

## Logicube USB (iSCSI) Boot Client

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### 1.0 Introduction

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This document provides instructions on how to create and use a USB (iSCSI) Boot Client (a bootable USB flash drive). The USB Boot Client allows the following:

- The imaging or cloning of a Source/Master drive from a computer on the same network without booting the native Operating System on the computer to be imaged/cloned without having to remove the drive from the computer.
- The imaging or cloning to a Destination/Target drive to a computer on the same network (that is using the USB Boot Client).

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### 2.0 Logicube Device Compatibility

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The USB Boot Client can be used with the following Logicube Products:

- Forensic Falcon
- Forensic Falcon-NEO
- SuperSonix-NG (with purchase and activation of the Networking Option F-SONIX-NW-OPT)
- Talon Ultimate
- ZClone Xi
- ZXi-10G
- ZXi-Forensic

# Application Note

## 3.0 Requirements

- Your own 1 GB or larger capacity USB flash drive
- A computer with Microsoft Windows

## 4.0 Creating the USB Boot Client

Here are the steps to create the USB Boot Client with the software necessary to be bootable, and when used to boot a computer, will allow the Logicube Device to use the computer's drive(s) as Source/Master or Destination/Target drive(s).



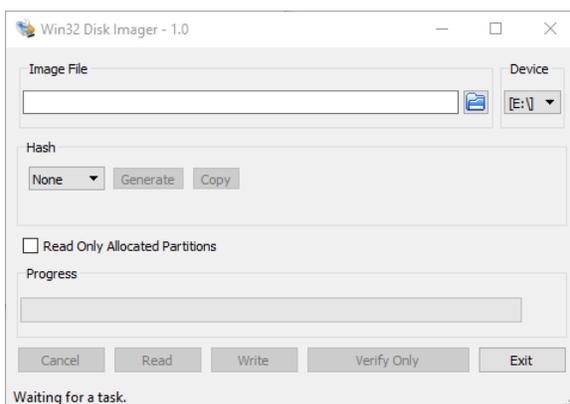
For steps 1 and 2 of this section, please use Chrome or Firefox to download the files. Internet Explorer and Edge might not download \*.img files properly.

1. Using an Internet browser, browse to <http://updates.logicube.com/iscsi/>. Look for the following two files:
  - Win32DiskImager-1.0.0-binary.zip
  - The USB Boot Client image file – A file with a \*.img file extension
2. Download both files. If the image file will not download, right-click on the link and use the 'Save Target As...' or 'Save Link As' option and make sure it is saved with the \*.img file extension.
3. Extract all the files within the win32diskimager-v1.0.0-binary.zip file to a folder or directory of your choosing.
4. Connect your USB flash drive that is at least 1 GB in capacity to the computer where the software was downloaded. It is recommended that all other USB drives are unplugged.



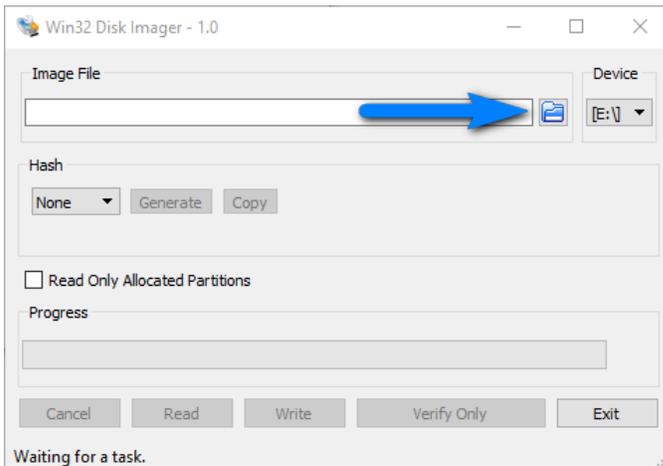
The contents of the USB flash drive will be overwritten. If there is data on the USB flash drive that should not be deleted, back up the contents of the USB flash drive or use another USB flash drive for this procedure.

5. In the win32diskimager-v1.0.0-binary folder where the files were extracted to, run the file **Win32DiskImager.exe**. The Win32 Disk Imager window will appear.

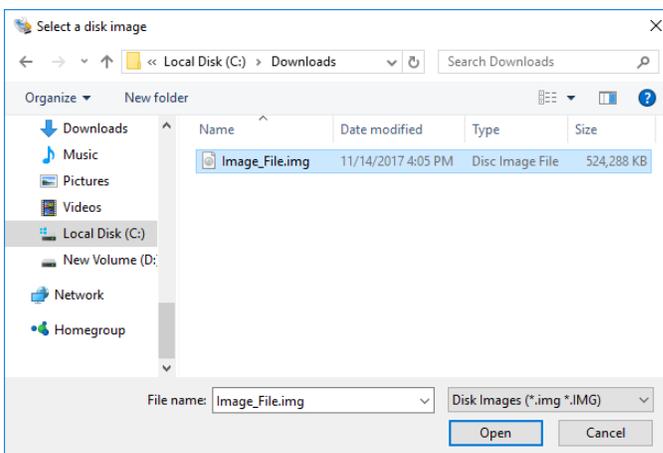


# Application Note

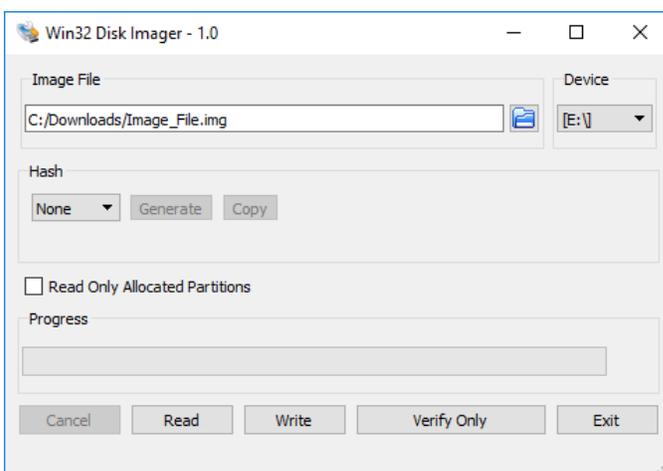
- Click the folder icon to select a disk image.



- In the folder where the files were downloaded (in step 2), select the USB Boot Client \*.img file and click the **Open** icon.

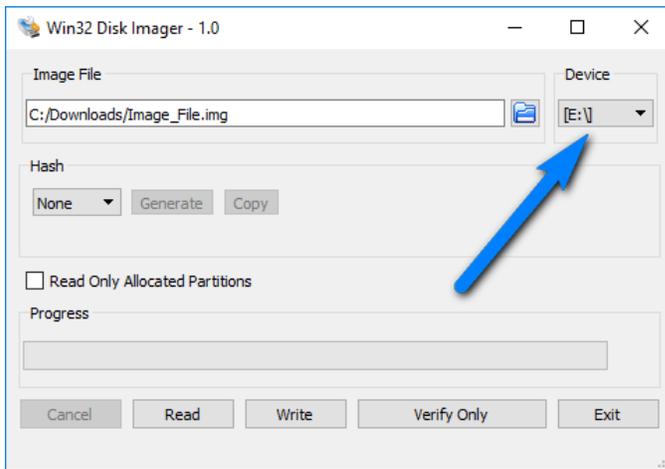


- The Image file should now be seen in the Win32 Disk Imager screen under 'Image File'.

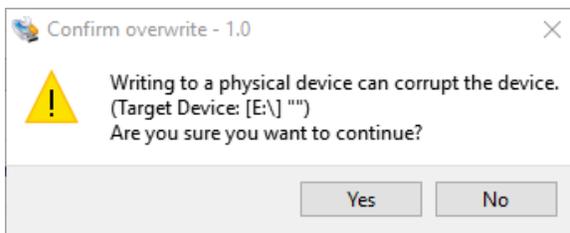


# Application Note

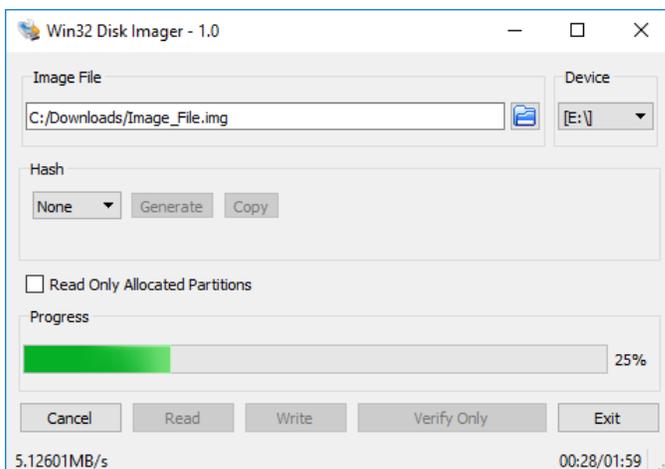
- Under 'Device', select the drive letter for the USB flash drive that was connected during step 4 then click the **Write** icon.



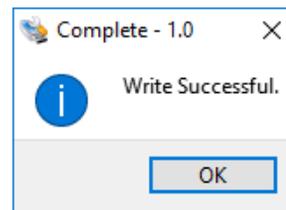
- A confirmation screen will appear. Make sure that the "Target Device" is set to the correct drive letter. If it is the correct drive letter, click **Yes** to continue. If it is showing the wrong drive letter, click **No**. This will take you back to the previous screen where you can select the correct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



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



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



# Application Note

## 5.0 Allowing drives to be used as Destination/Target

By default the USB Boot Client allows drives to be used only as Source/Master drives. Additional steps are required to allow drives to be used as Destination/Target drives.

1. With the USB Boot Client connected to a Windows computer, open File Explorer or Windows Explorer.

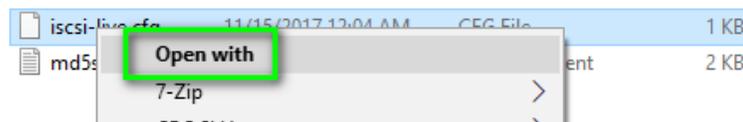


For these steps, it is helpful to set File Explorer or Windows Explorer to show file extensions.

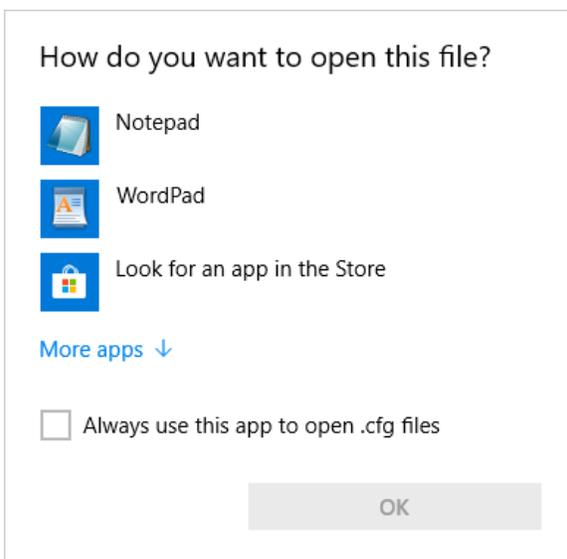
2. Browse to the ISCSI\_LIVE flash drive that was just created.
3. Look for the file “iscsi-live” or “iscsi-live.cfg”

Name	Date modified	Type	Size
.disk	11/15/2017 12:04 AM	File folder	
boot	11/15/2017 12:04 AM	File folder	
EFI	11/15/2017 12:04 AM	File folder	
live	11/15/2017 12:04 AM	File folder	
live-64	11/15/2017 12:04 AM	File folder	
syslinux	11/15/2017 12:04 AM	File folder	
iscsi-live.cfg	11/15/2017 12:04 AM	CFG File	1 KB
md5sum.txt	11/15/2017 12:04 AM	Text Document	2 KB

4. Right-click the “iscsi-live.cfg” file and choose “Open with”.



5. Open the file using a text editor like Notepad or Wordpad. If Windows asks how the file should be opened, select Notepad or Wordpad.



# Application Note

6. Notepad or Wordpad should open and you will see something similar to one of the two images below:

```

iscsi-live.cfg - Notepad
File Edit Format View Help
{  "options": {      "export-mode": "readonly",
"secure-erase": "off"  },  "apple-nvme-devs": [
"initiators": [      "iqn.2012-09.com.logicube.zc
06.com.logicube.falcon:initiator"      "iqn.2013-
  
```

```

{
  "options": {
    "export-mode": "readonly",
    "console-blank": "off"
  }
}
  
```

7. Look for **export-mode": "readonly"** , ,

```

iscsi-live.cfg - Notepad
File Edit Format View Help
{  "options": {      "export-mode": "readonly",
"secure-erase": "off"  },  "apple-nvme-devs": [
"initiators": [      "iqn.2012-09.com.logicube.zc
06.com.logicube.falcon:initiator",      "iqn.2013-
"iqn.2014-07.com.logicube.zxtower:initiator",
"iqn.2015-08.com.logicube.telon:initiator"
  
```

```

{
  "options": {
    "export-mode": "readonly",
    "console-blank": "off"
  }
}
  
```

8. Change the word **"readonly"** to **"readwrite"**.

```

iscsi-live.cfg - Notepad
File Edit Format View Help
{  "options": {      "export-mode": "readwrite",
"secure-erase": "off"  },  "apple-nvme-devs": [
"initiators": [      "iqn.2012-09.com.logicube.zc
06.com.logicube.falcon:initiator",      "iqn.2013-
"iqn.2014-07.com.logicube.zxtower:initiator"
  
```

```

{
  "options": {
    "export-mode": "readwrite",
    "console-blank": "off"
  }
}
  
```

9. Save the file and close the text editor.

10. The USB Boot Client is now ready to be used. When booting a computer with this USB boot Client, all connected drives will appear as both Source/Master and Destination/Target.

## 6.0 Using the USB Boot Client

Drives connected to the computer can be used by the supported Logicube Device as a Source/Master or Destination/Target over a network connection if the USB Boot Client is used to boot computer. The USB Boot Client is set to DHCP.

1. Make sure the supported Logicube device is connected to the same network the USB Boot Client will be used on (or directly connected to the computer using a network cable). 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.

2. The USB flash drive's boot menu will appear and It should auto-select "iSCSI Target (64-bit)" after a few seconds. If not, select "iSCSI Target (64-bit)".

# Application Note

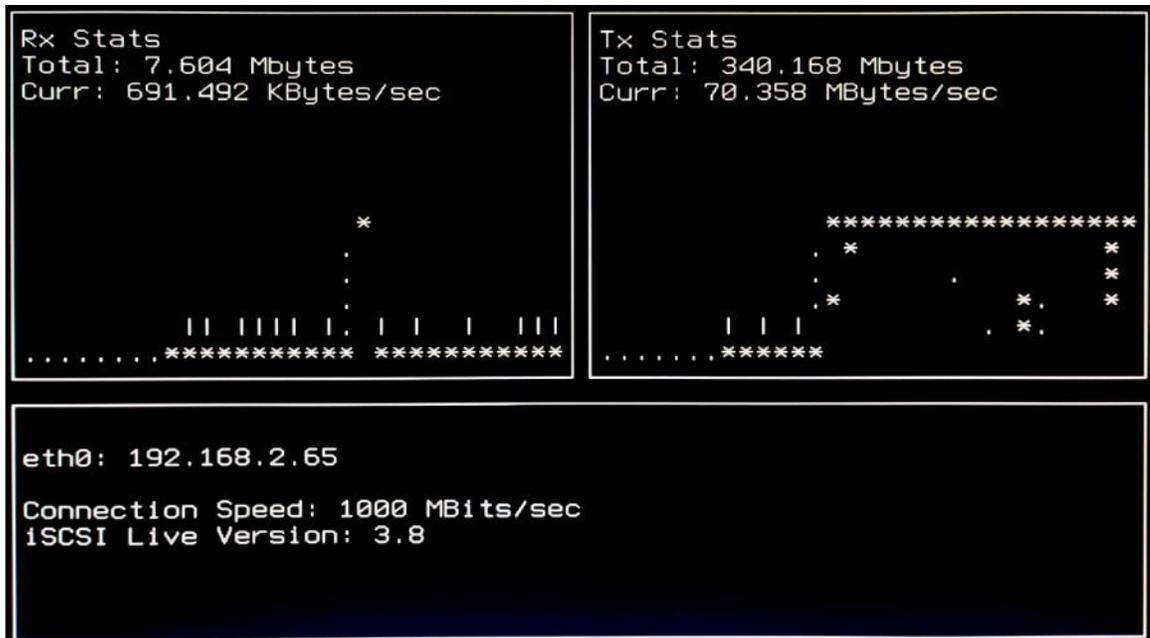


The default (64-bit) should work with most computers. If it does not work, use the connected keyboard's DOWN arrow to select iSCSI Target (32-bit) to boot with the 32-bit version.

3. After about 30-120 seconds (depending on the speed of the computer), the USB Boot Client should finish booting up.
  - The following screen may appear if no network adapter or network connection is detected, or briefly while the network is being detected. If this screen appears for a long time, double-check the network adapter or network connection.



- If a network adapter and network connection is detected, the following screen will appear:



## Application Note

- Turn the supported Logicube device on. After the Logicube device boots up, you should see additional drives appear on the Source/Master or Destination/Target positions depending on the Imaging/Clone mode chosen.



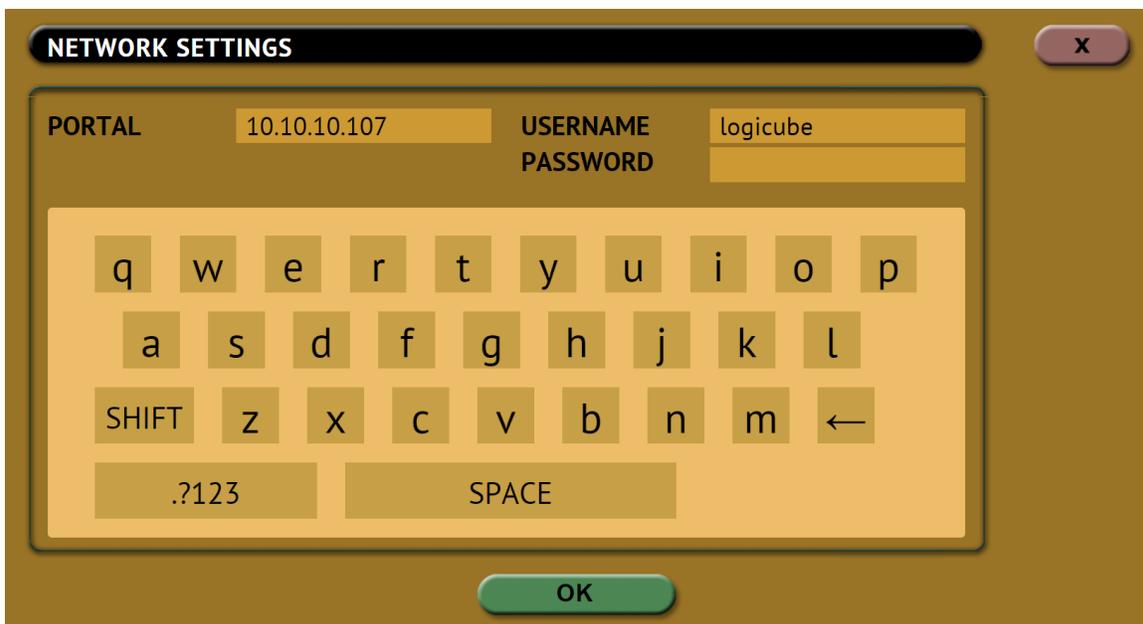
The Logicube device will show the last two segments of the IP address. For example, **1:2.65**. The connected drive will show as **SDA**. If there are any additional connected drives, they will show as **SDB, SDC**, etc. For example, if there is one drive connected, it will show as: **1:2.65/SDA**.

From here you can image or clone using the supported Logicube device using the normal procedures for that device. Please keep in mind that imaging speeds may be slower than normal, as the imaging is being performed over a network.

### 7.0 Using the USB Boot Client over different subnets

The USB Boot Client and any of the supported Logicube devices listed in **Section 2.0** can work over different subnets as long as both subnets can see each other on the network. Additional steps need to be taken when accessing a different subnet.

- Follow the steps in **Section 6.0** to boot with the Forensic USB Boot Client.
- Turn the Logicube device on.
- Navigate to **Manage Repositories** and tap or click the **iSCSI** tab.
- Tap or click **Network Settings**. In the **Network Settings** screen, enter the following information:
  - PORTAL – The IP address of the iSCSI remote device (on the different subnet).
  - USERNAME: logicube (all lower case).
  - PASSWORD: leave this blank.



## Application Note



The previous screenshot is from a Falcon-NEO. The screen should look similar with other supported Logicube devices.

5. When finished, tap or click **OK**.
6. Tap or click **CONNECT** to connect to the remote device. Please note that the screen may stay on the “Connecting” screen for up to 60 seconds (or longer) depending on network speeds.
7. Once connected, you will see a “CONNECTED” screen appear. The remote device should now be seen on the Logicube device.