



IBM Software Group

Plug-in Configuration Tool (PCT) v8.0

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WebSphere® Support Technical Exchange



Agenda

- **Part 1 - Web server Plug-in v8.0 configuration scenarios**
 - *Supported web servers*
 - *Standalone nodes*
 - *Distributed unmanaged and managed nodes (cells)*

- **Part 2 – Using the Plug-in Configuration Tool (PCT)**
 - *What is PCT*
 - *Why do we need PCT*
 - *How to install PCT*
 - *How to use PCT gui*
 - *How to use PCT command line*

Agenda (cont'd)

- **Part 3 - Web server Plug-in script overview & execution**
 - *Ant scripts*
 - *Input parameters*
 - `ConfigureWebserverX.bat(.sh)`

- **Part 4 - PCT Troubleshooting**
 - `Mustgather/logs`
 - `Known Problems and Issues`

Part 1 - Web server Plug-in v8.0 configuration scenarios

WebSphere Application Server v8.0 supports these web servers:

IBM® HTTP Server v8

Apache Web Server V2.2

Lotus® Domino Web Server V8

Sun Java System Web Server V6.1, V7.0

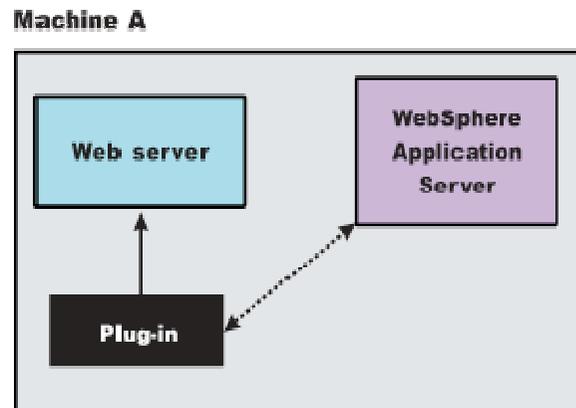
Microsoft™ Internet Information Services V6, V7

Three web server configuration scenarios

- Local Standalone (unmanaged)
- Local Distributed (managed)
- Remote (unmanaged)

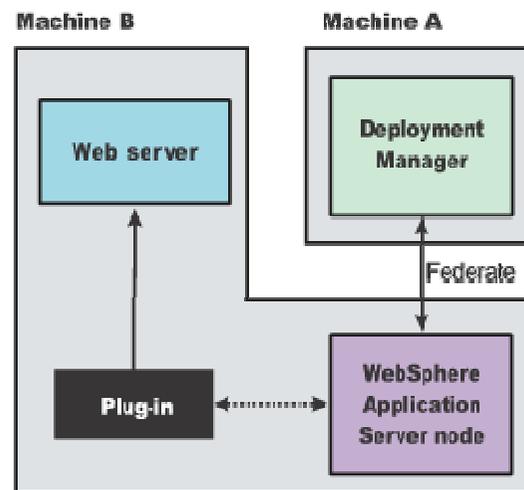
Local Standalone (unmanaged)

- Web server is installed on the same system as a **standalone** WebSphere Application Server (ie. Base or Express).
- There is no WebSphere Node Agent, so IHS Admin Server is needed for administering IHS from the WAS Admin Console.
- Plug-in propagation is done by simple file copy to Plugins directory.



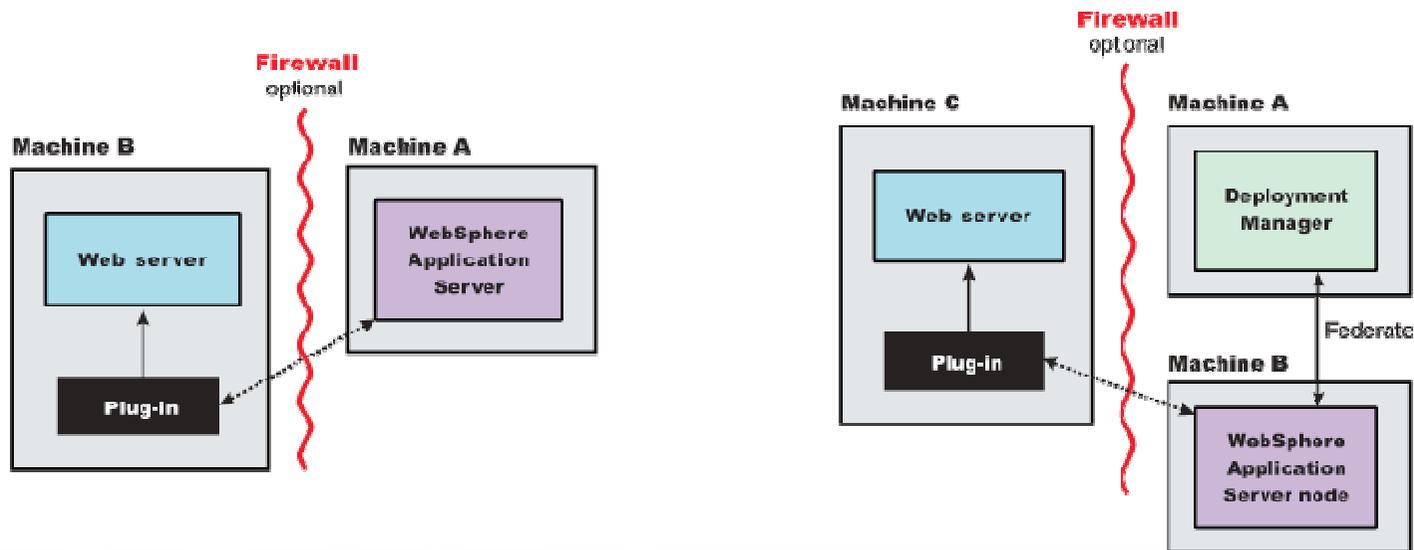
Local Distributed (managed)

- Web server is installed on the same system as a **federated** WebSphere Application Server Node.
- The WebSphere Node Agent will manage IHS, so the IHS Admin Server is not needed.
- Plug-in configuration is propagated from DMGR to Node Agent, then copied to Plug-in directory on the node.



Remote (unmanaged)

- The web server is installed on a **remote system** that does NOT have WebSphere Application Server installed.
- IHS Admin Server is required for remote administration of IHS from the WAS Admin Console.
- For IHS, Plug-in propagation is from WAS to IHS Admin Server.
- For non-IHS web servers, Plug-in config must be copied manually.



Part 2 – Using the Plug-in Configuration Tool (PCT)

What is PCT?

- Plug-in Configuration Tool (PCT) is part of the new WebSphere Customization Toolbox (WCT) in WAS v8.0.
- PCT is used for the following purposes:
 - Accept user input about web server and Plugin.
 - Run various ANT scripts to:
 - Add Plug-in entries to web server configuration files.
 - Create configurewebserver1 script for adding web server definition in WebSphere Application Server.
 - Optionally, configure IHS Administration Server.

Why do we need PCT?

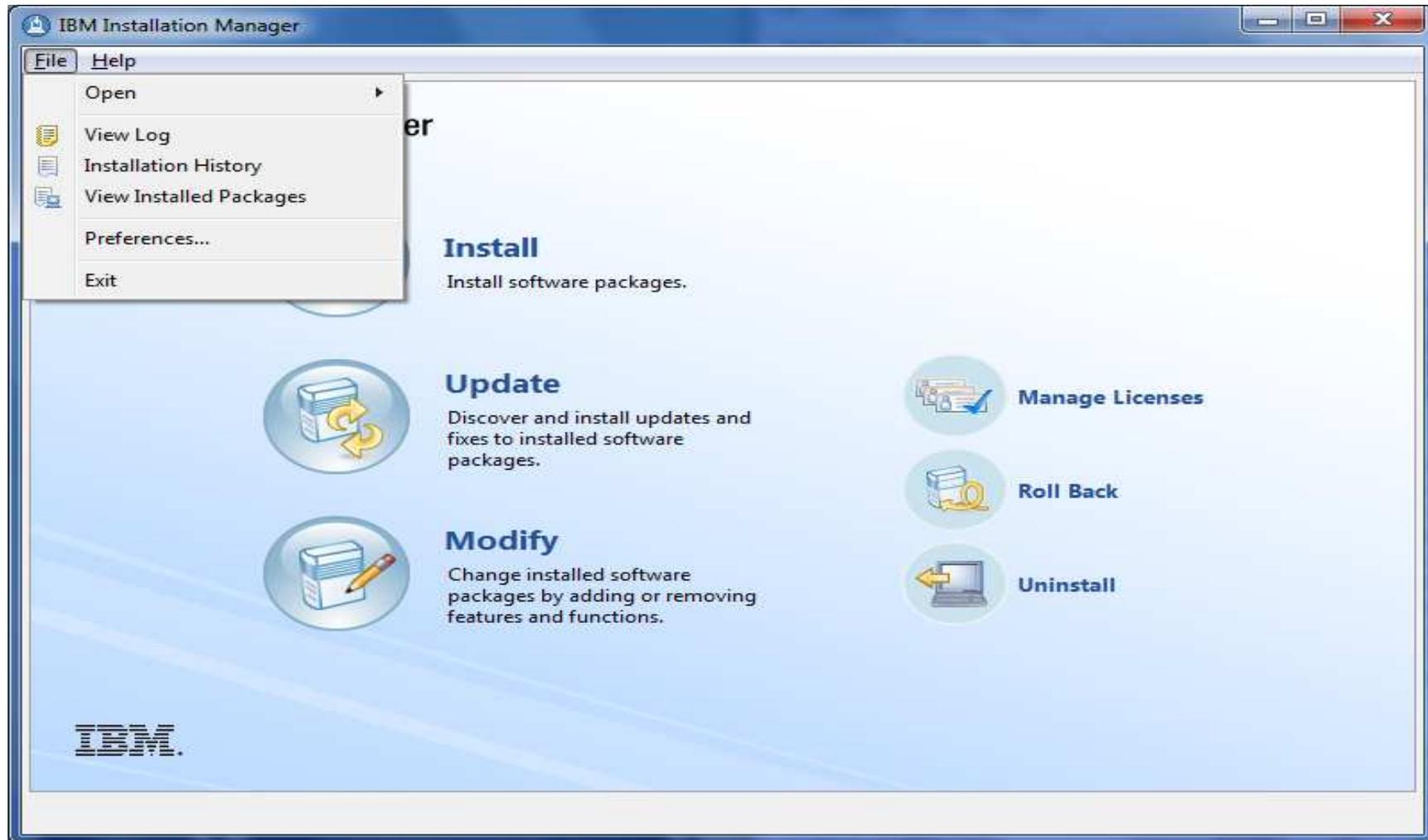
- In version 7.0 and prior the IHS / Plug-in installation process would automatically do the following:
 - Add entries into the web server configuration file.
 - Create the configurewebserver1 script.
 - Configure the IHS Administration Server.
- In version 8.0 the IHS / Plug-in install does NOT automatically perform the steps shown above.
- In version 8.0 (and later) the Plug-in Configuration Tool (PCT) is used to perform those tasks.

How to install Plug-in Config Tool (PCT)

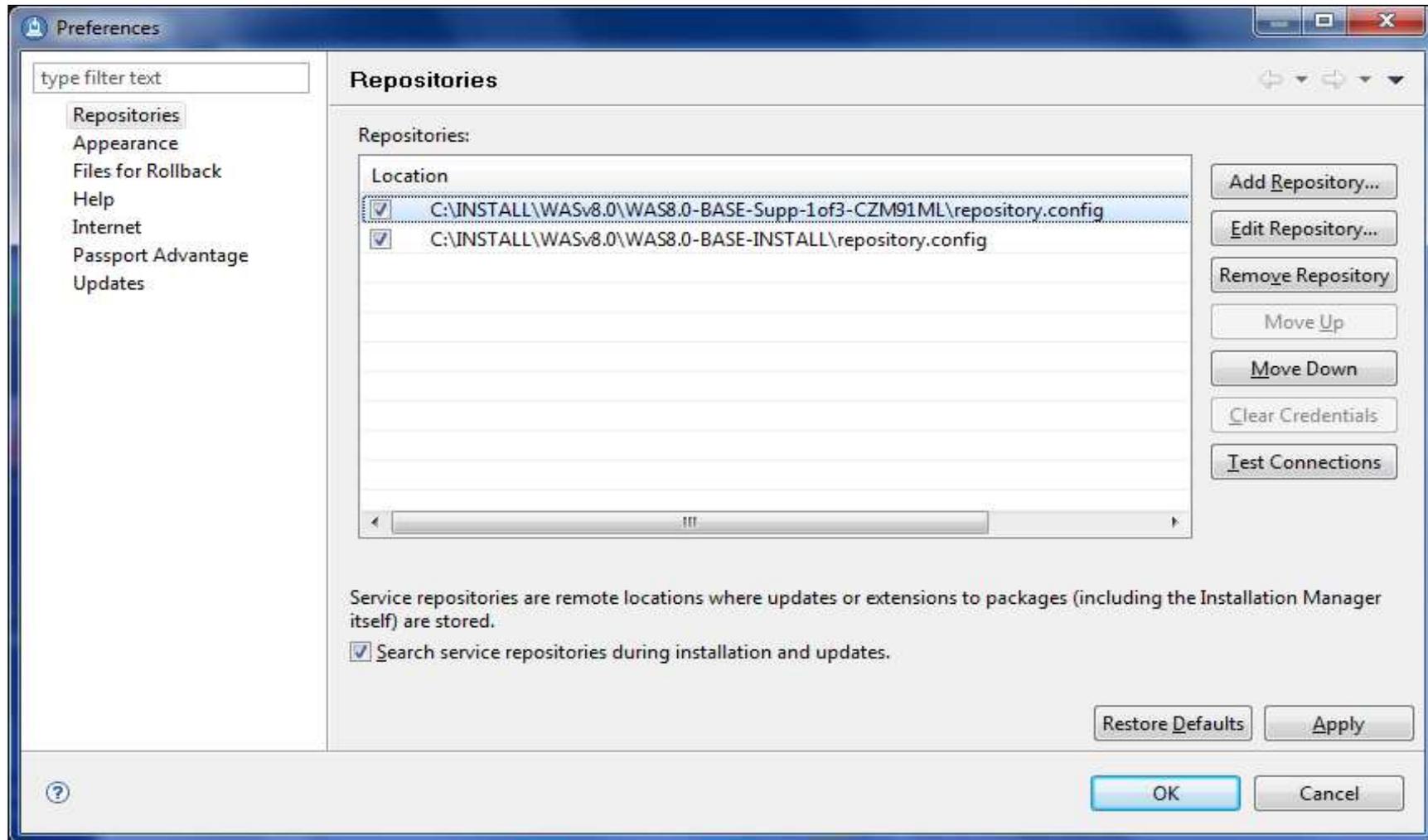
- Download installation images from Passport Advantage Site
 - See instructions and part numbers here:
<http://www-01.ibm.com/support/docview.wss?uid=swg27021166>
 - WCT is in the WAS 8.0 **Supplements** images

- Use Installation Manager to install WCT 8.0 with PCT feature
 - Set the repository location
 - Select WebSphere Customization Toolbox package
 - Select Web Server Plug-ins Configuration Tool feature

Start Installation Manager. Go to File → Preferences



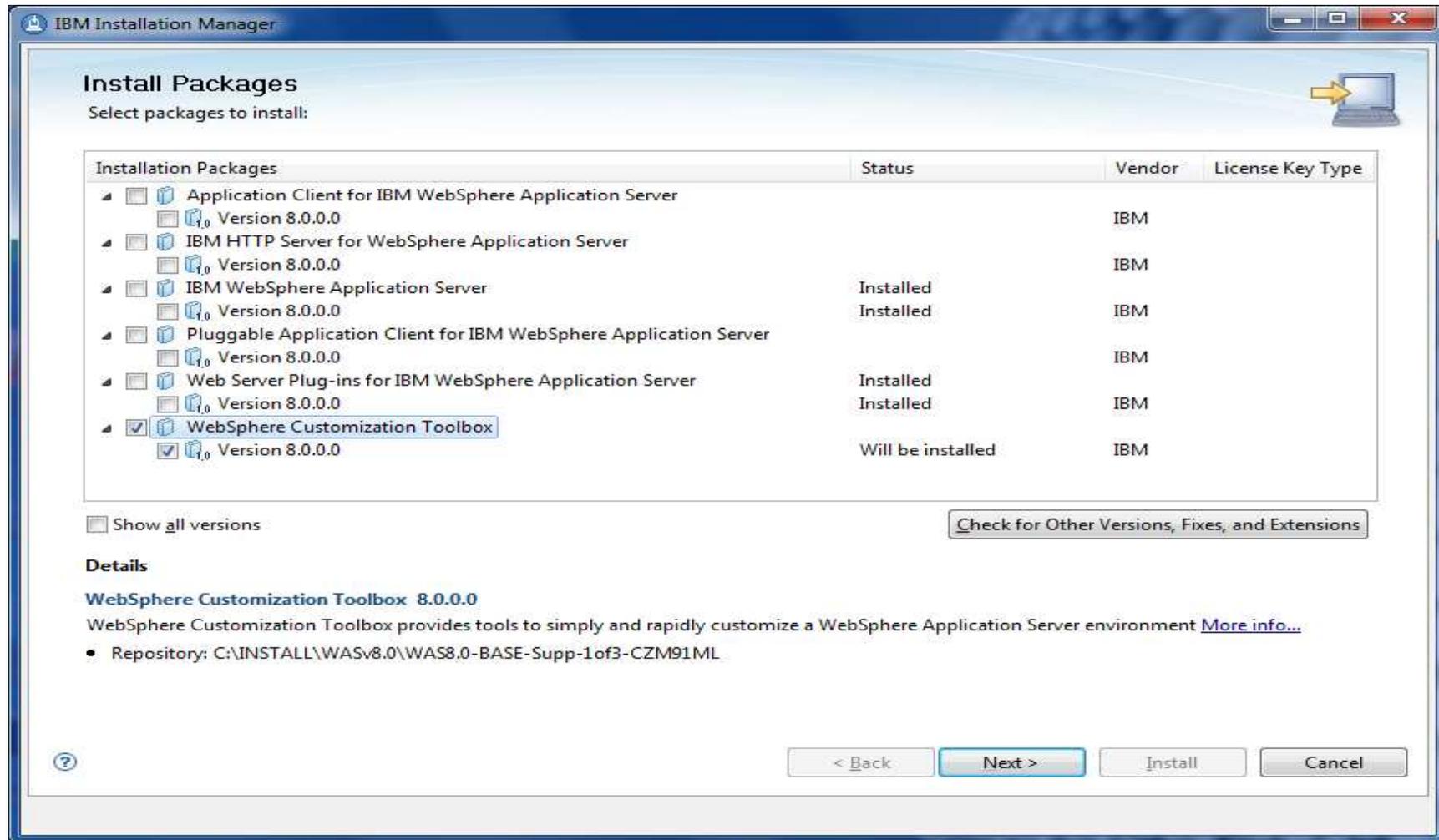
Add repository locations pointing to the downloaded images.



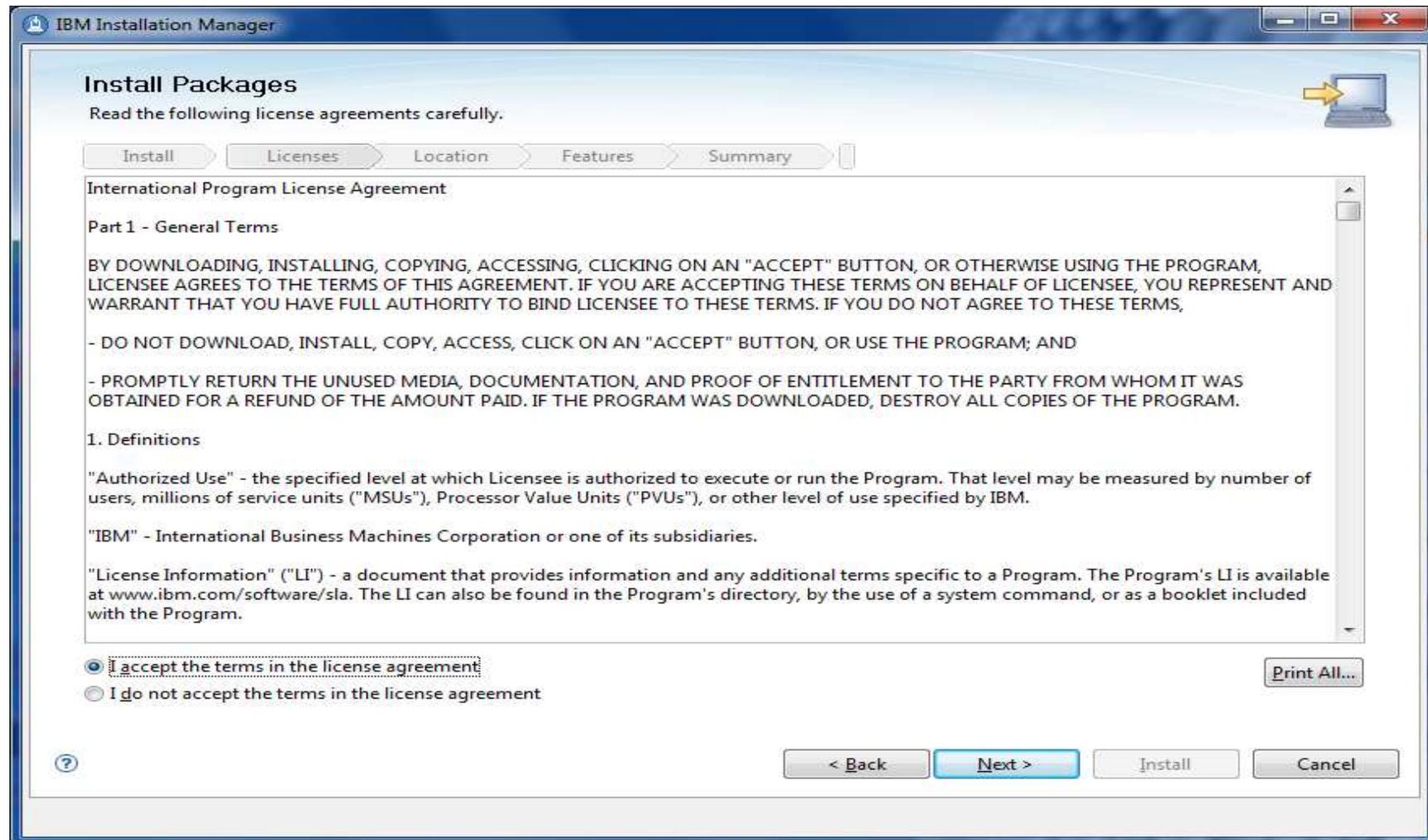
Go back to Installation Manager start screen and choose **INSTALL**.



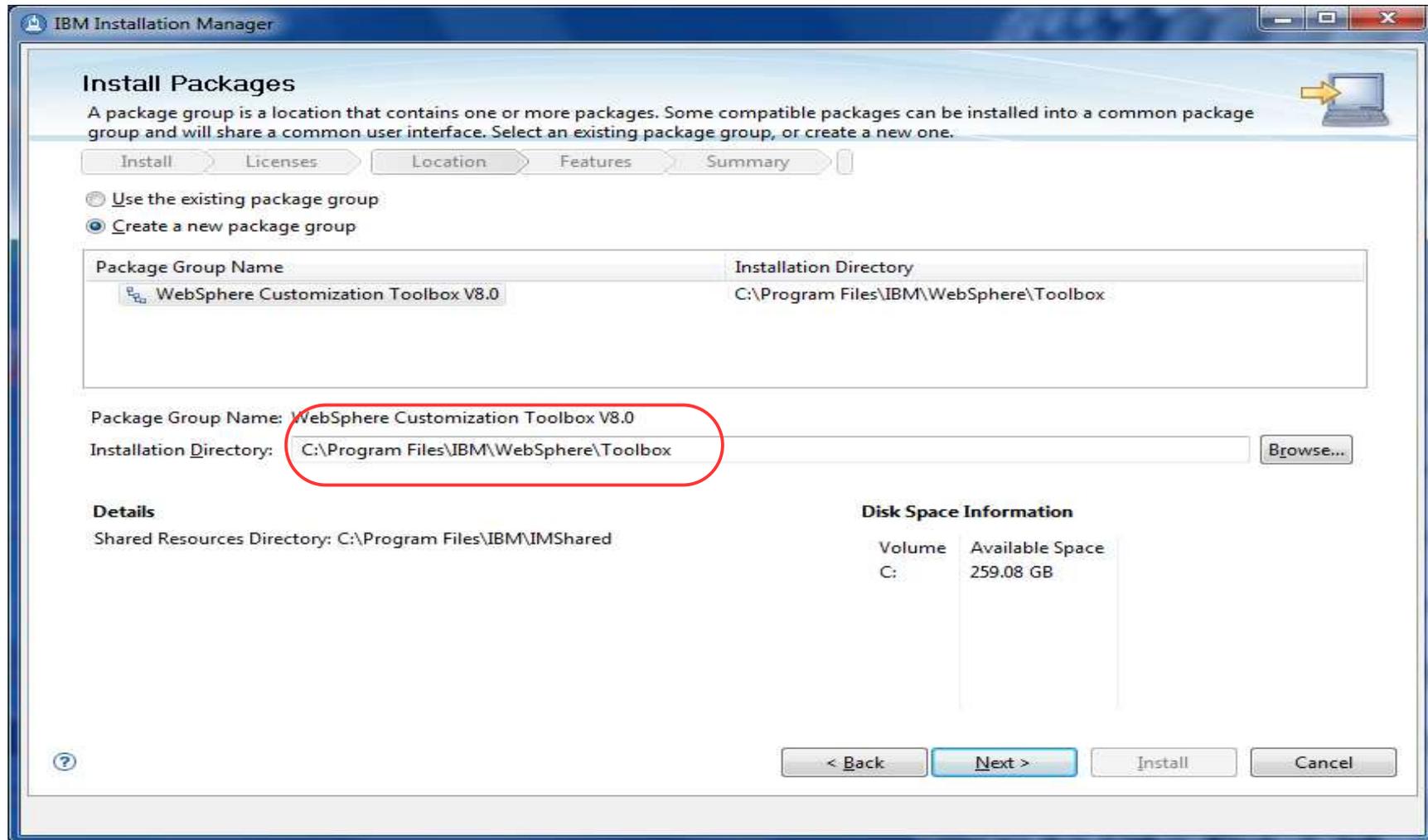
Select the WebSphere Customization Toolbox package, click Next.



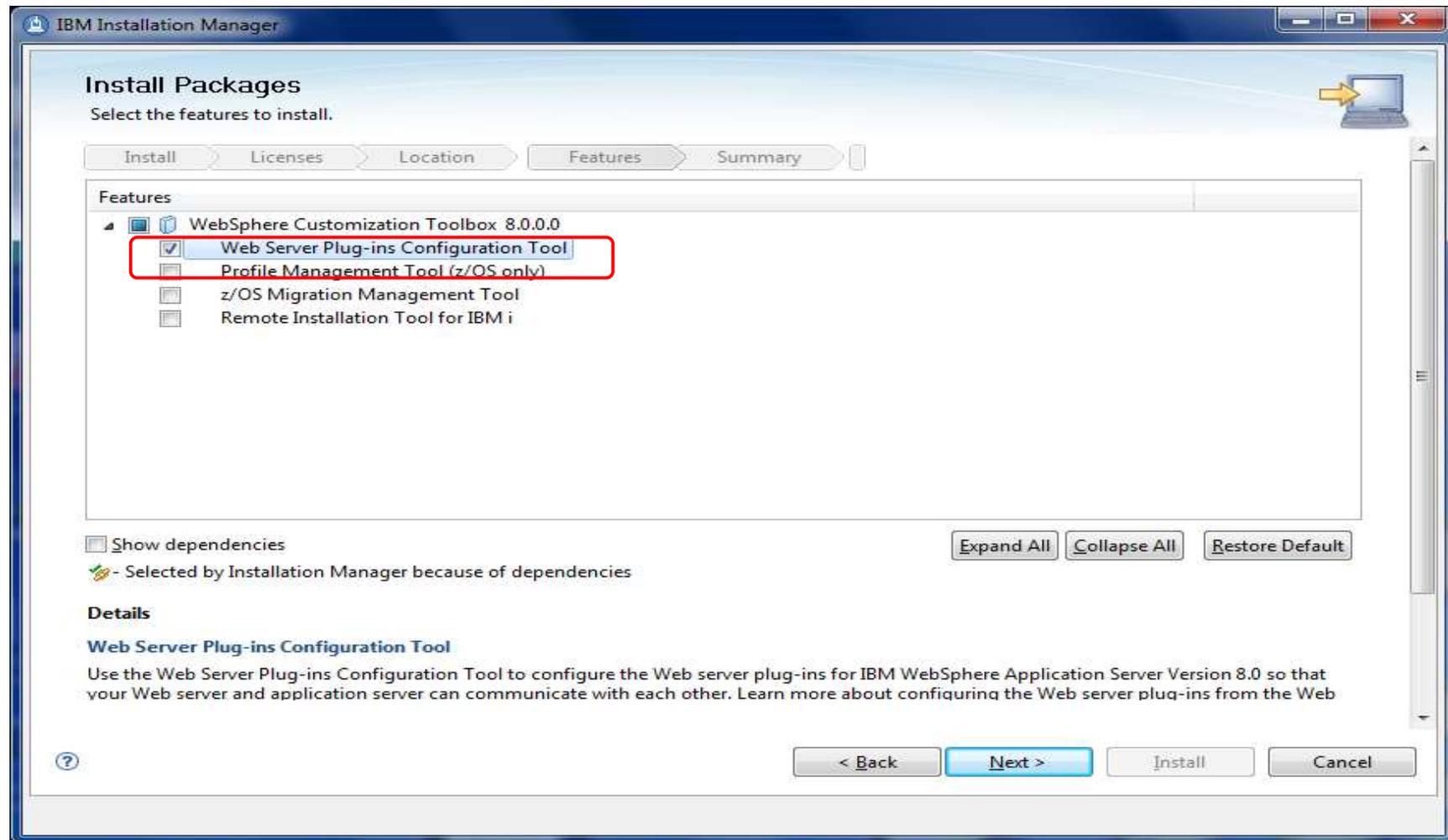
Read and Accept the license agreement. Click Next.



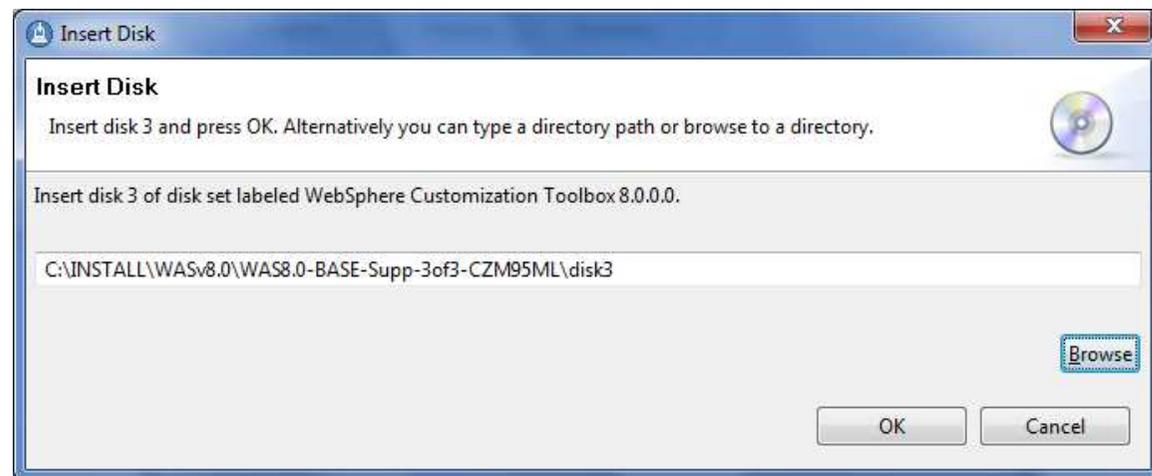
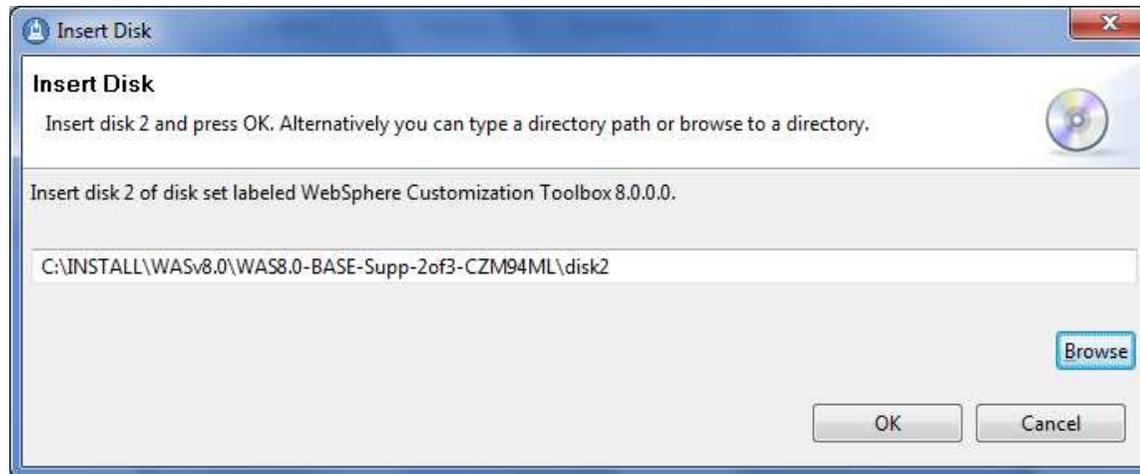
Specify the installation directory. Click Next.



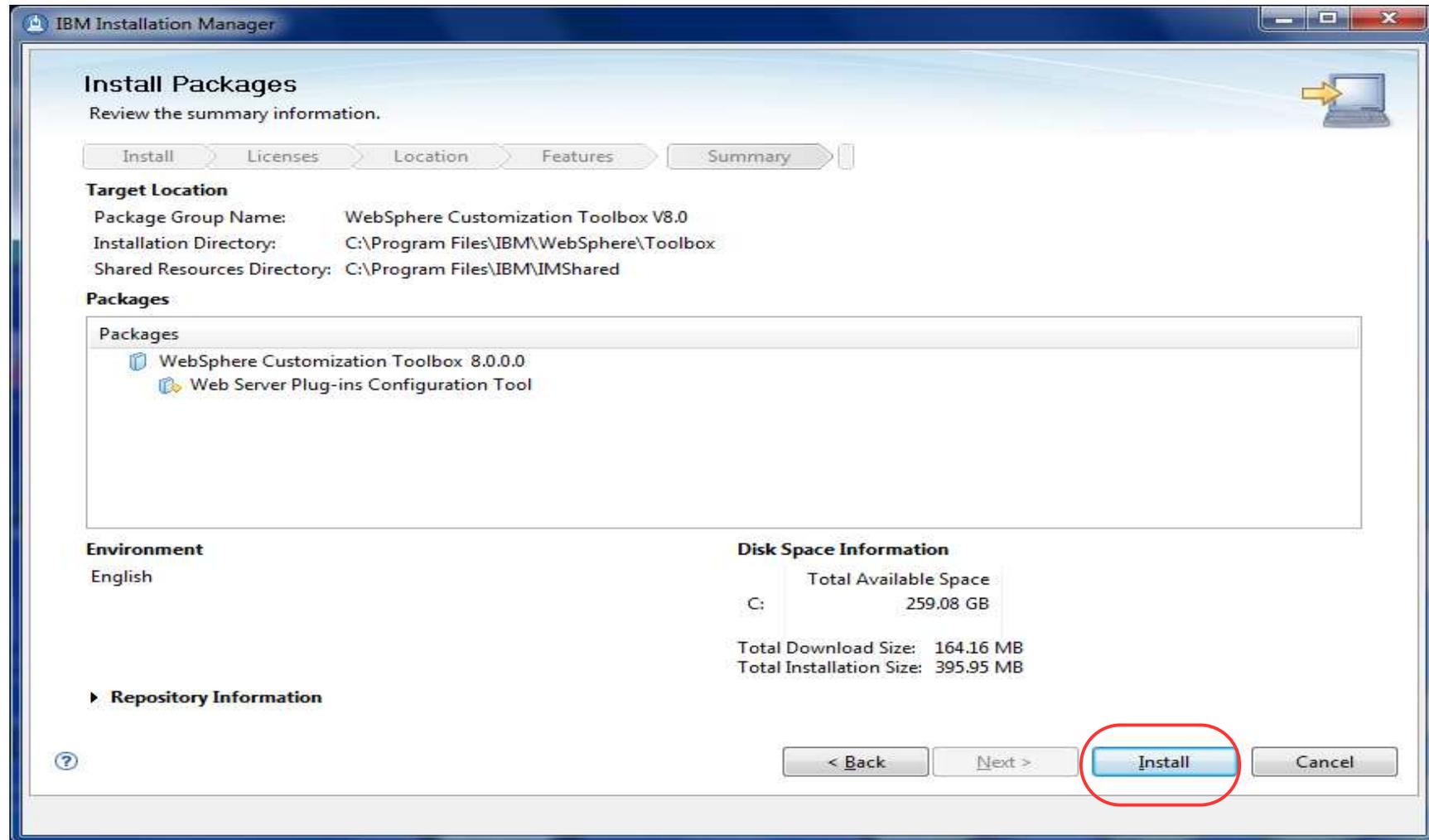
Select the Web Server Plug-ins Configuration Tool feature. Click Next.



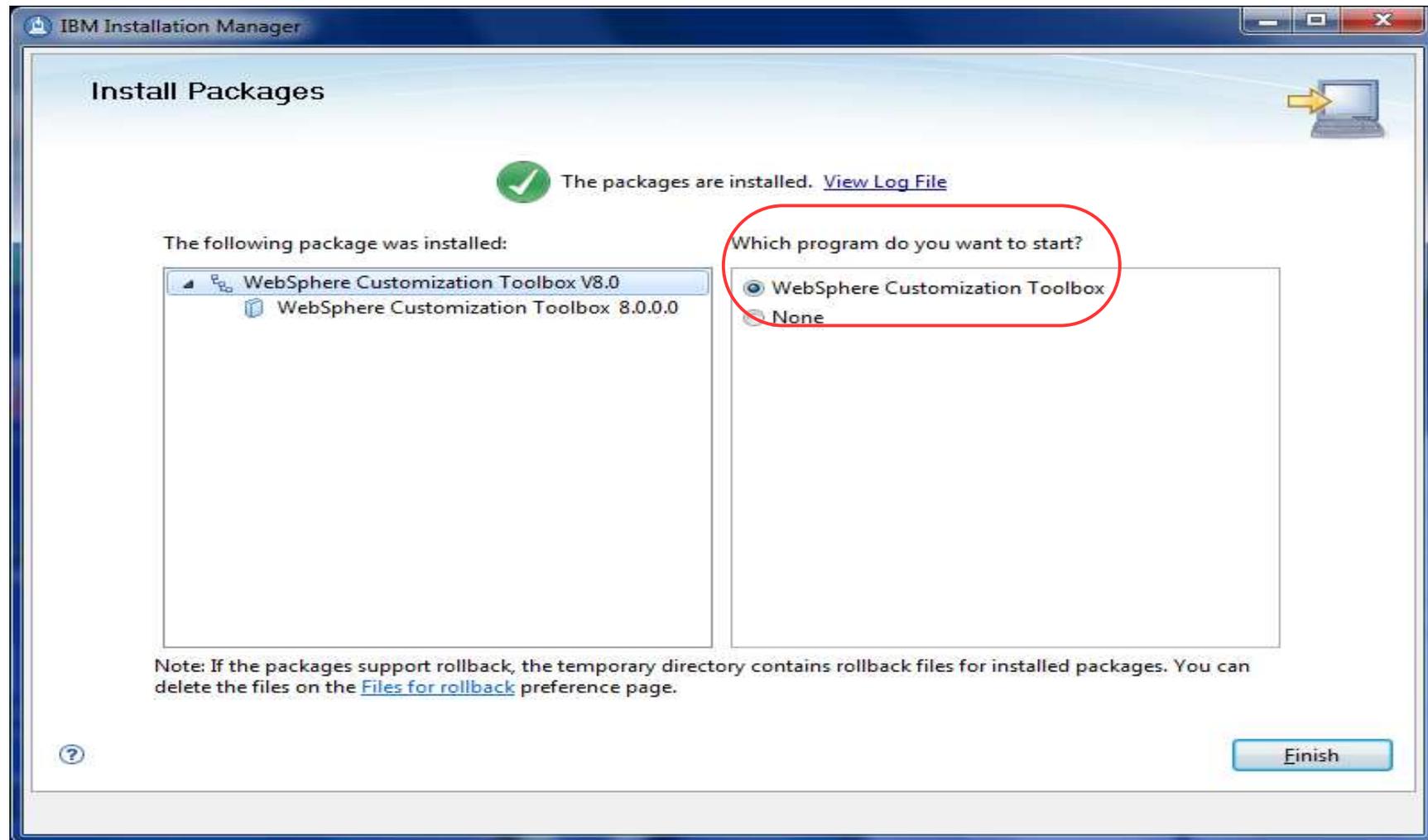
You might be prompted to for the location of Supplements disk2 and disk3.



Review the summary page, then click Install to start the installation.



After the install, you can choose to run WCT now. Click Finish.



How to launch the Plug-in Config Tool gui

- In Windows, start WCT / PCT from the Start menu:
 - Start → All Programs → IBM WebSphere
 - WebSphere Customization Toolbox → Tools
 - Web Server Plug-in Configuration Tool

- In Unix, start WCT / PCT from the command line:

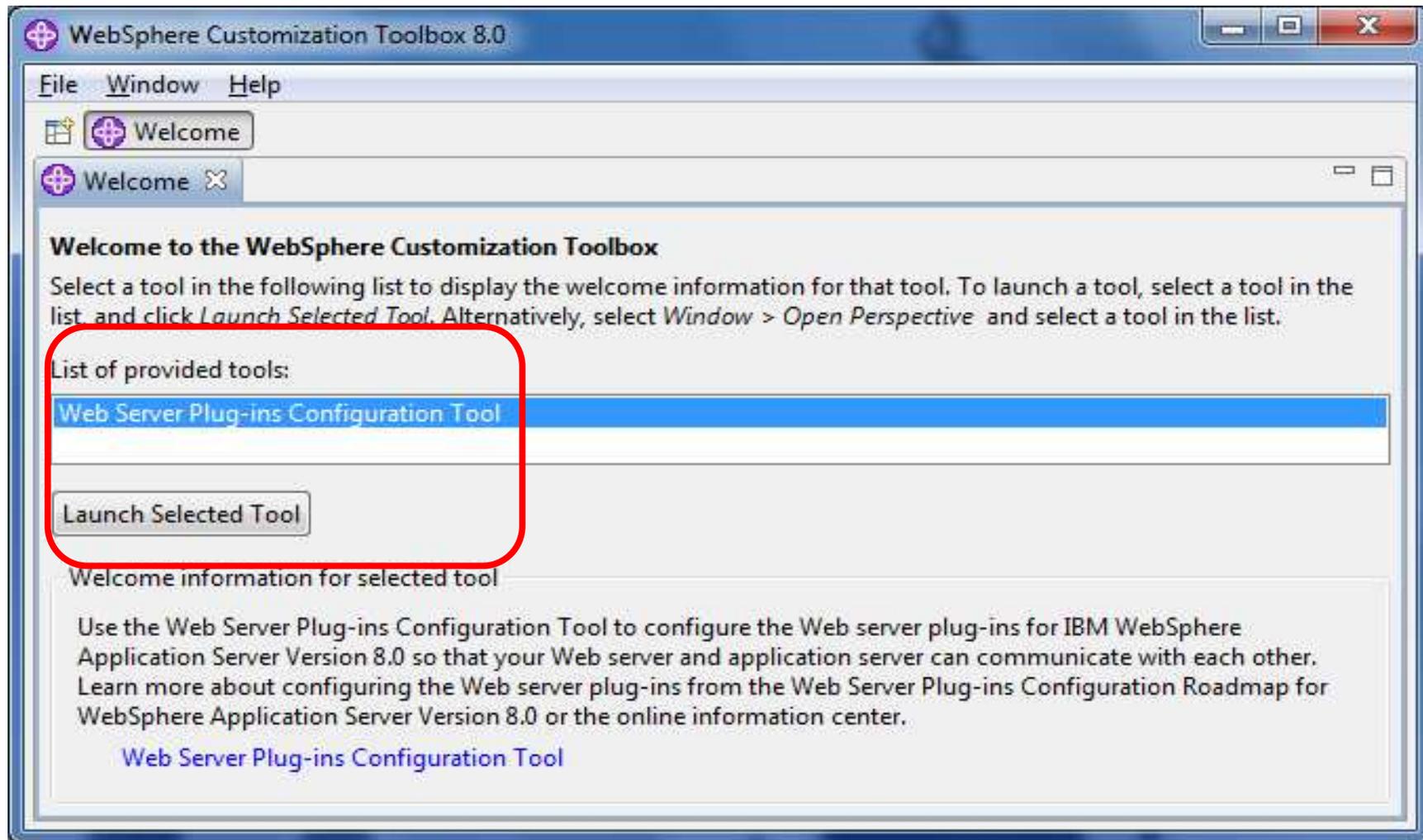
```
cd /usr/IBM/WebSphere/Toolbox/WCT  
./wct.sh
```

How to use Plug-in Config Tool (PCT) gui

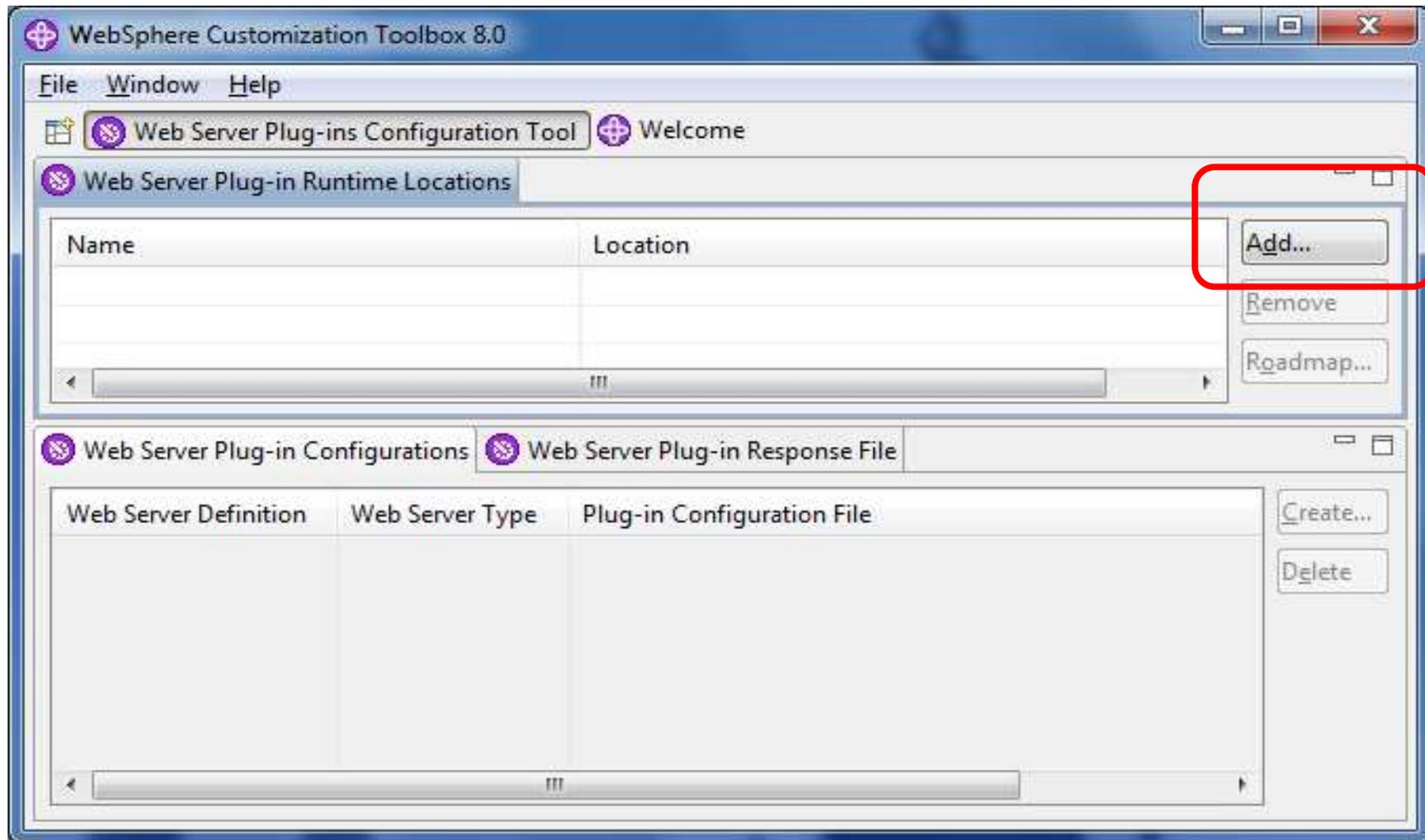
- Add the Web Server Plug-in Runtime Location
 - Points to the location of the Plugins directory
 - ie. **C:\Program Files\IBM\WebSphere\Plugins**

- Create the Web Server Definition
 - Select web server type
 - Specify the location of the web server config file
 - Configure IBM HTTP Server Admin Server options
 - Specify if web server is LOCAL or REMOTE

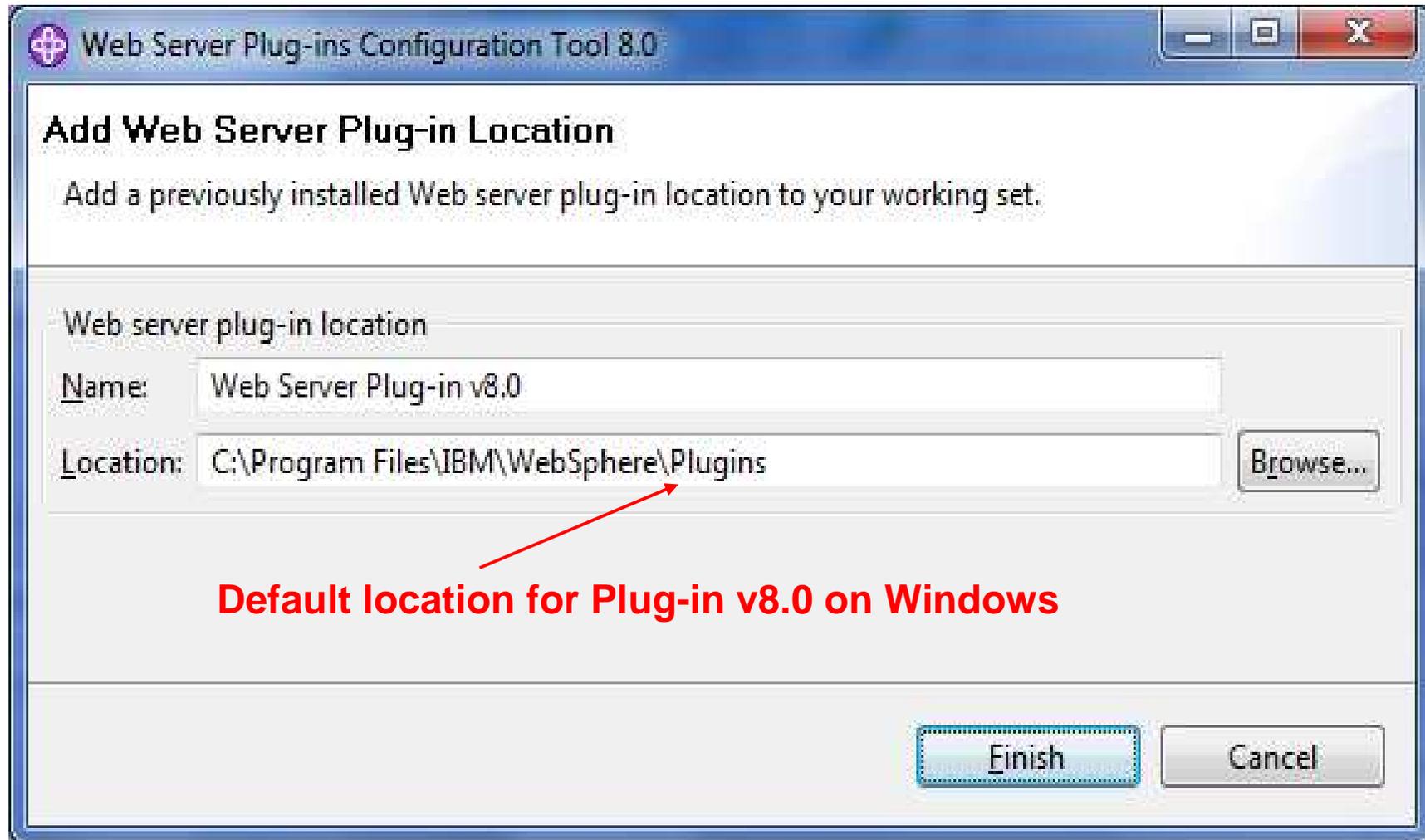
From the WCT welcome screen, launch the PCT tool.



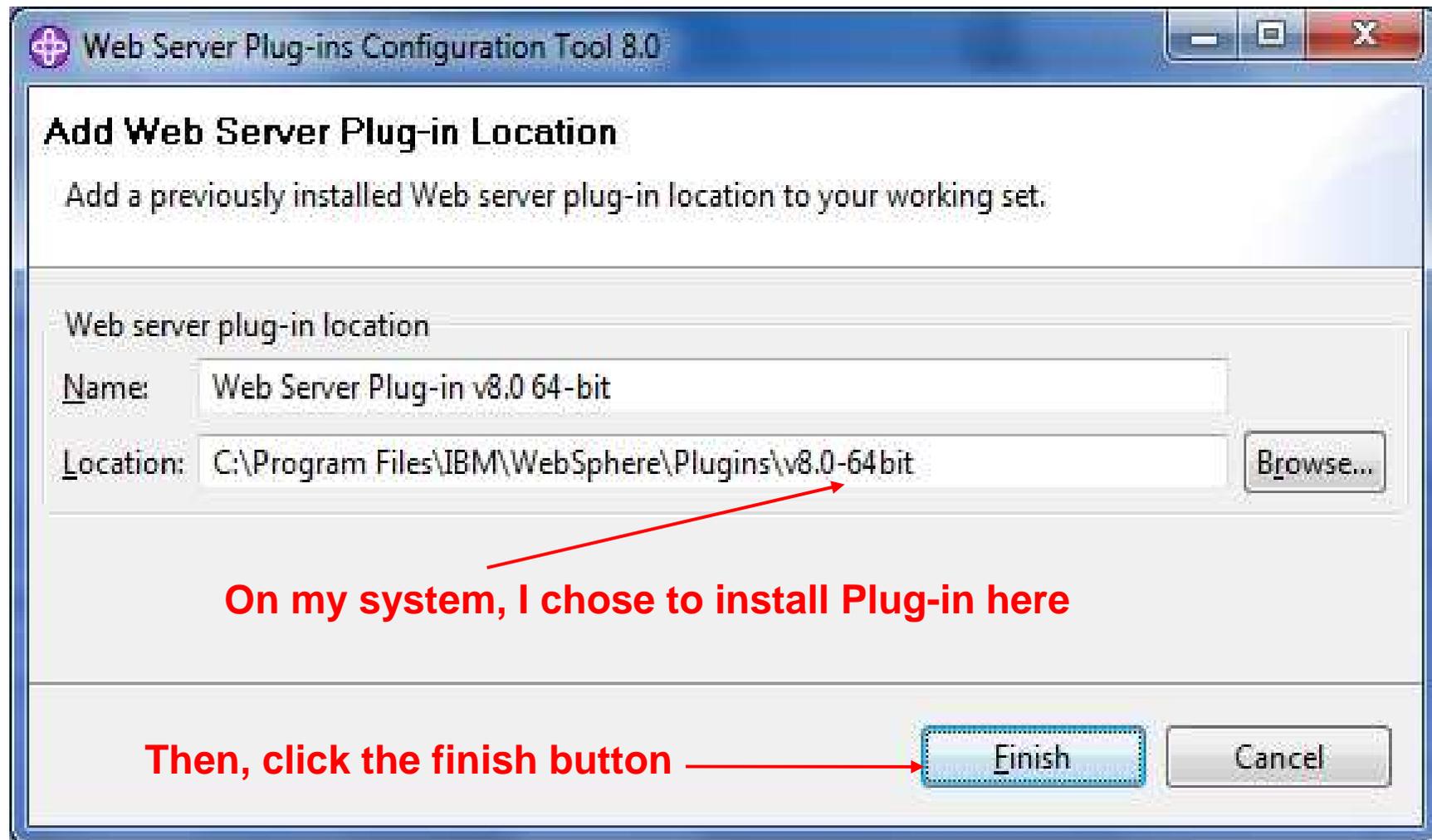
In the top box, click the Add button...



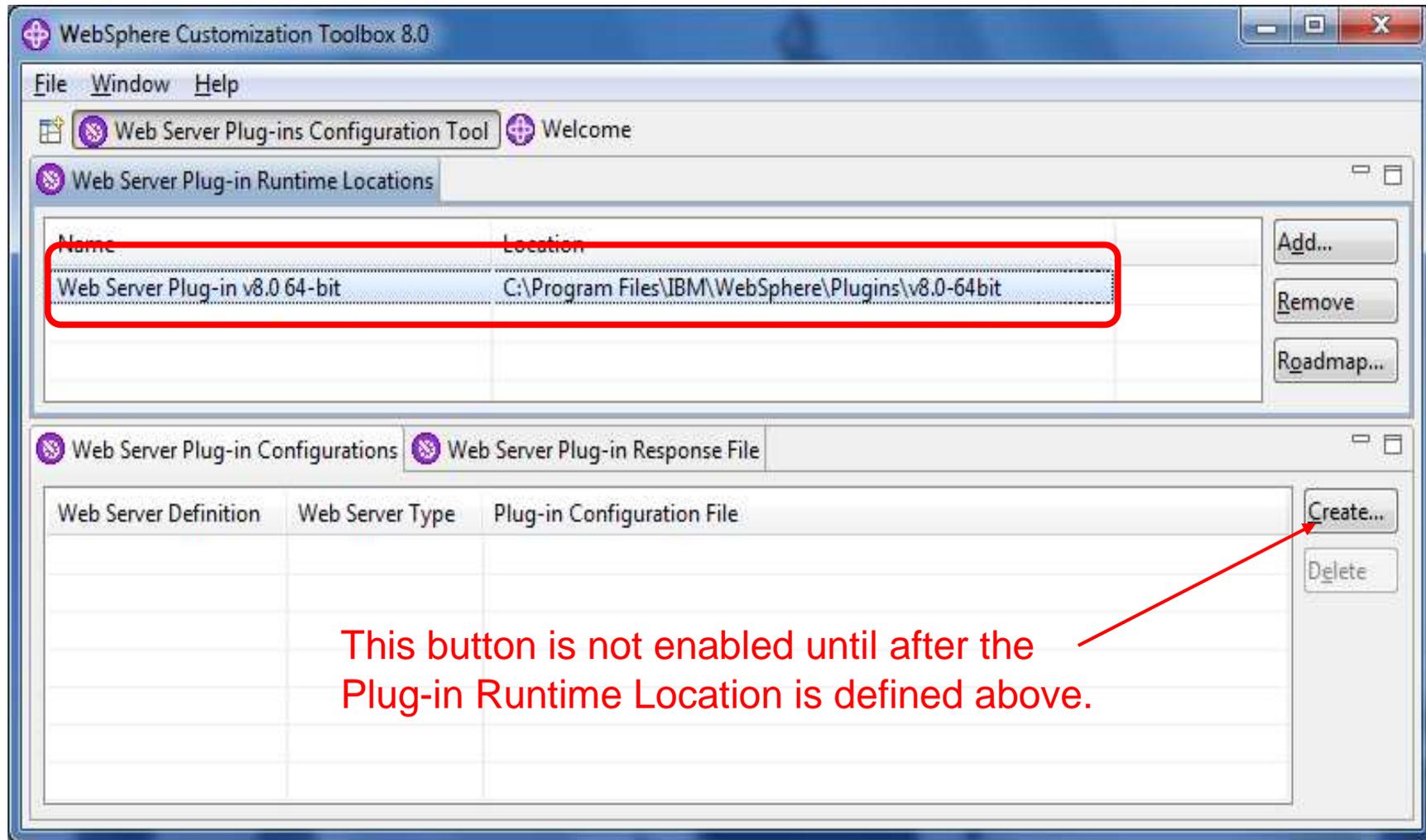
Enter a name and the location of the Plug-in directory



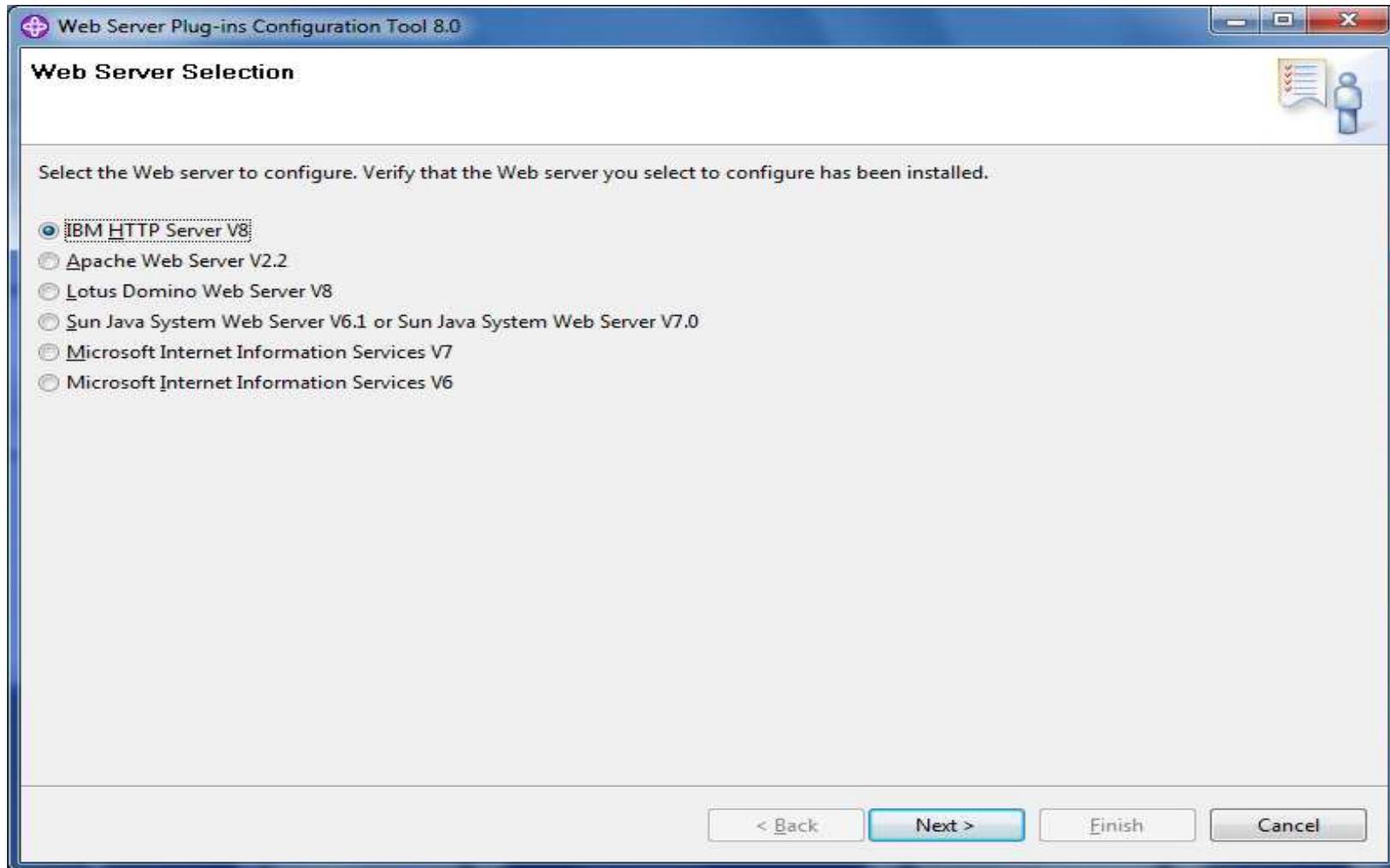
Enter a name and the location of the Plug-in directory



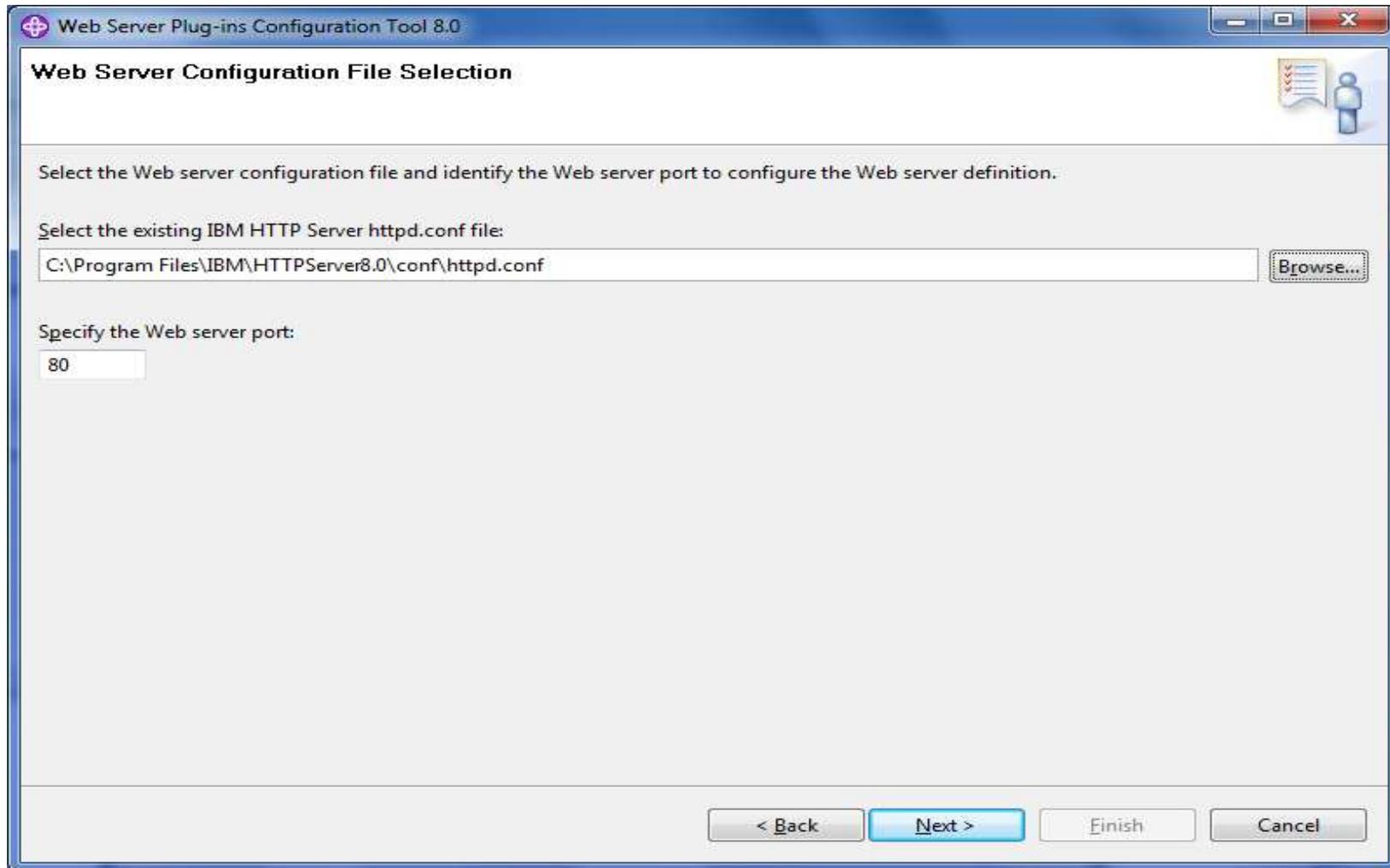
Next we can create the Web Server Definition



Select the web server you are using from the list



Browse and select the web server config file



For IHS on unmanaged node, setup IHS Admin Server

Web Server Plug-ins Configuration Tool 8.0

Setup IBM HTTP Server Administration Server

Optionally configure an administrative server to administer the Web server. You can manage the Web server from a WebSphere Application Server administrative console by using the IBM HTTP Server administrative server to control the communication between them.

Setup IBM HTTP Server Administration Server

Specify a port number for IBM HTTP Server administration server to communicate. The default port is 8008. If the default port is already in use, then change to another port that is available. Running IBM HTTP Server administration server without root or Administrative privileges might restrict use of ports below 1024.

HTTP Administration Port:
8008

Optionally create a user ID and password to authenticate to the IBM HTTP Server Administration Server from the WebSphere Application Server administrative console. The user ID and password is encrypted and stored in the conf/admin.passwd file. You can create additional user IDs after the configuration by using the htpasswd utility.

Create a user ID for IBM HTTP Server Administration Server authentication

User ID: ihsadmin

Password:

Confirm password:

< Back Next > Finish Cancel

WAS Admin Console will use this User ID and password to connect to IHS Admin

On Unix enter the userid and group for IHS Admin

Web Server Plug-ins Configuration Tool 8.0

Setup IBM HTTP Server Administration Server

Specify a user ID and group for IBM HTTP Server administration.

Specify a system user ID and group. The user ID is granted write access to IBM HTTP Server, IBM HTTP Server Administration Server and web server plug-in configuration files. If the user ID or group does not exist on the system, then choose to create a new system user and group with the credentials.

User ID: _____

Group: _____

Create a new unique system user ID and group using the credentials.

< Back Next > Cancel Finish

Userid and Group must already exist in the Unix OS, or check the box to create them.

On Windows configure the IHS Admin service options

Web Server Plug-ins Configuration Tool 8.0

Setup IBM HTTP Server Administration Server

Choose whether to use a Windows service to run IBM HTTP Server administration server. The Administration Server must be run as a Windows service to be able to manage the web server from a WebSphere Application Server administration Console. If a service is created, also select a startup type to have the Windows service start manually or automatically when rebooting the system.

Run IBM HTTP Server Administration Server as a Windows Service.

Log on as a local system account

Log on as a specified user account

User name:

Password:

The user account that runs the Windows service must have the following user rights:

- Act as part of the operating system
- Log on as a service

Startup type:

< Back **Next >** Finish Cancel

Default is Automatic

Specify the name of the web server (ie. webserver1)

Web Server Definition Name

Use a Web server definition to manage a Web server through the WebSphere Application Server administrative console or the wsadmin tool. The definition name must be unique because this name is used to identify this Web server in the administrative console.

Specify a unique Web server definition name:

webserver1

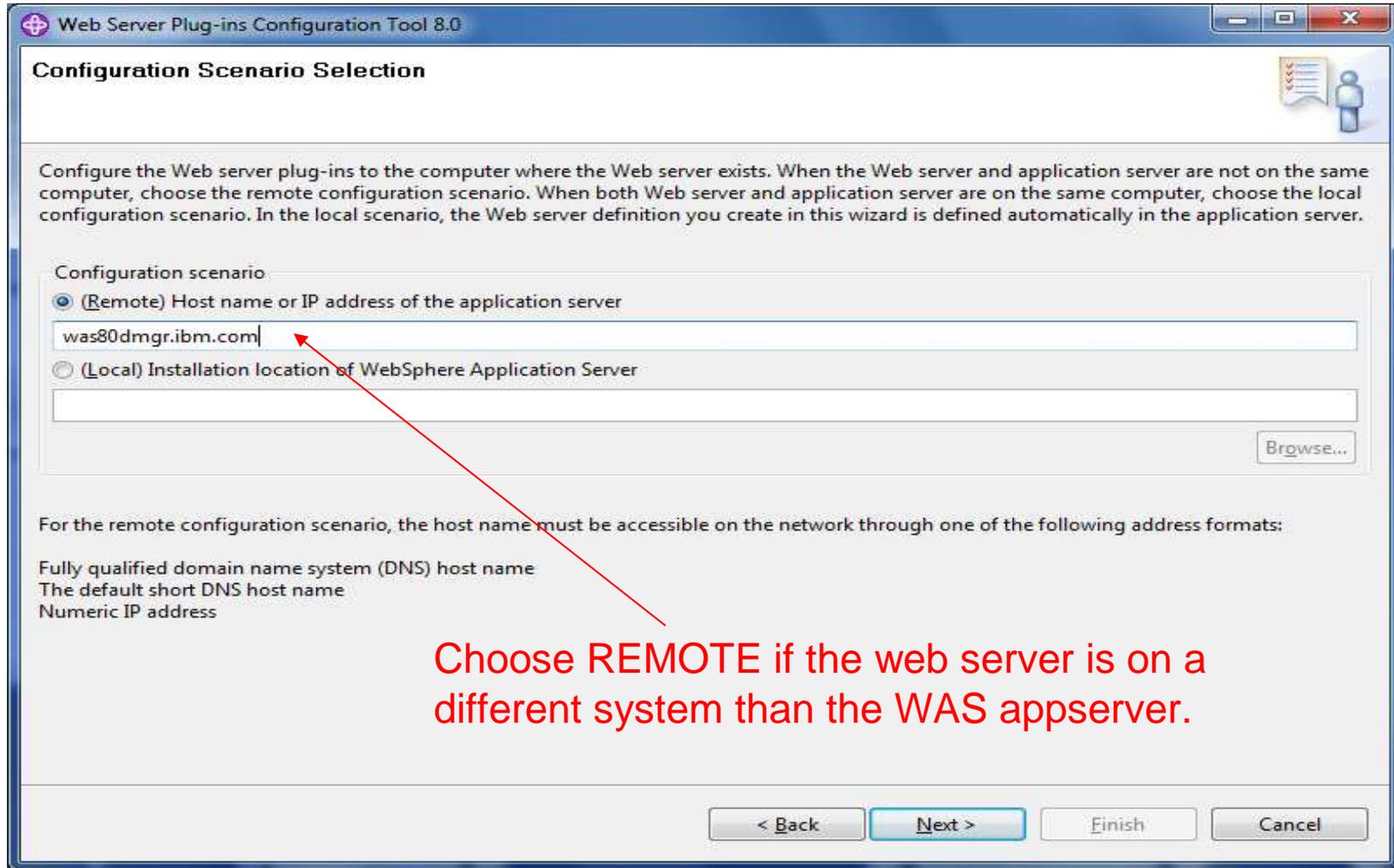
The Web server definition name must not be empty and it must not contain the following special characters or space:

/ \ * , ; = + ? | < > & % ' \" [] > # \$ ^ { }

Note: a period(.) is not valid if it is the first character.

< Back Next > Finish Cancel

Remote



Web Server Plug-ins Configuration Tool 8.0

Configuration Scenario Selection

Configure the Web server plug-ins to the computer where the Web server exists. When the Web server and application server are not on the same computer, choose the remote configuration scenario. When both Web server and application server are on the same computer, choose the local configuration scenario. In the local scenario, the Web server definition you create in this wizard is defined automatically in the application server.

Configuration scenario:

(Remote) Host name or IP address of the application server

(Local) Installation location of WebSphere Application Server

was80dmgr.ibm.com

Browse...

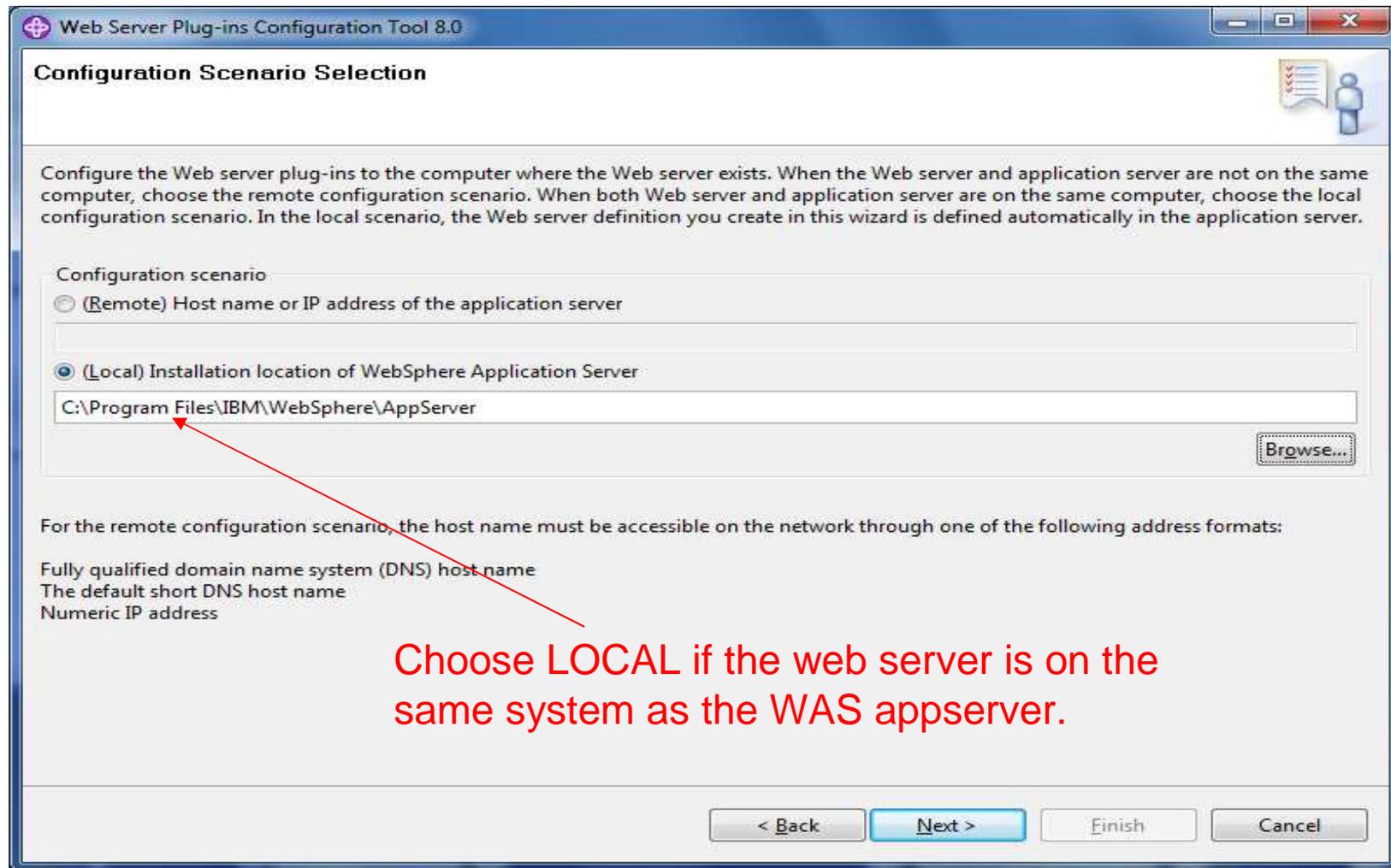
For the remote configuration scenario, the host name must be accessible on the network through one of the following address formats:

- Fully qualified domain name system (DNS) host name
- The default short DNS host name
- Numeric IP address

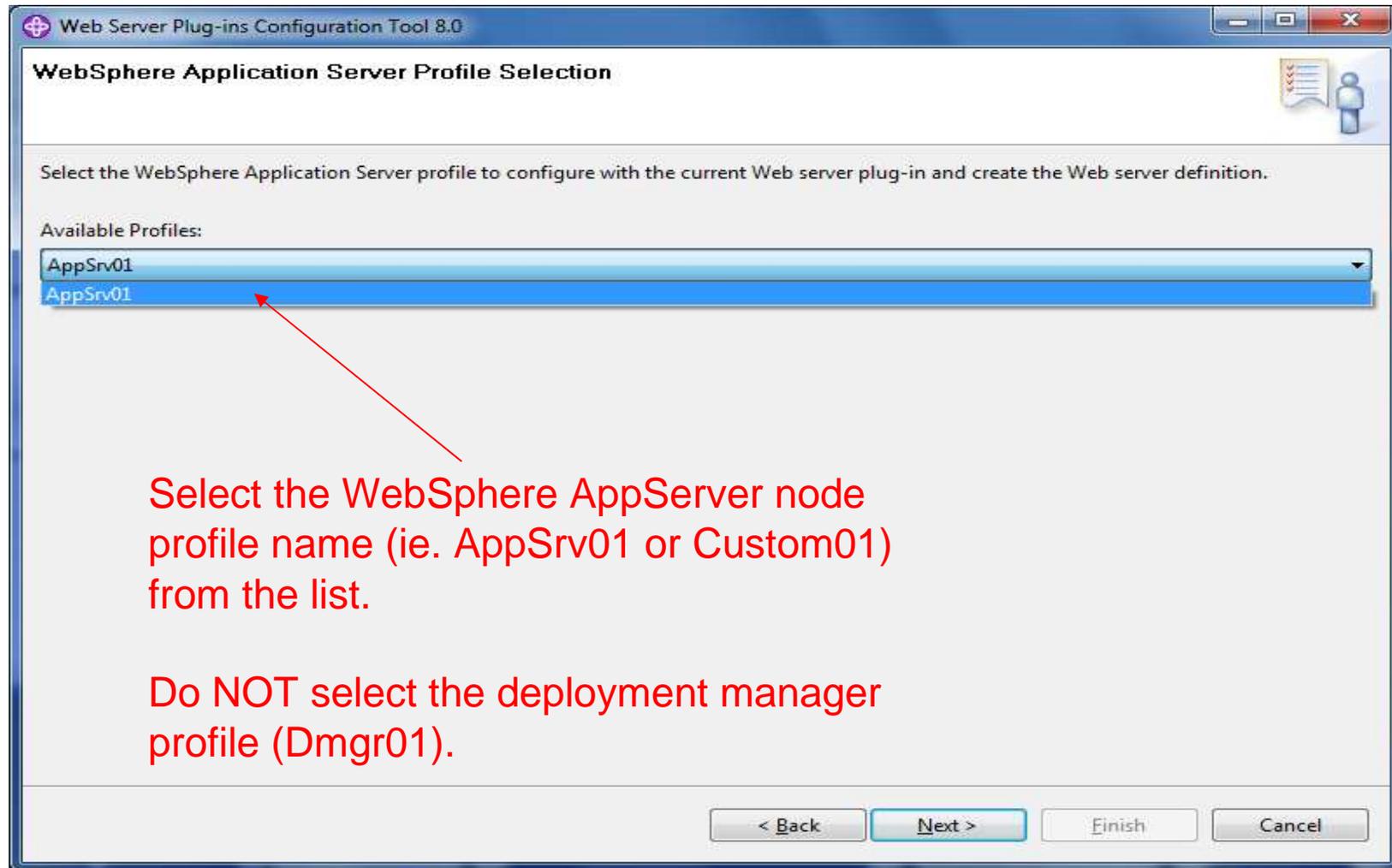
< Back Next > Finish Cancel

Choose REMOTE if the web server is on a different system than the WAS appserver.

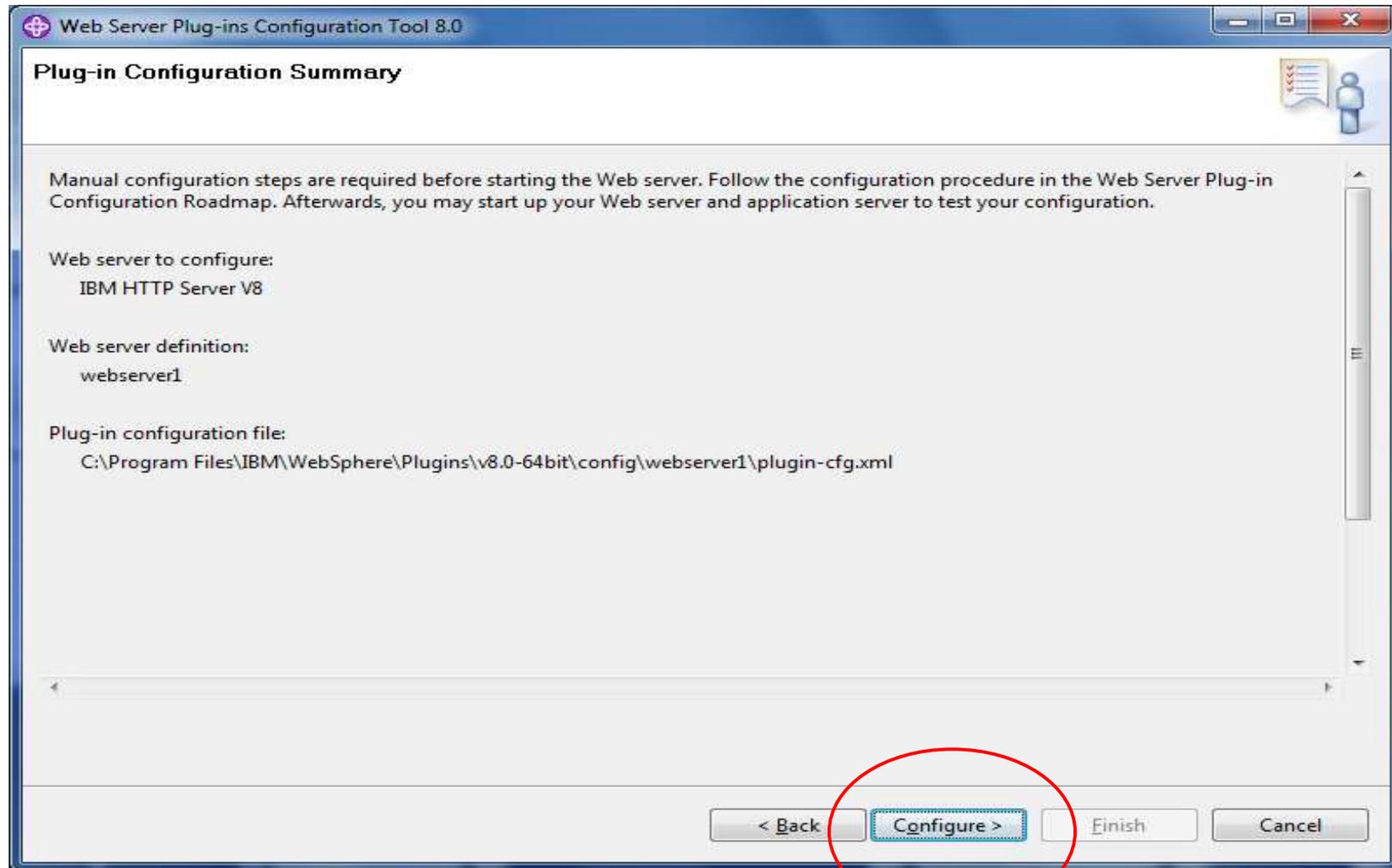
Local



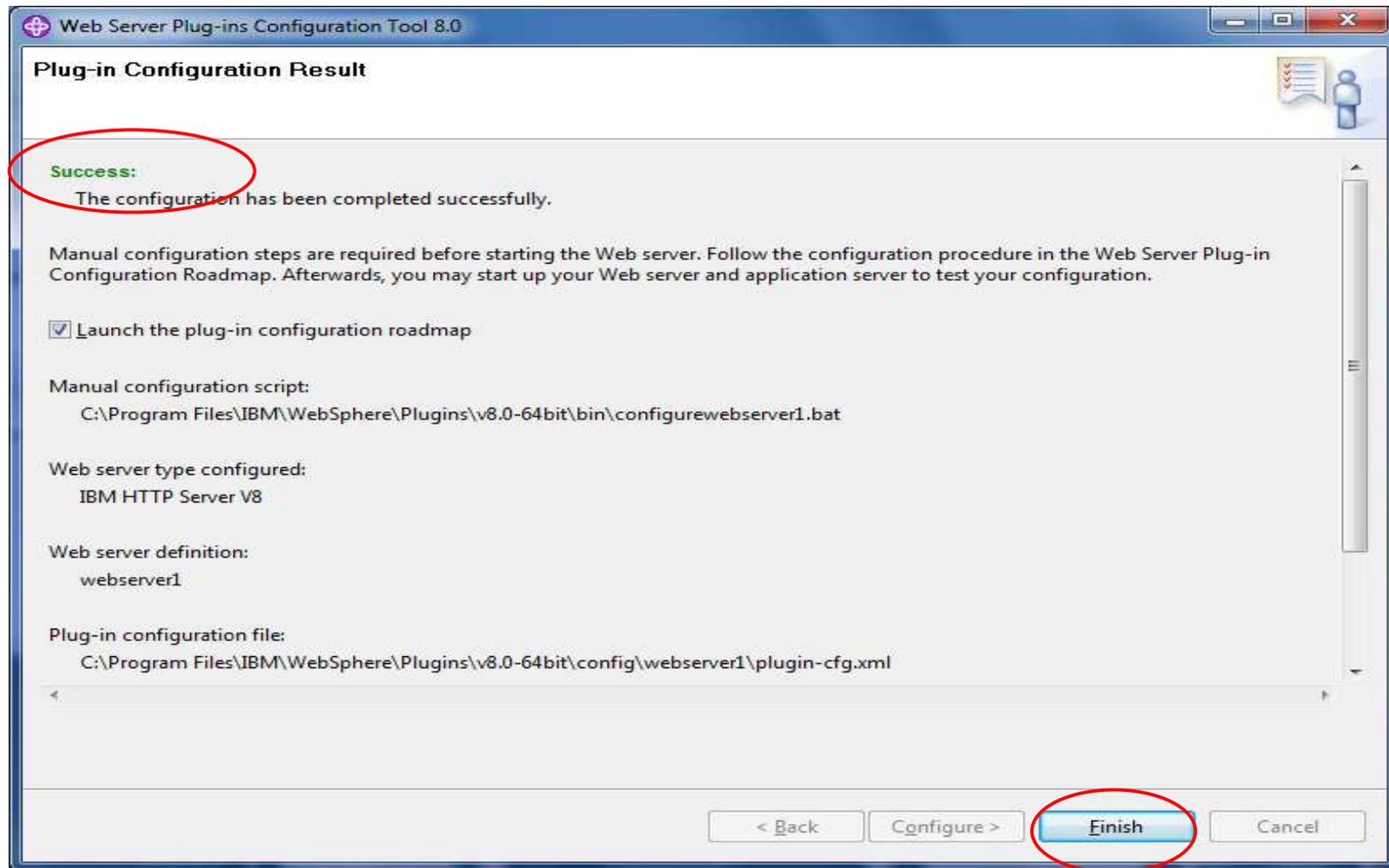
Local - select the WAS Node Profile name



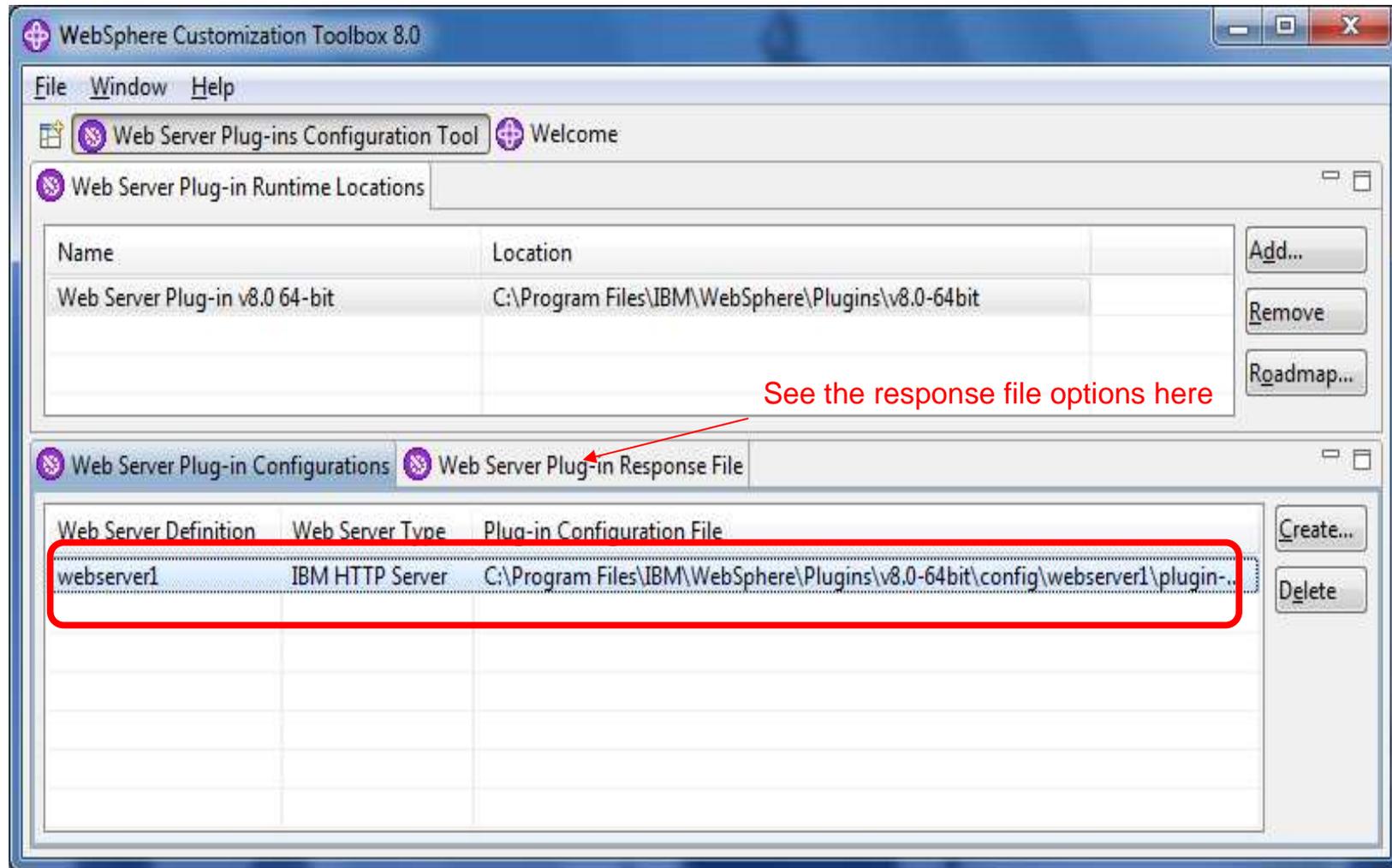
Review the Summary screen, then click Configure.



Review the Result screen, then click Finish.



Now PCT shows the web server definition



Using PCT from command line

- Create a response file with the correct options

- See this page in the InfoCenter:

http://pic.dhe.ibm.com/infocenter/wasinfo/v8r0/topic/com.ibm.websphere.nd.doc/info/ae/ae/tins_pctcl_using.html

- There is a example response file with comments here:

```
WebSphere/Toolbox/WCT/pct_responsefile.txt
```

- Run wctcmd.bat(sh) using the response file you created.

```
cd /opt/IBM/WebSphere/Toolbox/WCT
```

```
./wctcmd.sh -tool pct -defLocPathname /opt/IBM/WebSphere/Plugin  
-defLocName myDef -response /tmp/myresponsefile.txt
```

Using IHS Admin Server on a Federated WAS Node

- If you have IHS on a federated WAS node (managed), but you want to use the IHS Admin Server (unmanaged) anyway, do NOT use the `configurewebserver1.bat(sh)` script.
- Use the WAS Admin Console to manually create the unmanaged node definition. (Nodes → Add Node → Unmanaged)
- Then, use WAS Admin Console to create the web server definition linked to that unmanaged node. (web servers → New)

Part 3 - Web server plug-in Scripts *overview & execution*

Plug-in Ant scripts overview

script location: **<Plugins_home>\config\actionRegistry\actions**

99SBootStrapPlugins<webserver_type>.ant scripts are executed by PCT to configure the web server *plugin-cfg.xml* configuration file and appropriate plug-in *binary* (e.g. *mod_was_ap22_http.dll*) in the web server based on OS Family and web server Architecture
example: C:\Program Files (x86)\IBM\WebSphere\Plugins\config\actionRegistry\actions\99SBootStrapPluginsIHS.ant

<webserver_type>UnInstall.ant scripts are executed to uninstall the web server *plugin-cfg.xml* and plug-in binary during uninstall
example: C:\Program Files (x86)\IBM\WebSphere\Plugins\config\actionRegistry\actions\IHSUnInstall.ant

98SConfigureWebServerDefinition.ant script is executed to create a *ConfigureWebserverX.bat(.sh)* file which is used to create the web server definition within the *WebSphere Administrative Console*

IBM HTTP Administration Ant scripts overview

script location: **<IHS_Home>\properties\postinstall\actions**

CreateAdminPasswd.ant script is executed by PCT to create the *userid* and *password* needed to *authenticate* the WebSphere Administration Console with the IBM HTTP Administration service when making Web server administration and configuration changes

CreateWinServices.ant (windows platform only) script is executed to create the *IBM HTTP Administration service* within the *Windows services panel* for starting and stopping the service

SetupAdm.ant (unix platforms) script is executed to create or define the OS user and group in the *admin.conf* that is used to run the IBM HTTP Administration Server. In addition, permission and group information is adjusted for the *httpd.conf*

Script Registry used by PCT for configuration actions

registry location: **<Plugins_home>\config\actionRegistry**

file name: *ConfigurePlugins.xml*

```
<actions>
  <action path="98SConfigureWebserverDefinition.ant" priority="01" isFatal="false"/>
  <action path="99SBootStrapPluginsApache.ant" priority="01" isFatal="false"/>
  <action path="99SBootStrapPluginsDomino7.ant" priority="01" isFatal="false"/>
  <action path="99SBootStrapPluginsDomino8.ant" priority="01" isFatal="false"/>
  <action path="99SBootStrapPluginsIHS.ant" priority="01" isFatal="false"/>
  <action path="99SBootStrapPluginsIIS6.ant" priority="01" isFatal="false"/>
  <action path="99SBootStrapPluginsIIS7.ant" priority="01" isFatal="false"/>
  <action path="99SBootStrapPluginsSunOne.ant" priority="01" isFatal="false"/>
</actions>
```

Script Registry (cont'd)

file name: *UnConfigurePlugins.xml*

<actions>

<action path="**ApacheUnInstall.ant**" priority="01" isFatal="false"/>

<action path="**Domino7UnInstall.ant**" priority="01" isFatal="false"/>

<action path="**Domino8UnInstall.ant**" priority="01" isFatal="false"/>

<action path="**IHSUnInstall.ant**" priority="01" isFatal="false"/>

<action path="**IIS6UnInstall.ant**" priority="01" isFatal="false"/>

<action path="**IIS7UnInstall.ant**" priority="01" isFatal="false"/>

<action path="**SunOneUnInstall.ant**" priority="01" isFatal="false"/>

</actions>

Script Registry (cont'd)

registry location: **<IHS_Home>\properties\postinstall**

file name: *ihAdminConfigRegistry.xml*

```
<actions>
  <action path="actions/CreateAdminPasswd.ant" priority="99"
    isOptional="false" isFatal="true" />
  <action path="actions/CreateWinServices.ant" priority="99"
    isOptional="false" isFatal="true" />
  <action path="actions/SetupAdm.ant" priority="99" isOptional="false"
    isFatal="true" />
</actions>
```

IBM HTTP Administration Server Ant Scripts *Execution*



IBM HTTP Administration Server *Ant* script execution

<IHS_Home>\properties\postinstall\actions\CreateAdminPasswd.ant

executes:

```
${IHS_HOME}\bin\htpasswd.exe -cmb ${IHS_HOME}\conf\admin.passwd riboretti  
*****
```

<IHS_Home>\properties\postinstall\actions\CreateWinServices.ant

executes:

```
${IHS_HOME}\bin\httpd.exe -f ${IHS_HOME}\conf\admin.conf" -k install -n "IBM HTTP  
Administration for WebSphere Application Server V8.0"
```

IBM HTTP Administration Server *Ant* script execution

<IHS_Home>\properties\postinstall\actions\SetupAdm.ant

executes:

```
${IHS_HOME}/bin/setupadm -create -usr ${ADMUSER} -grp ${ADMGRP} -cfg  
${IHS_HOME}/conf/httpd.conf -adm ${IHS_HOME}/conf/admin.conf
```

-create

This parameter specifies that you want to create a user and group. note: must be running the application server as the root user. If you do not specify this parameter, the values for the -usr and -grp parameters must exist.

-usr

This parameter specifies the user ID that will run the IBM Administration server. This user ID value is updated in the <User> directive within the admin.conf.

-grp

This parameter specifies the group name that will run the IBM Administration server. When you specify a value, it is used to change the file permissions for the configuration files and the user or group authentication files. This group name value is updated in the <Group> directive within the admin.conf

-cfg

This parameter defines the fully qualified path to the IBM HTTP Server web server configuration file, httpd.conf. Within this file, the permission and group information is updated. Avoid trouble: The IBM Administration server requires both read and write access to IBM HTTP Server configuration files.

-adm

This parameter specifies the fully qualified path to the IBM Administration server configuration file, admin.conf.

99SBootStrapPlugins<webserver_type>.ant Script *Execution*

Initial Plug-in files used by *99SBootStrapPlugins...*

<Plugins_home>\config\templates (*default plugin-cfg.xml template location*)

plugin-cfg.xml

<Plugins_home>\etc (*default plug-in keyfile location*)

plugin-key.crl

plugin-key.rdb

plugin-key.sth

plugin-key.kdb

<Plugins_home>\bin\32bits (*32-bit plug-in binaries*)

example:

iisWASPlugin_http.dll

mod_was_ap22_http.dll

<Plugins_home>\bin\64bits (*64-bit plug-in binaries*)

example:

iisWASPlugin_http.dll

99SBootStrapPlugins<webserver_type>.ant execution

example: **99SBootStrapPluginsIHS.ant**

Creates the webserverX directories

e.g.

<Plugins_home>\config\webserver1

<Plugins_home>\logs\webserver1 (*http_plugin.log* location)

Copies these files

plugin-cfg.xml

FROM <Plugins_home>\config\templates TO <Plugins_home>\config\webserverX

plugin-key.crl

plugin-key.rdb

plugin-key.sth

plugin-key.kdb

FROM <Plugins_home>\etc TO <Plugins_home>\config\webserverX

99SBootStrapPluginsIHS.ant example (cont'd)

Executes

chmod, chgrp (unix)

-adjusts permissions for the http_plugin.log, plugin-cfg.xml and plugin-key files*

ascii to ebcidc

-z/OS specific to convert httpd.conf file for ANT to make changes. Converts back afterward

determines bitmode

-various calls are made to determine if plugin is running on 32 or 64 bit OS

Appends lines to <IHS_Home>/bin/httpd.conf

LoadModule

-based on bitmode determinations (32 bit versus 64 bit arch)

WebSpherePluginConfig

-based on <Plugins_home>\config\webserverX location

example:

```
LoadModule was_ap22_module "D:\WebSphere\Plugins\bin\32bits\mod_was_ap22_http.dll"
```

```
WebSpherePluginConfig "D:\WebSphere\Plugins\config\webserver1\plugin-cfg.xml"
```

98SConfigureWebserverDefinition.ant Script *Execution*

98SConfigureWebserverDefinition.ant execution

Sets *install type* based on following **input parameter** passed by PCT

Install types ****input parameter**:

remote, *local_standalone or *local_distributed

() which install type input parameter is passed by PCT depends on the **WebSphere Profile** selected in the PCT GUI or the response file (PCT command line)*

*(**) input parameters will be discussed later in this presentation*

Creates

configurewebserverX.bat(.sh) file used to create the web server definition within the WebSphere Administration Console

file location: **<Plugins_home>\bin**

e.g. C:\Program Files (x86)\IBM\WebSphere\Plugins\bin\ **configurewebserver1.bat**

98SConfigureWebserverDefinition.ant execution(cont'd)

Creates (ONLY if install type is *remote*)

<Plugins_home>\bin**crossPlatformScripts** directory and following subdirectories

<Plugins_home>\bin\crossPlatformScripts**os390**

<Plugins_home>\bin\crossPlatformScripts**os400**

<Plugins_home>\bin\crossPlatformScripts**unix**

Note: the ant script will create a *configurewebserverX.sh* script in the above directories. If one machine is running Windows and the other is running unix os390 or os400 the corresponding *configurewebserverX.sh* script should be used to create the web server definition in the WebSphere Administration Console

98SConfigureWebserverDefinition.ant execution(cont'd)

Executes (ONLY if install type is *local_standalone*)

configurewebserverX.bat(.sh) script is *locally executed automatically* by the Ant script to create the web server definition in the local WebSphere standalone Node. (not executed automatically for *remote* or *local_distributed*)

For *local_standalone*, the Ant script also executes the following command to generate and propagate the plugin-cfg.xml file to the *<Plugins_home>\config\webserverX* directory

```
./GenPluginCfg.bat(.sh) -webserver.name ${WEBSERVER_NAME} -node.name  
  ${WS_CMT_NODE_NAME} -propagate yes
```

File location: **<WAS_HOME>\AppServer\bin**

e.g. C:\Program Files (x86)\IBM\WebSphere\AppServer\bin**GenPluginCfg.bat**

configurewebserverX.bat(.sh) script remote execution

- ❑ **remote** (standalone and unmanaged dist. environments)

script needs to be **copied** to remote **machine A** and run from
<WAS_HOME>/AppServer/bin

- Standalone - AppServer should be started

machine B - IHS, machine A - AppServer

- Unmanaged - Dmgr and node agent should be running

machine C - IHS, machine B - federated AppServer, machine A – Dmgr

Note: after running the script, you will need to synchronize the changes with the federated node. From the *administrative console of the deployment manager*, click **System administration > Save Changes to Master Repository > Synchronize changes with Nodes > Save**

configurewebserverX.bat(.sh) script local_distributed execution

❑ **local_distributed** (managed dist. environment)

script needs to be **copied** to remote **machine A** and run from
<WAS_HOME>/AppServer/bin

- managed - Dmgr and node agent should be running

machine B - IHS & federated AppServer, machine A - Dmgr

Note: after running the script, you will need to synchronize the changes with the federated node. From the *administrative console of the deployment manager*, click **System administration > Save Changes to Master Repository > Synchronize changes with Nodes > Save**

See *roadmap* for more information:

<Plugins_home>\roadmap\index_roadmap_en.html

Input Parameters



Input Parameters

When using the PCT GUI or command line to configure a remote or local web server plug-in configuration scenario, ***input parameters*** are used by the ant scripts to complete the configuration

- PCT GUI: input parameters are passed under the covers to the plug-in **98SConfigureWebserverDefinition.ant** and **99SBootStrapPlugins<webserver_type>.ant** scripts to complete the plug-in configuration actions
- Command line: input parameters are coded in a **response file** and passed to the scripts

```
wctcmd.bat -tool pct -defLocPathname C:\data\IBM\WebSphere\Plugins -defLocName  
mywebserverplugin -response C:\IBM\WebSphere\tools\WCT\my_responsefile.txt
```

Input Parameters (cont'd)

- PCT provides a **sample** response file that includes a *description* of available Input parameters with *syntax* examples

file location: **<WebSphere_Home>\Toolbox\WCT\pct_responsefile.txt**

- In addition, when PCT is used to configure a Web server plug-in, the tool *automatically* creates a response file which may be used for *future installations*

file location: **<Plugins_home>\config\webserver(x)**
example: **webserver1.responseFile**

webserver1.responseFile example

local_standalone scenario

```
configType=local_standalone  
enableAdminServerSupport=true  
enableUserAndPass=true  
enableWinService=true  
ihsAdminPassword=*****  
ihsAdminPort=8008  
ihsAdminUserID=rlboretti  
ihsWindowsStartupType=demand  
mapWebServerToApplications=true  
profileName=AppSrv01  
wasExistingLocation=C:\Program Files (x86)\IBM\WebSphere\AppServer  
webServerConfigFile1=C:\Program Files (x86)\IBM\HTTPServer8.0\conf\httpd.conf  
webServerDefinition=webserver1  
webServerHostName=IBM-7LL06ACAMCV  
webServerInstallArch=32  
webServerPortNumber=80  
webServerSelected=ihs  
webServerType=IHS
```

Input Parameters (cont'd)

For *IBM HTTP Server* configurations, some of the input parameters are acquired from the web server's *postinst.properties* file

file location: **<IHS_Home>\conf\postinst.properties**

example:

SERVERROOT_NATIVE=C:\Program Files (x86)\IBM\HTTPServer8.0

SERVERROOT=C:/Program Files (x86)/IBM/HTTPServer8.0

PORT=80

GSK7LIBDIR_NATIVE=C:\Program Files (x86)\IBM\HTTPServer8.0\gsk8\lib

GSK7LIBDIR=C:/Program Files (x86)/IBM/HTTPServer8.0/gsk8/lib

SERVERNAME=IBM-7LL06ACAMCV

JAVADIR_NATIVE=C:\Program Files (x86)\IBM\HTTPServer8.0\java\jre

JAVADIR=C:/Program Files (x86)/IBM/HTTPServer8.0/java/jre

WINSERVICE=IBM HTTP Server V8.0

Part 4 – PCT Troubleshooting



Mustgather/Logs

The following configuration files and logs should be collected to investigate failures related to PCT configuration actions. This includes problems with the execution of the underlying ant scripts, utilization of input parameters, creation of the IBM HTTP Administration Service (windows), creation of the configurewebserver(x).bat, etc..

LOGS:

1. **WebServerPluginConfiguration.log**
2. **wct.log**
3. **configure_<WEBSERVER_TYPE>_webserver.log**
4. **install<WEBSERVER_TYPE>Plugin.log**
5. **IHSAdminConfiguration.log** (if configuring IBM HTTP Administration Server)

Mustgather/Logs

This log will include successful or failure messages related to the executing of the repository/registry actions by the tool. In addition, input parameters used will be recorded in this log as arguments

PCT specific log: **<Plugins_home>\logs\WebServerPluginConfiguration.log**

Mustgather/Logs (cont'd)

This log records additional underlying functions and operations performed by the WebSphere Customization Toolbox (WCT)

WCT specific log: **wct.log**

- *Windows:*
<USER_HOME>/AppData/Local/IBM/WebSphere/workspaces/WCT8/.metadata/.plugins/com.ibm.ws.pmt.tools/wct.log
- *Unix:* Look for the value below from
<WebSphere_Home>/Toolbox/WCT/configuration/config.ini
e.g.
osgi.instance.area.default=@user.home/AppData/Local/IBM/WebSphere/workspaces/WCT8 ..

Then starting with **.metadata/.plugins/com.ibm.ws.pmt.tools/wct.log**

Mustgather/Logs (cont'd)

Configuration results: creation of the configurewebserver(x) script for local & remote scenarios and cross platform scripts for remote scenarios. *Execution results:* mapping of applications, generation and propagation of the plugin-cfg.xml for local scenarios. Also records the input parameters used to complete the configuration tasks

<Plugins_home>\logs\config\configure_<WEBSERVER_TYPE>_webserver.log
e.g. *configure_IHS_webserver.log*

Installation results: installing the default plugin-cfg.xml & keyfiles and plug-in binary file to the web server. Also records the input parameters used to complete the configuration tasks

<Plugins_home>\logs\config\install<WEBSERVER_TYPE>Plugin.log
e.g. *installIHSPlugin.log*

Configuration actions and results: setting up the IBM HTTP Administration Server

<IHS_Home>\logs\config\IHSAdminConfiguration.log

Mustgather/Logs (cont'd)

CONFIGURATION RELATED FILES:

1. **admin.conf** (IBM HTTP Administration Server configuration file)
2. **httpd.conf** (Apache, IHS plug-in binary & configuration file location)
3. **postinst.properties** (IHS, gskit & java path locations, port, windows service name input parameters)
4. **webserverX.responseFile** (input parameters)
5. **plugin-cfg.xml** (plug-in configuration file)
6. **plugin-cfg.loc** (IIS plug-in configuration file location)
7. **ApplicationHost.config** (IISv7 plug-in ISAPI configuration)
e.g. C:\Windows\system32\inetsrv\ApplicationHost.config
8. **Metabase.xml** (IISv6 plug-in ISAPI configuration)
e.g. C:\Windows\system32\inetsrv\metabase.xml
9. **configurewebserverX.bat(.sh)** (script used to create webserver definition)
10. **magnus.conf, obj.conf** (sunone plug-in binary & configuration file location)
11. **notes.ini** (domino plug-in binary & configuration file location)

Known Problems and Issues

- **PCT tool configures a 64-bit plug-in binary on 32-bit web server when using a responsefile**

e.g. LoadModule was_ap22_module

"D:\WebSphere\Plugins\bin\64bits\mod_was_ap22_http.dll"

The responsefile MUST contain *webServerInstallArch* specifying the architecture of the web server. If missing the PCT tool will use the architecture of the OS instead. e.g. *webServerInstallArch=32*

- **The IBM HTTP Administration windows service is not created**

You can configure the service to run as Local System account or a user ID that you specify. The user ID requires the following advanced user rights:

Act as part of the operating system and Log on as a service

Known Problems and Issues (cont'd)

- **When choosing to configure the *IBM HTTP Administration Server* as part of the configuration, the PCT tool may not create the `WebServerPluginConfiguration.log` file. Instead, “ALL” PCT tool related tasks are recorded in the `IHSAdminConfiguration.log`**

Only config actions related to the IBM HTTP Administration server should be recorded in the `IHSAdminConfiguration.log`. All other PCT tool config actions should be logged in `WebServerPluginConfiguration.log`

L3 tool development is looking into the issue

- **Bad `setupadm` file in IHS 8.0.0.3 causes PCT to fail on Solaris**

Published technote:

<http://www-01.ibm.com/support/docview.wss?uid=swg21610878>

Known Problems and Issues (cont'd)

- **PM38957: The Web server plug-ins configuration tool (PCT) fails during IHS web server configuration if its httpd.conf file is read-only**

Fixed in WebSphere Customization Toolbox 8.0.0.1

<http://www-01.ibm.com/support/docview.wss?uid=swg1PM38957>

- **PM45371: (PCT) CANNOT RECOGNIZE WEBSHERE APPLICATION SERVER PROFILES DURING CONFIGURATION**

Fixed in WebSphere Customization Toolbox 8.0.0.1

<http://www-01.ibm.com/support/docview.wss?uid=swg1PM45371>

- **PM46369: CREATE BUTTON UNRESPONSIVE IN WAS v8 PLUGIN CONFIGURATION TOOL (PCT)**

Fixed in WebSphere Customization Toolbox 8.0.0.2

<http://www-01.ibm.com/support/docview.wss?uid=swg1PM46369>

Known Problems and Issues (cont'd)

- **PM43260: IHS ADMIN START-UP IS "AUTOMATIC" DESPITE CHOOSING "MANUAL" IN THE PLUG-IN CONFIGURATION TOOL (PCT)**

Fixed in WebSphere Customization Toolbox 8.0.0.2

<http://www-01.ibm.com/support/docview.wss?uid=swg1PM43260>

- **PM59957: REMOVE IHS ADMIN SERVER SERVICE DURING UN-CONFIGURATION OF IHS WEBSERVER PLUG-IN USING (PCT)**

This APAR corresponds with FIS R014222. This feature is to be planned for delivery in a future release

<http://www-01.ibm.com/support/docview.wss?uid=swg1PM59957>

Workaround: manually remove the IBM HTTP Administration windows service

```
<IHS_HOME>\bin\httpd.exe -k uninstall -n "IBM HTTP Administration for WebSphere Application Server V8.0"
```

PCT directory tree reference

<Plugins_home>

- ..\bin
- ..\bin\32bits
- ..\bin\64bits
- ..\bin\crossPlatformScripts
- ..\bin\crossPlatformScripts\os390
- ..\bin\crossPlatformScripts\os400
- ..\bin\crossPlatformScripts\unix

- ..\config
- ..\config\templates
- ..\config\webserverX
- ..\config\actionRegistry
- ..\config\actionRegistry\actions

- ..\etc

- ..\logs
- ..\logs\config
- ..\logs\webserverX

- ..\roadmap

<IHS_home>

- ..\bin

- ..\conf

- ..\logs\config

- ..\properties
- ..\properties\postinstall
- ..\properties\postinstall\actions

<WebSphere_home>

- ..\Toolbox
- ..\Toolbox\WCT
- ..\Toolbox\WCT\configuration

- ..\AppServer
- ..\AppServer\bin

- ..\Plugins

Additional WebSphere Product Resources

- Discover the latest trends in WebSphere Technology and implementation, participate in techniCally-focused briefings, webcasts and podcasts at:
<http://www.ibm.com/developerworks/websphere/community/>
- Learn about other upcoming webcasts, conferences and events:
http://www.ibm.com/software/websphere/events_1.html
- Join the Global WebSphere User Group Community: <http://www.websphere.org>
- Access key product show-me demos and tutorials by visiting IBM® Education Assistant:
<http://www.ibm.com/software/info/education/assistant>
- View a Flash replay with step-by-step instructions for using the Electronic Service Request (ESR) tool for submitting problems electroniCally:
<http://www.ibm.com/software/websphere/support/d2w.html>
- Sign up to receive weekly technical My support emails:
<http://www.ibm.com/software/support/einfo.html>

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