

Hamamatsu Video Capture Library for LabVIEW  
Release Notes

- 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
    - tm\_getframe\_41
  - Added new sample VI
    - tm489\_framebundle.vi
- 4.4.28 - 5/24/22
  - Fixed invalid handle error when opening second camera first.
- 4.4.27 - 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
  - Fixed issue where TM\_OPENCAMERA would fail in 32-bit LabVIEW
- 4.4.22 - 6/8/20

- Added parameters
    - TAPCALIB GAIN
    - TAP GAIN CALIB METHOD
    - TAP CALIB BASE DATA MEMORY
    - STORE TAP CALIB DATA TO MEMORY
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  - Fixed typo in TMCC\_WAITNEXTFRAME\_40 with TMLOG
  - Fixed sample VI tm430\_functions\_41.vi so the numeric slider bar displays correct scale
- 4.4.21 - 7/30/19
- Added parameters
    - REALTIME GAIN CORRECT MODE
    - REALTIME GAIN CORRECT LEVEL
    - REALTIME GAIN CORRECT INTERVAL
    - NUMBER OF REALTIME GAIN CORRECT REGION
- 4.4.19 - 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.
  - Updated error codes with current DCAMSDK
- 4.3.14 - 4/18/18
- Fixed an internal error when compiling a release build of the driver.
- 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 o BITS PER CHANNEL

4.2.8 - 7/19/17

- Added new VI
- o tm\_inputtriggersource\_40
- o tm\_inputtriggeractive\_40
- o tm\_inputtriggeradvance\_40
- o tm\_getvaluetext\_40
- Added new sample VI
- o tm488\_attachbufferseq\_wVision.vi
- o tm488\_attachbuffersnap\_wVision.vi
- Updated sample VI
- o tm422\_timelapse.vi
- o tm423\_dualcamerasync.vi
- o tm483\_masterpulse.vi

4.1.7 - 6/29/17

- Added new VI
- o tm\_getcamerastatus\_40

4.1.6 - 6/27/17

- Added new VI
- o tm\_prepare\_attach\_40

4.0.5b - 5/2/17

- Added parameters
- o TIMING READOUT TIME
- o INTERNAL FRAMERATE
- o INTERNAL FRAMEINTERVAL
- o IMAGE WIDTH
- o IMAGE HEIGHT
- o IMAGE ROWBYTES
- o IMAGE FRAMEBYTES
- Added new sample VI
- o 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
- o tm\_sensorcooler\_40
- o tm\_setmultiregion\_40
- o tm\_setlut\_40
- Added new sample VIs
- o tm484\_highcontrastmode.vi
- o tm486\_dataextraction.vi
- o tm486\_dataextraction\_toDCIMG.vi
- o tm487\_lut.vi
- Updated existing VIs
- o 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.

  - o 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 uninitialized.

- ☒ 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

- ☒ All v4.0 functions are now included in Debug Log output

- ☒ Added dynamic parameter system.

- ☒ Updated tm\_setparameter, tm\_getparameter, and tm\_getparameterlimits 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

  - o tm\_writemetadata

  - o tm\_readmetadata

  - o tm\_getframe\_wview

  - o tm\_setarea\_wview

  - o tm\_masterpulse

- ☒ Added new sample VIs

  - o tm3samp\_07a\_dcimgrecorder\_wmetadata.vi

  - o tm3samp\_07b\_dcimgrecorder\_wVision.vi

  - o tm3samp\_09\_wview.vi

  - o tm3samp\_09\_wview\_wVision.vi

  - o 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
  - o `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
  - o 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
  - o `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
  - o `tm_setinputtriggermode`
  - o `tm_setoutputtriggermode`
- ☒ Added new camera parameters
  - o Output Trigger Kind
  - o 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
  - o `tm_getcaptureinfo`
- ☒ Added new camera parameters
  - o Line Bundle Height
  - o Trigger Connector
  - o 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\_opendcingfile
- ☒ tm\_closedcingfile
- ☒ 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 rescan 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