

Mike Nelson – SV article

What's New & Cool in PowerCLI Version 5

With the release of the latest version of vSphere version 5, the PowerShell Command Line Interpreter created by VMware, the PowerCLI, has also been updated. While some of the new cmdlets and snap-ins of the update are targeted specifically for use with vSphere 5, there are also a few improvements that work with older versions as well. Let's take a look at just a small sample of the new and cool things you can do with PowerCLI version 5.

First off, for a complete outline of all the changes made for the latest release, you can consult the [Change Log](#), which provides great details for anyone that is interested. You can download PowerCLI version 5 from [here](#), and I highly recommend taking a look at the [Release Notes](#) since there are some changes that may or may not affect you regarding cmdlets and a long list of Known Issues. And, of course, the [Cmdlet Reference](#) is also a good read, unless you're like me and use the CLI itself to show you the way by using the Get-Help cmdlet with the *-detailed* parameter applied.

Some of the new features are real timesavers for administrative tasks, while some are improvements that make our admin lives easier and our scripts less complex and long. One cmdlet that is definitely welcomed is the new *Get-VIProperty* cmdlet, which will show you all of the Extended properties that have been difficult to find in the past versions and provide much deeper detailed information than the basic properties. Now, the *Get-VIProperty* command lays it all out for you in an easy to read format with all the information available. At VMworld 2011, the emphasis on using Extended Properties was very strong in all the PowerCLI sessions I attended and it promises to open more advanced scripting capabilities that the average Administrator can use.

Some of the other cmdlets and cmdlet parameters that offer more flexibility and can aid you in creating some powerful admin scripts are:

- *GetVMHostAuthentication* and *Set-VMHostAuthentication* – These allow you to join your hosts to Active Directory domains on the fly.
- *Copy-VMGuestFile* – This allows a script to copy files and/or folders to and from the guest OS, which is great for mass updates and changes to your VM's.
- *New-Template* – This will allow you to create a clone of an existing Template, which could be used for automated build scripts. I myself do not use Templates much as I prefer to do OS builds via an alternative and, in my opinion, better OS Automated build technique outside of vCenter.
- *Get-VIAccount* – This will retrieve all of your users and roles from the vCenter instance. Very useful when performing security audits or vCenter migrations when used in conjunction with the *Get-VIRole* cmdlet.
- *New-VM* – While not a new cmdlet, the updated *-ResourcePool* parameter now accepts a Cluster name as an option, which greatly eases the automation

and placement of new VM's. Be aware that the new *Get-Template* cmdlet mentioned above does not allow for a parameter for VM placement in a cluster, so *New-VM* may do the trick for you instead.

There were also three new vSphere PowerShell snap-ins introduced with version 5. These new snap-ins center around some new features of vSphere 5, as well as adding functionality for vSphere 4.x versions, but are mainly targeted for the new Auto-Deployment and ImageBuilder features within vSphere 5. [Eric Sloof at the ntpro.nl blog has an excellent slide deck on these new features](#). Be sure to add these snap-ins to your PowerShell profile to enable their functions.

- *VMware.ImageBuilder* – An integral piece of the vSphere Auto Deploy feature, it allows for the creation of custom ESXi images and media that will be deployed via the Auto Deploy. However, these images can also be used without the Auto Deploy functionality and simply used as stand-alone installation media, if you so choose.
- *VMware.DeployAutomation* – Build and create new ESXi hosts easy and quickly with this new feature. Be sure to check out [Duncan's Yellow Brick's Blog for awesome information and a PowerCLI cheat sheet for Auto Deploy](#).
- *VMware.VimAutomation.License* – This provides detailed license information about your environments, especially useful with the new vRAM requirements and limitations. The *Get-LicenseDataManager* cmdlet in this snap-in allows for the retrieving, creating, modifying, or removing of license associations.

Overall, the new release of PowerCLI is really a hands-down winner in my book. The new cmdlets, snap-ins, and parameters make for a more complete and robust scripting CLI that all administrators can use in their vSphere environments. PowerCLI will always be a part of my daily admin life, and I'm sure it will be part of yours also, if it isn't already. There are some terrific web blogs for information and scripts for the new version out there that can be easily found via a Google search, minus the "official" VMware ones which you can obviously get at the [VMware PowerCLI Site](#). Good luck and happy scripting!