**FlyCap2Interface**

is a C# application that interfaces with the Managed FlyCapture2 Library from Point Grey. This was tested and developed on a 64-bit Windows 7 computer using Visual Studio 2010 and FlyCapture2.5.3.5\_x64.

**Known Bugs: When switching from 2x2 back to 1x1, first capture has interlace problems. Same thing seems to happen between 16-bit and 8-bit changes. Recommend that when making major changes that a dummy frame is captured**

The program works by reading a config.txt on startup and capturing a number of frames based on the settings in that file. Appropriate settings are defined

*settings:value*

where a comment can be added by appending a subsequent colon, e.g.

*settings:value:comment*

|  |  |  |  |
| --- | --- | --- | --- |
| **Setting keyword** | **Values** | **Units** | **Notes** |
| wordsize | 8,16 | # bits (int) |  |
| shutter | < 1 to 1000s | Milliseconds (float) |  |
| frames | 1…1000 | # of frames (int) |  |
| bin | 1,2 | 1x1 or 2x2 pixel binning (int) |  |
| filename | Any valid string |  |  |
| gain | 0…12 | dB (float) |  |
| fps | 1…200 | Frames per second (int) |  |
| exposure |  | (float) |  |
| brightness |  | (float) |  |
| sharpness |  | (float) |  |
| left | 0 … width | Pixels (int) |  |
| top | 0 … height | Pixels (int) |  |
| width | <= width | Pixels (int) | If 0 will use max width |
| height | <= height | Pixels (int) | If 0 will use max height |
| close\_on\_exit | true/false |  | If true, will let user review standard output |
| save\_image | true/false |  | Output .png file |
| extra\_info | true/false |  | Output .txt file |
| load\_cam\_config | true/false |  | Determines whether to replace wordsize, shutter, bin, gain, fps, exposure, brightness, sharpness,left,top,width,height settings for the camera. Not setting this will improve capture efficiency. |

**An example [config.txt] with standard values are**

*wordsize:16: // 16-bits*

*left:0*

*width:0*

*top:0*

*height:0*

*sharpness: 50*

*brightness: 50*

*exposure: 50*

*fps: 30 // frames per second*

*gain: 0: // dB*

*shutter: 10: // ms*

*bin: 1: // 1x1 binning*

*frames: 10: //frames to average*

*filename: capture: // .png*