

How to Create a Custom Patch Profile

This section provides a quick-reference aid that shows how to complete these steps, and uses the example of a test engineer who has downloaded a patch and plans to test the patch in a QA domain before incorporating the patch into a production domain.

To create a custom patch profile and point a domain or server at the patches applied to the profile, complete the following steps:

1. Start Smart Update, log in to BEA Customer Support, and select the BEA product in the Target Installation panel.
2. Download the patch from BEA Customer Support into the designated patch download directory.
3. Create a custom patch profile to which the patch is to be applied, using the following steps:
 - a. Choose **Patches**→**Patch Profiles**→**New**.



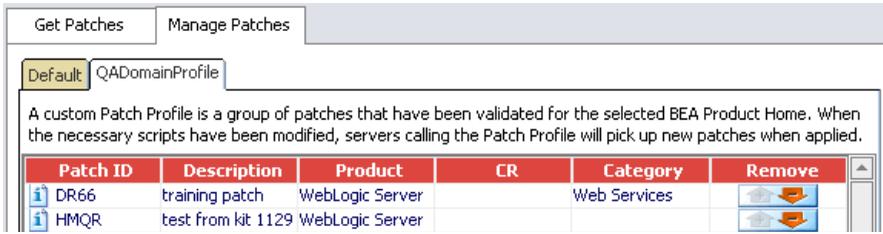
- b. Assign a name for the custom patch profile, and specify the initial set of patches you want in the custom patch profile by cloning the contents of another existing patch profile that exists for the target installation.

Example: The test engineer wants to run the QA domain at the same patch maintenance level as the production system, but with the addition of the patch downloaded in step 2. So the engineer creates the custom patch profile, QADomainProfile, and clones the contents of the default patch profile to it. Later she will apply the downloaded patch to this custom patch profile.



Note that any existing installation-wide patches that have already been applied to the target installation are included in the custom patch profile by default.

After you click **Create**, the custom patch profile is displayed in a tab adjacent to the tab for the default patch profile.



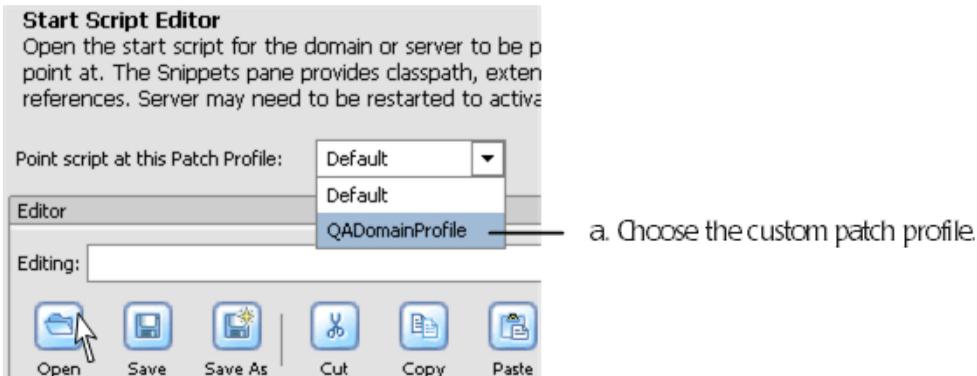
4. Apply patches to, or remove patches from, the custom patch profile, as appropriate.

Example: The test engineer now applies the patch that was downloaded in step 2 to the QADomainProfile custom patch profile.

5. Before running the Start Script Editor, make backup copies of any scripts you plan to modify.
6. Run the Start Script Editor so you can modify the appropriate start script so that it references patches in the custom patch profile.



7. In the Start Script Editor dialog box, choose the custom patch profile you created, then click **Open** to open a start script.



b. Click **Open** to open a start script.

8. Open the appropriate start script so that the domain, cluster, or server can run with the patches in the custom patch profile. In the following table, *domain_home* represents the path to the domain's root directory.

To point the following at patches applied to the custom patch profile . . .	Open the following script . . .
Domain	Windows: <code>domain_home\bin\setDomainEnv.cmd</code> UNIX: <code>domain_home/bin/setDomainEnv.sh</code>
All WebLogic Server instances in the domain	Windows: <code>domain_home\bin\startWebLogic.cmd</code> UNIX: <code>domain_home/bin/startWebLogic.sh</code>
All Managed Servers	Windows: <code>domain_home\bin\startManagedWebLogic.cmd</code> UNIX: <code>domain_home/bin/startManagedWebLogic.sh</code>
One server instance	Windows: <code>domain_home\bin\startServerName.cmd</code> UNIX: <code>domain_home/bin/startServerName.sh</code>

Example: Because the test engineer needs to point the QA domain to the custom patch profile, she opens the `setDomainEnv.cmd` script, which sets the environment for all servers in that domain only. Unless you need to limit the scope of a patch to a specific server instance, we generally recommend that you choose the `setDomainEnv` for pointing to custom patch profiles.

9. In the appropriate start script, create an environment variable that references the class or library path patches in the custom patch profile to which you want the script to point.

To reference the following patch . . .	Define the following environment variable so it points to the patches in the custom patch profile . . .
Patch JAR containing classes to be interested into the WebLogic system classpath	Environment variable to define: <code>PATCH_CLASSPATH</code> Example: <pre>set PATCH_CLASSPATH= %BEA_HOME%\patch_weblogic910\profiles\NewProfile \sys_manifest_classpath\weblogic_patch.jar</pre>

To reference the following patch . . .	Define the following environment variable so it points to the patches in the custom patch profile . . .
Patch JAR containing classes to be inserted into the classpath of an application deployed on webLogic Server	<p>Environment variable to define:</p> <p>WEBLOGIC_EXTENSION_DIRS</p> <p>Example:</p> <pre>set WEBLOGIC_EXTENSION_DIRS= %BEA_HOME%\patch_weblogic910\profiles\NewProfile \sysext_manifest_classpath</pre>
Native file to be inserted into the system library path (UNIX)	<p>Environment variable to define:</p> <p>PATCH_LIBPATH</p> <p>Example:</p> <pre>PATCH_LIBPATH="%\${BEA_HOME}/patch_weblogic910/profiles /NewProfile/native"</pre>
Native file to be inserted into the system library path (Windows)	<p>Environment variable to define:</p> <p>PATCH_PATH</p> <p>Example:</p> <pre>set PATCH_PATH= %BEA_HOME%\patch_weblogic910\profiles\default\native</pre>

Example: The particular patch being tested in the QA domain example contains patch JARs that are to be inserted into the beginning of the WebLogic system classpath. Therefore, the specific patch path variable that needs to be defined so that the domain points to the custom patch profile is `PATCH_CLASSPATH`.

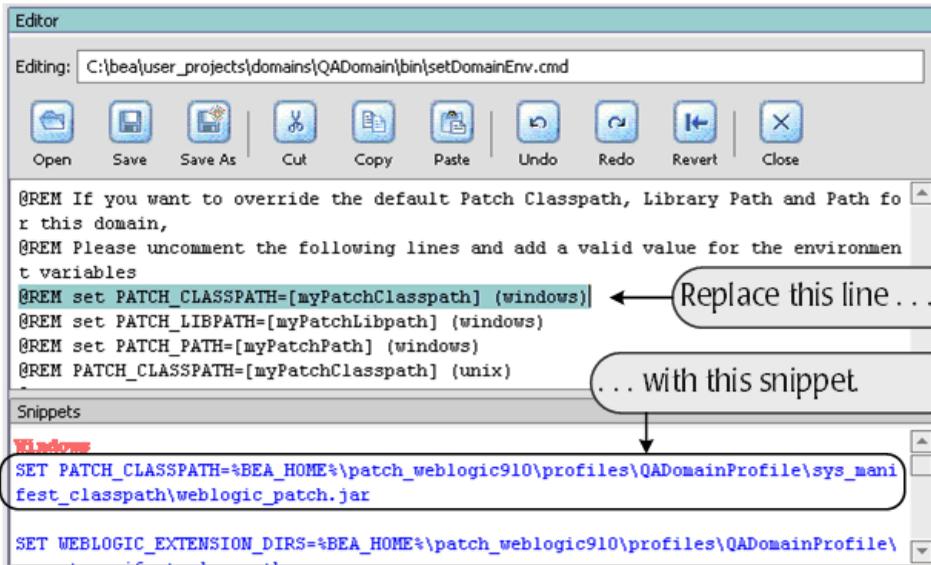
The test engineer locates the following line in the `setDomainEnv.cmd` script:

```
@REM set PATCH_CLASSPATH=[myPatchClasspath] (windows)
```

She replaces this line with the following snippet that is generated in the bottom panel of the Start Script Editor:

```
SET PATCH_CLASSPATH=%BEA_HOME%\patch_weblogic910\profiles\QADomainProfile\sys_manifest_classpath\weblogic_patch.jar
```

The following example shows the change that the test engineer makes to the `setDomainEnv.cmd` script.



10. Make sure that any patch path variables you add to a start script precedes an invocation to one of the other environment scripts. For example, if you add a patch path variable definition to the `setDomainEnv` script, make sure it is placed before the invocation to the `commEnv` script.

If you use custom scripts in your environment that do not invoke the `WL_HOME/common/bin/commEnv` script, or any of the other default scripts produced by the Configuration Wizard, you also need to modify the statements in your scripts that set the class and library paths for your environment so that the environment variables you have defined are properly inserted into those statements. For example, to set the WebLogic system classpath so that patch JARs in a custom patch profile supersede same-named classes appearing later in the classpath, add the `PATCH_CLASSPATH` variable as follows, shown in **bold**:

```
set WEBLOGIC_CLASSPATH=%PATCH_CLASSPATH%;%JAVA_HOME%\lib\tools.jar;
%WL_HOME%\server\lib\weblogic_sp.jar;%WL_HOME%\server\lib\weblogic.jar;%WL_HOME%\ser
ver\lib\webservices.jar
```

11. Click **Save**.

For the patch to go into effect, each server instance that uses the patch must be restarted.

12. If you subsequently decide to change the scope of a patch so that a different domain or server uses the patch, or so that all servers and domains that run on an installation use the patch, update the appropriate patch profile.

Example: When the test engineer approves the patch that has been tested in the QA domain, the patch can then be promoted for use in the production domains. To promote the patch, the test engineer does the following:

- Runs Smart Update, and selects the product installation used by the production domain.
- In the Manage Patches tab, selects the default patch profile, and applies the patch.
- Restarts the servers in the production domain.