QCAP SDK FOR LABVIEW

1.1.0.127.3, 2014.03.14

1 QCAP for LabView Software Programming Guides

1.1 Overview

In this document, we will guide and teach user how to import and use SDK of QCAP that implement Yuan's capture card.

1.2 QCAP For LabView Workflow in Software View

Programming Step	Related Programming
1) Import QCAP SDK	`Import QCAP.dll and QCAP.H`
2) Create Device	`CREATE.vi`

3) Set Device Parameters	`SET VIDEO INPUT.vi`
	`QCAP SET VIDEO DEINTERLACE.vi`
	`QCAP SET VIDEO BRIGHTNESS.vi, …`
	`QCAP SET AUDIO VOLUME.vi`

4) Start Capturing	`RUN.vi`

5) Start Recording	`SET VIDEO RECORD PROPERTY.vi`
	`SET AUDIO RECORD PROPERTY.vi`
	`START RECORD.vi`

6) Stop Recording	`STOP RECORD.vi`
7) Stop Capturing	`STOP.vi`
8) Delete Device	`DESTROY.vi`

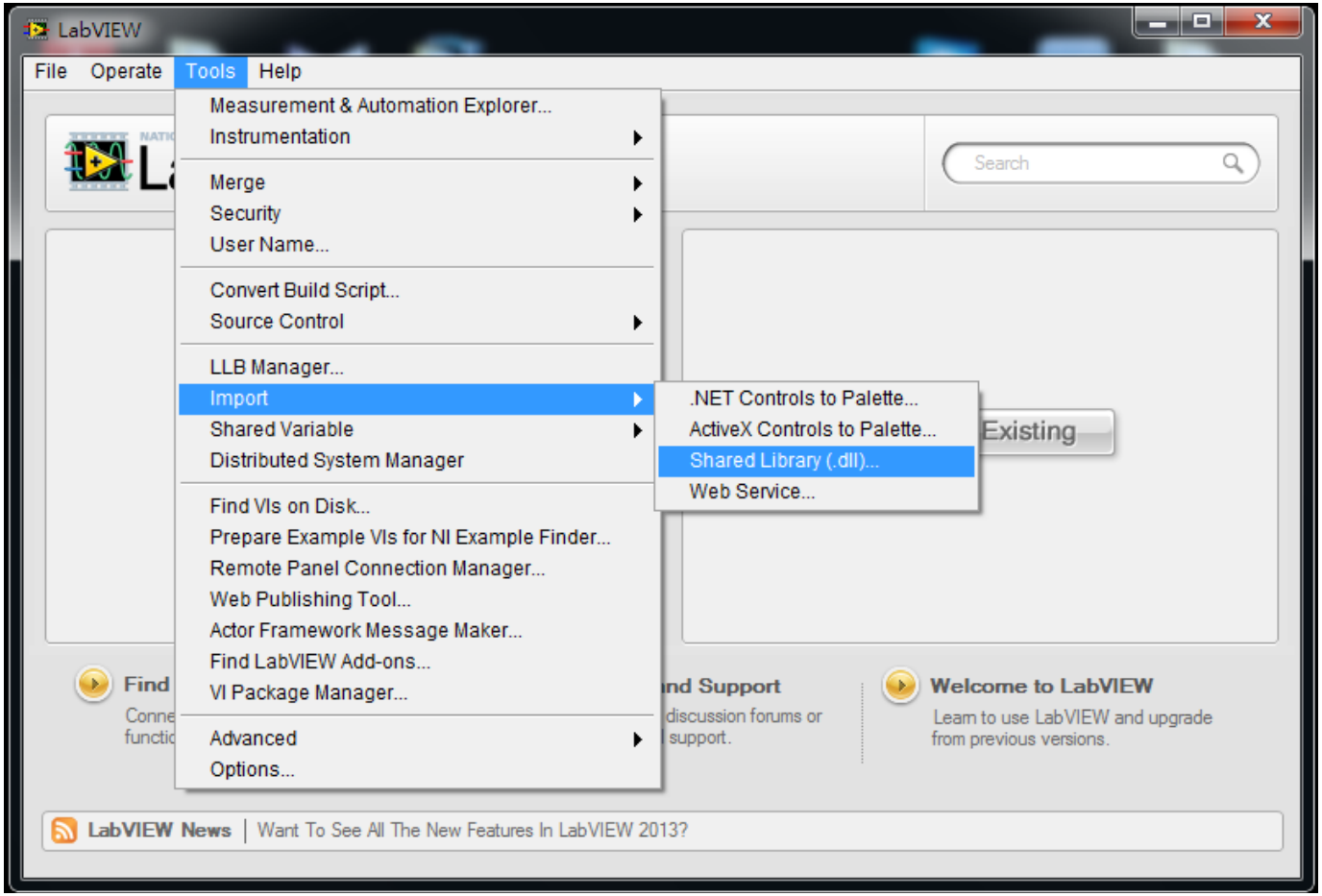
1.3 Header Files and Link Library

LabView	**X86**	QCAP.H, QCAP.LIB, QCAP.DLL, AMESDK.DLL
	X64	QCAP.H, QCAP.X64.LIB, QCAP.X64.DLL, AMESDK.X64.DLL

Developer should find out 4 lib folders from SDK packet. If developer wants to access Intel hardware H.264 encoder (Intel Media SDK), you need use VC.GPU library. Note!! Intel Media SDK is only support on Windows 7 system.

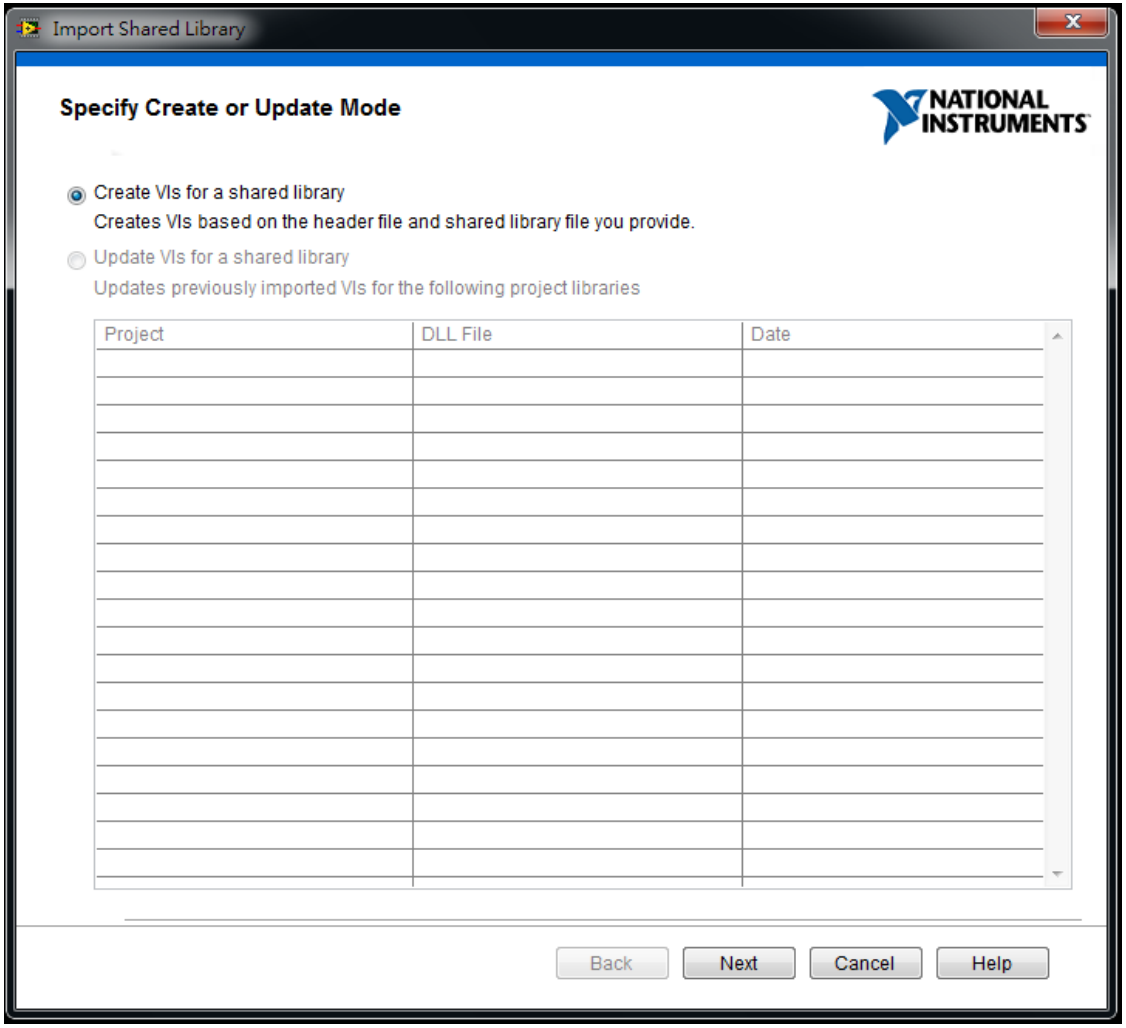
Import QCAP SDK into LabView

1. Select Import menu, then click [Shared Library(.dll)…] to go to next step.



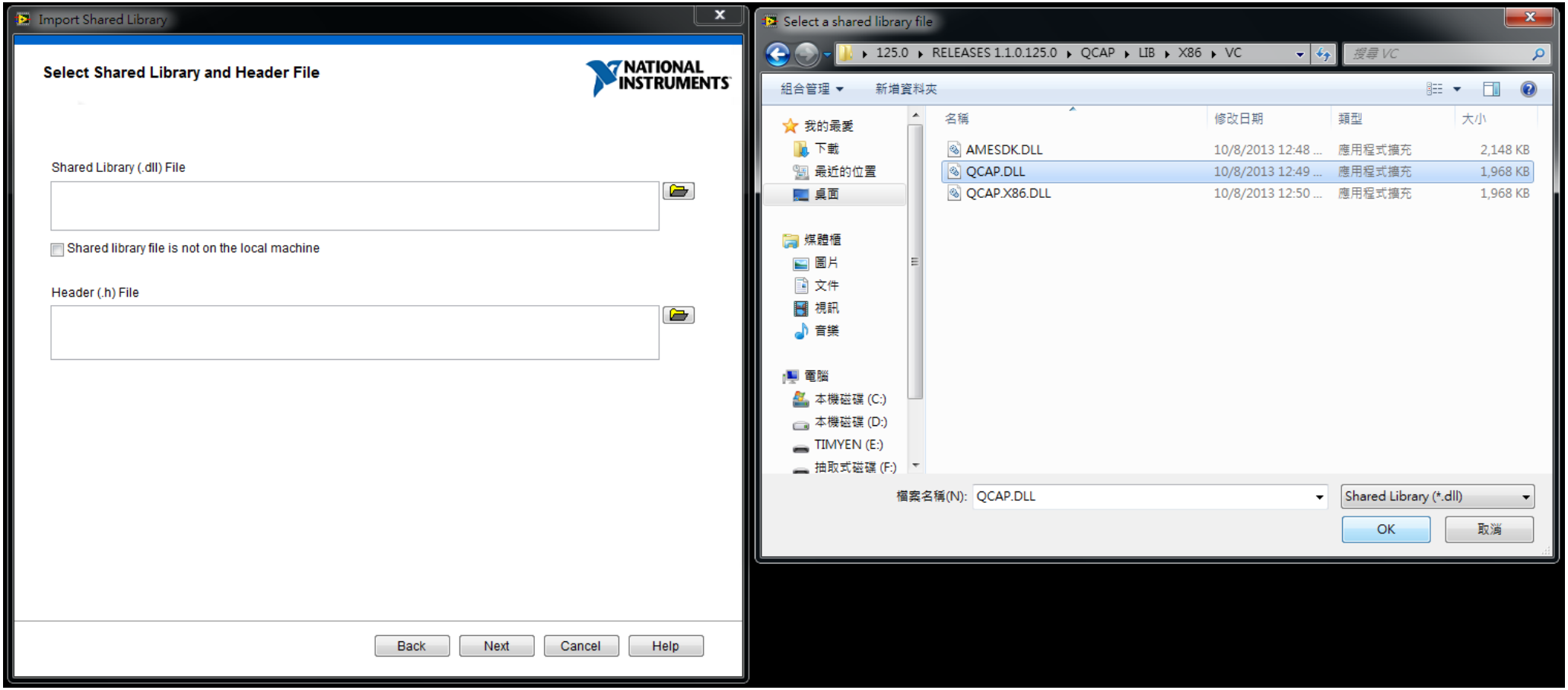
Import QCAP SDK into LabView

2. Click [Create VIs for shared library] to go to next step.



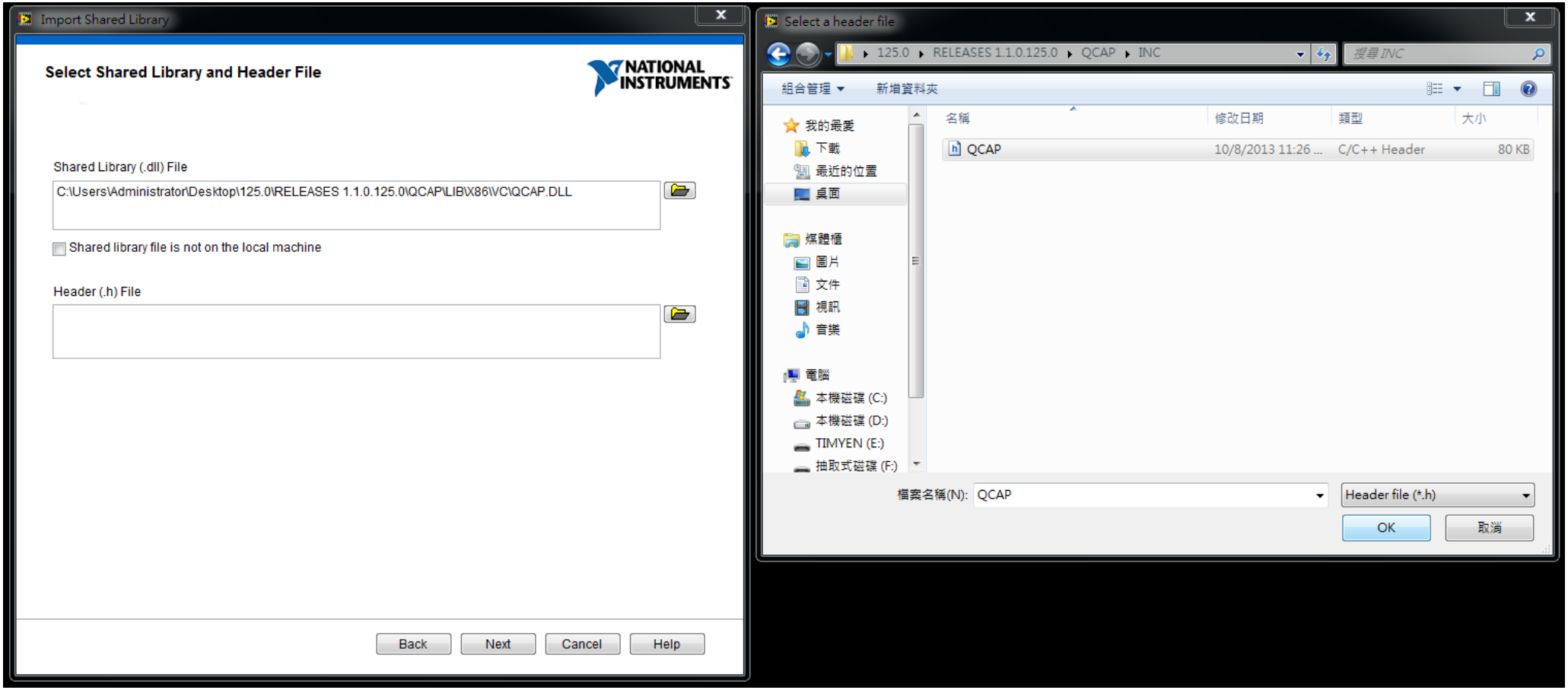
Import QCAP SDK into LabView

3. Select QCAP.dll into Shared Library (.dll) File.
   Note !! .dll verison must same with your Yuan's codecs verison.



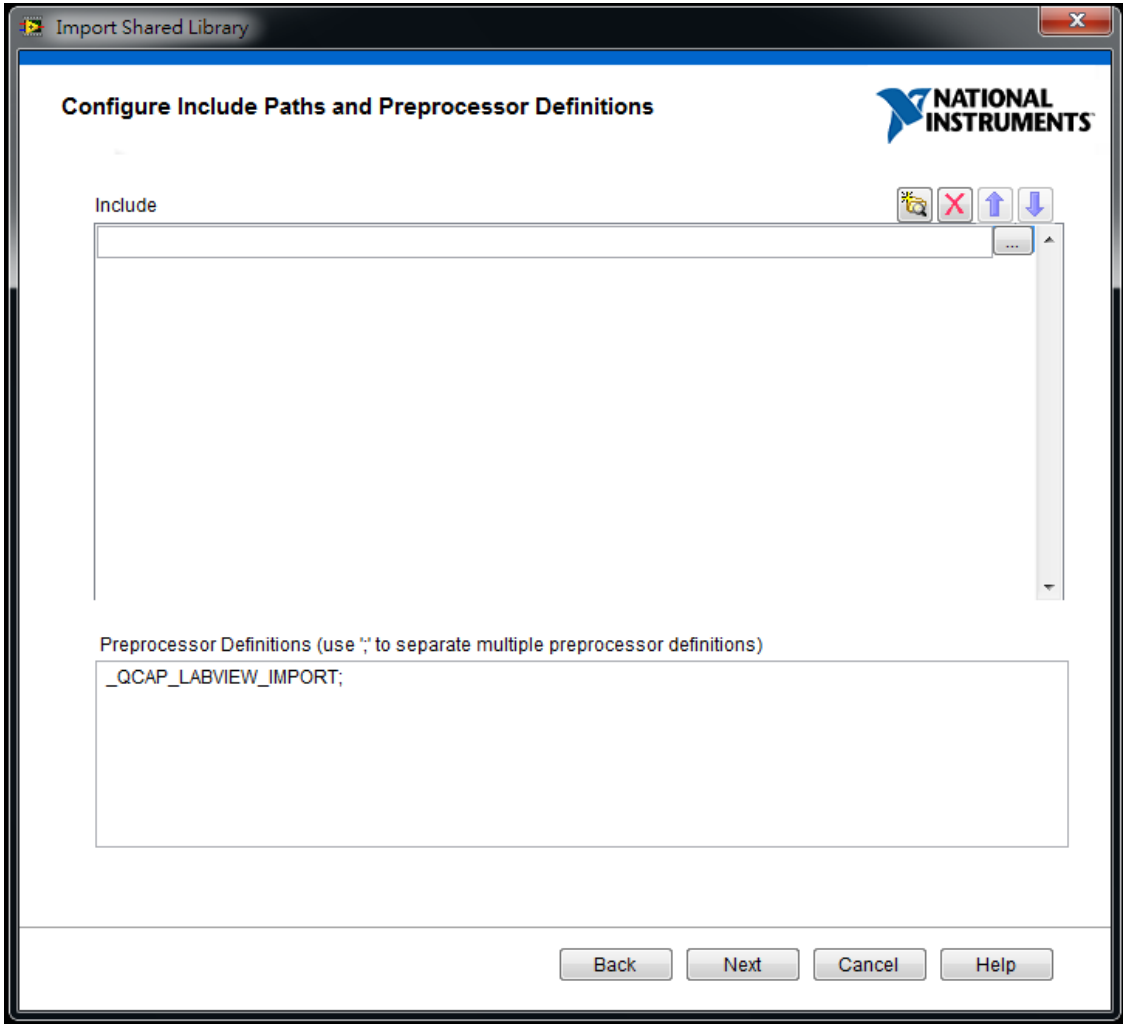
Import QCAP SDK into LabView

4. Select QCAP.h into Header (.h) File.
   Note !! .h verison must same with your Yuan's codecs verison.



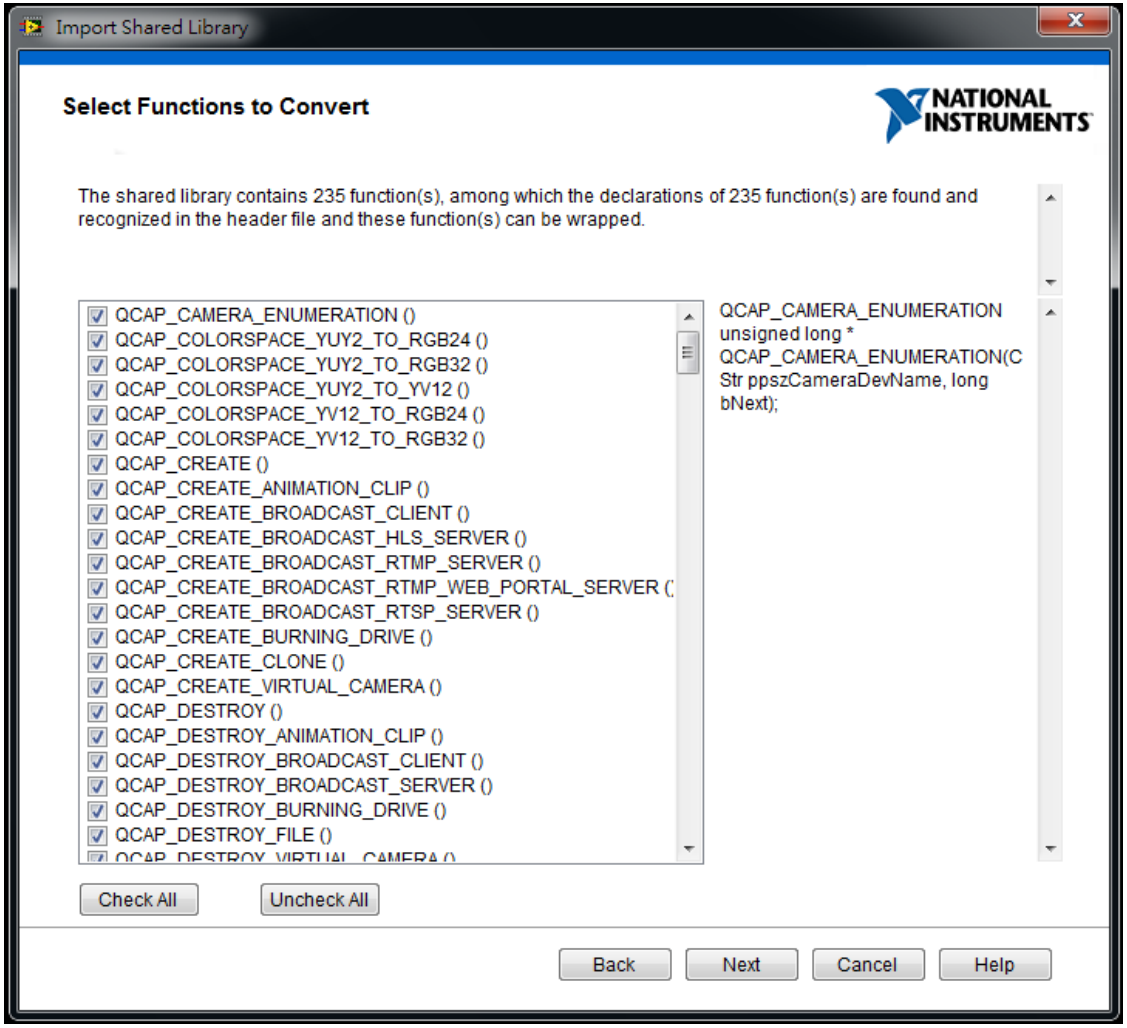
Import QCAP SDK into LabView

5. Add _QCAP_LABVIEW_IMPORT into Preprocessor Definitions.



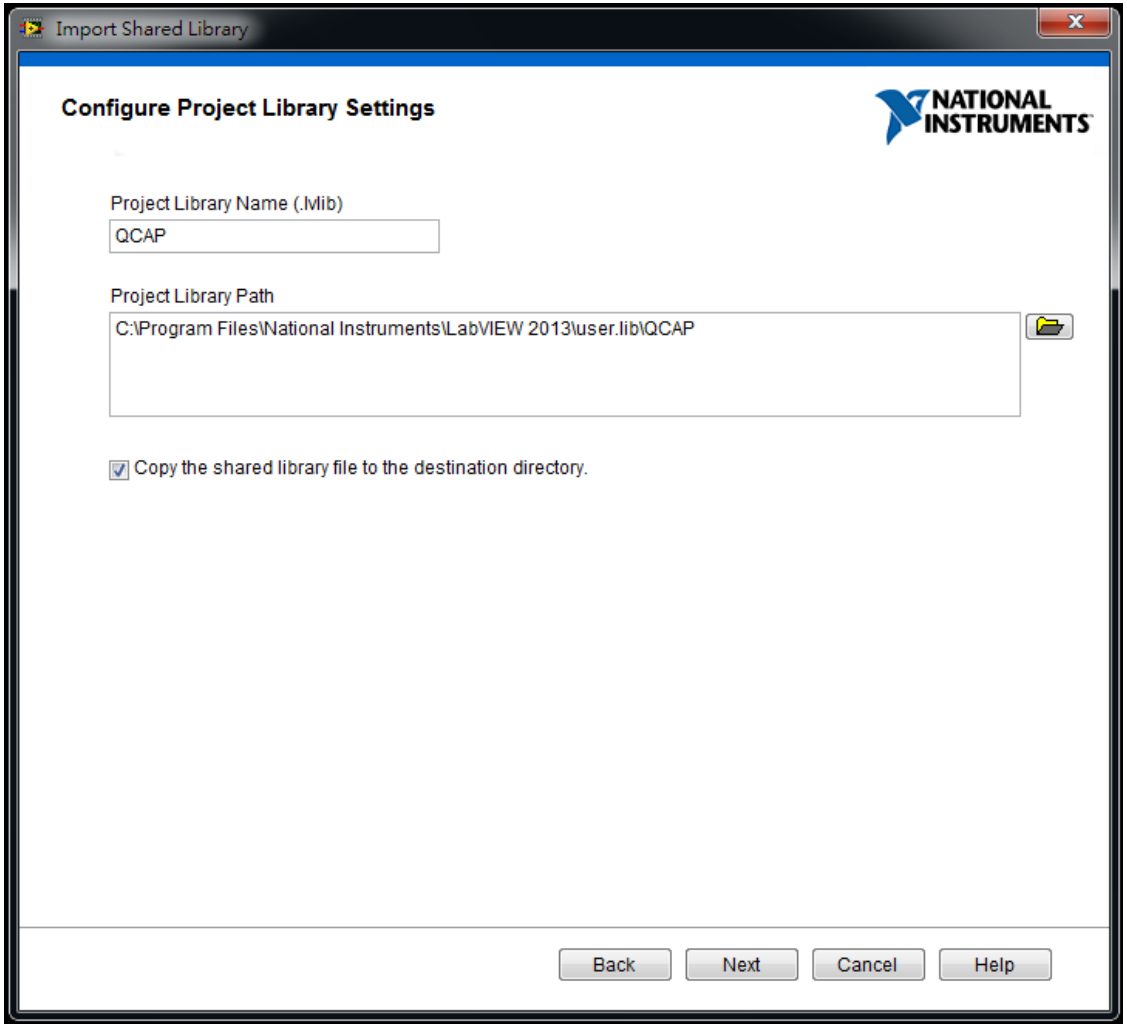
Import QCAP SDK into LabView

6. Select all QCAP functions, and then click [Next] to go to next step.



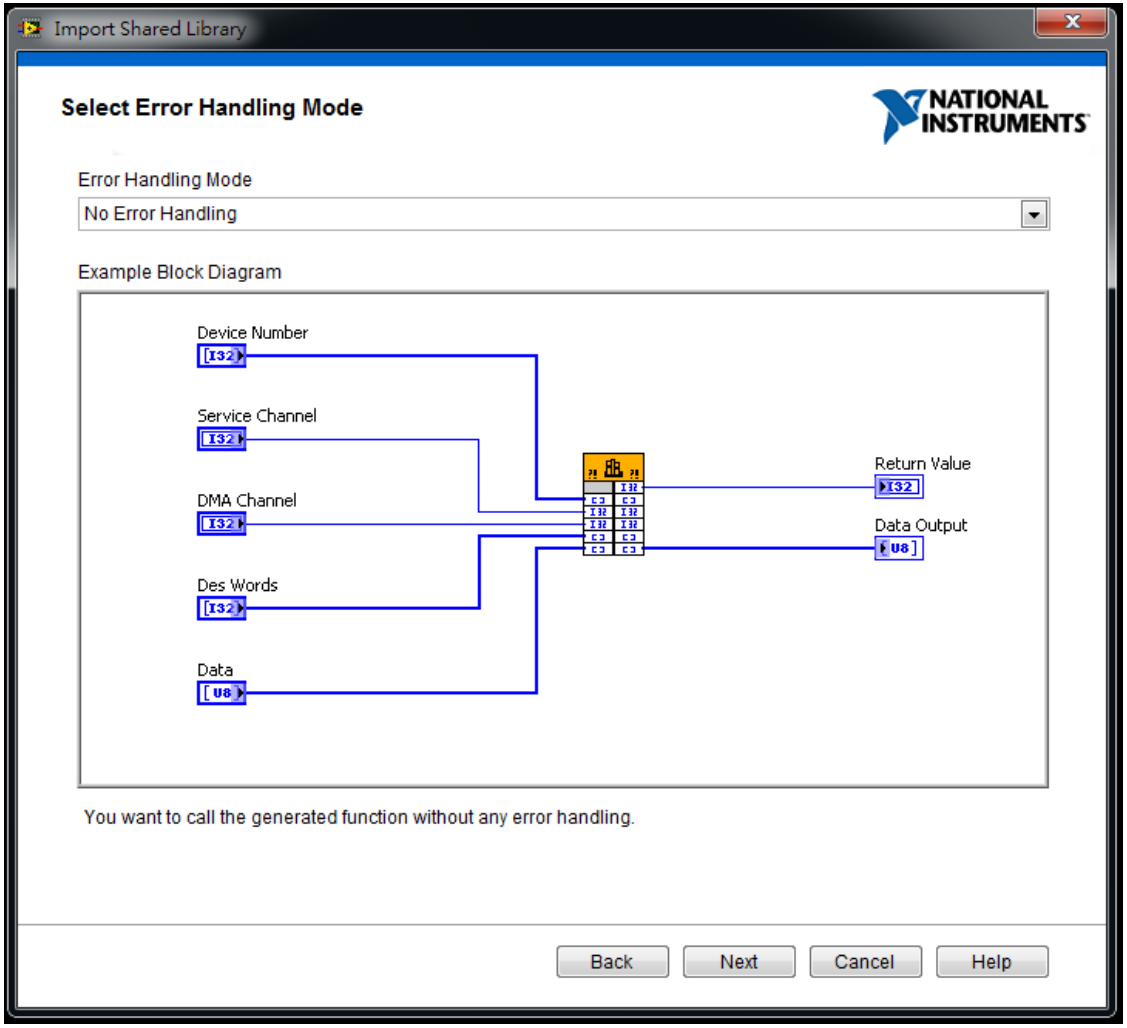
Import QCAP SDK into LabView

7. Choose library setting location, and then click [Next] to go to next step.



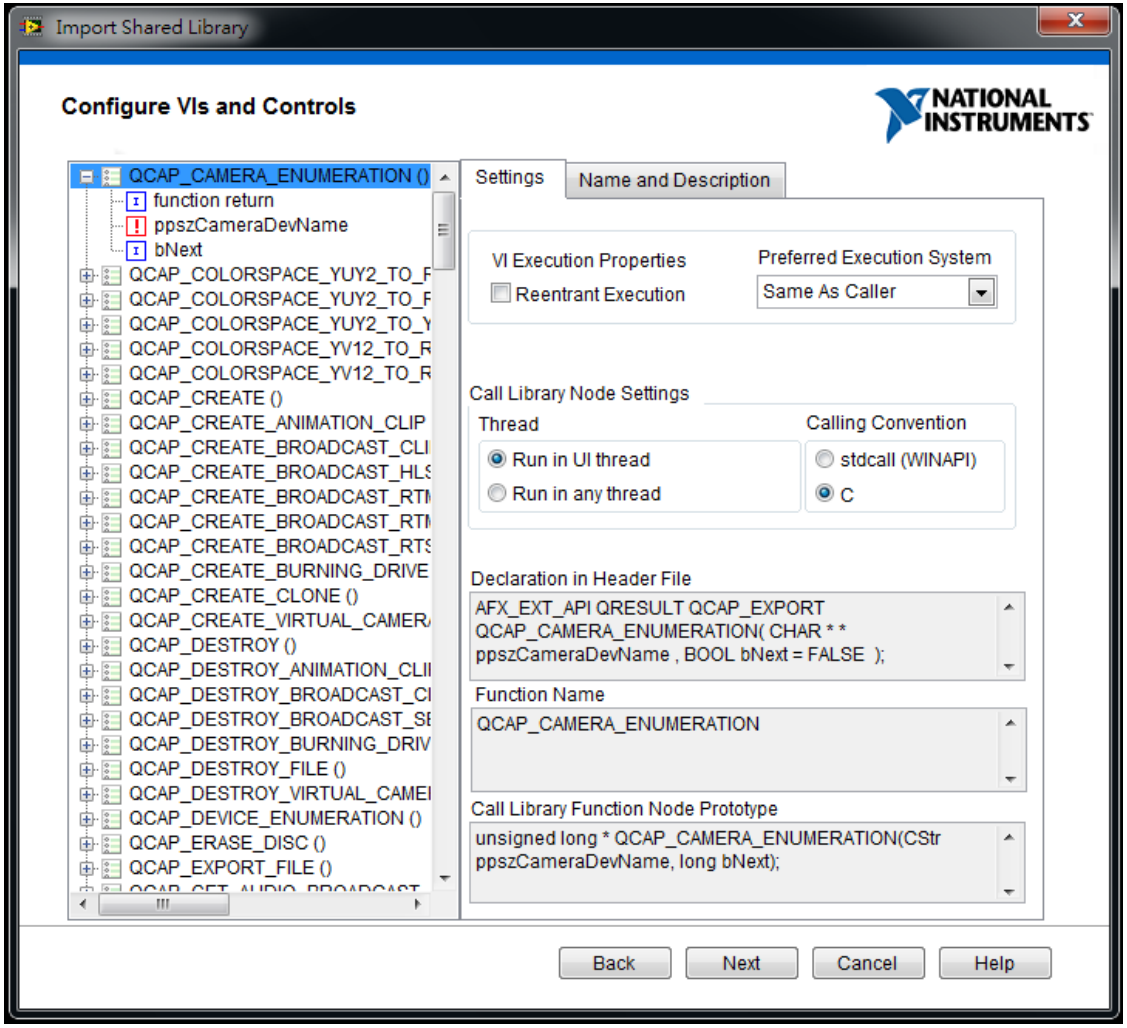
Import QCAP SDK into LabView

8. Check error handing mode, and then [Next] to go to next step.



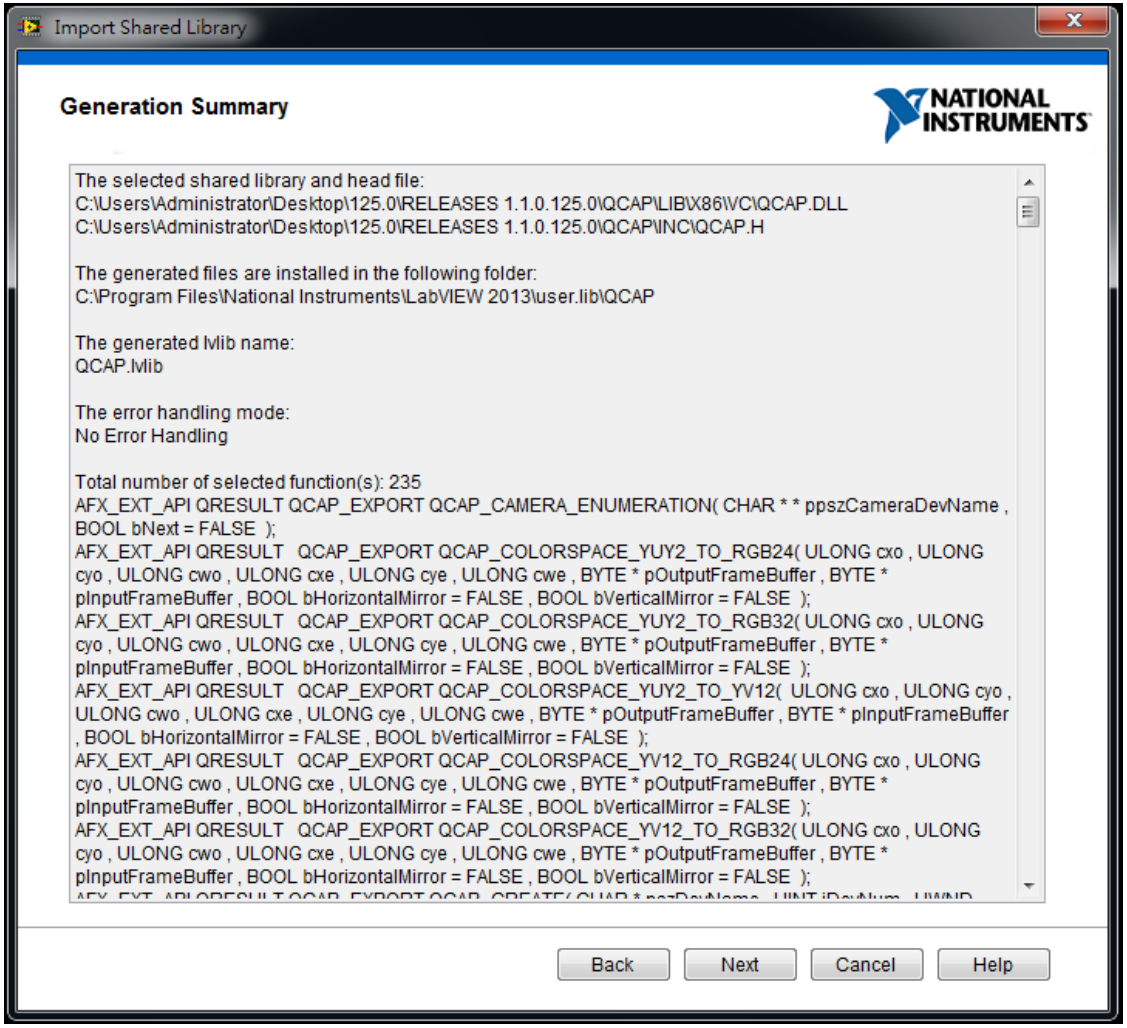
Import QCAP SDK into LabView

9. Check all function, and then click [Next] to go to next step.



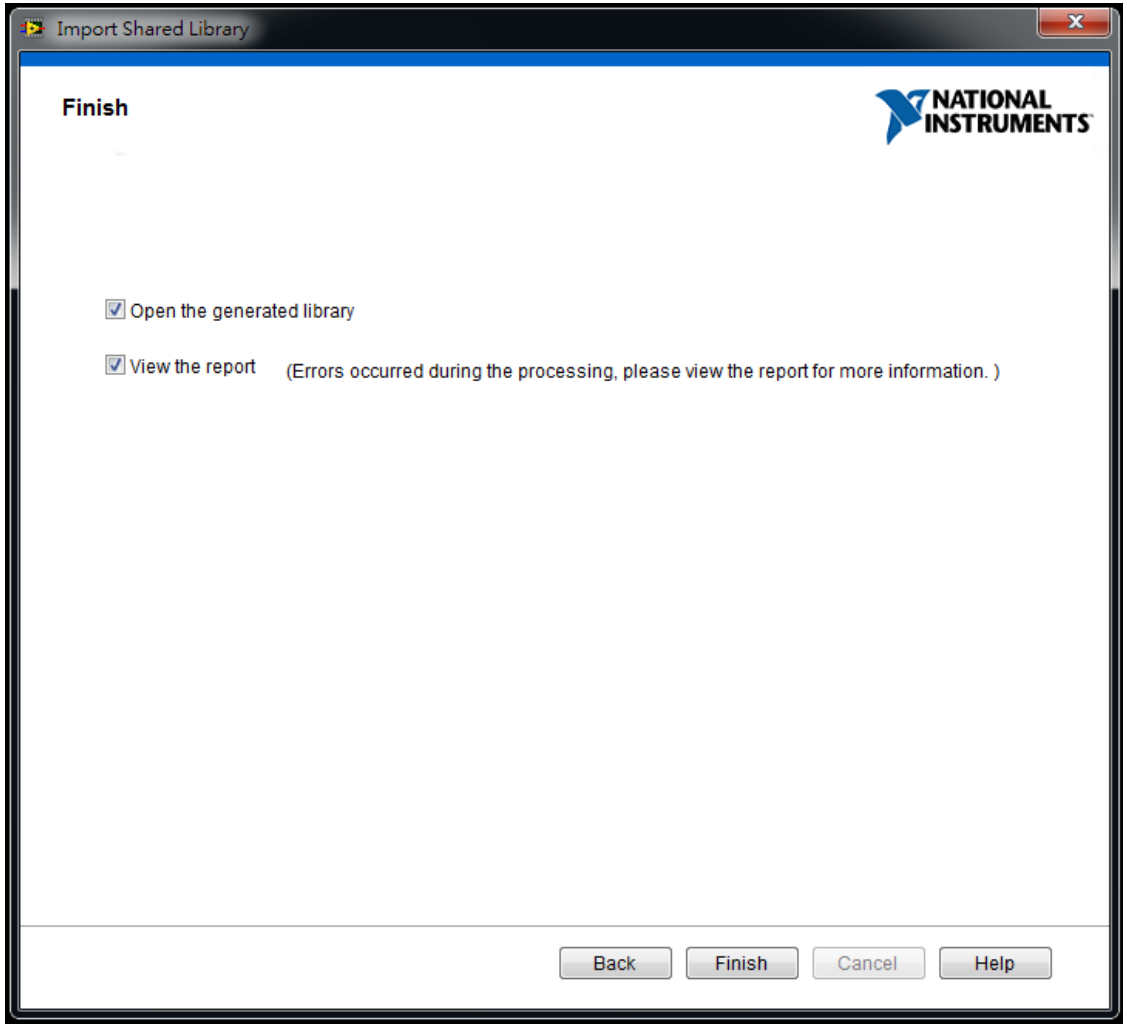
Import QCAP SDK into LabView

10. Check functions generation summary, and then click [Next] to go to next step.



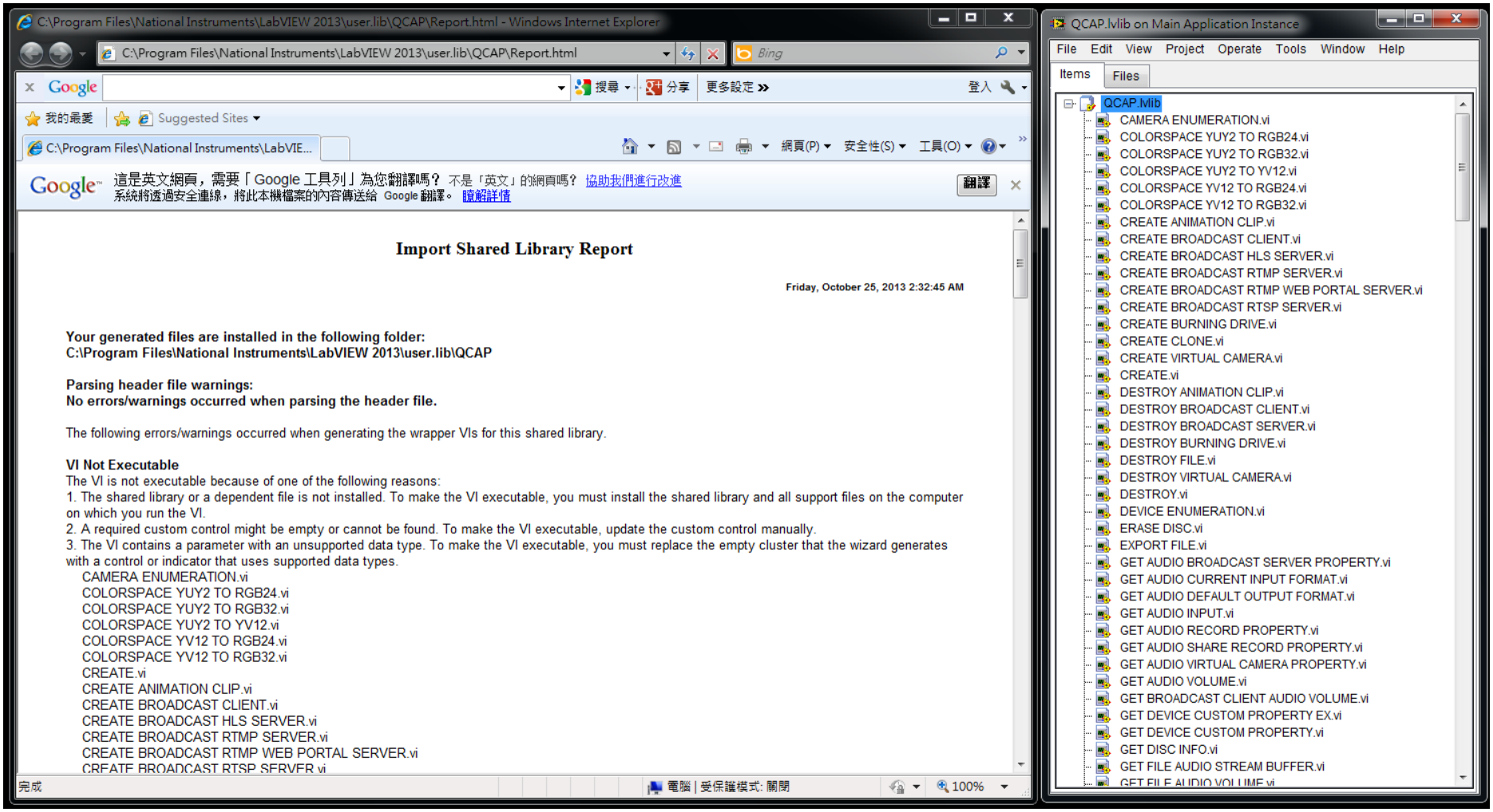
Import QCAP SDK into LabView

11. Complete import SDK step, and then click [Finish] to end this import.



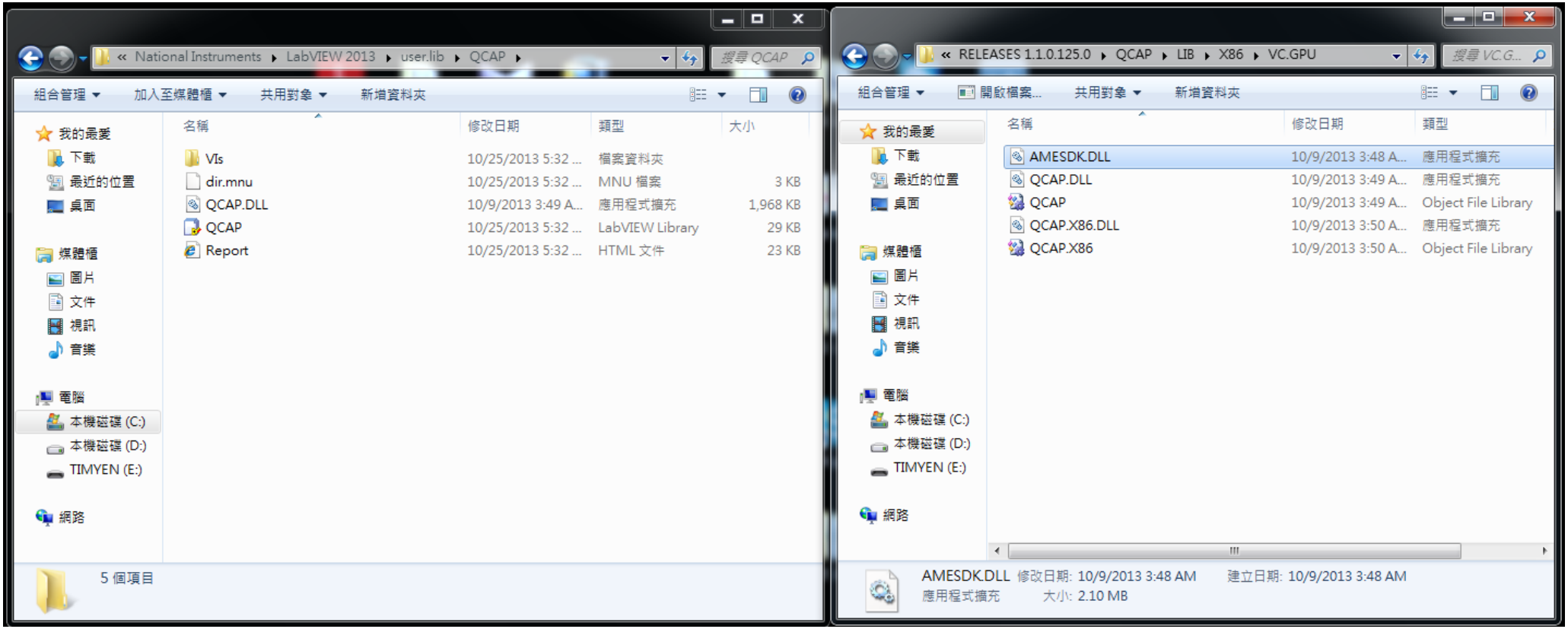
Import QCAP SDK into LabView

12. Check the import shared library report.



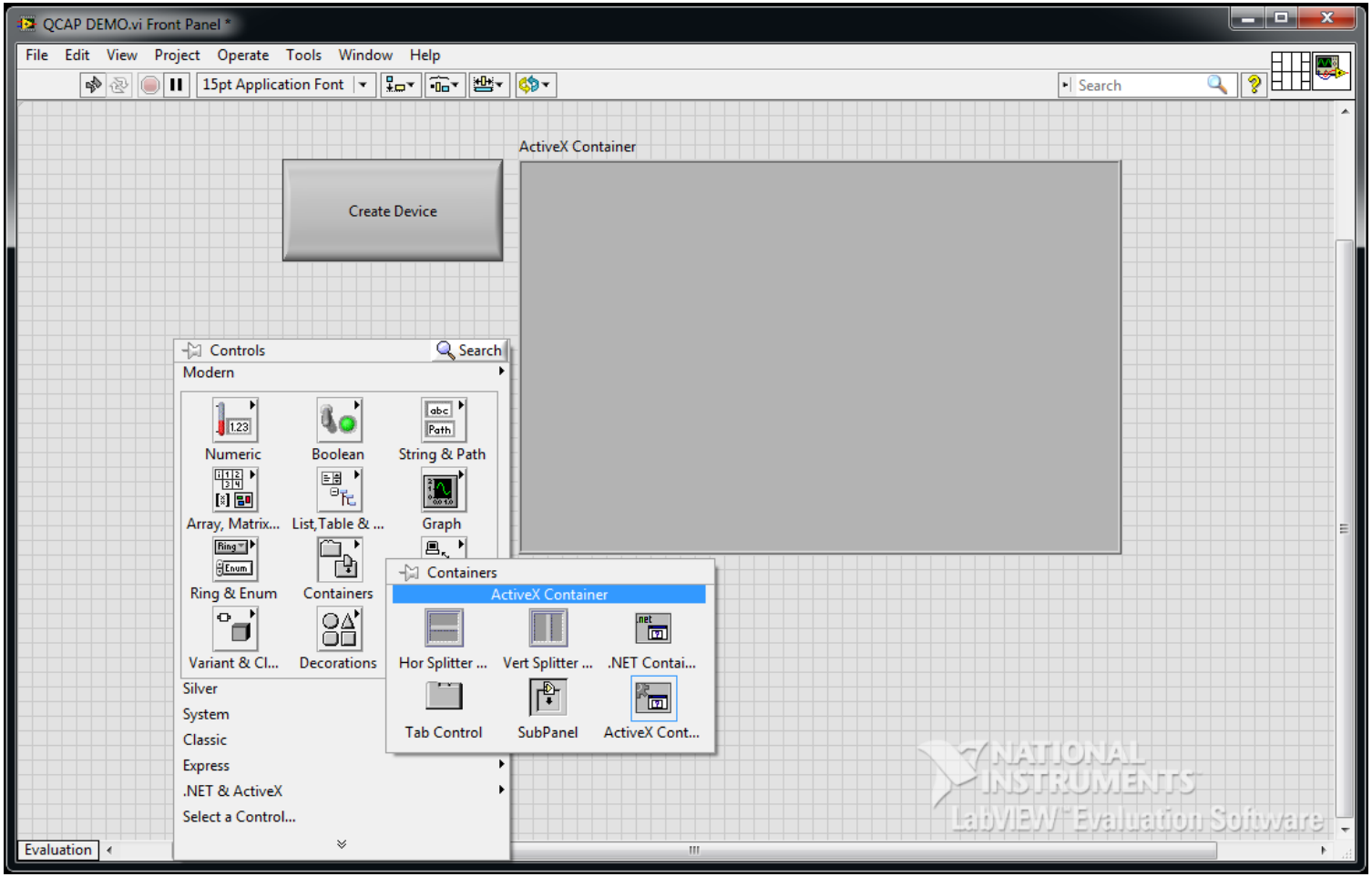
Import QCAP SDK into LabView

13. Add AMESDK.dll into QCAP of user.lib folder and then, user can use QCAP SDK functions at LabView now.
    Note !! AMESDK.DLL and QCAP.DLL verison must same with your Yuan's codecs verison.



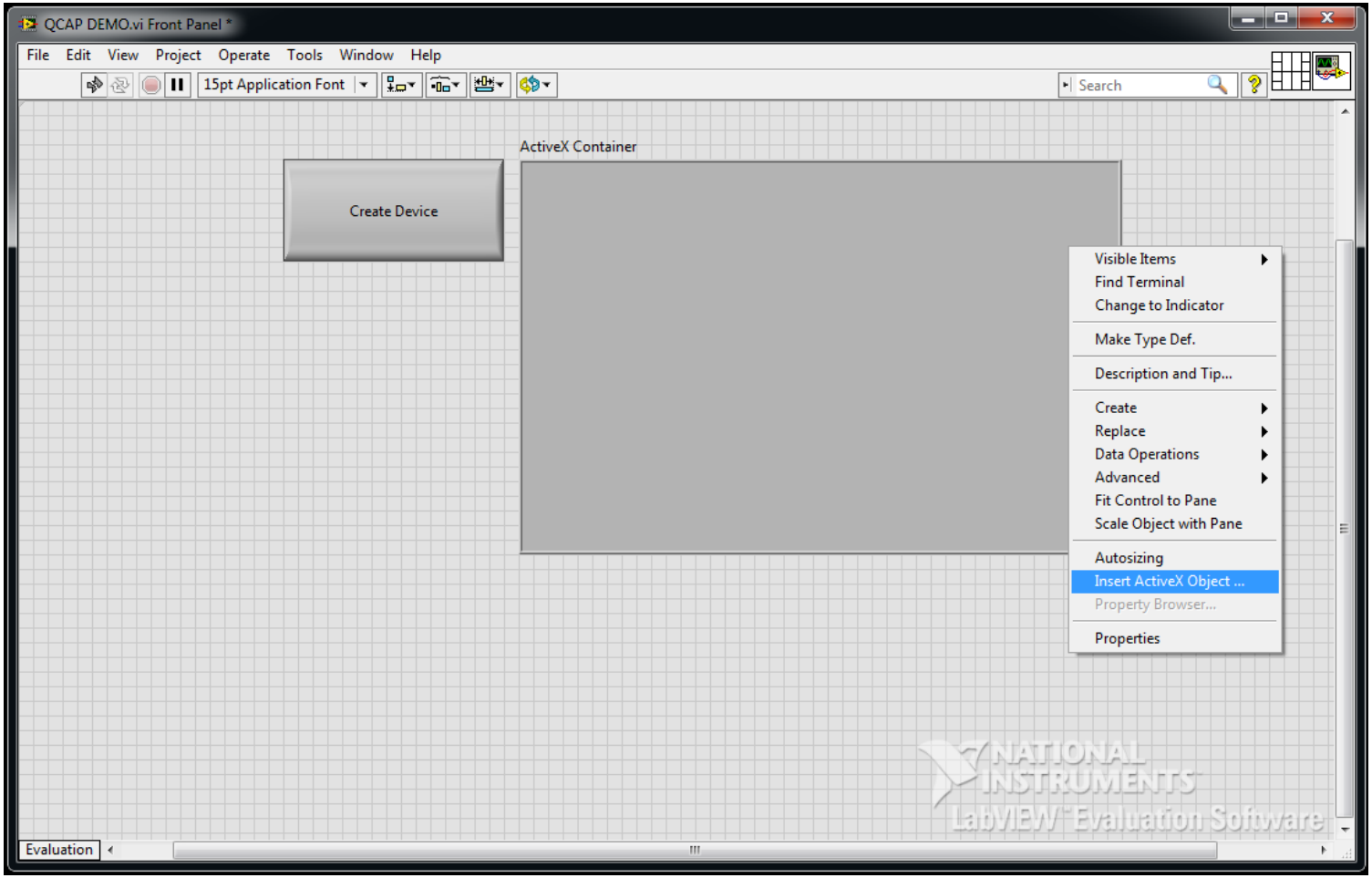
Create Live Display Window

14.1 User can follow legend to create a live display window.



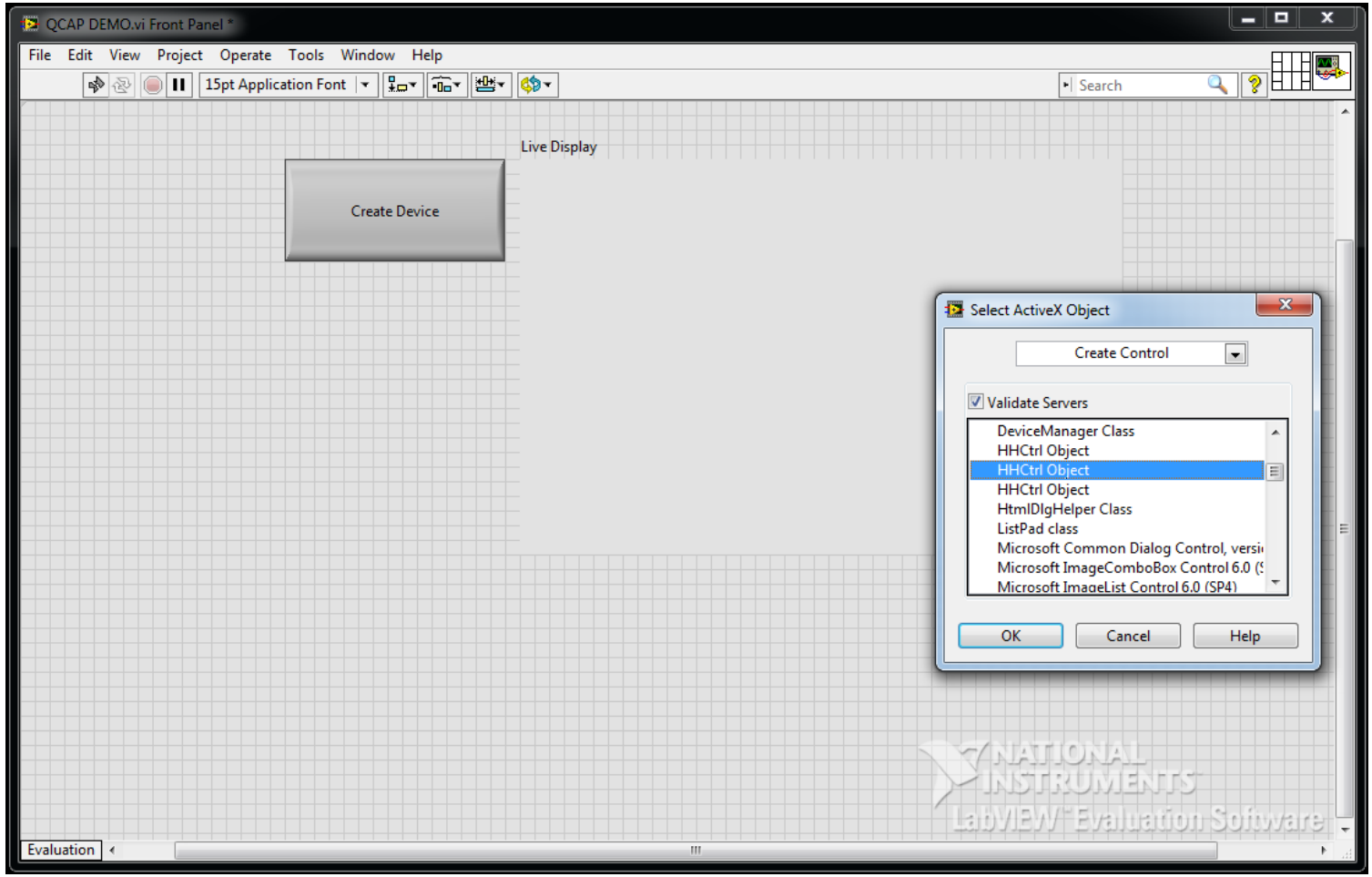
Create Live Display Window

14.2 Insert ActiveX Object.



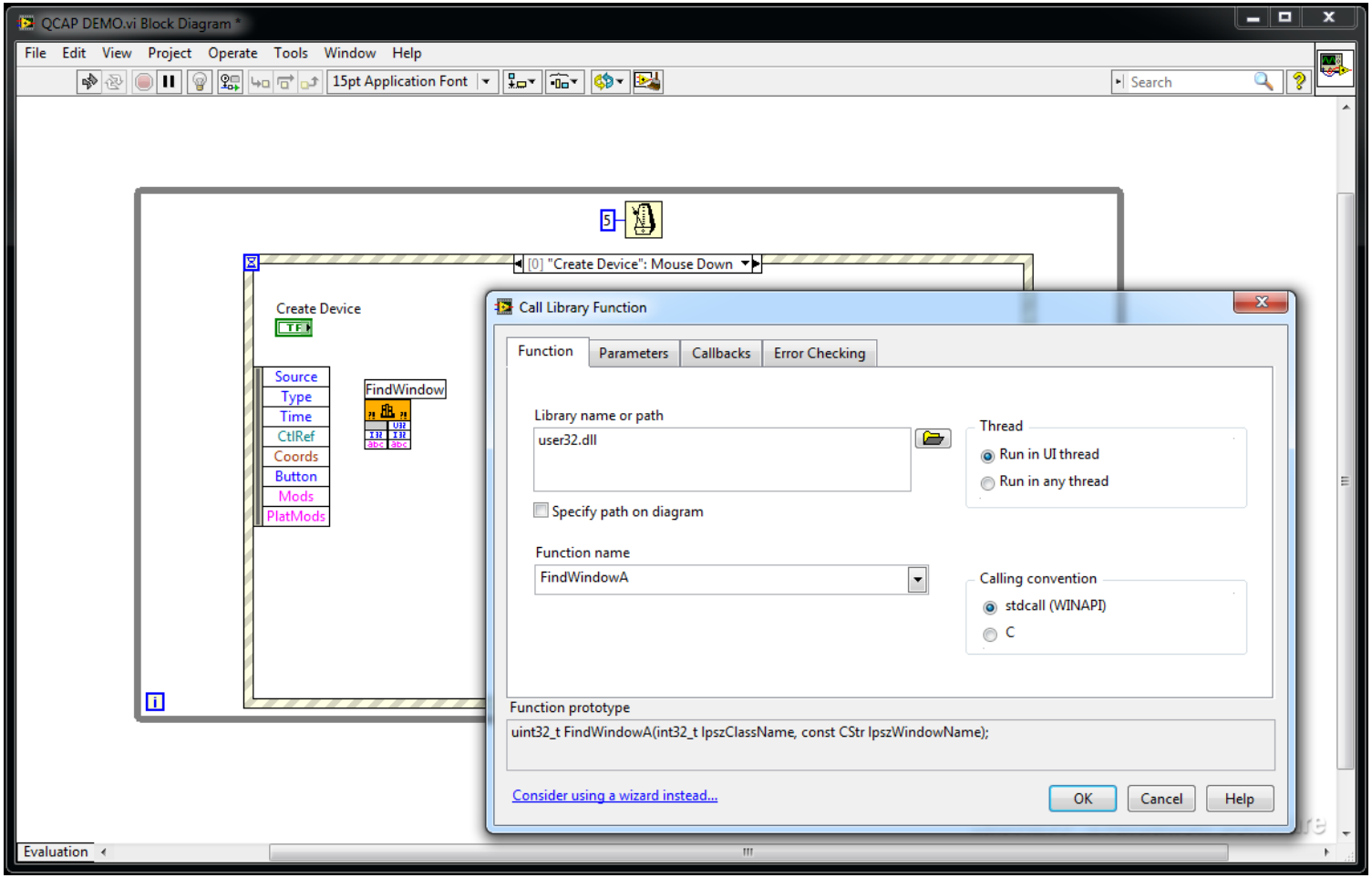
Create Live Display Window

14.3 Selcet HHCtrl Object for create live preview window.



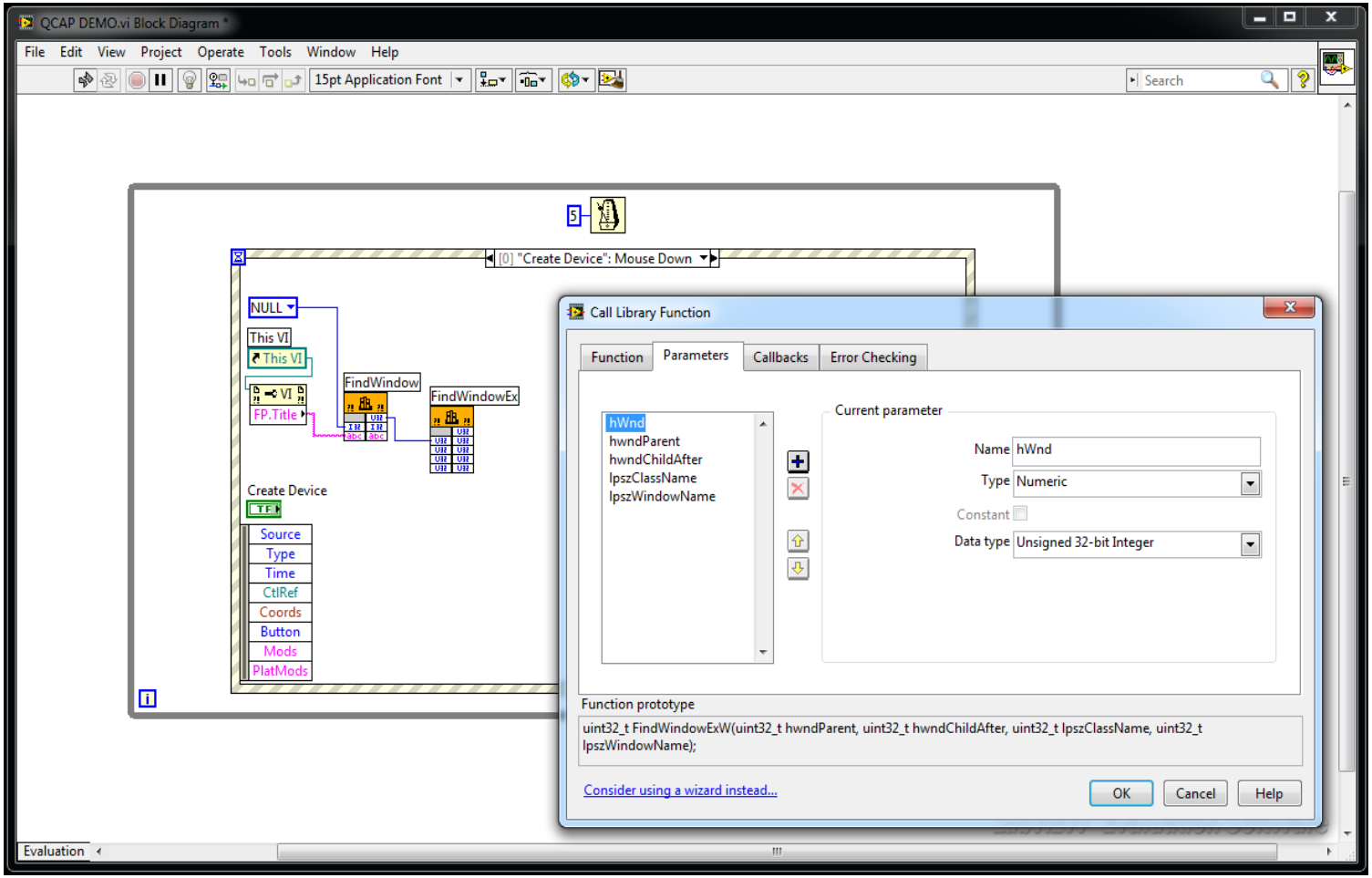
Create Live Display Window

14.4 Call FindWindow of Win32 on Block Diagram, user can use this API to get handle of Front Panel.



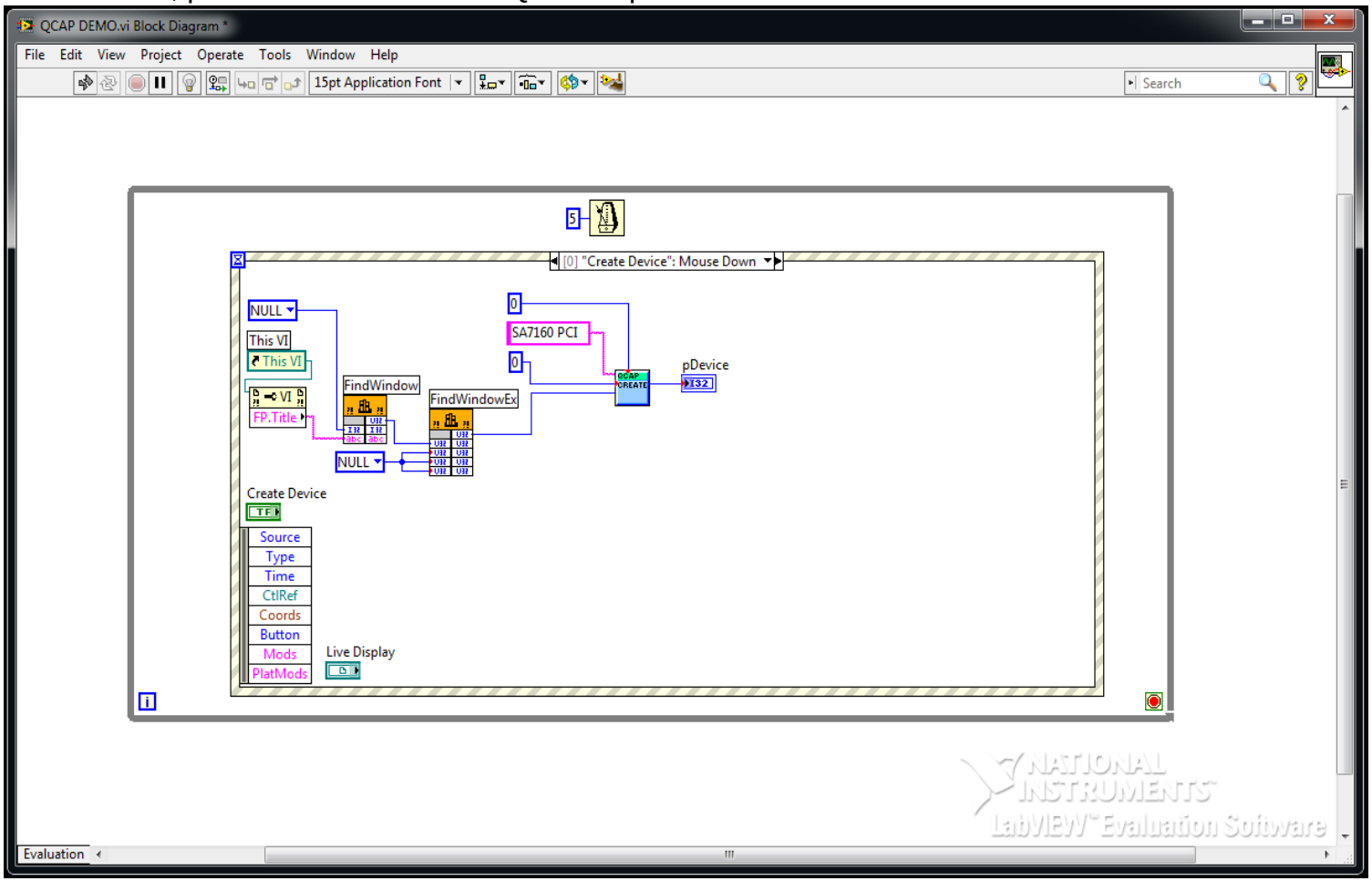
Create Live Display Window

14.5 Call FindWindowEx of Win32 on Block Diagram, user can use this API to get handle of HHCtrl Object.



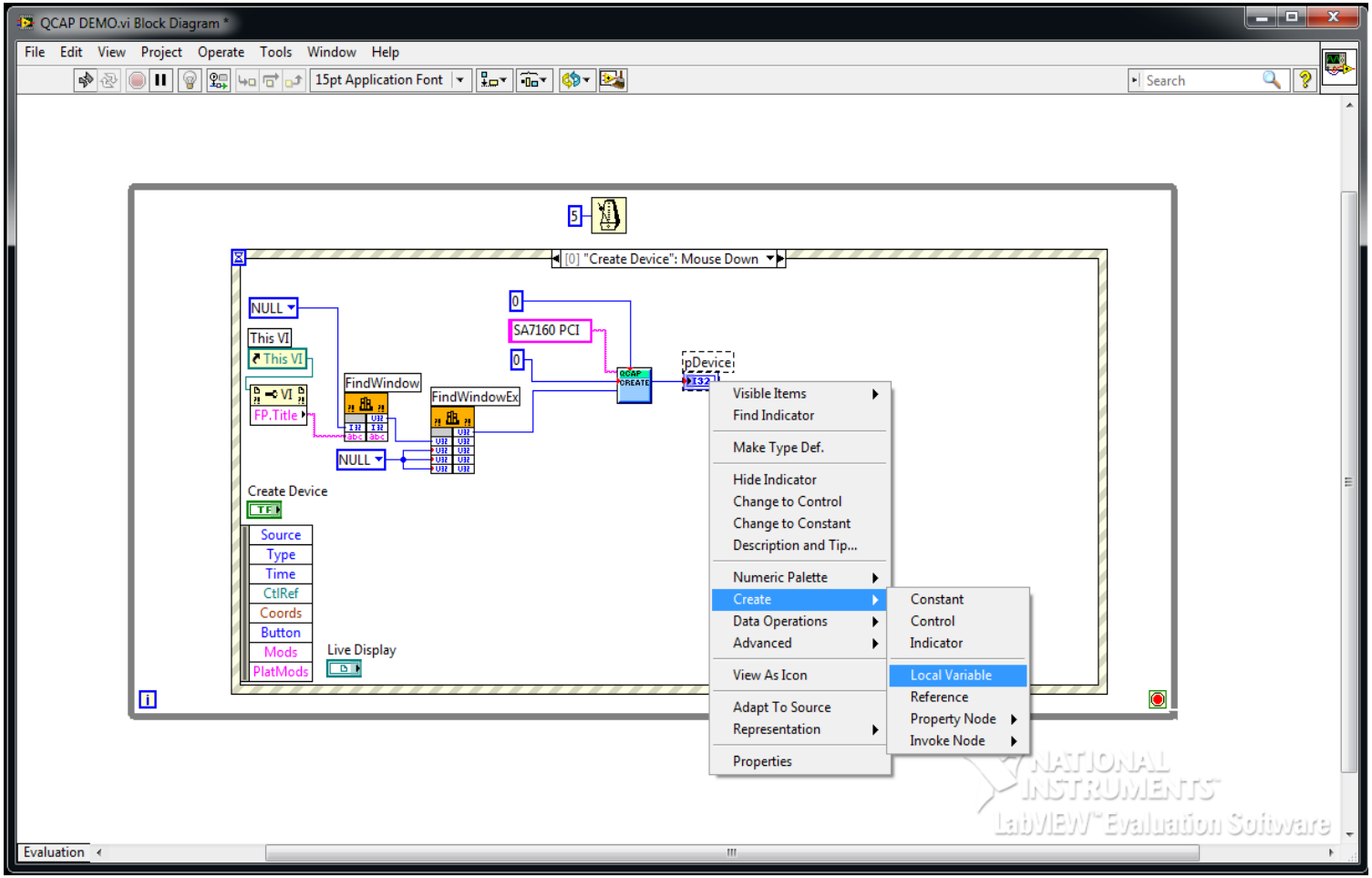
Set Create Device

14.6 User can use this CREATE.vi to create a device which represents each card.
For more device name, please reference Yuan's Quick Capture SDK.



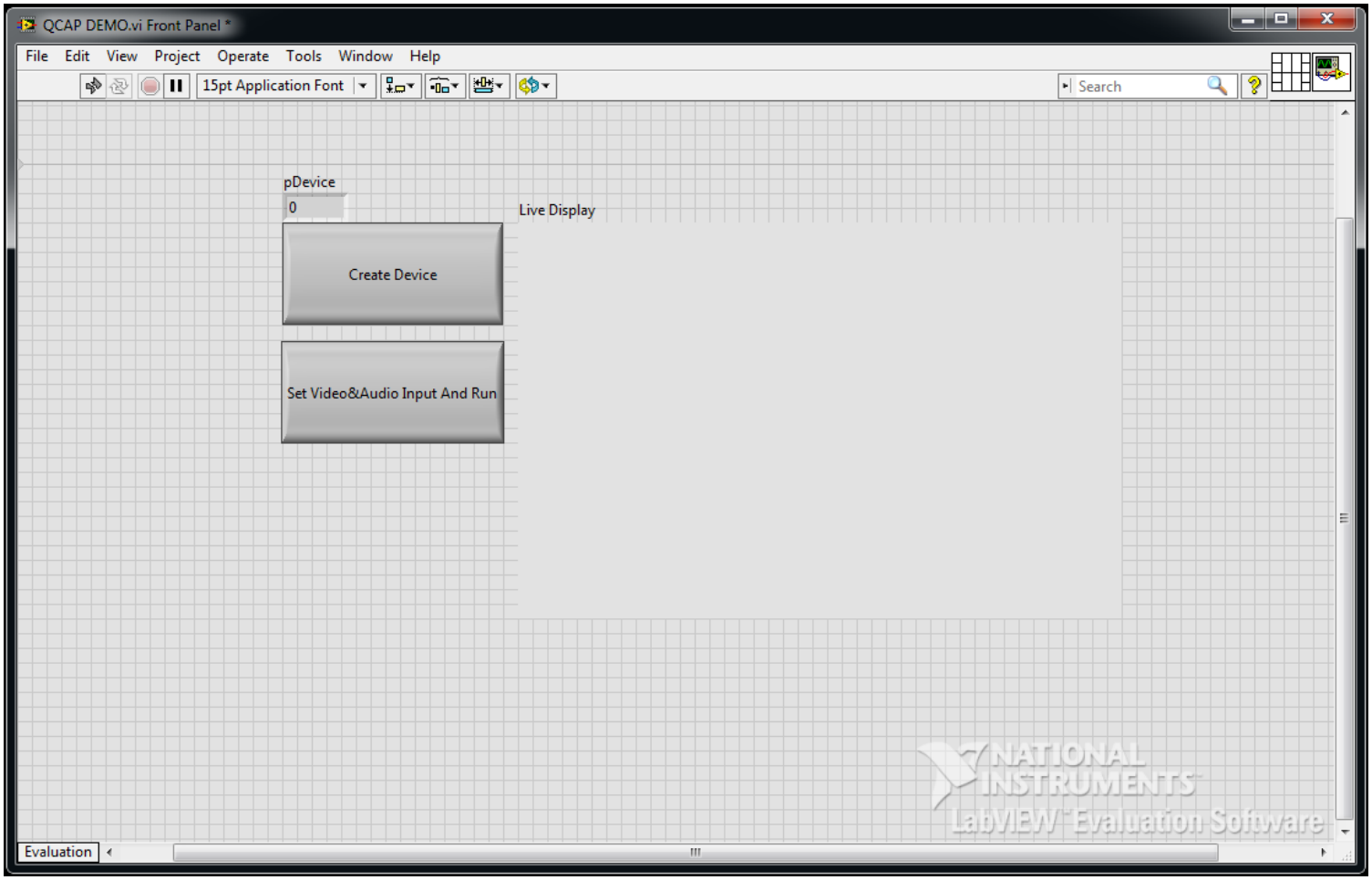
Set Create Device

14.7 User can use ouput of pDevice to create a local variable.



Set Input and Run Device

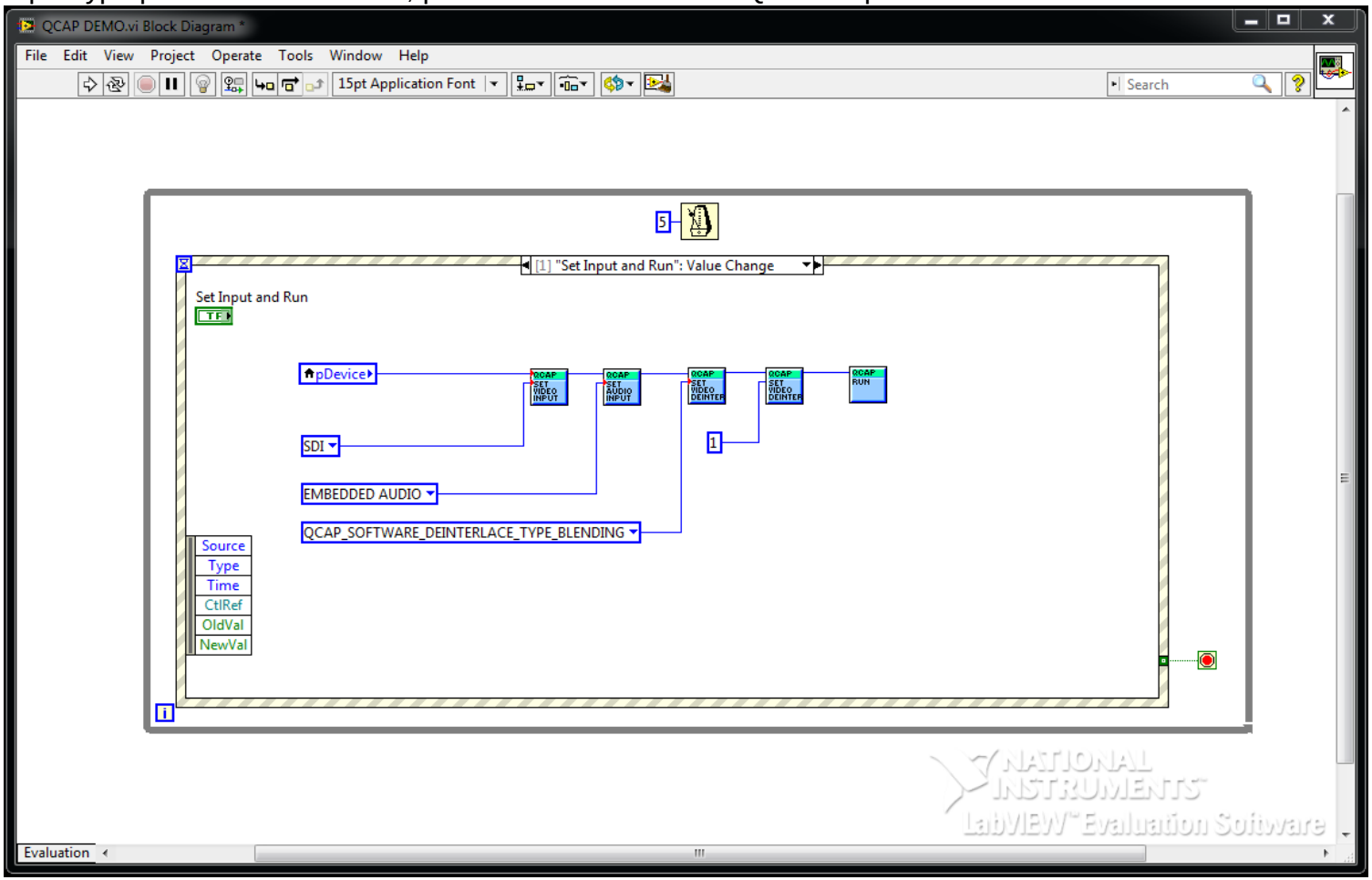
15.1 User can follow legend to set video and audio input type then run the device.



Set Input and Run Device

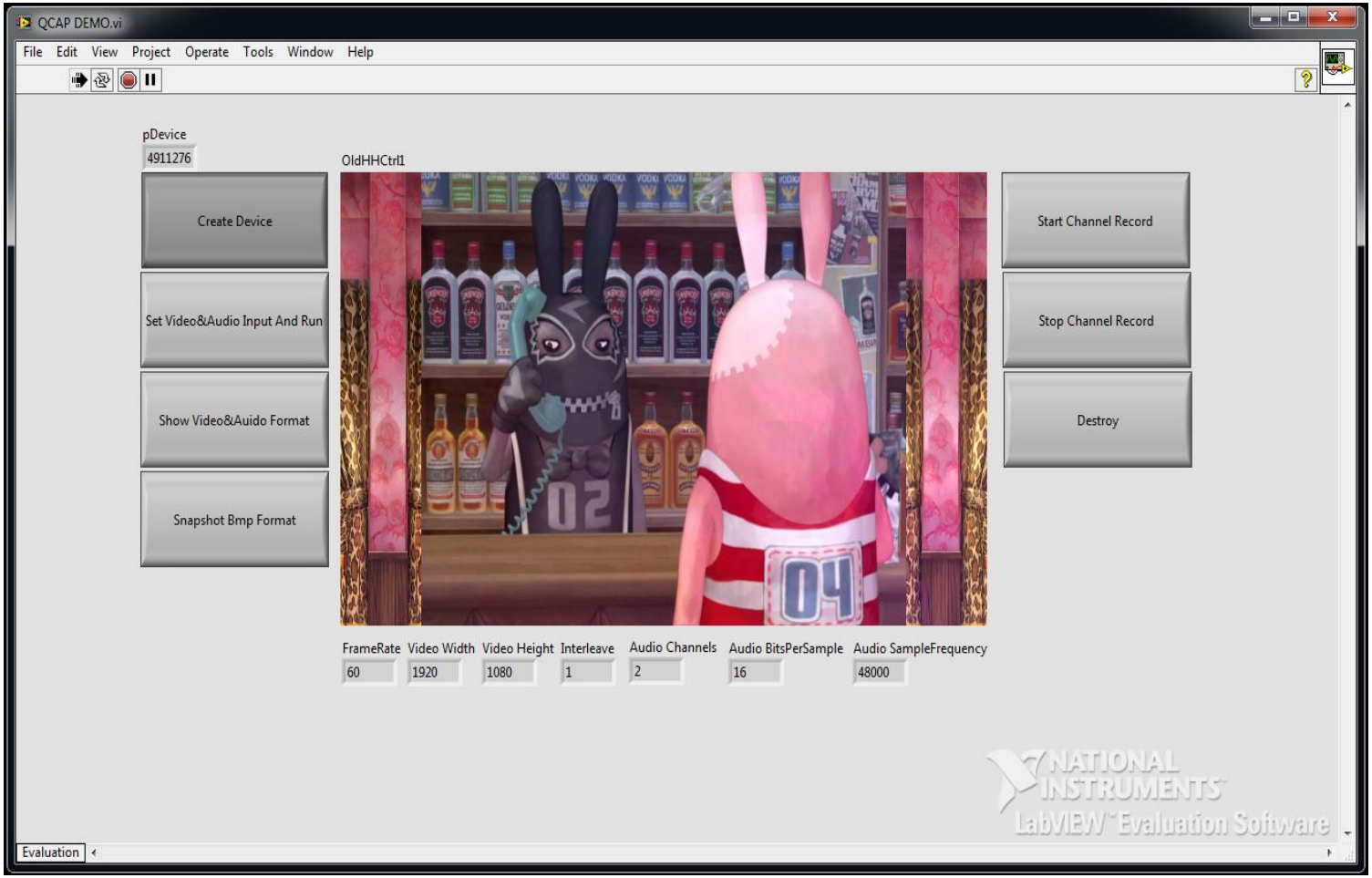
15.2 User can use this RUN.vi to run video and audio capturing.

For more input type parameter directions, please reference Yuan's Quick Capture SDK.



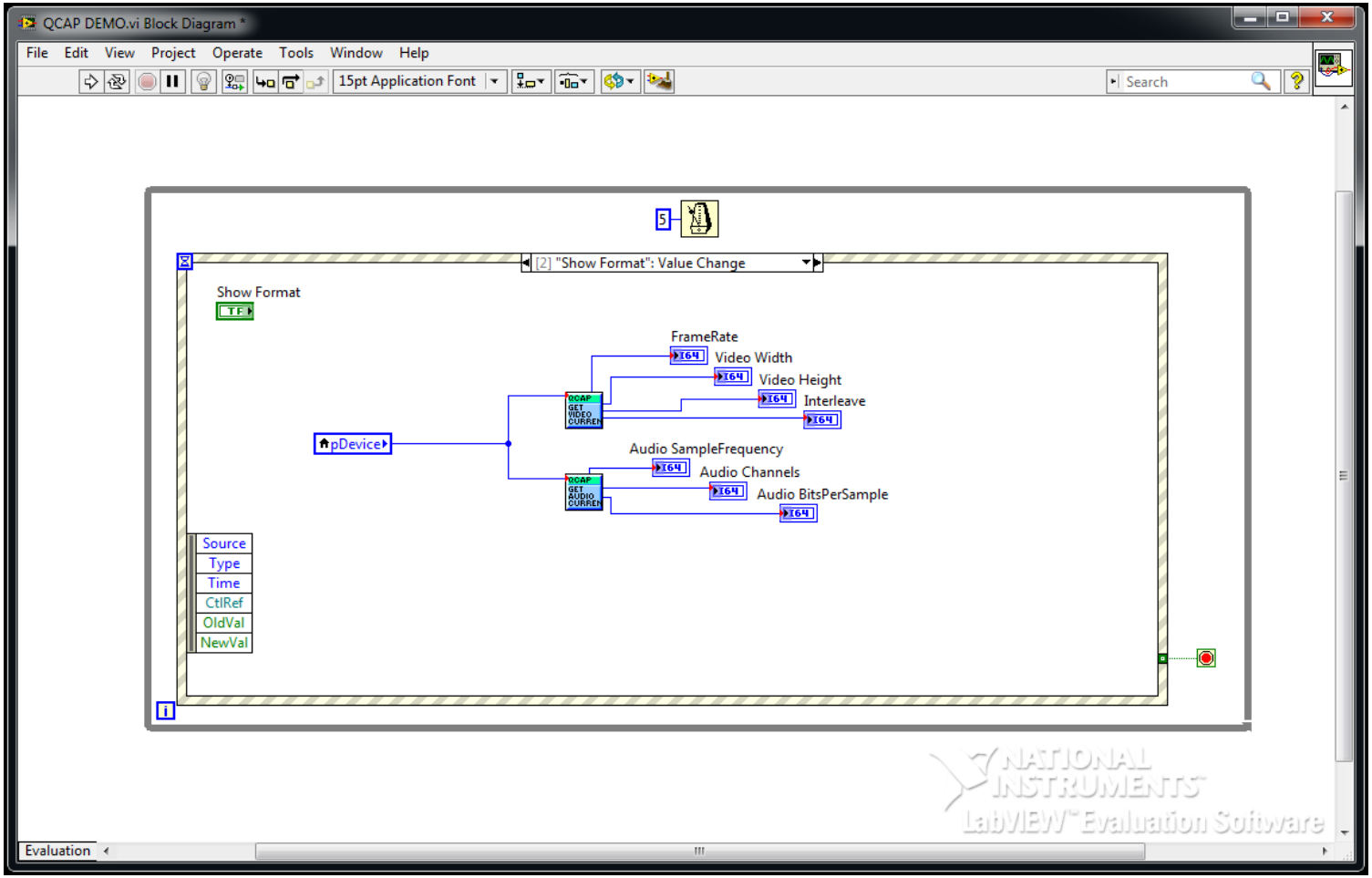
Set Input and Run Device

15.3 User can see live video display on Front Panel.



Show Video and Audio Currnet Format

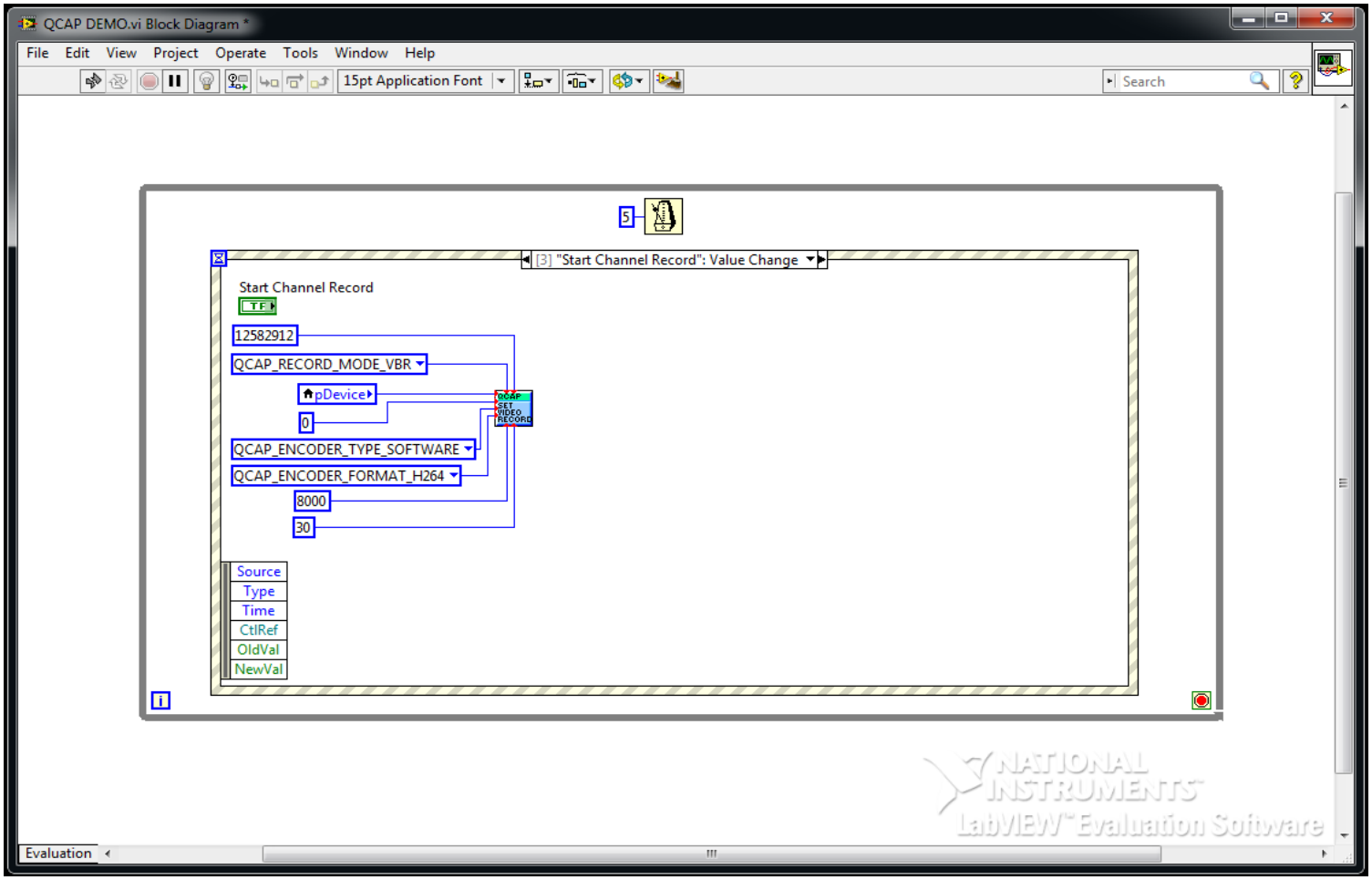
16. User can use GET VIDEO&AUDIO CURRENT INPUT FORMAT.vi to get current input format.



Set Channel Record Property

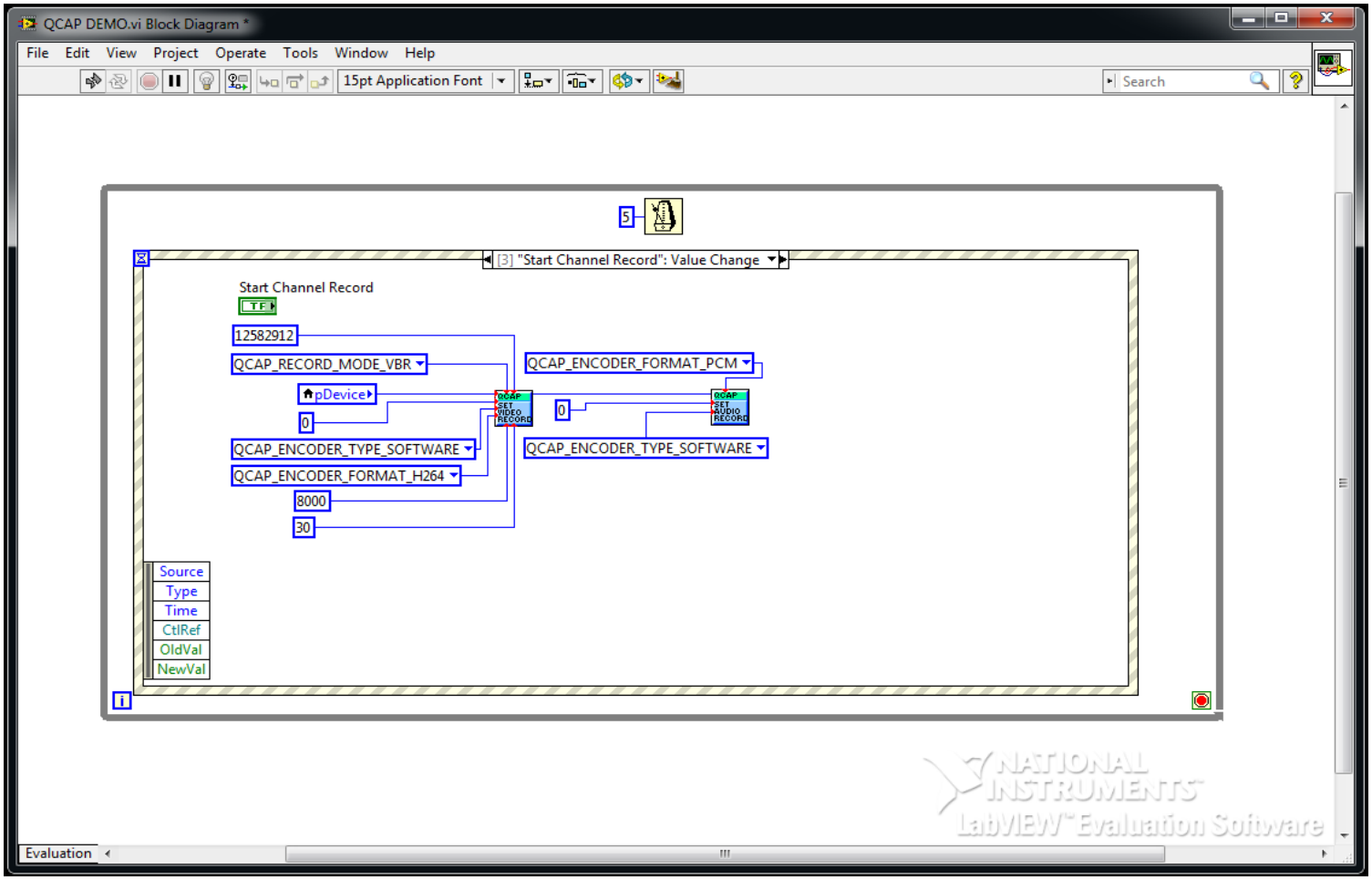
16.1 User can follow legend to set video and audio channel record property.

For more video record property parameter directions, please reference Yuan's Quick Capture SDK.



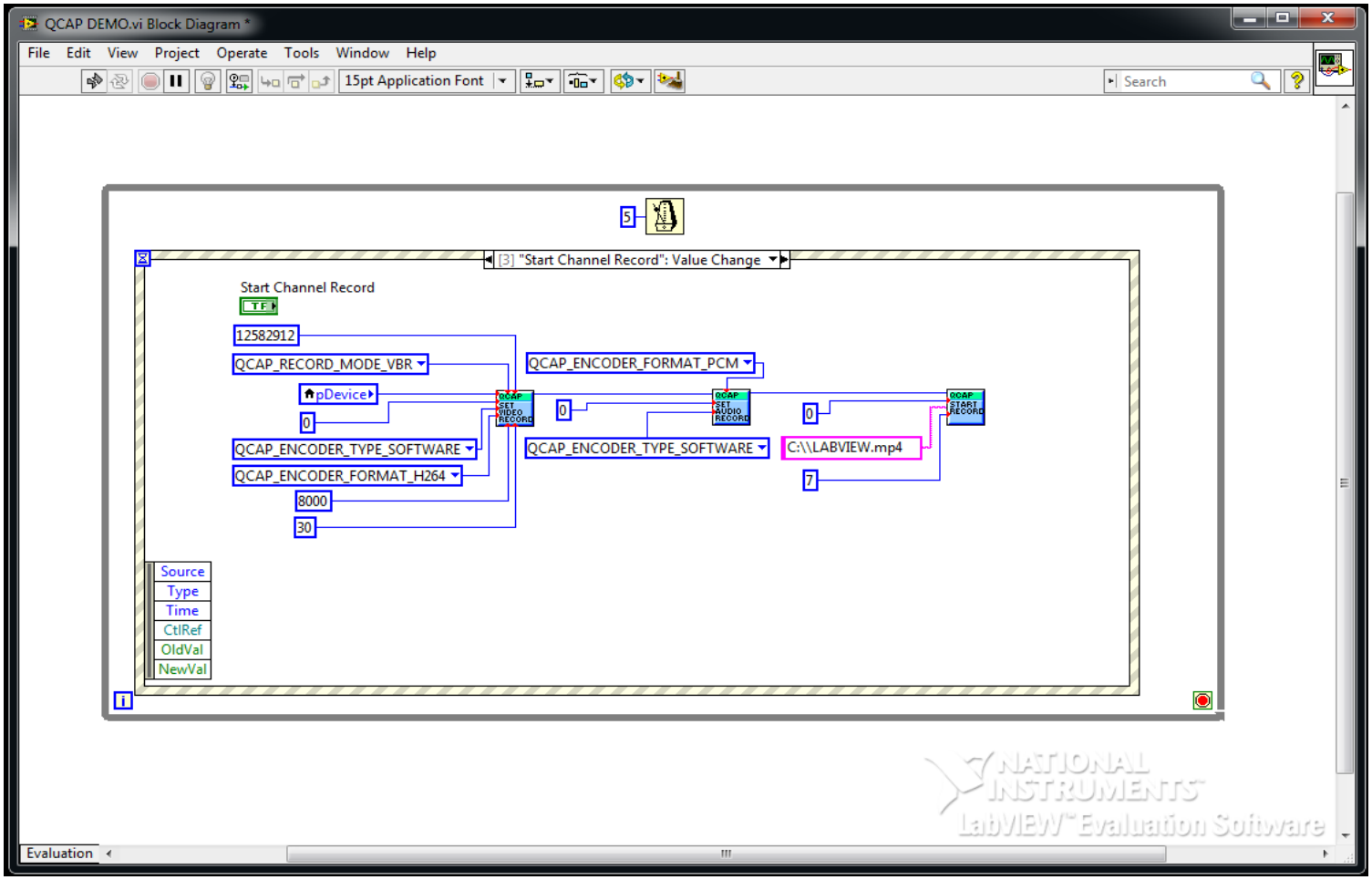
Set Channel Record Property

16.2 For more audio record property parameter directions, please reference Yuan's Quick Capture SDK.



Set Channel Record Property

16.3 User can use this START RECORD.vi to start channel record.



Stop and Destroy Devcie

17. User can use STOP.vi and DESTROY.vi to stop and destroy capture card object and realease its resource.

