

# Bootable EFI disk Instructions:

1. Unzip *USB EFI Drive.zip* into c:\compiledDuet (chosen here for reference) on an Windows-XP machine
  - Please make sure there is at least 25MB of free space
  - These directions have been tested only when C: is mapped to a hard disk (not to another flash disk)
2. Open up a DOS box (using cmd.exe)
3. Set up the environment so that nmake command is available to execute (i.e., run Set Path ...)
  - Verify that nmake is available by typing nmake at the command line and seeing an NMake error instead of 'not recognized' error
4. CD into c:\compiledduet
5. Insert your USB flash disk into a USB slot on the XP machine - note the drive letter assignment (typically E: or F: )
  - For reference, the drive F: will be used here to refer to the USB disk
  - The tools will reformat the USB disk -- Please ensure that there are no useful contents on the USB disk - they will be lost
6. Run
  - usb.bat F: UEFI32 FAT or [for drives less than/equal 2GB]
  - usb.bat F: UEFI32 FAT32 or [for drives greater than 2GB]
  - usb.bat F: UEFI64 FAT or
  - usb.bat F: UEFI64 FAT32
  - Usb.bat is a batch file found in the directory
  - F: is the drive mapping to the USB flash disk
  - UEFI32 creates a 32-bit uEFI shell along with boot sector. UEFI64 creates a 64-bit uEFI shell along with boot sector.
  - FAT creates a 16-bit file system (for drives  $\leq 2\text{GB}$ )<sup>1</sup> FAT32 creates a 32-bit file system<sup>1</sup> (for drives  $> 2\text{GB}$ )
7. Unplug usb key, wait a few seconds, and re-insert it (into the same USB slot)
8. Run **usb.bat** again, but this time with no parameters
9. Close the DOS window - The USB drive is now ready to boot EFI shell
  - Copy the EFI based tools to the USB device
  - Insert the USB device into the platform under test
  - Setup BIOS to boot from USB -- then boot it
  - At EFI Shell prompt, type **FS0:**
  - You should be able run the EFI based tools

**WARNING:** We have encountered platforms that boot USB drives  $> 530\text{MB}$  as a hard disk and less than 530MB as a Floppy Disk. The 32-bit EFI DUET only seems to boot as

---

<sup>1</sup> FAT32 should be used on all drives  $> 2\text{MB}$

a FDD. On the Green City Customer Reference Board, this behavior can be changed by modifying BIOS: ADVANCED – USB – <usb drive> from AUTO to Force FDD. Using a smaller USB drive (<512MB) is recommended and a 64MB drive should be more than sufficient.

If there is a problem boot to the EFI disk, try the following:

- Try creating a USB disk using the other FAT setting
- Try setting up BIOS – USB Configuration for the USB drive to:
  - a. Force FD (especially if drive size > 512MB & FAT 16)
  - b. Floppy
  - c. Hard disk (especially if drive size formatted as FAT 32)

There have also been reports that the EFI boots to a Continue menu – but selecting CONTINUE just returns to the menu. If this occurs, scroll to the Boot menu and select the USB drive.

UPDATE: Some platforms seem to work better with 4GB USB driver – maybe because the larger drives boot as a hard disk using FAT32 file system.