

IBM WebSphere Portal

A Step-By-Step Guide to performing a standalone
WebSphere Portal 9.0 installation

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Introduction

This guide is meant to provide a step-by-step for the setup and installation of a standalone IBM WebSphere Portal 9.0. We will also cover prerequisites.

Windows/Unix Differences

This guide was written using Windows as the base operating system, however the steps/concepts listed in this guide are independent of operating system. The only significant difference is that for Windows, you must use the batch file commands instead of the UNIX shell commands listed in this guide.

For example:

UNIX: `./ConfigEngine.sh config-ch-integ`

Windows: `ConfigEngine.bat config-ch-integ`

Also, it is recommended to use the Command Prompt (cmd.exe) on Windows instead of PowerShell.

File system paths

The following tags are used to reference common file system paths.

<AppServer_root> - The root path of the AppServer directory, for example:

[C:\IBM\WebSphere\AppServer](#)

<PortalServer_root> - The root path of the PortalServer directory, for example:

[C:\IBM\WebSphere\PortalServer](#)

<wp_profile_root> - The root path of the wp_profile directory, for example:

[C:\IBM\WebSphere\wp_profile](#)

Troubleshooting

The following logs were used to troubleshoot errors encountered throughout the guide.

<IM_DATA_DIR>/logs

<IM_DATA_DIR>/installed.xml

<IM_DATA_DIR>/installed.xsl

<IM_DATA_DIR>/installRegistry.xml

<wp_profile root>/logs

<wp_profile root>/ConfigEngine/log/ConfigTrace.log

<AppServer root>/logs

The following location is defined IM_DATA_DIR

Unix: /<user_home>/var/ibm/InstallationManager

Windows: [C:\ProgramData\IBM\Installation](#) Manager

It is recommended to use the Portal Log Analyzer tool for parsing the SystemOut log and ConfigTrace log in an easy to read format. The tool can be accessed from Greenhouse here:

<https://greenhouse.lotus.com/plugins/plugincatalog.nsf/assetDetails.xsp?action=editDocument&documentId=C7AB4C82F17EC6228525790B006F6D43>

Preparing the environment

Review the detailed requirements technote to ensure that your system meets or exceeds the minimum requirements provided by IBM

<http://www-01.ibm.com/support/docview.wss?uid=swg27007791>

Note: with hard drive space, I would recommend you exceed the recommended minimum free space of 8GB to something like 20+GB.

It is recommended to review the Portal 9.0 Infocenter to ensure your operating system has been configured:

http://www.ibm.com/support/knowledgecenter/SSHRKX_9.0.0/mp/install/inst_web_experience.html

Downloading and Extracting binaries

WebSphere Portal has five different offerings. Server, Enable, Extend, WCM, and WCM SE. You will need to download one of these from Passport Advantage. You can find the component ids in the Portal 9.0 Infocenter link here:

http://www.ibm.com/support/knowledgecenter/SSHRKX_9.0.0/mp/dd/dd_passport9.html

In this guide, I will be installing the Enable offering.

The 4 required components are:

CNH1VML	IBM WebSphere Portal Enable Setup V9.0 Multiplatform Multilingual Part 1
CNH1WML	IBM WebSphere Portal Enable Setup V9.0 Multiplatform Multilingual Part 2.
CNH1XML	IBM WebSphere Portal Enable Setup V9.0 Multiplatform Multilingual Part 3
CNH1YML	IBM WebSphere Portal Enable Setup V9.0 Multiplatform Multilingual Part 4

Searching on CJ1A3ML should find you the eAssembly of the Enable offering. The eAssembly includes all 4 required components.

Once you have the parts downloaded, Create a parent folder. You should have something like this:

This PC > Local Disk (C:) > Users > Administrator > Downloads >

Name	Date modified	Type	Size
portal90Binaries	1/4/2017 8:38 PM	File folder	
WS_PORTAL_ENABLE_SU_V9.0_PART1_MP	1/4/2017 8:35 PM	Compressed (zipp...	2,779,005 KB
WS_PORTAL_ENABLE_SU_V9.0_PART2_MP	1/4/2017 8:30 PM	Compressed (zipp...	1,999,132 KB
WS_PORTAL_ENABLE_SU_V9.0_PART3_MP	1/4/2017 8:36 PM	Compressed (zipp...	1,595,602 KB
WS_PORTAL_ENABLE_SU_V9.0_PART4_MP	1/4/2017 8:45 PM	Compressed (zipp...	2,649,298 KB

Extract the zip files to a parent folder. Once all 4 parts are extracted, you should have a folder called SETUP under your parent folder.

This PC > Local Disk (C:) > Users > Administrator > Downloads > portal90Binaries >

Name	Date modified	Type
SETUP	1/4/2017 8:41 PM	File folder

Navigating into the SETUP folder, there is a Product folder that holds the files and repositories for WAS 9.0.0.2, JDK 8.0.3 , Portal 8.5.0.0, CF13 for Portal 8.5, Portal 9.0 and ifix PI59896.

Local Disk (C:) > Users > Administrator > Downloads > portal90Binaries > SETUP > products

Name	Date modified	Type	Size
IFPI59896	1/4/2017 8:41 PM	File folder	
JDK803	1/4/2017 8:47 PM	File folder	
WASND90	1/4/2017 8:46 PM	File folder	
WP85_Enable	1/4/2017 8:41 PM	File folder	
WP85_Server	1/4/2017 8:41 PM	File folder	
WP90_Enable	1/4/2017 8:41 PM	File folder	
WP90_Portal	1/4/2017 8:41 PM	File folder	
WP8500CF13_Server	1/4/2017 8:44 PM	File folder	

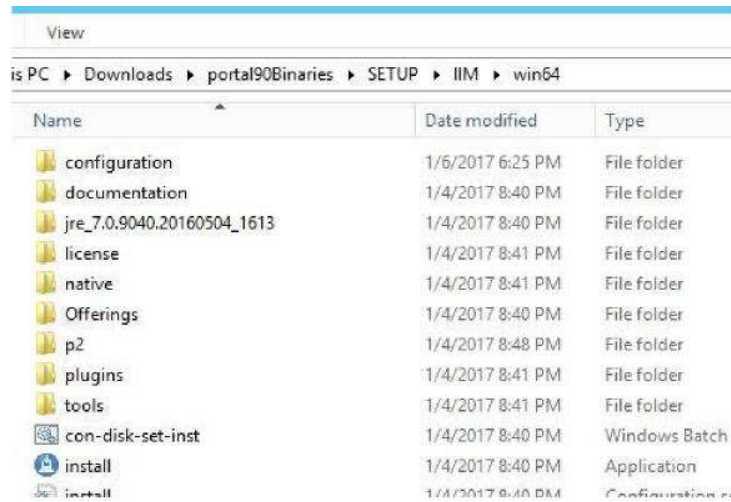
Installing IBM Installation Manager

The IBM Installation Manager, (IIM) is a tool that you can use to install and maintain your IBM software packages. Wizards guide you through the steps that you must take to install, modify, update, roll back, or uninstall your IBM products. To install IIM navigate to:

<C:\Users\Administrator\Downloads\portal90Binaries\SETUP\IIM> folder.

Within that folder, there are multiple IIM binaries for their relevant operating systems.

For this guide, I will be installing onto a Windows 2012 R2 system so will need to navigate to the win64 folder.

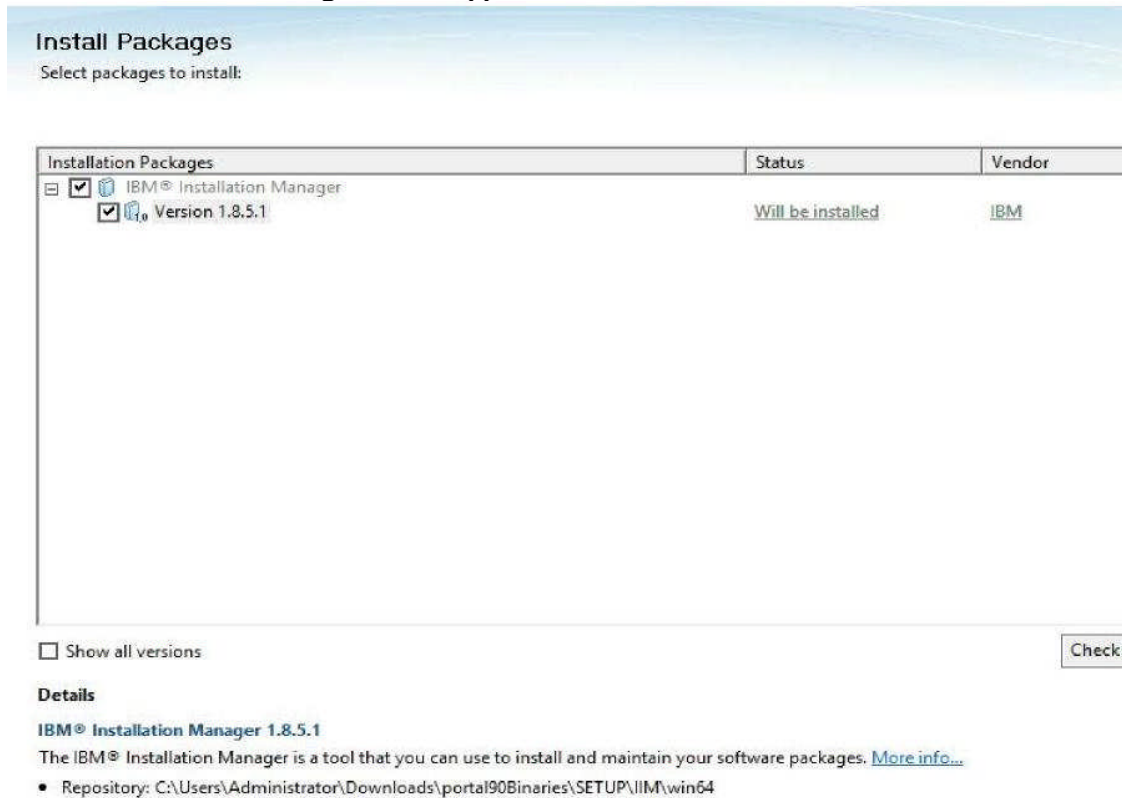


The screenshot shows a Windows File Explorer window with the address bar displaying the path: is PC > Downloads > portal90Binaries > SETUP > IIM > win64. The main area shows a list of files and folders with columns for Name, Date modified, and Type.

Name	Date modified	Type
configuration	1/6/2017 6:25 PM	File folder
documentation	1/4/2017 8:40 PM	File folder
jre_7.0.9040.20160504_1613	1/4/2017 8:40 PM	File folder
license	1/4/2017 8:41 PM	File folder
native	1/4/2017 8:41 PM	File folder
Offerings	1/4/2017 8:40 PM	File folder
p2	1/4/2017 8:48 PM	File folder
plugins	1/4/2017 8:41 PM	File folder
tools	1/4/2017 8:41 PM	File folder
con-disk-set-inst	1/4/2017 8:40 PM	Windows Batch
install	1/4/2017 8:40 PM	Application
install	1/4/2017 8:40 PM	Configuration

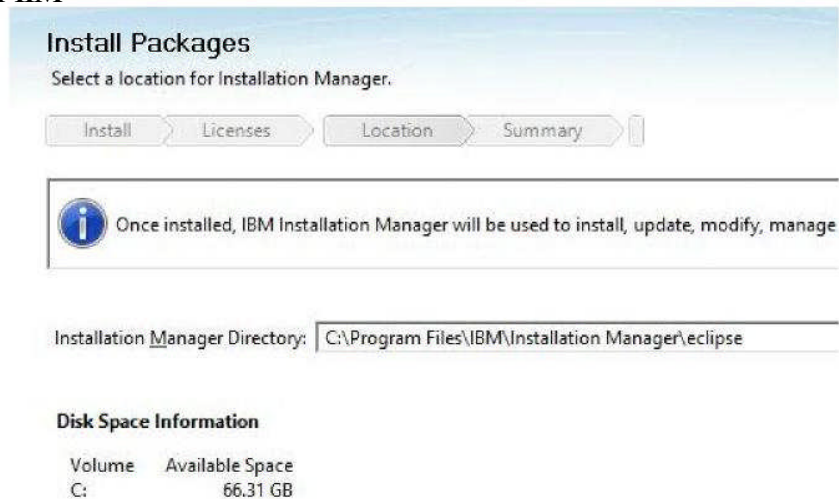
From here run the **Install.exe** file.

You should see the following window appear:



Select **Next**. Agree to the licensing terms and Select **Next** again.

Set install path for IIM



Select **Next**

Review the install summary and select **Install**.

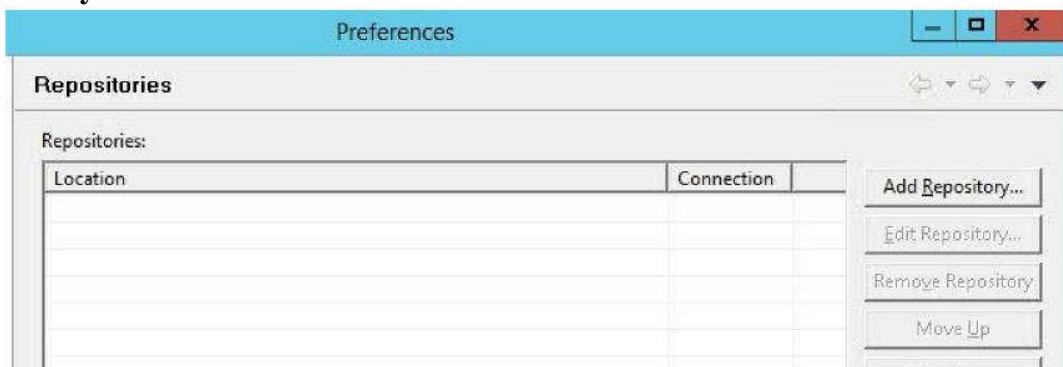
When the installation is complete, select the **Restart Installation Manager** button

Installing Portal 8.5 Base

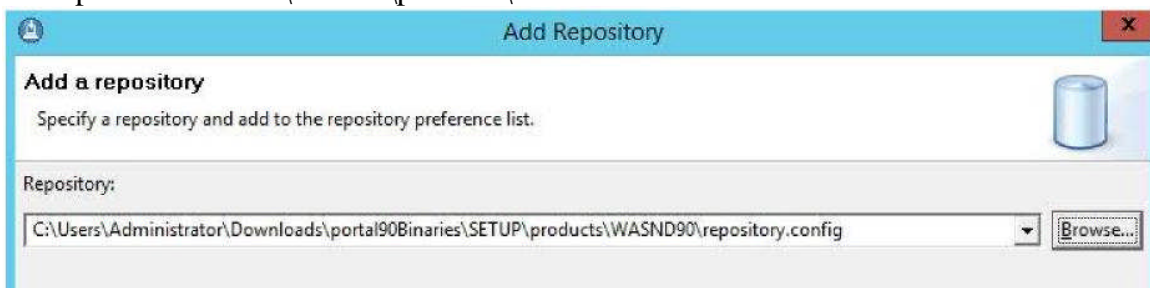
With a fresh install of Portal v9, the first step is to install the base Portal 8.5 with WAS 9.0.0.2 , JDK 8.0.3, and PI59896. Due to the continuous deployment model and how the product has been architected, this is not a one step install. Portal v9 is not applied until Portal 8.5 base has been installed and upgraded to CF13.

Note: the ifix PI59896 is required so that Portal 8.5 is in a installable state with WAS 9.0 and JDK v8. This is a temporary step while Portal environment is being built up to the final goal of Portal 9.0 on WAS 9.0. Portal 8.5 is NOT supported on WAS 9.0 as a final configuration.

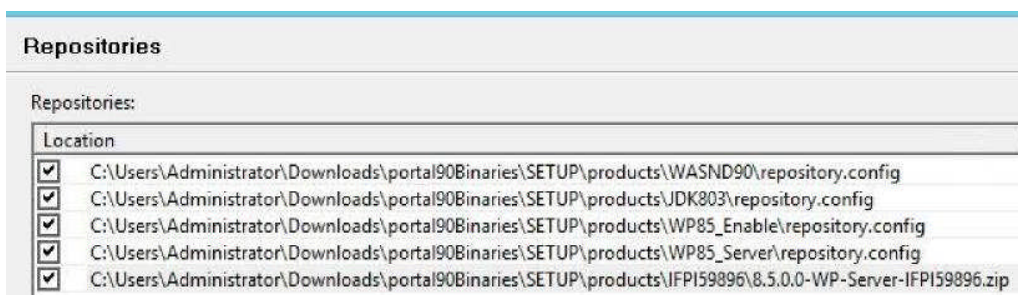
1. Open IBM Installation Manager (IIM) and under File > Preferences > Repositories and select the **Add Repository** button.



2. In the next IIM Window, we need to navigate to the repository.config file. In the screenshot, I navigate to portal90Binaries\SETUP\products\WASND90 and select the file.



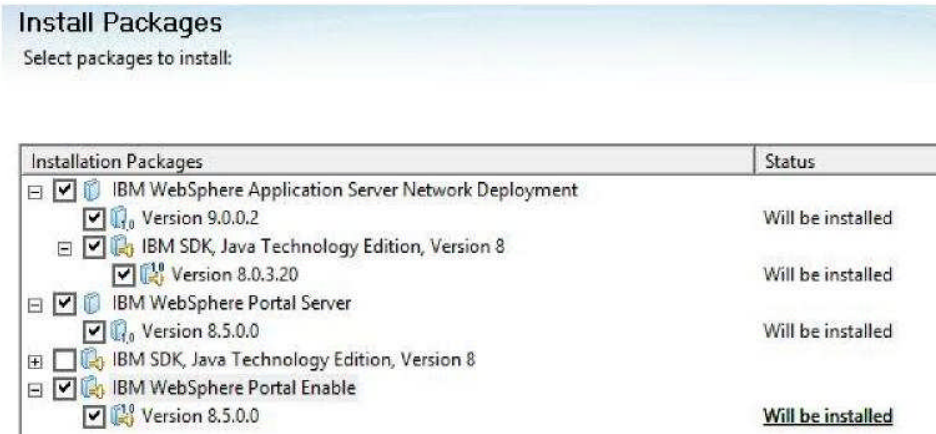
Continue adding the following repositories noted below:



Reminder: for the ifix PI59896, point the repository to the zip file itself

Select **OK**.

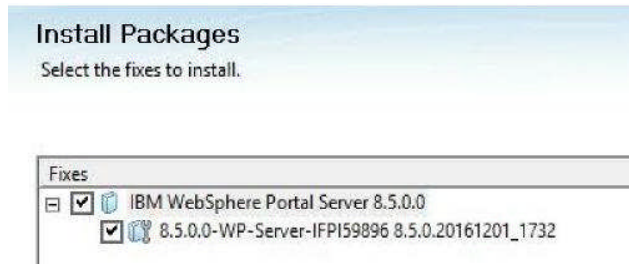
3. Within IIM, select **Install** icon, then highlight all the items listed:



Note: Due to the way WAS defines the SDK as a co-requirement, we get two entries for SDK. Both entries are the same package and only one needs to be selected.

Select **Next**

4. Select iFix listed:



Warning: This ifix is required for Portal 8.5 to be supported while on WAS 9.0 using JDK8

Select **Next**.

5. Accept terms of licensing agreement. Then Select **Next**

6. Set location of IMShared.

Install Packages

To run an application without administrative privileges on the current operating system, you must install the application package into a directory that is not virtualized. The Program Files directory on the current operating system is virtualized.

To run an application with administrative privileges after it is installed, right-click the package, and click "Run as administrator". [Show details...](#)

Install > Licenses > **Location** > Features > Summary

When you install packages, files are stored in two locations:

- 1) The shared resources directory - resources that can be shared by multiple packages.
- 2) The installation directory - any resources that are unique to the package that you are installing.

Important: You can only select the shared resources directory the first time you install a package with the IBM Installation Manager. For best results select the drive with the most available space because it must have adequate space for the shared resources of future packages.

Shared Resources Directory:

Select **Next**

7. Set the path you wish the WAS and Portal package to be installed:

Install Packages

The packages will be installed into the indicated package groups. Select the package group to change the installation directory.

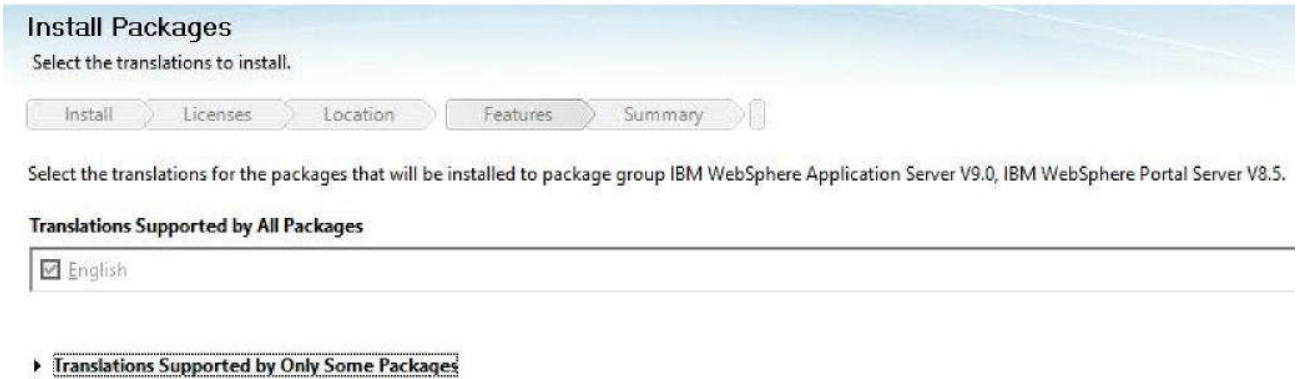
Install > Licenses > **Location** > Features > Summary

Package Group Name	Installation Directory
[-] IBM WebSphere Application Server V9.0	C:\IBM\WebSphere\AppServer
[-] IBM WebSphere Application Server Network Deployment 9.0.0.2	
[-] IBM SDK, Java Technology Edition, Version 8 8.0.3.20	
[-] IBM WebSphere Portal Server V8.5	<u>C:\IBM\WebSphere\PortalServer</u>
[-] IBM WebSphere Portal Server 8.5.0.0	
[-] 8.5.0.0-WP-Server-IFPI59896 8.5.0.20161201_1732	
[-] IBM WebSphere Portal Enable 8.5.0.0	

Note: The WebSphere Application Server package installation path will need to be customized as it tries to put it under the Program Files folder by default

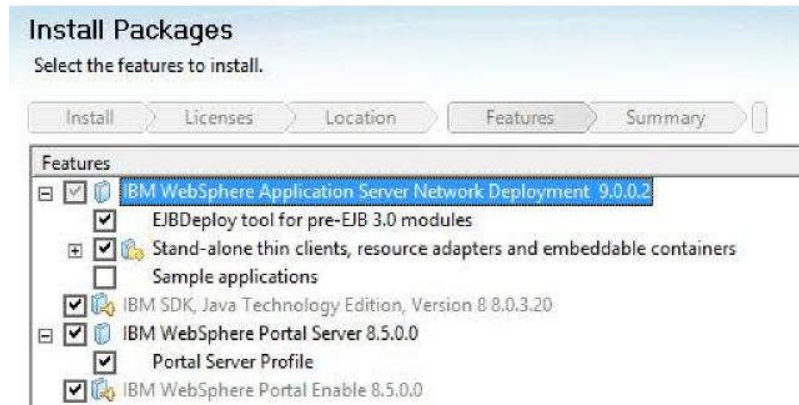
Select **Next**

7. Select the translations you wish to use.



Select **Next**

8. Review the packages that are going to be installed.



Select **Next**

9. Enter the user id and password for the ConfigWizard admin user. This user is used to access the configuration wizard for when you do your database transfer, or create your cluster, etc

Install Packages
Click Next to continue.

Install Licenses Location **Features** Summary

IBM WebSphere Portal Server 8.5
Enter the Administrator user
Enter the Administrator user

Configuration for IBM WebSphere Portal Server 8.5.0.0
Enter the Administrator user ID and password for the Configuration Wizard.

Configuration Wizard Credentials
This ID is used only to log in to the Configuration Wizard and can be differ Administrator user ID

wpsadmin

Administrator user password

Confirm administrator user password

Select **Next**

10. Enter the user id and password for the Portal Admin user. This is your Admin user for logging into Portal Administration page or the WAS admin console.

Install Packages
Click Next to continue.

Install Licenses Location **Features** Summary

IBM WebSphere Portal Server 8.5
Enter the Administrator user
Enter the Administrator user

Configuration for IBM WebSphere Portal Server 8.5.0.0
Enter the Administrator user ID and password for the Portal Server.

Standard
 Advanced

Standard details

Topology

Host name
Andromada.rtp.raleigh.ibm.com

Node name
AndromadaNode

Cell name
AndromadaCell

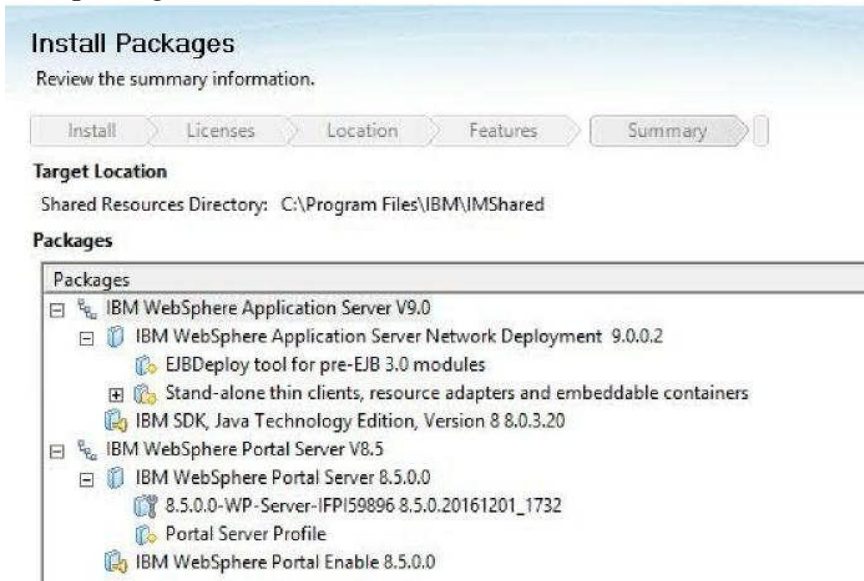
Admin Credentials for Portal Server

Administrator user ID
wpsadmin

Administrator user password

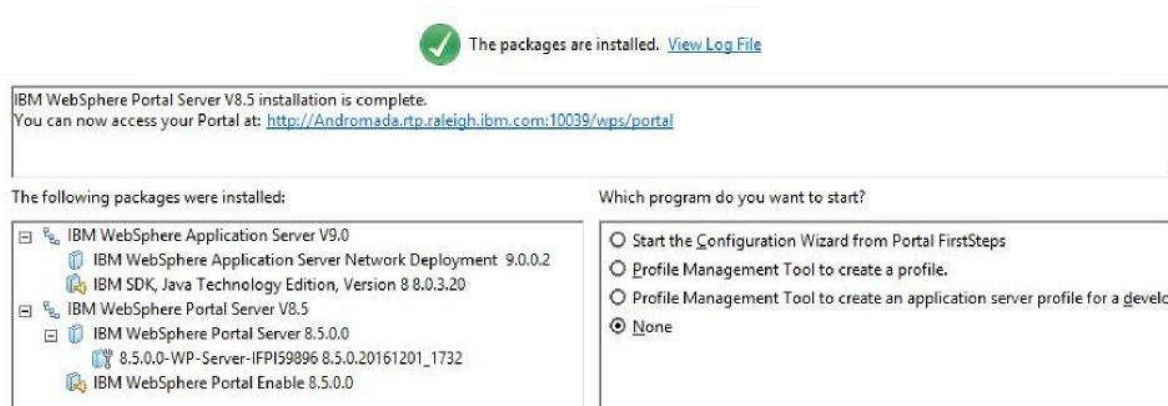
Confirm administrator user password

11. Final review of package information.



Select **Install**

12. When the installation is finished, select the **None** option for “Which program do you want to start?” and click **Finish**.



Verify that you can access your Portal in an internet browser by navigating to:

<http://myportal.ibm.com:10039/wps/portal>

While you have successfully installed WebSphere Portal v8.5 with WebSphere Application Server 9.0.0.2 using JDK 8.0.3, please note you are still in an **UNSUPPORTED** state.

Select **Next**

Update Portal 8.5 to CF13

Portal now needs to be upgraded to CF13 to support the installation of Portal 9.0.

We will need to stop the Portal Server and ConfigWizard to allow us to proceed with the upgrade.

1. Open a cmd prompt and navigate to <wp_profile_root>/bin
2. Run stopServer.bat WebSphere_Portal
3. Enter Portal credentials when prompted
4. Navigate to <AppServer_root>/profiles/cw_profile/bin
5. Run stopServer.bat server1
6. Enter ConfigWizard credentials when prompted

Before proceeding, IBM **highly recommends** that you take a backup of your system. Please review the 8.5 inforcenter link for further details.

http://www.ibm.com/support/knowledgecenter/en/SSHRKX_8.5.0/mp/admin-system/i_wadm_c_bkup_restr_winlinux.html

7. Open IBM Installation Manager (IIM) and under File > Preferences > Repositories

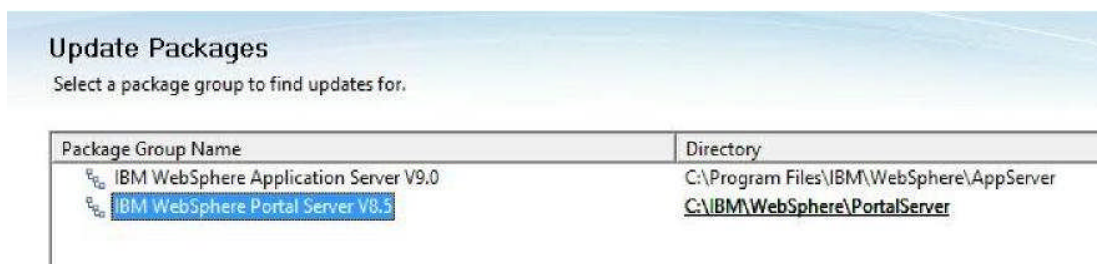
add the following repositories:



Reminder: Remove the previous repository entries.

Select **OK**

8. Within IIM, select **Update** icon, then select the Portal package.



9. Select CF13 package.



Reminder: You will need to stop Portal Server / ConfigWizard to be able to proceed.

Select **Next**

10. Review validation results. Select **Next**

11. Accept terms of licensing agreement. Then Select **Next**

12. Review Features that are going to be installed. Select **Next**

13. Select **Update**

At this point ONLY the Portal binaries have been updated to CF13. The IIM only manages the binaries so we will need to run a Portal script to upgrade the profile.

Next update the profile.

1.Ensure the WebSphere_Portal server is stopped on the profile you intend to upgrade.

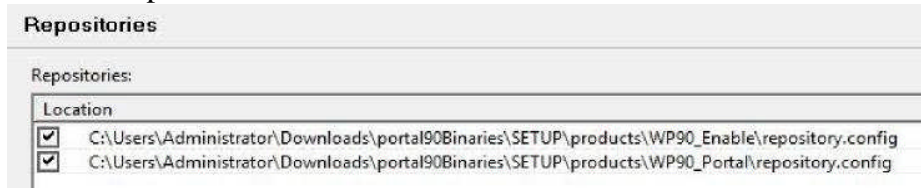
2.Execute the following command from within the path of the profile to configure:

Unix/Linux: <profile_root>/PortalServer/bin/[applyCF.sh](#) -
DPortalAdminPwd=<password> -DWasPassword=<password>

Windows: <profile_root>\PortalServer\bin\applyCF.bat -DPortalAdminPwd=<password>
-DWasPassword=<password>

Install Portal 9.0

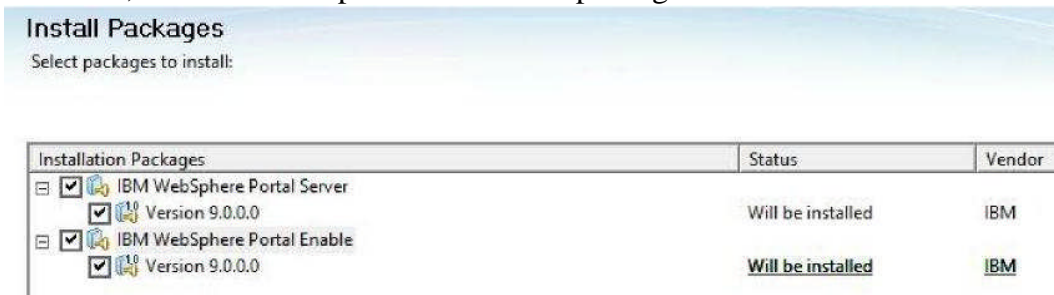
1. Add the Portal 9.0 repositories to IIM



Reminder: Remove the previous repository

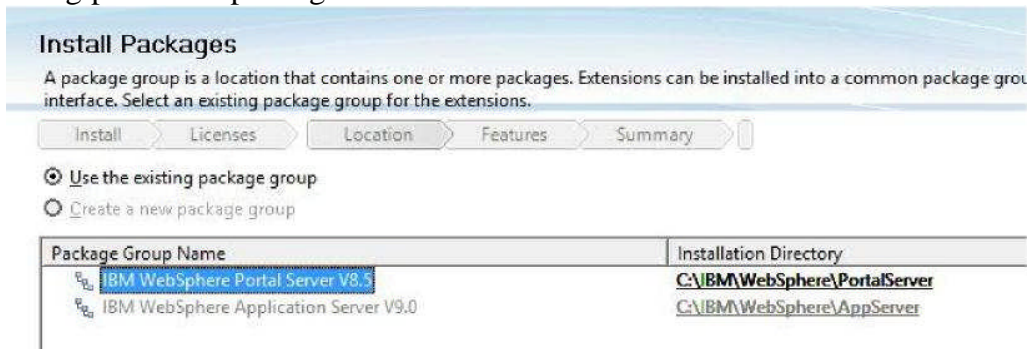
Select **Ok**

2. Within IIM, select **Install** option. Select both packages



Select **Next**

3. Accept terms of licensing agreement. Then Select **Next**
4. Use existing portal 8.5 package



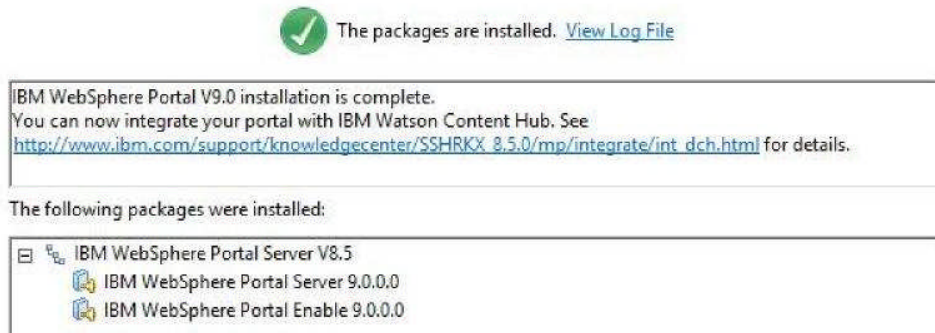
Select **Next**

5. Enter Admin user id and password for Websphere Application Server and Portal Server. Select **Next**

6. Review Summary. Select **Install**.

Note: During the install, a series of configEngine tasks will be run to upgrade Portal 8.5 to 9.0 so upgrading the profile after is not required.

7. When the installation is finished, you should now see.



Verify that you can access your Portal in an internet browser by navigating to:

<http://myportal.ibm.com:10039/wps/portal>

On a successful upgrade, you will be presented with a link to fully integrate Portal 9.0 with Watson Content Hub, see this link:

http://www.ibm.com/support/knowledgecenter/SSHRKX_8.5.0/mp/integrate/cfg_dch.html

Note: The WCH integration is not required.

References

Portal 8.5 Cumulative Fix Readme

https://www-10.lotus.com/ldd/portalwiki.nsf/xpDocViewer.xsp?lookupName=Combined+Cumulative+Fix+Readme+V8.5.0.0#action=openDocument&res_title=IBM_WebSphere_Portal_V8.5.0.0_combined_cumulative_fix_instructions_standalone_cf8500&content=pdfcontent

WebSphere Portal V9.0, V8.5 and V8.0 detailed system requirements

<http://www-01.ibm.com/support/docview.wss?uid=swg27007791>

Portal 8.5 backup/restore

http://www.ibm.com/support/knowledgecenter/en/SSHRKX_8.5.0/mp/admin-system/i_wadm_c_bkup_restr_winlinux.html

dWAnswers

<https://developer.ibm.com/answers/topics/digexp/>

Portal Log Analyzer

<https://greenhouse.lotus.com/plugins/plugincatalog.nsf/assetDetails.xsp?action=editDocument&documentId=C7AB4C82F17EC6228525790B006F6D43>

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The DX Information Development team for providing the Product Documentation that this guide is based on.

Change History

Version	Date	What Changed
1.0		Published