

WinCamD-LCM Series Firmware Upgrades

Introduction

The WinCamD-LCM allows the user to upgrade both FPGA and USB Firmware without returning the unit for servicing. These upgrades do not require disassembling the camera, and do not require special tools or skills. This note discusses the process of upgrading the LCM FPGA and USB firmware. Note that the current version of firmware can be seen in the green **Ready # LCM.x** button. The **.x** refers to the current firmware version, so that a button reading 'Ready # LCM.9' uses firmware version 9 as in Fig. 1.



Figure 1: The **Ready** button shows the current firmware version - version 9 in this case

Loading FPGA Firmware

Use the following steps to upgrade the FPGA firmware of a WinCamD-LCM:

1. Run the most recent version of the DataRay software and connect the LCM via USB 3.0 cable.
2. If the FPGA firmware on the device is out of date, a prompt to install FPGA firmware should appear. Select **OK** to upgrade. In addition, the **Firmware Upgrade Menu** (see Fig. 2) can be accessed by pressing **SHIFT + F**, and an upgrade can be started from there by selecting **Upgrade FPGA Firmware**.
3. When the progress bar completes, select **OK** and power cycle the board (unplug for 3 seconds, then plug back in).

Loading USB Firmware

Use the following steps to upgrade the USB firmware of a WinCamD-LCM:

1. If the USB firmware on the device is out of date, a prompt for missing USB firmware should appear. Select **OK**. This will not automatically be the upgrade as with the FPGA firmware.
2. Press **SHIFT + F** to enter the **Firmware Upgrade Menu** (see Fig. 2) and select **Upgrade USB Firmware**.
3. When the progress bar completes, select **OK** and power cycle the board (unplug for 3 seconds, then plug back in).

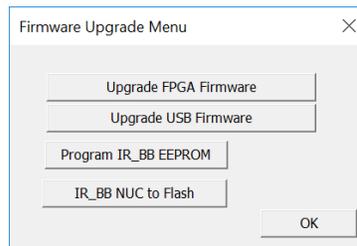


Figure 2: The Firmware Upgrade Menu can be pulled up by pressing **SHIFT + F** in the standalone software when a WinCamD-LCM is plugged in.