

Scion TWAIN Frame Grabber Import for Mac

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Getting Started

Introduction

This manual describes the Scion TWAIN Frame Grabber Import acquisition module that can be used to import video images into third party applications. The Scion TWAIN Frame Grabber Import module currently supports the Scion FG-7 frame grabber board. This manual describes the installation and use of the module.

Please take a few moments to read through this manual before you begin using the Scion TWAIN Frame Grabber Import as it should answer some questions that you may have. Please contact Scion Corporation should you encounter difficulty at any time, or if you have any questions.

System Requirements

The Scion TWAIN Frame Grabber Import module will work with Mac OS X 10.2 or higher and applications that comply with the TWAIN 1.6 specification. It may not operate with applications that were written to earlier TWAIN specifications.

Installation

Installing the Scion TWAIN Frame Grabber Import should only take a few minutes. Please follow the steps below:

Macintosh Install

1. Insert the “FG-7 Application CD” into the CD-ROM drive.
2. A window containing the contents of the CD will appear. If it does not then double-click the “Scion CD” icon located on the Desktop.
3. Double-click the “TWAIN” folder.
4. Copy the “sfgtwain.pkg.tar.gz” file to the desktop.
5. Double-click the “sfgtwain.pkg.tar.gz” file on the desktop.
6. It will expand into “sfgtwain.pkg” located on the desktop.
7. Double-click the “sfgtwain.pkg” file located on the desktop. The installer will start.
8. Click the Continue button.
9. Select the destination disk and click the Continue button.
10. Click Install to start the installation.
11. The installation may take a few minutes.
12. After the install is complete click the Close button.
13. The files “sfgtwain.pkg.tar.gz” and “sfgtwain.pkg” may now be deleted from the desktop.

Starting Scion TWAIN Frame Grabber Import

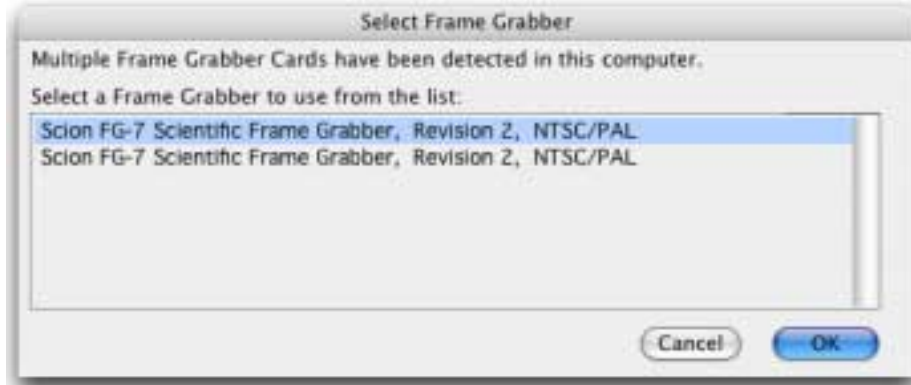
Open Adobe Photoshop and from the File menu choose Import. This will bring up a menu with all installed TWAIN modules. From the list choose Scion Frame Grabber Import.

Holding down the Shift key while invoking the Scion Series 7 Module will automatically capture an image based on the previous selection. If no selection was previously made, then the entire image will be captured. Holding down the Control key while invoking the Scion Frame Grabber Import will automatically capture an image based on the previous settings in “Multi-Frame Process”. It will return the processed selection or the entire image if no selection was made.



Multiple Frame Grabber Boards

If multiple frame grabber boards are installed, a dialog box like the following will appear:



This will show a list of the currently installed Scion frame grabber boards. It gives the model number, revision number and video type setting.

Menus

File Menu

Acquire Full Image

This will acquire the full captured image and send it back to the parent application.

Acquire Selected Image

This option will only acquire a user selected region and send it back to the parent application.

Quit Without Acquisition

This menu item will quit the TWAIN module without acquiring an image.

Image Menu

Start Live Capturing

Continuously displays live video using the Scion FG-7 PCI frame grabber board. Notice how, during continuous capture, the name of this command changes to “Stop Capturing” and “Live” appears in the title bar. To “freeze” the image, select “Stop Capturing”, type Command + G, or click in the acquisition window. While capturing, you are allowed to change offset and gain in the “Color Balance” Tab.

Snap

This command will quickly capture a single frame based on the current Properties settings, excluding the Multi-Frame settings. Once captured, the title bar changes so that “Processed” is displayed. Using the Snap is highly recommended when the Exposure is set high. See below for more information about Properties.

Multi-Frame Process

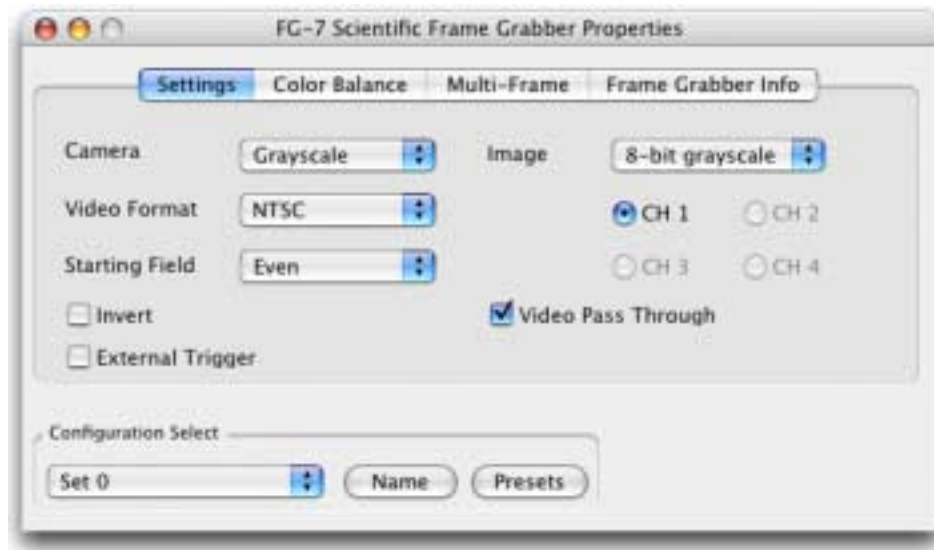
Selecting this will capture a frame based on the current multi-frame settings in the Properties window. During the capturing the Title Bar will change to “Processing” to show that the Multi-Frame capture is being processed. Once captured, the title bar changes so that “Processed” is displayed, at this time the image can be saved. At any time during the multi-frame process the Escape key can be used to abort the processing. See below for more information about Properties and Multi-Frames.

Show Properties...

Selecting this menu item will allow you to configure capture settings

Settings

This tab shows the frame grabber settings that are currently being used.



Camera

This specifies that the frame grabber is connected to a Grayscale camera. This setting cannot be changed with the FG-7 installed.

Image

Specifies that the image capturing will be done in *Grayscale*. This setting cannot be changed with the FG-7 installed.

Video Format

Selects if the video input is NTSC (640 x 480) or PAL (768 x 576). North America, South America and Japan usually have NTSC video source. While Europe and Asia mainly have PAL video input.

Starting Field

This can be *Odd* field first or *Even* field first. The default is *Even* field first.

Invert

The video is inverted when this option is selected.

Video Pass Through

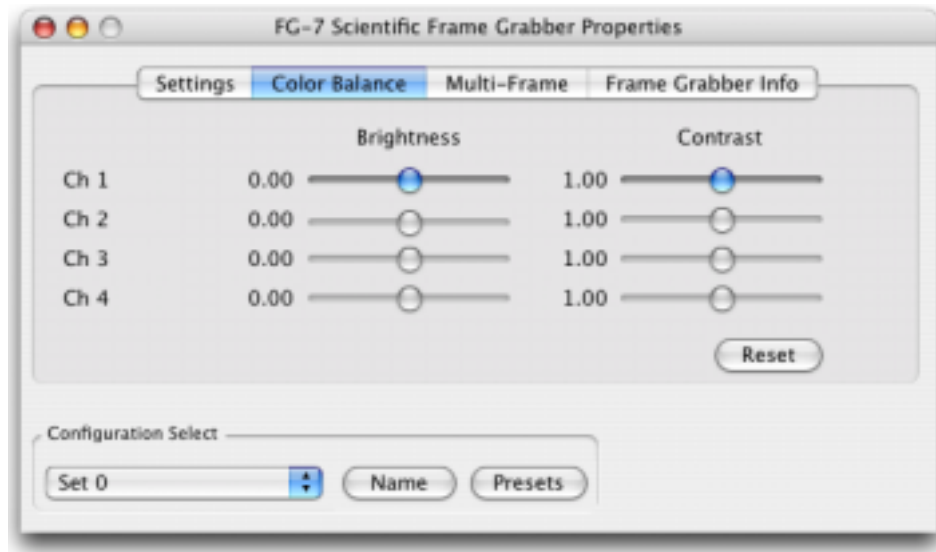
With this selected the video will pass through the frame grabber board to the output line. Even when the live is stopped the video will continue on the output line of the frame grabber board.

External Trigger

This can be set to have the frame grabber board will wait for an external trigger pulse before capturing an image.

Color Balance

This tab contains the settings for Contrast and Brightness for the frame grabber board.

**Brightness**

This will for the adjustment of the Brightness for the frame grabber board. Values range from -1 to 1 with 0 as the default.

Contrast

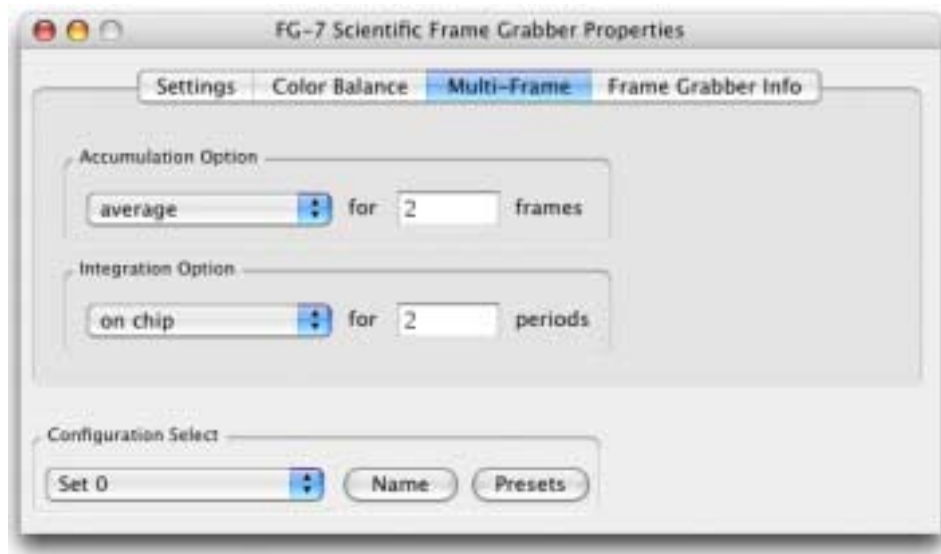
This will allow for the adjustment of the Contrast for the frame grabber board. Values range from .5 to 2.0 with 1 as the default.

Reset

All Brightness and Contrast settings will be set back to their default values if the Reset button is clicked.

Multi-Frame

The settings in this tab will allow the user to do frame averaging, summation, integrate on-chip, or a combination of those functions.



Accumulation Option

Average will take the number of frames specified and average them. This is used to reduce random noise in the image. This option can be used in addition to the Integration Options.

Sum will add the number of frames specified to get a brighter image. This option can be used with the Integration Options.

No Accumulation specifies that no accumulation operations will be done.

Integration Option

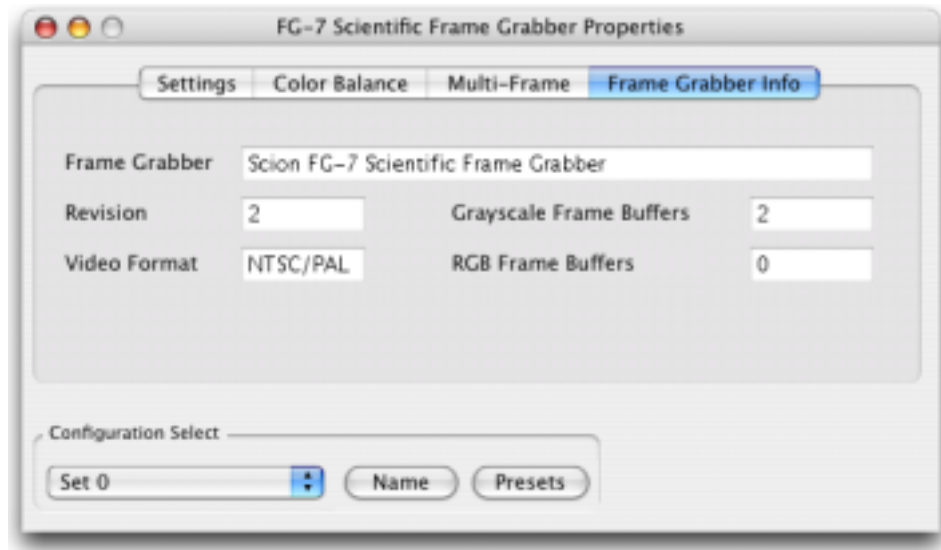
On Chip will do on chip integration for the number of frame periods specified, using certain models of Cohu series and Dage-MTI cameras, see Scion for details. The purpose is to brighten the image in a low light situation; this is better than summing because the camera is generating the integrated image. The camera will integrate on-chip for the specified number of frame periods and the frame grabber will capture the integrated frame. On-chip integration requires a special cable, available from Scion, for connecting the integration input of the camera to the frame grabber. This can be used in addition to the Averaging Options.

On Trigger will wait for an external trigger pulse before capturing the image. This can be used in addition to the Averaging Options.

No Integration specifies that no integration operations will be done.

Frame Grabber Info

This will give general information about the connected frame grabber board.

**Frame Grabber**

This will show the current frame grabber board.

Revision

Shows the current revision of the frame grabber.

Grayscale Frame Buffers

Number of grayscale frame buffers on the board.

Video Format

Shows the video format that is supported with the frame grabber board.

RGB Frame Buffers

Number of RGB frame buffers on the board.

Configuration Select

Ten sets of Properties settings for the frame grabber board can be created and saved. A selection can be made to the configuration selection, which is most suitable for the shooting condition at hand. The currently active configuration selection is shown in the Properties window. All settings are saved upon exit of the program.

Name

This will bring up a window to allow the user to create a custom name for the currently selected configuration.

Presets

This will set all frame grabber settings and functions to their factory default.

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