

Camera Control 4.5 Release Notes

January 2012:

Released for use with iVision 4.5.2.

Additions and Enhancements

Changed the Normalization controls in Multi-D preview to better match the Normalization preferences set in iVision's Preferences command. The camera's min/max limits are used if the preference is non-custom (*e.g.* Frame or Sequence). If the Normalization Preferences are set to "Custom" the custom min/max values are restricted to the camera's min/max values before being used.

Bug Fixes:

Fixed Multi-D to not forget the "Keep Open During Z" setting.

Fixed Preview to not reset Color Balance params when doing a grayscale capture. This allows your last Color Balance settings to persist when you switch back to a color capture mode.

Editing a camera command in a script could crash if the camera was not connected at the time of the edit. This has been fixed.

Camera preferences are not written back to disk if the camera is not connected (*e.g.* if it was not powered on when iVision was started). This can prevent camera settings from unintentionally reverting to default values.

[Go to Camera Hardware Notes.](#)

[Go to Camera Command Notes for iVision 4.5.](#)

September 2011:

Additions and Enhancements

Added support for JenOPTIK ProgRes MFcool grayscale cameras.

July 2011

Released for use with iVision 4.5.1.

Additions and Enhancements

Updated Virtual Camera to work with Sum/Average option.

Improved cosmetics of Scion Device Setup dialog.

Implemented file saving for Single Acquire.

Allow Folder Sets for saving to disk when not doing Timelapse (which still requires an Indexed set).

Allow File Sets for non-timelapse capture to work when interactive, as well as in scripts.

Bug Fixes:

Corrected bug in storage of Z-Stack fields in Multi-D dialog.

You should re-enter Multi-D commands in scripts to insure that the Z-Stack fields (Start, Stop, Step) are properly updated.

Fixed bug that reset the Auto-Exposure target value in the Multi-D dialog.

February 2011

Released initial 4.5.0 version.

Cameras

Quick Links:

[Hamamatsu](#)

[JenOPTIK](#)

[Photometrics](#)

[Qimaging](#)

[Scion](#)

NOTE: iChat

Connecting a FireWire camera can cause iChat to open. To stop this, you must first get past the iChat setup screen by pressing Continue until it closes. Then go to the Preferences item in the iChat menu and click on the "Video" icon at the top of the Preferences window. Then **uncheck** the box at the bottom titled **Automatically open iChat when a camera is turned on**.

Hamamatsu Orca DCAM Cameras:

January 2012

Updated for use with iVision 4.5.2.

The "Allow Fastest Capture" setting now defaults to On.

Fixed a bug that prevented exposure changes from taking effect when using DCAM drivers dated after September 2009.

February 2011

Updated for use with iVision 4.5.0.

Added support for selecting among more than one Orca camera.

Includes the December 2008 DCAM installer.

JenOPTIK ProgRes MexCam Cameras:

January 2012

Updated for use with iVision 4.5.2.

September 2011

Added support for MFcool grayscale cameras.

Roper Photometrics PVCam Cameras:

January 2012

Updated for use with iVision 4.5.2.

February 2011

Updated for use with iVision 4.5.0.

Includes version 2.7.7.2 of the PVCam installer.

IMPORTANT UPGRADE INSTRUCTIONS for G5 owners:

If you have a G5 model that was introduced in mid-2004, the Photometrics PCI card must be updated to firmware version 33 to work with this model. Earlier versions of the firmware will cause a kernel panic anytime the card is accessed. Since the card can not be used until the firmware is updated, you must perform the update on an earlier model Macintosh, or on a PC. Use the PCIloaderX program to install the PCIROM33.HEX file onto the card. You can then move the card to the G5.

Roper QImaging QCam Cameras:

January 2012

Updated for use with iVision 4.5.2.

Camera Settings now displays if camera has reached the temperature set point. (The current temperature is not available for display.)

February 2011

Updated for use with iVision 4.5.0.

Includes version 2.0.6 of the QCam driver

Older Cameras:

The current QImaging drivers **exclude support** for some older cameras:

If you own any MicroImager or PMI camera it is not supported by QCam 2.0 and higher. Additionally any camera with recessed FireWire 1394a connectors (as shown below) is no longer supported by QCam 2.0 and higher. This includes 10-bit QICam, Retiga EX, or Retiga 1300 cameras. Use of these cameras requires the 1.81 release of the QImaging Drivers, which only works on PowerPC Macs.



Scion Corporation FireWire Cameras:

January 2012

Updated for use with iVision 4.5.2.

February 2011

Updated for use with iVision 4.5.0.

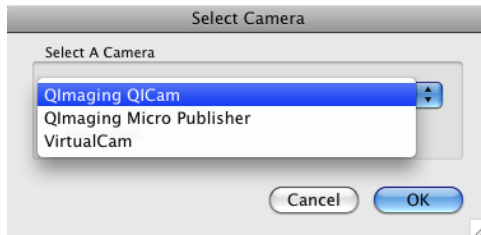
NOTE: Mac OS X 10.5:

You must be running release 10.5.2 or later of OS X 10.5 for the Scion camera to be found.

Camera Control In iVision 4.5

Camera Select

When multiple cameras from the same manufacturer are present (assuming their driver supports that) the name of each camera will appear in the Device Select dialog. This replaces the old method of connecting and disconnecting each camera in the Device Setup dialog.

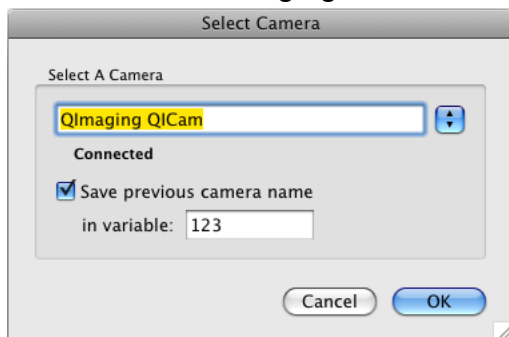


Camera Select (Scripted)

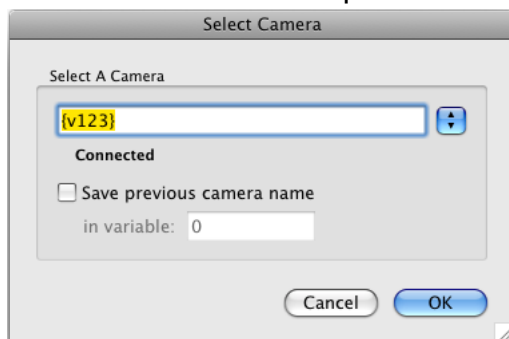
When scripting, the Camera Select dialog lets you specify a name with text. This allows you to use a variable. It also adds an option to save the previously selected camera's name in a variable.

These two features allow a script to switch to a specific camera and then restore the camera selection to whatever it was before the script ran.

Switch to the QImaging QICam and save the old camera name in variable 123:



Now switch back to the previous camera:



Other Camera Control changes:

“Display after grab” has been removed in favor of always displaying the image.

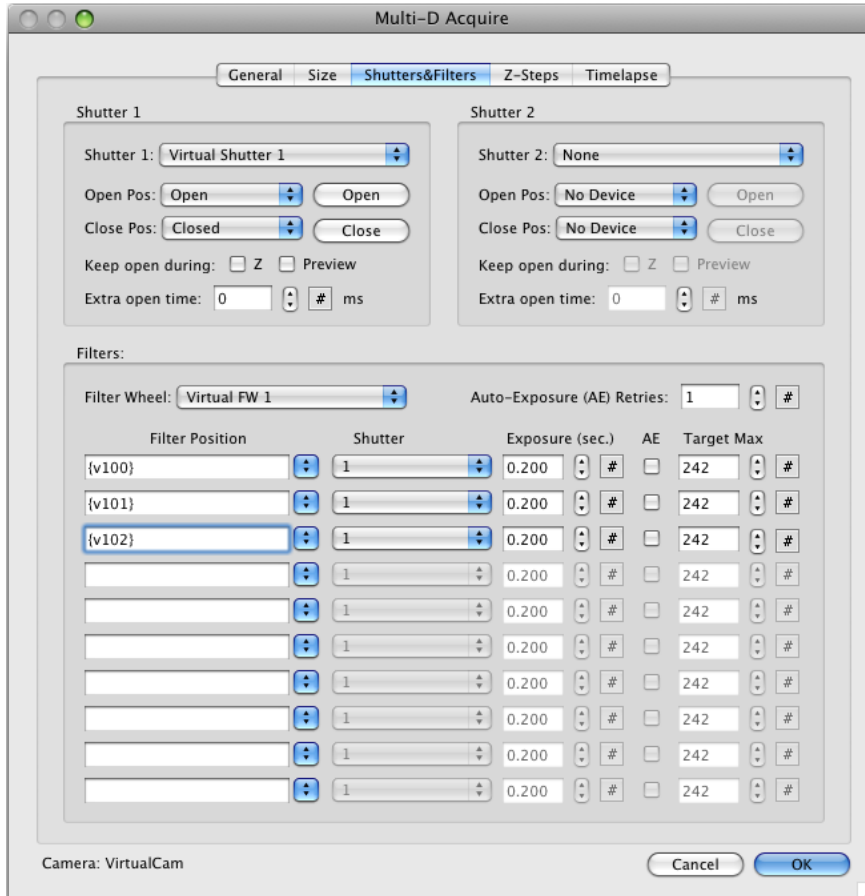
During live previews Auto-Exposure will use the current ROI in the preview window, rather than the entire image, to determine the best exposure.

The Snapshot icon in the camera palette now takes the snapshot without showing the dialog first. You can get to the dialog by holding the option key down when clicking on the icon, or by using the Snapshot menu item.

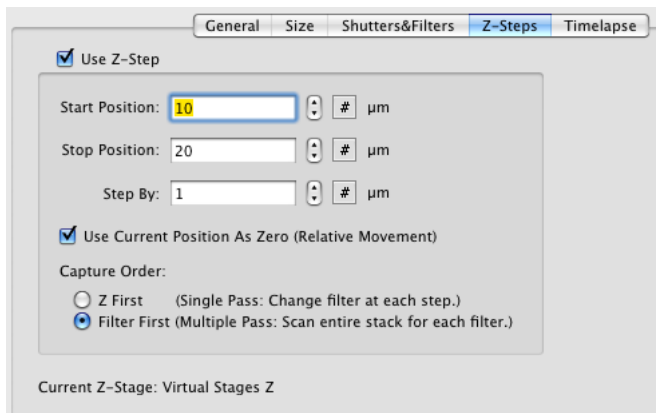
Multi-D command:

The Multi-D dialog now lets you directly enter the names of filters. This allows you to use variables. You can set the variables with the option in Enter Variables to enter filter position names. Or you can just set the variables directly with Set Variable. If the variable is empty, the channel is skipped. This should make it easier to write those multi-wavelength capture scripts, where the user gets to pick which wavelengths to grab each time.

The maximum number of channels has been increased to 10.



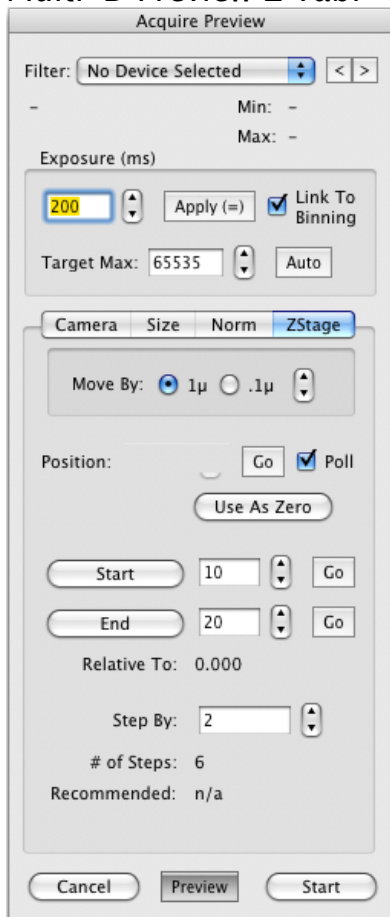
The Z-Stage tab for Multi-D adds an option to change the order in which channels are captured while doing the Z stack.



“Z First” makes a single pass over the Z-stack, capturing each filter position at each step in the stack. This was the method used in older versions of Multi-D.

“Filter First” makes multiple passes. It captures the entire stack once for each filter position.

Multi-D Preview Z Tab:



The Z tab in the Multi-D Preview palette has been changed.

The **Move By** section allows you to move the stage by the selected amount using the small arrows.

The **Position** field displays the current position when the **Poll** box is checked. When it is unchecked you can enter a position and press **Go** to move the stage to that location.

The **Use As Zero** button resets the current location as zero. The **Relative To** line displays the offset value.

Clicking **Start** and **End** enters the current location into those fields, which will be used when the experiment begins.

The **Step By** field is used during the capture. The **# of Steps** is computed from the **Start**, **End** and **Step By** fields.

The **Recommended** field will display a step size based on the current filter's wavelength, if it is known.