The Devon IT Reflash Utility Guide

How to Write Disk Images to Devon IT Thin Clients

This document describes how to create a Devon IT Reflash Utility on a USB Flash drive and then use that utility to write a disk image to your Devon IT thin clients.

Required Hardware

- A Windows (or Linux) PC with access to the internet.
- One USB Flash Drive 2GB capacity or larger
- A Devon IT thin client

Step 1 Creating the Devon IT Reflash Utility on a USB Flash Drive

The Devon IT Reflash Utility is distributed as an ISO image. This ISO can be written to a USB flash drive using a free software tool called Unetbootin. This section describes where to download these items and how to use the Unetbootin tool to write the ISO image to your USB flash drive.

Download the Reflash Utility ISO

Download the ISO file from Devon IT's website at:

http://www.devonit.com/software/microsoft-xp-embedded/downloads

- OR -

http://www.devonit.com/software/detos/downloads

Note: The same reflash utility is used for both operating systems, so it doesn't matter which location you download it from.

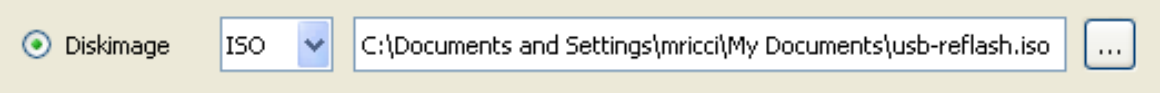
Download Unetbootin from Sourceforge.net

Unetbootin* is free, open source software that is maintained and available for download at the sourceforge,net website. Using a web browser, go to http://sourceforge.net/projects/unetbootin and download the latest executable for your operating system. For Windows OS, the filename will be `unetbootin-windows-<release-number>.exe`.

*Unetbootin is not a Devon IT product. It is developed and maintained by the open source community.

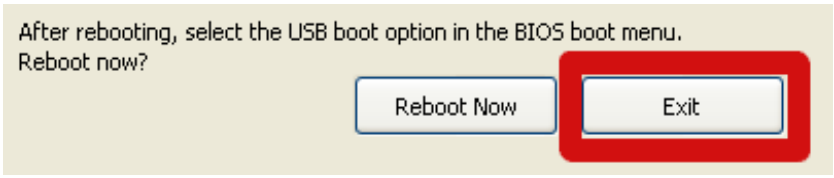
Write the Reflash ISO to the USB Flash Drive using Unetbootin

- Plug your USB flash drive into your PC now. Take note of the drive letter that was assigned to it.
- Double-click the unetbootin executable file to launch the program. Unetbootin provides three different options for creating a bootable usb drive – "Distribution" (default selected option), "Diskimage", and "Custom". You will be using the Diskimage/ISO option.
- Select the **Diskimage** radio button.
- Make sure the dropdown beside the radio button is set to **ISO**.
- Enter the path to the **usb-reflash.iso** file that you downloaded from Devon IT's FTP site.
  You may also click the [...] button instead, to browse your local system for this file.



- At the bottom of the Unetbootin screen, select the drive letter of your USB flash drive.

- Click the **OK** button to begin the write process. This should only take a minute or two to complete.
- Once it is finished, you will be given the option to reboot your system or exit. You do not need to reboot your system. Simply click the **Exit** button to close out unetbootin.



You have completed Step 1 and now have a bootable USB flash drive that will launch the Devon IT Reflash Utility.

Next Up ...

- Step 2 of this document provides instructions for downloading Devon IT Disk Images that your new reflash utility can use.
- Step 3 will describe how to use the Devon IT Reflash Utility to re-image your thin clients.

Step 2 Retrieving the Devon IT Supplied Disk Images

When Devon IT releases new OS builds for its thin clients, they will be uploaded as disk images to the public FTP server. You may download these new files and then re-image your thin clients using the USB Reflash Utility you created in Step 1.

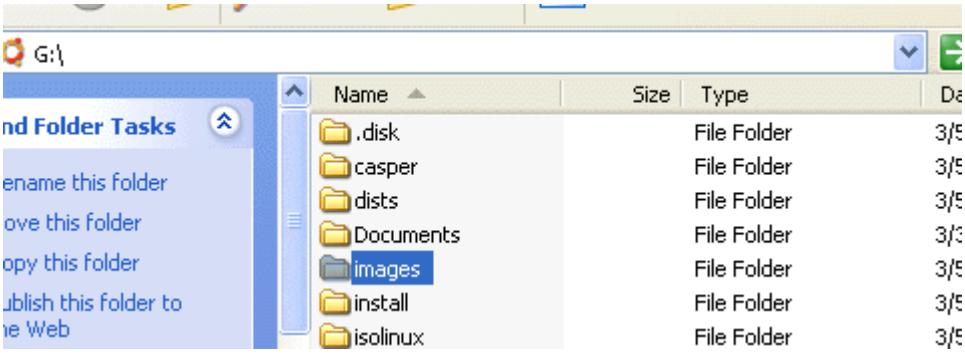
Download the latest DeTOS 7 images at: http://www.devonit.com/software/detos/downloads
Download the latest Windows Embedded Standard (WES) images at: http://www.devonit.com/software/microsoft-xp-embedded/downloads

The Devon IT Reflash Utility offers three ways to write the Disk Image. The first option is to copy the Disk Image to the USB Flash drive itself. If your flash drive is at least 2GB size, then you will be able to copy at least one disk image (possibly two) onto the drive. The other two options involve copying the disk image to an NFS or Windows share on your local area network.

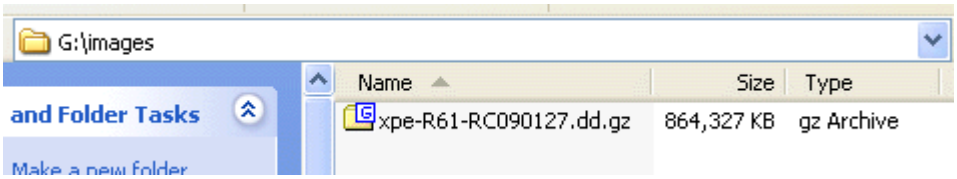
Option A: Saving the Disk Image(s) Locally to the USB Flash Drive

To save the disk image to your USB Reflash Utility drive:

1. Create a folder at the root of the usb drive called **images.**

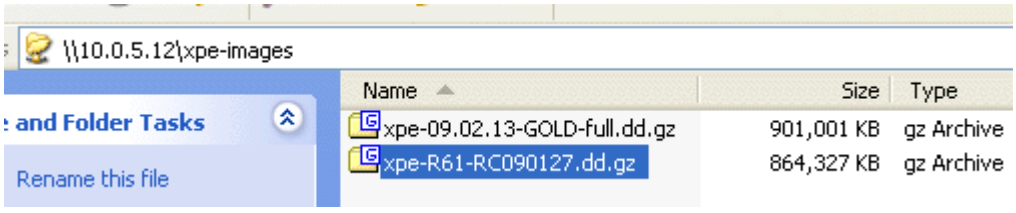


2. Copy the disk image(s) into that directory.



Option B: Storing the Disk Image(s) on a Network Share

Copy the disk image(s) to a Windows shared drive or NFS mounted directory. The screenshot below shows an example of copying a disk image to a Windows network drive called, xpe-images, located on a server with an IP address of 10.0.5.12.



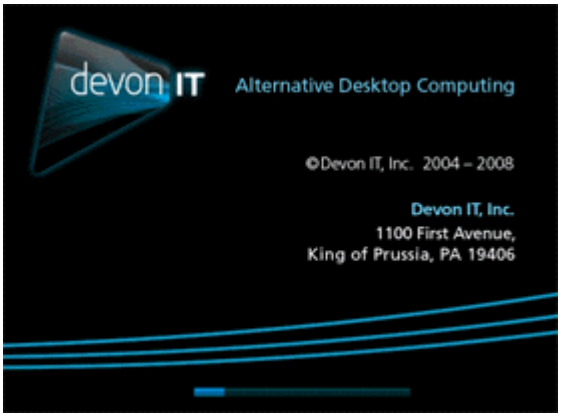
Step 3 Using the Reflash Utility to Write the Disk Image to the Thin Client

Boot the Thin Client from USB

Plug the USB Reflash Utility drive into the thin client. In order to run the Devon IT Reflash Utility, you will need to make sure your thin client is set to boot from the USB flash drive instead of the internal drive. Follow the instructions below that pertains to your particular model.

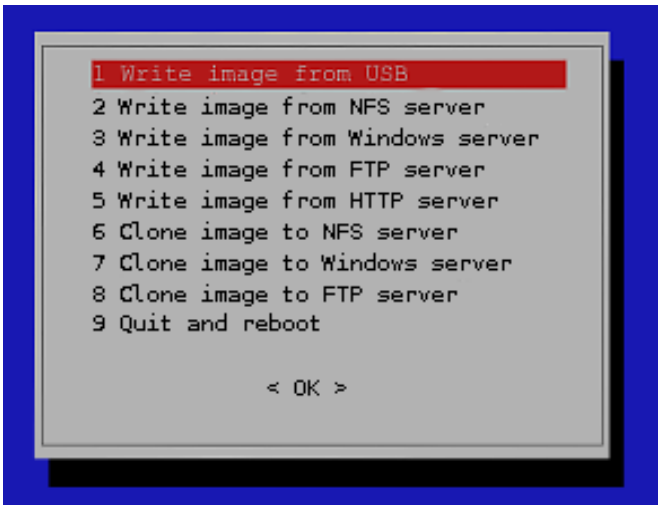
- TC5 and TC4: Press the **Delete** key during bootup to access the BIOS and change the first boot device to USB-HDD. Save and exit out of the BIOS to restart the system.
- TC5c: Press the **F12** key during bootup to access the system boot menu. Select the option named, **Hard Disk**, and press Enter. Select the second option called **USB-HDD0** and press Enter.
- Safebooks: Press the **F12** key during bootup to access the system boot menu. Select the entry that corresponds to your USB flash device and press Enter to continue.

You will see a unetbootin menu with an option called “Default” selected. Press Enter or wait 10 seconds to continue.
A Devon IT splash screen will appear and a blue progress bar will display as the reflash utility begins to load.



The splash screen that appears during bootup.

Once the bootup has completed, you will be presented with the Devon IT Reflash Utility Main Menu.



The Devon IT Reflash Utility Main Menu

Use the arrow keys to select an option that corresponds to the way you saved your disk image (as performed in Step 2).

- If you copied your disk image directly to the **USB flash drive** itself, then select **1** and press Enter now.
- If you copied your disk image to an **NFS mounted directory**, then select **2** and press Enter now.
- If you copied your disk image to **Windows Network** drive, then select **3** and press Enter now.

Specific Instructions for Option 1 – Writing the local image from USB

1. A list of available disk images found on the local usb drive will be displayed. Select the appropriate disk image file for the thin client you are re-imaging.
2. Press **Enter** to flash the terminal with the selected image.
1. The message,"Writing image to disk", will be displayed, along with a progress bar showing the current status of the re-imaging process. Do not turn off your thin client during this time.

Specific Instructions for Options 2 & 3 – Writing the image from an NFS Mount or Windows Server

2. Enter the base location of the network share and press Enter.

   For example, if you stored your disk image on a Windows network drive named, xpe-images, that is located on a server with an IP address of 10.0.5.12, then you would type: **`//10.0.5.12/xpe-images`**
3. Enter a valid username and press Enter.
4. Enter the password for this user. Press Enter to continue.
5. If you are using a Windows Share, then you will be prompted to enter the domain name.
6. Once a connection has been established, a list of available disk images found on the network drive will be displayed.
7. Select the option in the list that corresponds to the appropriate disk image file for the thin client you are re-imaging.
8. Press **Enter** to flash the terminal with the selected image.
9. The message,"Writing image to disk", will be displayed, along with a progress bar showing the current status of the re-imaging process. Do not turn off your thin client during this time.

Final Steps

- Once the reflashing stage has completed, press **Enter** to reboot. Do not remove the usb flash drive yet.
- Once you receive the message, "Please remove the disc and close the tray (if any) and press ENTER to continue", then you may safely remove your USB flash key from the thin client.
- Your thin client will now boot with the new operating system.

Special Instructions for the TC4X Image

The WES builds for the TC4 terminals may be missing the FBWFGUI shortcut normally found under the Administrator's Start Menu. Follow the steps below to fix this.

- Login as Adminstrator (Hold Shift key during logout)
- Open **START Menu** → **Run...**
- Type in the word, **explorer** and press OK.
- In the Address bar, type in the location, **C:\DevonIT**
- Right-click the program named, **fbwfgui**, and select **Pin to Start Menu** to add it to the Start Menu or select **Send to** → **Desktop** if you prefer to have a shortcut on the desktop for it.