# viBoot Virtual Box Support

We've added direct support for Oracle VirtualBox by implementing .mrimg to .vmdk file virtualization. VirtualBox provides an alternative to Microsoft Hyper-V for instant image virtualization. VirtualBox v6.1.4 can be run on Windows 8/Server 2012 R2 and later regardless of whether the native OS includes a Windows Hypervisor layer. In addition, VirtualBox includes a USB pass-through virtual device that enables USB drives, including flash, to be accessible from inside the Virtual Machine.

viBoot can be switched between **Hyper-V** and **VirtualBox** mode **using the 'Tools' menu**:

Note: VirtualBox less than v6.1.4 cannot be run on Windows where Microsoft Hyper-V service is running.

Microsoft Hyper-V feature must be disabled for **VirtualBox 6.0.xx** to function. Please run "bcdedit /set hypervisorlaunchtype off" after disabling Hyper-V feature from "Turn Windows features on or off"
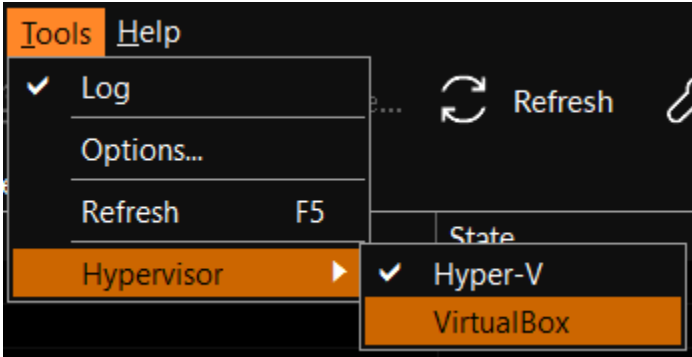

Macrium viBoot will be restarted after changing Hypervisor mode. This doesn't affect the state of existing VMs, whether they are running or not:
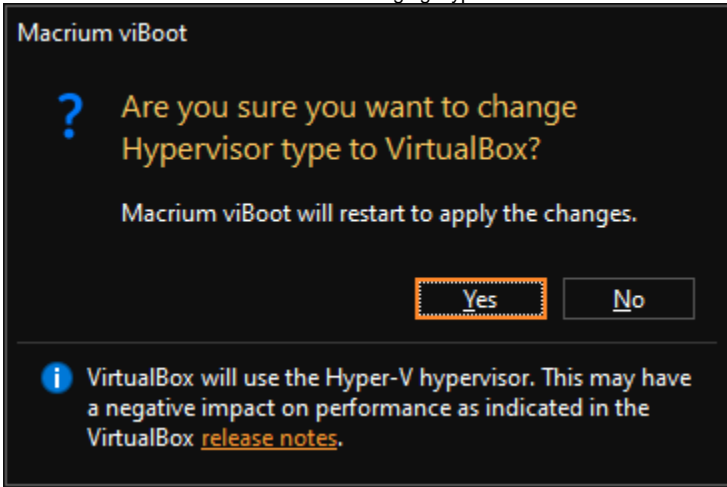
Performance Warning
If **VirtualBox v6.1.4** (or later) is **installed alongside Microsoft Hyper-V**, **VMs will not run with optimum performance.**
See the VirualBox Change Log for more information on this.

The current hypervisor type is shown in the application title bar:
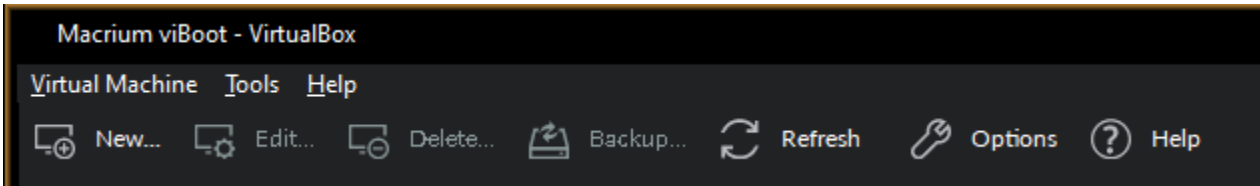
Booting an image directly from Macrium Reflect

An image that contains the Windows System and Boot partition(s) can be directly booted from the **'Restore'** view in Macrium Reflect.

| Boot architecture	🪟 Required Partitions
MBR - Master Boot Record	**Boot partition**: This may be the same partition as drive 'C:' but is likely to be a separate small (100 to 300 MB) partition named the **Microsoft System Reserved partition** or MSR. **Windows partition:** This is the partition that contains the Windows OS and will be drive C:
UEFI - Unified Extensible Firmware Interface	**UEFI System Partition**: A small FAT32 LBA formatted partition that doesn;'t have a drive letter. **Windows partition:** This is the partition that contains the Windows OS and will be drive C:

If an image contains the partitions required for booting then the 'viBoot' option will be available in the toolbar and in the context menu:
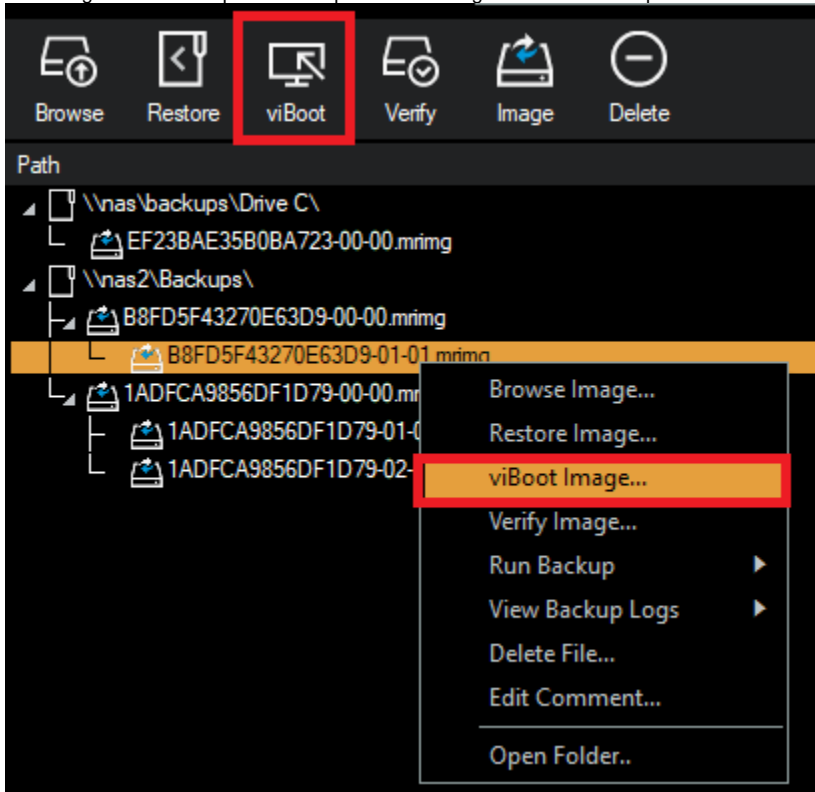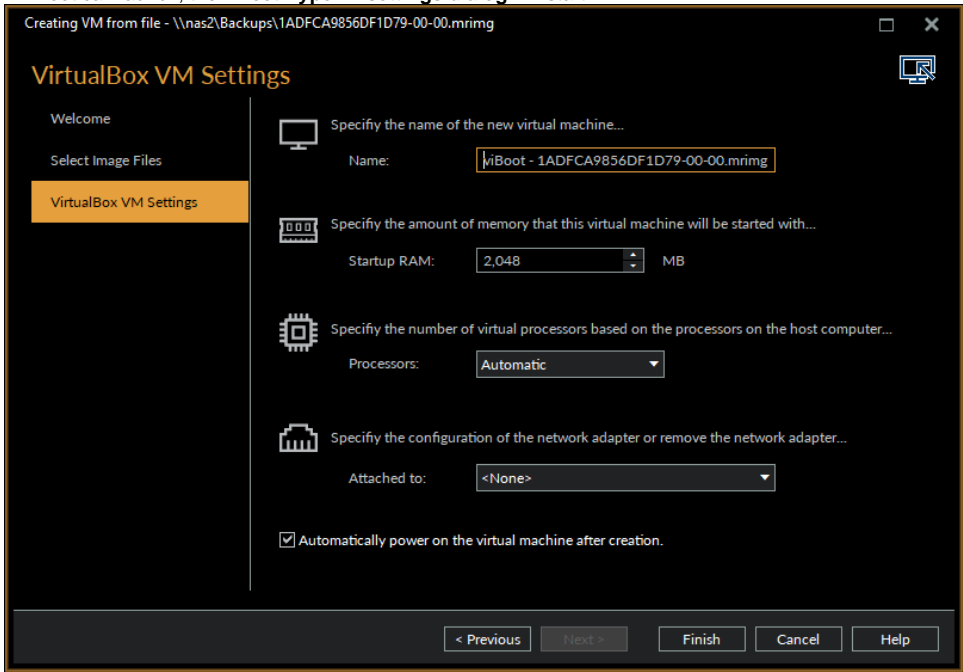

Otherwise the option will be disabled:

To boot an image directly with viBoot.

1. **Click the 'Restore tab.**
2. **Select** the image.
3. **Click the 'viBoot Image'** toolbar button or menu option.
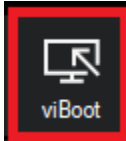
4. If viBoot can launch, the viBoot **Hyper-V settings dialog** will start.

5. Make any changes to the VM properties and **click 'Finish'**

The VM will now start and boot directly into Windows.

Starting the viBoot create Virtual Machine Wizard from Macrium Reflect.

Take the **'Restore' > 'Launch Macrium viBoot'** menu option
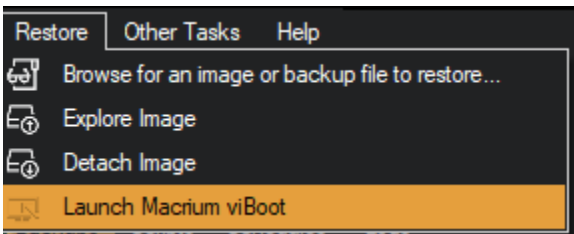
Or, click the **'Launch Macrium viBoot'** task link on the Restore tab.
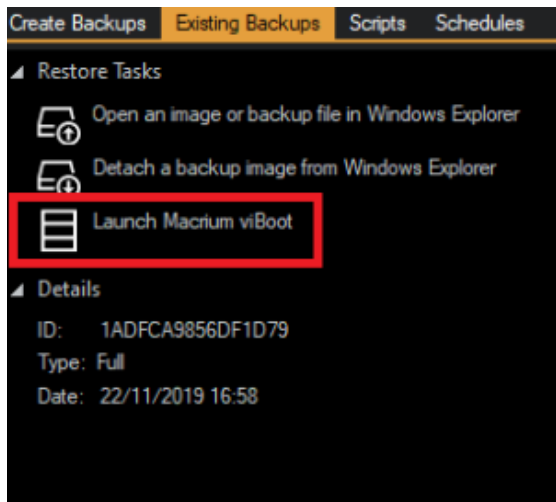
This will start the the viBoot Virtual Machine User Interface.

Launching viBoot as a standalone application

viBoot is installed by default during the standard Macrium Reflect installation and can be started using the installed shortcut:

Main Window

The "Virtual Machines" **view (1)**, displays the name of the viBoot created virtual machine, the current state of the virtual machine (Off, Running, etc) and the current CPU usage of the virtual machine. Selecting a Hyper-V virtual machine in the "Virtual Machines" view (1) will update the "Mounted Images" view (2) to list the Macrium Reflect images that are being referenced by the virtual machine.
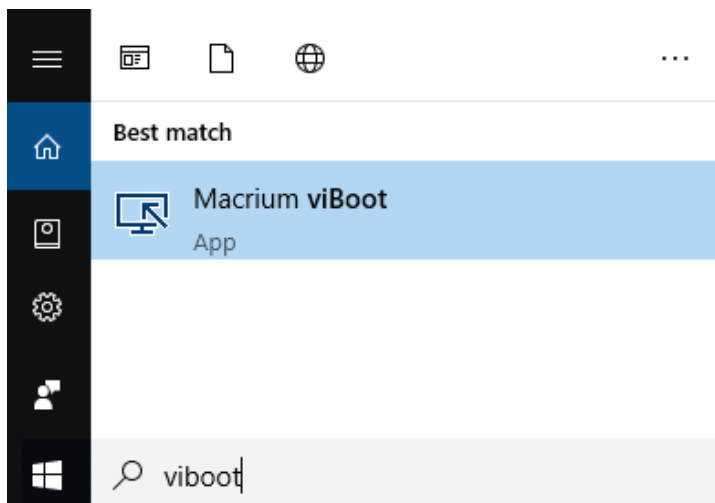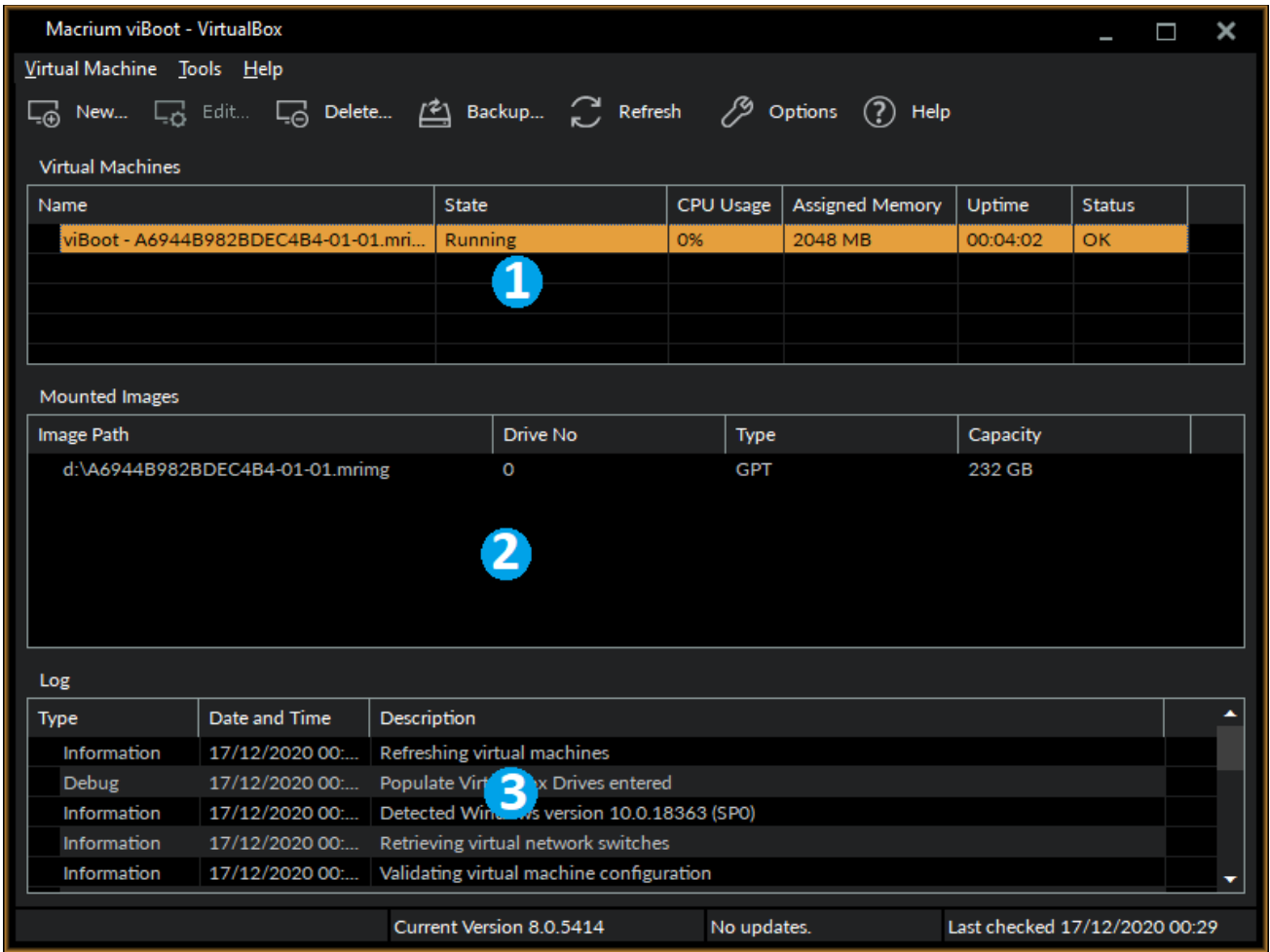
The "Mounted Images" **view (2)**, displays the path of the image file(s) used to create the virtual drive(s), the physical drive number assigned to the drive by Windows, the partition type of the drive (MBR or GPT) and the drive capacity.

The "Log" **view (3)**, shows a record of the actions taken by viBoot.

Main Window Commands
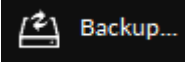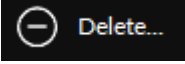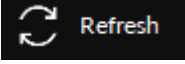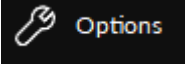
Menu Item	Sub Menu Item	Description
Virtual Machine	Connect	Connect to a virtual machine.
	New...	Display the viBoot Wizard to create a new virtual machine.
	Backup...	Create a Disk image of the selected virtual machine.
	Delete...	Delete the selected virtual machine.
	Start	Start the selected virtual machine.
	Shut down	Shut down the selected virtual machine.
	Turn off	Turn off the selected virtual machine.
	Pause	Pause the selected virtual machine.
	Reset	Reset the selected virtual machine.

	E<u>x</u>it	Exit the Macrium viBoot application.
Tools	<u>L</u>og	Toggle the Log window display,
	<u>O</u>ptions...	Configure the virtual machine repository folder, and logging options.
	<u>R</u>efresh	Reload virtual machines and mounted images.
	Hypervisor	- Hyper-V - VirtualBox This menu option is only available if VirtualBox 6.1.4 (or later) is installed on a PC running Hyper-V.
Help	<u>C</u>ontents...	This help content.
	<u>A</u>bout Macrium viBoot...	viBoot version and copyright notice.

Tip

You can right-click on the virtual machine pane to display the "Virtual Machine" menu as a context menu.

Macrium viBoot toolbar:

(+) New...	Displays the viBoot Wizard which allows you to create a new virtual machine.
Backup...	Create an Image of the currently selected Virtual Machine.
(−) Delete...	Deletes the currently selected virtual machine.
Refresh	Refresh the list virtual machines and states.
Options	Configure the virtual machine repository folder, and logging options.
(?) Help	Displays this help content.

New VM Wizard

The "Welcome" page provides a brief introduction and explains some of the limitations of virtualization.

New Virtual Machine ☐ ✕

Welcome

Welcome

Select Image Files

Hyper-V VM Settings

Welcome to the Macrium viBoot Wizard

This wizard will guide you through the process of creating, configuring and starting a virtual machine, from one or more Macrium Reflect image files.

What is Macrium viBoot?
Macrium viBoot is a technology that provides a mechanism to use Macrium Reflect Image files to very quickly test your backups or to perform a temporary virtualization of a failed server as part of a Business Continuity Plan (BCP).

Operational Considerations
Before proceeding you should note the following operational considerations. There are some servers that you will not be able to virtualize. Please see the relevant hypervisor documentation for more information.

System Configuration
Macrium viBoot will modify the virtual environment to include device drivers for the virtual machine disk sub-system, however; upon starting, the guest operating system will automatically assign drive letters and these may or may not correspond to the drive letters assigned at the time of backup.

☐ Do not show this page again

< Previous   Next >   Finish   Cancel   Help

Select Image Files allows you to add one or more Macrium Reflect image files to be used for the virtual machine.

New Virtual Machine

Select Image Files

- Welcome
- **Select Image Files**
- Hyper-V VM Settings

The virtual machine will be configured to boot from drive "SAMSUNG MZMTE256HMHP-000MV EXT41M0Q" in image file

Name	Type	Size	File System	Bootable
☐ \\nas\Backups\A8				
SAMSUNG MZ	GPT	5.07 GB		Yes (Active)
Windows F	Windows Recovery		NTFS	
SYSTEM (N	EFI System Partition		FAT32 (LBA)	
Local Disk	Microsoft Reserved		Unformatted	
Windows (	Basic Data Partition		NTFS	
Local Disk	Windows Recovery		NTFS	
Recovery in	Windows Recovery		NTFS	

Add... Remove Set as Boot

< Previous Next > Finish Cancel Help

The first boot-able disk will be marked as the boot disk. If there are multiple disks that are boot-able, these can be set to be the boot disk by selecting the disk and clicking the "Set as Boot" button.

Hyper-V VM & VirtualBox Settings allows you to configure the virtual machine. The RAM and CPU are limited to match the host computer. If the number of processors is set to "Automatic", viBoot will interrogate the Windows settings from the image files to set the correct number of processors. A Virtual Switch of "<None>" ensures that the new virtual machine is not connected to the network.

VirtualBox VM settings are similar to Hyper-V except that NAT and Bridged Adapter options are supported. These can be changed later via VirtualBox Manager.
Please see VirtualBox documentation for more details.
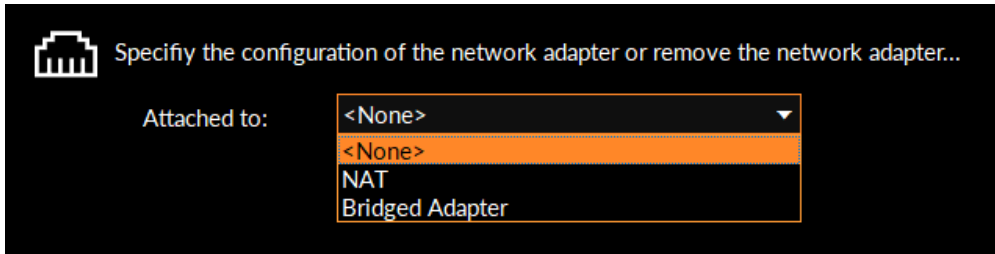
Please note that no changes whatsoever, are made to the original image files**.**

Options

The "Options" button on the Macrium viBoot main toolbar, will display the "Options" dialog box. From here you can modify some of the behavior of Macrium viBoot.

The "Virtual Machine Repository" specifies the folder that Macrium viBoot will use to store Virtual Machine configurations and the virtual machine drive cache.
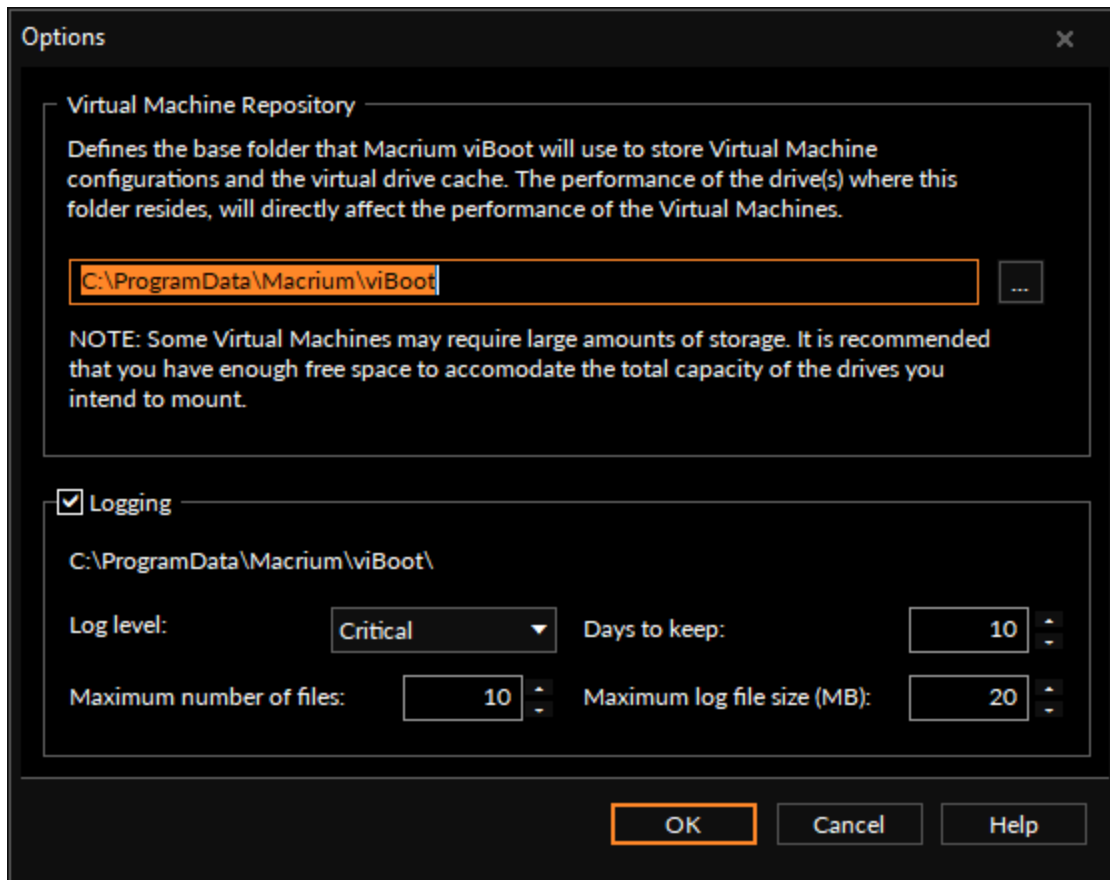
Macrium viBoot writes a log of actions taken by the application. This file is saved to "%LOCALAPPDATA%\Temp\Macrium". The log file is configured by the following options:

Log level - Controls type of information written to the log file:

- Critical
- Error
- Warning
- Information
- Debug

Maximum number of files - Number of log files to keep before purging. A value of zero will disable this check.

Days to keep - Log files older than the specified number will be purged. A value of zero will disable this check.

Maximum log file size(MB) - Maximum file size for the log file, before a new log file is created. A value of zero will disable this check.