Quest vWorkspace

vWorkspace 6.0 Feature Spotlight: Reconfigure Virtual Machine Disk(s)

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Overview

Quest Software's vWorkspace 6.0 is an enterprise virtual desktop and application delivery solution for Virtual Desktops, Microsoft Windows Terminal Servers, Blade PCs, and Physical PCs. This document describes the virtual machine disk reconfiguration ability.

Supported Virtualisation Platform

Currently this feature is supported on the VMWare platform only. We do not currently have support for our other supported virtual platforms; these include Hyper-V, Virtual Iron, and Parallels Virtuozzo. It is also not supported on blade and physical PCs.

So what can I do with the disk reconfiguration utility?

The disk reconfiguration utilities will allow the VMware disk modes to be set. The two modes available are:

Persistent

Persistent disks are the simplest type of disks that VMware supports. Persistent disks behave like conventional disk drives on your computer. All writes done to a persistent disk are written permanently to the disk. The behavior is the same for all disk types and is the default and typical setting.

Non persistent

Changes to non persistent disks are not saved during the VMware session and are lost at the end of the session (that is, when the virtual machine is powered off or reset). Non persistent disks are convenient for people who always want to start with a virtual machine in the same state.

VMware only reads the disk. Any writes to the disk during the session are actually written to a redo log file that is deleted at the end of the session when you power off or reset the virtual machine. During the VM session any blocks that have been modified and written to the redo log file are read from the redo log file instead of the disk. At the end of the VM session the redo log file is discarded. The guest operating system is entirely unaware that the disk is non persistent. Normal guest operating system file buffering works on top of this mechanism, providing efficient buffered I/O. Some disk operations may even be faster to a non persistent disk than to an actual disk. The redo log file is placed in the same directory as the disk file by default. However, the location of the redo log file can be changed in the Configuration Editor under Misc.

Independent – not affected by snapshots

This provides the ability to disable snap shots for the group or individual virtual machines.

What might I use non persistence for?

There are a lot of cases where you may want to set a disk to non persistent. Example uses cases include providing environments for software testing, technical support users, demonstrations of software, or maybe to provide software installation classes for students.

Other advantages are:

- Controlling virtual machines disk usage. Administrators can ensure that users are not downloading and saving large files to the virtual machines causing the disks for fill up and intern impact performance.
- Security enhancements. Any malware or virus that may have found their way onto a virtual machine will be wiped away upon reset.
- Any software users may have installed without permission will be removed, thus aiding software licence control.

How to configure non persistence to new Virtual Machines

1. On the VMWare desktop group select add computers to group
2. Follow wizard as normal until you reach the new step “Configure Computers”
3. Select the Virtual Disks Tab
4. Check the box “Reconfigure Virtual Disks”
5. Select “First disk only” or “All disks” depending on configuration and preference
6. Check the “Independent – not affected by snapshots”
7. Select the “Nonpersistant” radio option.

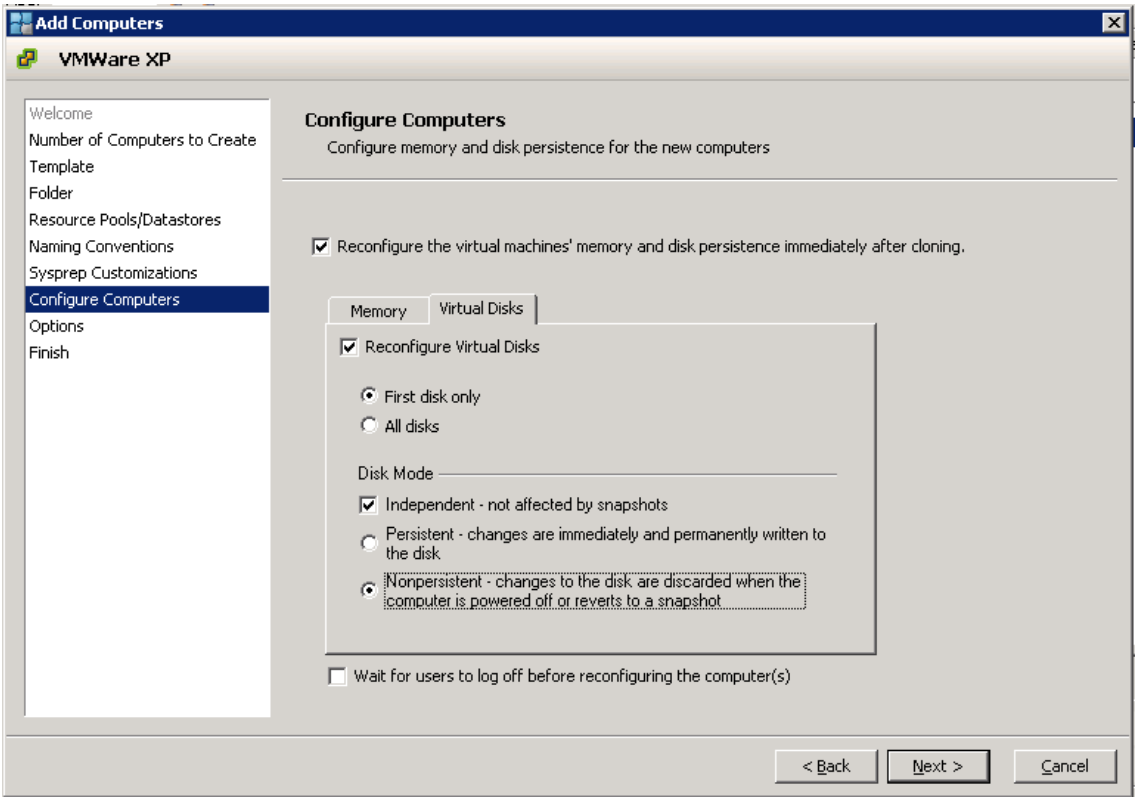

Figure 1 - Configuring disks when adding new computers

The virtual machines will then be powered off, reconfigured and restarted via the vWorkspace Management console. The operation typically takes a few minutes.

How to configure non persistence to existing Virtual Machines

If you already have virtual machines deployed in your desktop group and you wish to reconfigure the disks for non persistence you can do the following

1. Highlight all or the required virtual machines. You can do this by holding down the Ctrl button.
2. Right click or select the action menu and select “Reconfigure” (Figure 2)

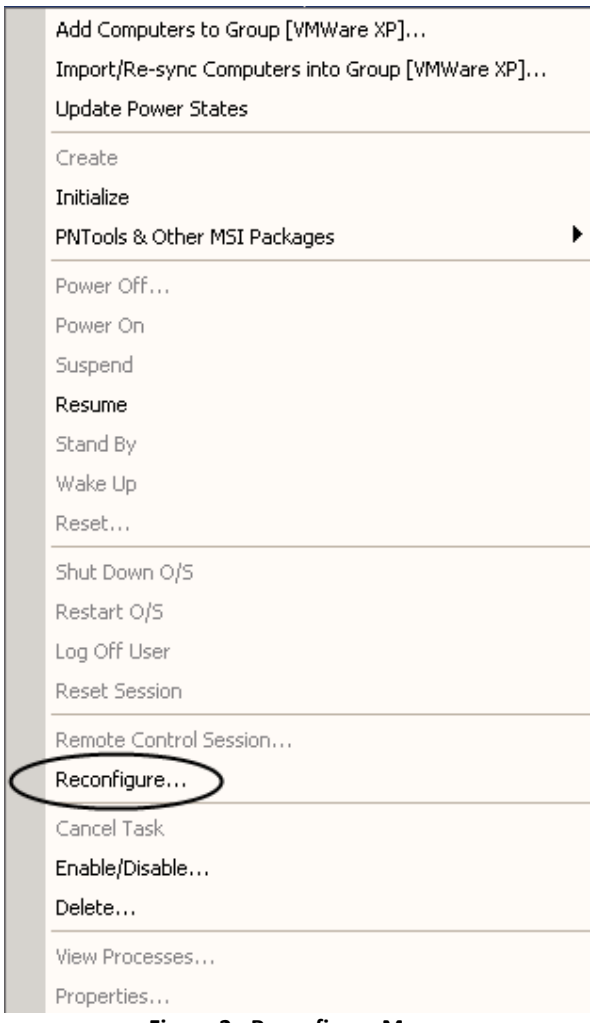

Figure 2 - Reconfigure Menu

3. Select the “Virtual Disks” tab
4. Check the box “Reconfigure Virtual Disks”
5. Click the button in the right of the “Mode” column

6. Check the “Independent – not affected by snapshots”
7. Select the “Nonpersistant” radio option
8. Click OK, OK

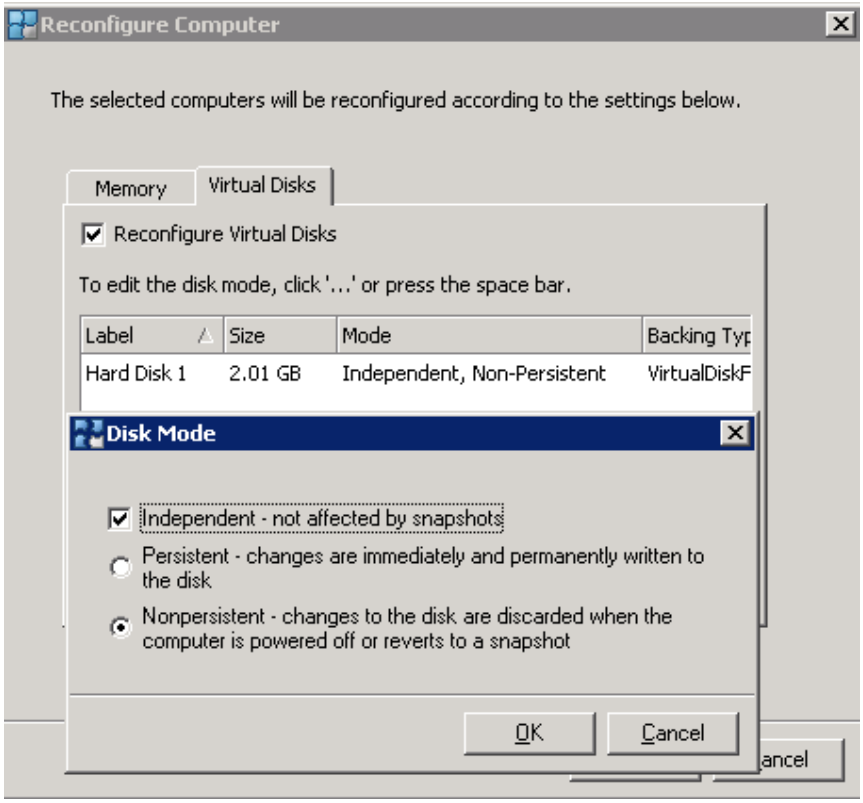

Figure 3 - Nonpersistent option

How to revert to the original state or golden image.

There are a few ways in which we can trigger the reset back to the original state or golden image. We can set the “Logoff Action” property, schedule a reset or manually reset them.

When the user logs off

The first is to define the “Logoff Action” on the desktop group properties. To do this you can do the following:

1. Expand the Desktops node
2. Right click on your VMWare desktop group
3. Select properties
4. Select “Logoff Action” from the left hand menu. (Figure 4)

5. Select the check box to enable the virtual machines disks to revert to original state when the user logs off.

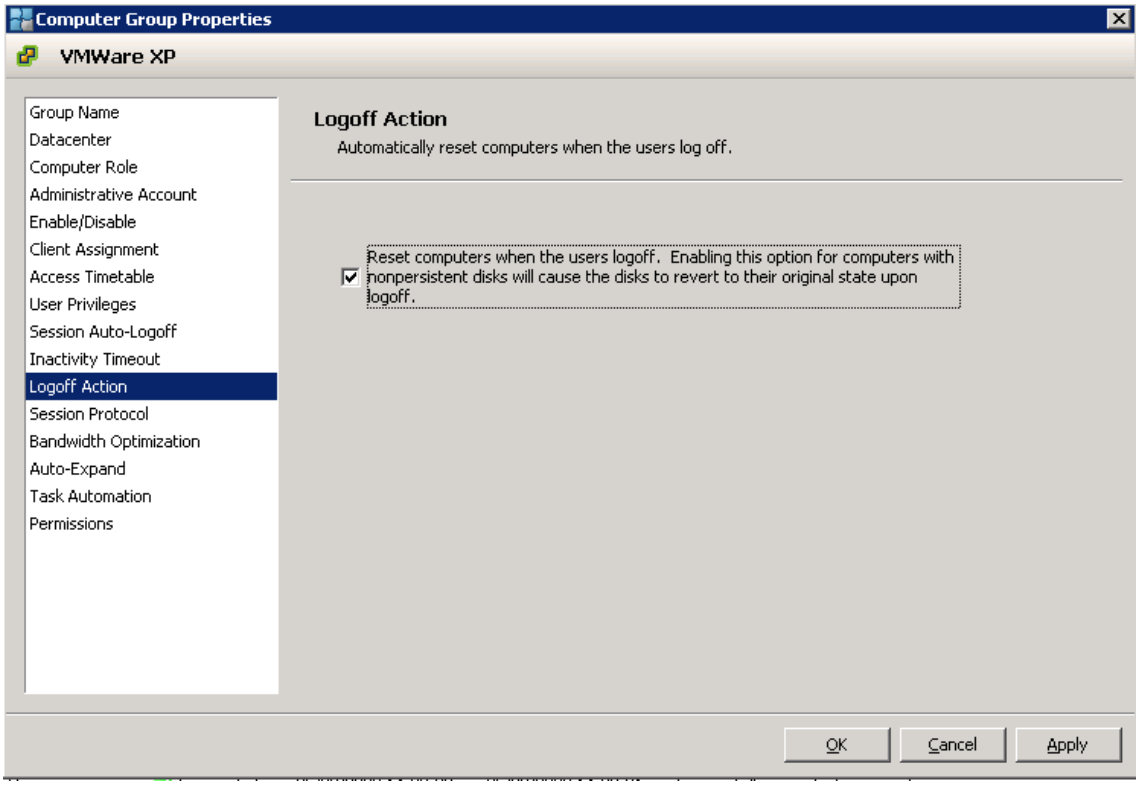

Figure 4 - Logoff Action

The virtual machines can then be used as required; they can be rebooted if you are installing software, however the user would need to be aware that logging off will result in the disks reverting and all changes will be lost.

Manually

You can manually set the virtual machines disks back to their original state by:

1. Open the desktop service group
2. Click the computers tab
3. Select required or all virtual machines
4. Select the action menu (or right click on a virtual machine) and select reset

The virtual machines will be reset to their original state.

Schedule a task

To schedule the reset of all the virtual machines in the group at a convenient time do the following:

1. Right click on the VMWare desktop group and select properties
2. Select “Task Automation” from the left hand menu
3. Select New + to open the task wizard
4. Click Next
5. Enter Task name. E.g. “Reset VMs”
6. Click Next
7. Select task type “Power Management – Reset”

   NB. Don’t worry about resetting, if you are used to using the Shut Down or Restart Guest commands. As you are reverting to the original state there is no danger of doing any damage to the operating system.

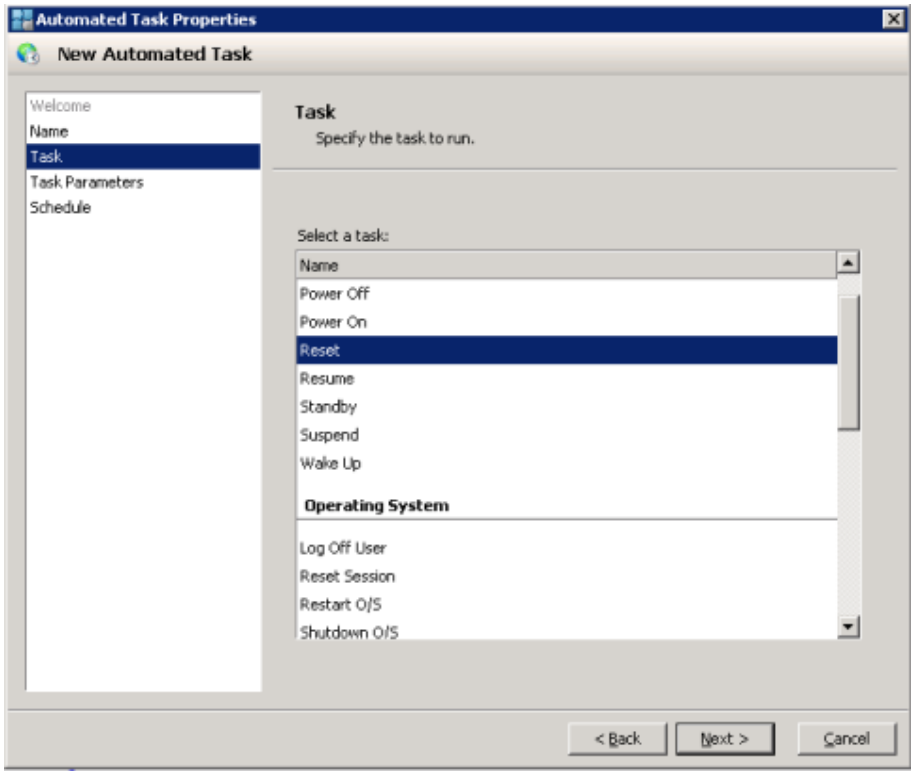

Figure 5 - Reset Task

8. Click Next

9. Specify schedule details

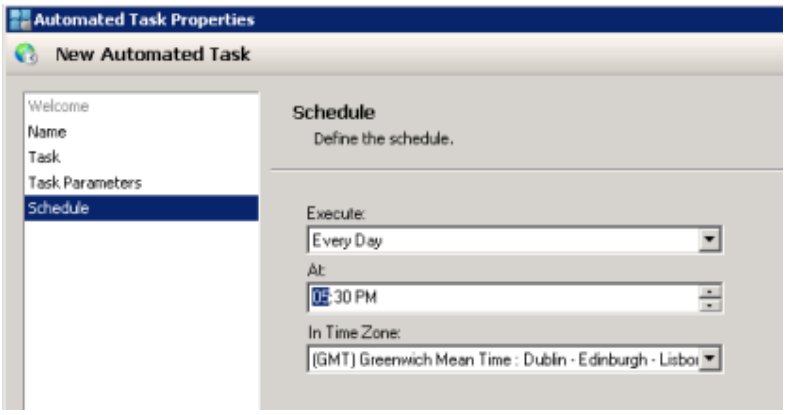

Figure 6 - Task Schedule

10. Click Finish and OK

All virtual machines in the group will be reset at the give schedule. If you do not want to schedule a reset of all machines in a desktop services group you can set up a scheduled task for individual virtual machines by right clicking and selecting properties on the virtual machine.

More Uses, Considerations and Gotha's

- If the "Logoff Action" option is configured the user would have to be careful about when they log off as all changes will be lost.
- Roaming profiles and/or redirected My Documents are not affected by disk non persistence. Some organisations may wish to deploy disk non persistence and reset the machines on a daily bases. This has advantages such as:
    - Controlling virtual machines disk usage.
    - Security enhancements. Any malware or virus that may have found their way onto a virtual machine will be wiped away.
    - Any software users may have installed without permission will be removed upon reset thus aiding software licence control.