

Video/audio capture card with SDI input, 1920x1080@ 60p, and Hardware H.264 codec

# **HDC-502E**

## **Quick Installation Guide**

### **Version 2.0**

26 September, 2012

#### **1. Package List**

HDC-502E package includes the following items:

- 1 x HDC-502E video capture card
- 1 x Utility CD (within manual)
- 1 x QIG (Quick Installation Guide)



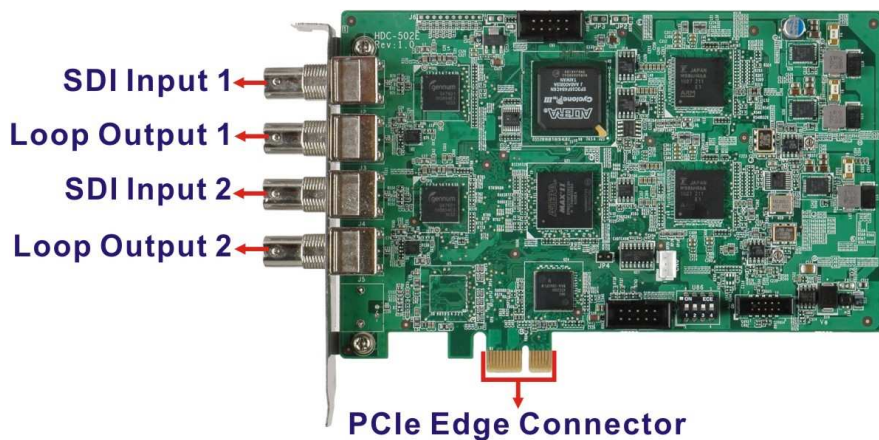
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## 2. Specifications

Video Input Channels	Two (SDI)
Audio Input Channels	Two (SDI)
Loop Through Channels	Two (SDI)
Interface	PCIe x1
<b>VIDEO PROCESSING</b>	
Resolution	1920 x 1080 60p/50p/30p/25p/24p 1920 x 1080 60i/50i 1280 x 720 60p/50p/30p/25p 720 x 480 60i 720 x 576 50i
Video Engine	H.264/AVC High Profile Level 4.2
<b>AUDIO PROCESSING</b>	
Audio Format	MPEG-1 Audio Layer 2
Bit Rate	256 kbps
<b>SYSTEM REQUIREMENTS</b>	
System	<b>Windows:</b> Microsoft Windows 7/XP Service Pack2 (SP2) (32-bit version) Microsoft Windows 7 32-bit Microsoft Windows 7 64-bit Microsoft DirectX 9.0c Microsoft .NET Framework 3.0/3.5/4.0 Win7DSFilterTweaker tool (for Windows 7 OS only) Visual C++ 2005 & 2008 Redistributable <b>Linux:</b> Fedora 16 (Kernel 3.1.0)
<b>SOFTWARE SUPPORT</b>	
Device Driver	Driver for Windows XP, Windows 7 (32bit) and Linux Fedora 16
SDK	SDK provided with demo program and sample source code Windows: Provide SDK and demo program with sample source code in C# Linux: Provide SDK and driver/demo program with sample source code in C

### 3. Hardware Installation

#### 3.1 Hardware Overview



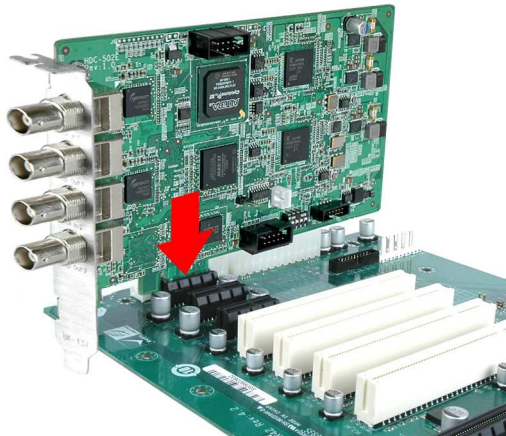
#### 3.2 Video Capture Card Installation

The HDC-502E video capture card has a PCIe x1 interface. To install the HDC-502E, please follow the steps below:

**Step1.** Align the PCIe edge connector on the bottom of the video capture card with the PCIe slot on the system motherboard.

**Step2.** Gently insert the video capture card into the PCIe slot.

**Step3.** Push down gently on the video card to make sure it is firmly inserted into the PCIe slot.



**Step4.** Insert a retention screw through the top of the video capture card external bracket into the chassis to secure the card to the chassis.

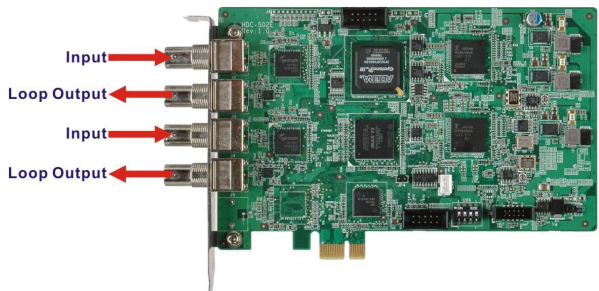
### 3.3 SDI Devices Installation

Various devices can be connected to the HDC-502E. Video input and video output are all supported. Follow the steps below to connect devices to the HDC-502E.

**Step1.** Insert the SDI cable connector into the SDI port on the HDC-502E. Make sure the connection is secure.

**Step2.** Connect the other end of the SDI cable to the device. Make sure the connection is secure.

**Step3.** Repeat steps 1 and 2 until all devices are connected.



## 4. Driver and Application Installation (Windows)

### 4.1 Driver Installation

To install the HDC-502E driver, please follow the steps below: If the HDC-502E driver is already installed, please refer to **Section 4.2** to uninstall the driver first.

**Step1.** Make sure to log in the system as the administrator.

**Step2.** Insert the driver CD.

**Step3.** Locate the “Driverinstaller.bat” file in the driver CD. Double click it.

The console window appears and starts to install all drivers.

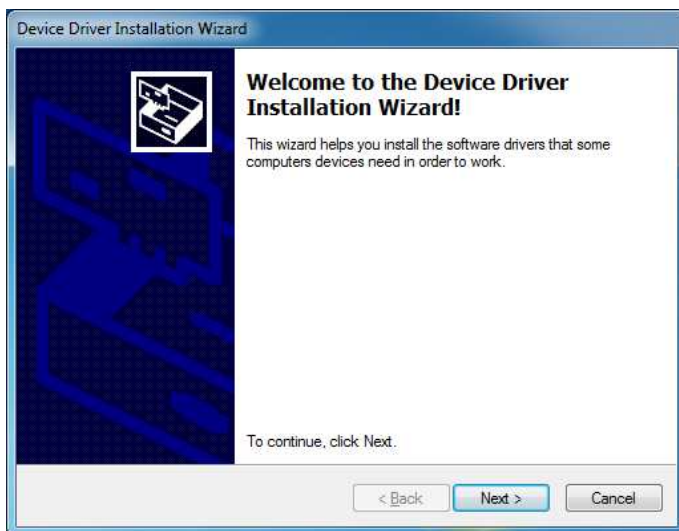
**Step4.** The following screen appears. Click **Install**.



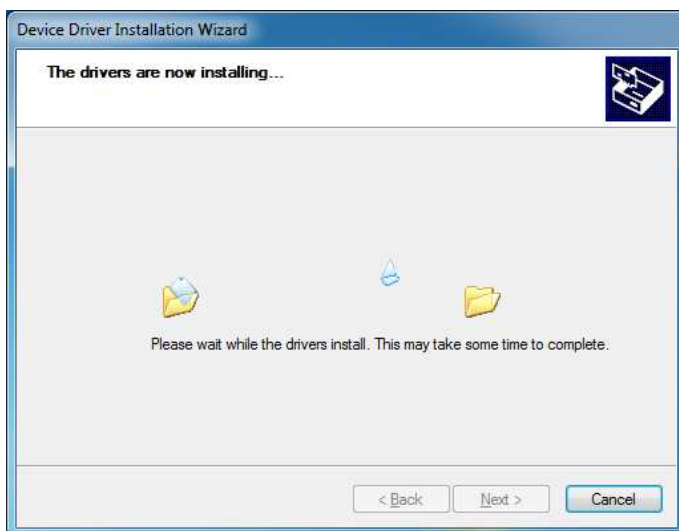
**Step5.** If the following screen appears, click **Install this driver software anyway**.



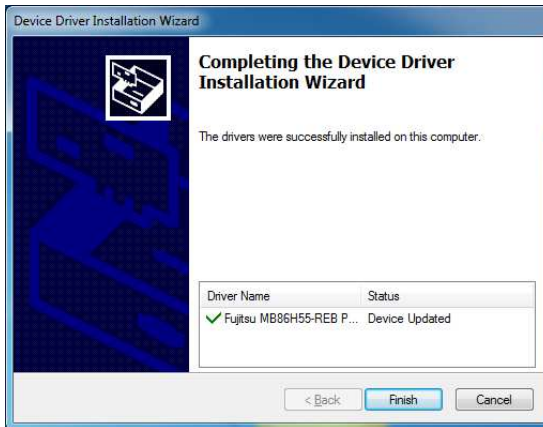
**Step6.** The Device Driver Installation Wizard appears. Click **Next** to start.



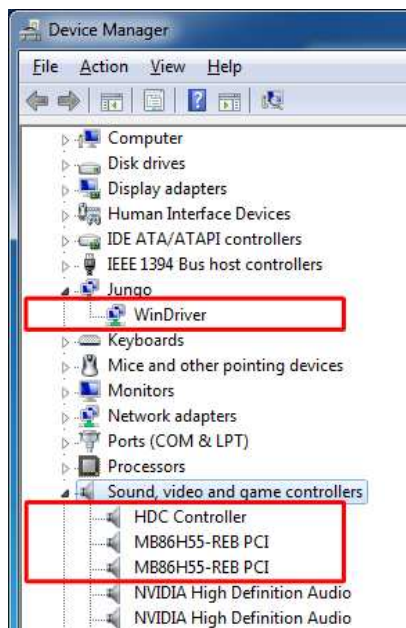
**Step7.** The video capture driver starts to install and the following screen appears.



**Step8.** When the driver installation is complete, the following screen appears. Click **Finish** to exit.



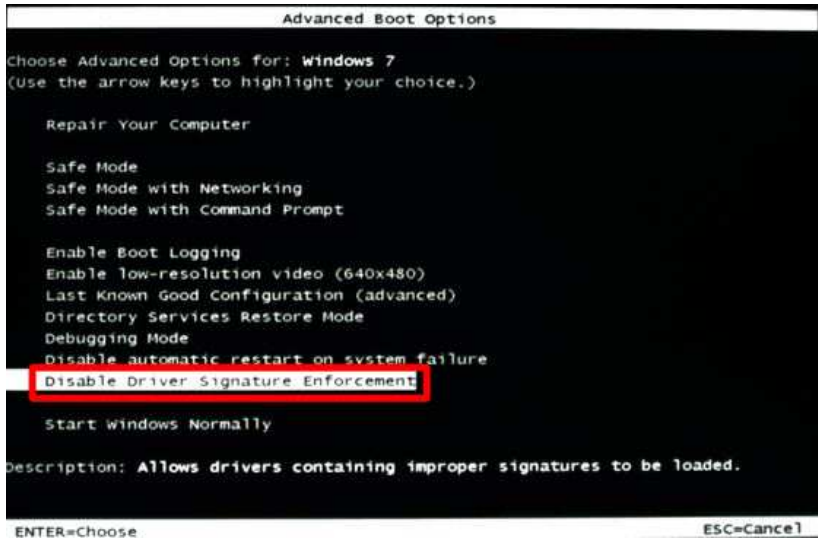
**Step9.** Check the device manager in the Windows control panel to ensure the driver (MB86H55-REB PCI, HDC controller and WinDriver) has been properly installed.



### 4.1.1 Driver Installation in 64-bit Windows 7 OS

To install the driver in a 64-bit Windows 7 operating system, please do the followings.

**Step1.** When the system is booting, press **F8** to enter the Advanced Boot Options menu. Choose “**Disable Driver Signature Enforcement**” and press **Enter**.

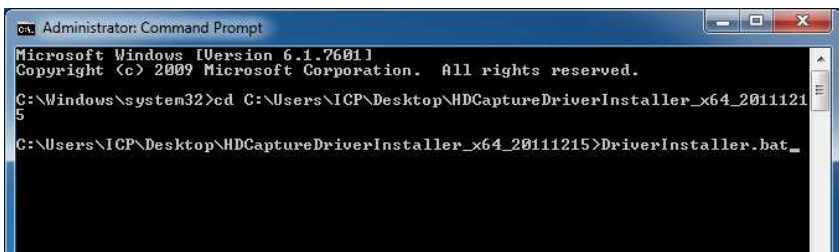


**Step2.** Make sure to log in the system as the administrator.

**Step3.** Insert the driver CD.

**Step4.** Run a **Command Prompt** as an administrator (right click the **Command Prompt** and select **Run as administrator**).

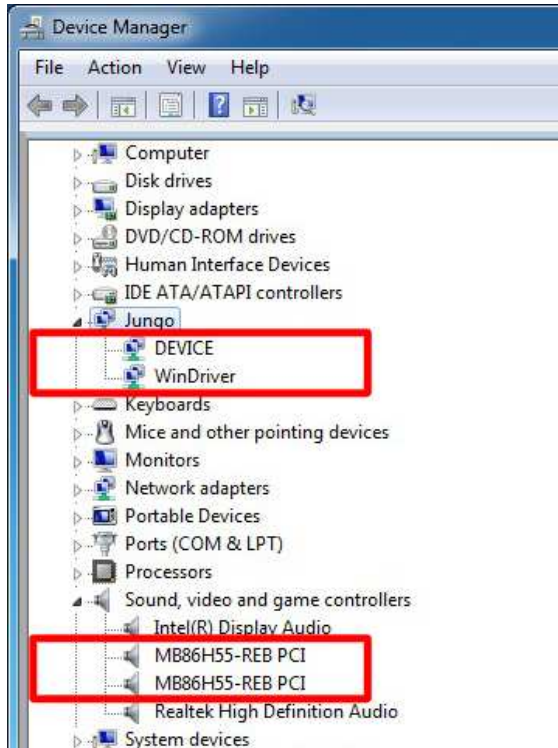
**Step5.** In the Command Prompt window, specify the 64-bit driver directory. Then, type **DriverInstaller.bat** to start the driver installation.





**Step6.** Follow **Step5 ~ Step8** in **Section 4.1** to complete installing the driver to a 64-bit Windows 7 operating system.

**Step7.** Check the device manager in the Windows control panel to ensure the driver (MB86H55-REB PCI, DEVICE and WinDriver) has been properly installed.



## 4.2 Uninstall Driver

To uninstall the driver, please follow the steps below.

**Step1.** Make sure to login the system as the administrator.

**Step2.** Locate the “Driveruninstaller.bat” file in the driver CD. Double click it to uninstall the driver.

**Step3.** The console window pop-up and all drivers will be uninstalled.

### 4.3 Software Installation

After installing the driver, the following programs must be installed in order to use the HDCapture demo program:

- Microsoft .NET Framework 3.0/3.5/4.0
- Microsoft DirectX 9.0c
- Win7DSFilterTweaker tool (for Windows 7 OS only)
- Visual C++ 2005 & 2008 Redistributable

**NOTE:** For the 64-bit Windows 7 operating system, the Microsoft .NET Framework 4.0 must be installed.

To install the HDCapture demo program, please follow the steps below.

**Step1.** Insert the driver CD.

**Step2.** Locate the **HDCapture\_x86\_Vxxxx.msi** file in the driver CD.

Double click the setup file to start the installation. The user can also download the latest setup file from IEI website.

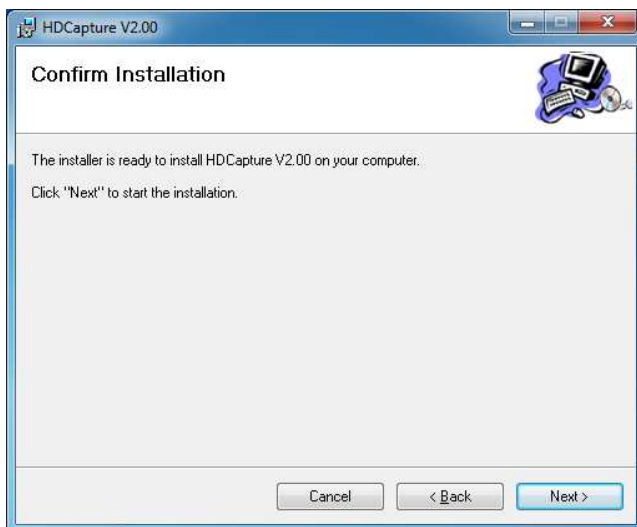
**Step3.** The HDCapture Setup Wizard welcome window appears. Click **Next** to start.



**Step4.** Select a folder for HDCapture installation. Click **Next** to continue

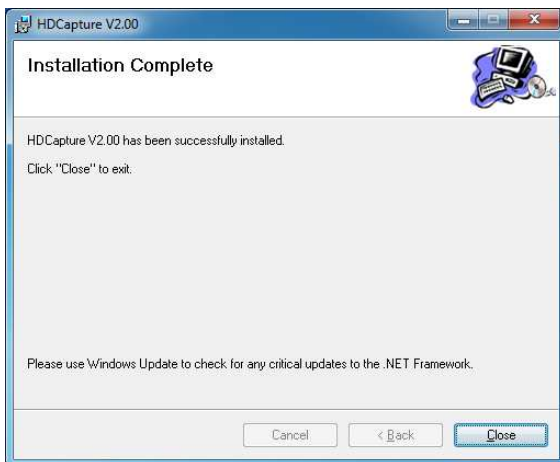


**Step5.** The following screen appears. Click **Next** to confirm the installation



**Step6.** The system starts installing the HDCapture.

**Step7.** When the HDCapture is successfully installed, the following window appears. Click **Close** to exit.

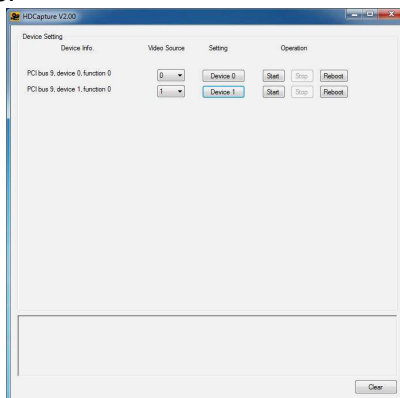


## 5. HDCapture Application

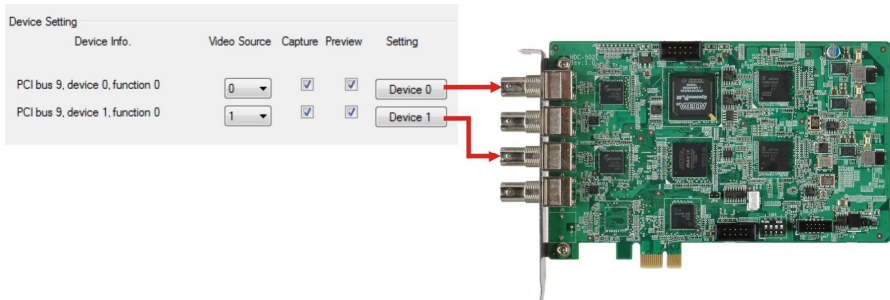
### 5.1 Video Configuration

To configure the HDCapture software, follow the steps below. If the older version of the HDCapture is already installed, please refer to **Section 5.3** to uninstall it.

**Step1.** Launch the HDCapture. The best resolution to view HDCapture is 1280x1024 or above.



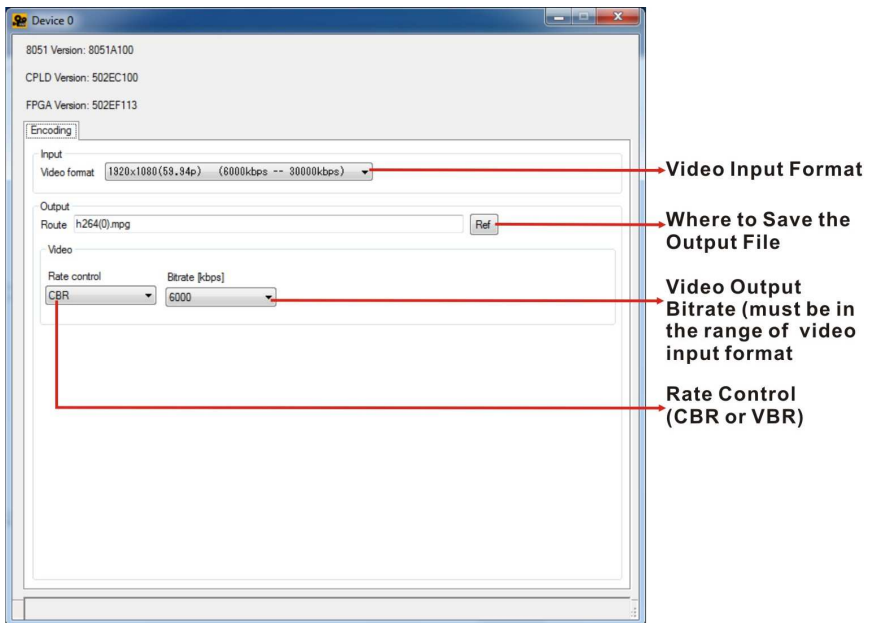
**Step2.** Enable and configure the device settings by clicking the Device # (0, 1) buttons. The device number is decided by which port the device is installed.



**Step3.** Click the Device # button. The Encoding window appears. Choose the video input format which depends on the video device. The available options include:

- 1920x1080 (60p) (6000kps – 20000kps)
- 1920x1080 (59.94p) (6000kps – 20000kps)
- 1920x1080 (50p) (6000kps – 20000kps)
- 1920x1080 (60i) (6000kps – 20000kps)
- 1920x1080 (59.94i) (6000kps – 20000kps)
- 1920x1080 (50i) (6000kps – 20000kps)
- 1440x1080 (60i) (5000kps – 20000kps)
- 1440x1080 (59.94i) (5000kps – 20000kps)
- 1440x1080 (50i) (5000kps – 20000kps)
- 1280x720 (60p) (4000kps – 20000kps)
- 1280x720 (59.94p) (4000kps – 20000kps)
- 1280x720 (50p) (4000kps – 20000kps)
- 720x480 (60i) (2000kps – 10000kps)
- 720x480 (59.94i) (2000kps – 10000kps)
- 720x480 (50i) (2000kps – 10000kps)

**Step4.** Configure the encoding settings, including encoding file directory (click Ref button to choose the directory), rate control (CBR or VBR) and video encoding bitrate (must be in the range of video format). When “CBR” is selected, the “Bitrate” text box is displayed. When “VBR” is selected, the “Average bitrate” and “Peak bitrate” text boxes are displayed. Close the window to save the settings.



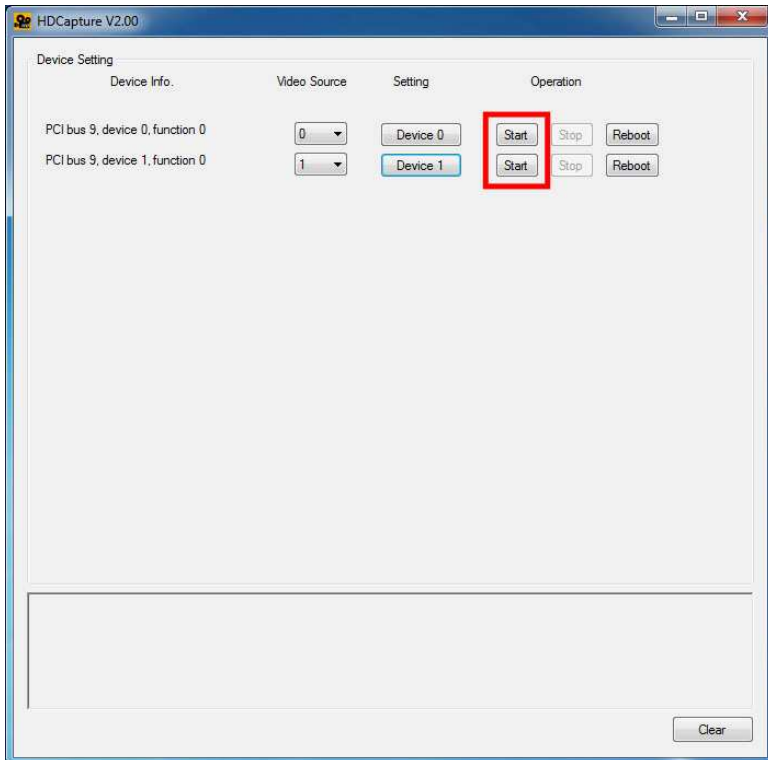
**Step5.** Repeat Step2 ~ Step4 to configure the connected input device.

## 5.2 Video Capture

To use the HDCapture to capture video, follow the steps below.

**Step1.** Select the **Capture** check box of the video.

**Step2.** Click **Start** to being capturing video.



**Step3.** Click **Stop** to stop capture.

## 5.3 Uninstall HDCapture

To uninstall the HDCapture, follow the steps below.

**Step1.** Select **Control Panel** → **Programs** → **Programs and Features**.

**Step2.** Select HDCapture and click the **Uninstall** button to uninstall the HDCapture.

