Manage an IBM WebSphere Application Server installation on IBM i with IBM Web Administration for i

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IBM WebSphere® Application Server V8.0 and later is installed by IBM Installation Manager, which does not provide a graphical user interface (GUI) on the IBM i platform. IBM Web Administration for i provides an easy-to-use GUI to manage the WebSphere Application Server installations and fixes. This article introduces you how to use the GUI to install a new WebSphere Application Server instance and update it to the latest fix pack level.

Overview

The IBM Web Administration for i (for short: Web Admin) is a Web-based tool, which provides a full-function GUI for configuring and managing many Web technologies including IBM WebSphere Application Server on IBM i. WebSphere Application Server is an important product, offering a valuable option for a fast and flexible Java™ application server runtime environment and enhanced reliability and resiliency.

Starting with WebSphere Application Server V8.0, the product is installed using the IBM Installation Manager. IBM Installation Manager does not have a GUI for IBM i, so it's a bit complex to install and manage WebSphere Application Server on IBM i. The Web Admin, first made available with WebSphere Application Server V8.5, provides an easy-to-use GUI to manage the WebSphere Application Server installation and fixes on IBM i.

This article takes a real-world example to show you how to install the WebSphere Application Server V8.5 product and update the installation to the latest fix pack level.

Prerequisites

The WebSphere Application Server installation and fixes support on Web Admin is shipped by individual PTF SI48432 (IBM i 6.1) and SI48431 (IBM i 7.1). The best way to ensure these are installed on your system is to install the latest IBM HTTP Server group PTF:

- IBM i 6.1 - SF99115 Level 30
- IBM i 7.1 - SF99368 Level 19

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Before installing WebSphere Application Server on your system, make sure the following requirements are met.

Table 1. IBM i 6.1 software requirements

Product name	License	Option	Release
IBM J2SE 6.0 32 bit	5761JV1	11	IBM i 6.1
Host servers	5761SS1	12	IBM i 6.1
Qshell	5761SS1	30	IBM i 6.1
Portable Application Solutions Environment (PASE)	5761SS1	33	IBM i 6.1
IBM i Digital Certificate Manager	5761SS1	34	IBM i 6.1
Extended Base Directory Support	5761SS1	3	IBM i 6.1
IBM HTTP Server for i	5761DG1	*BASE	IBM i 6.1

Table 2. IBM i 7.1 software requirements

Product name	License	Option	Release
IBM J2SE 6.0 32 bit	5761JV1	11	IBM i 6.1
Host servers	5770SS1	12	IBM i 7.1
Qshell	5770SS1	30	IBM i 7.1
PASE	5770SS1	33	IBM i 7.1
IBM i Digital Certificate Manager	5770SS1	34	IBM i 7.1
Extended Base Directory Support	5770SS1	3	IBM i 7.1
IBM HTTP Server for i	5770DG1	*BASE	IBM i 7.1

Table 3. IBM i 6.1 Group PTF requirements

Number	Minimum level	Note
SF99610	11256	Cumulative packages
SF99601	24	DB2 for i
SF99562	18	Java
SF99115	28	IBM HTTP Server

Table 4. IBM i 7.1 Group PTF requirements

Number	Minimum level	Note
SF99710	11116	Cumulative packages
SF99701	12	DB2 for i
SF99572	7	Java
SF99368	16	IBM HTTP Server

Installing WebSphere Application Server

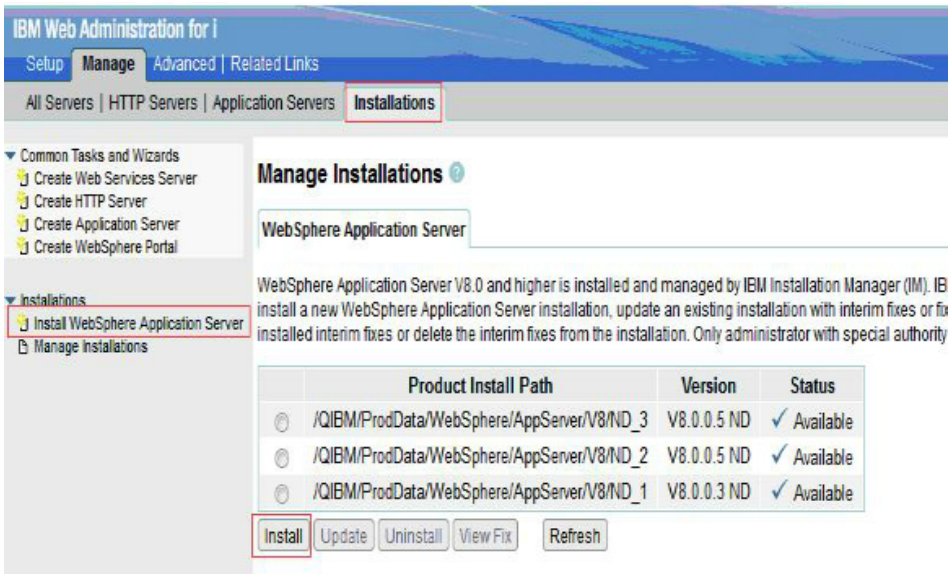
First the WebSphere Application Server V8.5 product needs to be installed before you can upgrade it to the latest fix pack level.

Start the "Admin" servers on your IBM i system by using the Start TCP Server (STRTCPSVR) command:

```
STRTCPSVR *HTTP SERVER(*ADMIN)
```

A new tab called Installations has been added to the Web Admin GUI to support installing WebSphere Application Server V8.0 and later installations. To perform the Installation Manager operations, special authorities *ALLOBJ & *SECADM are required. To launch the Install WebSphere Application Server wizard, in the left navigation pane, click **Install** or **Install WebSphere Application Server**. This wizard walks you through the process to install a new product and all available fixes provided in the product packages.

Figure 1. Manage installations – launch the Install WebSphere Application Server wizard



Step 1: Welcome

Welcome information for the installation wizard.

Step 2: Installing Installation Manager

If the Installation Manager tool is missing on your system, the wizard helps to install it first with the provided packages location. In order for your application server to be installed it leverages the Installation Manager tool. The Installation Manager packages can be downloaded from the Installation Manager Web Site.

Figure 2. Installing Installation Manager

Step 3: Specifying the product installation packages location

Specify the WebSphere Application Server V8.5 product installation packages location on a local or remote system. If authentication is required to access the remote system, you need to specify the user ID and password.

Figure 3. Specifying the product installation packages location

Step 4: Selecting to install the Liberty profile feature

The Liberty profile is an optionally installable feature of the WebSphere Application Server product. It is a new lightweight application foundation provided starting with WebSphere Application Server V8.5. It is a fast-to-start, dynamic application server runtime environment for Web and Open Services Gateway initiative (OSGi) applications.

You can select to install the Liberty profile together with the WebSphere Application Server. It is installed to the path *Product_Install_Path*/wlp.

Figure 4. Selecting to install the Liberty profile

Step5: Upgrading Installation Manager

To install WebSphere Application Server on IBM i, there is requirement for the minimal version of the Installation Manager:

- WAS V8.0 - Installation Manager V1.4.3

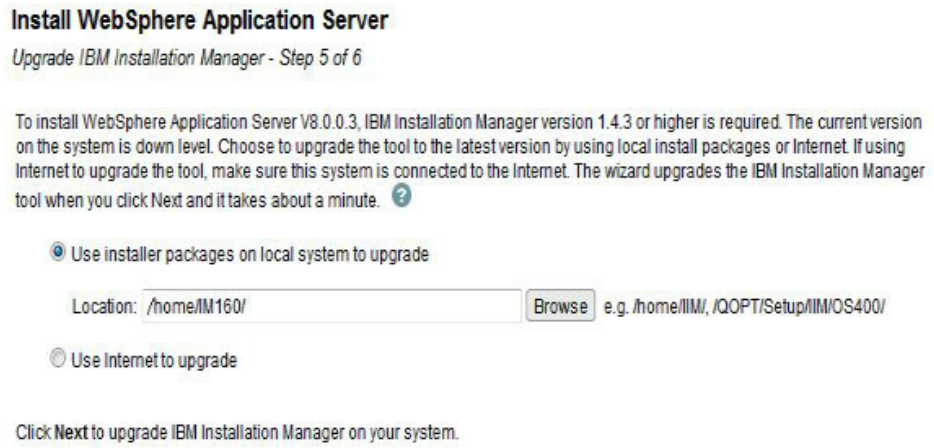
- WAS V8.5 - Installation Manager V1.5.2

Use the following command to check the Installation Manager version installed on your system:

```
/qibm/proddata/installationmanager/eclipse/tools/imcl version
```

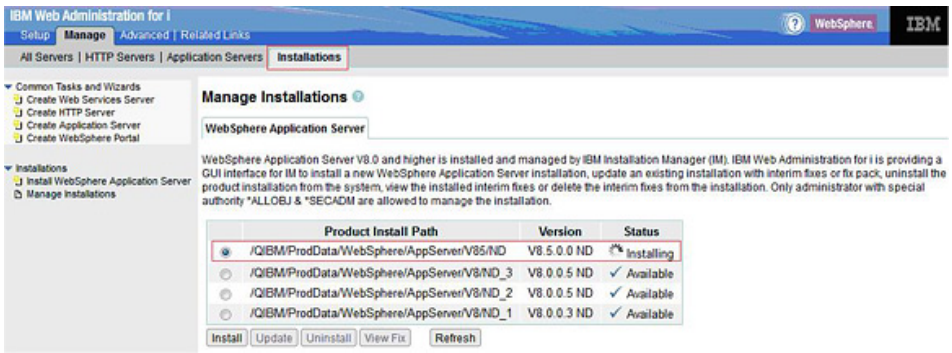
If the Installation Manager on your system is not at the required level (or higher), the wizard helps to upgrade it. Download the proper version from the Installation Manager web site (the latest Installation Manager version as of the publication of this article is V1.6.1) to the local system or select to upgrade from the Internet in case your system has Internet access.

Figure 5. Upgrading Installation Manager



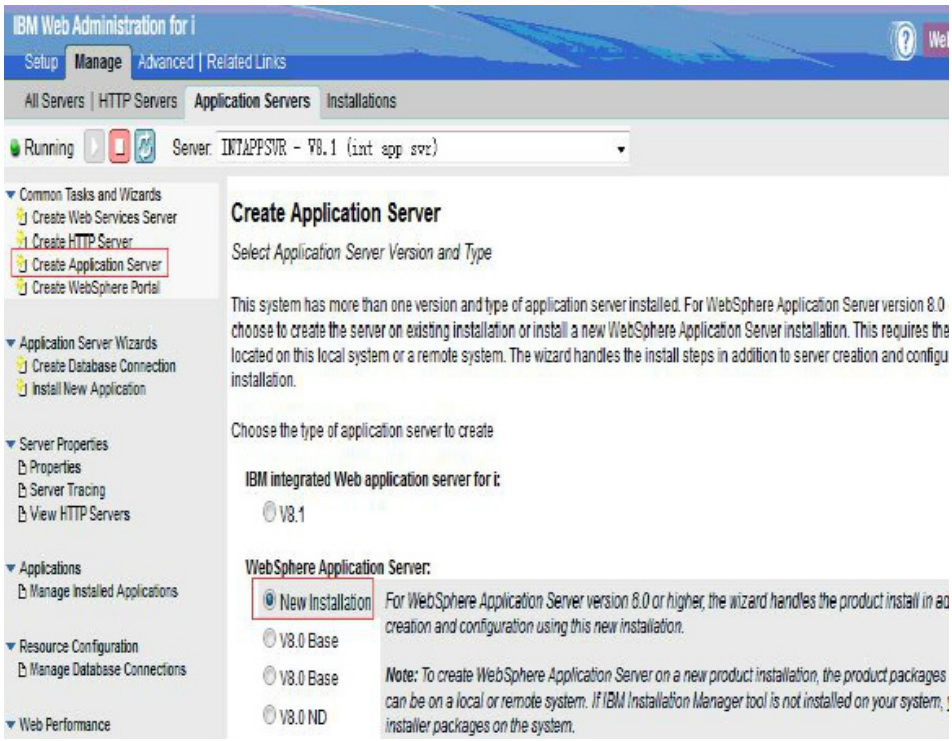
When you complete the wizard, the new WebSphere Application Server V8.5 installation with an Installing status is shown on the Manage Installations page. The status changes to Available after the product is installed successfully.

Figure 6. Status of the new installation



Besides the above Install WebSphere Application Server wizard to install a new product on the system, the Web Admin GUI also provides a "Create Application Server" > "New Installation" wizard, to support installing a new product and creating a new profile within one wizard. If you do not need to upgrade your installation (to the latest fix pack level) before creating a profile, you can follow the New Installation wizard to create a profile based on the new installation.

Figure 7. New Installation wizard

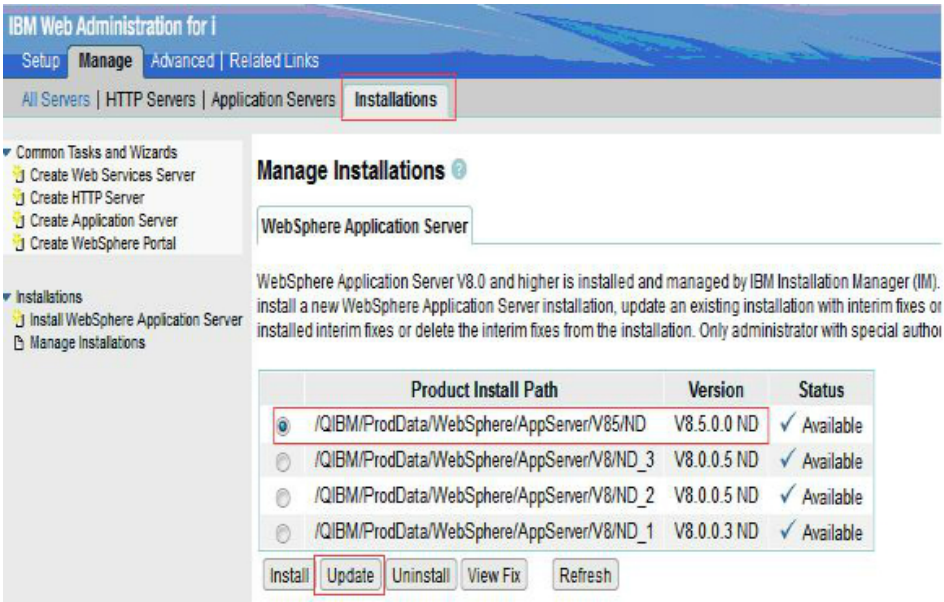


Updating WebSphere Application Server

After the WebSphere Application Server V8.5 has been installed on the system, we are now going to update it to the latest level, in this case V8.5.0.1, by installing a fix pack. Product fix packs contain bundled service to bring the WebSphere Application Server up to a new product level. Interim fixes provide corrective service for specific known problems. For the latest fixes information and fixes packages, refer to IBM Fix Central.

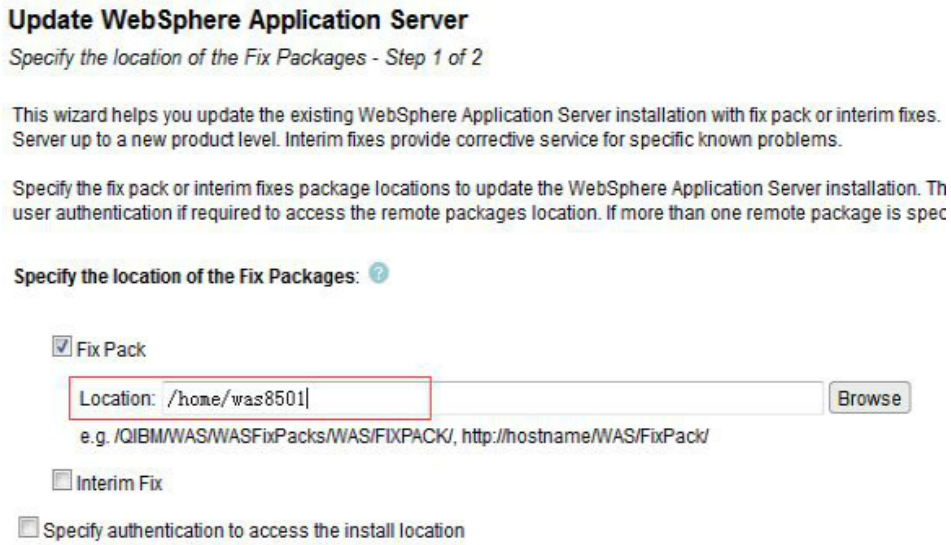
Choose the WebSphere Application Server installation that you want to update and click **Update** to launch the Update WebSphere Application Server wizard.

Figure 8. Managing installations – launching the Update WebSphere Application Server wizard



Specify the fix pack (or interim fixes, or both) packages location. In our example, we have downloaded and extracted the WebSphere Application Server V8.5.0.1 fix pack packages to the local system: */home/was8501*.

Figure 9. Specifying the location of the fix packages

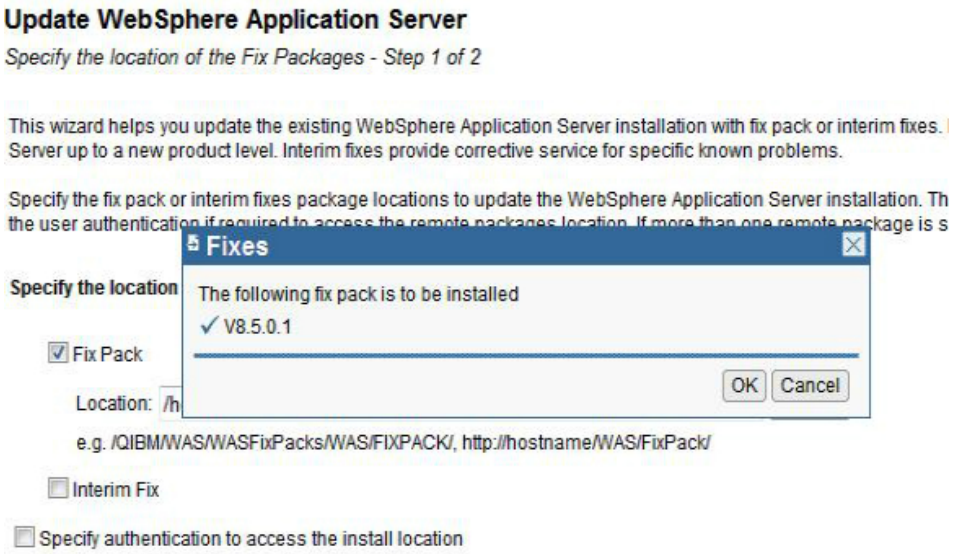


You can choose to install interim fixes to the installation together with the fix pack or separately. If the fix pack is located on a remote server that requires authentication to access, specify the authentication information on the above page.

The wizard checks the packages found at the location that you have specified. All available fixes for the installation (fix pack level higher than current and interim fixes not installed on the

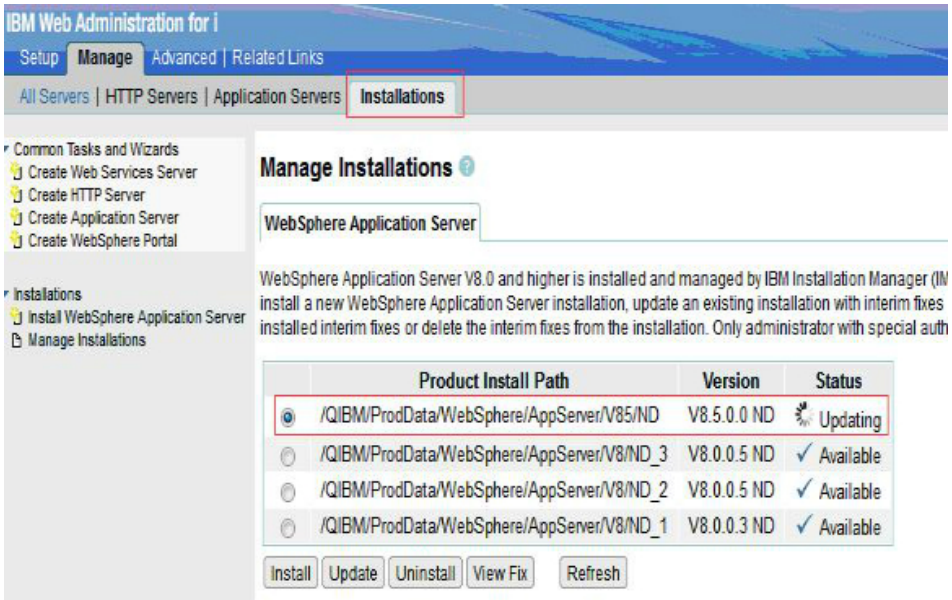
installation) are listed for you to install. In our example, we only specify the WebSphere Application Server V8.5.0.1 fix pack. If there were interim fixes also found in the product packages, they would be shown in Figure 10.

Figure 10. Listing all available fixes



After you click **Finish**, the WebSphere Application Server installation has an Updating status.

Figure 11. Installation in Updating status



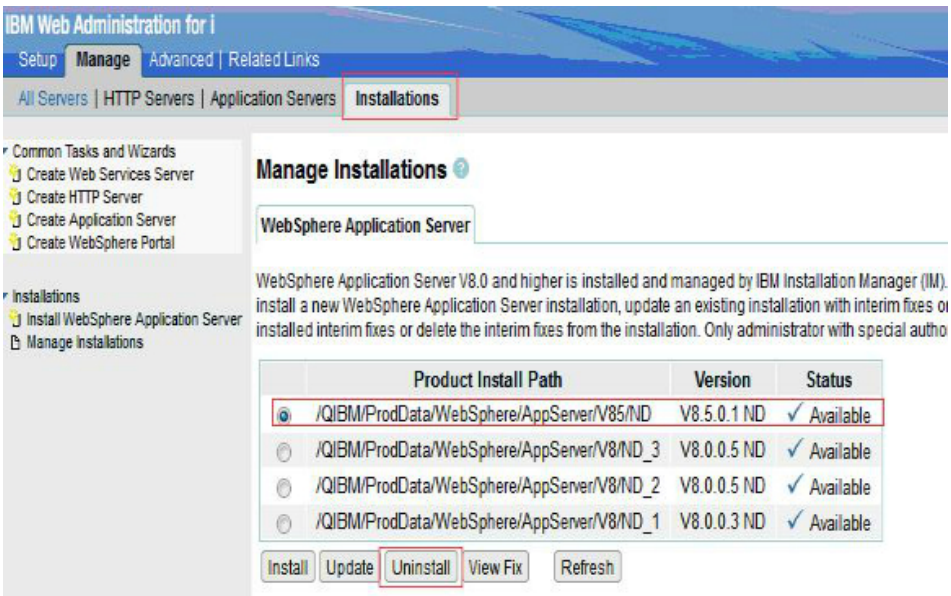
After the update has been completed successfully, the status changes to Available and the Version turns to V8.5.0.1 ND. Click **View Fix** to also find all installed fixes for this installation. For this example, you can find see from Figure 12 that the installation fix level is V8.5.0.1 and there are no interim fixes installed. If interim fixes have been installed, they will be listed in the table and you also can select to delete them from the installation as see on the following page.

Figure 12. View the fix installed on the installation

Now WebSphere Application Server V8.5 with the latest fix pack V8.5.0.1 has been installed on the IBM i system. You can continue to create WebSphere Application Server profiles to run Web applications by clicking **Create Application Server wizard** found in the Web Admin interface.

When an installation is not needed anymore, Web Admin GUI also provides an option to uninstall it from your system.

Figure 13. Managing installations – launching the Uninstall WebSphere Application Server wizard



Note that when you uninstall the installation from the system, all profiles based on this selected installation are deleted together.

Summary

IBM Web Administration for i provides an easy-to-use GUI to manage WebSphere Application Server V8.0 and later on IBM i. This article has introduced an example of how to use Web Admin to install a new WebSphere Application Server product, and update the installation to the latest

version with a fix pack. Using rich functions that Web Admin GUI provides for the WebSphere Application Server, you can manage your installation easily and effectively on IBM i.

Resources

- Find everything about the WebSphere Application Server V8.5 from the WebSphere Application Server V8.5 Information Center.
- To download or get more information about the WebSphere Application Server fixes at IBM Fix Central.
- Learn more about the IBM Installation Manager tool from the Installation Manager Information Center.
- Download the latest IBM Installation Manager V1.6.1 from the Installation Manager Web Site.

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