

Application Note

Forensic Falcon™ USB (iSCSI) Boot Client

Introduction:

This document provides instructions on how to create and use a Forensic Falcon USB (iSCSI) Boot Client (Forensic bootable USB flash drive for use with the Falcon). The bootable flash drive allows the imaging of a Source drive from a computer on the same network without booting the native Operating System on the computer. It also allows drives connected to the networked computer (or directly connected to each other using a network cable) to appear as a Destination drive, depending on the Imaging mode chosen. Both of these can be done without having to remove the drive from the computer.

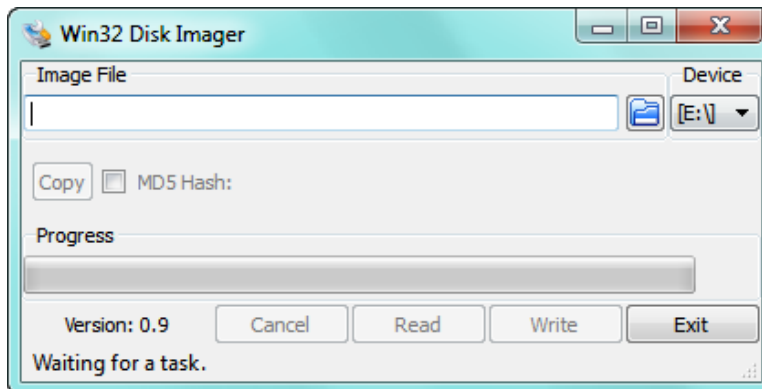
Requirements:

- A 512MB or larger capacity USB flash drive
- A Windows based computer

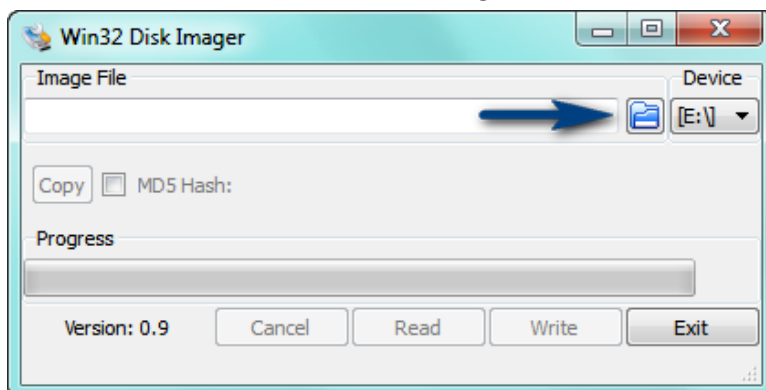
Preparing a bootable flash drive:

Here are the steps to prepare flash drive with the software necessary to be bootable, and when used to boot a computer, will allow the Falcon to see the computer's drives as Source drives.

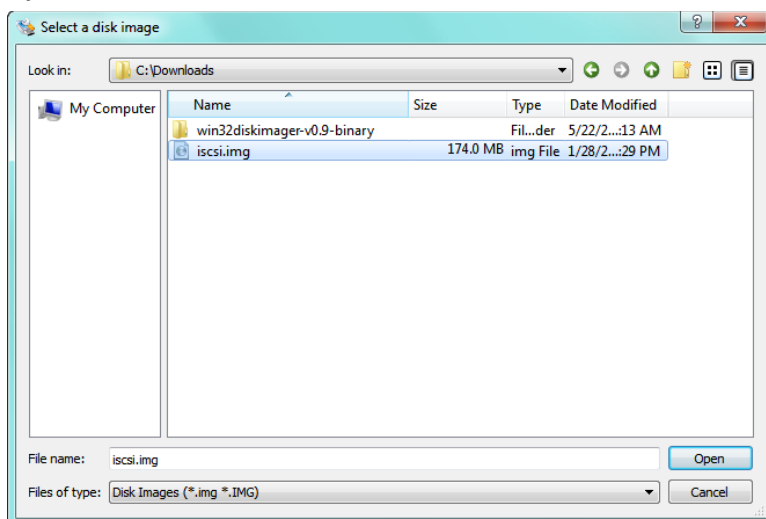
1. Download all the files from <http://updates.logicube.com/iscsi/>. There should be three files:
 - win32diskimager-v0.9-binary.zip
 - iscsi.img
 - Forensic_Falcon_USB_Boot_Client-v1.pdf (this document)
2. Unzip win32diskimager-v0.9-binary.zip.
3. Connect a USB flash drive that is at least 2GB in capacity to the computer where the software was downloaded. It is recommended that all other USB drives are unplugged.
4. In the win32diskimager-v0.9-binary folder where the software was unzipped, run the file **Win32DiskImager.exe**. The Win32 Disk Imager window will appear.



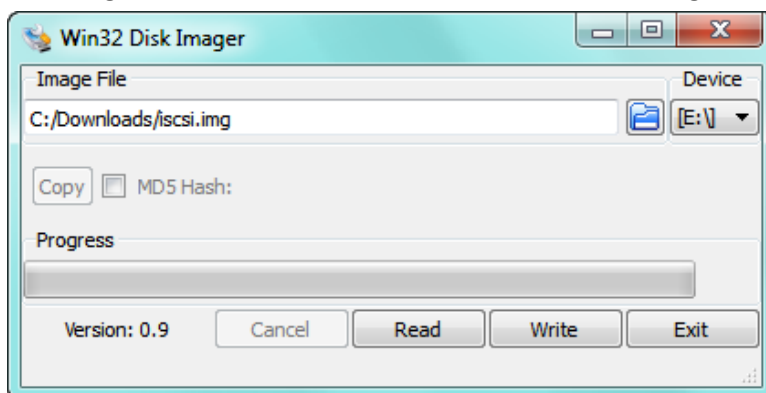
- Click the folder icon to select a disk image.



- In the folder where the files were downloaded (in step 1), select the iscsi img file (**iscsi.img**) and click the **Open** icon.

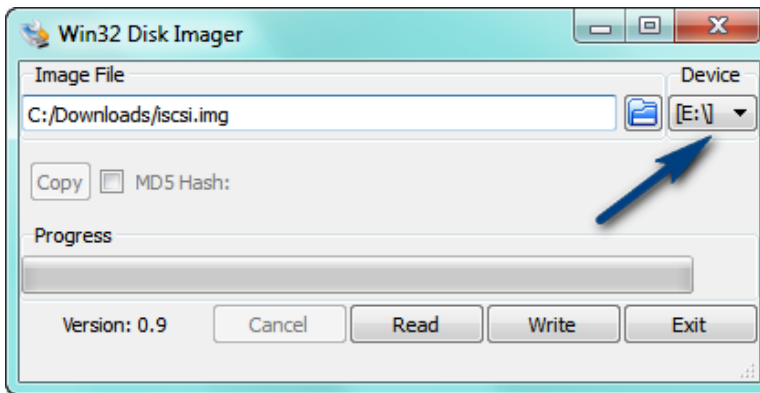


- The Image file should now be seen in the Win32 Disk Imager screen under 'Image File'.

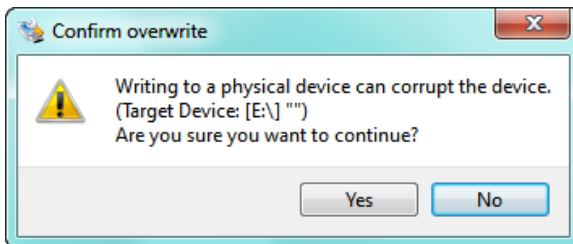


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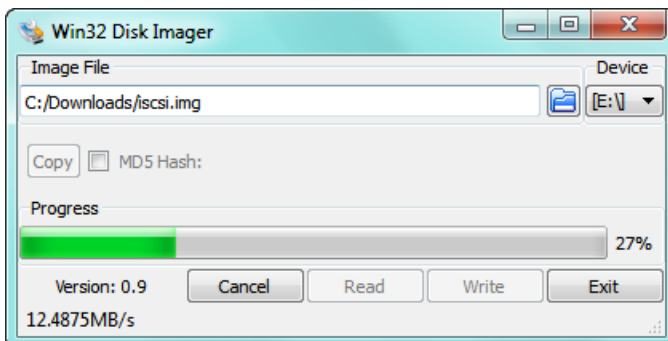
8. Under 'Device', select the drive letter for the USB flash drive that was connected during step 3 then click the **Write** icon



9. A confirmation screen will appear. Make sure that the "Target Device" is set to the correct drive letter. If it is the correct drive letter, click **Yes** to continue. If it is showing the wrong drive letter, click **No**. This will take you back to the previous screen where you can select the correct drive letter (back to step 8).

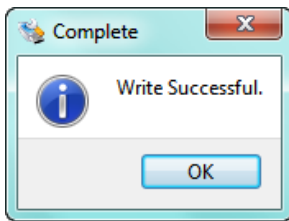


10. The USB flash drive is now being prepared and the progress bar should be advancing.



11. When it is finished, a prompt should appear stating the write was successful. Click the **OK** icon to continue. Close the Win32 Disk Imager window. The USB flash drive is now ready to be used.

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Using the bootable flash drive:

Drives connected to the computer can be seen by the Falcon (as a Source or Destination drive) over a network connection if the bootable flash drive is used on the computer.







Make sure the Falcon is connected to the same network this bootable flash drive will be used on. Boot the computer with the bootable flash drive. Please contact the computer manufacturer if you do not know how to change the boot sequence to boot from a USB drive or to find out if the computer supports this function.

The USB flash drive's boot menu will appear and It should auto-select "iSCSI Target (Default Settings)" after a few seconds. If not, select "iSCSI Target (Default Settings)".

After about 30 seconds (depending on the speed of the computer), a prompt will appear (Logicube@live:~\$). Leave the computer on this screen.





Turn the Falcon on. After the Falcon boots to the main menu, you should see additional drives appear on the Source or Source and Destination positions depending on the Imaging mode chosen..

Drive to Drive and **File to File** – For Drive to Drive and File to File, the bootable flash drive and internal drives will be detected on both the Source and Destination positions.

SELECT SOURCE				SELECT DESTINATIONS			
DRIVE PORT	DRIVE INFORMATION	DRIVE STATUS	MORE INFO	DRIVE PORT	DRIVE INFORMATION	DRIVE STATUS	MORE INFO
SAS_S1	WDC_WD10EZEX-08M2NA0 1.0 TB	AVAILABLE		SAS_D2	WDC_WD10EZEX-00RKKAO 1.0 TB	AVAILABLE	
I:229/SDB	IBLOCK 4.0 GB	AVAILABLE		I:229/SDB	IBLOCK 4.0 GB	AVAILABLE	
I:229/SDC	IBLOCK 1.0 TB	AVAILABLE		I:229/SDC	IBLOCK 1.0 TB	AVAILABLE	

Drive to File – For Drive to File, the bootable flash drive and internal drives will be detected on the Source position only.

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SELECT SOURCE				SELECT REPOSITORY				
DRIVE PORT	DRIVE INFORMATION	DRIVE STATUS	MORE INFO	REPOSITORY	LOCATION	# OF FILES	FREE SPACE	FORMAT
SAS_S1	WDC_WD10EZEX-08M2NA0 1.0 TB	AVAILABLE		SAS_D2	PARTITION 1 ON BAY SAS_D2 (NOT_MOUNTED)	N/A	N/A	
I:229/SDB	IBLOCK 4.0 GB	AVAILABLE						
I:229/SDC	IBLOCK 1.0 TB	AVAILABLE						

From here you can image using the Falcon using the normal procedures. Please keep in mind that imaging speeds may be slower than normal, as the imaging is being performed on a network.