Quick Start Guide for HCImage

IQS003- Rev 04

Issue Date: 30/9/2021

1 Integrated CoolLED Products:

- **pE-2**
- **pE-300^{white}, pE-300^{ultra} & pE-340^{fura}**
- **pE-4000**
- **pE-800 Series**

2 Setting up your CoolLED Illumination System COM Port via USB:

1. For all products (unless running the pE-800 Series in Windows 10 onwards), the CoolLED driver file should be downloaded from the CoolLED website:

   https://www.coolled.com/support/imaging-software/

Note: This is a general driver for Windows machines and all USB controlled CoolLED Illumination Systems (pE-2, pE-300 Series, pE-340^{fura}, pE-4000 and pE-800 Series). If running the pE-800 Series on Windows 10 please skip to Section 3: “Configuring a CoolLED Illumination System in HCImage”.

2. Save the files (.inf and certification files) to a preferred location on your Computer (e.g. Desktop).

3. When the CoolLED Illumination System is plugged in, it will appear with a driver required warning (yellow exclamation mark). Right click and 'update' the driver, pointing it to the previously downloaded directory containing the .inf file.

4. Once the CoolLED Illumination System has been successfully installed into Windows, check the Virtual COM ports assigned by going into Device Manager. The CoolLED Illumination System should be listed under 'Ports' (COM & LPT):

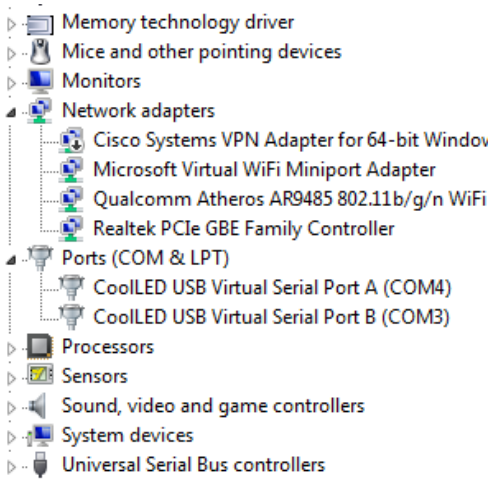

Figure 1: Device Manager with a pE-4000 installed.

Either COM port may be used for control. The creation of two COM ports is to allow for multiple uses (for example: one could be used for controlling the CoolLED Illumination System whilst the other is used for command testing). Additionally, it allows for ease of use if there is a COM port conflict. Please note for the pE-800 Series there is only one COM port allocated.

3 Configuring a CoolLED Illumination System in HCImage

1. Launch HCImage.

2. On the main toolbar, navigate to ‘File’, then select ‘Current Profile’. This will bring up the below window:

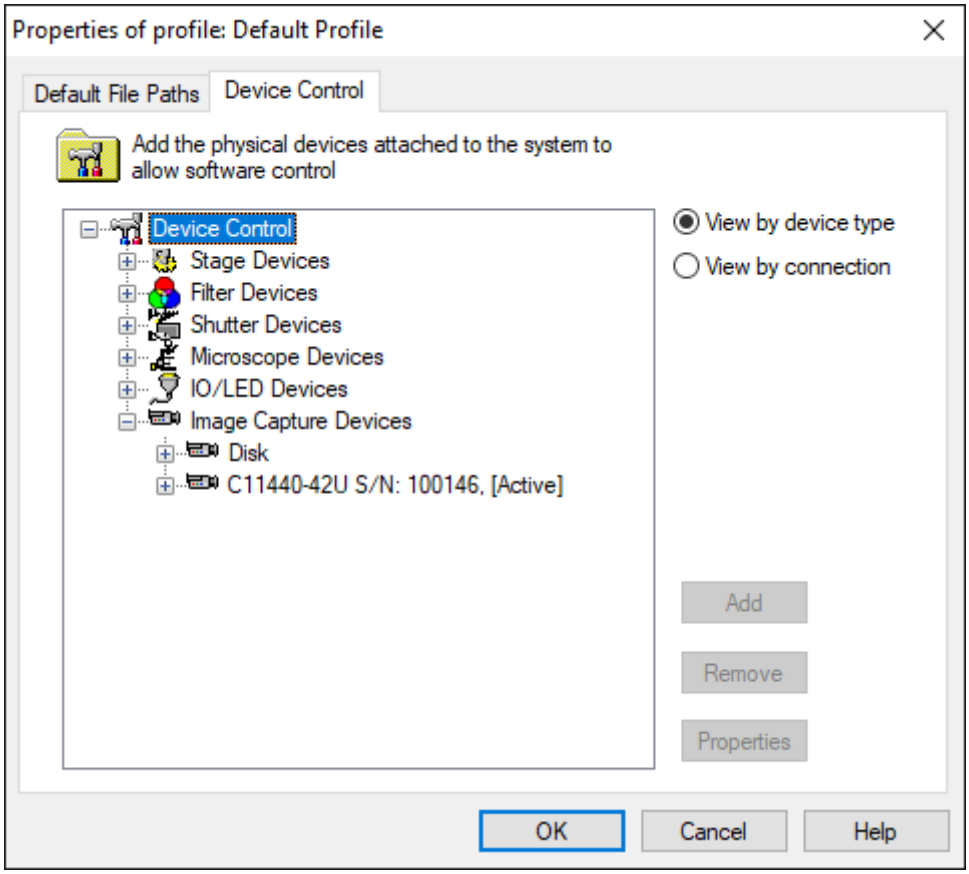

Figure 2: 'Device Control'

3. Select ‘IO/LED Devices’ and click ‘Add’. This will bring up the ‘Add IO/LED Device’ window. From this window highlight CoolLED precisExcite in the ‘Controller’ Tab.

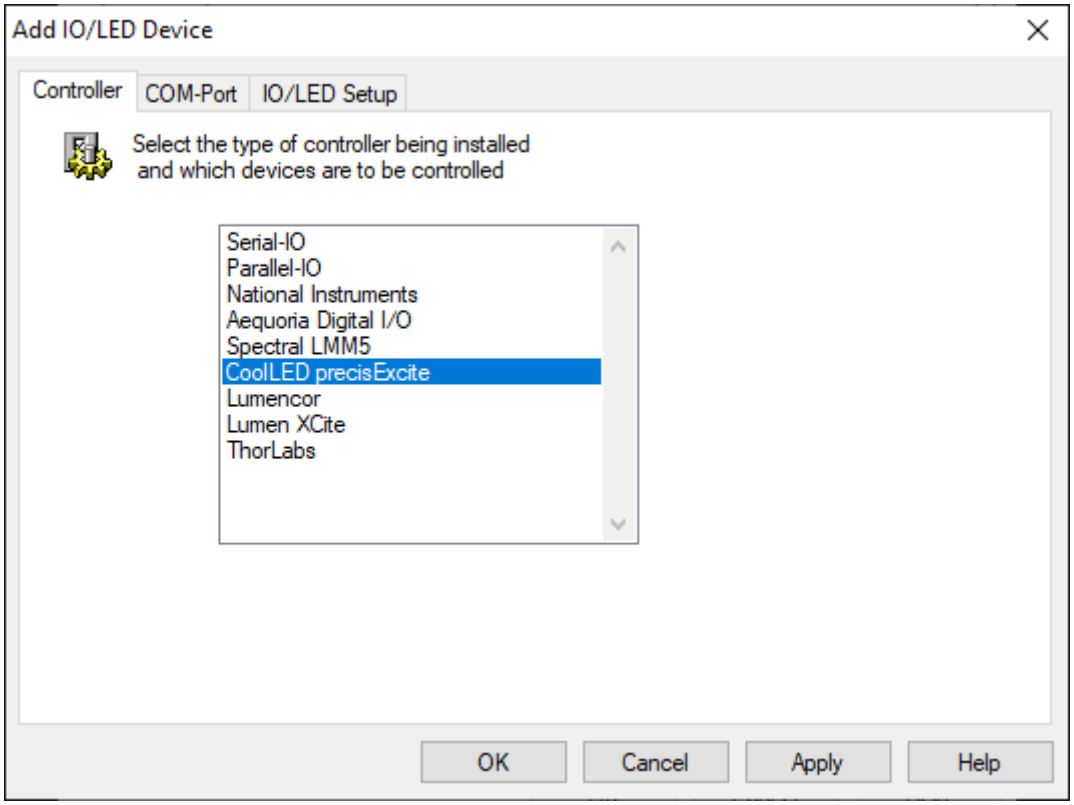

Figure 3: 'Add IO/LED Device' window

4. You will also need to navigate to the ‘COM-port’ tab and select the appropriate COM Port assigned to the CoolLED Illumination System in Device Manager.

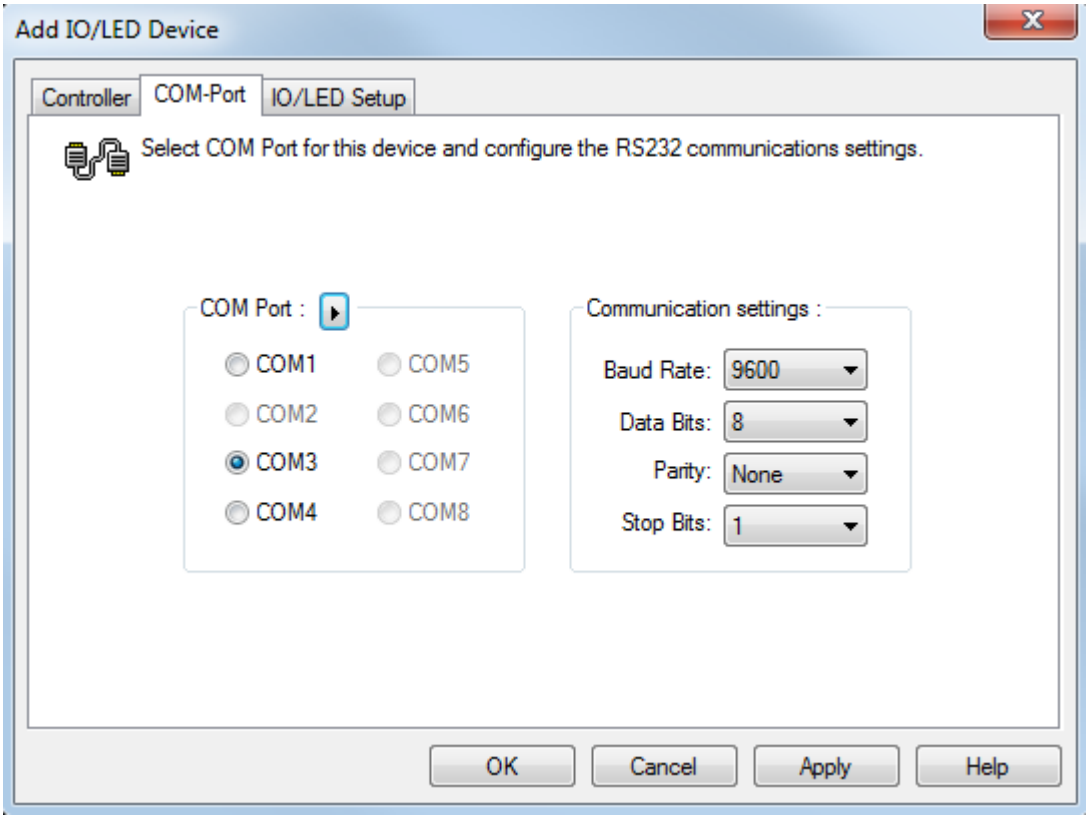

Figure 4: COM port selection in 'Add IO/LED Device' Window

5. With this completed, click OK to close the 'Add IO/LED Device' window and then initialise the system. If you get a communication error, verify communication with the CoolLED Illumination System to make sure it is connected correctly; The Control Pod should display that it is in 'Remote Mode' if a control pod is present with the system.

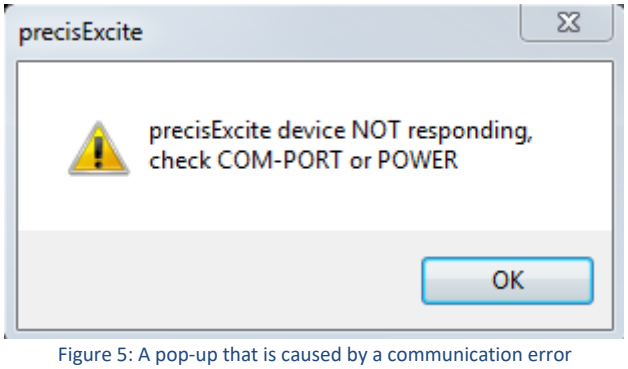

Figure 5: A pop-up that is caused by a communication error

6. Once the system has been initialised, presets can be created for different LED modes. Go to the 'Devices' tab and under 'Filter Setup' select 'Add', create a name for the mode you want to set up.

    - Highlight this and scroll down and select the 'IO/ LED Device' tab.
    - Under the 'Filters' section the intensity for each of the LEDs can be chosen. For the pE-4000, this is also where the LED of choice is selected.
    - Under the 'Shutters' section, the choice of which LEDs are on and off is made. To turn on the LEDs set the value to 'High'. For all others set them to 'Low'.

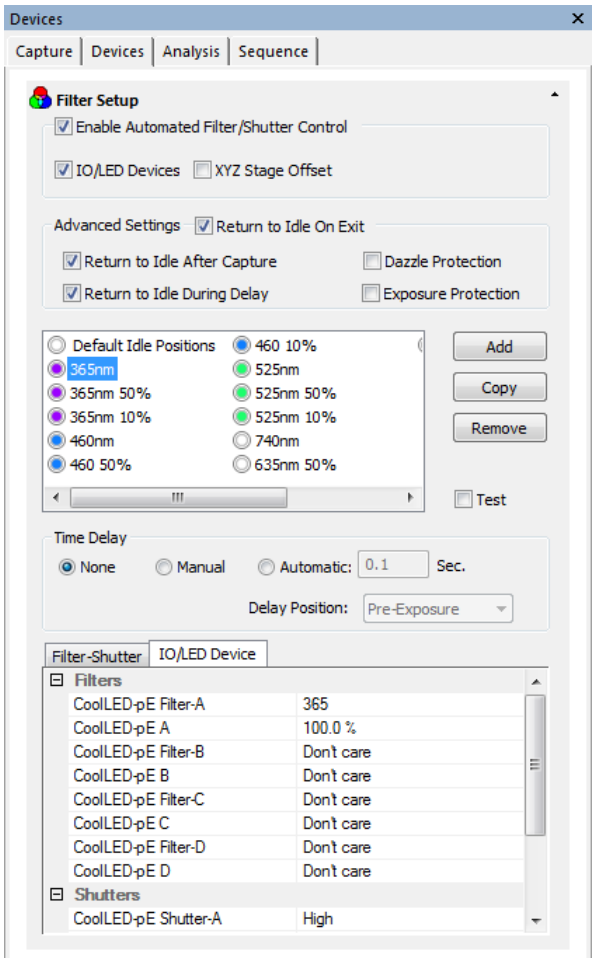

Figure 6: 'Filter Setup' within the 'Devices' window for a pE-4000

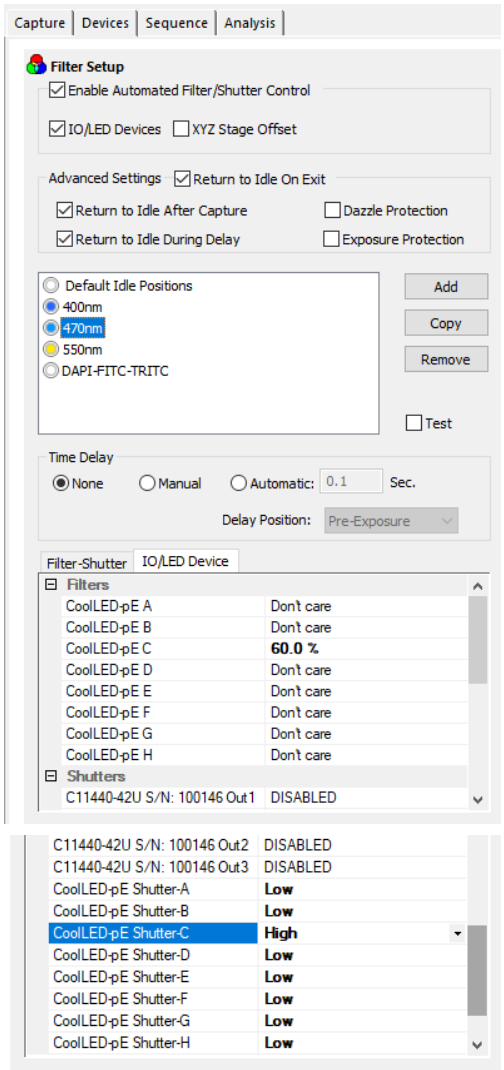

Figure 7: 'Filter Setup' within the 'Devices' window for a pE-800

Note: With the pE-800, the following Shutters and filters refer to the following LEDs:

- Shutter A/ Filter A: 365 / 400 nm
- Shutter B/ Filter B: 435 nm
- Shutter C/ Filter C: 470 nm
- Shutter D/ Filter D: 500 nm
- Shutter E/ Filter E: 740 nm
- Shutter F/ Filter F: 635 nm
- Shutter G/ Filter G: 580 nm
- Shutter H/ Filter H: 550 nm

Note: With the pE-800^{fura}, the following Shutters and filters refer to the following LEDs:

- Shutter A/ Filter A: 500 nm
- Shutter B/ Filter B: 550 nm
- Shutter C/ Filter C: 580 nm

- Shutter D/ Filter D: 635 nm
- Shutter E/ Filter E: 470 nm
- Shutter F/ Filter F: 435 nm
- Shutter G/ Filter G: 380 nm
- Shutter H/ Filter H: 340 nm