

1. Getting Started

1.1 Introduction

Thank you for choosing the **VideoWonder CardBus Dual** TV tuner and video capture card. This product turns your PC into a powerful desktop multimedia system quickly and easily. Capture video and still images and experience real-time MPEG-1 and MPEG-2 recording. Watch both digital TV and analog TV or video at the same time, on the same screen! The **VideoWonder CardBus Dual** provides you with a high quality TV viewing experience with true stereo sound!

1.2 Features

- Watch both Digital TV and Analog TV or video simultaneously
- S-Video/composite video inputs for playing VCD, DVD or V8.
- Bundle fantastic software-DVD Moviefactory and Ulead ToolBox2
- Support PIP (Picture in Picture) function
- Support real-time recording from Digital TV, Analog TV, and Analog inputs like VCD, DVD, or V8
- Watch TV in a resizable window or full-screen
- Support Time Shifting function
- Capture still images from TV and be a wallpaper on desktop
- Listen to Free-to-air DVB radio

1.3 Package Contents

When removing the contents of the package, please inspect all items to ensure no damage was sustained during shipping. The following items should be included in the package:

VideoWonder CardBus Dual



NTSC connection adapter (x 2)



PAL connection adapter (x 2)



AV-Cable Felhasználói kézikönyv



Portable Antenna



Installation CD-ROM



User's Manual





1.4 System Requirements

To successfully use the **VideoWonder CardBus Dual** solution, please ensure that your system meets the following requirements:

- Pentium[®] III 1.0 GHz or faster PC
 - MPEG-1 real-time encoding (analog): PIII[®] 1.0GHz
 - MPEG-2 real-time encoding (analog/digital): P4[®] 1.6GHz
 - DVD real-time encoding (analog/digital): P4[®] 2GHz higher
- 256 MB RAM (minimum), 512 MB RAM recommended
- CD-ROM or DVD drive
- 100 MB available hard disk space for installation
- TV antenna or TV cable for analog TV
- TV antenna or portable Digital terrestrial antenna(included in package) for digital TV
- Windows[®] 2000(Service Pack 4) or Windows[®] XP (Service Pack 1)

2. Input & Output Connections

2.1 VideoWonder CardBus Dual Connections

The **VideoWonder CardBus Dual** supports S-Video, Composite and Analog TV input. See the diagram below for connection details.



AV Cable: Connect the AV Cable to the 9-pin connector of the VideoWonder CardBus Dual

S-Video: S-Video input for external devices like VCRs or camcorders
 Audio (L): Connects to the left audio channel of an external audio device
 Audio (R): Connects to the right audio channel of an external audio device
 Video In: Composite video input for external devices like VCRs or camcorders
 Digital TV Antenna: Connects to your home or room antenna or portable antenna for Digital Terrestrial TV

TV Antenna: Connects to your home antenna or cable for Analog TV

2.2 TV Connections

You can use a home TV antenna or the packaged portable antenna for digital TV reception to connect the digital TV input to the VideoWonder CardBus Dual. Or, you can use a home TV antenna, cable TV line, or another source for your analog TV input.

If you use a home TV antenna for both digital and analog TV reception, you may need to use a signal splitter to connect to the VideoWonder CardBus Dual.



3. Installation

The following sections provide step-by-step instructions on installing and configuring the card, accessories and software.

3.1 Software installation

• First, make sure that Windows® XP (Service Pack 1) or Windows® 2000 (Service pack 4) is installed in your system. If you are not sure what version of Windows you have, just click the right button of your mouse on "**my computer**" folder and select "**Properties**" to see the version. If your PC is not Windows® 2000 (Service Pack 4) or Windows® XP (Service Pack 1), please go to "**Start**" in the menu bar and choose "**Programs**", then click "**Windows Update**" to upgrade your Windows version of Service Pack 4 for Windows® 2000 or Service Pack 1 for Windows® XP using the Internet.



This is an example for checking the version of Windows 2000.

3.1 DirectX

Before installing your VideWonder CardBus Dual, it is necessary to install DirectX 9.0.



Insert the installation CD and an installation menu should load automatically.

If the Autostart program does not appear automatically when you insert your Installation CD, start it manually by running the **InstallCD.exe** file located on the Installation CD, or by clicking the Start button, choosing **Run...**, and type **D:\InstallCD.exe**. (if D: is your CD-ROM drive)

ХP	?	Help and Support	c	Run	? 🗙
lows		Run			Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Wind	0	Shut Down	5	Open:	D:\InstallCD.exe
4	/ sta	rt 🔰 C 😂 🕻			OK Cancel Browse

Click on **DirectX** and follow the prompts to install DirectX. After the installation is completed, shut down the computer.



3.2 Installing the VideoWonder CardBus Dual

1) Simply slide the card into your notebook's CardBus PCMCIA slot, and make sure it is fully seated.



3.3 Driver Installation for Windows 2000 / Windows XP

Windows 2000(Service pack 4) / XP Service Pack 1) will automatically detect the VideoWonder CardBus Dual and brings up the **Found New Hardware Wizard** window.

If you have not already done so, place the Installation CD into your CD-ROM drive.

Select Install from a list or specific location (Advanced) and click Next and Click "Continue Anyway"



Now select **Search for the best driver in these locations**, make sure "**Search removable media** is checked, and click **Next**.

Please c	choose your search a	nd installation optio	ons.	
<u>⊙ S</u> €	earch for the best driver in	n these locations.		
Us pa	se the check boxes below oths and removable media	w to limit or expand the a. The best driver found	default search, w I will be installed.	hich includes local
	Search removable m	edia (floppy, CD-ROM.)	
	Include this location	in the search:		
	d:\		✓	Browse
ODo	on't search. I will choose	the driver to install.		
Ch the	noose this option to selec e driver you choose will b	t the device driver from e the best match for yo	a list. Windows our hardware.	does not guarantee tha
			6	

Windows will now find the drivers on the Installation CD and install them automatically. After installing the driver, Windows will inform you that it has done so successfully. Click **Finish**.

3.4 Installation of DTV

Install the DTV software by clicking on **Genius DTV Setup**. Just follow the prompts to install the software.



3.5 Installation of DVD MovieFactory

If you want to edit the TV program you recorded, please install the DVD MovieFactory. This software is included so you can edit and burn your own DVDs. If you do not want to install it, please skip this step. To install it, click on **DVD MovieFactory** and follow the prompts. When asked for the CD-key, you can find it on the envelope of your installation CD.





4. DTV

4.1 DTV Interface Overview



1. Change Skin	13.Rewind
2. Switch to Analog TV	14. Time Shifting Start/Play/Pause
3. Switch to composite video in	15. Record Start
4. Switch to S-Video in	16. Stop
5. Switch to DVB TV	17. Skip to beginning
6. Start/Stop PIP mode	18. Skip to end
7. Start/Stop Twin mode	19. Mute on/off
8. Open Scan settings	20. Volume bar
9. Switch to Play mode	21. Snapshot button
10. Swap main and second window (In PIP mode)	22. Fast Forward
11. Show/hide channel list	23. Channel list
12. Toggle full screen/windowed viewing mode	24. Teletex



4.2 Scanning for TV Channels (Digital)

Before you can watch digital TV, you have to scan for available channels in your area. On the Menu Bar, click on **Tool**, then click on **Scan**. You can also click on the **Scan** button on the left side of the screen.

Scan new Frequency..

Ra Gen	ius DIV ((Video Wonde	r CardBus Dual)	Receiving Setup Bendwidth	Taivan		ervices Informat Service ID: free/CA: Yideo PID: Audio PID: Teletext PID:	ion 503 free 5031 5032 5034		
View	Tool	About		-Channel Scan						
Concession of the local division of the loca			appropriate provide the standard and standard and standard and standard and standard and standard and standard	💿 Auto Scan		Service Name	Frequency	Network Provider	Transpo	Scan
		an		Location Taiwan	~	✓ 中親數位台	533000	中親	24	
						☑ 中親新聞台	533000	中親	24	Add
						☑ 生活頻道	533000	中親	24	714
	5e	ttina		Frequency [kHz]	593000	✓ 公共電視 PTS	545000	PTS	26	1011
				41 1.0 N		☑ 行動電視 DI	545000	PTS	26	Dubte
		10000000		Signal Quality		FTV FTV	557000	FTV	28	Detete
				C Transmonder Scan		FMTV	557000	FTV	28	Doloto #11
				U Hansponner bean		TTV 1	557000	FIV TTV	28	Desce Au
				Frequency [kHz]	0	V 117-1	581000	TTV	31	Import
						HAKKA	581000	TTV	31	Import
						CIS	593000	CTS	34	Load
						CIS_Edu	593000	CTS	34	
						CIS_UNEWS	593000	CTS	34	Save as
										Cancel
						<			>	OK

Channel Scan:

There are two ways to scan for available channels, Auto Scan and Transponder Scan.

1. Auto Scan:

Select Auto Scan, then select your country from the drop-down box and click Scan.

-Channel Scan-		
Auto Scan		
Location		
-	Australia	
	Europe	
	I T minumen	

During an Auto Scan, you will see a box showing you the progress of the scan.

Scanning	
PAT PMT D SDT	
Cancel	

2. Transponder Scan:

You can also enter a frequency manually. Type in the Frequency in kHz, select the modulation, for DVBT,16QAM or 64QAM is usually correct, and then click "Scan".

Transponder Scan	
Frequency [kHz]	533000



Channels found will be displayed in the window, with information about their TID, SID, Video PID and Audio PID.

Here you can save your frequency list (**Save as...**) or import one (**Import**). You can also remove channels from the channel list by selecting the channel and clicking **Delete**.

Deutsche Welle	Scan
Deutsche Welle OWW TV5 - ASIA RAI International	
- TVE - NN	Delete
DW1 DW2	Import
DW 8 YLESAT1	Load
	Save as
Services information Service ID: 1 free/CA: free Video PID: 2305 Audio PID: 2306	Cancel
Teletext PID: 0	OK

4.3 Scanning and editing channels (Analogue type)

When in Analogue TV mode, choosing **Tool** then **Scan** or clicking on the **Scan** button will open up the following screen.

ntry Code			
Country Name:	Taiwan		
TV Standard:	Standard M/N	•	
Input Type:	Cable	-	
nnel Scan			
Channel Name	Audio format	~	Scan
CH16	MONO		
CH17	MONO		
CH18	MONO		
CH19	MONO		
CH20	MONO		
CH21	MONO		
CH22	MONO		
CH23	MONO		
CH24	MONO		
CH25	MONO		
CH26	MONO		
CH27	MONO		
CH28	MONO		
CH29	MONO		
CH30	MONO		Cancel
CH31	MONO	120	
	HONO	~	OK

Here, click on the **Scan** button to automatically scan all channels for availability and remove any bad channels. You can also change your **Country** to set your TV Standard, or you can change your **TV Standard** directly by using the dropdown boxes. You can also change the **Input Type** to designate whether you use an home antenna (Air) or cable TV (Cable).

You can also edit your channel list by using the checkboxes next to the channel name - unchecked channels will be hidden from the channel list. (You will still be able to switch to the channel by typing in the channel number) Click on the name of the channel to edit the name that will appear in your channel list. You can also click on the Audio Format of the channel to choose between MONO or STEREO sound (when



available).

4.4 Choosing your source

VideoWonder CardBus Dual is not limited to digital TV reception – you can also view analog sources at the same time.

On the left side of the main interface, you will find buttons that let you access different sources.

TV	Switches to Analog TV reception
AV in	Switches to an external device connected to the composite video input
S-Video	Switches to an external device connected to the S-Video input
DVB	Switches to Digital Terrestrial TV (selected by default)
PIP	Turns on and off PIP (Picture in Picture) Mode, which lets you watch both digital TV and an analog source at the same time
TWIN	Turns on and off Twin Mode, which lets you watch digital TV and an analog source side by side
Scan	Brings up the Scan Settings dialog
Play	Enters Play Mode, and lets you view snapshots you have taken and watch video you have captured
Swap	Swaps video between the main window and second window (in PIP mode)
Tx	Teletex

4.5 Channel list

On the right side of the interface is the channel list. Here you will see available channels for Digital TV if you are in DVB mode, and analogue TV channels if you are in analogue TV mode. Simply click on a channel to switch to it, or press the ↑ or ↓ arrow keys on keyboard to switch channels. In DVB mode, you can select DVB Radio by clicking on the dropdown box and choosing **Radio** to listen to free-to-air radio.

0.710	
DIV	-
Hadio	
CTS_Edu	
CTS_UNEWS	
TTV-12	
TTV-2	

TV	
59	
00	
61	
63	
64	
65	
66	
67	
68	

4.6 Volume controls

At the bottom of the interface is the volume bar. Click on the bar to set the volume to that level, or press the \leftarrow or \rightarrow arrow keys on keyboard to decrease or increase the volume. Click on the speaker icon to mute the audio.



5. Setting

To access the Setting window, on the menu bar, click on Tools -> Setting. Depending on your current source, there will be different settings available to you.

Ra Gen	ius DTV	(Video Wonder CardBus Dual)
View	Tool	About
	Sci	an
	Se	tting
<u> </u> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		

5.1 DVB Settings

When you have DVB as your source, you will see the following options:

tting		
Directory Schedule Recording DVB Setting TV Setting		
Bandwidth Setting		
Area : Taiwan(6M)		
ОК	Cancel	Apply

5.1.1 Directory Settings

Here you can change the directory used for saved files. Either type in the path, or click "**Browse**", go to the folder you want, and click OK. You can also choose to always have the DTV window on top of other applications by checking "Always on top".

Setting Directory	Schedule Recording DV	B Setting TV Setting			×
Worki	ng Diractow				
Ľ					
F	Always on top				
-			OK	Cancel	. Apply

5.1.2 Schedule Recording

Here you find programs scheduled to be recorded.

Please refer to <u>Chapter 7.3</u> for a description how to use Scheduled Recording.

Set	ting					X
Di	rectory	Schedule Recording DV	3 Setting TV Setting			
ſ	Schedu	le Table			1	
	Stat	Program Name	Record Time	File Name	Duration	
	-					
	-					
						Add
						Delete
	<u> </u>				2	Edit
				OK	Can	cel Apply

5.1.3 DVB Setting

Some countries use a different bandwidth setting for scanning their frequencies. In general, most countries have a bandwidth of **6 MHz** (for Taiwan), **7MHz** (for Australia), and **7/ 8 MHz** (for European countries). Here, you can choose the setting that matches your country.

In case you are in a country that uses 6 MHz Bandwidth, like Taiwan, for example, select the entry with 6M.

After this, you will need to restart your computer.

Setting	
Setting Directory Schedule Recording DVB Setting TV Setting County Code Country Narre: Taiwan TV Standard Standard: Standard M/N	TV Audio setting Channels Channels Changuage A C Mono C Language B C Stereo C Language C
	OK Cancel Apply

5.1.4 TV Setting

Here you can adjust some analog TV settings. Select your country and TV standard to get proper reception in your area. You can also select whether to receive **Mono** or **Stereo** for the currently selected channel, and what Language you wish to receive for multi-language broadcasts when available

County Code		TV Audio setti	pg
- · · ·	2	Channels	Language
Country Name:	l aiwan 🗾		C Language A
TV Standard		C Ster	reo
Standard:	Standard M/N		C Language C
	-		



5.2 Analogue TV/Video Settings (TV/AV-In/S-Video)

If you want to use TV, AV-in, or S-Video function, please see the following options:

5.2.1 Display Settings

- **Output Size**: Here you can specify the display size of the analog source.
- Data Format: Here you can choose the data format to display video in.
- **Color**: Customize here the Color of the display characteristics like Brightness, Contrast, Hue, Saturation and Sharpness.
- Clicking on "Default" will put the settings back to the factory default.
- After finishing setting, please press "OK"

Setting	
Display Record Directory Schedule Recording DVB	Setting TV Setting
Output Size 720x480 Data Format UYVY	•
- Color	
Brightness	128
Contrast	68
Hue	0
Saturation	64
Sharpness	0
	Default
	OK Cancel Apply

5.2.2 Record Settings

Record Settings let you adjust how you record files from the AV-in and S-Video sources.

Record - MPEG:

Here you can define whether you want to record at Good, Better or Best quality according to predefined settings.

When you choose **Customized**, you can make a custom setting to record with. You can choose between the following formats:

- NTSC or PAL MPEG-1
- NTSC or PAL VCD
- NTSC or PAL MPEG-2
- NTSC or PAL SVCD
- NTSC or PAL DVD

Display Record Directory Schedule Recording DVB Setting TV S Image: MPEG SYSTEM System Compressor: W/MVideo Encoder D v Property Record Quality Image: MPEG2_G Audio: Better Sample Rate: 44100 Bit Rate: 224000 Directory Video: Format: MPEG2 Size: 320x240 BitRate: 4000000	etting
Profiles	OK Cannel Angle

The **Profiles...** - Button is also available when Customized is selected, and it opens the following screen:

Here you can **Create** a new profile, **Modify** an existing one, **Duplicate** a profile, and **Remove** one or all of the existing profiles.

NTSC_VCD NTSC_MPEG2 NTSC_SVCD PAL_MPEG1 PAL_VCD PAL_MPEG2 PAL_SVCD PAL_DVD	Audio: Format: MPEG_1 Sample Rate: 0 Bit Rate: 0 Video: Format: MPEG_1 Size: 0x0 BitRate: 0	
	 	>

Create Profile

General:

Here, enter a name for the profile, and a comment to help identify it. Select MPEG-1 or MPEG-2 to use with the profile.

Video Settin	9		
General Sys	tem Video Auc	lio	
Name	Profile10		
Comment			-
Mada	MPEG-1		
Mode	MPEG-2)	
	ОК	Cancel	Apply

System:

Depending on the Mode selected in "MPEG-1 General", select what Bitstream mode you want to use with the profile.

eneral System Video	Audio
Bitstream mode	C MPEG-2 General
	C MPEG-2 SVCD
	C MPEG-2DVD

Video:

Here, choose the Video Format, the output size, and the Bit Rate you wish to use.

		10000	
4U 00	-	 <bit sec<="" th=""><th></th></bit>	
		/	
7		Advance	d I
	$\overline{\mathbf{C}}$		Advance

When you click on **Advanced** from the above window, another window will open where you can select the Frame Rate, the Encoder level and whether the recording should be **Inverted**, **Deinterlace** and/or **Off Line**.

VIDEO		X
Frame Info	29.97	T
Encoder Level	5	•
□ Invert □ D	einterlace	☐ Off Line
	OK	cancel

Audio: Here you can choose the Bit Rate, Sample Rate, and how many Channels to use for recorded audio. (1=mono, 2=stereo)

Video Setting	<
General System Video Audio Static Bit Rate 224000 - Sample Rate 44100 - kHz Channel 1	
OK Cancel Apply	

Record – SYSTEM

By selecting **SYSTEM** in the Record Setting window, you can access the codecs already installed in your system. Depending on the codec, you can access the properties of the codec, and modify their settings by clicking on the **Property** button. (not available with all codecs)

Setting		×
Display Record Director MPEG G System Compressor: Record Quality Good Better Best Castomized	y Schedule Recording DVB Setting TV Setting SYSTEM WMVideo Encoder DM Property WMVideo Encoder DM MSScreen 9 encoder D MSScreen 9 encoder D MSScreen 9 encoder D MSScreen 9 encoder D MSScreen 9 encoder D MJPEG Compressor Nero Digital Video Enco	
Profile	OK Cancel Apply	



6.PIP (Picture-In-Picture)

The PIP function can be accessed from the toolbar on the left.

When you click on the **PIP** Button, you will see a second live stream at the bottom right. When you are in PIP-Mode, you can switch between analogue TV, S-Video, and AV in sources, depending on which connection you want to view in the second window.



You can move the small window on the main window anywhere on the desktop, and resize it by dragging it on its edges.



Clicking on the **Swap** button will swap the main and second windows, so digital TV will be in the second window and your analogue source will be in the main window when you are watching both Analogue TV and Digital TV



To end PIP mode, click on the PIP button again to return to normal viewing.

Note: You cannot use Time Shifting or record when in PIP mode.

7. Recording

7.1 The Recording Button

By clicking the record button, you can record video displayed in the main window. When recording video, then you will see • REC above the play controls.



In DVB-T mode, you can record the pure MPEG-2 Audio and Video signal. In analogue mode (S-Video or AV-In), you can record the signal in the format that you have specified in Record Settings. (<u>Chapter 5.2.2</u>). In both modes, recorded files will be saved to the working directory, which can be specified in Directory Settings. (<u>Chapter 5.1.1</u> and <u>Chapter 5.2.3</u>). You can watch the movies you have recorded by entering Play Mode. (<u>Chapter 7.5</u>). During recording, you cannot change channels or change video sources. When you are done recording, click the **Stop** button (see the circle on the above window)



7.2 The Time Shifting Button

With the Time Shifting function, you can pause live TV, leave, and come back and watch your program right where you left it. You also can fast forward past commercials, or rewind to see a particular scene again.

To begin Time Shifting, simply click the Time Shifting button.



The Time Shifting button will turn into a **Pause/Play** button, letting you to pause the video. Clicking it again to begin playback right where you left it.



You will see a green bar at the bottom of the screen, with a slider that shows your current position.



You can rewind or fast forward by using the buttons at the left and right side of the bar, or by dragging the slider left and right.



You can also click on the Skip to Beginning button to go to the beginning of the Time Shifting file, and click on Skip to End to move back to what is currently showing.





When you want to stop Time Shifting, click on the Stop button. You cannot change channels or video sources while Time Shifting.

or



7.3 Schedule Recording

You can access Schedule Recording from the Settings Menu as described in <u>Chapter</u> <u>5.1.2</u> and <u>Chapter 5.2.4</u>. Here you can see a list of items scheduled to record. By clicking on the **Add** Button, you are able to add a new scheduled recording, the **Delete** button cancels the highlighted scheduled recording and the **Edit** button lets you change the settings of a scheduled recording.

Stat	Program Name	Record Time	File Name	Duration	
					Add
					Delete

The Add and Edit buttons open the following menu:



- r			- Schedule Type
Source:	DTV	<u>v</u>	One time
Channel :		-	Sunday
Date :	2004/10/ 1		Tuesday
· · ·			Thursday
Start Time :	02:19:18		Saturday
Duration :	mins.		
File Name -			

First, select the **Schedule Type** from the right side of the screen. Click "One time" if this is a one-time only recording. To make a weekly recording, click on the days you want the program to record on. Select the **Source** you want to record from, then the **Channel** if you are recording from a TV source. Select the **Date** if this is a one time recording. Enter the **Start Time** and **Duration** of the program you want to record. Finally, enter a **File Name** for the recorded file – if this is a weekly recording, a number will be added to this name for each recording. (Example: FileName01.mpg, FileName02.mpg, etc.)

Click on the Add button to finish scheduling the recording.

7.4 Snapshot

You can take still image snapshots of video and save them to your hard drive. To take a snapshot, click on the "**Snapshot**" button, and the current video image will be saved to your hard drive in the working directory specified in Directory Settings. (<u>Chapter 5.1.1</u> and <u>Chapter 5.2.3</u>) You can see the snapshots you have taken by entering Play Mode. (<u>Chapter 7.5</u>)



7.5 Play Mode

You can see the files you have already recorded or the images that you captured by clicking on "**Play**" on the left side of the interface. Here you can select the file you wish to view on the right, and it will display in the main window. If the file is an image, it will be displayed. If the file is a movie clip, it will begin to play. You can pause/play or stop the movie using the Pause/Play and Stop buttons at the bottom of the interface.

