Matrox Imaging Library (MIL) 10 Update 7
Release Notes (MILRadientProCL)
April 2015

This document outlines what is new with Matrox RadientPro CL and explains the current limitations and particularities.

It also presents last-minute information that did not make it into the manual or on-line help. Note that this help file serves to complement your manual. The information found in this file overrides your formally documented material.

Contents

1. MIL Driver for Matrox RadientPro CL

1.1 What's new in MIL 10 Update 7

1.1.1 Standards compliance

The MIL driver for Matrox RadientPro CL supports the following standards:

- Camera Link® Version 2.0.
- GenICam™ Version 2.3.1.
- GenICam™ for Camera Link® (CLProtocol). Note that this requires a third-party CLProtocol communication DLL, which is supplied by the camera vendor.

1.1.2 Summary of new features

The following features are new for this release:

- New API to latch information for each grabbed frame. See M_DATA_LATCH_* in the online help.
- Added a second pulse for timer signals. See M_TIMER_DURATION2 and M_TIMER_DELAY2.
- Added the following MIL hardware-specific example:
  - DataLatch.cpp. This example is located in …\examples\board-specific\DataLatch\c++. DataLatch.cpp uses the Data Latch API to latch information at each grabbed frame (such as, timestamps and quadrature encoder positions).
  - Clprotocol.cpp. This is a Matrox RadientPro CL specific example. It demonstrates the use of CLProtocol and enables the use of MdigControlFeature() and MdigInquireFeature() to control camera features (parameters), as well as enabling the use of the feature browser dialog window.
  - Enumfeatures.cpp. This is a GenICam-specific example. It demonstrates how to enumerate all the features in your GenICam compliant device in a MIL application. The example is located in ...\examples\board-specific\enumfeatures\c++.

1.1.3 API enhancements

- Additions to MdigControlFeature()/MdigInquireFeature():
  - M_FEATURE_ENUM_ENTRY_DISPLAY_NAME + n. Inquires the display name of the specified enumeration entry of the specified feature, where *n* is the index into the enumerated list. See M_FEATURE_ENUM_ENTRY_NAME in the MIL documentation.
  - M_STRING_ARRAY_SIZE(). Specifies that the feature value is expressed as a string of a specified size. The M_STRING_ARRAY_SIZE() macro passes the size of the user-allocated buffer (first passed to the MdigInquireFeature's UserVarPtr parameter).
- Additions to MdigControl()/MdigInquire():

❖ Note that the following ControlTypes that can have + M_TIMERn are marked below. For information about M_TIMERn, refer to MdigControl() /MdigInquire().

M_TIMER_DELAY2 + M_TIMERn		Sets the delay between the end of the first active portion of the timer output signal and the start of the second pulse.
	M_DEFAULT	Specifies the default value. This is the same as specified in the DFC or, if not specified in the DCF, 0.
	Value > 0	Specifies the delay, in nsecs.
M_TIMER_DURATION2 + M_TIMERn		Sets the duration for the active portion of the second pulse of the timer output signal.
	M_DEFAULT	Specifies the default value. This is the same as specified in the DFC or, if not specified in the DCF, 0.
	Value > 0	Specifies the duration of the active portion of the second pulse of the timer output signal, in nsecs.

- Additions to MdigHookFunction():
  - You can now hook to a GenICam feature change event.
  - M_GC_FEATURE_CHANGE. Hooks the function to the event that occurs when a GenICam feature value is changed on your camera. This usually occurs

when a feature or a dependent feature is written.

- Additions to MdigGetHookInfo():

  The following allows you to retrieve information about a GenICam SFNC-compliant event. The following information types are only available if MdigGetHookInfo () was called from a function hooked to a GenICam event using M_GC_EVENT + M_GC_FEATURE_CHANGE. In addition, the GenICam event must be enabled using MdigControlFeature(), and the message channel must be supported by your camera.

  - M_GC_FEATURE_CHANGE_NAME. Retrieves the name of the GenICam feature that changed. The UserVarPtr must point to a user allocated array of type MIL_TEXT_CHAR.
  - M_GC_FEATURE_CHANGE_NAME_SIZE. Retrieves the size of the name of the GenICam feature that changed. The UserVarPtr must point to a MIL_INT.

2. Supported operating systems

This section lists all the operating systems that the Matrox RadientPro CL driver supports.

- 64-bit Windows® 7
- 64-bit Windows® 8.1

3. Location of examples (in the help file)

In the help file, the location information written at the top of examples might not be up-to-date. Use MIL Example Launcher to find an example on disk.