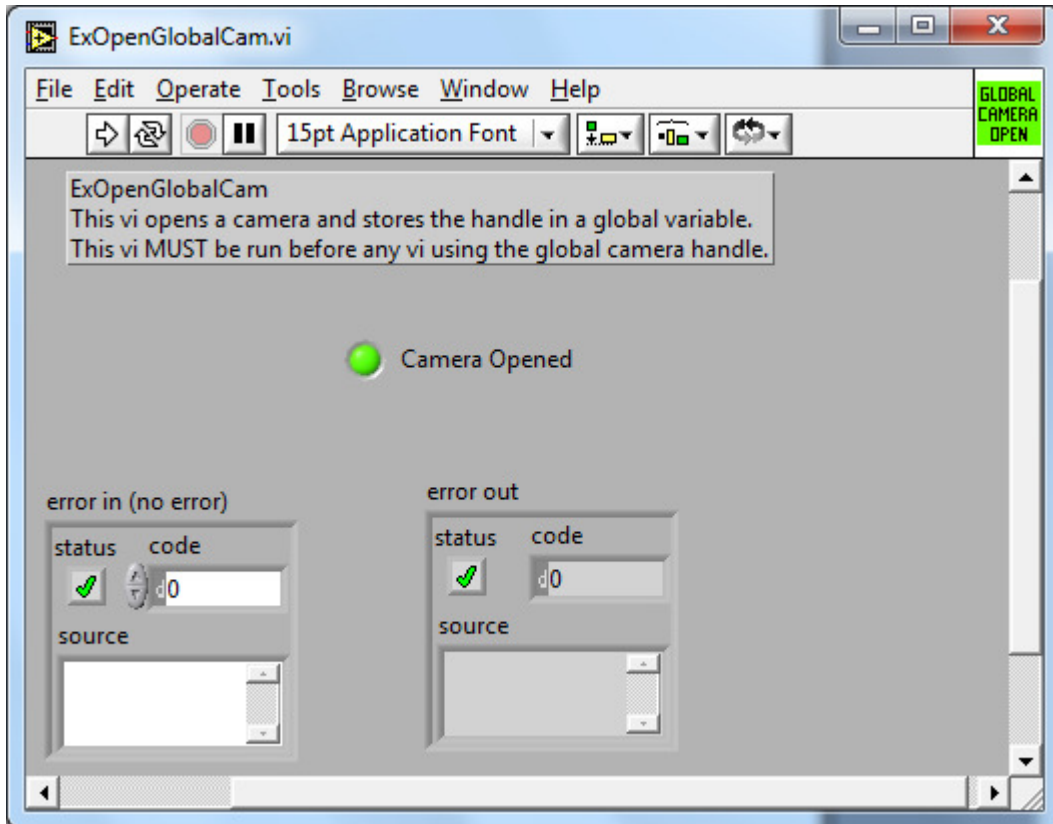


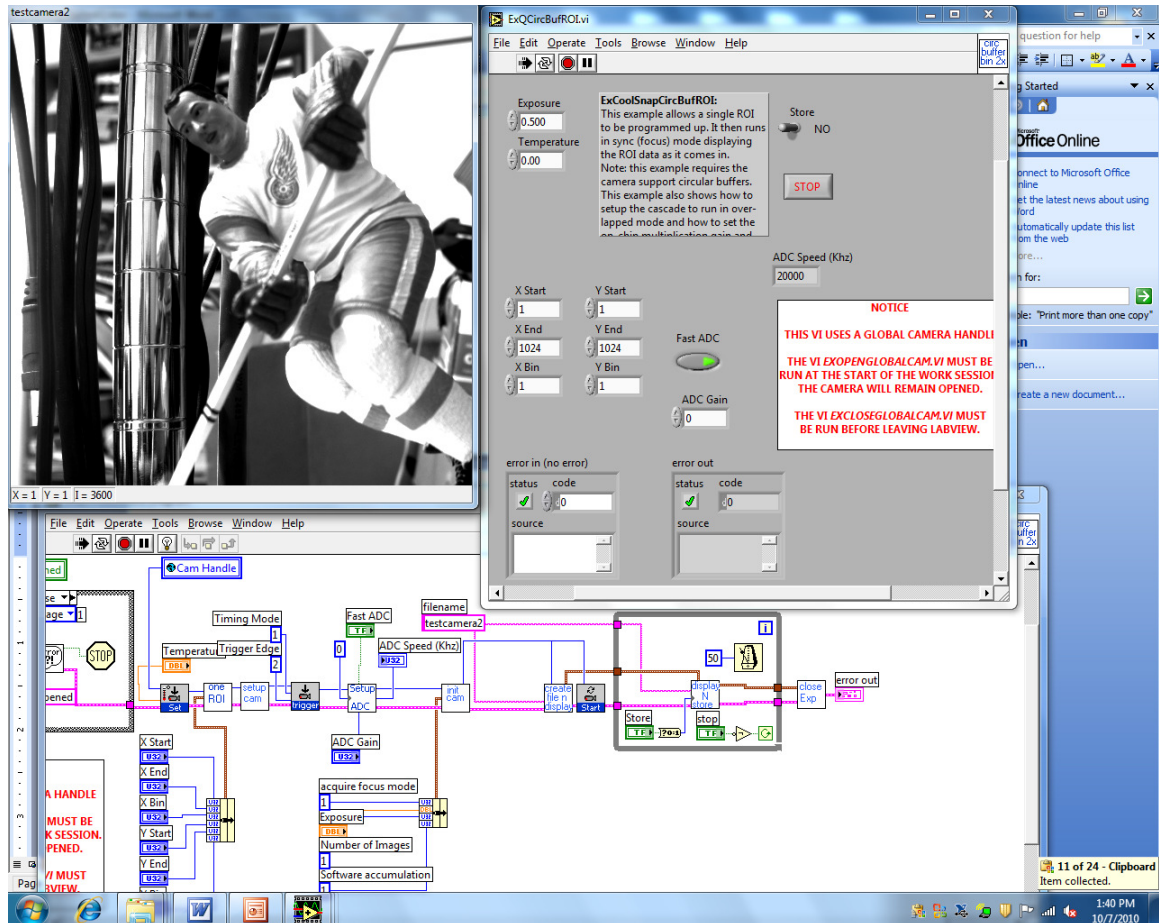
I.) Opening the camera

- Go to the SIToolKit/LabVIEW/ExamplesXX folder.
- Go to the Open-Close folder
- Select ExOpenGlobalCam.vi and run it.
- The green light should come on when the camera is opened successfully.
- Keep camera open until you are ready to leave Labview then run ExCloseGlobalCam.vi which will close the camera and do clean up.



II.) Collecting data

- Go to the Q-Imaging Folder in Examples.
- This contains many examples.
- Select ExQCircBufROI.vi and fill in exposure and x and y dimension.
- Then Run example and you should see a display that is collecting data.
- Hit the “STOP” button on the panel (not the LabVIEW vi stop)

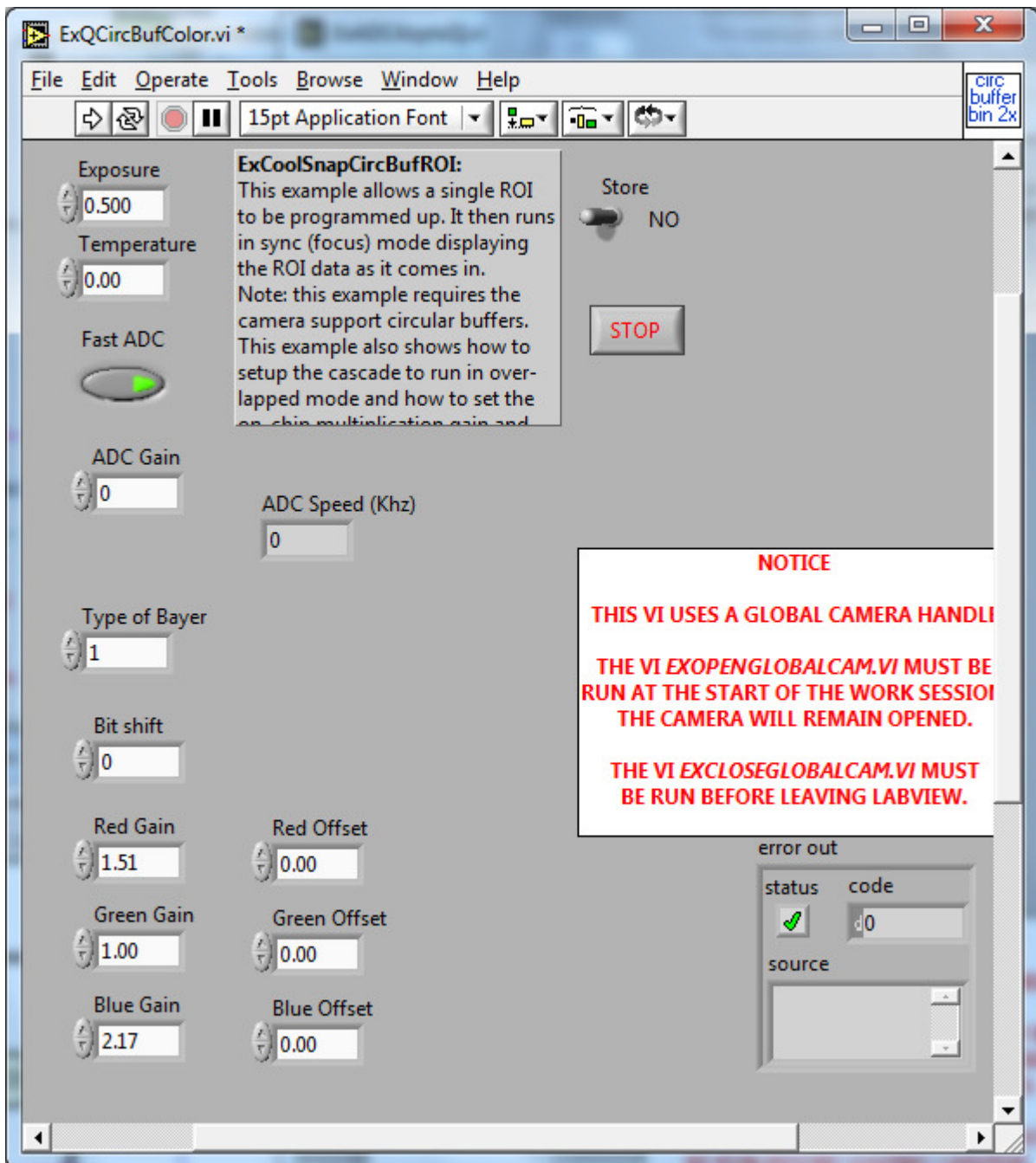


III.) Other programs that can be run.

- After the STOP button has been hit you can rerun this program or try other programs.
- ExQCircBufROI.vi shows focus mode, which continuously captures data
- ExSimpleAsyncExampleGblQ.vi shows how to capture single frames at a time.
- ExQSnapNframeSeq.vi shows how to capture a sequence of frames fast (stored in ram, then displayed when done).

IV.) Color cameras

- If you have a color camera, you can still use previous programs, but the images will be grayscale. An example of getting a color image is the data collection example ExQCircBufColor.vi.
- Fill in red, green, and blue gains. These may be different for each color camera. Some good defaults are loaded.



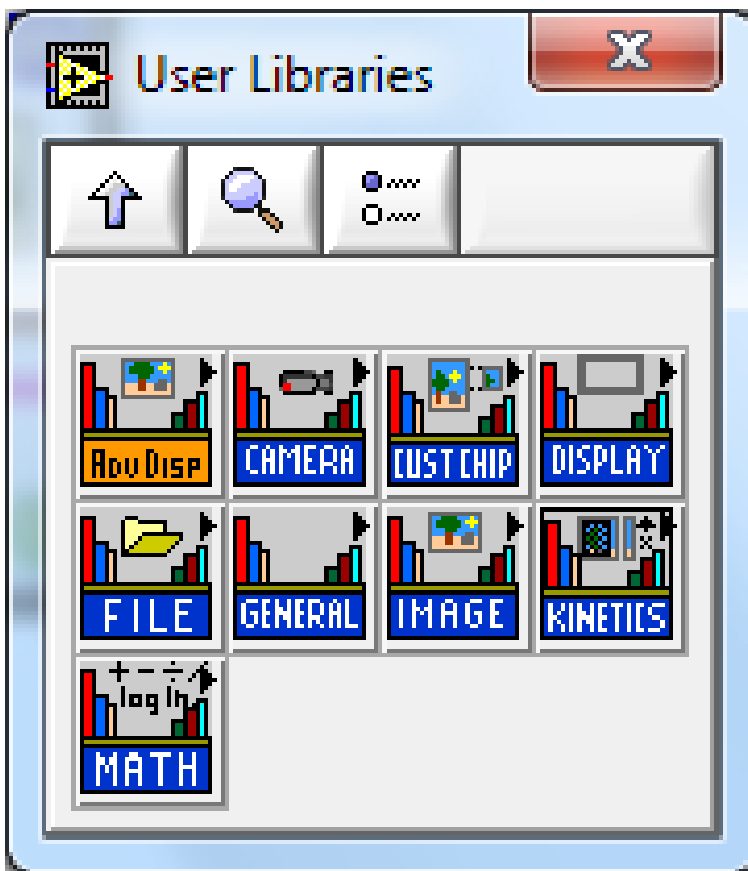
testcamera2



X = 2465 Y = 185 I = (45, 20, 19)

V.) SITK® for LabView Pallets

- There are 7 pallets in the user library that are supplied
- Advanced display: Full image support including overlays
- Camera: Camera setup and data collection
- Simple Display: Fast but limited feature image display.
- File: including Tif and Spe file formats.
- Image: allows pixels, rows, columns and full images to be retrieved and placed in the SITK® internal data structures.
- Math: general math operations including statistics, that are quicker than bringing data out to LabView
- General: miscellaneous functions

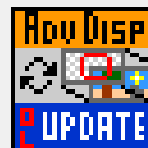
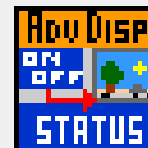
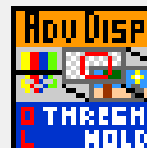
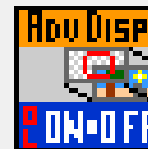
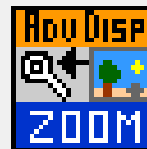


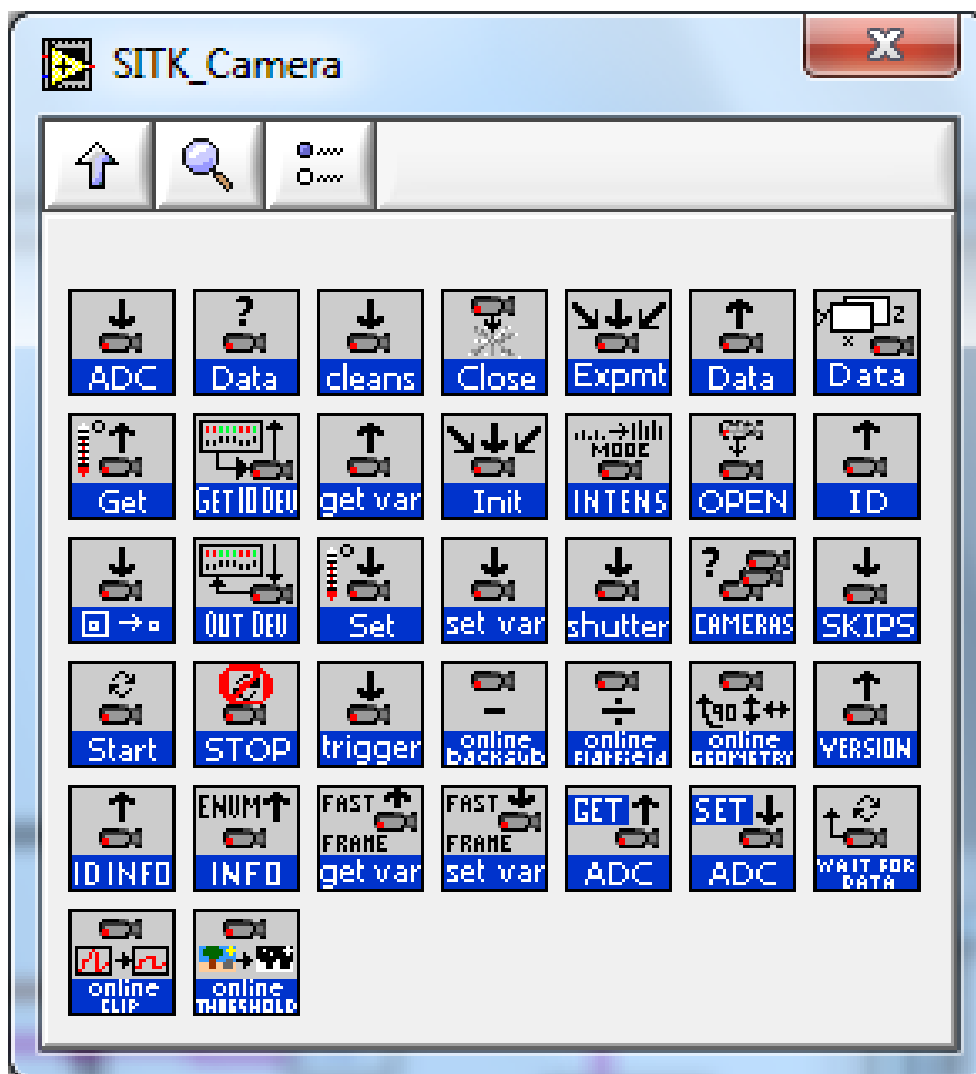


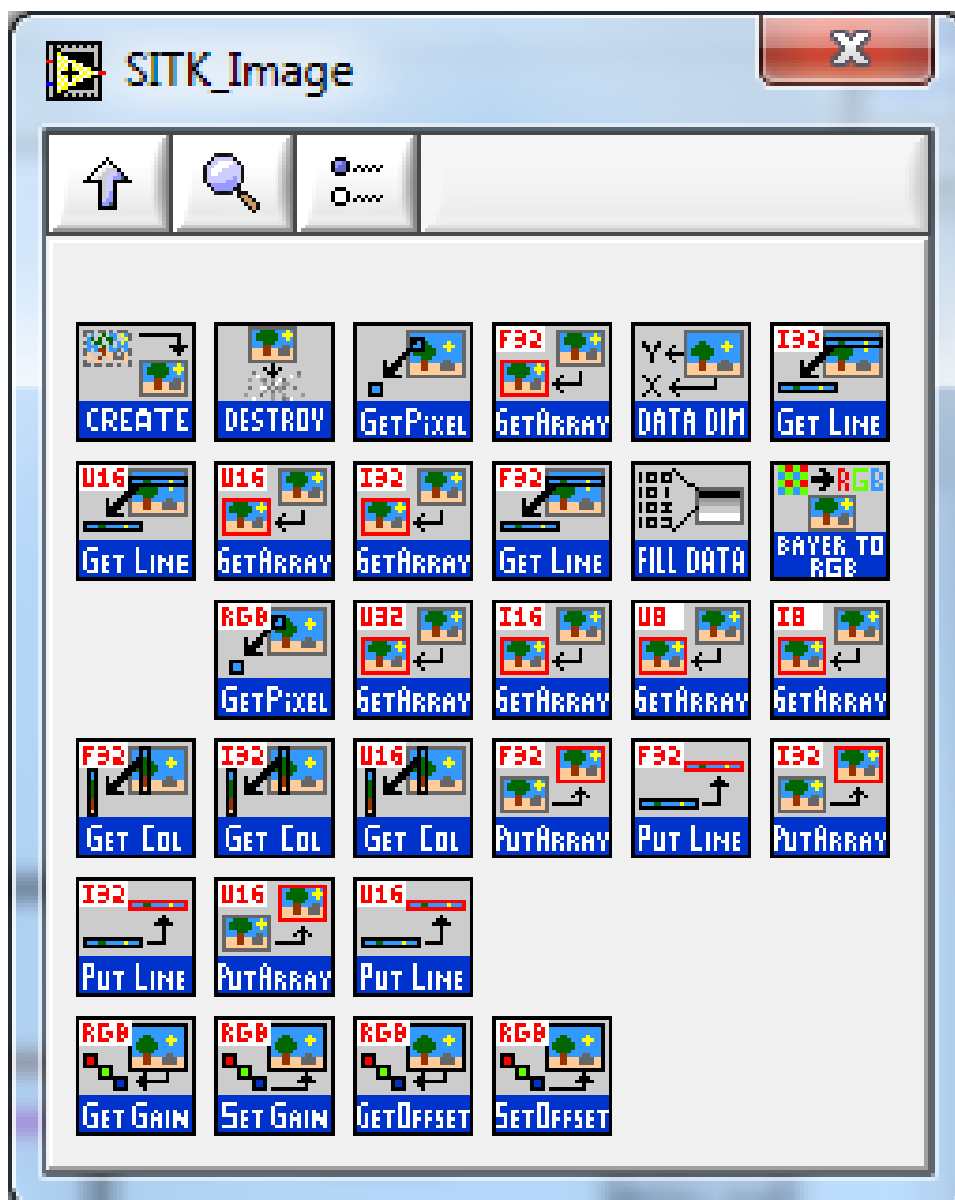
R3 Advanced Display

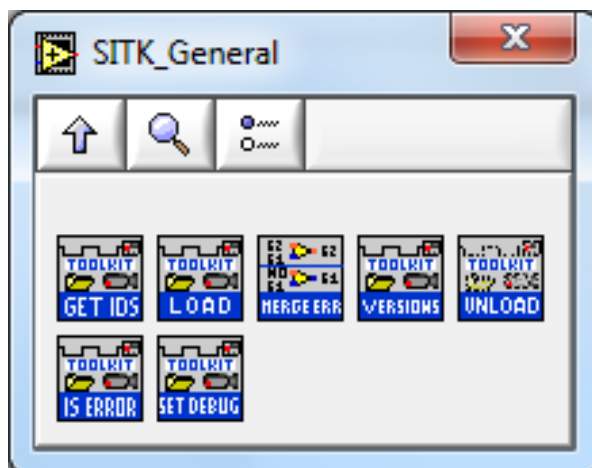
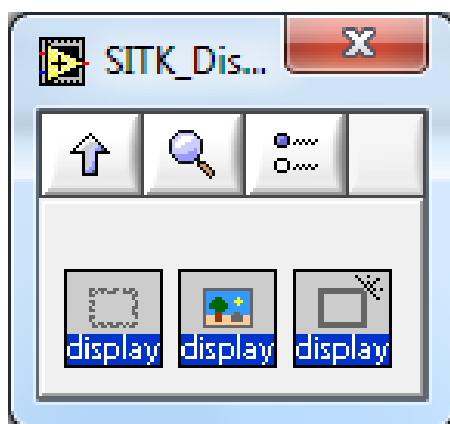
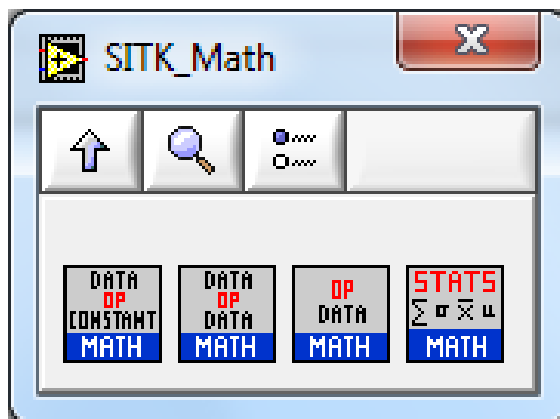


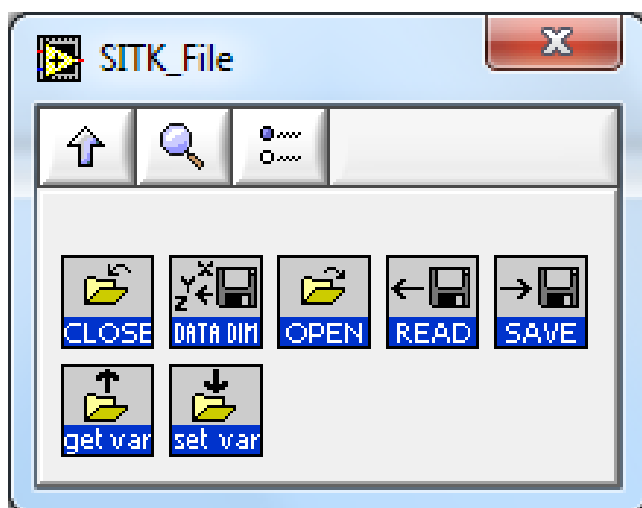
AdvDispSetStatusBar.vi





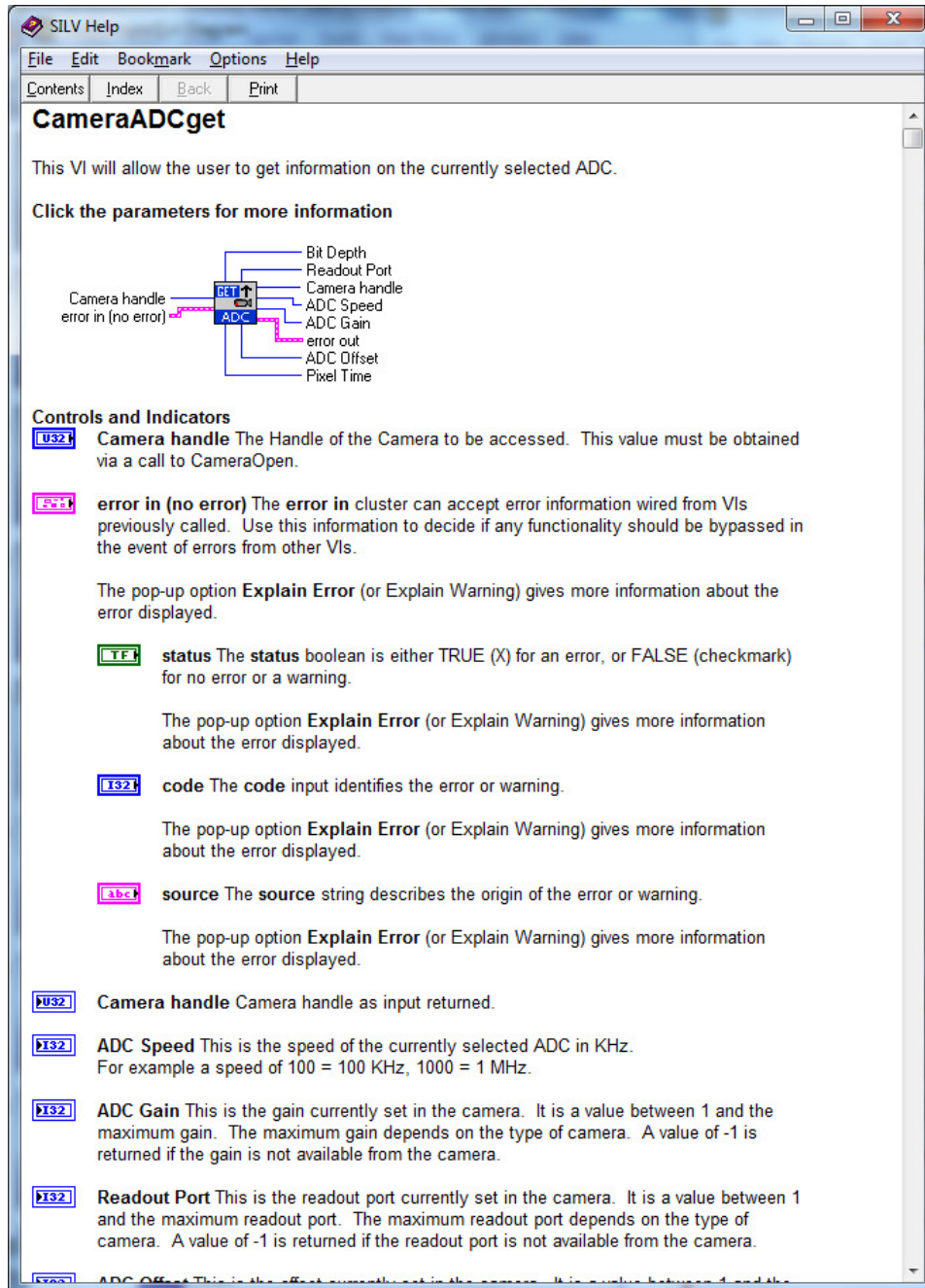






V1.) Online help

Right click on an SITK® Vi and select Help



The screenshot shows the SILV Help window for the **CameraADCget** VI. The window has a menu bar (File, Edit, Bookmark, Options, Help) and a toolbar (Contents, Index, Back, Print). The main content area displays the title **CameraADCget** and a description: "This VI will allow the user to get information on the currently selected ADC." Below this is a section titled "Click the parameters for more information" which contains a block diagram of the VI. The diagram shows a "Camera handle" input, an "error in (no error)" input, and several outputs: "Bit Depth", "Readout Port", "Camera handle", "ADC Speed", "ADC Gain", "error out", "ADC Offset", and "Pixel Time".

Controls and Indicators

U32 Camera handle The Handle of the Camera to be accessed. This value must be obtained via a call to CameraOpen.

E32 error in (no error) The **error in** cluster can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors from other VIs.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

TF status The **status** boolean is either TRUE (X) for an error, or FALSE (checkmark) for no error or a warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

I32 code The **code** input identifies the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

ABC source The **source** string describes the origin of the error or warning.

The pop-up option **Explain Error** (or Explain Warning) gives more information about the error displayed.

U32 Camera handle Camera handle as input returned.

I32 ADC Speed This is the speed of the currently selected ADC in KHz. For example a speed of 100 = 100 KHz, 1000 = 1 MHz.

I32 ADC Gain This is the gain currently set in the camera. It is a value between 1 and the maximum gain. The maximum gain depends on the type of camera. A value of -1 is returned if the gain is not available from the camera.

I32 Readout Port This is the readout port currently set in the camera. It is a value between 1 and the maximum readout port. The maximum readout port depends on the type of camera. A value of -1 is returned if the readout port is not available from the camera.

E32 ADC Offset This is the offset currently set in the camera. It is a value between 1 and the

VII.) Close camera

- Before leaving Labview you should close the camera so that the software buffers are cleaned up and the camera dll's are unloaded.
- To do this go back to the Open-Close folder and run ExCloseGlobalCam.vi

