

Application Note

How to Upgrade (ISP) the DX Series Products' Firmware

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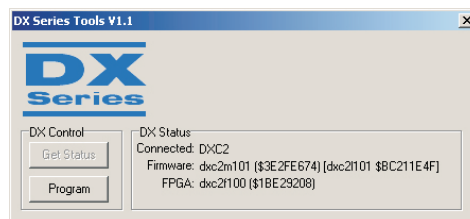
Overview

Each of the DX Series units has three pieces of code which can be upgraded; the FPGA configuration, the processor boot loader and the processor application code. Outlined below are the steps which need to be taken to properly execute each of these commands.

Before You Begin

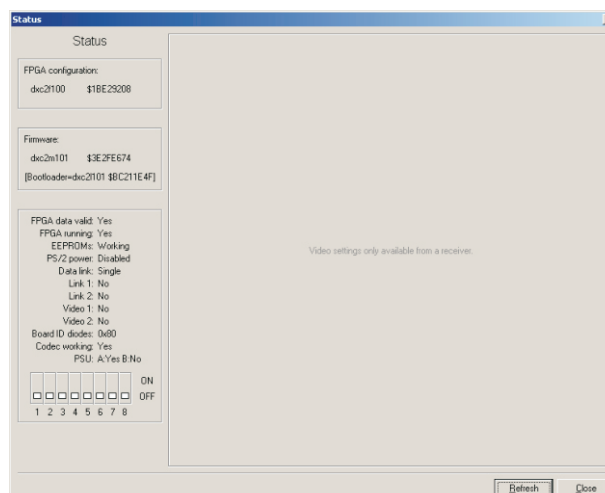
Before upgrading the firmware on the DX Series units you will need to ensure:

- The DX Series application front end is installed and running on an attached PC, this application can be found on the Resource CD or obtained via the website.
- There is a USB to mini USB cable* available to attach between the PC and the "Flash" port on the unit.
- Make sure you have the correct version of firmware - call Amulet Hotkey Technical Support if in doubt.
- If upgrading a DXR2, ensure DIP switch 8 is turned off before starting.



Upgrade Process

- Download, un-zip and save all of the archives into a folder on your local hard drive.
- After running dx_toolset.exe, connect a unit to your PC (using the mini USB-B cable) and .
- When you first connect a DX Series product to your PC you will be prompted to install a USB driver in the usual manner. Set Windows to look in the place you have extracted the drivers archive. You can check the details of the unit and upgrade files when it is powered normally or when it is only powered from the ISP port (the Mini USB-B connector on the front panel). When the unit is powered via the USB port, it will not operate fully. It will be powered just enough to upgrade the firmware. You will notice that the "Get Status" button is greyed out, unless first powered from a PSU.



*The Amulet Hotkey part number is: CL-USBM-0002

Upgrading the FPGA Configuration & Processor Firmware

- Close the status window if it is open and click on the “Program” button.
- A dialogue will open inviting you to browse to the location of the firmware package.
- Once you have selected the appropriate directory for the firmware package, programming will begin.
- During programming the application will keep you informed of progress and confirm when finished that the file has been programmed correctly onto the unit.
- Once the unit has been programmed it will reboot.

Programming the units is quick and you may be worried that you haven’t updated a file. Simply check the unit’s status to obtain a snapshot of the files programmed onto it.

†If, after several attempts you are unable to upgrade, please call for technical support and have the following information from the DX unit ready: Serial number, production version number, ECN number and CN numbers.

Disclaimer

Amulet Hotkey accept no responsibility for any loss of data, incorrectly transmitted keystrokes, or damage to systems during and following and firmware upgrade Flash Programming of Amulet Hotkey equipment. Always follow official Amulet Hotkey product support documentation guidelines when In-System Programming Amulet Hotkey products. Due to Amulet Hotkey's broad experience in mission critical environments we strongly advise that, as with other vital tools, clients test equipment following any change of configuration or firmware in a development environment before exposure to a live environment. Please feel free to contact our product support team for further advice in this matter.

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