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# **IBM® WebSphere® Application Server V6.1 Feature Pack for EJB 3.0**

## ***Feature pack installation***



@business on demand.

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This presentation will focus on explaining the installation of the IBM WebSphere Application Server V6.1 Feature Pack for EJB 3.0.

## Agenda


- General feature pack installation
- Installing the Feature Pack for EJB (Enterprise Java™ Beans) 3.0
- Problem determination

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Feature pack installation


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This presentation will begin with a general overview of Feature Packs installation. Then the presentation will discuss the specifics of how to install the Feature Pack for EJB 3.0. After that, the presentation has details on basic problem determination of a Feature Pack installation, including where to find log files related to installation.

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***General feature pack information***

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This section discusses the general installation concepts and questions related to Feature Packs.

## Feature pack installation and uninstallation

- A feature pack may depend on other feature packs to reuse functionality
- Uninstalling a feature pack will not uninstall WebSphere Application Server fix packs or other stack products
  - ▶ Will not be able to uninstall minimum level of maintenance if feature pack is installed
  - ▶ VersionInfo and HistoryInfo command are enhanced to query the feature pack information
- Uninstall feature packs before uninstalling WebSphere Application Server

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Feature Packs may require other Feature Packs to be installed in order to take advantage of their functionality. This is not the case for the Feature Pack for EJB 3.0, but may be a consideration for other Feature Packs. Performing an un-installation of a Feature Pack will not uninstall WebSphere Application Server or any fix packs or other stack products that have been installed. In addition, if a Feature Pack requires a certain level of maintenance as part of its installation, it will not be possible to remove that required level of maintenance from WebSphere Application Server while that Feature Pack is still installed. The existing versioninfo and historyinfo commands can be used to query information related to existing Feature Pack installations in an environment. When a Feature Pack is installed, it must be un-installed before performing an uninstallation of WebSphere Application Server.

## Maintenance and support

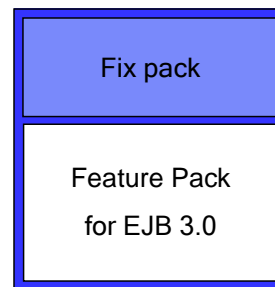
- Each feature pack has its own service stream
- Each feature pack has its own support Web page, similar to JDK page
  - ▶ Contains:
    - The overview of the feature pack
    - Feature pack full installation image and its fix pack level
  - ▶ Has a link back to WebSphere Application Server V6.1 downloads page
- Also has a separate information center

Each Feature Pack will have a separate service stream that should be monitored for updates and fixes. As part of this strategy each Feature Pack will have its own support Web site that will contain information about the Feature Pack, and a link back the WebSphere Application Server V6.1 download page. Each Feature Pack will also have a separate Information Center page that will contain additional reference information specific to the Feature Pack.

## Single install bundle

- Feature pack installable image

- ▶ Contains feature pack code and all required WebSphere Application Server specific minimum prerequisites
- ▶ Required prerequisite fixes cannot be uninstalled without uninstalling the feature pack first
- ▶ Existing profiles must be augmented to add EJB 3.0 support



The Feature Pack installable image contains not only the Feature Pack code, but also the required maintenance level for the Feature Pack. This maintenance will be used by the installer to upgrade the existing WebSphere Application Server base environment if needed. Once a Feature Pack is installed, the required maintenance level must be maintained. The maintenance cannot be removed without first uninstalling the Feature Pack. In order to use the technologies provided by the Feature Pack, the application server profiles must also be augmented.

## EJB 3.0 feature pack restrictions

- Restrictions for installing the feature pack:
  - ▶ The feature pack must be installed on WebSphere Application Server V6.1
    - Version 6.1 installations at a level lower than 6.1.0.13 will be upgraded
  - ▶ If you have previously installed a beta version of the feature pack, it must be uninstalled
    - The beta release of fix pack 13, installed by the beta refresh installer must also be uninstalled before installation
  - ▶ The feature pack should not be used with stack products, such as WebSphere Process Server or others

When installing the Feature Pack for EJB 3.0, there are some restrictions you must be aware of. The Feature Pack can only be installed onto WebSphere Application Server V6.1. Any level of V6.1 that is lower than V6.1.0.13 will be automatically upgraded with fix pack 13 by the Feature Pack installer. You also should not install the Feature Pack onto an installation that includes stack products, such as WebSphere Process Server or WebSphere Commerce. If you have previously installed an alpha or beta version of the Feature Pack for EJB 3.0, it is important to remove anything that was installed by the alpha or beta installers before proceeding with installation. This includes the alpha or beta versions of the Feature Pack, and the beta release of fix pack 13 that was installed by the beta refresh installer.

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# ***Installing the feature pack for EJB 3.0***

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The next section discusses the specifics of the Feature Pack for EJB 3.0 installer.



## Feature Pack Installation

- Installer uses ISMP (InstallShield Multi-platform)
- Provides support for graphical and silent installation
  - ▶ No Launchpad for the Feature Pack for EJB 3.0
  - ▶ Can be invoked from the *install* program in the <install\_Image>/EJB3 directory
  - ▶ Silent installation uses a response file as input
  - ▶ Queries for other WebSphere Application Server installations
- You will be prompted to augment existing profiles, or create new EJB 3.0 enabled profiles
- Common logging and tracing strategy is used across the WebSphere Application Server and feature pack installers

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The installer for the Feature Pack for EJB 3.0 uses the same InstallShield Multi-platform technologies as the WebSphere Application Server V6.1 installer. This provides support for both graphical and silent installation run from the command line. Silent installation uses a response file, specific to the Feature Pack, that is provided as input to the command. The Feature Pack installer will check for other WebSphere Application Server V6.1 installations as part of installing. The Feature Pack for EJB 3.0 uses the same logging and tracing strategy as the other WebSphere Application Server product installers.

## Command-line installation

- Installer binary location:
  - ▶ <IMAGE\_DIR>\EJB3\install.exe Windows®
  - ▶ <IMAGE\_DIR>/EJB3/install Linux® / UNIX®
- Silent installation option uses a single response file for options to install product binary and to create a profile.
  - ▶ <IMAGE\_DIR>/EJB3/install –options  
“response\_file\_name” –silent
  - ▶ Sample file: <IMAGE\_DIR>/EJB3/responsefile.EJB3.txt
  - ▶ License acceptance must be changed to “true”

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The Feature Pack for EJB 3.0 installer can be directly invoked by using the “install” command from the “EJB3” directory on the CD image. During a silent installation, a response file is used to obtain the input for the installation process. A sample response file is provided to help get started and show the available options. An important thing to remember is that the license agreement must be changed in the response file – change the silentInstallLicenseAcceptance option from “false” to “true”.

## Uninstallation overview

- Uninstallation uses InstallShield Multi Platform (ISMP)
- Located under the “uninstall” directory
  - ▶ <Install\_root>/uninstall\_ejb3/uninstall.exe
- Silent uninstallation is supported
  - ▶ <Install\_root>/uninstall\_ejb3/uninstall –silent
  - ▶ Use 'uninstall -silent -OPT unaugmentDmgrProfiles=true' if DMGR profile is augmented

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Uninstallation of the Feature Pack for EJB 3.0 is similar to the other WebSphere Application Server products. On distributed platforms, both the graphical wizard and silent uninstallation options are available. During the installation process, an uninstaller will be created under the “uninstall” directory. Invoking the uninstallation process will completely remove the Feature Pack for EJB 3.0, but leave maintenance and the base WebSphere Application Server installation behind.

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***z/OS<sup>®</sup> specifics***

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The next section discusses the specific installation concepts for z/OS.

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## Packaging on z/OS

```
graph LR; A[EJB3 Feature Pack] --- B[Sample Job UMOD]; A --- C[EJB3 Feature Pack UMOD]
```

Component Name:	WebSphere Application Server V6.1 Feature Pack for EJB3
Program Number:	5655-N01
FMID:	J1WO610
COMPID:	Not Yet Defined
PSP Bucket:	Upgrade=WASAS610, Subset=J1WO610

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The EJB3 feature pack consists of two UMOD's. The first contains sample jobs that must be configured for your system. Once configured and run, the proper installation environment for the EJB3 code will exist. The EJB3 code will reside under the optional materials path (zWebSphere\_OM) of your product hfs.

## Installation and configuration on z/OS

- SMP/E installable image
- Must have installed FMID JIWO610 optional materials; shipped with PID
- Copy and configure sample jobs to fit your environment
- Install EJB3 code
- Enable EJB3 using linkEJB3610zOSImage.sh

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Both UMOD's provided will be SMP/E installable. The umods are under FMID JIWO610 which was shipped with PID and optionally installed.

The sample jobs provided will create the EJB3 installation environment. Once EJB3 is installed, a new stand-alone application server can be enabled for EJB3 by running the *symlink script* which creates symbolic links from the node's WAS\_HOME and its subdirectories to the EJB3 code directories. A deployment manager can be enabled for EJB3 using the same symlink script. The deployment manager may be new or existing. This step must be done before any EJB3-enabled application servers can be federated into the deployment manager's cell.

At this time you cannot run the symlink script against an existing application server.

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### ***Problem determination***

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The next section provides some information on how to troubleshoot the installation process.

## Exit codes

- Uses the same common logging strategy, including exit codes, as the WebSphere Application Server V6.1 installers
- Linux and UNIX platforms echo “\$?” Command after installation completion will display:
  - 0 – Success, 1 – Failed, 2 – Partial Success
- Exit codes are not set on Windows platforms due to an InstallShield limitation
  - ▶ Consult **log.txt** for information on success or failure
    - INSTCONFSUCCESS implies successful installation and profile creation
    - INSTCONFFAILED implies a failed installation.
    - INSTCONFPARTIALSUCCESS implies a successful installation, but some configuration action failed

The Feature Pack for EJB 3.0 uses same logging strategy as the other installation packages in WebSphere Application Server V6.1, meaning they use a consistent location for log and trace files, and a consistent format for those files.

The installers set exit codes to indicate success or failure on all Linux and UNIX platforms. You can check the exit code after the installation has completed. “Partial success” means that some portion of the installation failed but the installation is still at least partially usable and the failure may be recoverable to make the installation completely usable. Consult the logs to determine the exact failure and what, if any, corrective actions can be taken.



## Log file locations

- Log files for installation and uninstallation can be found under these directories
  - ▶ <install\_root>/logs/install/ejb3
  - ▶ <install\_root>/logs/uninstall/ejb3
- If the logs directory can not be accessed during installation, the logs are saved under <user home>/ejb3logs
- If there is a JDK related problem and if you can not find the logs look under <user home>/ejb3logs
- If you see “*A suitable JVM could not be found*”, this command will help diagnose the problem by catching the InstallShield MultiPlatform launcher log:
  - ▶ `install.exe -is:log catchinstallerlogs.txt`

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Log files contain information about installing, configuring and updating WebSphere Application Server V6.1 components with the Feature Pack for EJB 3.0. The log file will initially be created in the current “temp” directory and then copied into the <Install Home>/logs/ejb3 directory. If the installation is terminated before the file is copied, then it will remain in the current “temp” directory. Problems related to the Java Development Kit are located in the temp directory.

## Trace file






- Trace file contain more detailed than the main log.txt file
- These trace files are not translated and are for IBM service
  - ▶ <Install\_root>/logs/ejb3/install/trace.log.gz
- Trace format and trace log level can be changed using command line options
- -OPT traceFormat=ALL/text/XML
  - ▶ ALL (By default) will produce both text and XML format
- -OPT traceLevel=INFO (default is INFO)
  - ▶ See the Appendix for complete list of “traceLevel” options

Trace files contain more detailed information for determining problems than the standard installation logs. The trace file logs are not translated, because they are intended primarily for use by IBM support and services. The installation trace files can be found in the standard installation log directory for the Feature Pack for EJB 3.0. The amount of trace data generated can be altered using command line options, and by options in the silent installation response file. More information about the various trace levels is available in the appendix.

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Section

*Summary*



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The next section provides a summary of this presentation.

## Summary

- Feature packs provide a flexible option to add technologies to an existing environment
  - ▶ Allow users to maintain a stable base
- Content can be installed and managed as needed
- Feature packs use the same installation process as WebSphere Application Server V6.1
- The Feature Pack for EJB 3.0 support for EJB 3.0 and JPA (Java Persistence API) specifications in WebSphere Application Server V6.1

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The new strategy for Feature Packs provides a flexible option to add new technical features onto existing WebSphere Application Server V6.1 environments. You can evaluate and use the Feature Packs with the technologies you need, and ignore Feature Packs you are not interested in.

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