

Hamamatsu Video Capture Driver for Image Pro Plus

4.2.1.0 – 10/20/08

- Corrected error with LUT ranges when adjusting datatype setting
- Corrected error with recording scanmode macro function

4.2.0.0 – 12/18/07

- Added Frame Averaging and Spot Noise Reducer controls to DSP tab.
- Added Frame Averaging and Spot Noise Reducer to MACRO function controls.
- Improved Sensitivity controls to support cameras with Direct EM Gain.

4.1.1.1 – 9/28/07

- Improved performance for Workspace preview by removing unnecessary exposure reset mechanism.

4.1.1.0 – 4/15/07

- Added CCD mode, Photon Imaging mode, High Dynamic Range mode, and DSP functions to MACRO function controls.

4.1.0.2 – 10/4/06

- Corrected error when CCD mode parameter would not change.

4.1.0.1 – 9/15/06

- Improved recursive filter when user snaps for new image while previewing

4.1.0.0 – 9/8/06

- Added DSP tab to configure dialog along with Recursive Filter, Background Subtraction, and Shading Correction controls
- Added CCD Mode and Photon Imaging Mode controls to configure dialog.
- Added sensor temperature display to configure dialog
- Improved fan switch controls

4.0.0.0 – 7/21/06

- Added IPP dynamic auto exposure to preview menu
- Added IPP dynamic auto range to preview menu
- Added IPP histogram to preview menu
- Added support for multiple bitdepth control
- Added support for gain, offset, and sensitivity on IPP capture control panel
- Added support for auto white balance on IPP capture control panel
- Removed all redundant controls that are already available on the IPP 6.0 control panel from the configure dialog. These controls include gain, offset, sensitivity, exposure time, autoexposure time, white balance.
- Moved preview LUT controls from a separate window to the configure dialog.
- All changes made in the LUT controls will affect both preview and acquired images.

3.1.0.13 – 3/15/06

- Corrected error in autoexposure where it would not function properly for some camera models.

3.1.0.11 – 2/15/06

- Added wait event constants to BAS file
- Corrected error when using mechanical shutter constants in MACRO functions
- Corrected problem in MACRO trigger acquire functions that would not return the images that were requested.

3.1.0.9 – 11/9/05

- Corrected sensitivity errors in macros functions

3.1.0.7 – 8/31/05

- Added additional support for VPF files so it will now record white balance ratio information

3.1.0.6 – 8/15/05

- Added support for LUT white balance

3.1.0.4 – 6/13/05

- Added additional support for VPF files. It will now record settings from configure dialog.

3.1.0.2 – 4/26/05

- Improved performance of multiple snap acquisitions. It will now run at full speed.

3.1.0.1 – 4/14/05

- Fixed 8-bit LUT error for cameras that support both 16 and 8 bit modes.

3.1.0.0 -12/17/04

- Moved Auto exposure button from exposure tab to bottom of main configure dialog
- Auto exposure will now turn off after finding a proper exposure time
- Fixed an error when snapping an image while auto exposure is running where the camera would capture for the exposure time before the auto exposure time was started
- Fixed preview when datatype is 24-bit RGB
- Improved performance of exposure time change during workspace preview
- Linked gain and offset controls between capture and configure dialogs so now they will both change when one is changed
- Install program will now check if DCAMAPI is installed on the computer and will inform the user if DCAMAPI is not installed

3.0.0.7 – 12/1/04

- Fixed an error with MACRO command for scanmode
- Fixed an error during snap when exposure would begin too early

3.0.0.6 – 11/18/04

- Fixed an error when exposure would fail to respond to changes after adjusting binning
- Fixed an error when capturing grayscale images with a color camera
- Fixed an error when the LUT and White Balance controls would not appear during preview
- Fixed White Balance icon to display hourglass when white balance function is on

3.0.0.5 – 11/6/04

- Fixed an error with LUT not re-adjusting when changing scanmode

3.0.0.3 – 10/22/04

- Improved performance by removing the stall that happens before acquiring images.

3.0.0.2 – 10/10/04

- Recompiled driver with Visual Studio 6 for compatibility

3.0.0.1 – 9/29/04

- Fixed error with auto white balance
- Improved performance when running workspace preview while in subarray mode

3.0.0.0 – 9/25/04

- Improved workspace preview to run at full speed
- Added IPP Controls for digital gain and digital offset
- Fixed error when switching between B/W mode and color mode

2.3.0.2

- Corrected the bug that would shift a preview image after a snap. // fix did not work for basic dialog

2.3.0.1

- Fixed a problem when loading the configure dialog that would generate an error when no error had occurred.

2.3.0.0

- Updated support for gain for IPP5.0 // disabled due to conflicts
- Updated support for offset for IPP5.0 // disabled due to conflicts
- Updated support for exposure for IPP5.0
- Fixed problem when gain and offset contained negative limits
- Added support for Orca-285 with color filter.

2.2.2.1

- Fixed up a crash problem with the Auto LUT.

12/19/03 – 2.2.2.0

- Added support for software trigger and vvalidbegin with MACROS
- Added MACRO functions
 - IpDcamStartAcquire(frames) – begins capture for software trigger mode
 - IpDcamStopAcquire() – ends capture for software trigger mode
 - IpDcamWaitEvent(event, timeout) – waits for event for a specified timeout
 - IpDcamTransferImages(destination) – Sends images captured through IpDcamStart Acquire to specified destination.

2.2.1.0

- Added three separate gain controls for 3 chip color cameras.
- Corrected a problem where the image size would change when the configure dialog was opened before any images were captured.
- Corrected a problem where the default exposure button would set incorrect values before any images were captured.

2.2.0.0

- Configure dialog redesigned to reduce clutter
- Added Information section to Configure dialog to include camera details
- Added Camera Selection dialog to select from multiple cameras
- Fixed preview errors with single chip RGB24 color cameras.
- Improved setup to install to all Mediacy Family products.

2.1.0.0

- Added new configure dialog for color camera
 - New dialog will only be used for 3 color cameras
 - Includes 3 exposure controls for the 3 color channels
 - Includes ratio lock button to lock color ratio when adjusting exposure times
- Added dropdown box for mechanical shutter function
- Added scrollbar, edit box, and button for sensitivity control
- Added support for “Save Settings” and “Load Settings” buttons located on Image Pro capture dialog
- Modified white balance control to continue white balance until it is done
- Fixed bug with Temperature control on digital cameras where On/Off button would not do anything
- Fixed bug with Temperature control that would read current temperature instead of target temperature
- Fixed GDI Object leak caused in LUT
- Added MACRO functions
 - IpDcamExposureRed(sec) – adjusts exposure time for red channel
 - IpDcamExposureGreen(sec) – adjusts exposure time for green channel

- IpDcamExposureBlue(sec) – adjusts exposure time for blue channel
- IpDcamSensitivity(sensitivity) – adjusts sensitivity
- IpDcamPowerSensitivity(mode) – turns on or off sensitivity high voltage
- IpDcamMechanicalShutter(mode) – sets the shutter setting to mode
- Created Setup program to install properly to Image Pro Plus

2.0.4.3

- Added gray preview support for color cameras
- Fix error when switching scan modes on ORCA II cameras
- Fix error when switching between multi snap and single snap
- Fix error when initializing temperature settings

2.0.4.2

- Added MACRO functions for Temperature control
 - IpDcamTemperature(temp) – This will change the current cooling temperature to temp. This will return false if the feature is unavailable or if temperature control is not on.
 - IpDcamPowerTemperature(mode) – This will turn the temperature control on or off. This will return false if the feature is unavailable.

2.0.4.1

- Adjusted White Balance calculations
 - The color channel with lowest average intensity will now be the channel with the exposure ratio of 1. The other channels will have smaller ratios.

2.0.4.0

- Added Temperature functions to configure dialog
 - Allows temperature controls for certain Hamamatsu cameras. If the controls can be toggled on and off, adjusting the temperature will not be possible until the controls are set on.
- Added MACRO function for White Balance
 - IpDcamWhiteBalance() - allows for use of White Balance function in MACRO program.

2.0.3.5

- Added White Balance button to configure dialog
 - When previewing with color camera, white balance will appear. If pressed, the current preview image will be calculated for red green and blue intensities. The exposure time ratios will then be adjusted to balance these intensities. The red channel will always have an exposure ratio of 1 and will always be equivalent to the exposure time on the configure dialog box.

2.0.3.0

- Added PIV / Fast Repetition support in configure dialog
 - This is selectable with Trigger mode selection for cameras with PIV option.