Quick Start Guide for Slidebook

IQS009- Rev 04

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1   Integrated CoolLED Products:

- **pE-2**
- **pE-300white, pE-300ultra & pE-340fura**
- **pE-4000**

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

1. The CoolLED driver file should be downloaded from the CoolLED website:

   http://www.coolled.com/product-detail/imaging-software/

   N.B. This is a general driver for Windows machines and all USB controlled CoolLED Illumination Systems (pE-2, pE-300 Series & pE-4000).

2. Save the files (.inf and certification files) to a preferential 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):
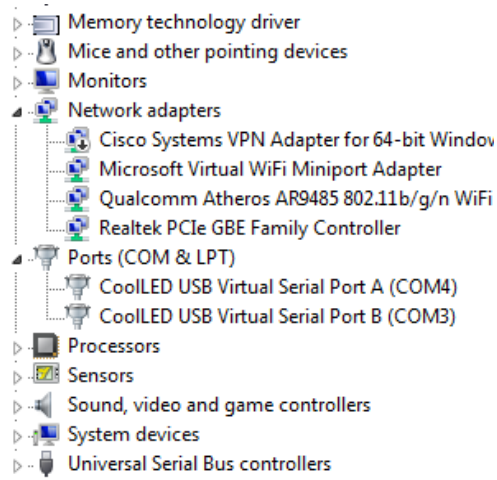
Figure 1: Device Manager with a pE-4000 installed.

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.

3   Configuring a CoolLED Illumination System in Slidebook

1. After starting up Slidebook, go to the 'Administration' tab and click 'Hardware Configuration'.

Figure 2: 'Administration' tab

2. The following window will appear. 'Hardware Configuration' is where you set up all of your components for your CoolLED Illumination System. Ensure that you have selected either the 'CoolLED pE-4000' or the 'precisExcite' (pE-2) as the 'Excitation Wheel', 'ND Selection' and 'Auxiliary ND', as shown below. Additionally, ensure you have selected the correct COM port.

Figure 3: 'Hardware Configuration' Window

3. When you have completed this, click OK. You will need to restart Slidebook for this configuration to take effect.

4. Having restarted Slidebook, navigate to the 'Administration' tab once more and this time click 'Filters'. This will bring up the 'Filter Configuration Parameters'.

5. In 'Filter Configuration Parameters' you can set up your 'Filters' and choose the appropriate wavelength. Create a new 'Filter' press 'add', and then select an 'Excitation Wheel Position' from the drop-down list. The pE-4000 channels are listed numerically from 1 (365 nm) to 16 (770 nm). When you have selected the appropriate wavelength, press OK.
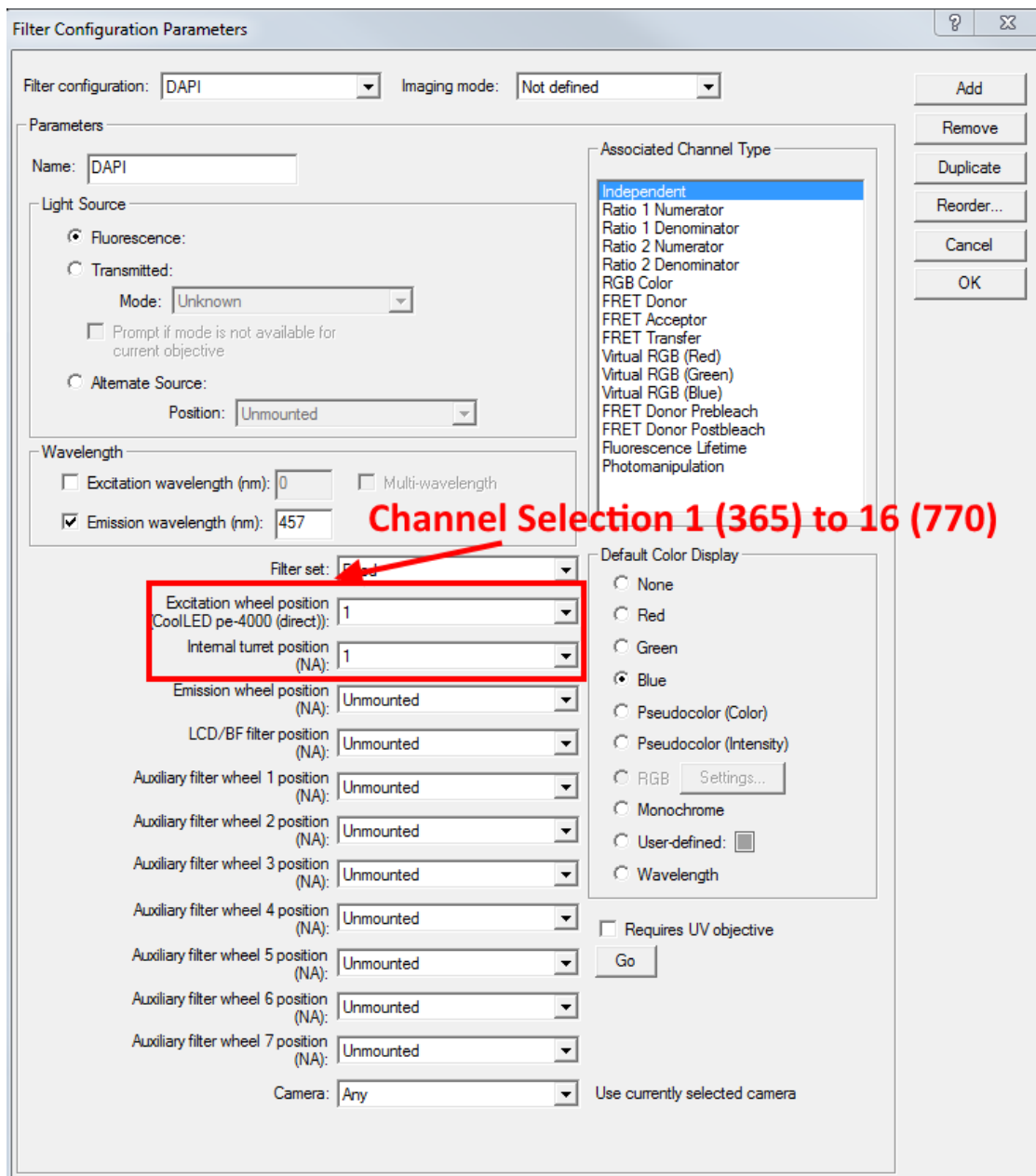

Figure 4: Wavelength selection via the 'Filter Configuration Parameters' Window

6. As before, you will be prompted to close and restart Slidebook.

4 Examples of Software Functionality - USB Timelapse

1. In the following example, 4 wavelengths for the pE-4000 have already been set up and named to fit to accompanying filters: DAPI, FITC, CY3 and CY5.

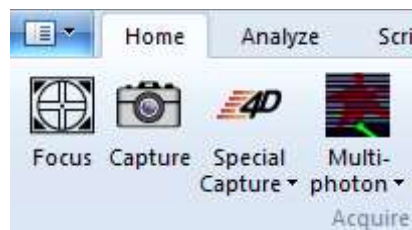2. To take sequential images, navigate to 'Home' and then select 'Capture'.

Figure 5: 'Capture' icon within the 'Home' tab

3. This will bring up the 'Capture' window (See below). In this window, you can select which sort of capture you would like to do, your time parameters for acquisition as well as choosing which 'Filters' you would like to illuminate.

4. It is also important to note that you are able to change the intensity of any given channel on your light source by using the 'ND' dropdowns on the right-hand side. If you change the intensity you will be able to see it changing on your pE-4000 Control Pod.
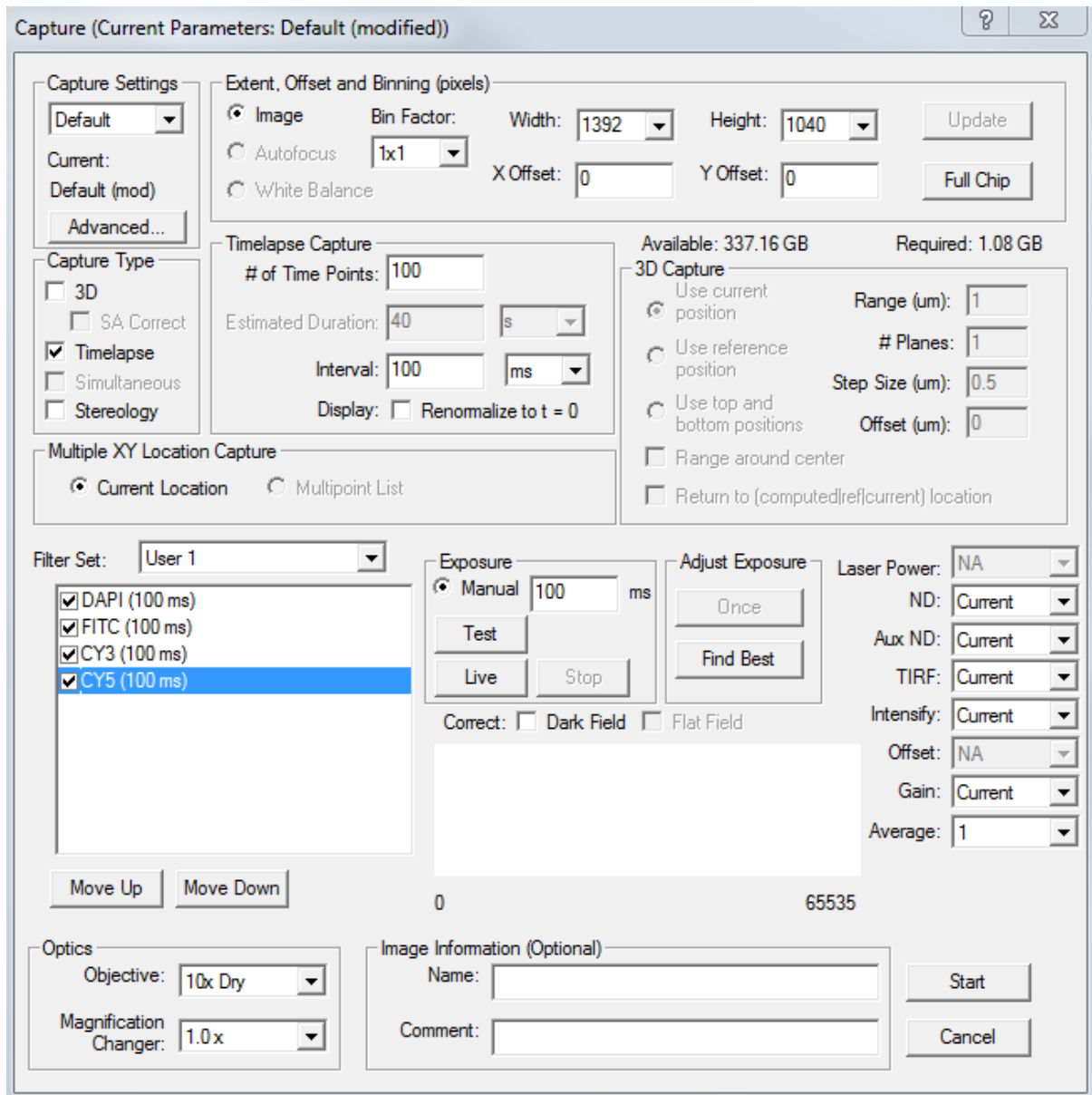
Figure 6: 'Capture' Window for acquisition

5. In the above example a timelapse is set up with 100 ms intervals and 100 ms exposure times for 100 frames. Once all of this is set up and ready, pressing start will begin the time-lapse acquisition.