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A Look Into a VMware Administrators Toolbox

Every I.T. Administrator needs a toolbox. Whether it be for VMware, other hypervisors, operating systems, hardware, storage, or whatever, the toolbox is an absolute necessity for us to be able to get our work done. It contains all of the software installations, files, code snippets, utilities, and even documentation that are sometimes needed at a moments notice in a critical situation, and are necessary for us to architect, implement, configure, document, and troubleshoot in our everyday work. I personally have a dozen or so USB thumb drives I carry in my bag, most of which are a mix of specific toolboxes for whatever situation I might be handling at any given time. I have toolboxes for VMware, Citrix, Windows Servers, XP, Win7, EMC, Linux, and many more. Let's take a peek into what I have in my VMware Toolbox and maybe you'll pick up a few ideas along the way for your own VMware Admin Toolbox.

Anyone who has been in I.T. for as many years as I have (I'll be really showing my age with this paragraph of the article) should remember the days that when you desperately needed a software tool to get a job done, you had to rely on it being available on the network somewhere, download it from a BBS (Bulletin Board Service) or CompuServe, or even having to carry around a bag full of 5.25 and 3.5 inch floppy disks (yeah, remember those?) with what you needed on them. You then prayed that they would run from the floppies, which most would not. Technology has now given us many more much needed options for accessing and using these tools, like virtual guests, portable USB hard drives, and USB thumb drives. These make creating flexible, scalable, and portable toolboxes a pretty simple project.

In my case, I have three separate environments for all my toolboxes. They include a virtual XP and Windows 7 guest hosted on a laptop, and a bootable 16GB USB flash drive. The main reasons for the separate XP and Win7 guests is due to some application limitations and dependencies that are required for those applications that are limited to a specific OS version. Although these dependencies have gotten less and less over the years, they still exist for some applications, so the necessity for the two environments is still there. Your mileage may vary depending on the number and complexity of toolboxes you need to do your work.

Now, let's get to my VMware Toolboxes. First and foremost, there are "staple" items that I use all the time. These are PowerShell (versions 1 & 2), PowerCLI (versions 4.0 & 4.1), [PowerGUI], the vCenter Client (now [ThinApp'd by VMware Labs]!), [FastSCP from Veeam], [Putty], and [NotePad++.] The first three are obvious, and NotePad++ is my script editing, note pad, and documentation tool all in one. I use FastSCP for the SCP file transfers, and Putty for all my SSH connections. Almost all of these can be made "portable" to run off a thumb drive, either via their own installation options, someone already ported them to be portable, or ThinApp'd. It should be noted that I have also tried running a "Live" XP and Win7 machine from a thumb drive to

accomplish this, but have had various, and not real successful, results. Here a small sample of tools that I use, and this list is nowhere complete and is ever changing. I certainly do have an obvious preference to "free" tools, mainly because I am cheap, but also since some of these free tools rival their commercial counterparts in every way that I have seen. Also, many tools that I have used in the past on ESX 3.x environments do not necessarily run on ESX 4.x or ESXi 4.x, so they have not been included.

- RvTools from Rob de Veij. Simple and robust, this application gathers a boatload of data about the environments and exports it for further manipulation and analysis as delimited files. With this tool you can see all the information about an environment without having to piece it all together within vCenter or run multiple scripts. I also have this ThinApp'd on my thumb drive.
- NetWrix VMware Change Reporter. A great tool to see what changes are happening within your vCenter environment.
- VMware Converter Standalone. I don't use this a lot, but it really comes in handy when the need to P2V or V2V guests. I haven't been able to successfully make this portable though.
- VMX TriLead VM Explorer. Although not free or open source, this is a pretty good "swiss-army" type tool that I resort to quite often.
- Vizioncore (Quest) vOptimizer Wastefinder. The free sibling software to the vOptimizer product, this tool helps me quickly analyze disk alignment and other details for guests.
- PowerCLI / Perl / vbScript Snippets and Scripts. I have accumulated a huge collection of these over the years, and it continues to grow. The best part of PowerShell in general, besides just PowerCLI for VMware, is that the community of scripters is very open and contributes a great amount of code snippets for everyone to use. There really is no reason to "reinvent the wheel" when creating your scripts, they are most likely already out there, and are reusable indefinitely.
- VMware CPU Identification utility. This should really be considered a "staple" since you always seem to need to find out your CPU registers and capabilities.
- LoadStorm. A good tool for testing loads on your guests and checking cluster DRS functionaility and load performance. I use an older free version as I hear they now charge for its use.
- Crasher. A tool that will generate a BSOD on a Windows guest, which allows you to simulate vApp, FT, and/or HA guest recovery. Crasher is no longer developed and I could not find a download link for it, but I found another called BANG!
- VMware Labs Flings! I have all of them since they are all pretty cool, even if I don't use them on a regular basis. Onyx, esxplot, IOBlazer, and VGC are my top ones that get the most use.

- [VM Advanced ISO](#). Although it appears not to be supported or developed any longer, I still use this big collection of fine tools collected by Kendrick Coleman. Another must-have when working in different customer environments.
- Various Free Vendor Tools. There are way too many to mention, but vendors such as [vKernel](#), [Veeam](#), [Vizioncore](#), [Embotics](#), [PHD](#), [SolarWinds](#), and many others have a multitude of free tools that you can add to your toolbox. Check out their sites for more information and downloads.