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DISTRICTION AND A CONTRACTOR

Software Development Kit (SDK) for HDC-301MS/HDC-301EL/HDB-301L

# **User Manual**



Rev. 1.00 – September 9, 2015

# Revision

Date	Version	Changes
September 9, 2015	1.00	Initial release





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# **Manual Conventions**



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#### WARNING

Warnings appear where overlooked details may cause damage to the equipment or result in personal injury. Warnings should be taken seriously.



# CAUTION

Cautionary messages should be heeded to help reduce the chance of losing data or damaging the product.



# NOTE

These messages inform the reader of essential but non-critical information. These messages should be read carefully as any directions or instructions contained therein can help avoid making mistakes.



# HOT SURFACE

This symbol indicates a hot surface that should not be touched without taking care.

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# Driver and SDK Installation

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# 1.1 Overview

A CD is shipped with the video capture card. The CD contains a driver for the video capture controllers on the card. When the video capture card is installed on the system, the driver must be installed. Failure to install the driver means that that video capture card cannot be detected by the system.



The content of the CD may vary throughout the life cycle of the product and is subject to change without prior notice. Visit the IEI website or contact technical support for the latest updates.

# **1.2 Driver Installation**



For the HDC-301EL capture card, the user has to install the Etron USB to PCIe driver to the system before installing the capture card driver. Please refer to **3.2.1 USB to PCIe Driver** in the user manual of the HDC-301EL capture card to install the USB to PCIe driver.

To install the HDx-301 Series driver, please follow the steps below. If the HDx-301 Series driver is already installed, please refer to **Section 1.2.1** to uninstall the driver first.



If the **User Account Control** dialog box appears during installation, click **Yes** to continue.

Step 1: Make sure to log in the system as the administrator.

Step 2: Insert the driver CD.

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Step 3: Locate the .exe file in the driver folder of the utility CD.

For Windows 7 32-bit OS, please use the **DPInst\_x86.exe** file.

For Windows 7 64-bit OS, please use the **DPInst\_x64.exe** file.

Step 4: Double click the .exe file. The Device Driver Installation Wizard window appears.Click Next to continue.



Figure 1-1: Device Driver Installation Wizard Welcome Window

Step 5: The following window appears to confirm the installation. Click Install.



Figure 1-2: Windows Security Window

**Step 6:** The driver starts to install and the screen in **Figure 1-3** appears.



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# HDx-301 Series SDK (Windows)

Device Driver Installation Wizard
The drivers are now installing
Please wait while the drivers install. This may take some time to complete.
< <u>B</u> ack <u>N</u> ext > Cancel

#### Figure 1-3: Driver Installing

Step 7: When the driver installation is complete, click Finish to exit.

Device Driver Installation Wizard				
	Completing the Device Driver Installation Wizard			
The drivers were successfully installed on this computer.				
	Driver Name	Status		
	✓ IEI (qpavstm) Media (0	Device Updated		
< <u>B</u> ack Finish Cancel				

#### Figure 1-4: Driver Installation Complete

Step 8: Check the Device Manager in the Windows control panel to ensure the HDx-301Series driver has been properly installed.



Single Card:



Figure 1-5: Device Manager



If the user fails to install the driver by following the above procedure, please install the HDx-301 Series driver manually in the Device Manager. To do this, right click HDC-301MS/HDC-301EL/HDB-301L in the Device Manager, and select Update Driver Software. Then, specify the **DPInst\_x86.exe** or **DPInst\_x64.exe** file in the utility CD for installation.

#### 1.2.1 Uninstall Driver

To uninstall the driver, please follow the steps below.

- **Step 1:** Make sure to login the system as the administrator.
- Step 2: Go to Device Manager.
- Step 3: Right click HDC-301MS/HDC-301EL/HDB-301L in the Device Manager, and select Uninstall to uninstall the driver.



#### Multiple Cards:

🚔 Device Manager
<u>File Action View H</u> elp
🗢 🔿   🖬   🔽 🖬   👧
⊿ 🚑 iei-PC
⊳ 1 📮 Computer
Disk drives
👂 🎚 Display adapters
🔈 🕼 Human Interface Devices
IDE ATA/ATAPI controllers
Keyboards
Mice and other pointing devices
Monitors
Other devices
Ports (COM & LPT)
Processors
🔺 🛒 Sound, video and game controllers
HDC-301MS
Intel(R) Display Audio
Realtek High Definition Audio
System devices
🏷 🟺 Universal Serial Bus controllers
-

# 1.3 SDK Installation

The HDx-301 Series comes with a video capture application – IEI HD Capture AP SDK. This section describes how to install the SDK in Windows environment.

### **1.3.1 System Requirements**

The supported OS versions are listed below:

- Microsoft Windows 7, 32-bit
- Microsoft Windows 7, 64-bit

After installing the driver, the following programs must be installed in order to use the IEI HD Capture AP SDK:

- Microsoft DirectX 11
- H.264 Codec (VLC, ffdshow)
- Visual C++ 2005 & 2008 Redistributable

Please download the setup files of these programs from the official websites and install these programs in the system. For detailed setup procedures for some of the above programs, please refer to **Appendix B**.

### 1.3.2 IEI HD Capture AP SDK Installation

To install the IEI HD Capture AP SDK, please follow the steps below.



If the **User Account Control** dialog box appears during installation, click **Yes** to continue.

- **Step 1:** Insert the driver CD. Double click the AP folder of the utility CD.
- Step 2: Locate the IEI\_HD\_Capture\_AP.exe file in the Release folder.
- Step 3: Double click the IEI\_HD\_Capture\_AP.exe file. The IEI HD Capture AP Setup Wizard appears. Click Next to start.

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Step 4: Select a folder for IEI HD Capture AP SDK installation in Figure 1-7. Click Next to continue.

j🕄 Setup - IEI HD Capture AP
Select Destination Location Where should IEI HD Capture AP be installed?
Setup will install IEI HD Capture AP into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\IEI HD Capture AP Browse
At least 2.3 MB of free disk space is required.
< Back Next > Cancel

Figure 1-7: Select Installation Folder



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j Setup - IEI HD Capture AP	
Ready to Install Setup is now ready to begin installing IEI HD Capture AP on your computer.	
Click Install to continue with the installation, or click Back if you want to review or change any settings.	,
Destination location: C:\IEI HD Capture AP	*
	*
< Back	Cancel

Figure 1-8: Confirm Installation

Step 6: The system starts installing the IEI HD Capture AP SDK.



Figure 1-9: Installing IEI HD Capture AP SDK



**Step 7:** When the IEI HD Capture AP SDK is successfully installed, the following window

appears. Click Finish to exit.



Figure 1-10: Installation Complete

# 1.3.3 Uninstall IEI HD Capture AP SDK

To uninstall the IEI HD Capture AP SDK, follow the steps below.

Step 1: Click Uninstall IEI HD Capture AP from the Windows Start menu (Figure 1-11).



Figure 1-11: Uninstall IEI HD Capture AP SDK

Step 2: A confirmation window appears. Click Yes to uninstall the IEI HD Capture AP

SDK (Figure 1-12).



Figure 1-12: Confirm to Uninstall

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**Step 3:** The system starts uninstalling the IEI HD Capture AP SDK.

IEI HD Capture AP Uninstall	×
Uninstall Status Please wait while IEI HD Capture AP is removed from your computer.	17
Uninstalling IEI HD Capture AP	
Can	cel

Figure 1-13: Uninstalling IEI HD Capture AP SDK

**Step 4:** The screen in **Figure 1-14** appears, indicating that IEI HD Capture AP SDK is removed from the computer. Click **OK** to exit.









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# **IEI HD Capture AP SDK**



# 2.1 IEI HD Capture AP SDK Overview

The IEI HD Capture AP SDK is a video capture tool that allows the user to capture video through the HDMI input ports in Windows environment.

To use the IEI HD Capture AP SDK to capture video, follow the steps below. If the older version of the IEI HD Capture AP SDK is already installed, please refer to **Section 1.3.3** to uninstall it.

Step 1: Launch the IEI HD Capture AP SDK by double-clicking the

IEI\_HD\_Capture\_AP.exe file under the "X:\IEI\_HD\_Capture\_AP\Release" directory, where "X:\" is the system CD drive.

**Step 2:** The IEI HD Capture AP SDK user interface appears (**Figure 2-1**). Click the **Set** button to configure the settings.

🔮 IEI HD Capture AP Ver = 20150415, SDK Ver = 20	150303		<u> </u>
Name		Operation	
IEI Capture Device	Set	Start	Stop

#### Figure 2-1: IEI HD Capture AP SDK

Step 3: The Encode Setting window appears (Figure 2-2). Make necessary

configuration setting by following the guideline below:



- Audio
  - O Enable: check to enable the audio encoding
  - O Sample Rate: select the sample rate of the audio
  - O Volume: select the volume amount for encoding
- Video
  - O Input Resolution: select a video input resolution which depends on the video device.

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- Encode Resolution: select an encoding resolution. The encoding resolution selected here must be same with the one selected in the Input Resolution.
- O Encode Bit Rate: select a video encoding bitrate

Encode Setting	
MCU Version: 0.9	
Audio F Enable Sample Rate: 48 KHz Volume: 10	
Video Input Resolution: 1920 x 1080 60P Encode Resolution: 1920 x 1080 30P Encode Bit Rate: 30000 kbps	
OK Cancel	







Step 5: To start capturing the video, click the Start button on the IEI HD Capture AP SDK user interface. The Save As window appears. Specify a location to save the encoded video file, and change the file name as necessary. Click Save to start capturing the video.

船 Save As					<b></b> X
Save in:	Documents		•	← 🗈 💣 📰▼	
Ca	Name	*		Date modified	Туре
Recent Places		No it	tems match your s	earch.	
Desktop					
Libraries					
Computer					
Network					
	•	I			4
	File <u>n</u> ame:	*.ts		•	<u>S</u> ave
	Save as type:	ts		•	Cancel

Figure 2-3: Save As Window

**Step 6:** To stop capturing the video, click the **Stop** button on the IEI HD Capture AP SDK

user interface.



Figure 2-4: IEI HD Capture AP SDK – Stop Button

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# **SDK Introduction**



# 3.1 Build Environment

The SDK build environment requirements are listed below. If build environment is not Microsoft Visual Studio 2005 SP1 or latter, you need to install Microsoft Visual C++ 2005 SP1 Redistributable Package (x86).

- Microsoft Windows 7 32-bit/64-bit
- DirectX SDK August 2007
- Windows SDK for Windows Vista (6.0.6000)
- Microsoft Visual Studio 2005 SP1

# **3.2 SDK Introduction**

The following sections are the brief introduction of the SDK. You can find the details and usages in the sample code.

### 3.2.1 Definition Table

HDMI Receiver Resolution				
Name	Value	Description		
IEI_HDC_SDK_M_UNKNOW_FRMT	1	Unknown format		
IEI_HDC_SDK_M_NO_SIGNAL	2	No input signal		
IEI_HDC_SDK_M_640_480P_60	3	640 x 480 60P		
IEI_HDC_SDK_M_720_480P_60	4	720 x 480 60P		
IEI_HDC_SDK_M_720_576P_50	5	720 x 576 50P		
IEI_HDC_SDK_M_800_600P_60	6	800 x 600 60P		
IEI_HDC_SDK_M_1024_768P_60	7	1024 x 768 60P		
IEI_HDC_SDK_M_1280_720P_50	8	1280 x 720 50P		
IEI_HDC_SDK_M_1280_720P_60	9	1280 x 720 60P		
IEI_HDC_SDK_M_1280_768P_60	10	1280 x 768 60P		
IEI_HDC_SDK_M_1280_800P_60	11	1280 x 800 60P		
IEI_HDC_SDK_M_1280_1024P_60	12	1280 x 1024 60P		
IEI_HDC_SDK_M_1360_768P_60	13	1360 x 768 60P		
IEI_HDC_SDK_M_1440_900P_60	14	1440 x 900 60P		
IEI_HDC_SDK_M_1680_1050P_60	15	1680 x 1050 60P		
IEI_HDC_SDK_M_1920_1080I_50	16	1920 x 1080 50l		

IEI_HDC_SDK_M_1920_1080I_60	17	1920 x 1080 60I
IEI_HDC_SDK_M_1920_1080P_24	18	1920 x 1080 24P
IEI_HDC_SDK_M_1920_1080P_25	19	1920 x 1080 25P
IEI_HDC_SDK_M_1920_1080P_30	20	1920 x 1080 30P
IEI_HDC_SDK_M_1920_1080P_50	21	1920 x 1080 50P
IEI_HDC_SDK_M_1920_1080P_60	22	1920 x 1080 60P

Audio Sample Rate		
Name	Value	Description
IEI_HDC_SDK_AUDIO_SAMPLE_RATE_44_1K 0		Input audio is 44.1 kHz
IEI_HDC_SDK_AUDIO_SAMPLE_RATE_48K         1         Input audio is 48 kHz		Input audio is 48 kHz

Video Scan Format		
Name	Value	Description
IEI_HDC_SDK_SCAN_FORMAT_INTERLACE	0	Input format is interlaced
IEI_HDC_SDK_SCAN_FORMAT_PROG	1	Input format is progressive

# 3.2.2 Structure Definition

typedef struct \_IEI\_HDC\_SDK\_Param\_T

r	
L	
٢.	
1	
L	

bool		bAudioEnabled;
unsigne	ed int	uiAudioSampleRate;
unsigne	ed int	uiAudioVolume;
unsigne	ed int	uiVideoInputWidth;
unsigne	ed int	uiVideoInputHeight;
unsigne	ed int	uiVideoInputFrameRate;
unsigne	ed int	uiVideoInputScanFormat;
unsigne	ed int	uiVideoEncodeWidth;
unsigne	ed int	uiVideoEncodeHeight;
unsigne	ed int	uiVideoEncodeFrameRate;
unsigne	ed int	uiVideoAvgBitRate;
unsigne	ed int	uiVideoMinBitRate;
unsigne	ed int	uiVideoMaxBitRate;
} IEI_HDC	_SDK_F	Param_T;



Structure Member	Data Type	Description
bAudioEnabled	bool	true: Audio enable
		false: Audio disable
		Audio sample rate,
uiAudioSampleRate	unsigned int	reference to definition table of Audio
		Sample Rate
uiAudioVolume	unsigned int	Audio volume, it should be 0 ~ 15
uiVideoInputWidth	unsigned int	Input video width
uiVideoInputHeight	unsigned int	Input video height
uiVideoInputFrameRate	unsigned int	Input video frame rate
	unsigned int	Input video format,
uiVideoInputScanFormat		reference to definition table of Video Scan
		Format
uiVideoEncodeWidth	unsigned int	Encode video width
uiVideoEncodeHeight	unsigned int	Encode video height
uiVideoEncodeFrameRate	unsigned int	Encode video frame rate
ui\/idooAy/aBitBoto	unsigned int	Encode video average bit rate,
uivideoAvgbilkale		it should be 1000 kbps ~ 30000 kbps
uiVideoMinBitRate	unsigned int	Encode video minimum bit rate,
	unsigned int	it should be 1000 kbps ~ 30000 kbps
ui\/ideoMeyPitPete	unaigned int	Encode video maximum bit rate,
		it should be 1000 kbps ~ 30000 kbps

# 3.2.3 API Introduction

	int
Prototype	IEI_HDC_SDK_GetVersion
	0
Description	Get SDK version
Parameter	No parameter
Poturn	Integer:
Kelum	Version in YYYYMMDD

	HRESULT
Prototype	IEI_HDC_SDK_InitializeFilterParam
	(void* in_pFilter)
Description	Initialize source filter parameters
Parameter	in_pFilter:
	Pointer of source filter
	HRESULT:
Return	E_ACCESSDENIED means AES failed(*1)
	For other values, please check in MSDN

	HRESULT
Prototype	IEI_HDC_SDK_GetFilterParam
	(void* in_pFilter, IEI_HDC_SDK_Param_T* ot_pParam)
Description	Get source filter parameters
	in_pFilter:
	Pointer of source filter
Parameter	ot_pParam:
	Pointer of IEI_HDC_SDK_Param_T
	It returns current source filter parameters
	HRESULT:
Return	E_ACCESSDENIED means AES failed(*1)
	For other values, please check in MSDN

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	HRESULT
Prototype	IEI_HDC_SDK_SetFilterParam
	(void* in_pFilter, IEI_HDC_SDK_Param_T* in_pParam)
Description	Set source filter parameters
	in_pFilter:
	Pointer of source filter
Parameter	in_pParam:
	Pointer of IEI_HDC_SDK_Param_T
	It should contain the parameters which you want to set
	HRESULT:
Return	E_ACCESSDENIED means AES failed(*1)
	For other values, please check in MSDN

	HRESULT
Prototype	IEI_HDC_SDK_GetMCUVersion
	(void* in_pFilter, int* ot_ipVer, int* ot_ipReVer)
Description	Get MCU version
	in_pFilter:
	Pointer of source filter
Baramotor	ot_ipVer:
Parameter	Integer pointer of version
	ot_ipReVer:
	Integer pointer of reversion
Return	HRESULT:
	E_ACCESSDENIED means AES failed(*1)
	For other values, please check in MSDN

	HRESULT
Prototype	IEI_HDC_SDK_GetHDMIRXResolution
	(void* in_pFilter, int* ot_ipHDMIRes)
Description	Get HDMI receiver resolution
	in_pFilter:
	Pointer of source filter
Parameter	ot_ipHDMIRes:
	Integer pointer of resolution value
	Reference to HDMI Receiver Resolution Table
	HRESULT:
Return	E_ACCESSDENIED means AES failed(*1)
	For other values, please check in MSDN

\*1: If AES failed, please check if device, firmware, driver, SDK and AP are compatible or not.

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FAQ

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Q: How do I play the encoding file?

**A:** The encoding file is H.264 format. You need to use media player or codec which supports H.264 format, such as VLC or ffdshow.

**Q:** Where are the AP, SDK and sample code located?

**A:** The AP, SDK and sample code are located in the folder where you specified during installation. The default installation path is C:\IEI HD Capture AP.

Q: How do I check the current DirectX version?

**A:** In Windows, navigate to Start  $\rightarrow$  Run  $\rightarrow$  Type 'dxdiag'  $\rightarrow$  Enter. The current version is displayed in the DirectX Diagnostic Tool window.

Q: How do I obtain the latest driver?

**A:** Go to <u>http://www.ieiworld.com/</u>. You can always find and download the latest drivers from the "Support" pages.

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# **Decoder Installation**

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# **B.1 Decoder Installation**

This section provides the setup procedures of the following decoders:

- ffdshow
- Leadtools
- MainConcept

Installing ONE of the above decoders is highly recommended.



If other decoder is already installed, it is recommended to uninstall it first.

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### B.1.1 ffdshow

Follow the steps below to proceed with the ffdshow setup procedures.

Step 1: Go to http://sourceforge.net/projects/ffdshow-tryout/?source=directory to

download the ffdshow setup file.

- **Step 2:** Make sure to login the system as the administrator.
- Step 3: Double click the setup file. The Select Setup Language screen appears (Figure B-1). Select the setup language, and then click OK.

Select Se	tup Language
1	Select the language to use during the installation:
	English   OK Cancel

Figure B-1: Select Setup Language

Step 4: The Setup screen appears (Figure B-2). Click Next to continue.

B Setup - ffdshow	
	ffdshow v1.2.4422 [2012-04-09] This will install ffdshow on your computer. It is recommended that you close all other applications before continuing. Click Next to continue, or Cancel to exit Setup.
	Next > Cancel

Figure B-2: Setup Screen

Step 5: Select a folder for ffdshow installation (Figure B-3). Click Next to continue.

🔂 Setup - ffdshow
Select Destination Location Where should ffdshow be installed?
Setup will install ffdshow into the following folder.
To continue, dick Next. If you would like to select a different folder, dick Browse.
C:\Program Files\ffdshow Browse
At least 13.1 MB of free disk space is required.
< <u>B</u> ack <u>N</u> ext > Cancel

Figure B-3: Select Destination Location

Step 6: Select the components to be installed (Figure B-4). Click Next to continue.



elect Components Which components should be installed?	(
Select the components you want to install; clear the co install. Click Next when you are ready to continue.	mponents you do not want to
ffdshow DirectShow filter	12.0 MB
🔲 DXVA video decoder	
··· 🔽 VFW interface	0.1 MB
🔲 AviSynth scripts serving	0.2 MB
Application plugins:	
AviSynth	0.1 MB
··· 🔲 VirtualDub	0.1 MB
DScaler	0.1 MB
Current selection requires at least 13.1 MB of disk space	e.
	Next > Can

Figure B-4: Select Components

Step 7: Select a Start Menu folder where to place the ffdshow shortcuts (Figure B-5).

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Click Next to continue.

👸 Setup - ffdshow
Select Start Menu Folder Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
ffdshow Browse
Don't create a Start Menu folder
< <u>B</u> ack <u>N</u> ext > Cancel

Figure B-5: Select Start Menu Folder

Step 8: Select the additional tasks to be performed (Figure B-6). Make sure that the libavcodec item in the H.264 / AVC field is selected. Click Next to continue.



# iEi.Integration Corp.

# HDx-301 Series SDK (Windows)

谒 Setup - ffdshow	
Select Additional Tasks Which additional tasks should be performed?	()
Select the additional tasks you would like Setup to perform then dick Next.	while installing ffdshow,
Settings	*
Reset all ffdshow settings	
Video formats	
Decode the following video formats with ffdshow:	
📝 H.264 / AVC	
ibavcodec	
···· 🗹 DivX	
···· 🗹 Xvid	
🔽 Generic MPEG-4	*
< Back	Next > Cancel

Figure B-6: Select Additional Tasks

Step 9: Select the speaker setup (Figure B-7). Click Next to continue.

👸 Setup - ffdshow
Speaker Setup Select the speaker setup below that is most similar to the configuration on your computer. You can change it using "Mixer" settings after installation.
Speaker setup:
1.0 (mono)
2.0 (Head phone)
③ 3.0 (front 3ch)
Ø 4.1 (quadro + subwoofer)
5.0 (front 3ch + rear 2ch)
5.1 (front 3ch + rear 2ch + subwoofer)
7.1 (front 3ch + side 2ch + rear 2ch + subwoofer)
🔘 Disable Mixer
< Back Next > Cancel

Figure B-7: Speaker Setup

Step 10: The following screen appears. Click Install to start the installation.

Ready to Install Setup is now ready to begin instal	ling ffdshow on your computer.
Click Install to continue with the in change any settings.	stallation, or dick Back if you want to review or
Destination location: C:\Program Files\ffdshow	<u>۸</u>
Setup type: Normal	
Selected components: ffdshow DirectShow filter VFW interface	
Start Menu folder: ffdshow	Ţ
•	×.
	< Back Install Cano

Figure B-8: Ready to Install

**Step 11:** The system starts installing the ffdshow.

Step 12: When the ffdshow is completely installed, the following screen appears. Click

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Finish to exit.

🔁 Setup - ffdshow	
	Completing the ffdshow Setup Wizard Setup has finished installing ffdshow on your computer. The application may be launched by selecting the installed icons. Click Finish to exit Setup. Run audio decoder configuration Run video decoder configuration Run vFW configuration
	Einish

Figure B-9: Complete ffdshow Setup

Step 13: Go to Control Panel > Programs > Programs and Features to ensure the

ffdshow has been properly installed. See Figure B-10 for the details.

Control Panel	Programs	rams and Features
Control Panel Home View installed updates P Turn Windows features on or	Uninstall or change a program To uninstall a program, select it from the list and then click Uninstall, Ch	ange, or Repair.
off	Organize 💌	:==
	Name	
	🕞 Asmedia ASM104x USB 3.0 Host Controller Driver	
	ATI Catalyst Install Manager	
	ffdshow v1.2.4422 [2012-04-09]	
	HDCapture VI.17	
	Microsoft Visual C++ 2005 Redistributable	
	Microsoft Visual C++ 2008 Redistributable - x86 9.0.21022	
	Microsoft Visual C++ 2008 Redistributable - x86 9.0.30729.4148	
	Microsoft Visual C++ 2010 x86 Redistributable - 10.0.30319	

Figure B-10: Control Panel – ffdshow

Step 14: Launch the ffdshow video decoder configuration from the Windows Start menu

> All Programs > ffdshow > Video decoder configuration (Figure B-11).



Figure B-11: Windows Start Menu – ffdshow

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Step 15: Make sure the libavcode item in the H.264/AVC field is selected (Figure B-12).

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ffdshow video decode Codecs	r configuration	<b>_</b>	Process whole image Reset He	lp
Info & CPU	Format	Decoder	Supported FOURCCs/remarks	-
Keys & remote	H.264/AVC	libavcodec •	H264, AVC1, X264, VSSH (incomplet	=
Show / hide filters	DivX 4/5/6	libavcodec	D VX, DX50	-
Decoder options	Other MPEG4	libavcodec	MP4V, 3IVX, 3IV1, 3IV2, MP4S, M4S	
Crop	DivX 3	libavcodec	DIV3, DIV4, DIV5, DIV6, AP41, COL1	
Deinterlacing	FVFW,FFDS	libavcodec	ffdshow and ffvfw internal FOURCCs	
Logoaway	MP43	libavcodec	MP43	
Postprocessing	MP42	libavcodec	MP42, DIV2	
Picture properties	MP41	libavcodec	MP41, MPG4, DIV1	
Deband	H.263 (+)	libavcodec	H263, L263, M263, U263, X263, S26	
Levels	FLV1	libavcodec	Flash Video (FLV1)	
Offset & flip	Theora	libavcodec	Theora Video (THEO)	
Blur & NR	VP3	libavcodec	VP3 Video (VP31)	
Sharpen	VP5	libavcodec	VP5 Video (VP50)	
	VP6	libavcodec	VP6 Video (VP60, VP61, VP62)	
	VP6F	libavcodec	Flash Video (VP6F, FLV4, VP6A)	
Resize & aspect	VP8	disabled	VP8 Video (VP80)	-
Borders	skip deblockin	ig when safe	skip deblocking always	
Reset order	J			
	Export	all settings	OK Cancel App	ly

Click **OK** to exit the configuration window.

Figure B-12: ffdshow Video Decoder Configuration

## **B.1.2 LEADTOOLS**

Follow the steps below to proceed with the LEADTOOLS setup procedures.

- Step 1: Go to http://www.leadtools.com/ to download the LEADTOOLS setup file.
- **Step 2:** Make sure to login the system as the administrator.
- Step 3: Double click the setup file.
- Step 4: Specify the path to which the setup file will be extracted (Figure B-13). Click OK to continue.



Figure B-13: Specify Extraction Path



Step 5: If the below screen appears, click Yes to continue.

The file indicated	below already	exists. Press "Yes" i	f you want to
overwrite the file. Press "Cancel" i	Press "No" if y you want to sto	iou don't want to ove ip extracting litems.	erwrite the file.
C:\Users\AMD\	AppData\Local	\Temp\LTMM175\d	ata1.cab
C:\Users\AMD\	AppData\Local'	\Temp\LTMM175\d	ata1.cab
C:\Users\AMD\	AppData\Local	\Temp\LTMM175\d	ata1.cab

Figure B-14: Overwrite the Indicated File

TurboSFX - Extraction Progress
The status below shows what percentage of the items has been extracted. Press "Cancel" to stop extracting items.
26% Extracting: C:\Users\AMDal\Temp\LTMM175\data2.cab
Cancel

Step 6: The extraction progress is shown as below.

Figure B-15: Extracton Progress

Step 7: When the setup file is completely extracted, the LEADTOOLS Installation

Wizard appears (Figure B-16). Click Next to continue.



Figure B-16: LEADTOOLS Installation Wizard



Step 8: Select No, I want to evaluate the product, and then click Next to continue

(Figure B-17).

LEADTOOLS Installation Wizard		×
Application Type Configure LEADTOOLS.		
LEAD TECHNOLOGIES, INC.	Select one of the options below to license or evaluate this product	
	Yes, I have a serial number.	
THE	Company Name:	
OF	Contact eMail:	
IMAGING	No, I want to evaluate the product.	
HIGH LEVEL		
LOW LEVEL		
InstallShield	< Back Next> Can	ncel

Figure B-17: Application Type

Step 9: The License Agreement in Figure B-18 appears. Select I accept the terms of

the license agreement, and then click Next to continue.

LEADTOOLS Multimedia EVAL 1 License Agreement Please read the following licen	7.5 se agreement carefully.	X
LEAD TECHNOLOGIES, INC. LEADTOOLS 17.5 WELCOME TO THE WORLD OF IMAGING HIGH LEVEL DESIGN LOW LEVEL CONTROL	LEADTOOLS Software License Agreement <b>DEPORTANE</b> LEADTOOLS Software License Agreement <b>DEPORTANE</b> LANDRONG MARKING AGREEMENT FROM SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT SOFTWARE TO YOU ONLY UPON THE CONDITION THAT YOU ACCEPT SOFTWARE TO YOU ON THE HELENSE AGREEMENT. IF YOU DONG THAT SOFTWARE TO YOU ON THE HELENSE AGREEMENT IF YOU HAVE TO LICE INFORMATION AS SOFTWARE TO YOU ON THE HELENSE AGREEMENT IF YOU HAVE TO LICE SOFTWARE TO YOU ON THE HELENSE AGREEMENT IF YOU HAVE TO LICE SOFTWARE TO YOU ON THE HELENSE AGREEMENT IF YOU HAVE TO LICE SOFTWARE TO YOU ON THE HELENSE AGREEMENT IF YOU HAVE TO LICE SOFTWARE TO YOU ON THE HELENSE AGREEMENT IF YOU HAVE TO LICE SOFTWARE TO YOU ON THE HELENSE AGREEMENT IF YOU HAVE TO LICE SOFTWARE TO YOU ON THE HELENSE AGREEMENT IF YOU HAVE TO HELENSE SOFTWARE TO YOU ON THE HELENSE AGREEMENT IF YOU HAVE TO H	ADLS ULL ED TTY NS. GE NG TO SEE VSE VSE VSE VSE VSE VSE VSE VSE VSE
InstallShield	< Back Next>	ancel

Figure B-18: License Agreement

Step 10: Select Complete and click Next to continue (Figure B-19).









Step 11: The LEADTOOLS Multimedia Notification in Figure B-20 appears. Read the

notification, select I read and accept the terms of the LEADTOOLS

Multimedia Notification, and then click Next to continue.



Figure B-20: LEADTOOLS Multimedia Notification

Step 12: Select a folder for LEADTOOLS installation (Figure B-21). Click Next to

continue.





Figure B-21: Choose Destination Location

Step 13: Select Register the LEADTOOLS documentation files only (Figure B-22).

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Click Next to continue.

LEADTOOLS Multimedia EVAL 17.5		
Documentation (Help Files) Settings Select the option that best suite your needs		
LEAD TECHNOLOGIES, INC.	LEADTOOLS Documentation can be integrated with MSDN. Please select the option that best suits your needs:	
LEADTOOLS 17.5	Register the LEADTOOLS documentation files and integrate with MSDN	
WELCOME	Register the LEADTOOLS documentation files only.	
TO		
WORLD		
OF		
IMAGING		
HIGH LEVEL		
LOW LEVEL		
CONTROL		
Install Shield	< Back Next > Cancel	

Figure B-22: Documentation (Help Files) Settings

Step 14: Specify a folder where to place the LEADTOOLS program icons (Figure B-23).

Click Next to continue.



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Figure B-23: Choose Program Folder

Step 15: The following screen appears. Click Install to start the installation.



Figure B-24: Ready to Install the Program

Step 16: The screen in Figure B-25 shows the installation status.





Figure B-25: Setup Status

Step 17: When the LEADTOOLS is completely installed, the following screen appears.

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Click Finish to exit.

LEADTOOLS Multimedia EVAL 17.	5
	LEADTOOLS Installation Wizard Complete
LEAD TECHNOLOGIES, INC.	The LEADTOOLS Installation Wizard has successfully installed LEADTOOLS Multimedia EVAL 17.5
WELCOME	
THE	
OF	Chat with a live Technical Support representative now to help you get started using LEADTOOLS.
<b>İMAGING</b>	
HIGH LEVEL	
LOW LEVEL CONTROI	
InstallShield	< <u>B</u> ack Finish Cancel

Figure B-26: LEADTOOLS Installation Wizard Complete

Step 18: Go to Control Panel > Programs > Programs and Features to ensure the

LEADTOOLS has been properly installed. See Figure B-27 for the details.





Figure B-27: Control Panel – LEADTOOLS

### B.1.3 MainConcept

Follow the steps below to proceed with the MainConcept setup procedures.

- Step 1: Go to http://www.mainconcept.com/home.html to download the MainConecpt decoder pack.
- Step 2: There will be a setup file and a text file after extracting the decoder pack. To install the MainConcept decoder, all the .AX files listed in the text file must be registered. The following steps will show you how to register the .AX files.
- Step 3: Run a Command Prompt as an administrator (right click the Command Prompt and select Run as administrator).
- Step 4: Key in the MainConcept setup file directory, and press Enter (Figure B-28).





Figure B-28: Command Prompt – Setup File Directiory

Step 5: Key in regsvr32 xxxxx.ax and press Enter (Figure B-29). xxxxxx should be

the .AX file name.



Figure B-29: Command Prompt – File Name



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Step 6: The following screen appears if the .AX file is registered successfully. Click OK

to exit.

RegSvr32		
0	DIIRegisterServer in demo_bc_dec_avc_ds.ax succeeded.	
	ОК	

Figure B-30: Register Succeeded

Step 7: Repeat Step 3 ~ Step 5 to register all the .AX files listed in the text file.