Making PowerShell the Shell to the WES 7 System

By Sean D. Liming and John R. Malin
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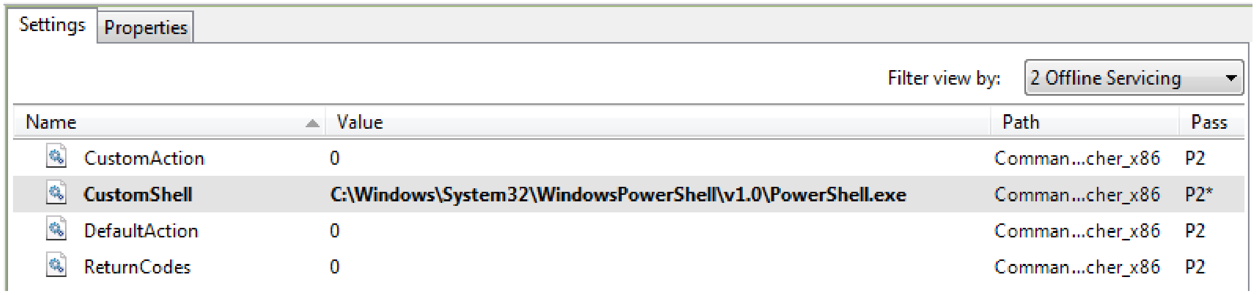
The ability to have a custom shell is a popular feature for Windows Embedded. It allows the system to be locked down with only the main application running, and it presents a different look and feel to the user that is anything but the standard Windows desktop. Some systems don't need a sophisticated interface and some are headless systems that only need administration access. PowerShell is a task-based command-line and scripting tool that was built on top of .NET Framework Common Language Runtime, CLR. As a command-line tool, it goes beyond the simple capabilities of Cmd.exe with a more robust set of commands. As a scripting tool, it supports all of the features of VBscript, and more. Based on some articles and posts, PowerShell is going to be the eventual successor to VBscript. Like the enterprise tools and VBscript, there is a wealth of information in books, blogs, and websites. The Script Guys at the TechNet Script Center (http://technet.microsoft.com/scriptcenter) make learning about PowerShell fun and interesting. Rather than having a simple command shell for a headless system, PowerShell offers a more powerful alternative. Here is how to set up PowerShell as the shell for WES 7:

1. As you are creating the answer file in ICE, add the **Command Prompt Shell with Custom Shell Support** package.
2. Change the **Filter view by** to 2 Offline Servicing
3. In the Command Prompt Shell with Custom Shell Support package's settings change the CustomShell setting to point to the path to the PowerShell.exe application.

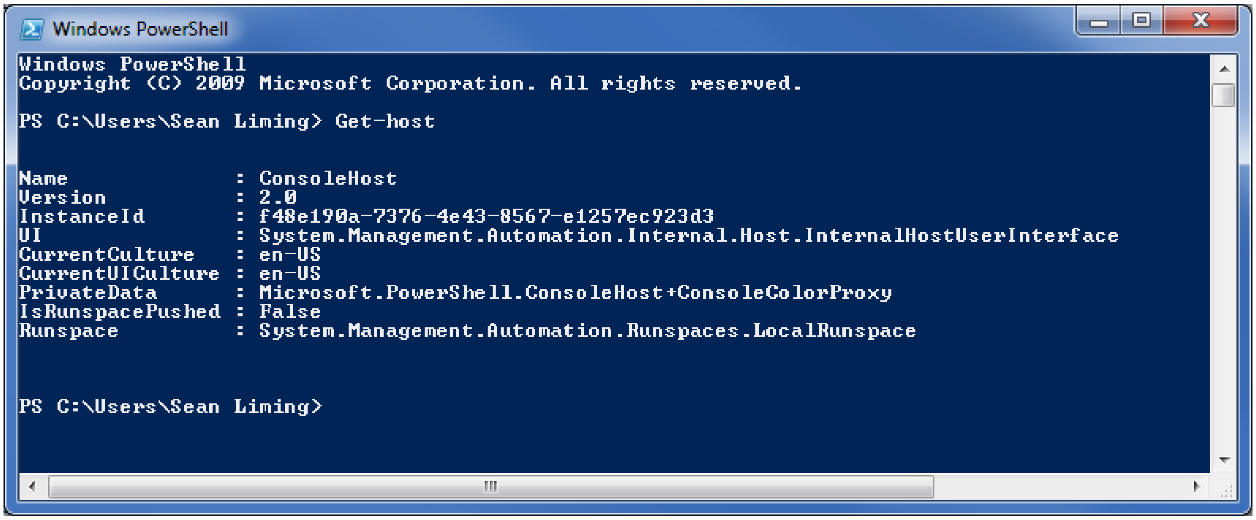
   C:\Windows\System32\WindowsPowerShell\v1.0\PowerShell.exe



Filter view by: 2 Offline Servicing

Name	Value	Path	Pass
CustomAction	0	Comman...cher_x86	P2
CustomShell	**C:\Windows\System32\WindowsPowerShell\v1.0\PowerShell.exe**	Comman...cher_x86	P2*
DefaultAction	0	Comman...cher_x86	P2
ReturnCodes	0	Comman...cher_x86	P2

The package says PowerShell 2.0, but the path has v1.0 in it. It is a little confusing, but it is the correct path. If you run PowerShell on your desktop system, you can check that the version is 2.0 by running Get-host.



```
Windows PowerShell
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PS C:\Users\Sean Liming> Get-host


Name             : ConsoleHost
Version          : 2.0
InstanceId       : f48e190a-7376-4e43-8567-e1257ec923d3
UI               : System.Management.Automation.Internal.Host.InternalHostUserInterface
CurrentCulture   : en-US
CurrentUICulture : en-US
PrivateData      : Microsoft.PowerShell.ConsoleHost+ConsoleColorProxy
IsRunspacePushed : False
Runspace         : System.Management.Automation.Runspaces.LocalRunspace



PS C:\Users\Sean Liming>
```
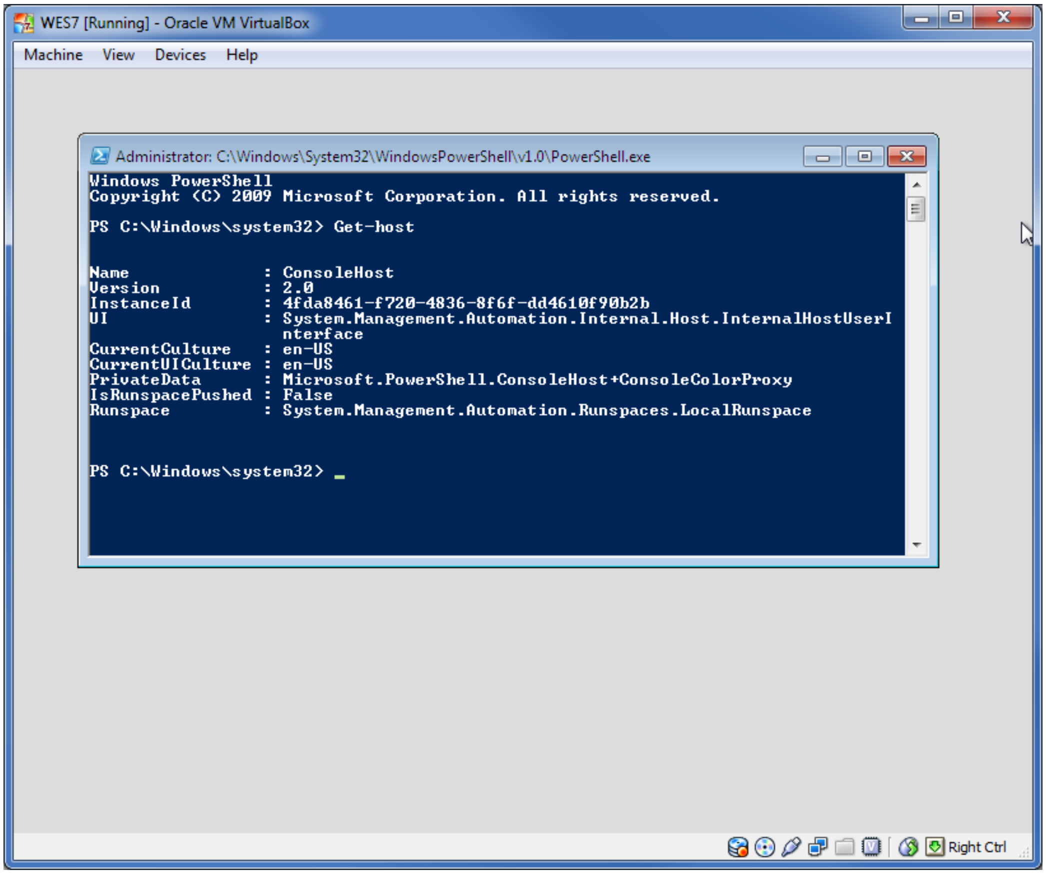

4. Add the **Windows PowerShell 2.0** package to the image
5. Make sure you run **Validate->Add Required Packages** to satisfy all dependencies.

Once the OS has been installed, PowerShell launches as the shell to the system.


WES7 [Running] - Oracle VM VirtualBox
Machine
View
Devices
Help
Administrator: C:\Windows\System32\WindowsPowerShell\v1.0\PowerShell.exe
Right Ctrl

```
Windows PowerShell
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PS C:\Windows\system32> Get-host


Name             : ConsoleHost
Version          : 2.0
InstanceId       : 4fda8461-f720-4836-8f6f-dd4610f90b2b
UI               : System.Management.Automation.Internal.Host.InternalHostUserI
                   nterface
CurrentCulture   : en-US
CurrentUICulture : en-US
PrivateData      : Microsoft.PowerShell.ConsoleHost+ConsoleColorProxy
IsRunspacePushed : False
Runspace         : System.Management.Automation.Runspaces.LocalRunspace



PS C:\Windows\system32> _
```

Reference

- ***Professional's Guide to Windows® Embedded Standard 7,*** Sean D. Liming, Annabooks, 2010.
- ***Professional's Guide to Windows® Embedded Standard 7 – 2nd Edition***, Sean D. Liming, Annabooks, 2012