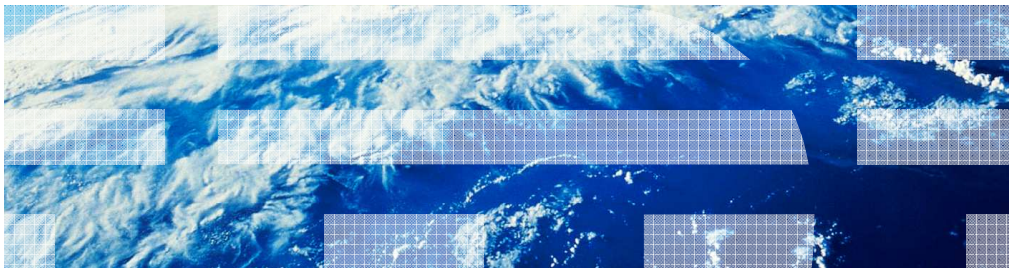




IBM WebSphere Application Server Feature Pack for OSGi Applications and Java Persistence API 2.0

Installation on distributed platforms



WebSphere software

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This presentation describes how to use IBM Installation Manager to install the IBM WebSphere® Application Server Feature Pack for OSGi Applications and Java™ Persistence API 2.0.

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The first section describes the supported software prerequisites for using the Feature Pack for OSGi Applications and JPA 2.0 and the second section describes the feature pack installation instructions.

Supported software

This section describes the supported software configurations for installing and using the Feature Pack for OSGi and JPA 2.0.

Required software

- The IBM WebSphere Applications Server Feature Pack for OSGi Applications and Java Persistence API 2.0 runs on WebSphere Application Server Version 7.
 - Fix Pack 9 or later is required.
- IBM Installation Manager 1.3.4.1 or later is required to install, update and uninstall the feature pack
- If the Feature Pack for Service Component Architecture (SCA) is installed, it must be at level 1.0.1.5

The Feature Pack for OSGi Applications and Java Persistence API 2.0 runs on top of WebSphere Application Server Version 7 with a minimum service level of Fix Pack 9.

The WebSphere Applications Server maintenance needs to be installed using the WebSphere Update Installer. Feature Packs on WebSphere Application Server Version 7 are applied using IBM Installation Manager. You will need Installation Manager at a service level of 1.3.4.1 or later to install the Feature Pack for OSGi Applications and Java Persistence API 2.0.

If the Feature Pack for Service Component Architecture (SCA) is installed on your system it will need to be at service level 1.0.1.5 in order to install the Feature Pack for OSGi Applications and Java Persistence API 2.0.

Supported platforms

- The feature pack supports the same operating systems as WebSphere Application Server V7, except IBM i.
 - Only silent installation is available on Solaris and HP-UX
 - Installation on z/OS does not use the Installation Manager
- Supported Hardware
 - See the WebSphere Application Server V7 support pages for hardware support information

The Feature Pack for OSGi Applications and Java Persistence API 2.0 is supported on all of the same operating systems as WebSphere Application Server V7, except IBM i. The supported hardware is also the same as WebSphere Application Server V7. On Solaris and HP-UX, only silent installation is supported with the Installation Manager. On z/OS, the installation process does not use the Installation Manager. Instead, the product is installed by applying the required PTFs to the WebSphere Optional Materials FMID. For more information about the z/OS install see the IBM Education Assistant module for this feature pack named “Installation on the z/OS platform”.

Installation process

This section describes the process for installing the Feature Pack for OSGi Applications and Java Persistence API 2.0 using IBM Installation Manager.

Installation process

- Install WebSphere Application Server V7 and apply maintenance at least up to Fix Pack 9
- Download and install the IBM Installation Manager
- Configure the location of the product local repository (Optional)
- Import the appropriate application server into the Installation Manager
- Install the WebSphere Application Server Feature Pack for OSGi Applications and Java Persistence API 2.0.
- Perform additional configuration actions

Before installing the feature pack, you need to have WebSphere Application Server V7 installed with Fix Pack 9 applied. Next you will need to download and install IBM Installation Manager. You need it at level 1.3.4.1. Configuring a local product repository is optional because you can use the already configured remote repositories.

In order for the Installation Manager to be able to manage additions to your WebSphere Application Server V7 environment you must perform an action called an “import”, which makes Installation Manager aware of your WebSphere Application Server install.

Then you are ready to install the feature pack.

Finally, you will need to use the Profile Management Tool (PMT) to augment the servers on which you intend to use the feature pack.

Install the application server

- Install WebSphere Application Server V7
 - Information about how to install the application server is available on IBM Education Assistant
 - Network Deployment, Base, Base Trial, Express, Express Trial and Developers product editions are supported
 - The feature pack requires application server Fix Pack 9 or later
 - If you are installing into an application server with the Feature Pack for SCA 1.0.1 installed it must have Fix Pack 5 installed, therefore at service level 1.0.1.5.

You must have WebSphere Application Server V7 installed, at the appropriate maintenance level, before you can install the Feature Pack for OSGi Applications and Java Persistence API 2.0. If you do not have WebSphere Application Server installed and need information on how to do that you can see the IBM Education Assistant module included in the references of this presentation. The feature pack is supported on the Network Deployment, Base, Express, and Developers editions of the application server, including trial editions. You are not able to install the feature pack if your application server installation is not at least at the 7.0.0.9 service level and if you have the Feature Pack for SCA installed it must be at service level 1.0.1.5.



Install the IBM Installation Manager

- The IBM Installation Manager must be installed at version 1.3.4.1 or later in order to install the Feature Pack for OSGi Applications and Java Persistence API 2.0.
- The IBM Installation Manager is a free download and version 1.3.4.1 can be found at
 - <http://www-01.ibm.com/support/docview.wss?uid=swg24026310>
- Installation and update information is included on the page at the same link

The IBM Installation Manager at service level 1.3.4.1 is required to install the feature pack.

Given here is a link to the page where one can get the free download and see the instructions for the methods to either install fresh or update your existing copy of the Installation Manager.

Configure a local repository (optional)

- If you intend to install the feature pack on a system that does not have internet access, you need to download and configure a local repository
 - Download the local repository package and extract it
 - Open the **File > Preferences > Repositories** menu in the Installation Manager
 - Click the **Add Repository** button
 - Provide the path to the local repository in the **Add a repository** panel.

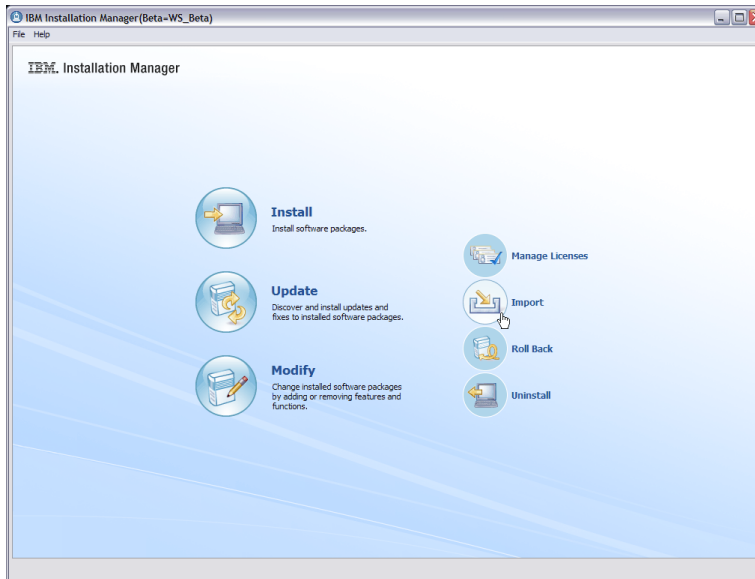
To use a local repository, download the local repository package and extract it from the archive file into a local directory.

Launch the Installation Manager and open the **File > Preferences > Repositories** menu.

Click the **Add Repository** button.

The **Add a repository panel** will display. Enter the complete path to the local repository you just extracted and click **OK**.

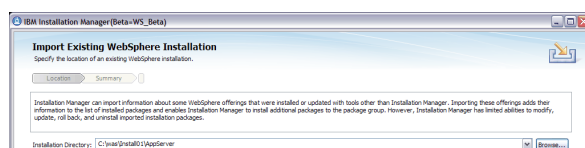
Import the application server (1 of 3)



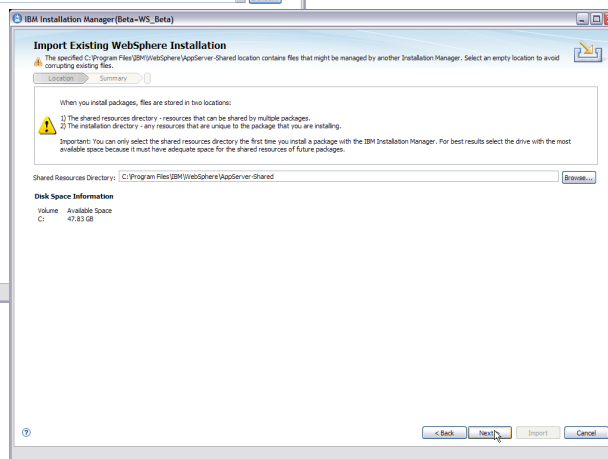
Click Import as the cursor is doing here to import your WebSphere Application Server instance

Before you can use Installation Manager to install any packages on top of WebSphere Application Server, you need to import the application server instance into the Installation Manager. Click the **Import** button to open the import wizard. The Import button is only visible after a WebSphere repository has been added to the repository list. If you do not see the Import button on the main Installation Manager panel, check your repository configuration to be sure you are pointing to a WebSphere repository.

Import the application server (2 of 3)



If this is the first package you have installed or imported Install Manager will ask you to verify the location of the shared resources directory

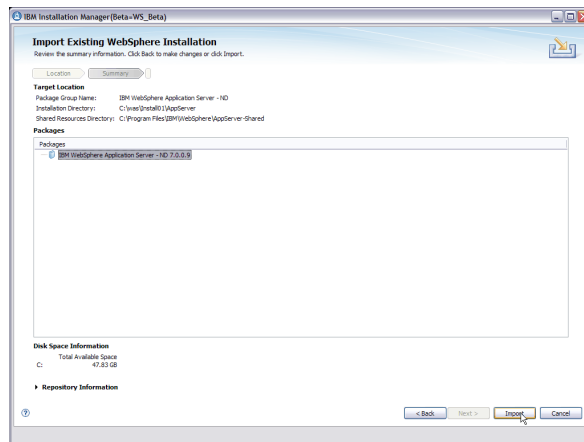


Enter the full path of your WebSphere Application Server instance

To import an application server instance, you need to provide the installation directory for that instance. You can either browse to the location using a standard file selection window or type the full path into the **Installation Directory** field. After providing the path, click **Next**.

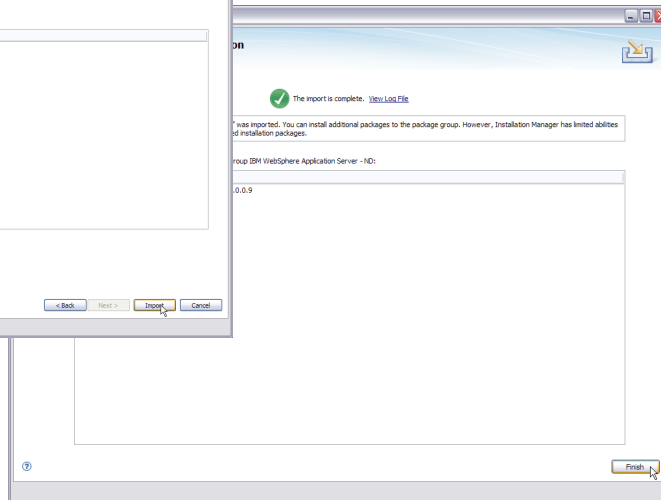
If this is a new copy of IBM Installation Manager you will be asked to verify a shared resources directory for the Installation Manager. The shared resources directory contains files that can be shared by multiple packages. You can only select the shared resources directory the first time you install a package with the Installation Manager. Be sure the location you choose has adequate space for shared resources of future packages. Click **Next** to keep going through the import wizard.

Import the application server (3 of 3)



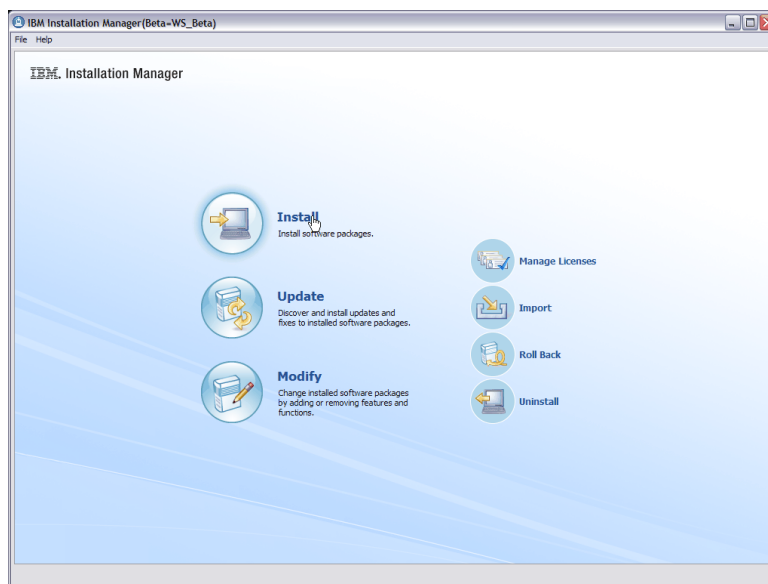
Verify that you are importing the correct package, then click **Import**

When the import operation completes, click **Finish** to return to the main panel



On the import verification panel, check the settings for the application server that you are importing, then click the **Import** button to import the application server into the Installation Manager. When the import operation completes, click **Finish** on the results panel to return to the main panel of the Installation Manager.

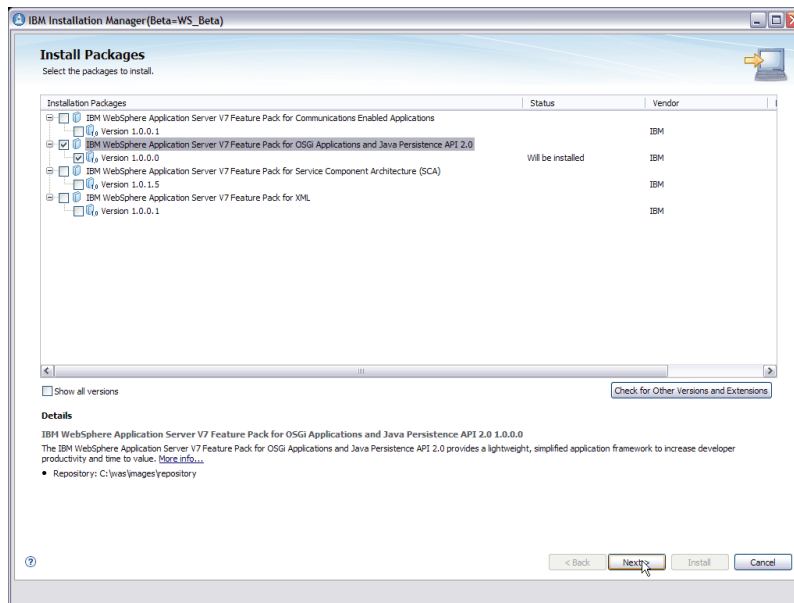
Install the feature pack (1 of 6)



Now click **Install** to begin installing the feature pack

Now that the Installation Manager knows about the application server on which you want to install the feature pack, you can begin the feature pack installation. Click the **Install** button on the main panel of the Installation Manager to start the installation wizard. You might be prompted to authenticate if you are using a remote repository and do not have your authentication credentials saved. If so, authenticate with your IBM ID.

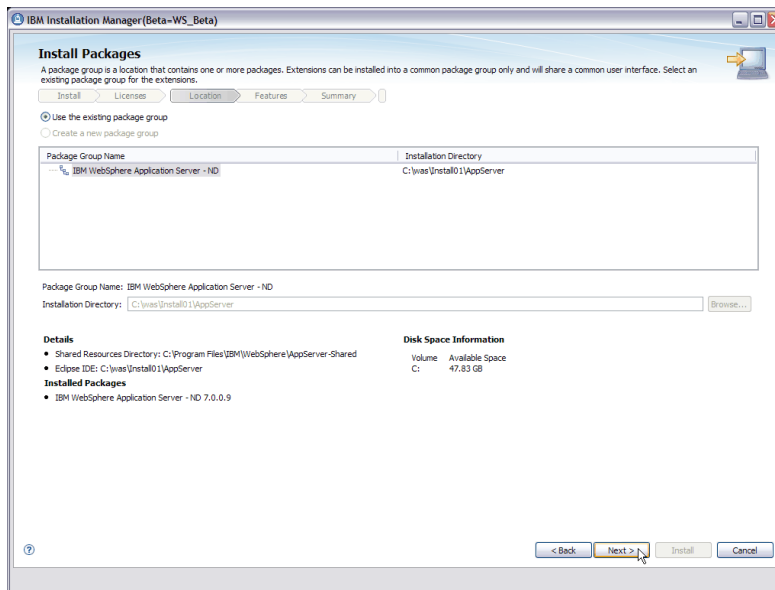
Install the feature pack (2 of 6)



Use the check boxes beside the Feature Pack for OSGi Applications and Java Persistence API 2.0 to select it for install

Depending on your repository configuration you might see multiple installation packages listed on the **Install Packages** panel. For example, if you are using the web repository you might see several feature packs in the list. Choose the IBM WebSphere Application Server Feature Pack for OSGi Applications and Java Persistence API 2.0 from the list of packages, then click **Next**. On the next panel, read and accept the license agreement in order to continue.

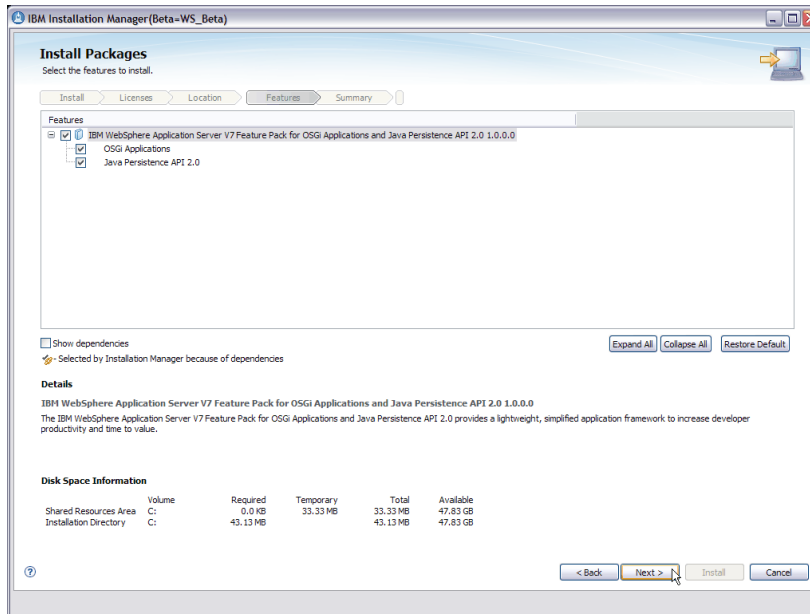
Install the feature pack (3 of 6)



Verify that the Installation Manager is going to use the correct package group

Verify that the feature pack is going to be installed into the correct package group. This should point to the WebSphere Application Server V7 installation that you imported into the Installation Manager. Click **Next** and continue through the wizard to install the feature pack.

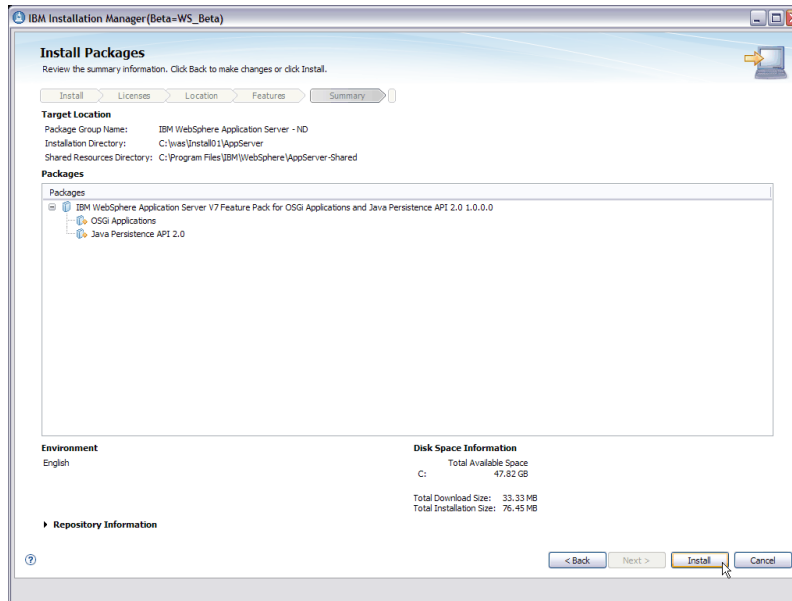
Install the feature pack (4 of 6)



If you are certain that you will never use one or the other of the features clear the check box to not install it. Otherwise install both features

This feature pack includes two features but you do not have to install both of them if you are only interested in one. On the **Select features to install** panel you can choose to install the OSGi Applications feature, the Java Persistence API 2.0 feature or both. To come back later and add or delete one function you can use the Modify function of Installation Manager rather than Install.

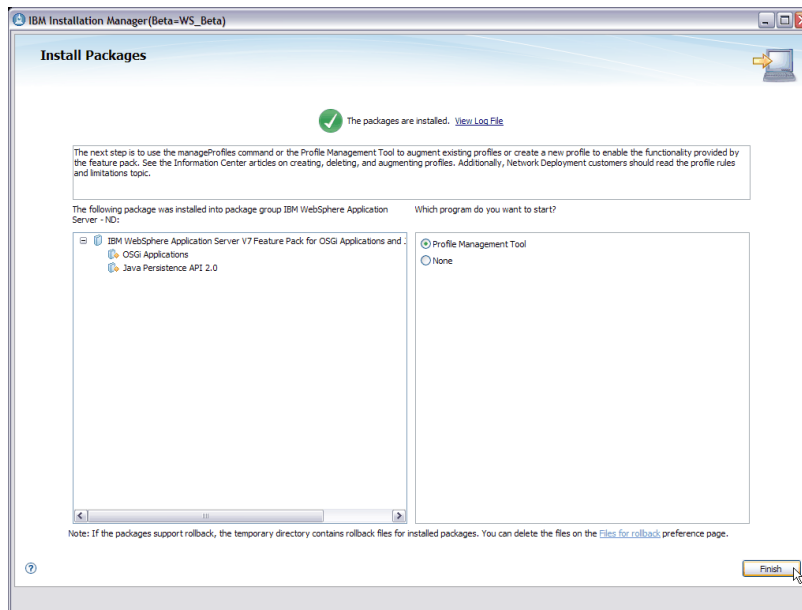
Install the feature pack (5 of 6)



Verify the installation summary and click **Install**

On the final **Install Packages** panel, verify the installation summary, then click **Install** to start the feature pack installation. If you are installing from a remote repository, the Installation Manger downloads only the files that you need for your operating system, based on the features that you selected to install. The time for completing the download of the product files will vary depending on the size of the download and throughput of your network. If you do not want to wait for the product files to download during product installation for each of your servers, consider doing a single download and using a local product repository.

Install the feature pack (6 of 6)



Verify the installation was a success and decide whether you want to launch the PMT now to configure your profiles to use the feature pack or if you want to defer that until later

When the installation completes, a success panel similar to the one shown here is displayed in the Installation Manager. Optionally, choose to start the Profile Management Tool (PMT) to configure your profiles for use with the feature pack. Note that the Profile Management Tool option is displayed even on platforms that do not support the PMT (for example, many 64-bit platforms); if you select to launch the PMT on any of these platforms, nothing happens. You can also choose not to do any profile configuration right away and come back later to create or augment profiles using either the PMT or the `manageprofiles` command. Click **Finish** to go back to the main panel of the Installation Manager.

Perform additional configuration actions

- Before using the Feature Pack for OSGi Applications and Java Persistence API 2.0, you need to either create or augment your profiles on which you intend to use it
- You will need to do a separate augment for each of the two features you intend to use, one for the OSGi Applications Feature and another for the Java Persistence API 2.0 feature

This completes the installation of the feature pack on distributed platforms. In order to use the features of the feature pack you will need to configure servers to use the features. If you want to use both features in the same server, you have two options. One is to augment an existing server with one of the features and then augment it again with the other. Another option is to create a new server which contains one of the features then augment it with the other feature.

Summary

- Supported software
 - The feature pack requires WebSphere Application Server to be at service level 7.0.0.9
 - IBM Installation Manager must be at service level 1.3.4.1
 - If the feature pack for SCA is installed it must be at service level 1.0.1.5
- Installation process
 - Add the required maintenance to WebSphere Application Server with Update Installer
 - Import your WebSphere Application Server instance into Installation Manager
 - Install the feature pack

This presentation first covered the software requirements for installing and running the feature pack and then the installation process.

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