
Switch to the right user, and then run the installer again.
```

To avoid these potential problems, always use the same user ID for applying maintenance that you used to install the product.

Chapter 5. Directory conventions

References in product information to *app_server_root*, *profile_root*, and other directories infer specific default directory locations. This topic describes the conventions in use for WebSphere Application Server.

Default product locations (distributed)

The following file paths are default locations. You can install the product and other components or create profiles in any directory where you have write access. Multiple installations of WebSphere Application Server Network Deployment products or components require multiple locations. Default values for installation actions by root and non-root users are given. If no non-root values are specified, then the default directory values are applicable to both root and non-root users.

app_client_root

The following list shows default installation root directories for the WebSphere Application Client.

User	Directory
Root	**AIX** /usr/IBM/WebSphere/AppClient (Java EE Application client only) **HP-UX** **Linux** **Solaris** /opt/IBM/WebSphere/AppClient (Java EE Application client only) **Windows** C:\Program Files\IBM\WebSphere\AppClient
Non-root	**AIX** **HP-UX** **Linux** **Solaris** *user_home*/IBM/WebSphere/AppServer/AppClient (Java EE Application client only) **Windows** C:\IBM\WebSphere\AppClient

app_server_root

The following list shows the default installation directories for WebSphere Application Server Network Deployment.

User	Directory
Root	**AIX** /usr/IBM/WebSphere/AppServer **HP-UX** **Linux** **Solaris** /opt/IBM/WebSphere/AppServer **Windows** C:\Program Files\IBM\WebSphere\AppServer
Non-root	**AIX** **HP-UX** **Linux** **Solaris** *user_home*/IBM/WebSphere/AppServer **Windows** C:\IBM\WebSphere\AppServer

cip_app_server_root

A *customized installation package* (CIP) is an installation package created with IBM WebSphere Installation Factory that contains a WebSphere

Application Server Network Deployment product bundled with one or more maintenance packages, an optional configuration archive, one or more optional enterprise archive files, and other optional files and scripts.

The following list shows the default installation root directories for a CIP where *cip_uid* is the CIP unique ID generated during creation of the build definition file.

User	Directory
Root	**AIX** /usr/IBM/WebSphere/AppServer/cip/*cip_uid* **HP-UX** **Linux** **Solaris** /opt/IBM/WebSphere/AppServer/cip/*cip_uid* **Windows** C:\Program Files\IBM\WebSphere\AppServer\cip*cip_uid*
Non-root	**AIX** **HP-UX** **Linux** **Solaris** *user_home*/IBM/WebSphere/AppServer/cip/*cip_uid* **Windows** C:\IBM\WebSphere\AppServer\cip*cip_uid*

component_root
> The component installation root directory is any installation root directory described in this topic. Some programs are for use across multiple components. In particular, the Update Installer for WebSphere Software is for use with WebSphere Application Server Network Deployment, Web server plug-ins, the Application Client, and the IBM HTTP Server. All of these components are part of the product package.

gskit_root
> IBM Global Security Kit (GSKit) can now be installed by any user. GSKit is installed locally inside the installing product's directory structure and is no longer installed in a global location on the target system. The following list shows the default installation root directory for Version 7 of the GSKit, where *product_root* is the root directory of the product that is installing GSKit, for example IBM HTTP Server or the Web server plug-in.

Directory
AIX **HP-UX** **Linux** **Solaris** *product_root*/gsk7   **Windows** *product_root*\gsk7

if_root This directory represents the root directory of the IBM WebSphere Installation Factory. Because you can download and unpack the Installation Factory to any directory on the file system to which you have write access, this directory's location varies by user. IBM WebSphere Installation Factory is an Eclipse-based tool which creates installation packages for installing WebSphere Application Server in a reliable and repeatable way, tailored to your specific needs.

iip_root
> This directory represents the root directory of an *integrated installation package* (IIP) produced by theIBM WebSphere Installation Factory. Because you can create and save an IIP to any directory on the file system to which you have write access, this directory's location varies by user. An IIP is an aggregated installation package that can include one or more generally

available installation packages, one or more customized installation packages (CIPs), and other user-specified files and directories.

profile_root
> The following list shows the default directory for a profile named *profile_name* on each distributed operating system.

User	Directory
Root	**AIX** /usr/IBM/WebSphere/AppServer/ profiles/*profile_name* **HP-UX** **Linux** **Solaris** /opt/IBM/WebSphere/AppServer/profiles/*profile_name* **Windows** C:\Program Files\IBM\WebSphere\ AppServer\profiles*profile_name*
Non-root	**AIX** **HP-UX** **Linux** **Solaris** *user_home*/IBM/WebSphere/AppServer/ profiles/ **Windows** C:\IBM\WebSphere\AppServer\profiles\

plugins_root
> The following default installation root is for the Web server plug-ins for WebSphere Application Server.

User	Directory
Root	**AIX** /usr/IBM/WebSphere/Plugins **HP-UX** **Linux** **Solaris** /opt/IBM/WebSphere/Plugins **Windows** C:\Program Files\IBM\WebSphere\ Plugins
Non-root	**AIX** **HP-UX** **Linux** **Solaris** *user_home*/IBM/WebSphere/Plugins **Windows** C:\IBM\WebSphere\Plugins

updi_root
> The following list shows the default installation root directories for the Update Installer for WebSphere Software.

User	Directory
Root	**AIX** /usr/IBM/WebSphere/UpdateInstaller **HP-UX** **Linux** **Solaris** /opt/IBM/WebSphere/UpdateInstaller **Windows** C:\Program Files\IBM\WebSphere\ UpdateInstaller
Non-root	**AIX** **HP-UX** **Linux** **Solaris** *user_home*/IBM/WebSphere/ UpdateInstaller **Windows** C:\IBM\WebSphere\UpdateInstaller

web_server_root

The following default installation root directories are for the IBM HTTP Server.

User	Directory
Root	**AIX** /usr/IBM/HTTPServer **HP-UX** **Linux** **Solaris** /opt/IBM/HTTPServer **Windows** C:\Program Files\IBM\HTTPServer
Non-root	**AIX** **HP-UX** **Linux** **Solaris** *user_home*/IBM/HTTPServer **Windows** C:\IBM\HTTPServer

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