

BIOS Upgrade

Symptoms

- BIOS is corrupt
- Unable to enter BIOS
- BIOS battery replacement
- New motherboard

Solution

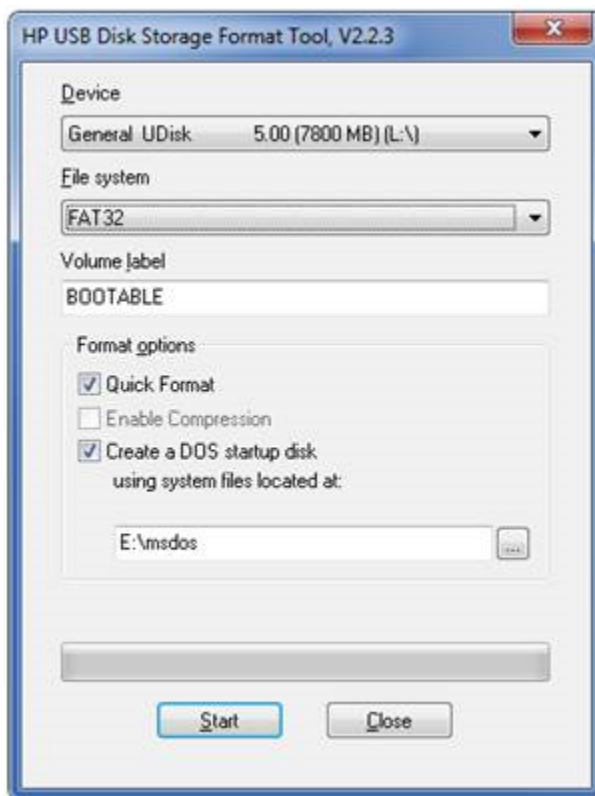
Below procedure describe how to create a bootable USB stick and how to up update BIOS on a MiraQ

Preparing DOS bootable USB tool

You will need an empty USB stick, and make it bootable containing the following files:

<https://1drv.ms/u/s!AnqFyU9QVVi4nh4XN92hOhZMyCTD?e=n3AArx>

1. Download the files and unzip them to a folder on your desktop
2. Connect an empty USB stick
3. Run "HPUSBSTICK.exe" from the unzipped files



4. Select the USB device to make bootable and call it "BOOTABLE"
5. Select "Quick format", and "Create DOS startup disk using system files located at:"
6. Browse to the local directory where the MSDOS files were extracted
7. Press "Start" and the USB stick will be made ready.

Upgrading MiraQ BIOS

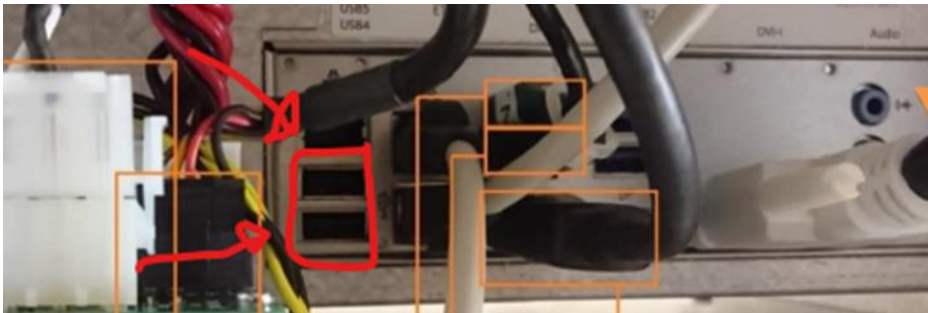
On the root of the DOS bootable USB stick place the following files:

- bf.exe
- MBUpd.bat
- MastBios.rom

1. Boot the MiraQ into BIOS (press "Esc" on keyboard continuously during startup)
2. Select BIOS settings:

Advanced / AMT configuration / Intel AMT = Enabled
Advanced / AMT configuration / Disable ME = Enabled

3. Save settings and Exit.
4. After bootup to the clinical application, shut down the MiraQ and remove power.
5. Release the EL-module to gain access to the motherboard connections (chapter 5.1.1 in the service manual)
6. Insert the DOS bootable USB stick in either USB1 or USB2 (black USB2.0 connections)



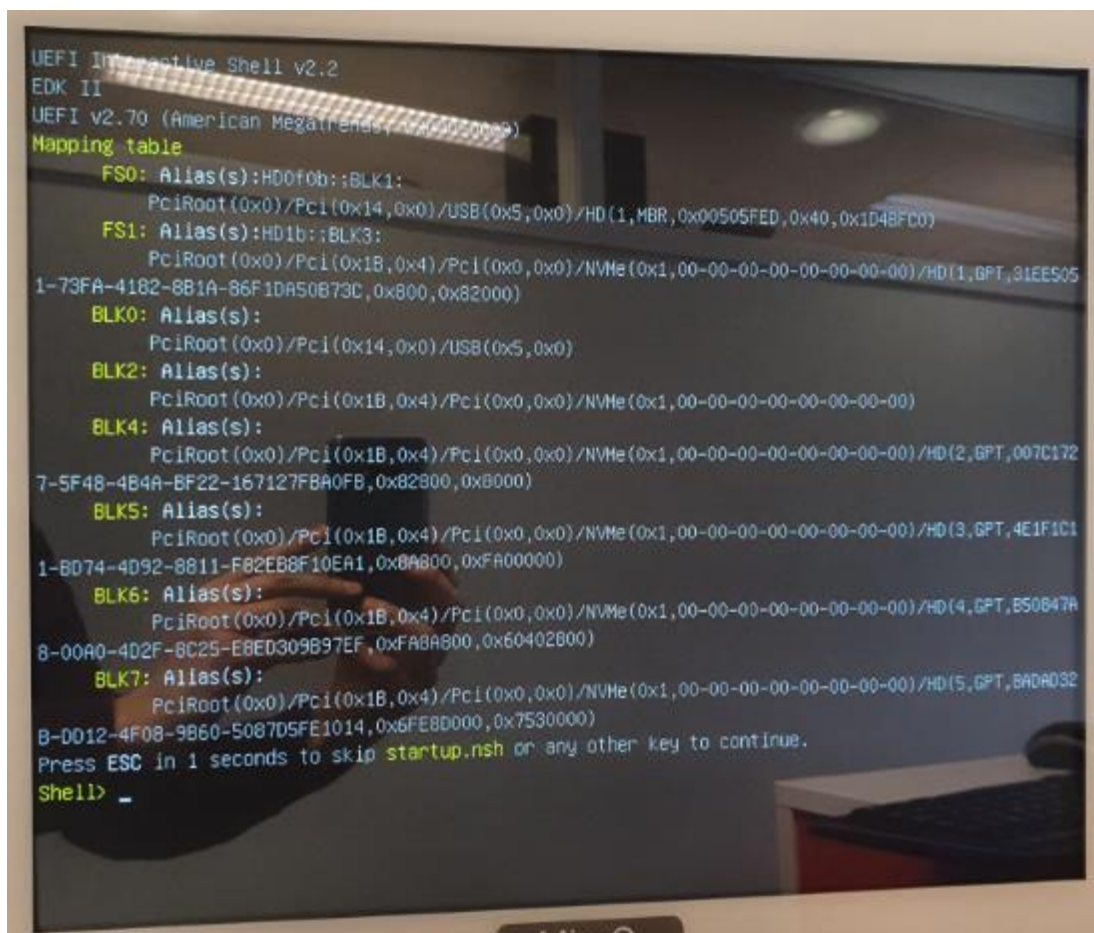
7. Start the MiraQ, and it should boot into the USB stick. If it does not do so automatically, boot to BIOS, then from the Save&Exit-screen, select the USB stick directly from the bottom "Boot Override" selection.
8. When the MiraQ has booted into the black DOS-screen, type in "mbupd.bat"
9. Wait for the progress bar to complete
10. Completely power off the device and disconnect power cable, wait for 20 seconds (no Standby 5V)
11. Remove the Bootable USB stick.
12. Connect power, start the MiraQ, wait until the MiraQ has automatically restarted a few times.

Upgrading MiraQ BIOS - mTIX-CFL-S

You will need an empty USB stick, and make it bootable containing the following files:

<https://1drv.ms/f/s!AnqFyU9QVVvi4pS5NcyeGCWlumSRd?e=lxS6zr>

1. Copy the BIOS files of the version listed in (DOC-774) from the MiraQ system software toolbox listed in the document onto the BIOS upgrade USB stick (item #5), preferably to the root folder. Make sure no other files are placed in the same folder.
2. Insert the BIOS upgrade USB stick into the MiraQ device.
3. Start the MiraQ device.
4. Press F11 repeatedly during power-on.
5. Select UEFI Shell.
6. The BIOS upgrade USB stick will show as either FS0 or FS1, as seen in the picture below. Identify the item listed as USB. Example: "PciRoot(0x0)/Pci(0x14,0x0)/USB ..."



7. Enter the name with a colon at the end (either "FS0:" or "FS1:") and press Enter. If the device is not showing as an option, turn off the device and restart the procedure.
8. Type "flash.nsh" or press tab until it appears. There may be more than one file starting with "flash", so make sure to select the correct one. NOTE: If the files are not placed at the root of the USB stick you need to use the "cd" command to navigate to the correct folder.
9. Press Enter. The BIOS upgrade will now start.

10. Once the BIOS upgrade is complete, press any button on the keyboard to power off the MiraQ device.
11. Disconnect the power cable
12. Remove the BIOS upgrade USB stick and wait 30 seconds.
13. Connect the power cord and turn on the device. The device may automatically restart a few times.
14. Enter BIOS and verify that the BIOS version is as expected.