

Hamamatsu Video Capture Library for LabVIEW
Release Notes

4.4.32 - 8/22/23

- Corrected error in installer where TRIGGER folder was missing

4.4.31 - 5/8/23

- Added support for multi channel properties to following VIs
 - tm_setparameter_40
 - tm_getparameter_40
- Added parameters
 - NUMBEROF_REALTIMEGAINCORRECTREGION
 - REALTIMEGAINCORRECTREGION_HPOS
 - REALTIMEGAINCORRECTREGION_HSIZE
 - REALTIMEGAINCORRECTREGION_VPOS
 - REALTIMEGAINCORRECTREGION_VSIZE
- Added new sample VI
 - tm432_multichannelgain.vi

4.4.30 - 1/25/23

- Corrected error in tmcamcon.dll where TMCC_GETFRAME_41 function is missing

4.4.29 - 1/19/23

- Added new VI
 - tm_framebundle_40
- Added new sample VI
 - tm489_framebundle.vi

4.4.28 - 10/11/22

- Corrected size of buffer for TMCC_REPORTERROR()

4.4.27 - 3/24/22

- Added parameters
-

4.4.26 - 3/16/22

- Added parameters
 - TEST PATTERN KIND
 - TEST PATTERN OPTION

4.4.25 - 3/2/22

- Added parameters
 - OUTPUT INTENSITY

4.4.24 - 6/1/21 *

- Added parameters
 - CONFOCAL_SCANMODE:

- CONFOCAL_SCANLINES:
- CONFOCAL_ZOOM:
- SUBUNIT_IMAGEWIDTH:
- NUMBEROF_SUBUNIT:
- SUBUNIT_CONTROL:
- SUBUNIT_LASERPOWER:
- SUBUNIT_PMTGAIN:
- SUBUNIT_PINHOLESIZE:
- SUBUNIT_WAVELENGTH:
- SUBUNIT_TOPOFFSETBYTES:

4.4.23 - 12/16/20

- Added parameters
 - TAPCALIB GAIN
 - TAP GAIN CALIB METHOD
 - TAP CALIB BASE DATA MEMORY
 - STORE TAP CALIB DATA TO MEMORY
 - TAP CALIB DATA MEMORY
- Fixed issue where known error codes would be reported as unknown error codes
- Extended the size of the error message buffer to prevent crash with error handler
- Fixed typo in TMCC_WAITNEXTFRAME_40 with TMLOG
- Fixed sample VI tm430_functions_41.vi so the numeric slider bar displays correct scale

4.4.22 - skipped

4.4.21 - 7/30/19

- Added parameters
 - REALTIME GAIN CORRECT MODE
 - REALTIME GAIN CORRECT LEVEL
 - REALTIME GAIN CORRECT INTERVAL
 - NUMBER OF REALTIME GAIN CORRECT REGION

4.4.20 - 3/18/19

- Added option to TM_STARTRECORDER for NO_BUFFERING

4.4.19 - 2/5/19

- Added destructor code to handle unexpected VI exit due to ALT+F4 or CTRL+Q

4.4.18 - 7/20/18

- Added timeout input to TM_STOREBACKGROUND and TM_STORESHADINGCORRECTION

4.4.17 - 7/16/18

- Fixed a crash error when calling TM_STOPCAPTURE when no cameras are available.
- Added registry override method for calibration timeout

4.3.16 - 6/7/18

- Fixed Call Library function node in TM_MASTERPULSE. The node was calling the incorrect function.

- Fixed error 1097 in Call Library function node in TM_OPENCAMERA. The node was calling the incorrect function.

4.3.15 - 4/27/18

- Fixed error in TM_REPORTERROR that would crash LabVIEW.
- Removed all code < _40 with Preprocessor #IF statements.
- Updated error codes with current DCAMSDK

4.3.14 - 4/18/18

- Fixed an internal error when compiling a release build of the driver. (Updated to VS2017)

4.2.13 - 4/13/18

- Fixed error when calling TM_INITIALIZE with no cameras connected. (actually didn't work)

4.2.12 - 1/4/18

- Fixed error with DSP functions not working with newer cameras.

4.2.11 - 11/6/17

- Fixed error with TM_SETLUT. Now points to correct DLL.
- Fixed error with TM431_REGIONOFINTEREST.VI. Invalid ROI values are now coerced to correct values.

4.2.10 - 11/1/17

- Added VIEW option to TM_GETFRAME and TM_GETDCIMGFRAME to get different views of the frame data
- Fixed error when second view of split view is completely black

4.2.9 - 7/24/17

- Added parameters
 - BITS PER CHANNEL

4.2.8 - 7/19/17

- Added new VI
 - tm_inputtriggersource_40
 - tm_inputtriggeractive_40
 - tm_inputtriggeradvance_40
 - tm_getvaluetext_40
- Added new sample VI
 - tm488_attachbufferseq_wVision.vi
 - tm488_attachbuffersnap_wVision.vi
- Updated sample VI
 - tm422_timelapse.vi
 - tm423_dualcamerasync.vi
 - tm483_masterpulse.vi

4.1.7 - 6/29/17

- Added new VI
 - tm_getcamerastatus_40

4.1.6 - 6/27/17

- Added new VI
 - tm_prepare_attach_40

4.0.5b - 5/2/17

- Added parameters
 - TIMING READOUT TIME
 - INTERNAL FRAMERATE
 - INTERNAL FRAMEINTERVAL
 - IMAGE WIDTH
 - IMAGE HEIGHT
 - IMAGE ROWBYTES
 - IMAGE FRAMEBYTES
- Added new sample VI
 - tm485_lightsheet_LTN12.vi

4.0.5 - 4/11/17

- Using new headers: dcamapi.h Nov 7, 2016 / dcimgapi.h Nov 7, 2016
 - This fixes a problem in 32-bit DCIMGAPI.DLL that prevented users from opening DCIMG files.
- Fixed error when subarray limits would display incorrectly at 2x2 and 4x4 binnings.

4.0.4 - 2/15/17

- Added new VIs
 - tm_sensorcooler_40
 - tm_setmultiregion_40
 - tm_setlut_40
- Added new sample VIs
 - tm484_highcontrastmode.vi
 - tm486_dataextraction.vi
 - tm486_dataextraction_toDCIMG.vi
 - tm487_lut.vi
- Updated existing VIs
 - tm_getparameterlimits_41
 - Output pins are different. All output pins are not grouped into one cluster output pin.
 - Added number of views to the output.
 - tm_getdcimgframedata_40
 - Includes Options input. Options include "no option" and "high contrast mode".
 - Fixed error when tm_initialize_40 would execute with no cameras connected and tm_uninitialize_40 would not properly uninitialize.
 - Fixed internal error with gettransferinfo.

4.0.3 - 9/8/16

- Fixed tm_setmasterpulse_40 when using BURST mode.
- Countermeasure for C12902D-40 with tm_setinputtrigger_40 when setting trigger polarity.

4.0.2 – 8/15/16

- Updated tm_setparameter_40 to update the values and limits of the parameters that were affected by the changed parameter.

4.0.1 – 7/25/16

- Exposed deprecated folder to viewable palette set. This is to counter a “feature” in LabVIEW 2015 that would replace missing VIs in a program with the closest match in the viewable palette set.
- Added PANORAMIC START V to the list of supported properties.
- Updated tm_getframe16_40 to include Options input. Options include “no option” and “high contrast mode”.

4.0.0 – 4/12/16

- All current VI names now end in _40 to signify that they are updated for v4.0
- Added HVC Debug Log option to tm_initialize_40
- All v4.0 functions are now included in Debug Log output
- Added dynamic parameter system.
- Updated tm_setparameter_40, tm_getparameter_40, and tm_getparameterlimits_40 for dynamic parameter system.
- Updated tm_getparameterlist to output all members of array parameters
- Updated all sample VIs for new 4.0 functions
- Older 3.x functions moved to deprecated folder to maintain backward compatibility

3.4.14 – 12/16/15

- Added new VIs
 - tm_writemetadata
 - tm_readmetadata
 - tm_getframe_wview
 - tm_setarea_wview
 - tm_masterpulse
- Added new sample VIs
 - tm3samp_07a_dcimgrecorder_wmetadata.vi
 - tm3samp_07b_dcimgrecorder_wVision.vi
 - tm3samp_09_wview.vi
 - tm3samp_09_wview_wVision.vi
 - tm3samp_09_masterpulse_sequence.vi
- Updated tm_startrecorder to add “.dcimg” to the path if the user does not include the file extension.

3.3.13 – 10/13/14

- Updated tm_setparameter, tm_getparameter, and tm_getrange to accept IDs for all available functions for the camera.
- Updated tm_getfunctionlist to output the function name and IDs of all available functions for the camera.
- Updated tm_initialize to output the capture library version, the DCAM version, and the camera information for available cameras.
- Updated tm_opencamera to output the information of the selected camera.
- Added new sample VI
 - tm3samp_09_lightsheet.vi

3.2.12 – 7/14/14

- Fixed an issue with tm_waitnextframe when setting an exposure greater than 5 seconds.

3.2.11 – 6/6/14

- Fixed an issue with tm_waitnextframe when setting a timeout value of -1.
- Fixed an issue with tm_opencamera accessing some cameras using DCAM driver version 14.6.

3.2.10 - 4/23/14

- Added new camera parameter
 - Channel Sync

3.2.9 – 11/7/13

- Fixed an error with Frame Bundle Mode where the wrong image dimensions were being set.
- Added a new sample VI
 - tm3samp_02a_framebundle.vi

3.2.8 – 5/9/13

- Fixed an issue with the error reporting that would cause LabVIEW to crash after an error in the library occurred.

3.2.7 – 4/19/13

- Added new Vis to basic camera functions
 - tm_setinputtriggermode
 - tm_setoutputtriggermode
- Added new camera parameters
 - Output Trigger Kind
 - Readout Direction
- Modified TM_GETFRAME_A.VI to include Electron Info output

3.1.6 – 12/13/12

- Added new Vis to basic camera functions
 - tm_getcaptureinfo
- Added new camera parameters
 - Line Bundle Height
 - Trigger Connector
 - Image Pixel Type
- Modified TM_PREPARECAPTURE.VI output buffer type
- Modified TM_GETFRAME_A.VI input buffer type
- Modified TM_GETFRAME_A.VI to include 16-bit and 8-bit outputs

3.0.1 – 4/17/12

- Fixed tm_preparecapture for cameras that do not support readout time.

3.0.0 – 3/17/12

- Updated for LabVIEW 2011
- Add new VIs to basic camera functions

- tm_preparecapture
- tm_unpreparecapture
- tm_waitnextframe
- tm_getframe
- Added DCIMG subcategory and included new VIs to DCIMG subcategory.
- tm_startrecorder
- tm_stoprecorder
- tm_getrecorderstatus
- tm_opendcimfile
- tm_closedcimfile
- tm_getdcimgframe
- Removed previous sample VIs.
- Added new sample VIs.
- tm3samp_sequence
- tm3samp_sequence_wVision
- tm3samp_sequence_wDSP
- tm3samp_functions
- tm3samp_framerate
- tm3samp_framerate_wVision
- tm3samp_acquirereplay
- tm3samp_dcimgrecorder
- tm3samp_dcimgreader

2.0.1 – 6/30/10

- Added View input to TM_SETPARAMETER.VI and TM_GETPARAMETER.VI to give more control for cameras with multiple views
- Fixed TM_GETRANGE.VI to rescanner function capabilities when called.
- Fixed TM_STARTCAPTURE_A.VI to output correct Image Type value
- Updated TM_GETNEXTFRAME.VI to use unsigned 16-bit data.

2.0.0 – 4/30/10

- Updated for LabVIEW 2009.
- Modified TM_SETPARAMETER.VI, TM_GETPARAMETER.VI, and TM_GETRANGE.VI with new values for parameter menu ring.
- Added TM_GETFUNCTIONLIST.VI.
- Added support for 64-bit versions of LabVIEW.

1.7.0 - 8/10/08

- Added TM_GETPROPERTYLIST.VI advanced function.
- TM_GETRANGE.VI moved to deprecated functions.
- Added TM_GETRANGE_A.VI to replace TM_GETRANGE.VI.
- Added support for line binning.

1.6.0 – 3/17/08

- Added TM_GETPROPERTYLIST.VI advanced function.
- Added PROPERTYCHECK.VI sample code.

1.5.3 – 2/22/07

- Added TM_SETPROPERTYVALUE.VI and TM_GETPROPERTYVALUE.VI advanced functions.

1.5.2 – 1/2/07

- Fix crash problem when using multiple cameras
- Included descriptions of error codes to the manual

1.5.0 – 10/6/06

- Added CCD Mode and Photon Imaging Mode to TM_SETPARAMETER.VI and TM_GETPARAMETER.VI
- Added TM_RECURSIVEFILTER.VI, TM_SETBACKGROUNDFRAME.VI, TM_SETSHADINGFRAME.VI, TM_STOREBACKGROUNDFRAME.VI, and TM_STORESHADINGFRAME.VI to handle DSP functions
- Created new sample code to demonstrate how to use the new functions.

1.4.0 – 7/7/06

- Replaced TM_GETFRAME.VI and TM_WAIT.VI with TM_GETNEXTFRAME.VI
- TM_GETFRAME.VI and TM_WAIT.VI now in deprecated folder
- Updated all sample code to reflect changes

1.3.3 – 5/22/06

- Corrected wait function in worker DLL to prevent race issue when snapping a large number of images.

1.3.2 – 4/12/06

- Corrected labeling problem in worker DLL where some functions in TM_SETPARAMETER.VI would not correspond to functions the same functions in TM_GETPARAMETER.VI.

1.3.1 – 2/8/06

- Corrected sub-array function in worker DLL that would cause errors in TM_SETAREA.VI

1.3.0 – 1/31/06

- Added TM_GETRANGE.VI to get the minimum, maximum, and stepping values of camera features

1.2.0 – 12/7/05

- Added TM_SETCOOLING.VI to control the cooling fan
- Added X-Binning and Y-Binning to TM_SETPARAMETER.VI and TM_GETPARAMETER.VI

1.1.2 – 11/29/05

- Added support for independent binning modes to the TM_SETPARAMETER.VI
- Added TM_SETSCANMODE.VI to have an easier way to support the adjustment of scan speeds

1.1.1 - 3/1/04

- Fixed all functions that would crash LabVIEW when error occurred in lower level driver

1.1.0 - 12/17/04

- Added SIMPLESEQUENCE_NOIMAQVISION.VI and SIMPLESNAP_NOIMAQVISION.VI to sample code
- Added TM_GETFRAME_A.VI to support image acquisition without the need for IMAQ Vision

1.0.0 - 6/23/04
- Initial release