

Updating Carnivore2's firmware from command line

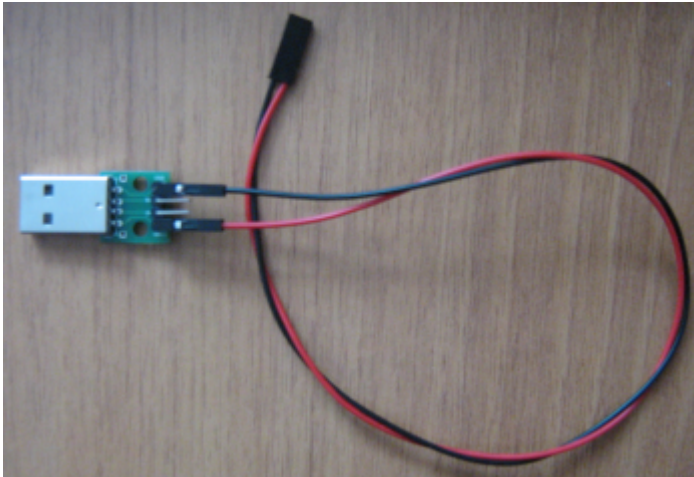
This document describes updating Carnivore2's firmware from the command line using the [Quartus II Web Edition \(Free\) 15.0](#).

Below you can find the examples for MS Windows and Linux.

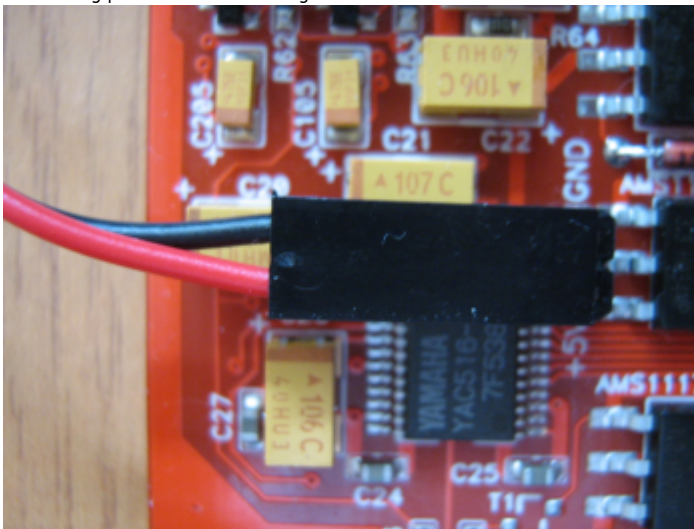
The updating must be done in the following order:

1. [Create the settings file carnivore2.cdf](#)
2. [Connect the USB Blaster and identify USB port number](#)
3. [Prepare the command line to upload firmware into Carnivore2](#)
4. Supply power to Carnivore2:

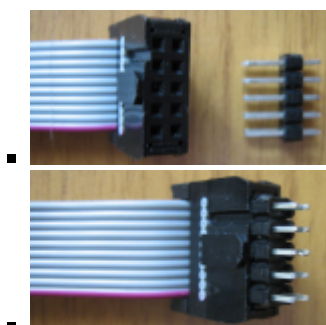
- Supply 5v to the cartridge board (mind the polarity!)
Recommended power cable:

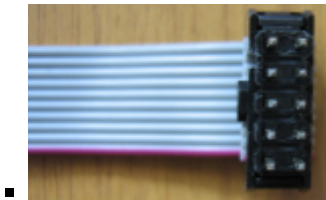


Connecting power cable to cartridge:

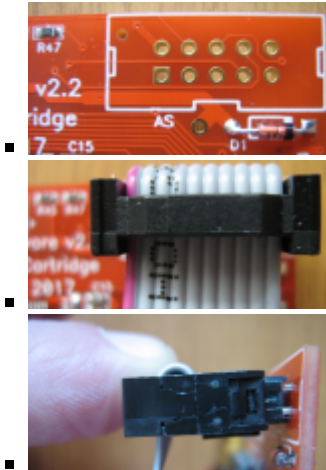


- Connect the USB Blaster's cable to the AS connector's placeholder on the cartridge (make sure that the cable is connected correctly!)
It's recommended to use the dual-row pin header (PLD 2x5, 2.54mm spacing), it needs to be inserted into the USB Blaster flat cable's connector:





Then the cable with the pin header needs to be connected to the AS connector's placeholder on the cartridge board and it should be a bit tilted to make sure that it has a good connection to the board:



5. Issue the firmware upload command [upload command](#) and wait for it to finish
6. After updating the firmware, remove the cables from the cartridge board in this order:
 - o USB Blaster's cable
 - o power cable

carnivore2.cdf file

Create the file named `carnivore2.cdf`, that contains the correct path to the file.

MS Windows
Pay attention to the divider in the example: E:/MSX/Carnivore2/Firmware/ example of carnivore2.cdf
Linux
Example path to the file: /home/user/MSX/Carnivore2/Firmware/ example of carnivore2.cdf

USB port number

Now it's time to connect the USB Blaster and identify the USB port number:

MS Windows
C:\altera\15.0\quartus\bin64\quartus_pgm -l output: Info: Command: quartus_pgm -l 1) USB-Blaster [USB-0]
Linux

```
~/altera/15.0/quartus/bin/quartus_pgm -l
output:
Info: Command: quartus_pgm -l
1) USB-Blaster [3-2]
```

Uploading the firmware

The command line must contain the full path to the application, [USB port number](#) and the path to the [carnivore2.cdf](#) file.

MS Windows

```
C:\altera\15.0\quartus\bin64\quartus_pgm --cable="USB-Blaster [USB-0]" E:\MSX\Carnivore2\carnivore2.cdf
```

Linux

```
~/altera/15.0/quartus/bin/quartus_pgm --cable="USB-Blaster [3-2]" ~/MSX/Carnivore2/carnivore2.cdf
```

```
Info: Command: quartus_pgm --cable="USB-Blaster [USB-0]" E:\MSX\Carnivore2\carnivore2.cdf
Info (213045): Using programming cable "USB-Blaster [USB-0]"
Info (213011): Using programming file E:/MSX/Carnivore2/Firmware/carnivore2.pof with checksum
0x05E40CB4 for device EPCS4@1
Info (209060): Started Programmer operation at Tue Jan 04 12:08:32 2022
Info (209018): Device 1 silicon ID is 0x12
Info (209044): Erasing ASP configuration device(s)
Info (209020): Blank-checking device 1
Info (209024): Programming device 1
Info (209022): Performing verification on device 1
Info (209018): Device 1 silicon ID is 0x12
Info (209011): Successfully performed operation(s)
Info (209061): Ended Programmer operation at Tue Jan 04 12:08:40 2022
Info: Quartus II 64-Bit Programmer was successful. 0 errors, 0 warnings
Info: Peak virtual memory: 240 megabytes
Info: Processing ended: Tue Jan 04 12:08:40 2022
Info: Elapsed time: 00:00:09
Info: Total CPU time (on all processors): 00:00:01
```

https://sysadminmosaic.ru/en/msx/carnivore2/quartus_cli

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