IBM Software Group

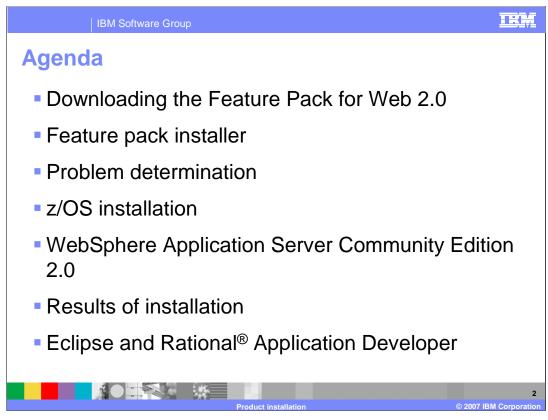# IBM WebSphere® Application Server Feature Pack for Web 2.0

Product installation

@business on demand.

This presentation is an overview of the IBM WebSphere Application Server Feature Pack for Web 2.0

Agenda

- Downloading the Feature Pack for Web 2.0

- Feature pack installer

- Problem determination

- z/OS installation

- WebSphere Application Server Community Edition 2.0

- Results of installation

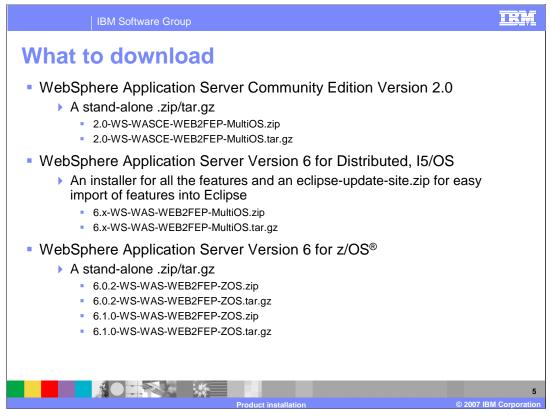- Eclipse and Rational® Application Developer

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The agenda for this presentation includes how to download the Feature Pack for Web 2.0, the results of installing the Feature Pack of Web 2.0, and how to work with Eclipse and Rational Application Developer.

Section

Downloading the Feature Pack for Web 2.0

This next section will explain where to download and how to install the Feature Pack for Web 2.0

Where to find the Feature Pack for Web 2.0

- Download the Feature Pack for Web 2.0 from:
  - The WebSphere Application Server Version 6.1 Feature Packs service page:

    http://www.ibm.com/software/webservers/appserv/was/featurepacks/
  - IBM Passport Advantage®

    http://www.ibm.com/software/howtobuy/passportadvantage/

The Feature Pack for Web 2.0 can be downloaded from the WebSphere Application Server Version 6.1 Feature Packs service Web site and from the IBM Passport Advantage Web site.

What to download

- WebSphere Application Server Community Edition Version 2.0
  - A stand-alone .zip/tar.gz
    - 2.0-WS-WASCE-WEB2FEP-MultiOS.zip
    - 2.0-WS-WASCE-WEB2FEP-MultiOS.tar.gz
- WebSphere Application Server Version 6 for Distributed, I5/OS
  - An installer for all the features and an eclipse-update-site.zip for easy import of features into Eclipse
    - 6.x-WS-WAS-WEB2FEP-MultiOS.zip
    - 6.x-WS-WAS-WEB2FEP-MultiOS.tar.gz
- WebSphere Application Server Version 6 for z/OS®
  - A stand-alone .zip/tar.gz
    - 6.0.2-WS-WAS-WEB2FEP-ZOS.zip
    - 6.0.2-WS-WAS-WEB2FEP-ZOS.tar.gz
    - 6.1.0-WS-WAS-WEB2FEP-ZOS.zip
    - 6.1.0-WS-WAS-WEB2FEP-ZOS.tar.gz
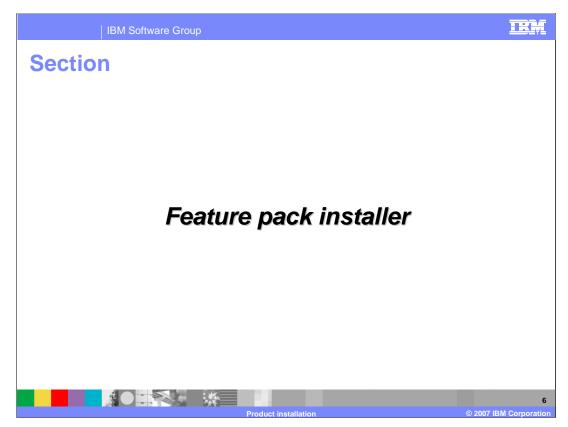
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What you install for the Feature Pack for Web 2.0 depends on what version of WebSphere Application Server you are running and your Operating System.
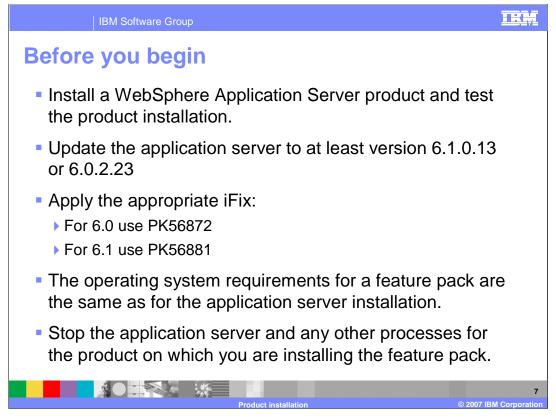
What you install for the Feature Pack for Web 2.0 depends on what version of WebSphere Application Server you are running and your Operating System.

For WebSphere Application Server Community Edition 2.0 a stand-alone archive containing features is provided. For WebSphere Application Server Version 6.0.2 and 6.1 on a Distributed or I5/OS system an installer that installs all the features is provided.

For WebSphere Application Server Version 6.0.2 and 6.1 on a Z/OS system a stand-alone archive containing features applicable to z/OS is provided.

Section

Feature pack installer

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The next section discusses the specifics of the Feature Pack for Web 2.0 installer.

Before you begin

- Install a WebSphere Application Server product and test the product installation.

- Update the application server to at least version 6.1.0.13 or 6.0.2.23

- Apply the appropriate iFix:
  - For 6.0 use PK56872
  - For 6.1 use PK56881

- The operating system requirements for a feature pack are the same as for the application server installation.

- Stop the application server and any other processes for the product on which you are installing the feature pack.
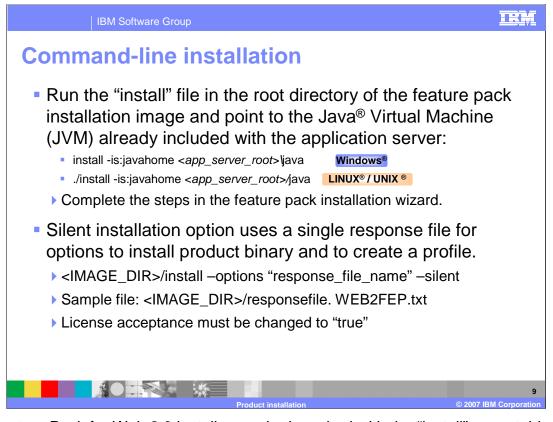
The Feature Pack for Web 2.0 is an optionally installable product extension for IBM WebSphere Application Server Version 6. Before starting this installation, you need to install a WebSphere Application Server Version 6 product if you have not done so already and apply the appropriate iFix.

The operating system requirements for a feature pack are the same as for the application server installation. However, you need to ensure that you have enough free disk space to install the feature pack onto the application server installation. You need to have 280 MB of free space available in your target installation directory and 250 MB of free space available in your temporary directory in addition to the required application server product.
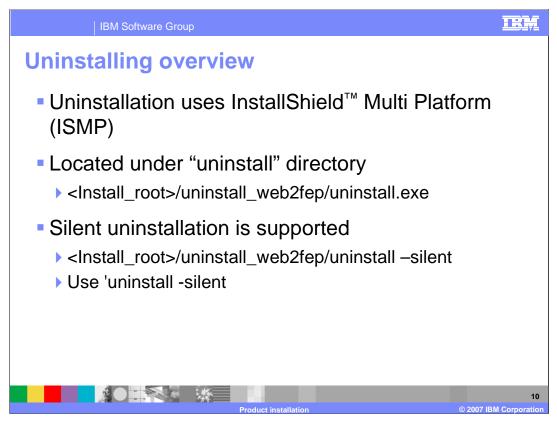
Make sure you stop the application server and any other processes for the product on which you are installing the feature pack.

Feature pack installation

- Installer uses ISMP (InstallShield Multi-platform)

- Provides support for graphical and silent installation
  - No Launchpad for the Feature Pack for Web 2.0
  - Can be invoked from the "install" executable file in the <install_image> directory
  - Silent installation uses a response file as input
  - Queries for other WebSphere Application Server installations

- Common logging and tracing strategy is used across the WebSphere Application Server and Feature Pack installers
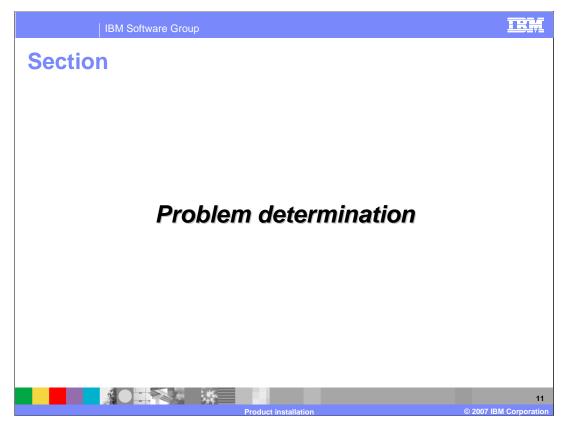
The installer for the Feature Pack for Web 2.0 uses the same InstallShield Multi-platform technologies as the WebSphere Application Server V6 installer. This provides support for graphical or silent installation run from the command line. Silent installation uses a response file, specific to the Feature Pack, that is provided as input to the command. The Feature Pack installer will check for other WebSphere Application Server V6 installation as part of installing. The Feature Pack for Web 2.0 uses the same logging and tracing strategy as the other WebSphere Application Server product installers.

Command-line installation

- Run the "install" file in the root directory of the feature pack installation image and point to the Java® Virtual Machine (JVM) already included with the application server:
  - install -is:javahome <*app_server_root*>\java **Windows®**
  - ./install -is:javahome <*app_server_root*>/java **LINUX® / UNIX ®**
  - ▸ Complete the steps in the feature pack installation wizard.

- Silent installation option uses a single response file for options to install product binary and to create a profile.
  - ▸ <IMAGE_DIR>/install –options "response_file_name" –silent
  - ▸ Sample file: <IMAGE_DIR>/responsefile. WEB2FEP.txt
  - ▸ License acceptance must be changed to "true"

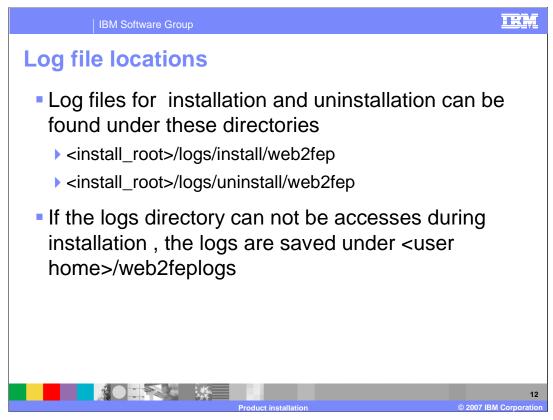Product installation

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The Feature Pack for Web 2.0 installer can be launched with the "install" executable file from the image directory. When running the installation you must point to the JVM already included with your application server. 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".

IBM

Uninstalling overview

- Uninstallation uses InstallShield™ Multi Platform (ISMP)

- Located under "uninstall" directory
  - ‣ <Install_root>/uninstall_web2fep/uninstall.exe

- Silent uninstallation is supported
  - ‣ <Install_root>/uninstall_web2fep/uninstall –silent
  - ‣ Use 'uninstall -silent

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Uninstalling the Feature Pack for Web 2.0 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 Web 2.0, but leave maintenance and the base WebSphere Application Server installation behind.

Section

Problem determination

The next section explains how to do problem determination on an installation of the Feature Pack for Web 2.0.

Log file locations

- Log files for installation and uninstallation can be found under these directories
  - ▸ <install_root>/logs/install/web2fep
  - ▸ <install_root>/logs/uninstall/web2fep

- If the logs directory can not be accesses during installation , the logs are saved under <user home>/web2feplogs

Log files contain information about installing, configuring and updating WebSphere Application Server components with the Feature Pack for Web 2.0 updates. The log file will initially be created in your current "temp" directory and then copied into the <Install Home>/logs/web2fep directory. If the installation is terminated before the file is copied, then it will remain in your "temp" directory.

Trace file

- Trace file contain more detailed than the main log.txt file

- These trace files are not translated and meant primarily for IBM service
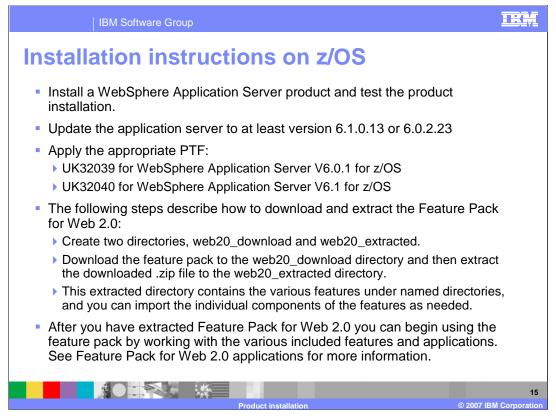 - ‣ <Install_root>*/logs/web2fep/install/trace.txt.gz*
  - ‣ <Install_root>*/logs/web2fep/install/trace.xml.gz*

- 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 intend 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 Web 2.0. 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.

Section

z/OS specifics

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This section discusses the specific installation concepts for z/OS.

Installation instructions on z/OS

- Install a WebSphere Application Server product and test the product installation.
- Update the application server to at least version 6.1.0.13 or 6.0.2.23
- Apply the appropriate PTF:
  - UK32039 for WebSphere Application Server V6.0.1 for z/OS
  - UK32040 for WebSphere Application Server V6.1 for z/OS
- The following steps describe how to download and extract the Feature Pack for Web 2.0:
  - Create two directories, web20_download and web20_extracted.
  - Download the feature pack to the web20_download directory and then extract the downloaded .zip file to the web20_extracted directory.
  - This extracted directory contains the various features under named directories, and you can import the individual components of the features as needed.
- After you have extracted Feature Pack for Web 2.0 you can begin using the feature pack by working with the various included features and applications. See Feature Pack for Web 2.0 applications for more information.

Product installation

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The Feature Pack for Web 2.0 is an optionally installable product extension for IBM WebSphere Application Server Version 6. Before starting this installation, you need to install a WebSphere Application Server Version 6.0 or 6.1 product if you have not done so already and apply the appropriate ++APARS.
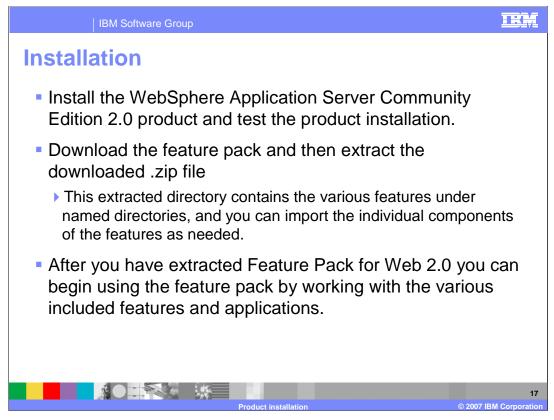
The features are in a platform neutral .zip file to be compatible with any development environment. You need 150 MB of free space available in your target installation directory.

To download and extract the Feature Pack for Web 2.0, first create two directories, web20_download and web20_extracted.

Download the feature pack to the web20_download directory and then extract the downloaded .zip file to the web20_extracted directory. This extracted directory contains the various features under named directories, and you can import the individual components of the features as needed.

The next section discusses the specific installation concepts for WebSphere Application Server Community Edition 2.0

Installation

- Install the WebSphere Application Server Community Edition 2.0 product and test the product installation.

- Download the feature pack and then extract the downloaded .zip file
  - ▶ This extracted directory contains the various features under named directories, and you can import the individual components of the features as needed.

- After you have extracted Feature Pack for Web 2.0 you can begin using the feature pack by working with the various included features and applications.
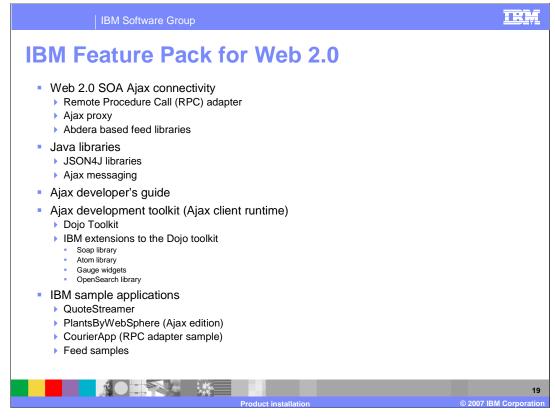
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Install the WebSphere Application Server Community Edition 2.0 product and test the product installation. 150 MB of free space must be available in your target installation directory.

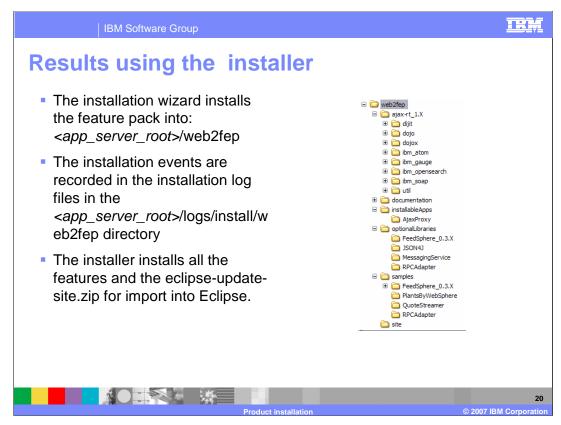Create two directories, web20_download and web20_extracted. Download the feature pack to the web20_download directory and then extract the downloaded .zip file to the web20_extracted directory. This extracted directory contains the features under named directories, and you can import the individual components as needed.

Section

Results of installation

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This section describes the results of the installation.

IBM Feature Pack for Web 2.0

- Web 2.0 SOA Ajax connectivity
  - Remote Procedure Call (RPC) adapter
  - Ajax proxy
  - Abdera based feed libraries
- Java libraries
  - JSON4J libraries
  - Ajax messaging
- Ajax developer's guide
- Ajax development toolkit (Ajax client runtime)
  - Dojo Toolkit
  - IBM extensions to the Dojo toolkit
    - Soap library
    - Atom library
    - Gauge widgets
    - OpenSearch library
- IBM sample applications
  - QuoteStreamer
  - PlantsByWebSphere (Ajax edition)
  - CourierApp (RPC adapter sample)
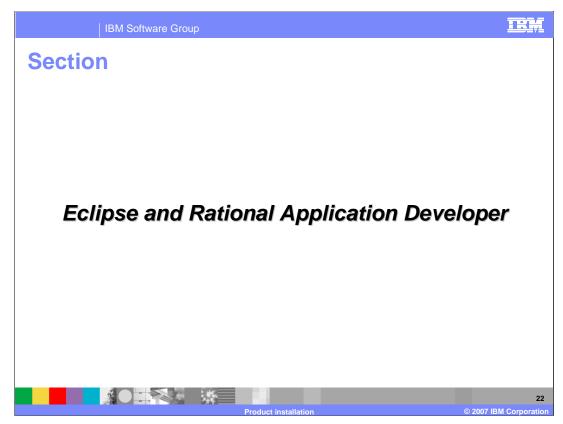 - Feed samples

The feature pack features include the Web 2.0 SOA Ajax connectivity, which consists of the Ajax proxy, Remote Procedure Call (RPC) adapter, and Abdera based feed libraries. Also included are the JSON4J and Ajax messaging Java libraries, the Ajax developer's guide and toolkit, and sample applications.

Results using the installer

- The installation wizard installs the feature pack into: *<app_server_root>*/web2fep

- The installation events are recorded in the installation log files in the *<app_server_root>*/logs/install/web2fep directory

- The installer installs all the features and the eclipse-update-site.zip for import into Eclipse.

```
web2fep
   ajax-rt_1.X
      dijit
      dojo
      dojox
      ibm_atom
      ibm_gauge
      ibm_opensearch
      ibm_soap
      util
   documentation
   installableApps
      AjaxProxy
   optionalLibraries
      FeedSphere_0.3.X
      JSON4J
      MessagingService
      RPCAdapter
   samples
      FeedSphere_0.3.X
      PlantsByWebSphere
      QuoteStreamer
      RPCAdapter
   site
```
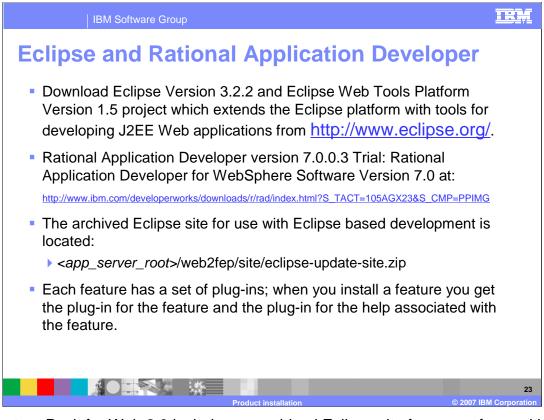
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The installation wizard installs the feature pack into the web2fep directory below where your application server is installed. The layout is shown here. The installer installs all the features and the eclipse-update-site.zip file for import into Eclipse. All installation events are recorded in the installation log files in the *<app_server_root>*/logs/install/web2fep directory. If you have any issues with installation look at the installation log files.

Results using the .zip file

- Unzip the Feature Pack for Web 2.0 .zip file.

- Each feature has it's own folder and each folder contains a documentation directory.

- Dojo toolkit is part of the Ajax Client Runtime and it is not a separate download.

```
2.0-WS-WASCE-WEB2FEP-MultiOS
    AjaxClientRuntime_1.X
        dijit
        documentation
        dojo
        dojox
        ibm_atom
        ibm_gauge
        ibm_opensearch
        ibm_soap
        licence
        util
    AjaxProxy
    CourierApp
    DeveloperGuide
    FeedSphere_0.3.X
    FeedSphere_Samples_0.3.X
    JSON4J
        documentation
        lib
    license
    MessagingService
    PlantsByWebSphere
    QuoteStreamer
    RPCAdapter
```
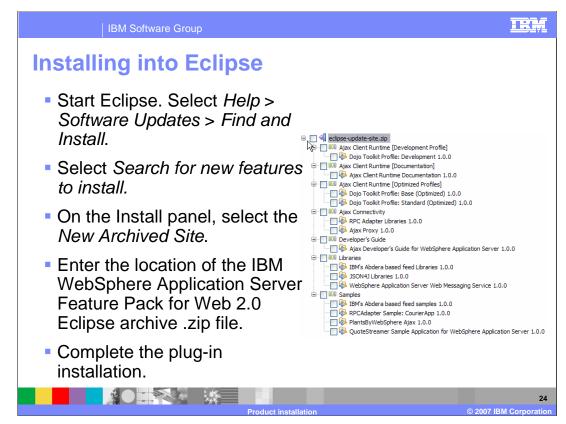
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When extracting the Feature Pack for Web 2.0 for WebSphere Application Server Community Edition 2.0 or WebSphere Application Server 6 on z/OS you will see the directory structure as shown here. Each feature of the Feature Pack has its own folder where each folder contains a documentation directory.
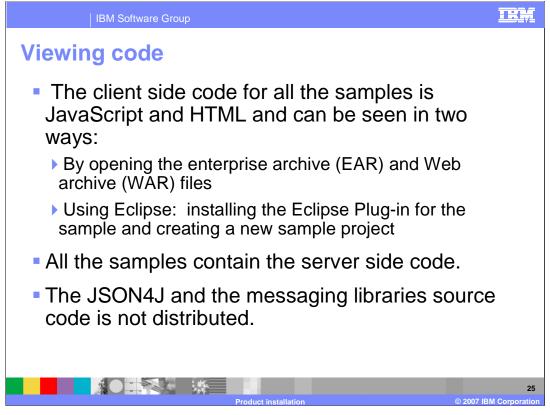
This section will cover Eclipse and Rational Application Developer

Eclipse and Rational Application Developer

- Download Eclipse Version 3.2.2 and Eclipse Web Tools Platform Version 1.5 project which extends the Eclipse platform with tools for developing J2EE Web applications from http://www.eclipse.org/.

- Rational Application Developer version 7.0.0.3 Trial: Rational Application Developer for WebSphere Software Version 7.0 at:

  http://www.ibm.com/developerworks/downloads/r/rad/index.html?S_TACT=105AGX23&S_CMP=PPIMG

- The archived Eclipse site for use with Eclipse based development is located:

  ▸ *<app_server_root>*/web2fep/site/eclipse-update-site.zip

- Each feature has a set of plug-ins; when you install a feature you get the plug-in for the feature and the plug-in for the help associated with the feature.
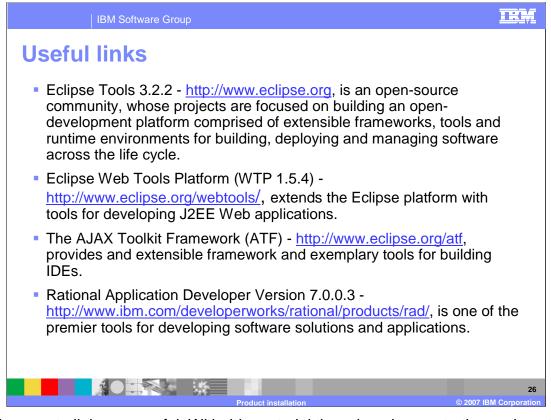
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The Feature Pack for Web 2.0 includes an archived Eclipse site for ease of use with Eclipse based development. The file location is shown here. Each feature has a set of plug-ins and when you install a feature you get the plug-in for the feature and the plug-in for the help associated with that feature. The Feature Pack for Web 2.0 works well with Eclipse Version 3.2.2, with Eclipse Web Tools Platform Version 1.5 and Rational Application Developer version 7.0.0.3
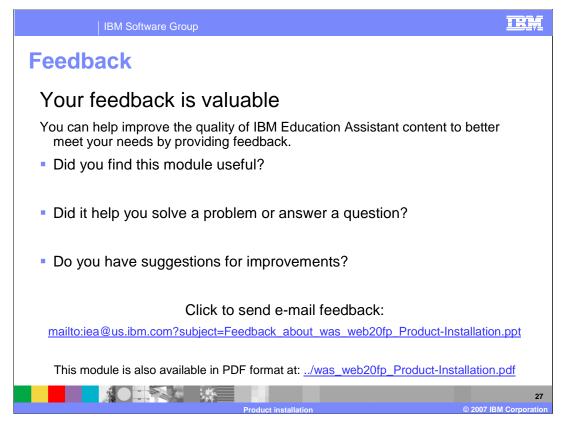
Installing into Eclipse

- Start Eclipse. Select *Help > Software Updates > Find and Install*.

- Select *Search for new features to install*.

- On the Install panel, select the *New Archived Site*.

- Enter the location of the IBM WebSphere Application Server Feature Pack for Web 2.0 Eclipse archive .zip file.

- Complete the plug-in installation.

eclipse-update-site.zip
  Ajax Client Runtime [Development Profile]
    Dojo Toolkit Profile: Development 1.0.0
  Ajax Client Runtime [Documentation]
    Ajax Client Runtime Documentation 1.0.0
  Ajax Client Runtime [Optimized Profiles]
    Dojo Toolkit Profile: Base (Optimized) 1.0.0
    Dojo Toolkit Profile: Standard (Optimized) 1.0.0
  Ajax Connectivity
    RPC Adapter Libraries 1.0.0
    Ajax Proxy 1.0.0
  Developer's Guide
    Ajax Developer's Guide for WebSphere Application Server 1.0.0
  Libraries
    IBM's Abdera based feed Libraries 1.0.0
    JSON4J Libraries 1.0.0
    WebSphere Application Server Web Messaging Service 1.0.0
  Samples
    IBM's Abdera based feed samples 1.0.0
    RPCAdapter Sample: CourierApp 1.0.0
    PlantsByWebSphere Ajax 1.0.0
    QuoteStreamer Sample Application for WebSphere Application Server 1.0.0

You can easily import the eclipse-update-site.zip file into Eclipse.

Viewing code

- The client side code for all the samples is JavaScript and HTML and can be seen in two ways:
  - ▸ By opening the enterprise archive (EAR) and Web archive (WAR) files
  - ▸ Using Eclipse: installing the Eclipse Plug-in for the sample and creating a new sample project
- All the samples contain the server side code.
- The JSON4J and the messaging libraries source code is not distributed.

Product installation   © 2007 IBM Corporation

The client side code for all the samples is included so that you can better understand how to use the features of the Feature Pack. The JSON4J and the messaging libraries source code are not distributed.

Useful links

- Eclipse Tools 3.2.2 - http://www.eclipse.org, is an open-source community, whose projects are focused on building an open-development platform comprised of extensible frameworks, tools and runtime environments for building, deploying and managing software across the life cycle.

- Eclipse Web Tools Platform (WTP 1.5.4) - http://www.eclipse.org/webtools/, extends the Eclipse platform with tools for developing J2EE Web applications.

- The AJAX Toolkit Framework (ATF) - http://www.eclipse.org/atf, provides and extensible framework and exemplary tools for building IDEs.

- Rational Application Developer Version 7.0.0.3 - http://www.ibm.com/developerworks/rational/products/rad/, is one of the premier tools for developing software solutions and applications.

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The above note links are useful. With this material there is a demonstration on how to install the PlantsByWebSphere Application, how to create a PlantsByWebSphere project and how to publish the sample application into the Application Server. Another demonstration shows how to install Ajax proxy into Eclipse, how to create an Ajax proxy project, and how the proxy can be used with an example Web site.

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Product installation

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