WinTV-PVR-USB2

Personal Video Recorder for USB 2.0 and USB 1.1

Quick Installation Guide

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Included with WinTV-PVR-USB2:

- WinTV-PVR-USB2 device with 125 channel cable ready TV tuner, FM radio receiver, MPEG-1 and MPEG-2 hardware audio/video compressor
- Remote control transmitter and batteries
- Wall mounted power supply (6 volt)
- 1 meter USB cable
- FM radio antenna
- WinTV-PVR-USB2 Installation CD-ROM
- WinTV-PVR-USB2 Quick Installation Guide (this guide)

Installing the WinTV-PVR-USB2

The **WinTV-PVR-USB2** is a USB device designed for Microsoft® Windows98, WindowsME, Windows2000 and WindowsXP.

Installation overview
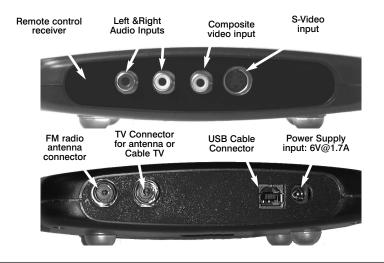To install **WinTV-PVR-USB2**, follow these steps:

✓ Plug your **TV antenna** or **cable TV** cable into the **WinTV-PVR-USB2's** TV Connector. Plug the supplied **USB cable** into the **WinTV-PVR-USB2** and into one of your PC's **USB ports**.

✓ **Boot your PC.**

✓ **After Windows is running**, plug the supplied **Power Supply** into **WinTV-PVR-USB2's** power input. The **Found New Hardware Wizard** will then load the **WinTV-PVR-USB2 driver** from the **WinTV-PVR-USB2 Installation CD-ROM**.

✓ After the WinTV-PVR-USB2 driver is installed, install the WinTV application software by running **SETUP.EXE** from the **WinTV-PVR-USB2 Installation CD-ROM**.

Step 1: Connect the WinTV-PVR-USB2 cables

Plug your **TV antenna** or **cable TV** cable into the **WinTV-PVR-usb's TV Connector**. Plug the supplied **Radio aerial** into the **FM radio connector**. This may not be necessary if your TV aerial or cable network supplies FM.

The **S-Video** and **Composite video** inputs and the **L&R audio** inputs can be used to bring audio/video from a VCR, camcorder, DVD player or satellite TV receiver.

Plug one end (the square end) of the **supplied USB cable** into the **WinTV-PVR-USB2's USB Cable connector**. The WinTV-PVR-USB2 is compatible with both USB 1.1 and USB 2.0 (high speed USB). If you are using USB 2.0, the WinTV-PVR-USB2 can create videos at higher quality.

Remote control receiver   Left &Right Audio Inputs   Composite video input   S-Video input

FM radio antenna connector   TV Connector for antenna or Cable TV   USB Cable Connector   Power Supply input: 6V@1.7A

Step 2: Boot your PC.

Step 3: Plug the power supply into WinTV-PVR-USB2

Plug the supplied **Power Supply** into the **Power Supply input** on WinTV-PVR-USB2.
DO NOT PLUG THE POWER INTO WINTV-PVR-USB2 UNTIL YOUR PC HAS COMPLETELY BOOTED!

Step 4: Installing the WinTV-PVR-USB2 driver for Windows XP and Windows2000

After booting into Windows, plug the WinTV-PVR-USB2 in your USB port. The **Found New Hardware Wizard** will appear. Insert the **WinTV Installation CD-ROM** in your PC's CD-ROM drive and make sure **Install the software automatically (Recommended)** is checked. Then click **NEXT**.

When the **Hardware Installation** dialog box opens, click **Continue Anyway**. Click **Finish**.

This will complete the driver installation for Windows XP. Now go to step 5 to install the WinTV-PVR applications.

Step 5: WinTV-PVR-USB2 applications installation

To start the **WinTV-PVR software installation**, click **Start / Run** then type your CD-ROM drive letter (for example: **E:**) and then **Setup.exe**. Chose a language, and click **Next**.

The standard applications are selected, ready to be installed.

Click **Install** to start the application installation.

After the Setup program is complete, you will need to reboot your PC. After rebooting, you will see the **WinTV2000** icon on your Windows desktop.

The WinTV2000 application

To run the WinTV2000 application for watching TV, recording videos and playing them back to your PC screen, double click the WinTV2000 icon.

Scanning for channels

When running WinTV for the first time, you will need to scan for your TV channels. If you are using Cable TV, in the **Broadcast/Cable** box select **Cable** (or Cable HRC). Otherwise select **Antenna**.
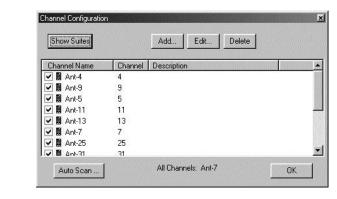
Choose the **Video Format** for your geographic region, then click on **Start**:

- **North America** uses NTSC M
- **Europe** uses PAL B/G
- **the U.K.** uses PAL I
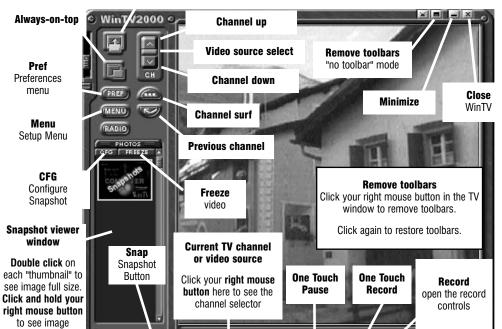- **in South America**, either PAL M or PAL N is used

Setting up the channels

After you have scanned for channels, you can add channel names and fine tune for better reception. To do this, click the **Menu** button on WinTV2000, then click **Suite Manager**. You can also **click and hold your right mouse button**, then click **SuiteManager**.

Click on the **desired channel**, then **Edit**. Change the **ChannelName** to the name of the station, change the description or fine tune. Then click **OK**.

Full screen TV

Always-on-top
Pref — Preferences menu
Menu — Setup Menu
CFG — Configure Snapshot
Snapshot viewer window
Double click on each "thumbnail" to see image full size. **Click and hold your right mouse button** to see image options.

Channel up
Video source select
Channel down
Channel surf
Previous channel
Freeze video
Remove toolbars "no toolbar" mode
Minimize
Close WinTV
Remove toolbars
Click your right mouse button in the TV window to remove toolbars.
Click again to restore toolbars.
Snap — Snapshot Button
Current TV channel or video source
Click your **right mouse button** here to see the channel selector
One Touch Pause
One Touch Record
Record open the record controls

21   Ant-21   Stereo CC

Selecting an External Video source (VCR, camcorder, etc.)
Click the **green Video source select** button to select **TV**, **Composite** and **S-Video** sources. The video sources will use the TV standard chosen when you scanned for your TV channels (NTSC or PAL).

Rescanning for channels
Click the **Menu** button and click on **Suite Manager** and then **Auto scan**. Make sure you select cable or antenna in **Broadcast / cable**. Chose the correct **Video format** for your region and then click **Scan**.

Displaying TV full screen
When you click the **Full screen TV** button, TV will appear full screen. When finished watching TV full screen, click your right mouse button in the TV window.

If you see video with a black box to the left and right of the TV image, click the **Pref button** then click **TV mode** tab. Check the box

which says "Allow resolution change".

"Always-on-Top" mode:
With **Always on Top**, the WinTV window can always be visible on your Windows desktop. To turn on Always-on-Top, simply click the **Always-on-top** button. It will turn green. To turn off Always on Top, click this button again.

A convenient way to use Always-on-Top is to make the TV window in the no-title mode small, and to make the TV window in the title mode larger. Then you can switch very quick from a small window to a larger one simply by clicking the right mouse button.

Menu button
Click the **Menu** button to open the **TV Setup menu**. Here is the main control for TV channels, and duplicate controls for other functions:

Suite Manager: configure the TV tuner (scanning, naming, fine tuning, etc.), setting up 'favorite channel lists' and set an external A/V source to a TV channel.

Configuration: duplicate configuration menus for color, audio, MPEG settings, etc.

View: for setting the TV window size

Pref button
Click the **Pref** button to open the **Preferences menu**. You will have tabs for:

View: these are the settings for the **On Screen Display** of the **TV channel** and **Audio Volume**, where you can enable **Close Captions**, plus controls for the **Toolbar mode** (Title mode), **NoToolbar mode (No Title)** and **Full Screen (TV mode)**.

Movies: here is where you configure the **video** and **audio** settings. You can set the **movie record directory** (DVCR Record File Path), the **MPEG Quality settings**, and the **Audio setings**.

Snap Shot: here is where you can set the size of your captured images, plus single or two field captures.

Audio: your audio settings are configured here.

Color: adjust the color of your TV picture here.

If you cannot hear audio
If you cannot hear audio when the **WinTV** application is running, check the following:

- On the **WinTV2000**, click **Pref / Audio**. Make sure the **Audio Mixer Input** is set to **WinTV Wave**.

- Open the **Volume control menu** (double click on the small speaker icon in the lower right hand corner of your PC screen). Make sure **Wave** is not muted and the level is about half way up.

- If you do not see a **Wave** listed in the **Volume control menu**, click on **Options / Properties** in this menu and under **Show the following volume controls** put a check mark next to Wave. This will add Wave to the list of devices. Click **OK** and then you should see Wave listed. Once again, make sure Wave is not muted and the volume is half way up.

- If you do not hear audio when playing back a recorded video file, open up the **Windows Volume Control Mixer** and make sure **Wave** is listed and **not muted**. The WinTV-PVR-USB2 uses your PC or laptop's sound card **Wave device** for audio volume.

Watch TV, Pause and Record

There are three buttons to control the **Watching, Recording** and **Pausing** of TV. Clicking on the **Pause** button will cause the **Pause menu** to roll down from the WinTV2000 application, while clicking on the **Rec** button will cause the **Record menu** to roll down.

The **One Touch Pause** (OTP) button prepares the **WinTV-PVR** for pausing live video (see **Pause mode** below).

The **One Touch Record** (OTR) button will start a record session. If you click **OTR** more than once, a record timer will be set and the recording will be done for 15 minutes for each time the OTR button is clicked. For example, if you click the **OTR button 3 times**, the **WinTV-PVR** will record for **30 minutes**.

One Touch Pause   One Touch Record
OTP   OTR
TV   Pause   Rec
TV mode button
Pause mode button
Record mode button

Quick instructions on recording and pausing your TV shows

If you want to record a TV show you are watching:

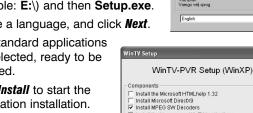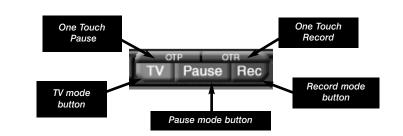- Click the **Record** button to lower the record and play menu
- In the Record menu, click the **red record button** to start recording
- When you are finished recording, click the **stop button**
- Click the **Play button** to play the video you just recorded
- To play a video you recorded earlier, click the **File** button and then move your mouse and click once on the video you want to play. Click **Open** and then **Play button**. For more instructions, see the section entitled **Record mode**.

If you want to pause a TV show you are watching:

- Click the **Pause** button to lower the pause menu. After about 15 seconds, your screen will stop and the Time counter will start counting.
- To start the video from where you paused, click the **Play button**
- To pause the video again, click the **Pause button**
- To rewind the video to the beginning, click the **Skip to the beginning button**. If your video was paused, click the **Play** button.
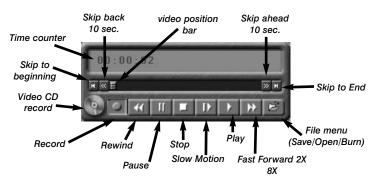- To rewind the video 10 seconds, click the **rewind 10 seconds button**. If your video was paused, click the **Play** button.

For more instructions, see the section entitled **Pause mode**.

Record Mode

Click on the **Record button** on the WinTV2000 application to open the **Record** and **Playback** control bar:

Skip back 10 sec.   video position bar   Skip ahead 10 sec.
Time counter
Skip to beginning
Skip to End
Video CD record
File menu (Save/Open/Burn)
Record   Rewind   Stop   Play
Pause   Slow Motion   Fast Forward 2X 8X

Time counter

The time is specified in a Hour:Minute:Second format. When Recording, the time of the recording will be displayed. On playback, the current position time and the total time in the video being played will be displayed.

Record button:
Clicking the **Record button** will automatically generate a file name and start recording your audio/video program. The quality of the video recording and the directory where the files are stored are set in the **MPEG Configuration Menu** by clicking the **PREF button / Movies / MPEG** (see the section entitled "**Configuring the format for MPEG compression**") .

N ote: it takes about 20 seconds for the recorder to initialize. Do not click any WinTV buttons while the record mode is initializing.

While recording:
- Live video continues to play in the WinTV window
- The Counter will display the length of your recording
- If you had started recording with the OTR button, and had clicked it more than once, the total time for the recording will be displayed

The recorded video file is saved in the **DVCR Recorded File Path** which can be configured from the MPEG Configuration Menu. Everytime you record a file, a new file is automatically created. The first file will be **_dvcr001.mpg**. The second file will be **_dvcr002.mpg** and so on.

The quality of the recording is configured from the **MPEG Configuration Menu** (see the section entitled "**Configuring the format for MPEG compression**"). There are several video qualities: VCD plus MPEG-2 **2.0, 4.0, 6.0** MBit/sec, etc. The highest quality is MPEG-2 **6.0** MBit/sec, and the least is **VCD**.

Clicking the **Stop button** will stop your recording, and then saves the recorded audio/video file to disk using the automatically assigned file name. The Counter will be reset to 00:00:00 after the file is saved.

VCD Record button:
Clicking the **VCD Record** button will automatically generate a file name and start recording your audio/video program using the VCD record quality. This button makes it easy to save VCD quality video, for burning later on to a Video CD (CD-R or CD-RW). To burn a Video CD, see the section entitled "Creating Video CD's".

Stop button:
Clicking the **Stop** button will stop the video you are recording or play-

ing back. Once the video is stopped, live TV will be displayed in the WinTV window.

▶ Play button:
Clicking the **Play button** in Record mode will play the last video file created. When playing back a video, you can rewind, fast forward, replay 10 sec or forward 10 sec using the buttons on the time slider.

When playing video files, you can quickly skip to sections of your video by hitting the 0 to 9 buttons on the remote (or your keyboard). When you hit '1' you will skip to 10% of the length of the video. When you hit '2' you will skip to 20% of your video.

▌▌ Pause button:
Clicking the **Pause** button while Playing will pause your audio/video file. Clicking the Pause button again will continue the playing.

◀◀ Rewind button:
Clicking the **Rewind** button while playing will play the video file in reverse at 1x speed. Clicking the Rewind button again will continue the playing.

▶▶ Fast Forward button:
Clicking the **Fast Forward button** one time will fast forward your video at 2X speed. Clicking the **Fast Forward button** two times will fast forward your video at 8X speed.

Slow Motion button:
Clicking the **Slow Motion** button while playing will play the video in Slow Motion. To start playing your video file at the normal speed, click the Slow Motion button again.

File button:
Clicking the **File button** opens the **File menu**. The last file recorded is listed in the **File name** box.

In the File menu you can:
- **Rename your recorded video file.** To rename a video file, find the file you would like to rename (remember, the automatically generated file names start with _dvcr), **highlight** it with your mouse, and **click and hold the right mouse button**. Go down
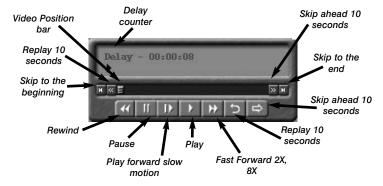
to **Rename** and then you can type in a new name. Remember: you must keep the MPG extension on the file.

- **Play a video file previously recorded:** find the file you would like to play, **highlight it** with your mouse (one click of the mouse button) and click **Open**. Then click the **Play button**.
- **Delete recorded video files** which you no longer want (and which consume hard disk space). Click your **right mouse button** on the video file once, go down the menu and click on **Delete**.

Pause mode

Clicking the **Pause button** on the WinTV2000 application starts the **Pause mode**. The **Pause Menu** will drop down.

N ote: It takes about 10 seconds to create a pause buffer. While the buffer is initializing, do not click any buttons on the WinTV application.

Video Position bar   Delay counter   Skip ahead 10 seconds
Replay 10 seconds   Skip to the end
Skip to the beginning   Skip ahead 10 seconds
Rewind   Pause   Play   Replay 10 seconds
Play forward slow motion   Fast Forward 2X, 8X

Delay — 00:00:00

Pause buffer:
The **Pause buffer** is a circular buffer on your hard disk. The maximum amount of time which your TV program can be delayed is dependent upon how much storage space you have set for the Pause buffer and which type of MPEG format you have chosen. Both of these can be set in the MPEG settings menu (see the section entitled "Configuring the format for MPEG compression").

The **Limit Pause Mode buffer size** sets the maximum size of the Pause buffer. Here are some suggested sizes:
- if you are using **MPEG-1 - VCD format**, 650 MBytes per hour are used. So if you want a 1/2 hour buffer, then **set the Limit Pause Mode Buffer Size to 325 MBytes**.
- if you are using **MPEG-2 4.0MB/sec**, about 2 Gigabytes per

hour is used for the Pause buffer. So for a 30 minute buffer, then set the **Limit Pause Mode Buffer Size to 1000 MBytes**.

Delay counter:
The Delay counter displays the amount of time the video window is currently delayed from live video. For example, if the delay counter says "00:01:23", then the video window is showing video 1 minute and 23 seconds behind live video.

▌▌ Pause button:
Clicking the **Pause button** causes WinTV to start saving a audio and video stream (referred to as an A/V stream) into the WinTV's Replay Buffer. It takes about 15 seconds for the Replay Buffer to be initialized and for Pause to become effective.

Unclicking the **Pause button** will cause the audio/video program to start playing from the point where the button was originally pushed.

Most WinTV functions are active while in the **Pause** or **Pause Live** mode. For example, you can change volume, resize the TV window, go into "no-title mode", etc. If you are in the **Pause** mode though, the video image in the **WinTV** window is frozen so you will not see the function change. For example, in **Pause** mode if you change volume you will not hear the volume change.

While in Pause mode, the **Video Position bar** shows the amount of the **Replay Buffer** which is filled with video. For example, if the Video Position indicator shows halfway, it means that half of the Replay Buffer is filled. If you find you cannot Replay or Pause as many minutes as you would like, there is a setting in the Preferences menu where you can increase the size of the Replay Buffer.

While in Pause mode, the A/V stream is always saved in the Replay Buffer. To stop saving the A/V stream in the Replay Buffer, you must exit the Pause mode by clicking the **TV mode** button.

◀◀ Replay button:
While in the Pause mode, hitting the Replay button acts like the **Instant Replay** you see on TV broadcast sporting events: the audio/video goes back in time and you repeat what you have previously seen.

Each click of the **Replay button** causes audio/video to go back 10 seconds. For example, if you want to repeat the audio/video you saw 10 seconds ago, you would **click once the Replay button**. If you want to see the video you saw one minute ago, you would need to **click the Replay button six times**.

For extended replay times, you might find it more convenient to grab the **Video Position indicator control bar** and move it to the left. Once you let the control bar go, audio/video starts to play (it might

take a few seconds for the **WinTV** application to start playing). You might have to move the Video Position indicator to the left and right to find the desired spot to start replaying audio/video.

While replaying, your audio/video program continues to be recorded in the Replay Buffer. Therefore, if you have clicked the Replay button 3 times (so that you are replaying the audio/video seen 30 seconds ago), the video you see in the WinTV window will be 30 seconds behind the "live" audio/video program.

To catch up to the "live" audio/video program, you can either exit the Pause mode by clicking the TV mode button, you can click the Skip button, which skips ahead 10 seconds per click, or you can grab the Video Position indicator and move it to the right until it is at the end of the Video Position bar.

Skip Ahead button

Clicking the **Skip** button will skip the video ahead 10 seconds.

Rewind button:

Clicking the **Rewind** button while playing video will rewind the video. Clicking the **Rewind** button again will continue playing.

Fast Forward button:

Clicking the **Fast Forward** button one time will fast forward your video at 2X speed. Clicking the Fast Forward button two times will fast forward your video at 8X speed.

Slow Motion button:

Clicking the **Slow Motion** button while Playing, will play the video in slow motion. Clicking the **Slow Motion** button again will continue playing normal.

Configuring the MPEG compression format

To set the directory where your video recordings will be stored, click the **PREF** button (Preferences menu) on **WinTV2000**, then **Capture** and then on the **MPEG** tab.

Set the **DVCR File Path** to directory where you would like to store your video recordings. The default is **My Documents / My Videos**.

The **WinTV-PVR** supports several formats for MPEG video compression, called **Quality Levels**. The differences in these formats are:

- The higher the datarate, the better the video quality you see from live TV and your recordings. The higher the datarate, the more disk space which will be required.

- CPU horsepower required during playback and pause mode.

- The compatibility when creating DVDs, Video CD's or S-VCD's.

To configure the MPEG **Quality Level**, on **WinTV2000** click the **PREF** button (Preferences menu), then **Capture** and then the **MPEG tab**. Here are the video formats and the amount of disk space per hour used:

MPEG1 VCD	.65 Gigabytes/hour
MPEG2 2.0MBits/sec (Full D1)	.9 Gigabytes/hour
MPEG2 2.0MBits/sec (Half D1)	.9 Gigabytes/hour
MPEG2 12.0 MBits/sec (Full D1)	5.4 Gigabytes/hour
MPEG2 12.0 MBits/sec (CBR)	5.4 Gigabytes/hour
DVD Standard Play 8.0Mbits/sec	3.1 Gigabytes/hour
DVD Long Play 6.2Mbits/sec	2.4 Gigabytes/hour
DVD Extra Long Play 2.5Mbits/sec	1.2 Gigabytes/hour
SVCD Standard Play 2.5Mbits/sec	.8 Gigabytes/hour

Note: CBR is constant bit rate, VBR is variable bit rate.

Which record format should you use?

If your PC has a USB 2.0 connector, you can use any of these formats. If you would like to burn a DVD, then chose either **DVD Standard Play**, **DVD Long Play** or **DVD Extra Long Play**. DVD formats record at 720x480 (720x576 with PAL video sources) using 48.0 kHz stereo audio. You can get 6 episodes of a 1/2 hour TV show on a DVD+R/W using DVD Extra Long Play.

If you are using a PC with a USB 1.1 connector, use the **DVD Standard Play** or **DVD Extra Long Play**, or any of the **SVD** formats. For creating Video CD's for playback on your home DVD player, chose the **MPEG-1 VCD** format.

If you want to watch the recorded video on your PC, for the best video quality chose **MPEG2 12.0MB/sec** or **DVD Standard Play**. If you do not have much disk apace, try the **MPEG-2 2.0MB/sec.**
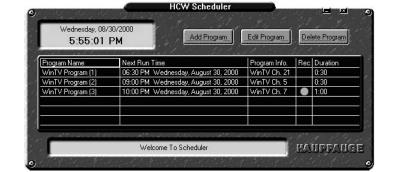
SVCD is a nice compromise between video quality and hard disk space. Video is recorded at 480x480 (480x576 for PAL video) at a datarate up to 2.5Mbits/sec.

Once chosen, the Quality Level format is set for both the Pause and Record modes. The format cannot be changed while Recording or while in the Pause mode.

Using WinTV-Scheduler

WinTV-Scheduler allows you to schedule your TV watching and recording of TV shows. **WinTV-Scheduler**, once it is set, can be closed and the **WinTV** application will "wake up" at the desired time and tuned to the desired channel. **WinTV-Scheduler** can be found in the **Hauppauge WinTV** folder. Click **Start** / **Programs** / **Hauppauge WinTV** and then **Scheduler**.

Once **WinTV-Scheduler** is running, to set up an **event** for timed watching or recording, click on the **Add Program button**.

The items that need to be set for **each event** are:

- **Time to Begin Program:** set to the desired start time. The default time is about 3 minutes from the current time. Click on the hour to set the hour, the minute to set the minute and the second (if you feel this is necessary) to set the minute to start the program. **Note:** it takes about 1 minute to launch the WinTV and set up for recording, so set the **Time to Begin Program** to 1 minute before the time your TV show actually starts.

- **Program Duration:** Set to the duration, in minutes, of this event. **Note:** you need to leave at least 1 minute between scheduled programs to give the recorder time to set up its disk buffers.

- **Program Period:** one time, daily, weekly

- **Date to Begin Program:** today's date is the default. Change this if you want to schedule on another date.

- **Source selection:** leave set at **WinTV32** to bring up the **WinTV** at the requested time and on the requested channel.

- **Channel selection:** chose one of your scanned channels.

- **Recording options:** click on **Record to File** to record your show. Leave this button unchecked to watch TV at the requested time. You can also **name your file** to record, in the above dialog box.

Once these are set, click **Set Program**. You can add more **Events**, clicking **Set Program** after each event is set. When you are finished click **Close**.

The **WinTV** program does not have to be running for the schedular to work. If **WinTV** is not running, it takes about 30 seconds to start **WinTV** and to start the recording of TV.
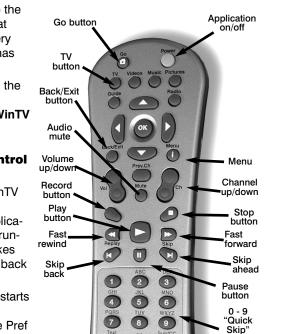
WinTV-PVR remote control

The WinTV-PVR's remote control software is installed automatically during the installation of the WinTV applications. You will see the **WinTV Remote icon** in the Device Tray. The installation will add a

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shortcut to IR.EXE to the Startup group, so that IR.EXE is loaded every time after Windows has booted.

If you need to restart the remote control, run **IR32.EXE** from the **WinTV** directory.

Some remote control buttons

TV button: when WinTV is closed, this button starts the WinTV application. Once WinTV is running, this button makes TV go full screen, or back to "TV-in-a-window".

Red record button: starts recording using the parameters set in the Pref menu.

Pause button: if watching live TV, will open the record/play menu box and stop the video. When recording, this button will pause the video but WinTV will continue to record. If playing back video, this button will pause the video playback. Click the Pause button to start playing again.

Stop button (square icon): stops the recording or playback. If in Pause mode, will exit pause.

Play button: plays the last video recorded.

Back/Exit button: will close the record, play or pause menus.

0 - 9 buttons: When in "live" TV mode, is used to directly enter channel numbers. When playing back a recording, the "1" button will skip to 10%, the "2" button 20%, etc. of the length of the recording.

Skip ahead button: holding the skip ahead button advances the video about 5 minues per 10 seconds the button is depressed.

Skip back button: pressing and holding the Skip back button makes the video go back about 5 minutes for every 10 seconds the button is depressed.

Go button: brings up the WinTV task list. Allows you to start WinTV2000, WinTV32 or WinTV-radio.

Menu button: brings up the Windows Task list. Use the left and right arrows to change to other Windows tasks.

Power button (green): if WinTV is running in "Record" mode, this button will put WinTV into the "TV" mode and close the record/playback menu. If WinTV is in "TV mode", this button will close the WinTV application.

Red button at bottom: closes WinTV Radio and opens WinTV2000.

Green button at bottom: closes WinTV2000 and opens WinTV Radio (on models with radio).

Yellow button at bottom: no current function.

Blue button at bottom: creates snapshot in live TV, pause, record or playback modes.

Checking the function of WinTV's IR Remote

WinTV's Remote application, **IR.EXE**, is loaded every time Windows is booted. You will see a **Remote icon** in the device tray. To check the remote control operation, point the **Remote transmitter** at the **Remote control receiver**. When you click the **TV button** on the Remote transmitter, after 3-4 seconds the **Remote icon** should flash, indicating that the Remote application is running. After the Remote icon flashes, the WinTV application will be run.

Ulead DVD MovieFactory 2SE

Start project: Used to author and burn DVD's, SVCD's and VCD's. Create chapter menus, mix videos, JPEGs and music.

CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS ON THE BATTERIES.

Edit disk: Edit videos or menus from DVD+RW's.

Direct to disk: this function currently does work.

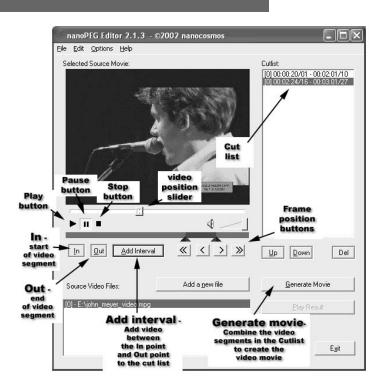**Copy disk:** Burn copies of existing disc images to CD/DVD.

Making DVDs from your WinTV-PVR recordings

DVD players which are compatible with CD's and MP3's can also read DVD's burned using MPEG video files created with the WinTV-PVR. If you plan to burn a DVD, you should use either the "DVD Standard Play", the "DVD Long Play" or "DVD Extra Long Play". These formats will allow you to make DVD's with the following recording lengths:

DVD Standard Play: 1 hour 30 minutes

DVD Long Play: 1hour 50 minutes

DVD Extra Long Play: 3 hours

WinTV MPEG Editor

The Hauppauge MPEG Editor is an MPEG1/MPEG2-2 cut and join editor. You can cut out segments from videos, or combine videos (of the same MPEG format) together. The MPEG editor makes its cuts on what are called "MPEG I-frames". These types of cuts do not require a re-encode, and therefore preserves the quality of the original video.

You will find the WinTV MPEG editor by clicking **Start** / **All Programs** / **MPEG Tools for Hauppauge** / **nanoPEG Editior**.

This version of the MPEG editor has these features:

- Edit (cut) MPEG1 or MPEG2 files.

- Join MPEG files of the same resolution and bit rate

- Remultiplex Video CD compatible files so they can be "burnt" into VCD's

- Remultiplex S Video CD compatible files so they can be "burnt" into SVCD's

- Split large MPEG videos into pieces, so that these can be burned onto CD-ROM or DVD media

- Has a "play" option so you can play the file you have just edited without having to close the editor

How to use the WinTV Editor:

Click on the **Add source** button or click on **File** / **Add** source to bring the file you want to edit into the MPEG editor. The **WinTV-PVR** uses the **c:\My Documents\My Videos** directory as the default directory to save video files created by the **WinTV-PVR**. When the selected file

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is opened, it will start playing back in the video window. Click the **Stop** button to stop playback.

Grab the **video position slider**, and move it to the beginning of the video segment you want to keep. The video frame will be shown in the video window. You can also use the controls under the video window (play, pause, stop and the frame control buttons).

When you have correctly positioned to the video frame you want, click the **In button**. This will define the starting point of the video interval.

Grab the **video position slider** and move it to the end position of the clip you want to keep, then click the **Out button**.

Click **Add Interval** to add the defined clip to the cut list. Repeat until you have put all the desired video clips in the "**cut list**".

When you have finished with your cut list, click the **Generate output** button. All intervals in the cut list will appear in the final video. The Generate Output step normally takes awhile.

Your MPEG video is named **nanoEDIT.mpg**. Be sure to rename this before cutting another video, otherwise the file will be overwritten! Before you click **Generate Output**, click **File** / **SelectOutputFile** to change the file name of your recorded file.

To cut away an advertisement, click the **In button** at the beginning of the video sequence, then click the **Out button** just before the advertisement starts. Click **Add Interval**. Then click the **In button** at the end of the advertisement, and click the **Out button** at the end of the video sequence you want to keep. Then click **Add interval**.

To cut away advertisements from a movie, you must define all pieces you want to keep (everything which belongs to the movie) and add them to the cut list.

Tips on System Optimization:

Under Windows 98SE, these are tips that will help you improve capture and playback performance of video files on you PC. In general, these are not needed for Windows XP.

1.) Do not use DoubleSpace or any other disk compression scheme! This severely slows down your hard disk.

2.) Make sure DMA is checked for your Hard disk drives in **Device Manager**. Right click your mouse on the **My Computer** icon on your desktop and click on **Properties**. Click on the **Device Manager** tab and double click on **Disk Drives**. Highlight **GENERIC IDE DISK TYPE** and click on **Properties**. Click on **Settings**. Make sure DMA is selected.

3.) Turn off screen savers, Disconnect from a local area network, and any programs in your windows startup.

4.) Defragment your Hard Disk. To Defragment your hard disk, in Windows click on **Start** / **Programs** / **Accessories** / **System Tools** and click on **Disk Defragmenter**.

5.) There are several hard disks on the market which are designed for higher performance video captures. These drives use 1:1 interleaving and track caching to eliminate gaps caused by a hard disk drive seeking to the next track. They are available with both IDE and SCSI interfaces.

Troubleshooting

Note: Our FAQ can be found at:

http://www.hauppauge.com/pages/support_faq_pvrusb2.html

Problem: "WinTV initialization error" or "Error Code 10: This device cannot start"

1. Make sure that the WinTV-PVR-USB2 device is plugged in directly to the PC's USB1.1 or USB 2.0 port and not a USB HUB.

2. Check in Device Manager to see if the **Hauppauge WinTV PVR-USB2 Encoder** is listed in "Sound, video, and game controllers".

If it is, unplug the power from the WinTV-PVR-USB2 and restart the computer. After your PC is rebooted, plug WinTV-PVR-USB2 in again and run WinTV-2000.

If WinTV-PVR-USB2 is not listed, unplug the PVR-USB2, restart the PC and uninstall the drivers and software using **HCWCLEAR** (HCWCLEAR can be found on the WinTV Installation CD).

After running the HCWCLEAR program, plug the WinTV-PVR-USB2 into your PC or laptops USB port (USB 1.1 or 2.0) and reinstall the drivers/ and applications.

3. Try WinTV-PVR-USB2 in another USB port.

4. Try changing the Memory Usage setting. Open **Control Panel** and go to **System** then click on the **Advanced tab**. In the **Performance** section click on the **Settings** button, then the **Advanced tab**. In the **Memory Usage** section, choose **Programs** instead of **System Cache**.

5. Make sure that the latest drivers for your VGA card are installed.

Problem: WinTV2000 locks up

The WinTV-PVR-USB2 must be power cycled in order to be reset. Unlike PCI cards, rebooting the PC or laptop will NOT reset the unit. The only way to reset WinTV-PVR-USB2 is to unplug the WinTV-PVR-USB2 from the power cable for a few seconds then re-plugging it.

Problem: Black screen after scanning channels

If the channels are scanned in properly, they should be listed in the Suite Manager and the first channel detected should be displayed in the WinTV2000 window. If you do not see video:

1. **If you get a black screen** after scanning for channels, but you can hear the audio, try closing and reopening the WinTV2000. If this doesn't work, try changing the MPEG settings in the Preferences. Click on **Pref** in the WinTV2000 application and go to **Capture** – **MPEG** and change the **Quality Level** and click **OK**. After getting video to display you can reset Quality level to desired setting.

2. **Run Primary.EXE** and set to Force Primary. Primary will allow video to be displayed with a wider range of graphics adapters.

3. **Rerun SMD04.exe** from the WinTV-PVR-USB2 Installation CD-ROM. This program can be found in the SMD directory on the CD-ROM.

Problem: "iVac driver not found"

iVac is the MPEG encoder chip used in the WinTV-PVR-usb2. Usually unplugging and reconnecting both the Power and USB cable from

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the USB unit should get rid of this error. After reconnecting the device, try installing the application. You will need to reboot the system during installation. Once installation finishes, you should be able to use the WinTV2000 program.

Problem: Remote control does not respond

1. Unplug the power to the WinTV-PVR-USB2. Replug the power in. This resets the IR receiver circuit inside WinTV-PVR-usb2. Run "**Restart IR**" from the Hauppauge WinTV directory on your PC.

2. If the remote control still does not work, test your remote control: Point the remote control at the WinTV-PVR-USB2 (the remote control receiver is just below the IR icon on the top of the WinTV-PVR-USB2 case)

   Click the **Go** button. You should see the **WinTV Remote menu** pop up on your PC screen.

3. Restart the IR remote application:

   Click **Start/Programs/HauppaugeWinTV/Restart IR**

   Look in the lower right hand corner of your VGA screen (the Windows toolbar). There should be a small **remote control icon**.

   Point your remote control at the **IR icon on the WinTV-PVR-USB2** and click the **Go button**. You should see the **WinTV Remote** menu pop up.

If the remote control still does not respond, contact Tech Support.

Problem: Poor image when running WinTV in 256-color mode

Many VGA's cannot run **WinTV** in 256-color mode. Instead, run in 16-bit or 24-bit color mode.

Problem: Poor TV Reception or Not detecting all channels:

Poor TV reception is generally the result of an insufficiently strong TV signal. When using a 'roof-top' antenna, an aerial booster may be required if there is poor TV reception. If you find that some or all of the channels have not been detected, you can insert channels manually.

Also, in some areas using cable TV, a format called **Cable HRC** is used. If so, try rescanning (see **Rescanning for channels**) but use **CABLE (HRC)** instead of **cable** in the Broadcast/Cable box.

Tip: To see if your driver installation was successful

To check if your installation was successful, click on **Start/Settings/ControlPanel** then click on the **System icon** (can also be found in the "Performance and Maintenance" section).

In the **Hardware tab** click the **Device Manger** button, go to **Sound,**

Video and Game Controllers and check that it has the line: **Hauppauge WinTV PVR USB2 Encoder**.