Lumidox Controller II – Field Firmware Upgrade

Intro:
This document describes how to upgrade the Lumidox Controller II firmware. The process will use a GUI from Analytical Sales & Services. To perform the upgrade, the process will use the USB port on the back of the unit that will connect to a host PC.

Software/ Driver Requirements:
Before either method can be performed, some software will need to be installed on the host PC. First are the drivers to initiate Virtual COM Port (VCP)communication with the controller. The second is utility software used to program the new firmware file (hex file). Note that if you are using our API, you can skip the VCP drivers installation section. All necessary software will be provided to you.

Install the VCP Drivers:
1. Open up the firmware upgrade folder provided and run the "CDM21228_Setup.exe" file.

Name	Date modified	Type
CDM21228_Setup.exe	7/31/2020 8:23 AM	Applicati

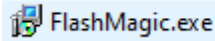2. Run the installation. For reference, please see all of the installation windows below.
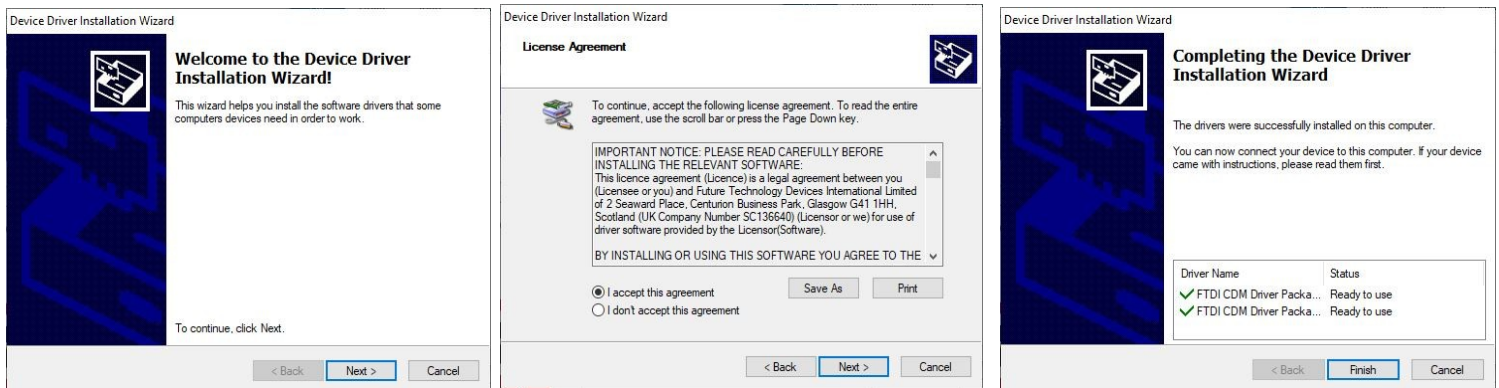
3. Once complete, the PC is now able to establish communication with the Lumidox II controller

Install the Firmware Utility Software:
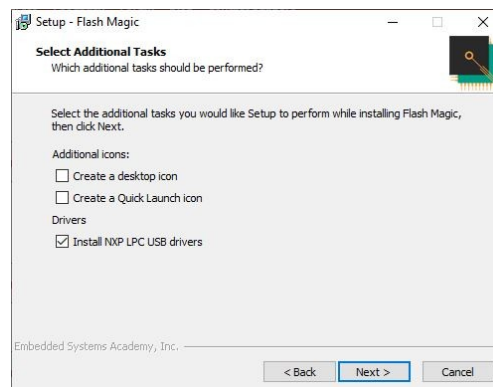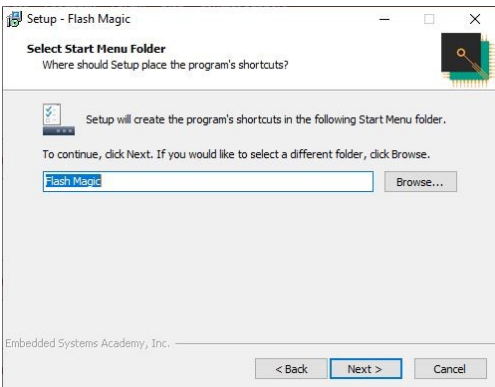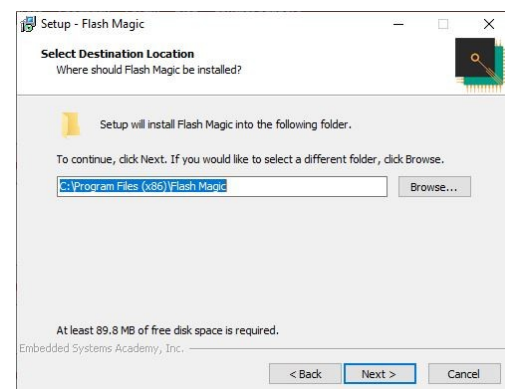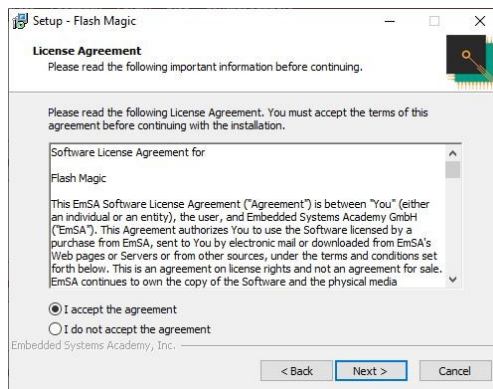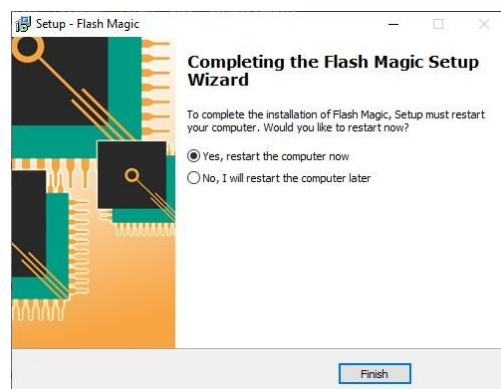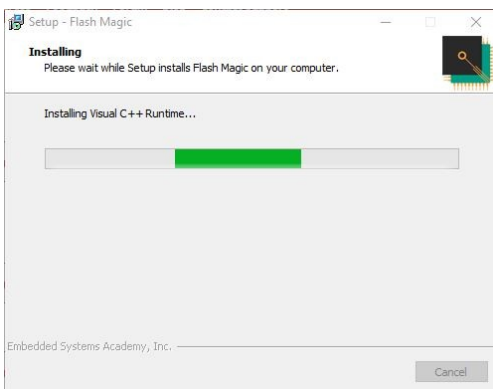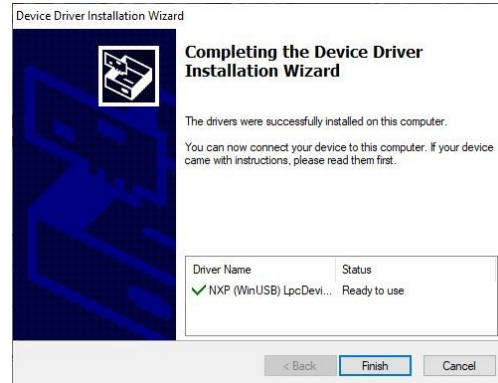1. Open up the firmware upgrade folder provided and run the "FlashMagic.exe" file.

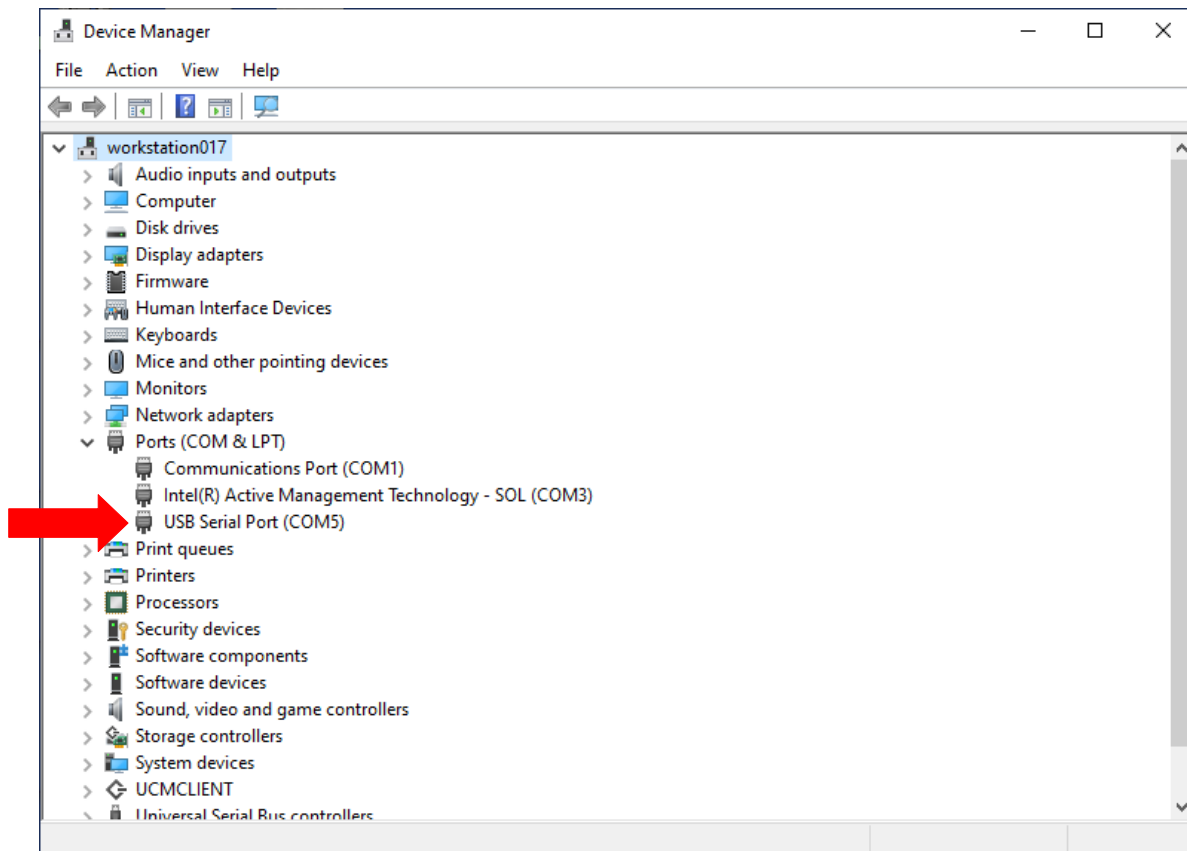2. Run the installation. For reference, please see all of the installation windows below.
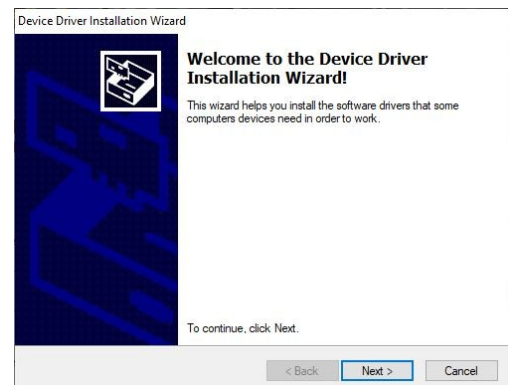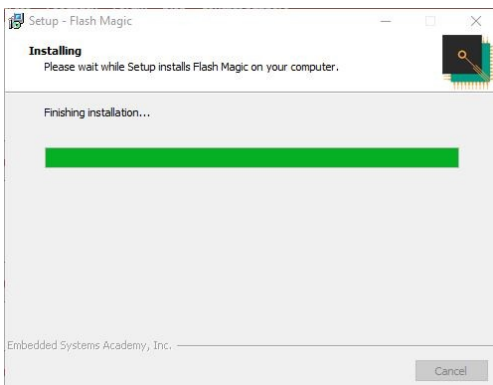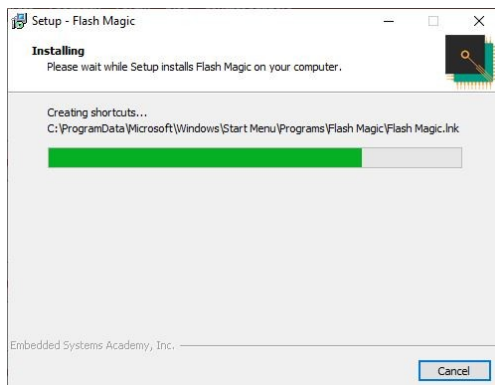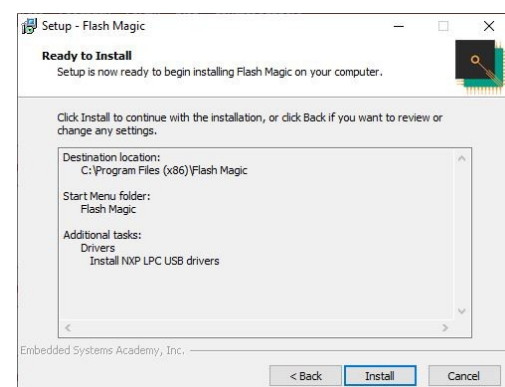
3. Restart the PC. FlashMagic will be fully installed after restarting.

Firmware Upgrade Through Interface GUI:

1. Plug in the Lumidox Controller II to its power supply and turn on.
2. If there are any light devices attached to the controller, unplug them now.
   CAUTION: If the light device is not unplugged, the device will flash at high levels for a fraction of a second, potentially exposing you to a high amount of light intensity.
3. Connect the controller via USB to the host PC. It will enumerate as a COM port in the device manager. Example of how it appears in a PC is shown below.

4. Open up firmware upgrade folder provided and run the "GUI5R7529.exe" file.

5. Click on "Auto Port Selection". The controller should successfully connect.

6. On the bottom left, go to "Restore Defaults" and type in "flash" for the password. The "Flash Mode" button section will now be active.

7. Make sure the firmware file "M5R7529.hex" is in the same directory as the "GUI5R7529.exe" file.

8. Press the "Flash Mode" button. A new window will appear that will start the upgrade process. This will take approximately 20 seconds. About 5 seconds after this, the controller will restart indicating a successful upgrade.

9. Close the GUI, power down the controller, and disconnect the USB cable from the controller.
10. Plug in a light device to the controller and power it on. The boot up screen should now have a new firmware version.