



WBSR85

WebSphere Application Server z/OS V8.5

Unit 5 – Installation Manager

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Installation Manager Overview

Why Installation Manager?

Using Installation Manager to Install WebSphere on z/OS.

Using Installation Manager to Apply Maintenance to WebSphere on z/OS.

Using Installation Manager to Install the WebSphere Customization Tool (WCT) on Windows.

Why Installation Manager?

Why Installation Manager?

Previous versions of WebSphere products have used a variety of different install and update tools. With WebSphere Application Server Version 8, Websphere-branded products are moving to a single cross-platform installer: IBM Installation Manager.

Moving to a single installer will:

- Simplify the overall installation and maintenance process for WebSphere products;

- Allow better coordination between base products, stack products, and feature packs;

- Provide direct electronic delivery of products and service in a consistent fashion across platforms.

Installation Manager documentation:

<http://publib.boulder.ibm.com/infocenter/install/v1r5/index.jsp>

But what about SMP/E?

Using Installation Manager to Install WebSphere on z/OS.

Multi-part Process.

Use SMPE to install the Installation Manager Install Kit.

Use SMPE to install the WebSphere on z/OS repository.

Use the Installation Manager Install Kit to create the Installation Manager.

Create the filesystem components for WebSphere on z/OS V8 and mount them at /Service.

Use Installation Manager to populate the filesystem components.

Talk about maintenance.

Creating an Installation Manager

A word about “mode”.

- Admin mode.
 - Uid=0
 - One per system.
- User mode.
 - Only the creating user.
 - One per userid.
- **Group mode.**
 - **Any userid connected to the group.**
 - **As many as you want per system.**

Security setup.

- One User and one Group.
- Access to the following:
 - FACILITY:
 - BPX.FILEATTR.APF READ
 - BPX.FILEATTR.PROGCTL READ
 - BPX.FILEATTR.SHARELIB READ
 - UNIXPRIV:
 - SUPERUSER.FILESYS.CHOWN READ
 - SUPERUSER.FILESYS.CHANGEPERMS READ

Creating an Installation Manager

Creating the filesystem.

Mountpoint: /Service/InstallationManager

Filesystem: WAS800.GRPMODE.GINHFS.ZFS

JOB: GIN.SGINJCL(GIN2CFS)

```
//SYSTSIN DD *
BPXBATCH SH +
  /usr/lpp/InstallationManager/V1R5/tools/zCreateFileSystem.sh +
    -name WAS800.GRPMODE.GINHFS.ZFS +
    -type ZFS +
    -volume NGIV8A +
    -cylinders 2500 250 +
    -mountpoint /Service/InstallationManager +
    -owner IMADMIN +
    -group IMGROUP
```

Creating an Installation Manager

Creating the Installation Manager.

Command: `groupinstc`

installationDirectory: `/Service/InstallationManager/bin`

dataLocation: `/Service/InstallationManager/appdata`

JOB: `GIN.SGINJCL(GIN2INST)`

```
//SYSTSIN DD *
BPXBATCH SH +
  /usr/lpp/InstallationManager/V1R5/groupinstc +
  -installationDirectory /Service/InstallationManager/bin +
  -dataLocation /Service/InstallationManager/appdata +
  -acceptLicense
/*
```

Installing WebSphere on z/OS V8 using the Installation Manager

Creating the filesystem.

Mountpoint: /Service/usr/lpp/zWebSphere/V8R0FP02

Filesystem: WAS800.V8R0FP02.SBBOHFS

JOB: BBO.SBBOJCL(BBO1CFS)

```
//SYSTSIN DD *
BPXBATCH SH +
  /Service/InstallationManager/bin/eclipse/tools/+
  zCreateFileSystem.sh +
    -name WAS800.V8R0FP02.SBBOHFS +
    -type ZFS +
    -volume WASV8A +
    -cylinders 3360 336 +
    -mountpoint /Service/usr/lpp/zWebSphere/V8R0FP02 +
    -owner IMADMIN +
    -group IMGROUP
/*
```

Installing WebSphere on z/OS V8 using the Installation Manager

A side discussion on repositories.

Local Repository: `/usr/lpp/InstallationManagerRepository/HBB0800`

IBM Hosted Repository:

`http://www.ibm.com/software/repositorymanager/com.ibm.websphere.zOS.v80`

Need for a userid/password to access.

Use the `saveCredential` Installation Manager command to create a “keyring”.

Note that you may need to add `repository.config` to the end of the url and change `http` to `https` for the `saveCredential` command.

```
:/Service/InstallationManager/bin/eclipse/tools.  
/imutilsc saveCredential -keyring /u/mjloos/imkeyring -url  
https://www.ibm.com/software/repositorymanager/com.ibm.websphere.z  
OS.v80/repository.config -userName mikeloos@us.ibm.com  
-userPassword ***** -proxyHost your.proxy.hostname -proxyPort  
yourproxyporntnumber -proxyUsername yourproxyuserid -proxyUserPassword  
*****
```

Successfully saved the credential to the keyring.

```
:/Service/InstallationManager/bin/eclipse/tools
```

Use of Proxy Servers

If your installation requires that you go through a proxy server, you'll have to add the following entries after the `-preferences` keyword on the `imcl` command.

```
com.ibm.cic.common.core.preferences.http.proxyEnabled=True,  
com.ibm.cic.common.core.preferences.http.proxyHost=<proxyName>,  
com.ibm.cic.common.core.preferences.http.proxyPort=<proxyPort>
```

As well as having the following on the `imutilsc saveCredential` command to get the proper entries stored on your keyring.

```
-userName youruserid  
-userPassword *****  
-proxyHost your.proxy.hostname  
-proxyPort yourproxyportnumber  
-proxyUsername yourproxyuserid  
-proxyUserPassword *****
```

Installing WebSphere on z/OS V8 using the Installation Manager

Let's see what's available.

IBM Hosted Repository:

<http://www.ibm.com/software/repositorymanager/com.ibm.websphere.zOS.v80>

Keyring: /u/mjloos/imkeyring

Use the `listAvailablePackages` Installation Manager command to see which fix packs are available.

```
:/Service/InstallationManager/bin/eclipse/tools
```

```
-> ./imcl listAvailablePackages -long -repositories
```

```
/usr/lpp/InstallationManagerRepository/HBBO800,+
```

```
http://www.ibm.com/software/repositorymanager/com.ibm.websphere.zOS.v80 -keyring
```

```
/u/mjloos/imkeyring
```

Partial output:

Fix Pack 1

```
http://www.ibm.com/software/repositorymanager/com.ibm.websphere.zOS.v80 :
```

```
com.ibm.websphere.zOS.v80_8.0.1.20110829_1901 : IBM WebSphere Application Server for
```

```
z/OS : 8.0.0.1
```

Fix Pack 2

```
http://www.ibm.com/software/repositorymanager/com.ibm.websphere.zOS.v80 :
```

```
com.ibm.websphere.zOS.v80_8.0.2.20111202_1716 : IBM WebSphere Application Server for
```

```
z/OS : 8.0.0.2
```

Installing WebSphere on z/OS V8 using the Installation Manager

version 8.5 Update.

```
//SYSTSIN DD *
BPXBATCH SH +
  /Service/InstallationManager/bin/eclipse/tools/imcl           +
  listAvailablePackages -long -features                       +
  -repositories                                              +
  /shared/InstallationManagerRepository/HBBO850,+
  http://www.ibm.com/software/repositorymanager+
  /com.ibm.websphere.zOS.v85                                 +
  -keyring /u/mjloos/imkeyring
/*
```

Output:

```
/shared/InstallationManagerRepository/HBBO850 : com.ibm.websphere.IHS.zOS.v85_8.5.0.20120501_1121 :
IBM HTTP Server for WebSphere Application Server for z/OS : 8.5.0.0 : core.feature

/shared/InstallationManagerRepository/HBBO850 : com.ibm.websphere.NDDMZ.zOS.v85_8.5.0.20120501_1118
: DMZ Secure Proxy Server for IBM WebSphere Application Server for z/OS : 8.5.0.0 :
core.feature,thinclient

/shared/InstallationManagerRepository/HBBO850 : com.ibm.websphere.PLG.zOS.v85_8.5.0.20120501_1122 :
Web Server Plug-ins for IBM WebSphere Application Server for z/OS : 8.5.0.0 : core.feature

/shared/InstallationManagerRepository/HBBO850 : com.ibm.websphere.zOS.v85_8.5.0.20120501_1118 : IBM
WebSphere Application Server for z/OS : 8.5.0.0 :
core.feature,ejbdeploy,thinclient,embeddablecontainer,samples,liberty
```

Installing WebSphere on z/OS V8 using the Installation Manager

Finally, let's install.

Local Repository: `/usr/lpp/InstallationManagerRepository/HBBO800`

IBM Hosted Repository:

`http://www.ibm.com/software/repositorymanager/com.ibm.websphere.zOS.v80`

Keyring: `/u/mjloos/imkeyring`

Installation Directory: `/Service/usr/lpp/zWebSphere/V8R0FP02`

JOB: `BBO.SBBOJCL(BBO1INST)`

Use the install command to cause Installation Manager to populate the target filesystem.

```
/SYSTSIN DD *
BPXBATCH SH +
  /Service/InstallationManager/bin/eclipse/tools/imcl           +
  install com.ibm.websphere.zOS.v80_8.0.2.20111202_1716        +
  -installationDirectory /Service/usr/lpp/zWebSphere/V8R0FP02  +
  -sharedResourcesDirectory                                     +
  /Service/InstallationManager/sharedResources                 +
  -repositories /usr/lpp/InstallationManagerRepository/HBBO800,+
  http://www.ibm.com/software/repositorymanager/com.ibm.websphere.zOS.v80 +
  -preferences com.ibm.cic.common.core.preferences.preserveDownlo+
  adedArtifacts=false -keyring /u/mjloos/imkeyring             +
  -acceptLicense
/*
```

Installing WebSphere on z/OS V8.5 using the Installation Manager (including Liberty feature)

Finally, let's install.

Local Repository: `/usr/lpp/InstallationManagerRepository/HBBO850`

IBM Hosted Repository:

`http://www.ibm.com/software/repositorymanager/com.ibm.websphere.zOS.v85`

Keyring: `/u/mjloos/imkeyring`

Installation Directory: `/Service/usr/lpp/zWebSphere/V8R5BASE`

JOB:

```
//SYSTSIN DD *
BPXBATCH SH +
 /Service/InstallationManager/bin/eclipse/tools/imcl +
 install com.ibm.websphere.zOS.v85,core.feature,liberty,+
 ejbdeploy,thinclient,+
 embeddablecontainer,samples +
 -installationDirectory /Service/usr/lpp/zWebSphere/V8R5BASE +
 -sharedResourcesDirectory +
 /Service/InstallationManager/sharedResources +
 -repositories +
 /shared/InstallationManagerRepository/HBBO850,+
 http://www.ibm.com/software/repositorymanager+
 /com.ibm.websphere.zOS.v85 +
 -preferences com.ibm.cic.common.core.preferences.preserveDownlo+
 adedArtifacts=false +
 -acceptLicense -keyring /u/mjloos/imkeyring
/*
```

Installing WebSphere on z/OS V8.5

Adding Java 7.

Finally, let's install.

Local Repository: `/usr/lpp/InstallationManagerRepository/HBJA700`

IBM Hosted Repository:

`http://www.ibm.com/software/repositorymanager/com.ibm.websphere.IBMJAVA.v70`

Keyring: `/u/mjloos/imkeyring`

Installation Directory: `/Service/usr/lpp/zWebSphere/V8R5BASE`

JOB:

```
//SYSTSIN DD *
BPXBATCH SH +
 /Service/InstallationManager/bin/eclipse/tools/imcl +
  install com.ibm.websphere.IBMJAVA.v70_7.0.1000.20120424_1539 +
  -installationDirectory /Service/usr/lpp/zWebSphere/V8R5BASE +
  -sharedResourcesDirectory +
  /Service/InstallationManager/sharedResources +
  -repositories +
  /shared/InstallationManagerRepository/HBJA700,+
  http://www.ibm.com/software/repositorymanager+
  /com.ibm.websphere.IBMJAVA.v70 +
  -preferences com.ibm.cic.common.core.preferences.preserveDownlo+
  adedArtifacts=false +
  -acceptLicense -keyring /u/mjloos/imkeyring
/*
```

Installing WebSphere on z/OS V8 using the Installation Manager

Next step...put it into use.

Currently mounted at `/Service`.

Unmount and remount at the “standard” location.

```
/usr/lpp/zWebSphere/V8R0FP02
```

Or, simply copy the filesystem to a newname, and mount it in the “standard” location.

If this is just the beginning of your use with V8, it would be appropriate to begin configuration processes.

If this is an “upgrade” to a new maintenance level, then it is time to start changing the intermediate symlinks as discussed earlier.

Using Installation Manager to Apply Maintenance to WebSphere on z/OS.

A little bit about maintenance.

- Maintenance.
 - Fix packs is installed as we have already shown
 - iFixes (similar to APARFIX)
 - Only in the /Service area.
- listAvailableFixes Installation Manager Command.

```
:/Service/InstallationManager/bin/eclipse/tools
```

```
-> ./imcl listAvailableFixes com.ibm.websphere.zOS.v80_8.0.2.20111202_1716  
-long -repositories /usr/lpp/InstallationManagerRepository/HBBO800,+  
http://www.ibm.com/software/repositorymanager/com.ibm.websphere.zOS.v80  
-keyring /u/mjloos/imkeyring -preferences +  
com.ibm.cic.common.core.preferences.http.proxyEnabled=True,+  
com.ibm.cic.common.core.preferences.http.proxyHost=<proxyName>,+  
com.ibm.cic.common.core.preferences.http.proxyPort=<proxyPort>
```

```
http://www.ibm.com/software/repositorymanager/com.ibm.websphere.zOS.v80 :  
8.0.0.2-WS-WAS-IFPM53930_8.0.2.20120112_0922 : recommended=true
```

Installing the iFix.

- A Sample Job.

```
//SYSTSIN DD *
BPXBATCH SH +
  /Service/InstallationManager/bin/eclipse/tools/imcl +
  install 8.0.0.2-WS-WAS-IFPM53930_8.0.2.20120112_0922 +
  -installDirectory /Service/usr/lpp/zWebSphere/V8R0FP02 +
  -repositories /usr/lpp/InstallationManagerRepository/HBBO800,+
  http://www.ibm.com/software/repositorymanager/+
  com.ibm.websphere.zOS.v80 +
  -preferences ce.zOS.v80c.common.core.preferences.preserveDownlo+
  adedArtifacts=false,+
  com.ibm.cic.common.core.preferences.http.proxyEnabled=True,+
  com.ibm.cic.common.core.preferences.http.proxyHost=<proxyName>,+
  com.ibm.cic.common.core.preferences.http.proxyPort=<proxyPort> +
  -keyring /u/mjloos/imkeyring +
  -acceptLicense
/*
```

Using Installation Manager to Install the WebSphere Customization Tool (WCT) on Windows.

Installing Installation Manager for Windows

First you have to find it...

Start with the WebSphere V8 Infocenter.

http://publib.boulder.ibm.com/infocenter/wasinfo/v8r0/index.jsp?topic=/com.ibm.websphere.zseries.doc/info/zseries/ae/welcome_zseries.html

Home Solutions Services Products Support & downloads My IBM

Search: installing wct Go Scope: zos

Search Results

Total 11 result(s) found for **installing wct**:

- Installing, updating, rolling back, and uninstalling the WebSphere Customization Toolbox
IBM Installation Manager is a common installer for many IBM software products that you use to install, update, roll back, and uninstall the WebSphere Customization Toolbox.
- Installing the WebSphere Customization Toolbox using response files
You can install the WebSphere Customization Toolbox using Installation Manager response files.
- Installing the WebSphere Customization Toolbox using the GUI**
You can use the Installation Manager GUI to

Network Deployment (All operating systems), Version 8.0 > Installing your application serving environment > z/OS > Installing and using the WebSphere Customization Toolbox > Installing, updating, rolling back, and uninstalling the WebSphere Customization Toolbox

Installing the WebSphere Customization Toolbox using the GUI

You can use the Installation Manager GUI to install the WebSphere® Customization Toolbox.

Before you begin

Install Installation Manager:

1. Perform one of the following procedures:
 - If you want to use the Installation Manager that is included with this product, perform the following actions:

Installing Installation Manager for Windows

Browsing down you'll find instructions.

- **Access the live repositories, and use web-based installation**

If you have a Passport Advantage ID and password, you can install the product from the web-based repositories.

- i. Install Installation Manager on your system.

You can install Installation Manager using the product media, using a file obtained from the Passport Advantage site, or using a file containing the most current version of Installation Manager from the [IBM Installation Manager download website](#).

- ii. Use Installation Manager to install the product from the web-based repository located at

```
http://www.ibm.com/software  
/repositorymanager  
/com.ibm.websphere.WCT.v80
```

Installing Installation Manager for Windows

After starting and opening the Installation Manager on your Desktop...

The image illustrates the process of adding a repository in IBM Installation Manager through four sequential steps:

- Click on File >> Preferences.** The first screenshot shows the 'IBM Installation Manager' application window with the 'File' menu open and 'Preferences...' selected.
- Click on Add Repository.** The second screenshot shows the 'Preferences' dialog box with the 'Repositories' section expanded and the 'Add Repository...' button highlighted.
- Enter the repository link you obtained from the InfoCenter.** The third screenshot shows the 'Add Repository' dialog box with the 'Repository:' field containing the URL: `http://www.ibm.com/software/repositorymanager/com.ibm.websphere.WCT.v80`.
- Click on OK.** The final screenshot shows the 'Add Repository' dialog box with the 'OK' button highlighted.

Installing Installation Manager for Windows

Respond to the password prompt with your IBM ID and password.



The screenshot shows a Windows-style dialog box titled "Password Required". The dialog contains the following elements:

- Title Bar:** "Password Required" with a close button (X) in the top right corner.
- Section Header:** "Password Required" in bold.
- Text:** "Credentials are required to connect to the IBM download site. Enter IBM ID and password."
- Input Fields:** Two text boxes. The first is labeled "User name:" and the second is labeled "Password:". Both are currently empty.
- Checkbox:** A checkbox labeled "Save password" which is currently unchecked.
- Warning:** A yellow warning triangle icon followed by the text: "Saved passwords are stored on your computer in a file which is difficult, but not impossible, for an intruder to read."
- Links:** Three blue hyperlinks: "[Forgot your IBM ID?](#)", "[Forgot your password?](#)", and "[IBM ID help and FAQ](#)".
- Buttons:** Two buttons at the bottom right: "OK" and "Cancel".

Installing Installation Manager for Windows

Now you're ready to install..

