# **CPLC smFRET Software Quickstart Guide**

***Current as of 11 December 2014***

**smFRET software and IDL/Matlab scripts are distributed freely to the public, and are provided as-is. While we are happy to answer questions to help get your instrument up and running, we cannot guarantee compatibility with your particular hardware**

**Required Hardware**

* **A PC , Windows 7 64-bit (Windows 8 not yet tested)**
* **Andor iXon emCCD camera (DU-897E) or similar**

**We also use:**

* **Uniblitz VMM-D3 or -D4 shutter driver**
* **Uniblitz LS6S2T0 shutter: Aperture Type - normally closed; Blade Finish – Teflon; Coated S.S; Electronic Sync and everything else – no.**
* **National Instruments NI-6503 I/O card. Used to control shutters from within smCamera software.**

***Other configurations may work, but this is what we use and know works.***

**Required Software**

* **IDL v6.2 or newer**
* **Matlab- any version**

**You need to purchase IDL in order to process .pma movie files into .traces, which are then processed in Matlab. We provide code for IDL and Matlab, but you need to buy Matlab and IDL in order to use our analysis software. Our documentation states we use IDL v.6.2, which is no longer available. To the best of our knowledge, all newer versions of IDL and Matlab work with the code we provide here. These programs are quite expensive- users are urged to check if their host institution pays for a site license for one or both programs.**

**Installation Notes**

* **Before installing CPLC smFRET software, confirm that your instrument is fully operational- that you can control your camera and record movies using your camera’s own original software. Our smFRET software relies on Andor \*.dll files and will not work otherwise. Use 64-bit drivers for 64-bit Windows 7.**
* **Single.exe must be run in administrator mode in Windows Vista and 7. You will be able to open the program, but it will not record movies unless you are running it in administrator mode by right-clicking on Single.exe and choosing “Run as Administrator.”**