

ReceiverSystem



TV Tuner & Video Recorder

Manual (English)

CE Declaration

We:

TerraTec Electronic GmbH, Herrenpfad 38, D-41334 Nettetal, Germany

hereby declare that the product:

ReceiverSystem TerraTec Cinergy 250 USB,

to which this declaration refers is in compliance with the following standards or standardizing documents:

EN55024

EN55022 cl. B

EN55013

EN55020

EN60950

EN60065.

The Cinergy 250 USB is solely intended to be connected to devices that comply with the EN60950 safety standard.

The following are the stipulated operating and environmental conditions for said compliance: residential, business and commercial environments and small-company environments.

This declaration is based on:

Test report(s) of the EMC testing laboratory



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Contents	
Welcome!	4
Analog TV via USB 2.0	4
Fully video-enabled	5
All inclusive.....	5
Key features.....	6
System requirements.....	6
Scope of delivery.	6
Using the Cinergy 250 USB for the first time	7
Installing the drivers.....	7
Hardware at a glance.....	8
Important settings for sound card owners.	9
The TV software.	10
Installation.....	10
Launching the TV software for the first time.....	11
The main page.....	16
The TV window.	18
Context menu.....	19
The configuration menu.....	22
Configuration: Playback settings.	22
Configuration: Capture settings	24
Configuration: Still image capture.	26
Configuration: Stations	27
Configuration: Options	27
Configuration: About	27

Welcome!

We're pleased that you have chosen a TerraTec ReceiverSystem and would like to congratulate you on this decision. With the TerraTec Cinergy 250 USB you've purchased a sophisticated product representing the state of the art of PC/TV technology. We're convinced that our product will prove extremely useful to you and provide you with a great deal of entertainment.

The manual provided tells you in complete detail all about the ReceiverSystem TerraTec Cinergy 250 USB and how to use it correctly. But first, here's a quick overview:



TerraTec Cinergy 250 USB ReceiverSystem (appearance may vary)

Analog TV via USB 2.0

The Cinergy 250 USB lets you watch antenna and broadband cable TV broadcasts on your desktop or notebook PC and digitize your videos. For all its features, this mobile TV solution is no larger than a pack of cigarettes and weighs a mere 65 grams. It connects directly to your USB 2.0 port, which also serves as its power supply—a separate AC adapter or batteries are not required.

Fully video-enabled

The Cinergy 250 USB uses TV signals from your antenna or broadband cable. It can also easily process video signals from your VHS recorder, DVD player or camcorder via its composite or SVHS connector.

Good hardware isn't everything—that's why the Cinergy 250 USB comes with an extensive software package for convenience in watching videos or recording programs. For example, timeshifting will revolutionize your viewing habits: interrupt programs whenever you like and continue watching them later from where you left off.

Timer-controlled recording is also no problem. Determine the format yourself: the Cinergy 250 USB supports virtually all common video codecs such as DivX, letting you minimize space requirements when archiving films on your hard drive or on CDs. The included video recording software also lets you create video CDs or DVDs with just a few clicks of the mouse.

All inclusive

The Cinergy remote not only lets you channel-hop with ease and enjoy TV programs from the comfort of your sofa, it also controls a wide range of other multimedia applications. With the included headset, you can also watch TV anywhere on your laptop.

Thanks for your attention—enjoy!

...your TerraTec Team

Key features.

- Power supply via USB
- USB 2.0 port, 480 Mbps
- Analog video inputs, S-video and composite
- Remote control
- Digital video recorder (support for MPEG1/2 and nearly all current video codecs such as DivX)
- Timer-controlled recording and timeshifting

System requirements.

- Windows 2000/XP
- USB 2.0 interface
- CPU, 800 MHz or higher
- 128 MB RAM
- CD-ROM drive (to install drivers/software)
- CD burner (to create VCD/mini-DVDs) or DVD burner (to create DVDs)

Scope of delivery.

- TerraTec Cinergy 250 USB
- Remote control
- Headphones
- Audio cable, mini jack to mini jack (3.5 mm)
- Audio cable, mini jack (3.5 mm) to RCA
- S-video cable (mini 7-pin to RCA)
- USB 2.0 cable (0.6 m)
- USB 2.0 cable (1.5 m)
- TerraTec Cinergy 250 USB CD-ROM
- This manual
- Service request form
- Registration documents

Using the Cinergy 250 USB for the first time

Installing the drivers

Please do not connect your Cinergy 250 USB to the PC just yet!

1. Please close all active applications.
2. Insert the driver CD-ROM into your CD-ROM drive.
3. Choose your language and
4. click the "Driver installation" button.
5. Follow the instructions as they appear on your screen.

Please note that a warning will be displayed when installing in Windows 2000/XP.

Continue the installation anyway. The driver can be installed despite the lack of signature. The missing signature has no effect on the quality or functionality of the driver.

6. Restart your PC.
7. Connect the Cinergy 250 USB to one of your computer's USB 2 ports.
8. Follow the instructions as they appear on your screen.

When the installation is complete, the Cinergy 250 USB will be available in all relevant applications.

The Cinergy 250 USB will be listed in your PC's Device Manager under "Imaging devices".

Hardware at a glance.

The following is an overview of the Cinergy and its terminals.



- 1 Analog video input (S-video and composite via adapter)**
- 2 TV Antenna In**
- 3 Audio Out**
- 4 Audio In**

Analog video input

This input is used to connect external devices like video recorders and satellite receivers. Use the included adapter to connect external devices via composite.

TV Antenna In

Use this terminal to connect your home antenna or to establish a connection to a cable network.

Audio Out

Link this terminal to your sound card, headphones or active loudspeakers. Please note that USB 2 audio is not yet supported. The connection must therefore also be made when feeding the Cinergy via the TV antenna input.

Audio In

If you are connecting external devices using the Composite or S-video input terminal, you also have to establish an audio connection. Use this jack to do so.

Important settings for sound card owners.

If you have connected the Audio output of the TV card to the Line-In input of your sound card using the provided cinch-cinch cable, you will have to make certain settings in the mixer for the sound card so that you can hear and record the TV/Video tone.

To do so, proceed as follows:

1. Double-click the volume control icon illustrated as a speaker on the taskbar.
2. Be sure that the "Mute" option under the "Line-In" slider is not checked and that the "Line-In" slider is not at the bottom of its range.

This makes sure you will be able to hear the tone of the TV signal through your system and control the volume. Other settings are required for recording (see instructions below):

3. Select the "Options\Properties" menu item.
4. Set the "Adjust volume for" option to "Recording". Confirm your choice by clicking the "OK" button.
5. Now enable the check box below the Line-In slider and move the slider itself to its middle position. By checking the check box, you define the Line-In input of your sound card as a recording input source. This is essential if you want to record a video sequence with sound.

This completes the configuration of the sound card settings and you can now close the mixer!

The TV software.

The heart of your Cinergy TV card is its TV software. You use it to program stations, optimize the picture, adjust the sound to your needs and much more. You can also use the TV software as a simple-to-use video recorder as well as for capturing individual frames.

Installation.

To install the Cinergy TV software, select the appropriate item on the autostart menu of the included CD-ROM. If the autostart program does not appear automatically when you insert your Cinergy Installation CD, start it manually by running the "AUTORUN.EXE" file located on the root directory of the Cinergy Installation CD.

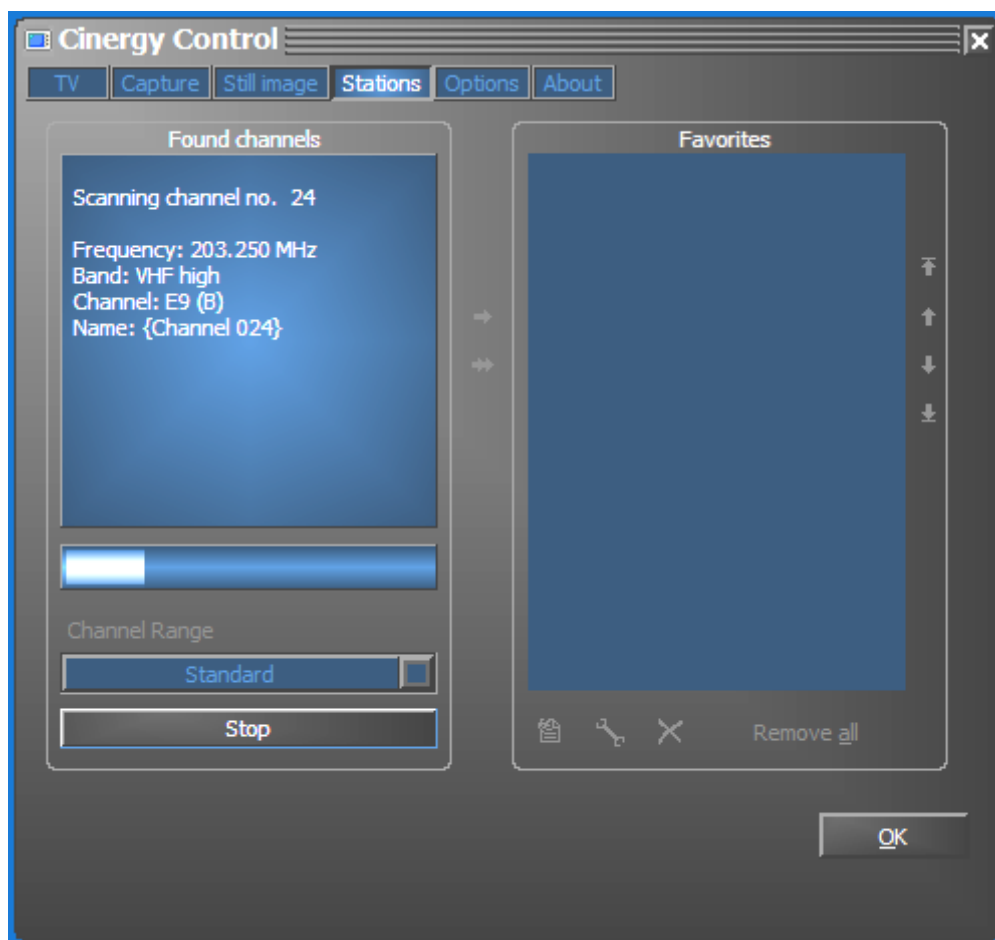
As an alternative to the version on the included CD-ROM, you can also download the current version of the Cinergy TV software from <http://www.terratec.com/>. Double-click the downloaded file to start the installation.

The language selected for the installation will also be used in the Cinergy TV application. It can be changed at any time, however. The Cinergy TV icon will be present on your desktop if you accepted the defaults during the installation.

Launching the TV software for the first time.

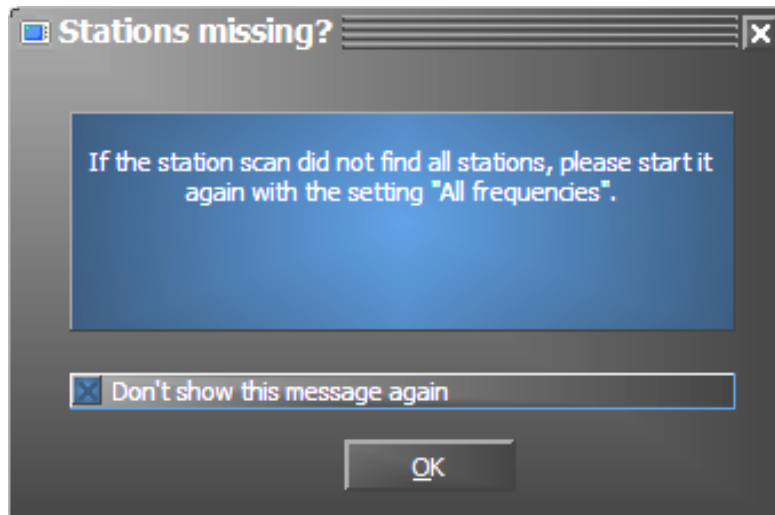
The station manager will open automatically the first time you start the Cinergy TV application.

- Click the Scan button.
The automatic channel scan will enter its results in the left-hand "Found channels" window.



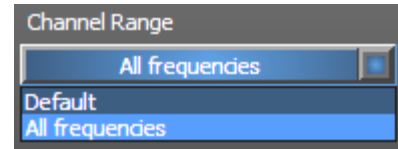
The channel scan in action.

Once the standard channel scan has completed, you will be asked whether any stations are missing.



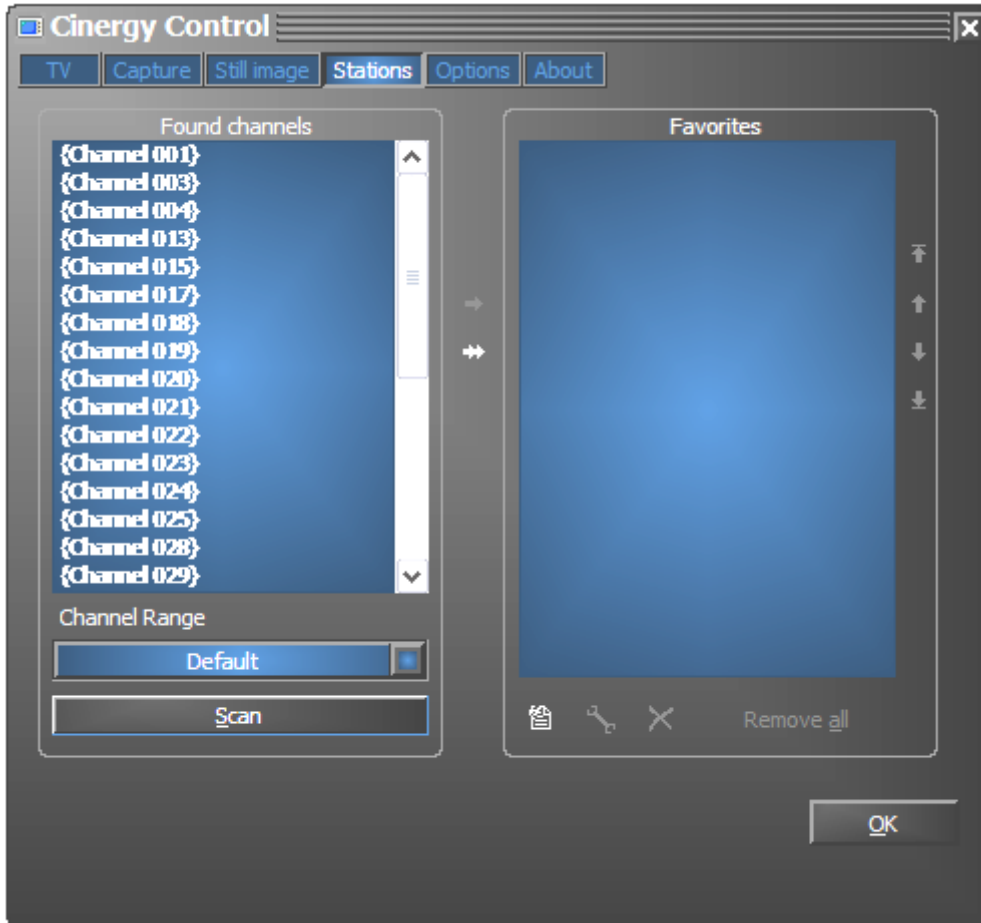
A friendly prompt.

If you find that you are missing stations that you would otherwise receive cleanly, repeat the search with the option "All frequencies". Click on "Default" and this option will be displayed.



- **Transferring stations to Favorites.**

Finished? Good. Use the arrows between the left- and right-hand windows to move individual (>) or all stations (>>) to the Favorites list in the right-hand window. You will only be able to select stations that are in your Favorites list when using the program.



The detected stations that you want to save now have to be copied into the list on the right. To do so, use the center arrow buttons.

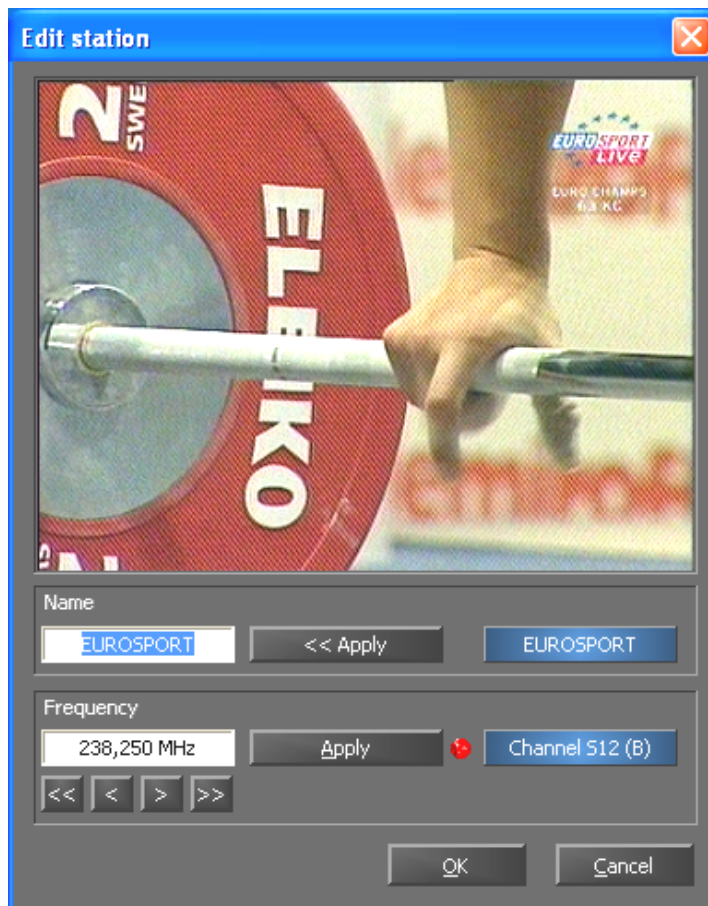
- **Editing station names—fine-tuning.**

You may find that the correct names could not be determined for the stations, or that they are not perfectly in tune. Select the station in the Favorites list and click on the tool icon below the list.



Edit stations

A dialog box will open in which you can change the name of the station and adjust the frequency manually.



Click the tool icon under the Favorites list to open the "Edit station" menu.

You can also change the station name and fine tuning at any time on the station management tab. There's no need to complete the whole job in one sitting.

- **Sorting stations**

You can resort your Favorites with the arrow buttons on the right-hand edge of the list.

- **Removing stations**

To remove stations from the Favorites, click the X icon below the list.

- Switch from the "Stations" tab to the "TV" tab. If you have connected the audio output of the Cinergy hardware to the line input of your sound card, you can adjust the preliminary settings here. If you have more than one sound card, or if you are not using the line input as your audio input, then adjust the settings in the "Audio" section under "Mixer" and "Source".

- Click "OK" to close the configuration menu.
- Happy zapping!

The main page.

The basic functions of the TV software are grouped in the main menu. To display brief descriptions of the individual functions, hover over the buttons with the mouse cursor.



The main menu contains

- a context-sensitive display for additional information
- input signal/station selection
- display functions
- recording functions
- audio functions
- special functions (configuration, IPG, Besonic Mood Radio)

A number of the listed functions permit/require additional settings that can be found in the configuration menu. Please see the specified pages for detailed descriptions.

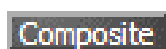
Station list/Input signal



The antenna signal is the default input signal. The desired station can be chosen from the station list.



Selects an external video source at the S-video input of the TV hardware as the input signal.



Selects an external video source at the composite video input of the TV hardware as the input signal.

Display functions



Enables and disables the TV picture.



Starts the multiple-channel preview mode. Thumbnails of the current programs of all stations in the Favorites list provide a quick overview.



If this function is active, the picture can be scaled horizontally and vertically without regard for the selected aspect ratio (4:3).

Recording functions



Starts the playback of the last recording. This function usually launches the Windows Media Player, which is associated with .AVI files by default.



Starts video recording and saves the video in the "My Pictures" / "My Videos" folder of the current user by default.



Stops recording or playback.



Takes a still picture of the current TV picture and stores it in the "My Pictures" folder of the current user by default.

Audio functions



Volume control.



Enables/disables mute.

Special functions



Opens the configuration menu.



Opens the IPG (Internet Program Guide).



Launches "BeSonic Mood Radio".

The TV window.

Depending on the selected input signal, the TV window will display a TV or video picture. The first presupposes the availability of an antenna signal, the second an external video source on either the S-video or composite inputs.



IMAGE: The television picture opens by clicking the TV button.

Size. The size of the picture can be scaled freely with the mouse in either a specified (4:3) or free aspect ratio ("Free aspect ratio" button active). Place the mouse cursor on the edge of the window in such a way that it turns into a horizontal, vertical or diagonal double-headed arrow and enlarge or reduce the picture by dragging the edge.

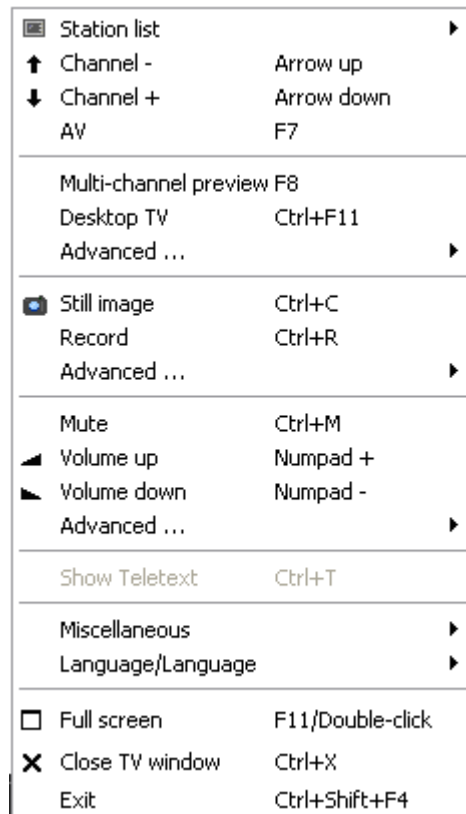
Position. Press and hold the left mouse button anywhere within the picture and move the window to the desired position.

Full screen/window view. A double-click switches the picture to full-screen display; double-clicking once more restores the picture to its window.

Context menu.

- Context menu/keyboard control. The context menu plays such a central role in the use of the software that the following chapter is devoted entirely to it. Just read on.

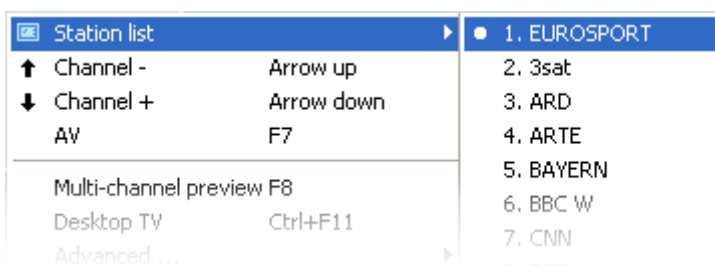
Right-click inside the picture window or in the main menu to open the context menu. Grayed-out functions are not available. Our reason for mentioning that the context menu is also available in the display of the main menu will become apparent when you try out the "Desktop TV" function. More about that later.



The context menu.

Like the main menu of the TV software, the context menu is organized in sections to group similar functions. The following sections cover only those functions that have not yet been explained as parts of the main menu.

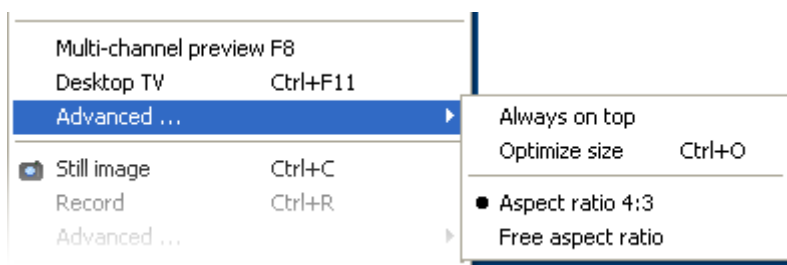
Station list/Input signal



Channel +/-. Changes one channel up or down.

AV. Selects the S-video or composite input, depending on where a signal is recognized.

Station list/Input signal

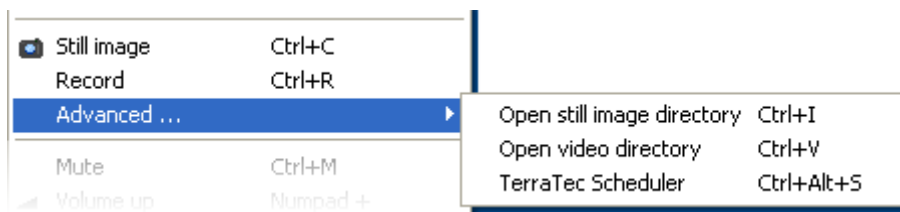


Desktop TV. Fixes the TV picture at its current position on the desktop. The TV picture will behave in the same way as desktop wallpaper, i.e. the icons and windows will always be visible in the foreground.

Advanced→Always on top. This setting ensures that the TV picture always remains in the foreground and cannot be partly or completely covered by other windows.

Advanced→Optimize size. Displays the TV picture with exactly the selected number of pixels. (see "TV" → "Video" → "Format" tab)

Recording functions



Advanced→Open still image directory. Opens the folder that you have selected for your still images.

Advanced→Open video directory. Opens the folder that you have selected for your videos.

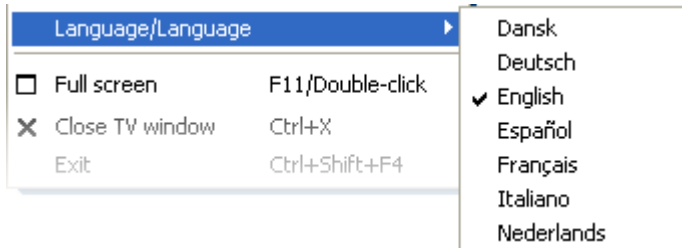
Advanced→Terratec Scheduler. Opens the application for programming scheduled recordings. For more information on the Scheduler, see autostarter → documentation → Scheduler.

Misc.




DirectShow configuration. Refer to this for further information when troubleshooting.

Language selection



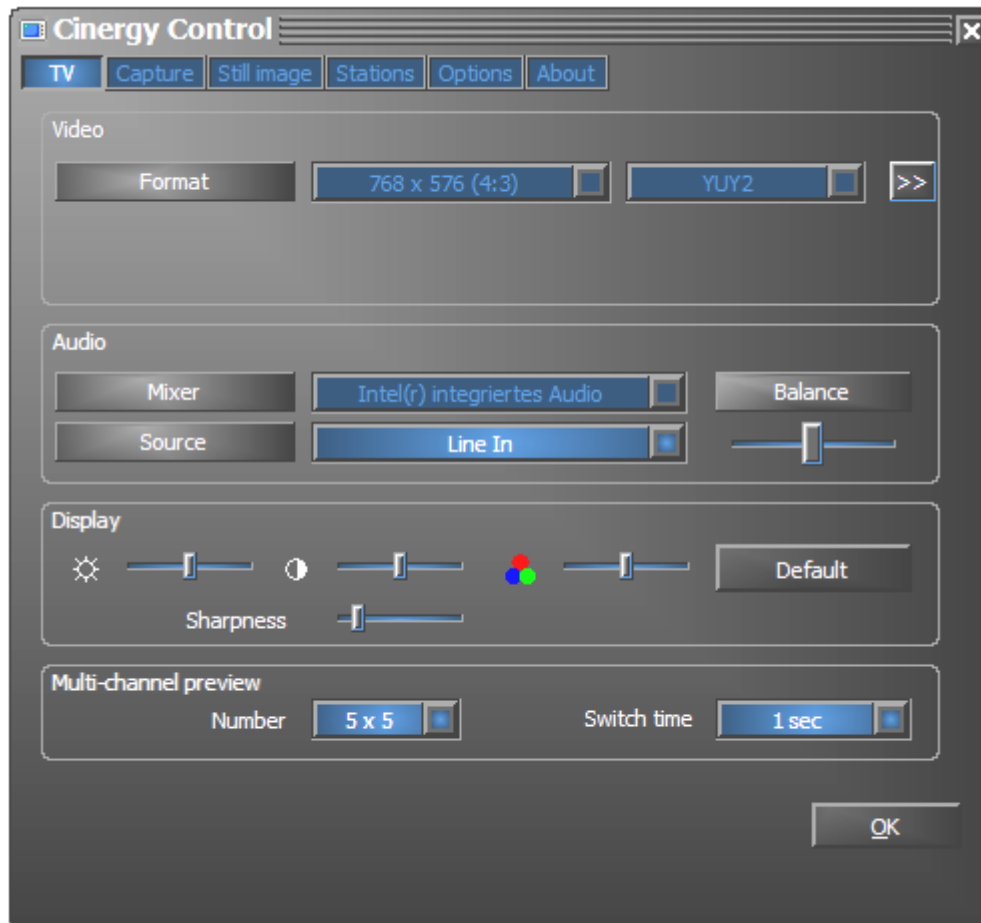
Language/Language. Sets the language of the software's user interface.

The configuration menu

Click on the tool icon  in the main menu of the TV software to open the configuration menu. The various tabs contain a wide selection of additional configuration options. Each tab has an "OK" button with which the configuration can be completed at any time.

Configuration: Playback settings.

Configure the video and audio playback properties under "TV".



The TV page of the advanced configuration menu.

Video→Format. The display format is shown under "Format". You can also change the color space settings of the picture here. The format specified here corresponds to the number of pixels used horizontally and vertically. Although the picture can be scaled freely or displayed in full-screen mode, this is the maximum number of pixels that will be displayed at any time. In addition, the color space can also be specified here. You can choose between YUY2 and I420.

Audio→Mixer. If your system is equipped with more than one sound card with Windows mixers, select the sound card you have connected to the audio output of the TV card.


Audio→Source. Use this to define which audio-in terminal is to supply the audio signal for playback. In normal situations, you will want to select "Line In" or "Input Off".

Audio→Balance. Use this slider to adjust the left and right side audio output signals sent to your speakers.

Display. Like on your television set, these options let you adjust the brightness, contrast, color and sharpness of the TV picture to your liking. Click "Default" to restore all of the sliders to their central positions.

Note: *The later described settings apply globally for the entire TV software and are not stored individually for each channel.*

Multi-channel preview. The multi-channel preview feature lets you take a glance at what is showing on all of the TV channels that you have stored. To accomplish this, the multi-channel preview function scrolls automatically through all of the channels and shows a recorded frame of each channel. If you see a program that interests you, simply switch to its channel with a mouse click. Double-clicking "opens" the station in the view that you are used to.

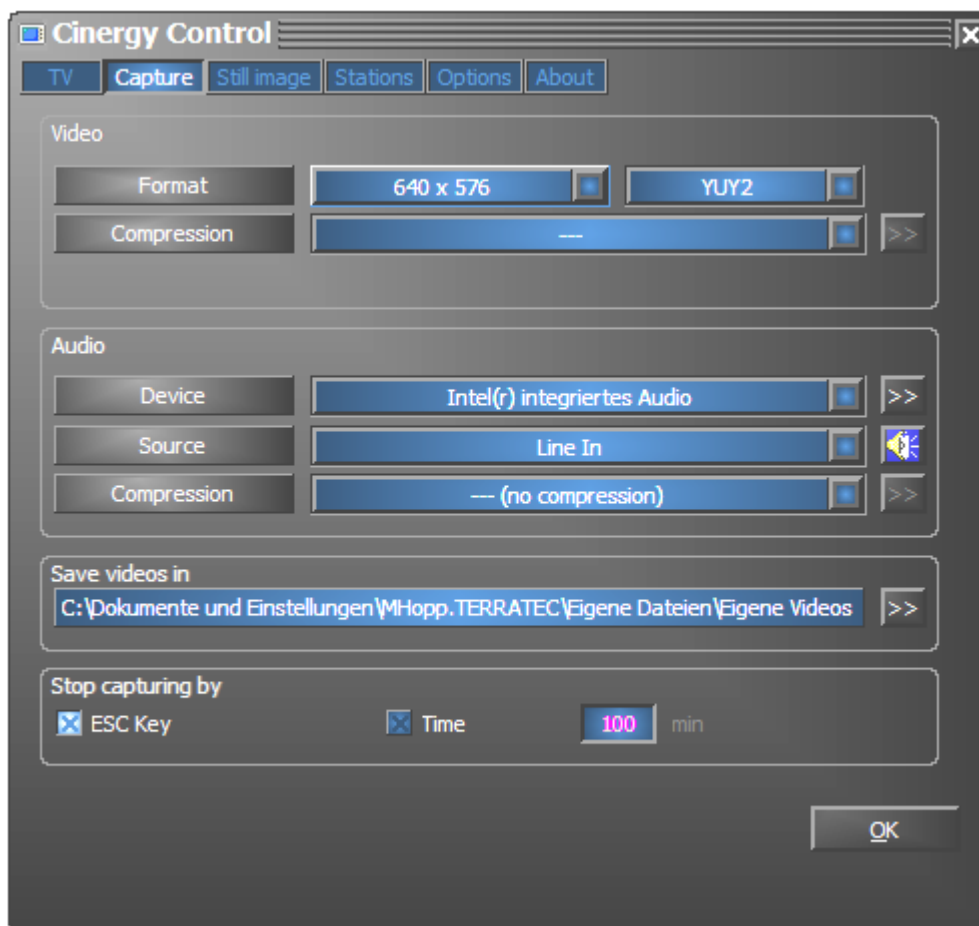
Set the number of "snapshots" displayed in the TV window using the Count option; the Auto option selects the size of the pictures automatically. Furthermore, you can enter the switch time in seconds. When the TV window is open, you can start the multi-channel preview by clicking its corresponding button  in the main menu.

Configuration: Capture settings

Configure the video recording properties under "Capture".

Video capture uses a number of Windows components, especially compression algorithms known as codecs. In addition to the default selection, additional codecs are available from third-party vendors. For sources, see "HotLinks!!!" in the autostart menu of the CD-ROM. For further information on installing and configuring the codecs, please refer to the vendor's documentation.

Note: Some of the items in the "HotLinks!!!" topics are links to third-party providers (on the Internet), for which we expressly take no responsibility.



Capture properties in the configuration menu.

Video→Format. Set the display format and color space of the capture under "Format". The format specified here corresponds to the number of pixels used horizontally and vertically. In addition to the format, the color space can also be specified. You can choose between YUY2 and I420. Not every combination of format and color space can be selected. The configuration selected here will directly affect the file sizes of the video capture. Considerable file sizes result in a short time even at low resolutions in compressed color space. Additional compression algorithms should therefore be used.

Video→Compression. Select the compression algorithm mentioned above here. The quality of a codec is determined by the relationship between picture quality and data compression, as well as the processor load during data compression. The compression that can be achieved and the associated processor loads are not constant, but vary according to the resolution and color depth.

DivX ;-) is to video compression what MP3 is to audio. Based on MPEG-4, DivX ;-) delivers surprisingly high quality video despite high data compression—i.e. small file sizes—much to the pleasure of many video enthusiasts. The DivX ;-) codec (free of charge when this document was printed) can be downloaded from the Internet and is easy to install, after which it will appear in the list of available video codecs. At this point we should point out that not every codec listed in the TV software is actually suitable for capture.

Many codecs offer personal configuration options, which you can change by clicking the » button. As the options vary from one vendor to the next, please understand that we cannot go into detail on them here. Feel free to experiment—there's no way that you can "break" anything.

Audio→Device. If your system is equipped with more than one sound card with Windows mixers, select the sound card you have connected to the audio output of the TV card.

Audio→Source. Use this to define which audio-in terminal is to supply the audio signal for playback. In normal situations, you will want to select "Line In" or "Input Off."

Audio→Compression. Our explanations above about the data volume resulting from video capture naturally also apply to your choice of audio compression. The installed audio codecs are also available here.

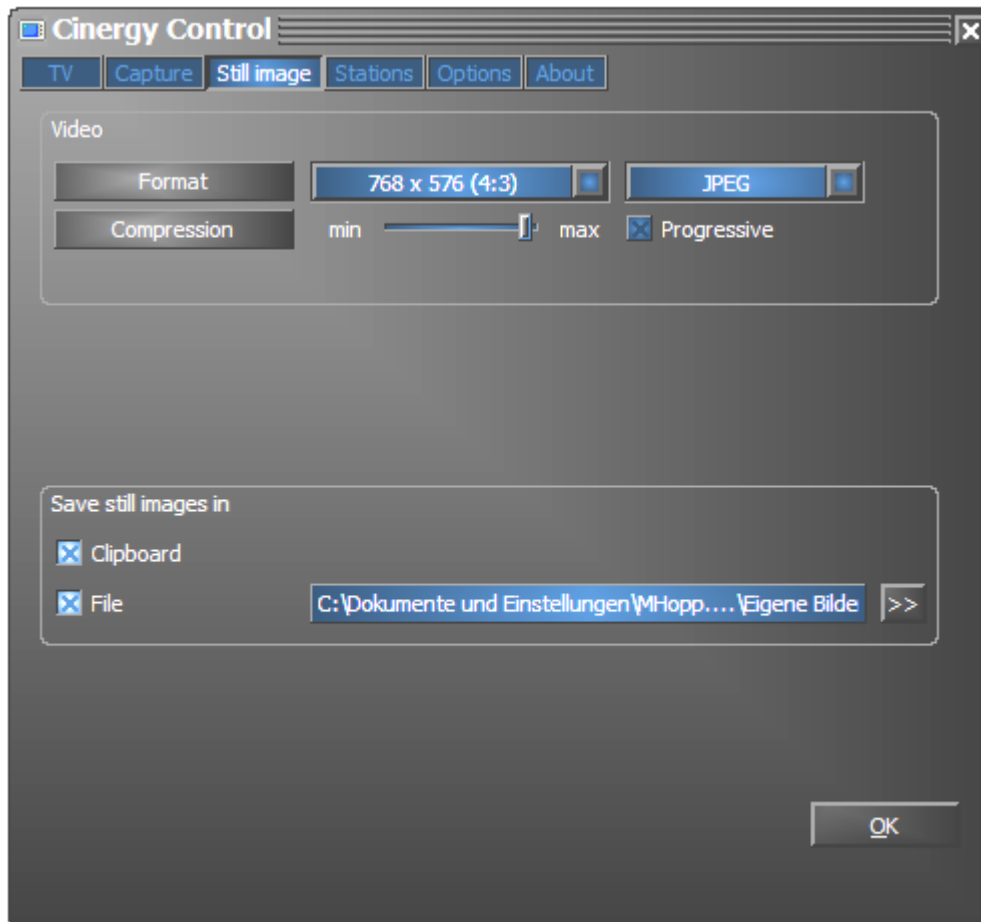
Save videos in. Use this to specify the directory on your hard disk where you want the video files saved. The default setting saves the video file in the "My Pictures" ("My Videos") folder of the current user.

Tip: The file name is generated by the software automatically so that you can start recording without delay. If a file name is already in use, the TV software adds a number to its end sequentially to create a new file name.

Stop capturing by. You can stop recording without having to confirm a dialog box by pressing the ESC key. To do so, check the corresponding option. If you want to stop recording after a specific amount of time, manually enter the time in seconds or minutes.

Configuration: Still image capture.

The TV software of your Cinergy card lets you capture single snapshots at the touch of a button, which it saves using a preselected format. To view captures pictures, you can use, for example, the Paint program included with Windows or (for images saved as .JPG) just about any Internet browser.



The snapshot page of the advanced configuration menu.

Video→Format Select the file format here. Choose between uncompressed bitmap (BMP) or the JPEG format, which is optimized for image compression. The amount of compression to be used for a JPEG image can be adjusted using the **JPEG Compression slider**. Here, "min" indicates less compression, thus a larger file with an image quality that is close to the original. The "max" side produces the opposite effect.

Save still image in. Here, specify whether you want the captured frame (snapshot) copied to the Windows clipboard or written to a file for later use. If you choose the file option, you can specify the location for the saved files under **File**. The default setting saves snapshots in the "My Pictures" folder of the current user.

Configuration: Stations

The station management was already described at length at the start of this manual. We don't want to bore you, after all.

Configuration: Options

"Options" mainly contains country- and language-specific settings. The "Miscellaneous" section lets you configure the appearance of the application. It also provides quick access to the Remote Control Editor and the Scheduler.



Options...

Configuration: About

Here you can find information that can prove useful for your own troubleshooting measures or for support inquiries.