Framelink Express SDK Samples Manual

Note to our customers

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1. General Information

Framelink Express SDK samples folder includes a set of simple C++ and C# projects, demonstrating the usage of Framelink Express SDK API functions. It is necessary to have Microsoft Visual Studio 2005 (or higher) installed to build and run these projects.

2. Framelink Express SDK samples installation

Framelink Express SDK samples are installed as part of SDK during the Framelink Express software installation. Please keep the **"SDK"** field checked, as it shown on picture below (Figure 1).
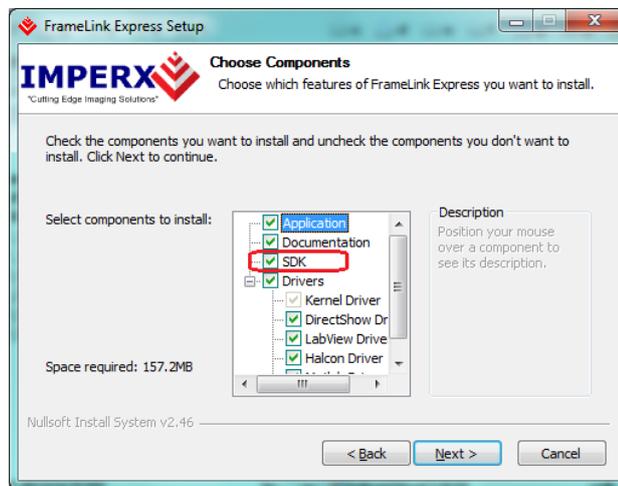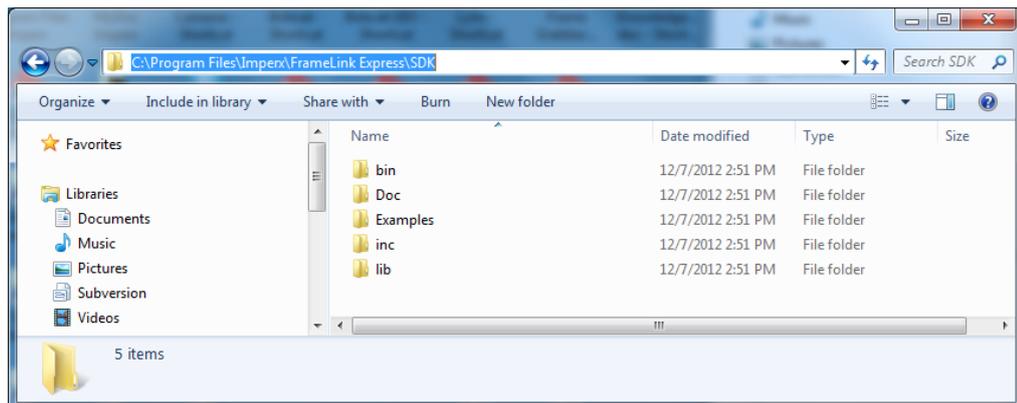

Figure 1

SDK is installed to Framelink Express software directory and includes following folders and files:

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3. IDE compatibility

All Framelink Express SDK samples are created with Microsoft Visual Studio 2005, so it is necessary to have 2005 or higher version installed to build and run the samples.

Product	Version		
Microsoft Visual Studio .NET 2003	*NO*		
Microsoft Visual Studio 2005	Express	Standard	Professional
	NO	*YES*	*YES*
Microsoft Visual Studio 2008	Express	Standard	Professional
	NO	*YES*	*YES*
Microsoft Visual Studio 2010	Express	Professional	Premium
	NO	*YES*	*YES*
Microsoft Visual Studio 2012	Express	Professional	Premium
	NO	*YES*	*YES*

On Windows Vista and higher, if UAC (User Access Control) is enabled, it is recommended to run Microsoft Visual Studio under Administrative Privileges or copy sample sources to user's folder like "c:\Users\UserName\Documents\Visual Studio 2010\Projects\".

It is possible that Visual Studio 2010 or 2012 will display caution message and prompt to restart itself with Administrative Privileges. Select "Restart under different credentials" to restart with Administrative Privileges.

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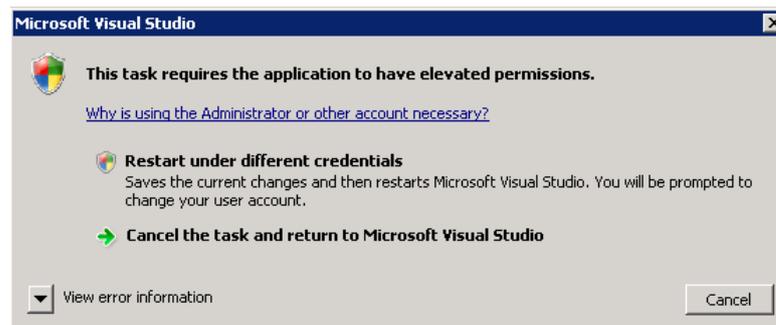
4. C++ samples

To build C++ samples, open *"FrameLink Express C++ Examples.sln"* solution file with Microsoft Visual Studio, and build necessary configuration and platform.

4.1 *Flex_Console*

Console application, demonstrating how to initialize the FrameLink Express card, load the card configuration from file, start the image acquisition, save images to file, and close the card.

4.2 *Flex_GUI*

Dynamic Link Library, containing set of panels to control the FrameLink Express card properties

4.3 *Flex_Grab*

MFC application, demonstrating the image acquisition and displaying in grabbing mode with *VCECLB_PrepareEx. VCECLB_StartGrabEx, VCECLB_StopGrabEx,* and callback function.
This sample linked with *Flex_GUI*

4.4 *Flex_Snap*

MFC application, demonstrating the image acquisition and displaying in snap mode with *VCECLB_SnapEx* function.
This sample linked with *Flex_GUI*

4.5 *Flex_UART*

MFC application, demonstrating the usage of CameraLink serial interface functions to control the Framelink Express UART interface and send/receive the data to/from the connected camera.
This sample linked with *Flex_GUI*

4.6 *Flex_PulseGenerator*

MFC application, demonstrating the usage of CC (Camera Control) Pulse generator, included to VCE-CLEX01, VCE-CLEX02, VCE-CLPCIe01 models.
This sample linked with *Flex_GUI*

4.7 *Flex_PLC*

MFC application, demonstrating the usage of programmable Logic Controller (PLC), included to VCE-CLPCIe02 models.

4.8 *Flex_MIL_Console*

Console application, demonstrating the usage of FrameLink Express SDK with Matrox Imaging Library (MIL).
This sample requires the Matrox Imaging Library installed.

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5. .NET samples

To build .NET samples, open *"FrameLink Express .NET Examples.sln"* solution file with Microsoft Visual Studio, and build necessary configuration and platform.

5.1 *FLExGrabber*

.NET wrapper assembly for Framelink Express C++ SDK functions. It is necessary to build this project in order to compile the rest .NET samples

5.2 *FLEx_Snap*

C# application, demonstrating the image acquisition and displaying in snap mode with *VCECLB_SnapEx* function.

This sample requires *FLExGrabber* project to be built

5.3 *Flex_Grab*

C# application, demonstrating the image acquisition and displaying in grabbing mode with *VCECLB_PrepareEx. VCECLB_StartGrabEx, VCECLB_StopGrabEx,* and callback function.

This sample requires *FLExGrabber* project to be built

5.4 *Flex_UART*

C# application, demonstrating the usage of CameraLink serial interface functions to control the Framelink Express UART interface and send/receive the data to/from the connected camera.

This sample requires *FLExGrabber* project to be built

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