

# PCTV Systems TVCenter

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GB / USA

**PCTV Systems TVCenter  
User's Guide  
GB/US February 2010**

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# TVCenter - Overview

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With the new TVCenter you can watch, depending on your PCTV device, digital and analog TV on your PC monitor. Your TV viewing fun has been enhanced with numerous additional functions. Thanks to instant or scheduled recordings to your hard disk and the timeshift function, you can watch TV flexibly. This way you will not miss a minute of your favorite TV shows. Quick-to-open Teletext provides you with the latest news any time you want. The Electronic Program Guide (EPG) also guarantees you an overview of the TV schedule as well as quick and uncomplicated recording programming.

You also have the option, depending on your PCTV device, to listen to DVB radio or FM radio any time you want. By offering you the possibility to timeshift or to instantly record a program, you will not miss a minute of your favorite radio show.

All recorded TV/radio programs and taken snapshots can be found in the TVCenter Gallery. One click on the thumbnail of the desired file and it will be played back. In the TVCenter Gallery, a background transcoding engine was integrated. This allows you to convert the TV programs recorded in native video format into various different formats like DivX or iPod formats.

The different TVCenter applications make the usage of the software even more flexible. You can simultaneously, for example listen to radio and use the TVCenter Gallery to convert a recording into a different format.

The following TVCenter applications are available:

[TVCenter](#) - this chapter offers you an overview of the TV watching application

[TVCenter - Gallery](#) - in this chapter you will find out how to play back and/or convert recordings

[TVCenter - Radio](#) - this chapter offers you an overview of the radio listening application

[TVCenter - Settings](#) - in this chapter you will find an overview of all available settings option

[TVCenter - Wizard](#) - in this chapter you will find out how to configure your PCTV device and run a channel scan

After installation, you can access any of these stand-alone applications via:  
**Start > Programs > PCTV Systems.**

# TVCenter Wizard

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The TVCenter - Wizard is the software component that helps you to easily configure all necessary settings for an optimum TV experience.

The TVCenter - Wizard

- opens automatically after TVCenter has been installed and helps you to configure your PCTV device and run the first channel scan
- can be opened any time by clicking **Start > Program Files > PCTV Systems > TVCenter Wizard** to configure a new PCTV device or run a channel scan

Please note that only a correct configuration of your PCTV device and an accurate channel scan guarantee an optimum TV experience.

Simply complete the four steps of the TVCenter Wizard and then enjoy TV on your PC.

## Step 1 - Start



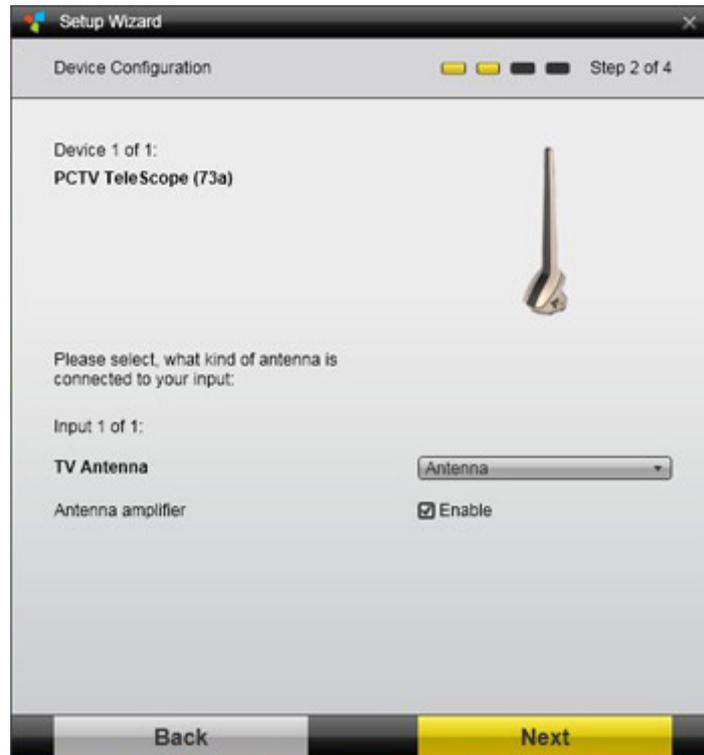
In this step, you can:

- select the **Language** of the software
- select the country where you are in.  
Please use the **Location** dropdown-menu.

Only by choosing the correct location, the channel scan will be accurate.

Click on the **Next** button to go to the next step

## Step 2 - PCTV Device Configuration



The TVCenter Wizard automatically recognizes the PCTV device(s) connected to your computer and lets you configure it (them).

1. Configure the TV signal source of the displayed PCTV device by selecting from the **Input** section the respective option.

Depending on your PCTV device, the Input can be a **TV Antenna** or a **SAT Antenna**.

Following device-dependent options are available in the dropdown-menu:

- **No Antenna**
- **Antenna** - the TV signal received from the delivered rod antenna or your roof-top antenna
- **Cable** - the TV signal received from your cable provider
- **Preset SAT Antenna** - depending on your location the TV signal of a preset satellite. This setting will most likely match the satellite that distributes the TV channels received at the chosen location
- **Aerial System** - all signal sources connected to your PCTV device(s). Choosing this option guarantees that all available signal sources will be listed for the channel scan

If available, enable the **Antenna Amplifier**. This option might be helpful if the signal strength in your region is rather poor.

If your PCTV device is equipped with a multi tuner (e.g. *Input 1 of 2*), clicking on the **Next** button will allow you to configure the other TV tuners as well.

2. When the configuration of the displayed PCTV device is completed click on the **Next** button to go to the next step.

If on your system different PCTV devices are installed (e.g. *Device 1 of 2*) clicking on the **Next** button will lead you through the configuration of the other device.

## Step 3 - Channel Scan



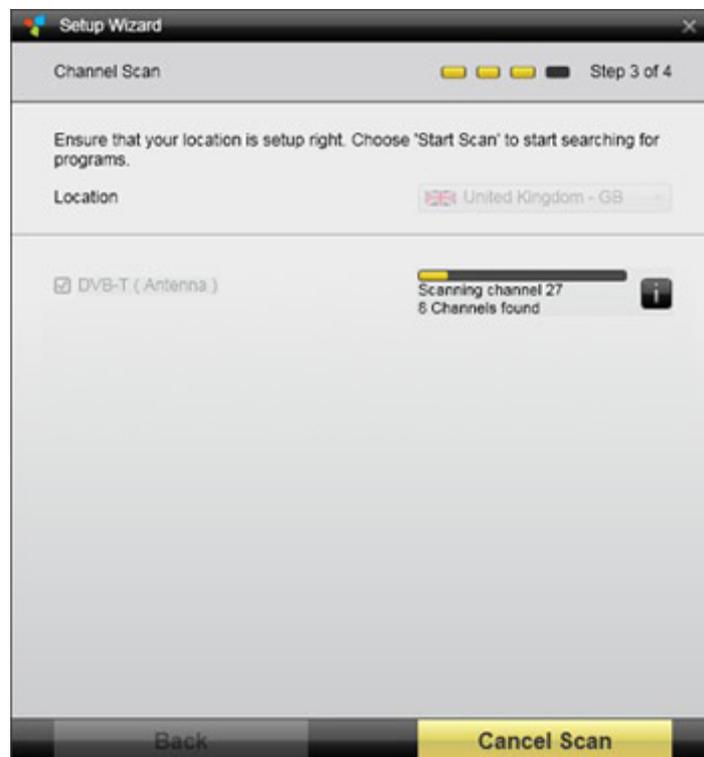
Before you start the channel scan:

- you should check that you have chosen the correct country from the **Location** dropdown-menu.
- you can see the TV tuner (signal source) you will run a channel scan for.

- you can change the scan method to improve the result of the channel scan. Click on the **Advanced Options** button and from the **Scan mode** dropdown-menu select the desired option. Following options are available: **Quick**, **Normal** and **Best Quality**.

Note that the duration of the channel scan depends on the selected scan method and the number of signal sources that have to be scanned.

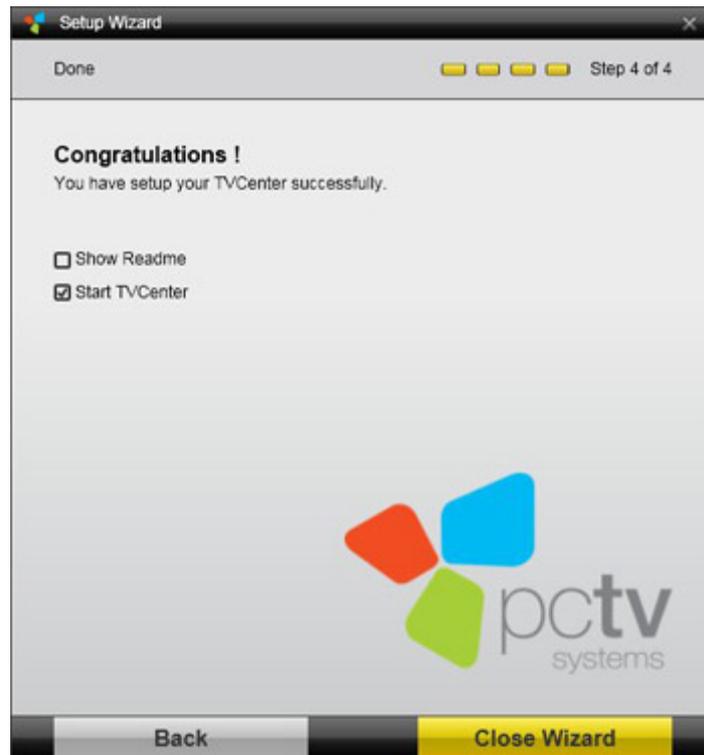
- Click the **Start Scan** button to start the channel scan.



The progress bar shows how the channel scan is progressing.

If available, click on the **Information**  button to see the TV channels already found and their detected signal quality.

## Step 4 - Done



You successfully configured your PCTV device and ran the first channel scan.  
Before closing the Wizard select:

- whether the Readme file shall be opened
- whether the TVCenter application shall be launched

# TVCenter

---

The TVCenter is the core application of PCTV Systems' TVCenter software and is designed for TV viewing.

In the following chapters, the topics listed below will be described in detail.

[Open TVCenter](#)

[The TVCenter User Interface](#)

[Change the channel](#)

[Timeshift](#)

[Record a program](#)

[Use Teletext](#)

[Use EPG](#)

[Change the audio track](#)

[Change the subtitles](#)

## Open TVCenter

There are several ways to start TVCenter:

1. Double-click the **TVCenter icon** on the desktop.
2. Click the **TVCenter icon** in the quick launch bar.

Please note that under Windows XP and Windows Vista shortcuts on the desktop and in the quick launch bar are optional.

3. Go to: **Start > Programs > TVCenter > TVCenter.**
4. While using another TVCenter application (Radio, Settings or Gallery) open the Master Control menu by hovering over the  button in the top control bar and then click on the **Show TV**  button.
5. While using another TVCenter application (Radio, Settings or Gallery) hit the F5 key of your keyboard.

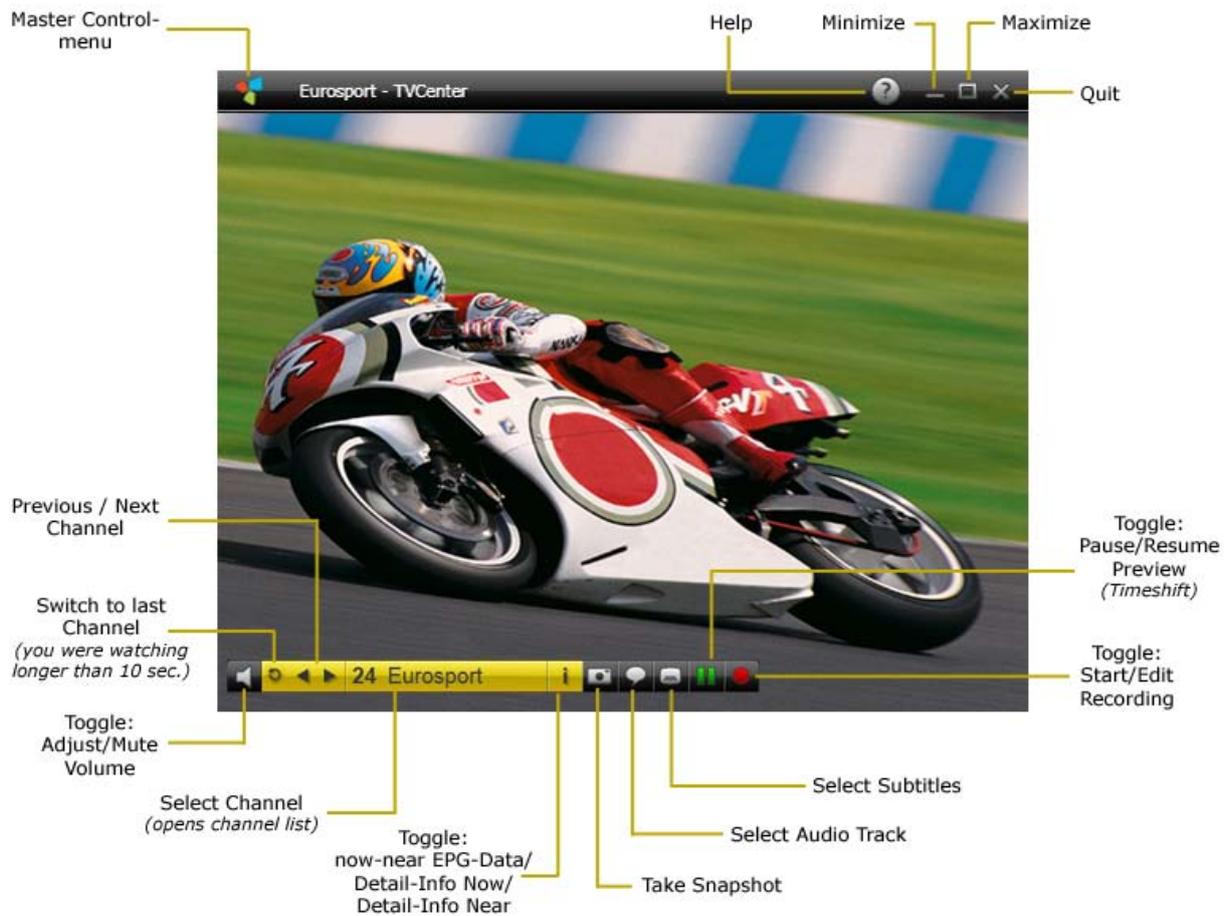
The application is now started and the channel you were last watching is displayed.

Note: when you open TVCenter for the first time, the first channel, which was found during the channel scan, is displayed.

## TVCenter – The User Interface

In the image below you can see how the user interface looks like and get an overview of the available functions.

Note that the aspect ratio of the TVCenter window is set by default to automatic. You can change this setting in the **TVCenter Settings** component under **TV watching > Display > Window Aspect Ratio**



Further, you will find a detailed description of the most important functions.

## The Top Control Bar Functions



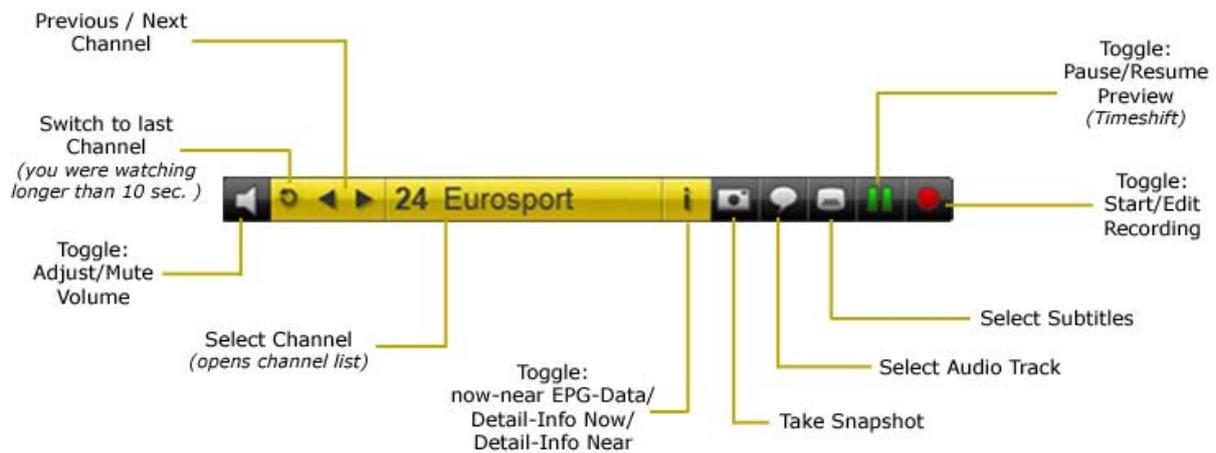
A very important button of the top control bar is the **Master Control menu** button. Hovering over the  button opens the Master Control menu.

This is how the Master Control menu looks like and the available functions:



If multiple tuners are available, the Master Control menu contains more than one **Show TV**  button.

## The Bottom Control Bar Functions



The bottom control bar offers you the possibility to change channels, pause or resume the preview (timeshift), adjust the volume or start recording. If available, you can also select subtitles or swap over the audio track.

The bottom control bar is hidden automatically after a few seconds. To display the control bar again, move the mouse over the TVCenter window. In the **TVCenter Settings** component under: **TV watching > Display > Controller Display Time** you can set how long the bottom control bar is displayed

Please note that the bottom control bar contains several *toggle-buttons*. A toggle-button has two or more different functions and you can switch between them by clicking on the button.

On the next page you will find all toggle-buttons and their functions:



**1<sup>st</sup> click** - displays, if available, the title of the show running now and the title of the next show (near)

**2<sup>nd</sup> click** - displays a detailed description of the running show (if available)

**3<sup>rd</sup> click** - displays a detailed description of the next show (if available)

**4<sup>th</sup> click** - the mini EPG data are being hidden



**1<sup>st</sup> click** - starts to recording the program you are watching

**2<sup>nd</sup> click** - opens the **Recording Tasks** window and offers you the possibility to edit the settings of the running recording



**1<sup>st</sup> click** - pauses the TV viewing and starts the timeshift mode.

Note that the appearance of the button changes to 

**2<sup>nd</sup> click** - resumes TV viewing



Hovering over the button opens the **Adjust Volume** bar.

**1<sup>st</sup> click** - mutes the volume

**2<sup>nd</sup> click** - unmutes the volume



**1<sup>st</sup> click** - opens a list with all available audio tracks

**2<sup>nd</sup> click** - select from the list the desired audio track

Note that not every TV channel offers multiple audio tracks.



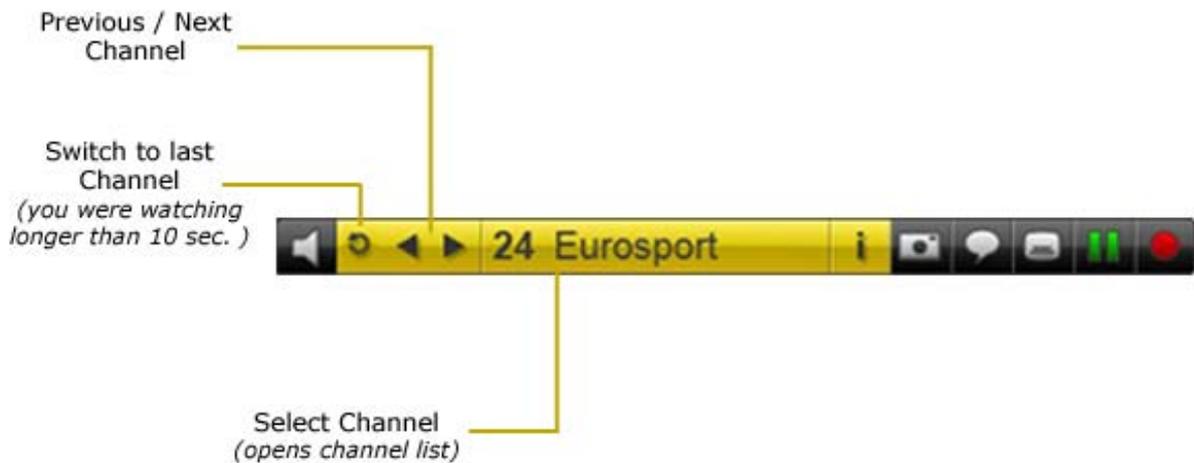
**1<sup>st</sup> click** - opens a list with all available subtitles

**2<sup>nd</sup> click** - select from the list the desired subtitle

Note that not every TV channel offers subtitles.

## Change the TV channel

There are various ways to change the TV channels. You can find them all in the bottom control bar.



- **Previous / Next Channel**

Click on the **Previous Channel** ◀▶ **Next Channel** button, to switch to the next or previous channel in the channel list.

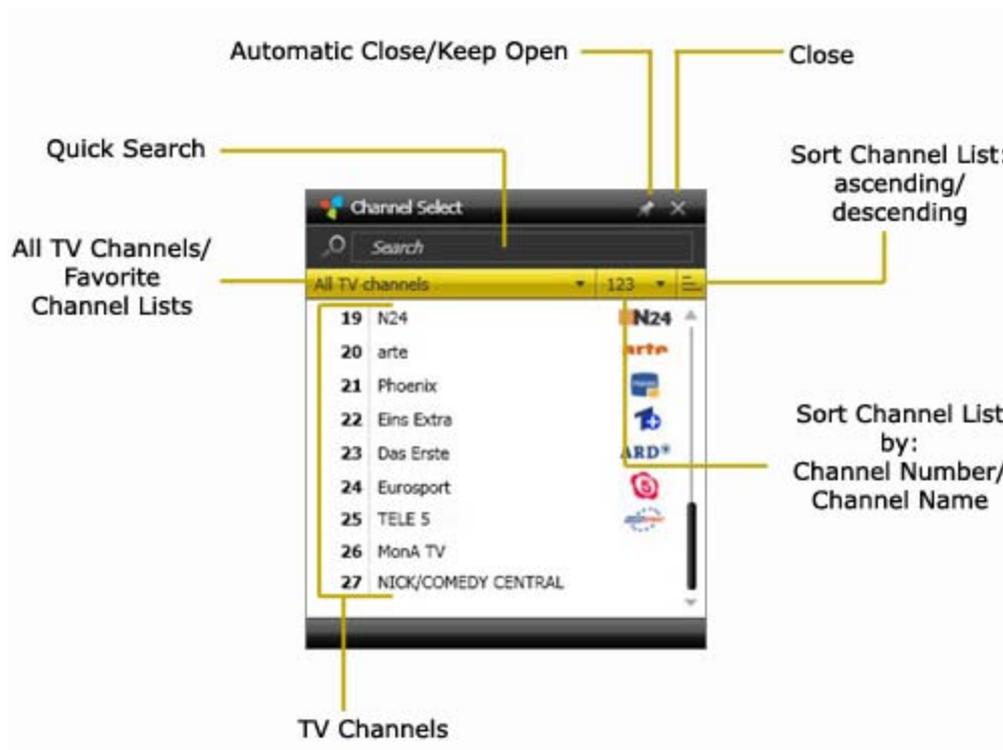
- **Switch to last Channel**

Click the **Switch to last Channel** ↺ button to switch to the last channel you were watching for more than 10 seconds.

- **Select Channel**

To change the TV channel proceed as follows:

1. Click on the **Select Channel** 24 Eurosport button. The **Channel Select** Window opens.



2. Sort the TV Channel list using one of the available sorting possibilities:

- a. **All TV channels** from this dropdown-menu select to see all TV channels or just the TV channels associated to one of your favorite channel lists.
- b. **123** from this dropdown-menu select to sort the channel list by channel number or channel name.
- c.  click on this button to sort the displayed channels in the list either ascending or descending.
- d. Alternatively you can use the **Quick Search** field to search for channels. In the channel list, only the channels matching your search criteria will be displayed.

3. Click on one channel in the list to switch to its program.

Please note that while watching TV the bottom control bar is hidden automatically after a few seconds. To display the control bar again, move the mouse over the TVCenter window.

## Timeshift (Pause / Resume Live-TV Preview)

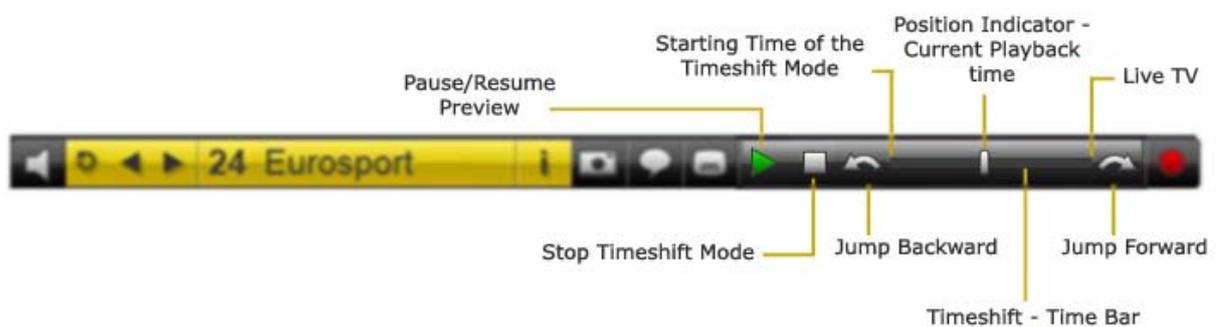
Timeshift, also known as time-delayed television, is a function that allows you to pause the TV program and play it back any time. During the pausing time, the live TV program is temporarily being recorded on your computer. This means that unexpected interruptions cannot cause you to miss a second of the current TV show.

Please note that the timeshift files are only temporarily stored on your PC. You cannot save and use these files. After ending the timeshift mode or changing the channel, the timeshift file will be automatically deleted.

Click the **Pause/Resume**  button in the bottom control bar to pause the live TV and start the timeshift mode.

Please note that while watching TV the bottom control bar is hidden automatically after a few seconds. To display the control bar again, move the mouse over the TVCenter window.

During timeshift mode, additional controls are available in the bottom control bar.



Click the **Pause/Resume Preview**  button to start playing back the timeshift file.

If you click this button during playback of the timeshift file, the playback will be paused. Click the button once again to resume the playback.

The **Timeshift time bar** allows you to jump to any position within the timeshift file. To do this choose one of these possibilities:

- simply click with the mouse on the time bar at the desired position
- slide the playback position indicator to the desired position within the file.

You can switch to the live TV program at any time by pulling the position indicator to the right-hand end of the bar. In this case, the program continues to be recorded in the timeshift file.

Use the  **Jump backward / Jump forward**  buttons to jump a pre-defined time interval in the timeshift file. By default, this time interval is 10 seconds for jumping backward and 1 minute for jumping forward. You can change it in the **TVCenter Settings** application under **Recording > Timeshift > Skip times**.

Clicking the **Stop Timeshift Mode**  button ends the timeshift mode and switches back to live TV.

Please note that if you decide to end the Timeshift mode or to change the TV channel the timeshift file temporarily stored on your computer will be automatically deleted.

## Use Teletext

You have two possibilities to open the Teletext window:

1. while TVCenter is running hit the **F6** key of your keyboard
2. open the Master Control menu in the top control bar by hovering over the  button and click on the **Show Teletext**  button

A separate Teletext window is opened. This way you can watch TV and surf the Teletext at the same time.



## Navigation

To open a Teletext page, just click on the respective 3-digit number in the Teletext window.

For an easy navigation, the Teletext window contains also navigation bar.



If you want to open a specific Teletext page, you can enter the desired page number in the **Page** field.

Use the **previous/next page** buttons to navigate

If a page contains subpages, you can open one of them either by:

- clicking on the desired subpage button
- entering the desired subpage number in the **Subpage** field

If available, clicking on the **Content** button opens the Content pane.



Use the links in the Content pane to navigate.

Note that not every TV channel offers Teletext content.

## Use EPG (Electronic Program Guide)

The Electronic Program Guide is a digital TV guide that offers you information about a TV program.

There are two types of EPG:

- **Free to air EPG (mini EPG)** is the program data sent by the TV channel itself. Please keep in mind that not every TV channel sends EPG-data.
- **Premium EPG** offers besides the program data also functions which allow a viewer to navigate, select, and discover content by time, title, channel, genre, etc.

TVCenter offers you the possibilities to use both EPG types.

### The mini EPG

The mini EPG is a function of TVCenter that shows you the free to air EPG-data sent by the TV channel.

If available, you can see information about the running TV show and the next TV show.

Note that you have to update the free to air EPG-data to be able to use the mini EPG. For detailed information read the section [Update EPG-data](#) of this chapter.

To see the free to air EPG-data click on the **mini EPG**  button in the bottom control bar.

Note that the **mini EPG** button is a *toggle button* with different functions. Here is an overview of the available functions:

- **1<sup>st</sup> click** - displays, if available, the title of the running show and the title of the next show

The amount of seconds the mini EPG is displayed can be set in the **TVCenter Settings** application under **TV watching > Display > OSD Display Time**

- **2<sup>nd</sup> click** - displays a detailed description of the running show (if available)
- **3<sup>rd</sup> click** - displays a detailed description of the next show (if available)
- **4<sup>th</sup> click** - the mini EPG data are being hidden

If free to air EPG-data are available, you can also use them in the **Recording Tasks** dialog when scheduling a recording.

### **Update EPG-data**

To update the free to air EPG-data follow these steps:

- Open the TVCenter Settings application by clicking the **Show Settings**  button in the Master Control menu.
- Go to **TV watching**
- In the **Program guide (EPG)** section click the **Update now** button

Note that for updating the EPG-data a TV tuner is needed.

If your PCTV device is equipped with only one tuner, you cannot simultaneously watch TV and update the EPG-data.

## The Premium EPG

TVCenter comes along with a trial version of the **TV DIGITAL OnGuide** software. This software offers you premium EPG data. This means the program data is highly diversified including extensive text and –depending on the region- image information about the TV program.

In addition to that, the program data is available for up to 14 days.

When the trial version expires, you can take out a subscription or continue to use the application with the free to air EPG data. In this case, you have to update them regularly as described in the [Update EPG-data](#) section of the **Mini EPG** chapter

To use the TV DIGITAL OnGuide software you have to install it manually. To do so, select from the installation disc launcher the option **TV DIGITAL OnGuide**.

There are two possibilities to open the application:

1. while TVCenter is running hit the **F8** key of your keyboard
2. open the Master Control menu in the top control bar by hovering over the  button and click on the **Show EPG**  button

Note: If TV DIGITAL OnGuide is not installed on your computer, the **Show EPG** button is disabled.

This application offers you an interactive program guide with the possibility to navigate and find programs by time or title.

In addition to that, you can use the application to easily schedule a recording.

For further information on using TV DIGITAL OnGuide, please refer to the product's own help file.

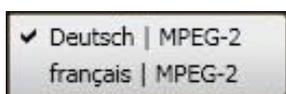
## Change Audio Track

Changing the audio track means to change the audio language or the audio format of the TV program.

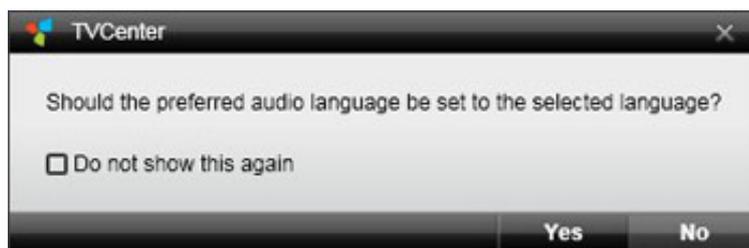
Please note that not every TV channel offers multiple audio tracks.

To change the audio track, follow these steps:

- Click the **Select audio track**  in the bottom control bar.
- A menu with the available audio tracks is displayed.



- Select the desired audio track.
- If you change the audio language, before the changes apply the following dialog opens:



If you select **Yes**, the change will affect all TV channels that offer the audio track (language) you selected.

If you select **No**, the change will affect only the running TV channel.

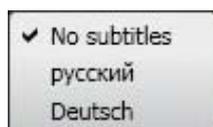
- If you change the audio format, the changes apply automatically.

## Select Subtitles

Please note that not every TV channel offers subtitles.

To select subtitles, follow these steps:

- Click on the **Select subtitles**  in the bottom control bar.
- A menu with the available subtitles is displayed.



- Select the desired subtitles.
- The selected subtitles are displayed.

## Record a TV Program

TVCenter offers you two recording options.

Instant Recording - records the TV show you are watching at the moment

[Scheduled Recording](#) - lets you program a recording

## Instant Recording

Use this function if you want to record the current TV show.

### Start / End an Instant Recording

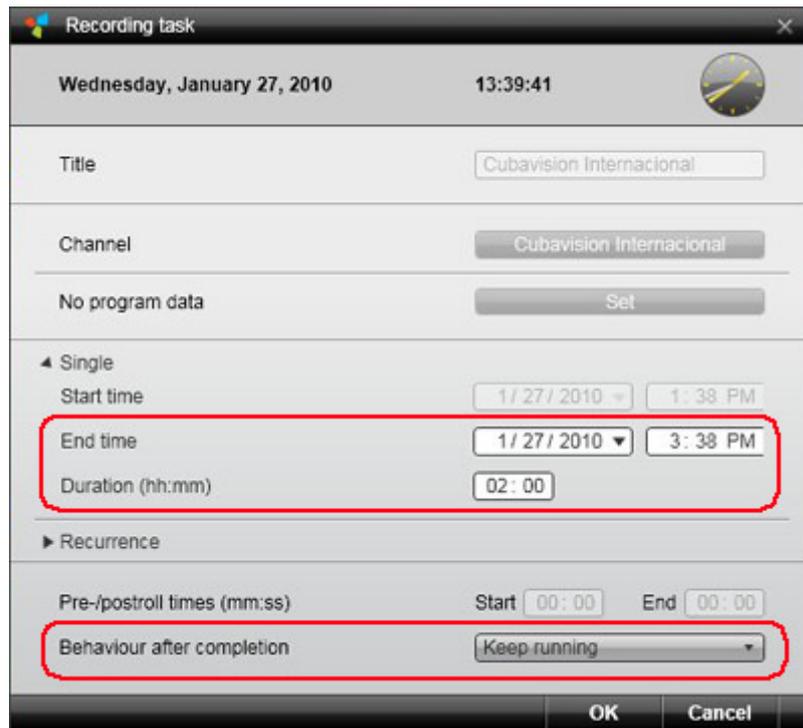
- Start an instant recording by clicking the **Record**  button.
- End the recording by clicking the **Stop Recording**  button.

Please note that while watching TV the bottom control bar automatically disappears after a few seconds. To make it appear again, move the mouse over the TVCenter window.

### Change the Recording Settings

During an instant recording, you have the possibility to change some recording settings. To do so follow these steps:

1. Click again on the **Record**  button.  
The Recording task dialog opens.
2. You have the possibility to set:
  - either the duration of the recording or the end time.
  - the behavior of the PC after completing the recording.



3. Make the desired changes.
4. Confirm with a click on the **OK** button.  
The recording tasks dialog closes.

## Other Useful Information

The recording is stored in the folder which you specified in the **TVCenter Settings** component under:

**Recording > Directories > TV recordings.**

The filename is generated automatically either from the EPG-data (if available) or from the channel name and the date and time.

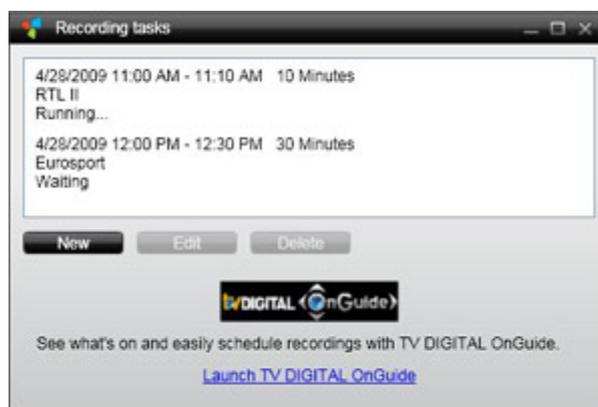
## Scheduled Recording

To program a recording you first have to open the **Recording tasks** window.

Do one of the following to open the Recording task window:

1. while TVCenter is running hit the **F11** key of your keyboard.
2. open the Master Control menu in the top control bar by hovering over the  button and click on the **Recording Tasks**  button.
3. right click in the preview window to open application's context menu. From the context menu, select the **Recording Tasks** option.

The Recording tasks window opens and all planned or already made recordings are displayed.



## Schedule a Recording

You have two options for scheduling recordings: either manually using the Recording Tasks window or with the help of the EPG-application.

## Manually Schedule a Recording

In the **Recording tasks** window click the button: **New**.

The following dialog opens:



1. Select the channel whose program you want to record.

To do so:

- click on the **Channel** button
- the **Channel select** window opens
- select the desired channel.

2. Schedule your recording: (please jump to the appropriate option: **A** - single recording; **B** - [recurrence recording](#) )

### A. Single Recording

- In the **Start time** section select the date of the recording from the dropdown-menu.
- In the **time** field of the **Start time** section, manually enter the starting time of the TV show.

If free program data are available, the name of the program and the running time are shown in the program data section.

Recording task

Wednesday, January 27, 2010 14:37:05

Title: Eurosport

Channel: VOX

3:00 PM - 4:00 PM Gilmore Girls Set

Single

Start time: 1/27/2010 3:00 PM

End time: 1/27/2010 5:00 PM

Duration (hh:mm): 02:00

Recurrence

Pre-/postroll times (mm:ss) Start: 05:00 End: 05:00

Behaviour after completion: Keep running

OK Cancel

By clicking the **Set** button the **start time**, **end time**, **duration** and the **title** of the recording are automatically adjusted.

Recording task

Wednesday, January 27, 2010 14:37:05

Title: Gilmore Girls

Channel: VOX

3:00 PM - 4:00 PM Gilmore Girls Set

Single

Start time: 1/28/2010 3:00 PM

End time: 1/28/2010 4:00 PM

Duration (hh:mm): 01:00

Recurrence

Pre-/postroll times (mm:ss) Start: 05:00 End: 05:00

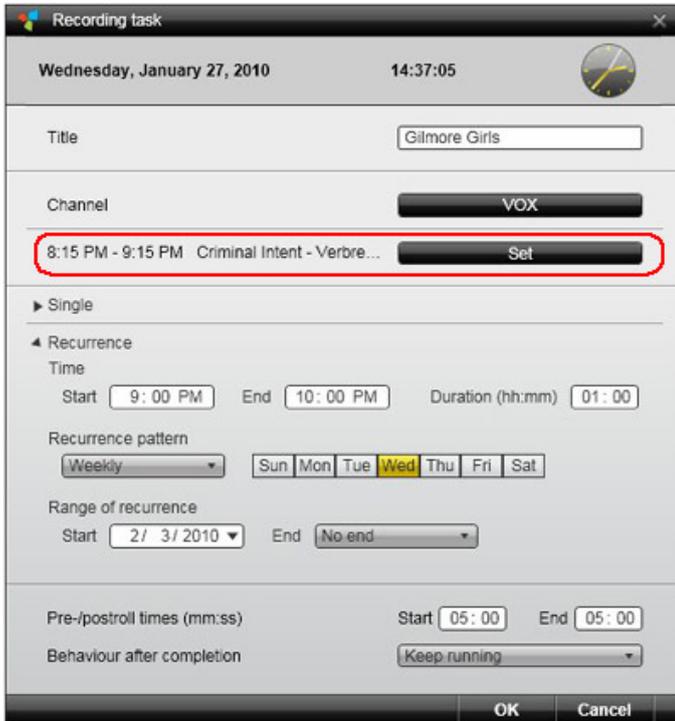
Behaviour after completion: Keep running

OK Cancel

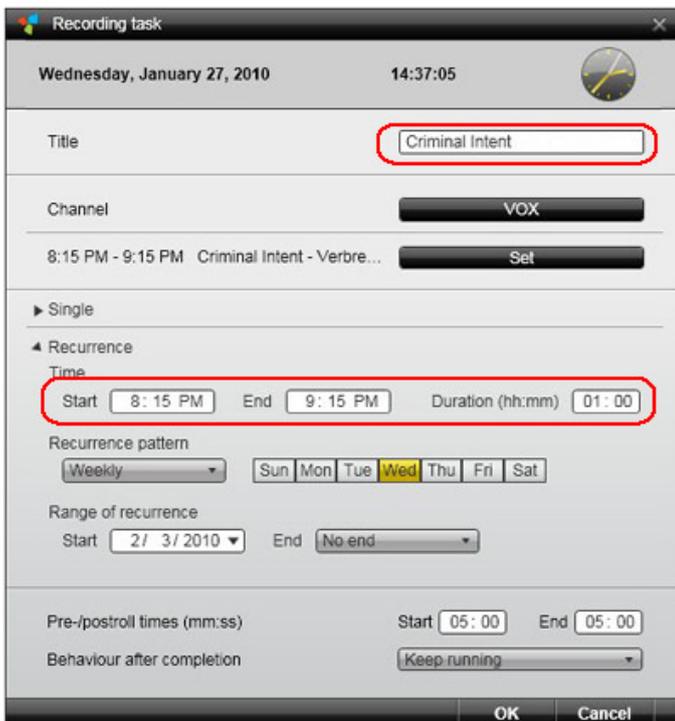
- If program data are not available manually enter either the **End time** of the recording and the **Duration** will automatically be adjusted or vice versa.
- Please jump to [step 3](#)

**B. Recurrence Recording**

- open the **Recurrence** section to schedule the recording.
- In the **Time** section, click in the **Start** field of the section to set the time. If program data are available the name of the program and the running time are shown in the program data section.



By clicking the **Set** button the **start time**, **end time**, **duration** and the **title** of the recording are automatically adjusted.



- If program data are not available manually enter either the **End time** of the recording and the **Duration** will automatically be adjusted or vice versa.
  - From the **Recurrence Pattern** dropdown-menu select the desired option **Weekly** - select the days of the week when the TV show is broadcasted **Daily** - select how often the TV show recurs.
  - In the **Range of Recurrence** section, set the starting and ending date of the recurrence recording.  
For the ending time following options are available:  
**No end**  
**By date**  
**After occurrence**
3. The file name is automatically generated from the program data (if available) or the channel name and the date and time.

If you wish to rename the file, you can do this in the **Title** field.

4. You can set **pre-/postroll times** for the recording.  
By default these times are set to 5 minutes. This means the recording will start 5 minutes before the **start time** you set and will end 5 minutes after the **end time** you set.
5. Further you can select the behaviour of your PC after completing the recording.
6. After you entered, the desired data click the **OK** button to confirm.
7. In the Recording tasks window the new scheduled recording will be displayed.



## Schedule a Recording Using the EPG-Application

Open the EPG-application either by:

- Clicking on the **Start TV DIGITAL OnGuide** link in the **Recording tasks** window.
- Clicking on the **Show EPG**  button in the Master Control menu.

For further details, please refer to the applications Help or User manual.

The recording you scheduled using the EPG-application will also be displayed in the **Recording Tasks** window.

## Delete a Recording Task

If a scheduled recording is still pending and you decide not to record the program you can delete the task from the **Recording Tasks** window.

To do so:

- open the **Recording tasks** window as described at the beginning of the chapter.
- select the task you want to delete.
- click the **Delete** button.

## Edit a Recording Task

If a scheduled recording is still pending and you wish to change one of the recording settings parameters, you can do this from the **Recording Tasks** window.

To do so:

- open the **Recording tasks** window as described at the beginning of the chapter.
- select the task you want to edit.
- click the **Edit** button.
- the **Recording tasks** dialog opens.
- make the changes you desire.
- confirm the changes by clicking the **OK** button.

## Other Useful Information

The recording is stored in the folder, which you specified in the *TVCenter Settings* application under: ***Recording > Recording directories > TV recordings***.

# TVCenter Gallery

---

The TVCenter - Gallery is the file managing component of the TVCenter software. Here you will find all recorded files (video, audio or image files). You can use the TVCenter - Gallery to organize and play back these files. Besides this the background transcoding engine of the TVCenter - Gallery allows you to convert the video files into various different formats.

In the following chapters, the topics listed below will be described in detail.

[Open TVCenter Gallery](#)

[The TVCenter Gallery User Interface](#)

[Play Back Recordings](#)

[Convert Recordings](#)

## Open the TVCenter Gallery

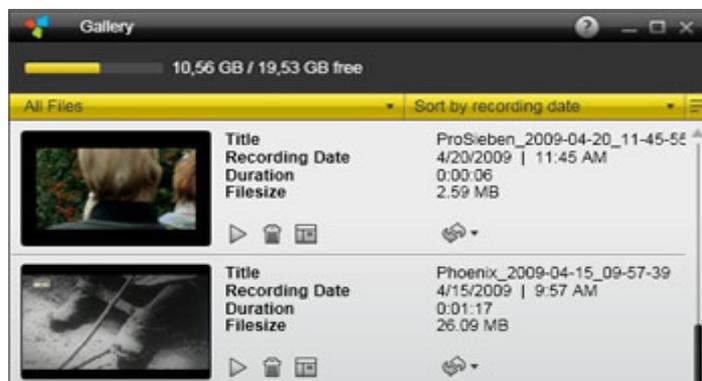
There several ways to open the TVCenter Gallery:

1. go to: **Start > Programs > TVCenter > TVCenter Gallery.**
2. While using another TVCenter application (TV, Radio or Settings) open the Master Control menu by hovering over the  button in the top control bar and then click on the **Show Gallery**  button.
3. While using another TVCenter application (TV, Radio or Settings) hit the **F9** key of your Keyboard.

The TVCenter Gallery opens.

## TVCenter Gallery User Interface

In the image below you can see how the TVCenter - Gallery looks like.



When you first open the TVCenter - Gallery all recorded files will be displayed. For a better overview and easier file retrieval, you can filter and/or sort any time:

- which type of recording will be displayed in the gallery. You can either choose to display all recordings or for example just the TV-recordings or Radio-recordings.  
To do this, click on the **All Files** button and select the desired option from the dropdown-menu.
- how the recordings will be sorted. You can choose to sort the recordings by date, file size or file title.  
To do this, click on the **Sort by recording date** button and select the desired option from the dropdown-menu.

If you want to delete a recorded file, click on the **Delete** button.

Please note that by choosing this option, the recorded file will be deleted from your hard drive.

If you want to copy a recorded file on an USB-stick for instance, click on the **Show in Explorer** button. A Windows Explorer window opens showing you the selected file.

Please note that if you move or rename the file, it will not any longer be available in the TVCenter Gallery.

Besides playing back recordings on your PC you might wish e.g. to play back a recording on your Sony® Playstation® Portable (PSP™), iPod® or DVD player. For further details, refer to the chapter [Convert Recordings](#).

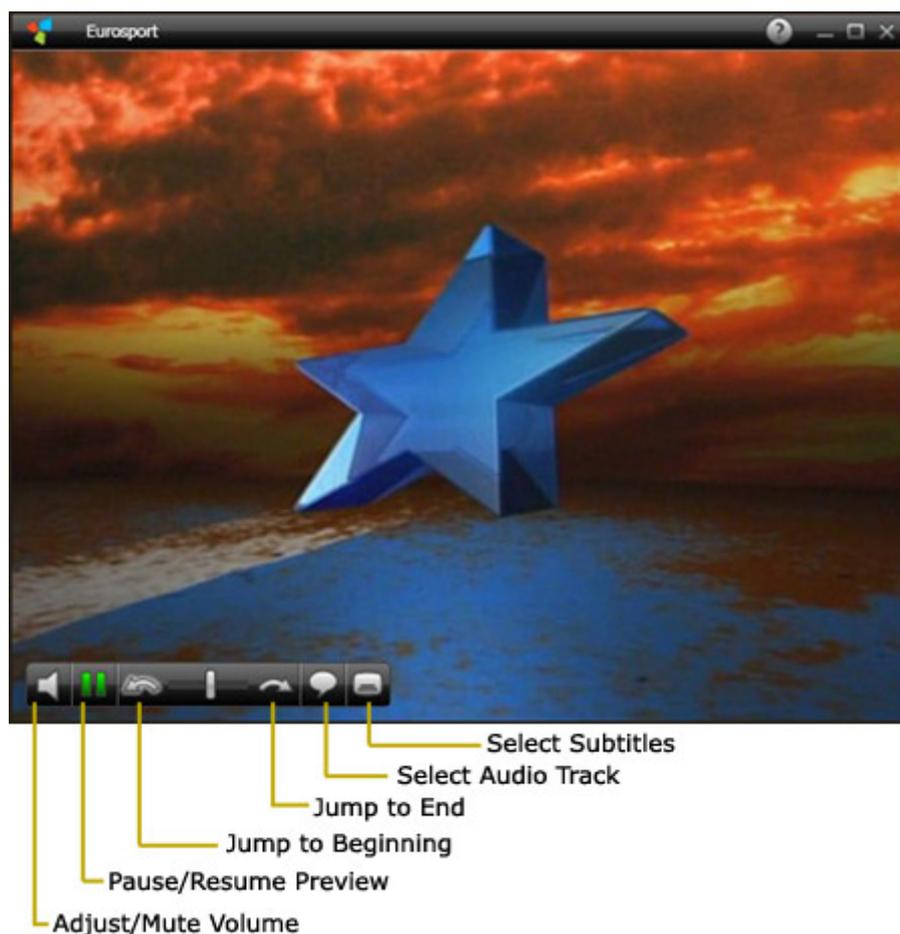
## Play Back Recordings

In the open TVCenter Gallery, proceed as follows to play back a recording.

- Select the recording you want to play back.  
*Optional:* For a better overview, you can filter which type of recording will be displayed in the gallery and how the files are sorted.  
Use the buttons **All Files** and **Sort by recording date**.
- Click on either the thumbnail or the  button.
- The file is played back.

Note that while the audio recordings and the taken snapshots will be played back using the default application of your operating system, the video recordings will be played back in the **TVCenter Gallery Preview** window.

Here is how the TVCenter Gallery Preview window looks like and the available functions:

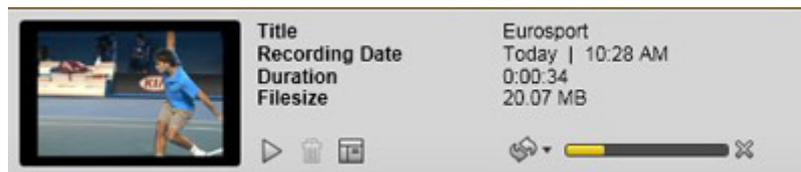


## Convert Video Recordings

TVCenter records the TV programs in the native broadcasted Transport Stream format. If you wish to play back a recording on another device e.g. on your Sony® Playstation® Portable (PSP™), iPod® or DVD player first you must convert the file.

To convert a recording in the open TVCenter Gallery proceed as follows:

- Select the recording you want to convert.  
*Optional:* For a better overview from the **All Files** dropdown-menu select the option **TV files**. This way only, the video recordings will be displayed in the TVCenter Gallery.
- Click the  button.
- Select the desired format from the drop-down menu to start the conversion process.
- The progress bar shows how the conversion is progressing.



The converted recording is stored in the directory, which you specified in the **TVCenter Settings** component under **Recording > Converted Files**.

# TVCenter Radio

---

TVCenter - Radio is the component that allows you to listen to the radio.

Please note that you need a dual PCTV tuner to be able to receive TV and radio signals at the same time.

In the following chapters, the topics listed below will be described in detail.

[Open TVCenter Radio](#)

[The TVCenter Radio User Interface](#)

[Change the Radio Station](#)

[Set Predefined Radio Stations](#)

[Change the Audio Track](#)

[Timeshift](#)

[Record a Program](#)

## Open TVCenter Radio

There several ways to open the TVCenter Radio:

1. go to: **Start > Programs > TVCenter > TVCenter Radio**.
2. while using another TVCenter application (TV, Gallery or Settings) open the Master Control menu by hovering over on the  button in the top control bar and then click on the **Show Radio**  button.
3. while using another TVCenter application (TV, Gallery or Settings) hit the **F7** key of your keyboard.

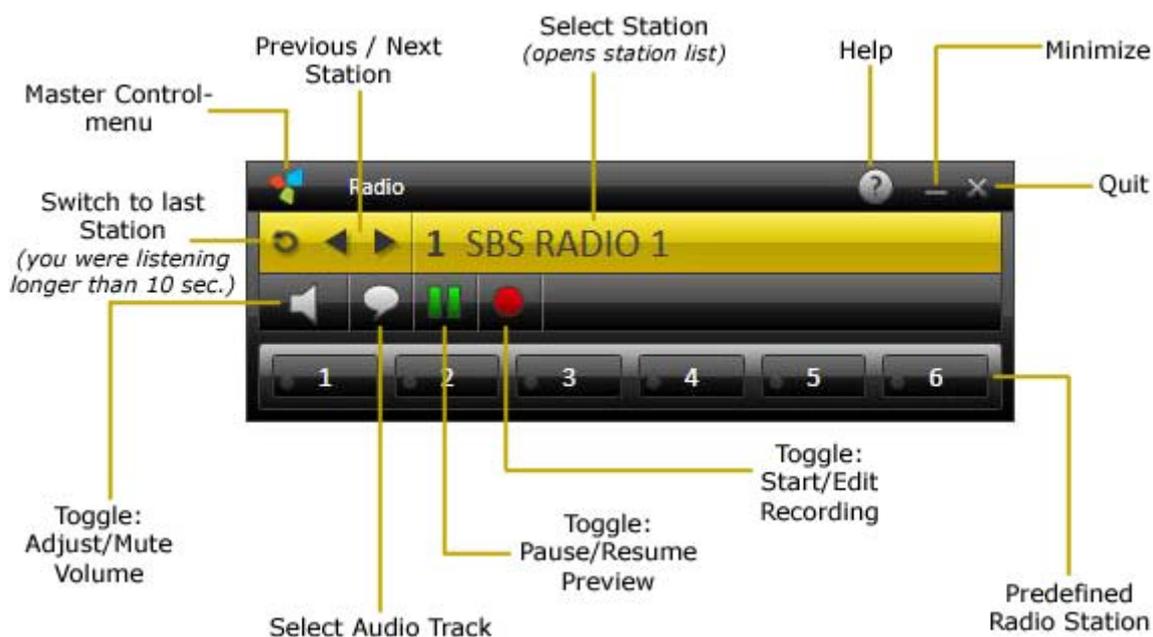
The TVCenter Radio opens.

The application is now started and the program of the radio station you were last listening to is given back.

Note: when you open TVCenter Radio for the first time, the radio station, which was found first during the channel scan, is given back.

## TVCenter Radio User Interface

In the image below, you can see how the TVCenter - Radio looks like and get an overview of the available functions.



Use the controls to change the radio station, to adjust the volume or start an instant or timeshift-recording. If available, you can also swap over the audio track.

In addition to that, you can assign your favorite radio station to one of the six **Predefined Radio Station** buttons. This way you just have to click once to access them. For further details, please refer to the topic [Set Predefined Radio Stations](#).

Please note that the application has several so-called toggle-buttons. A toggle-button has two or more different functions and you can switch between the functions by clicking on the button.

Here are the toggle-buttons and their functions:



**1<sup>st</sup> click** - starts to record the program you are listening to

**2<sup>nd</sup> click** - opens the **Recording Tasks** window and offers you the possibility to edit the running recording



**1<sup>st</sup> click** - pauses the live radio program and starts the timeshift

**2<sup>nd</sup> click** - resumes the radio program



Hovering over the button opens the **Adjust Volume** bar.

**1<sup>st</sup> click** - mutes the volume

**2<sup>nd</sup> click** - unmutes the volume



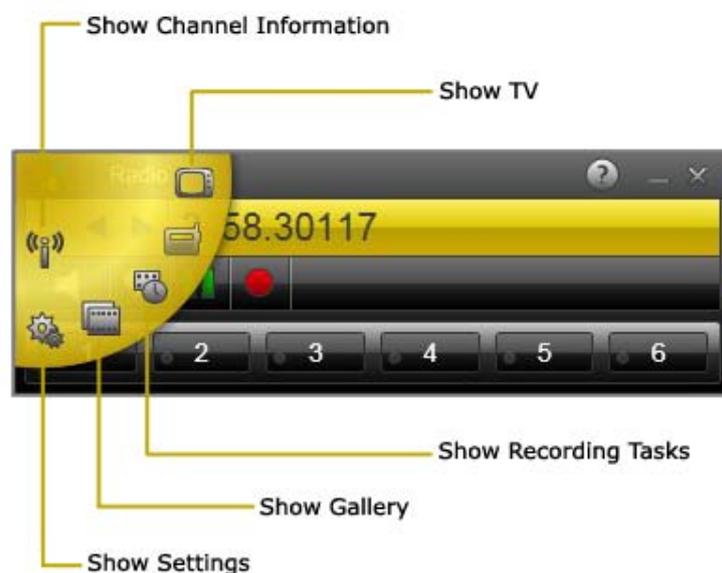
**1<sup>st</sup> click** - opens a list with all available audio tracks

**2<sup>nd</sup> click** - select from the list the desired audio track

Note that not every radio station offers multiple audio tracks.

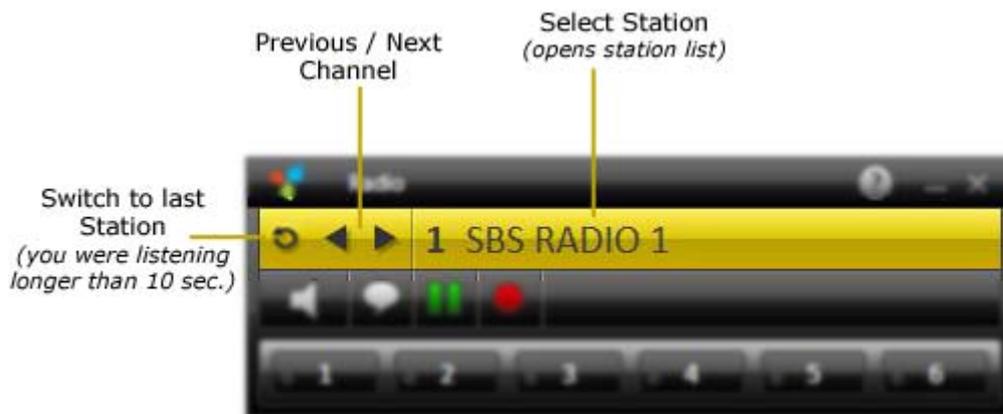
A very important button of the top control bar is the **Master Control menu** button. Hovering over the  button opens the Master Control menu.

This is how the Master Control menu looks like and the available functions:



## Changing the Radio Stations

There are various ways to change the radio station. Here is an overview:



- **Next / previous station**

Click on the **Previous Channel** ◀▶ **Next Channel** button to switch to the next or previous radio station in the station list.

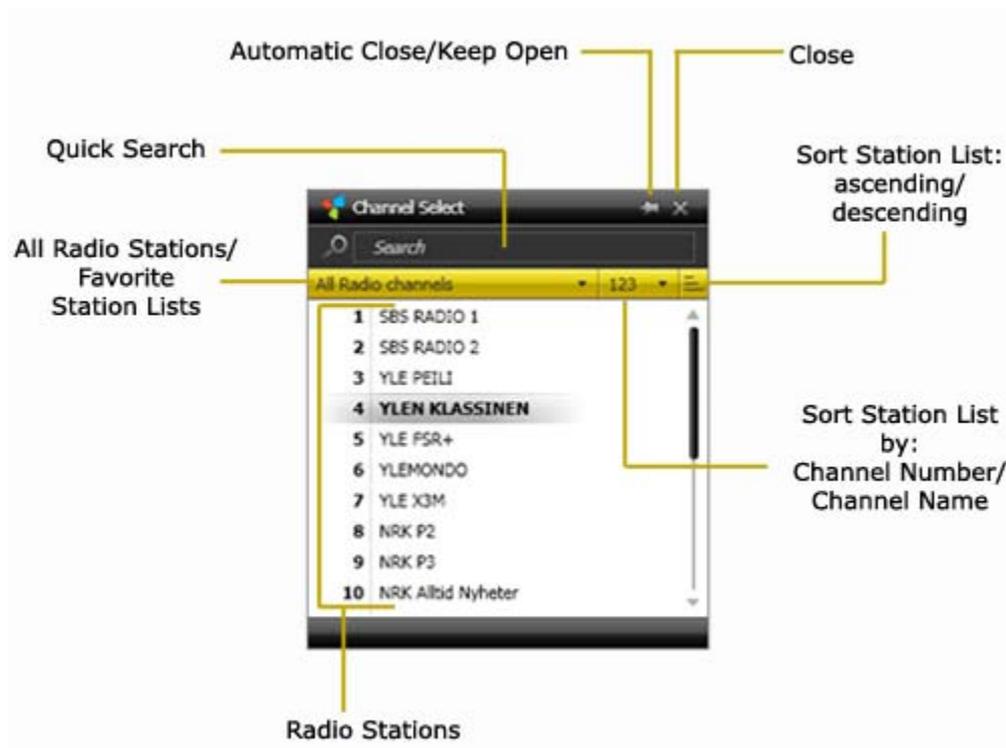
- **Switch to last station**

Click the **Switch to last Station** ↺ button to switch to the last radio station you were listening longer than 10 seconds.

- **Select Station**

To change the radio station proceed as follows:

1. Click on the **Select Channel** **1 SBS RADIO 1** button. The **Channel Select** window opens.



2. Sort the radio station list using one of the available sorting possibilities:
  - a. **All Radio channels** from this dropdown-menu select to see all radio stations or just the radio stations associated to one of your favorite station lists.
  - b. **123** from this dropdown-menu select to sort the station list by station number or station name.
  - c.  click on this button to sort the displayed stations in the list either ascending or descending.
  - d. Alternatively you can use the **Quick Search** field to search for stations. In the station list, only the stations matching your search criteria will be displayed.
  
3. Click on one radio station in the list to change to its program.

## Set a Predefined Radio Station

You have the possibility to assign your favorite radio station to one of the six **Predefined Station** buttons available.



To set a predefined radio station, follow the instructions below:

- From the **Station Select** window, select the radio station you would like to assign to one of the six **Predefined Station** buttons available.
- While listening to the selected station hold down the **Ctrl**-key on your keyboard and press the **Predefined Station** button you would like to assign the station to.
- The current radio station was now assigned to the respective button.
- Click on one assigned **Predefined Station** button to change to respective station.

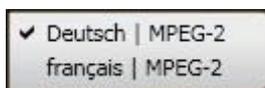
## Change Audio Track

Changing the audio track means in other words to change the audio language or the audio format of the program.

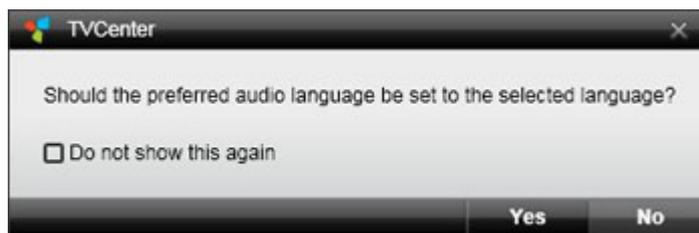
Please note that not every radio station offers multiple audio tracks.

To change the audio track, do the following:

- Click the **Select audio track**  button in the bottom control bar.
- A menu with the available audio tracks is displayed.



- Select the desired audio track.
- If you change the audio language, before the changes apply following dialog opens:



If you select **Yes**, the change will affect all radio stations that offer the audio track (language) you selected.

If you select **No**, the change will affect only the running radio station.

- If you change the audio format, the changes apply automatically.

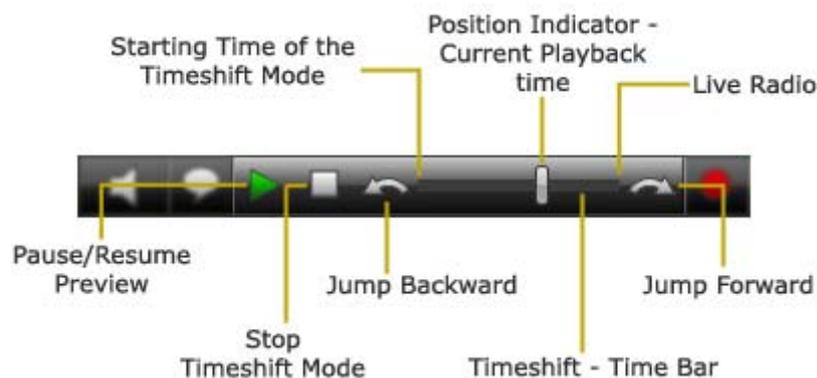
## Timeshift (Pause / Resume Live-Radio)

Timeshift, also known as time-delayed radio, is a function that allows you to pause the program and play it back any time. During the pausing time, the live TV program is temporarily being recorded on your computer. This means that unexpected interruptions cannot cause you to miss a second of the current TV show.

Please note that the timeshift files are only temporarily stored on your PC. You cannot save and use these files. After ending the timeshift mode or changing the station, the timeshift file will be automatically deleted.

Click the **Pause/Resume**  button in the bottom control bar to pause the live radio and start the timeshift mode.

During timeshift mode, additional controls are available in the bottom control bar.



Click the **Pause/Resume Preview**  button to start playing back the timeshift file.

If you click this button during playback of the timeshift file the playback will be paused. Clicking the button again resumes the playback.

The **Timeshift time bar** allows you to jump to any position within the timeshift file. To do this choose one of these possibilities:

- simply click with the mouse on the time bar at the desired position.

- slide the playback position indicator to the desired position within the file.

You can switch to the live radio program at any time by pulling the position indicator to the right-hand end of the bar. In this case, the program continues to be recorded in the timeshift file.

Use the  ***Jump backward / Jump forward***  buttons to jump a pre-defined time interval in the timeshift file. By default this time interval is 10 seconds for jumping backward and 1 minute for jumping forward. You can change it in the ***TVCenter Settings*** application under ***Recording > Timeshift > Skip times***.

Clicking the ***Stop Timeshift Mode***  button ends the timeshift mode and switches back to live radio.

Please note that if you decide to end the timeshift mode or to change the radio station the timeshift file temporarily stored on your computer will be automatically deleted.

## Record a Radio Program

TVCenter Radio offers you two recording options.

Instant Recording - records the program you are listening right now

[Scheduled Recording](#) - lets you program a recording

## Instant Recording

Use this function if you want to record the current program.

### Start / End an Instant Recording

- Start an instant recording by clicking the **Record**  button.
- End the recording by clicking the **Stop Recording**  button.

### Change the Recording Settings

During an instant recording, you have the possibility to change some recording settings. To do so follow these steps:

1. Click again on the **Record**  button.  
The Recording task dialog opens.
2. You have the possibility to set:
  - either set the duration of the recording or the end time.
  - the behavior of the PC after completing the recording.

Recording task

Friday, January 29, 2010 13:39:59

Title: harmony.fm

Channel: harmony.fm

No program data: Set

Single

Start time: 1/29/2010 1:40 PM

End time: 1/29/2010 3:40 PM

Duration (hh:mm): 02:00

Recurrence

Pre-/postroll times (mm:ss): Start 00:00 End 00:00

Behaviour after completion: Keep running

OK Cancel

3. Make the desired changes.
4. Confirm with a click on the **OK** button.  
The recording tasks dialog closes.

## Other Useful Information

The recording is stored in the folder which you specified in the **TVCenter Settings** application under:

**Recording > Directories > Radio recordings.**

The filename is generated automatically from the channel name and the date and time.

## Scheduled Recording

To program a recording you first have to open the **Recording tasks** window.

Do one of the following to open the Recording task window:

1. while TVCenter is running hit the **F11** key of your keyboard.
2. open the Master Control menu in the top control bar by hovering over the  button and click on the **Recording Tasks**  button.
3. right click in the preview window to open application's context menu. From the context menu select the **Recording Tasks** option.

The Recording tasks window opens and all planned or already made recordings are displayed.



## Schedule a Recording

In the **Recording tasks** window click the button: **New**.

The following dialog opens:

The screenshot shows a dialog box titled "Recording task" with the following fields and options:

- Date: Friday, January 29, 2010
- Time: 13:50:35
- Title: harmony.fm
- Channel: harmony.fm
- No program data: Set
- Single:
  - Start time: 1 / 29 / 2010, 2: 00 PM
  - End time: 1 / 29 / 2010, 4: 00 PM
  - Duration (hh:mm): 02: 00
- Recurrence:
  - Pre-/postroll times (mm:ss): Start 05: 00, End 05: 00
  - Behaviour after completion: Keep running

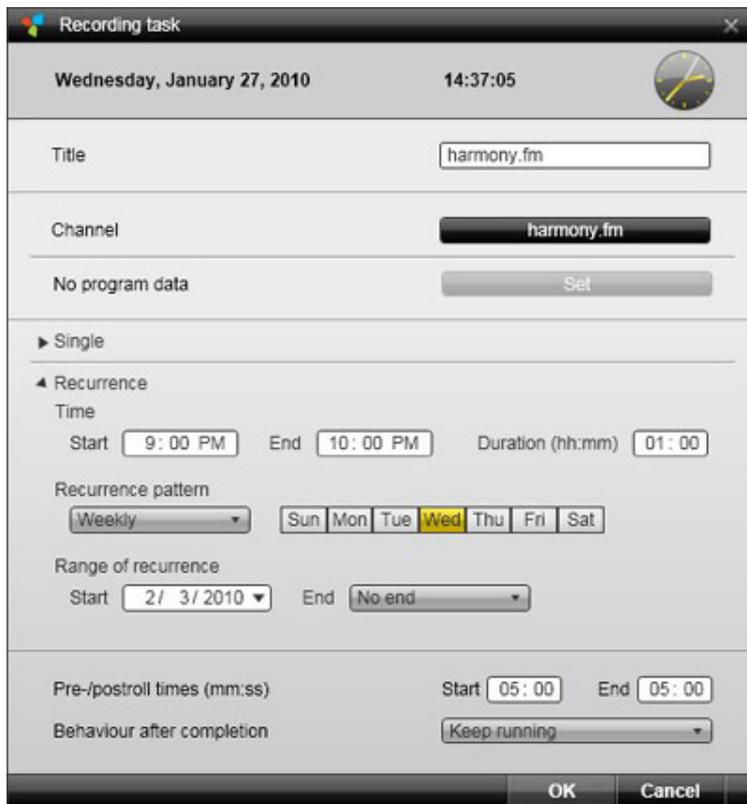
- Select the channel whose program you want to record.  
To do so:
  - click on the **Channel** button.
  - the **Station select** window opens.
  - select the desired station.
- Schedule your recording: (please jump to the appropriate option: **A - single recording**; [B - recurrence recording](#) )
 

**A Single Recording**

  - In the **Start time** section select the date of the recording from the dropdown-menu and manually enter the starting time.
  - Manually enter either, the **End time** of the recording and the **Duration** will automatically be adjusted or vice versa.
  - Please jump to [step 3](#)

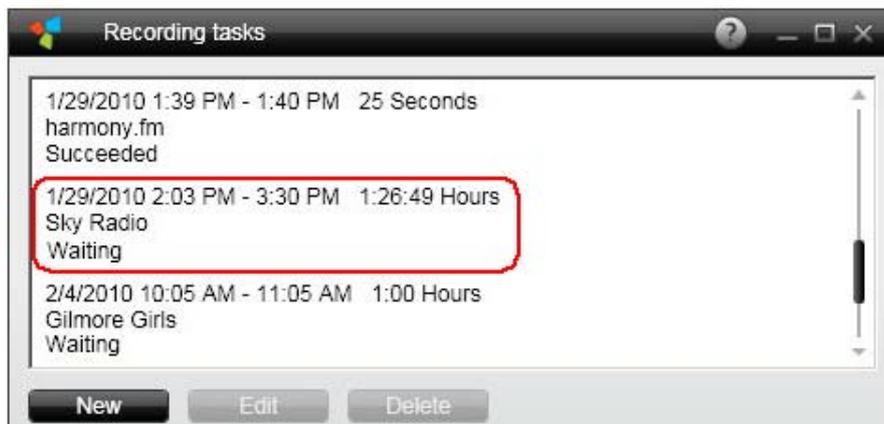
### B Recurrence Recording

- open the **Recurrence** option to schedule the recording.



- In the **Time** section manually enter the starting time into the **Start** field.
  - Manually enter either, the **End time** of the recording and the **Duration** will automatically be adjusted or vice versa.
  - From the **Recurrence Pattern** dropdown-menu select the desired option **Weekly** - select the days of the week when the TV show is broadcasted. **Daily** - select how often the TV show recurs.
  - In the **Range of Recurrence** section, set the starting and ending date of the recurrence recording.  
For the ending time following options are available:
    - No end**
    - By date**
    - After occurrence**
3. The file name is automatically generated from the EPG-data (if available) or the channel name and the date and time.  
If you wish to rename the file, you can do this in the **Title** field.
4. You can set **pre-/postroll times** for the recording.  
By default these times are set to 5 minutes. This means the recording will start 5 minutes before the **start time** you set and will end 5 minutes after the **end time** you set.

5. Further you can select the behaviour of your PC after completing the recording.
6. After you entered the desired data, click the **OK** button to confirm.
7. In the Recording tasks window the new scheduled recording will be displayed.



## Delete a Recording Task

If a scheduled recording is still pending and you decide not to record the program you can delete the task from the Recording Tasks window.

To do so:

- open the Recording tasks window as described at the beginning of the chapter.
- select the task you want to delete.
- click the **Delete** button.

## Edit a Recording Task

If a scheduled recording is still pending and you wish to change one of the recording settings parameters, you can do this from the Recording Tasks window.

To do so:

- open the Recording tasks window as described at the beginning of the chapter.
- select the task you want to edit.
- click the **Edit** button.
- the Recording tasks dialog opens.
- make the changes you desire.
- confirm the changes by clicking the **OK** button.

## Other Useful Information

The recording is stored in the folder, which you specified in the **TVCenter Settings** application under:

**Recording > Recording directories > Radio recordings.**

# TVCenter - Settings

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TVCenter - Settings is the application that allows you to make various changes either to the configuration of your PCTV device or the software itself.

To open the TVCenter - Settings do one of the following:

1. go to: **Start > Programs > TVCenter > TVCenter Settings.**
2. while watching TV or using another TVCenter application (Radio, Gallery) open the Master Control menu by hovering over the  button in the top control bar and then click on the **Show Settings**  button.
3. while watching TV or using another TVCenter application (Radio, Gallery) hit the **F10** key of your keyboard.

The TVCenter - Settings window consist of two panes: The Navigation Pane and the Settings Pane. This is how the window looks like:



- The **Navigation Pane**, as the name already suggests offers you the possibility to navigate through the different settings options. The content of this pane does not change.

Depending on your PCTV device, the options of the Navigation pane might vary.

- The **Settings Pane**, offers you the possibility to set the different parameters of the selected option. Depending on the selected option the content of this pane changes.

For a better overview, the Settings Pane is divided into sections. Each section contains related settings parameters.

Here is an overview of the settings parameters behind the options of the navigation pane.

 General	Select this option to set the Language of the Software and your Location.
 Hardware	Select this option to: <ul style="list-style-type: none"><li>▪ see/change the PCTV device and/or the antenna you are using for watching TV.</li><li>▪ configure the analog source (depends on PCTV device).</li><li>▪ enable the antenna amplifier (if available).</li></ul>
 Remote control	Select this option to configure and test your remote control (depends on PCTV device).
 Channel Scan	Select this option to run a channel scan.
 TV channels	Select this option to: <ul style="list-style-type: none"><li>▪ create your favorite TV channel lists.</li><li>▪ open the Advanced Channel Editor.</li></ul>
 Radio channels	Select this option to: <ul style="list-style-type: none"><li>▪ create your favorite lists of Radio stations.</li><li>▪ open the Advanced Channel Editor.</li></ul>



## Recording

Select this option to:

- set the folders where your recordings will be saved.
- set various recording task and timeshift parameters.



## TV watching

Select this option to:

- update the EPG data.
- set the aspect ratio of the TV-viewing window and how long the control bar will be displayed.
- set up the video renderer and the audio output.



## DistanTV classic

Select this option to set different parameters of the DistanTV software. For further details, please refer to the DistanTV Help or Manual.

You cannot simultaneously use both DistanTV classic and DistanTV mobile.



## DistanTV mobile

Select this option to set different parameters of the DistanTV software. For further details please refer to the chapter [TVCenter - DistanTV mobile](#).

You cannot simultaneously use both DistanTV mobile and DistanTV classic.



## Mobil Memory

Select this option to store /restore the TVCenter configuration.

This option is available only when using the PCTV Systems FlashStick Nano.



Information

Select this option to:

- check for software updates
- register the software
- activate features

Select the relevant option in the navigation pane to make the changes you want.

## TVCenter - DistanTV mobile

DistanTV mobile is a server which runs in the background and allows your iPhone® / iPod touch® to access the TVCenter application via LAN or the Internet. Once the connection between your iPhone® / iPod touch® and the PC has been established, the iPhone® / iPod touch® accesses the channel lists saved on your PC. You can select the channel you want to watch and TVCenter streams the TV program on your iPhone® / iPod touch®.

Note that only digital TV can be streamed to your iPhone® / iPod touch®.

### Requirements

#### *For Access via Internet*

To access TVCenter via the Internet following requirements have to be met:

- The **Port Forwarding** option of your router has to be enabled.
- You need to know the external IP Address of your PC. Depending on your Internet provider, this may constantly change. To overcome this problem we recommend using a dynamic DNS service.
- Optional you could enable your PC to wake on LAN.

For further details on port forwarding, dynamic DNS and wake on LAN please refer to the document: "**Requirements for DistanTV mobile**" located in the **TVCenter Help** file in the section **TVCenter DistanTV mobile**.

#### *For Access via your Local Network (LAN)*

To access TVCenter via LAN you need to know the IP-address of your PC.

## Set the DistanTV mobile Server

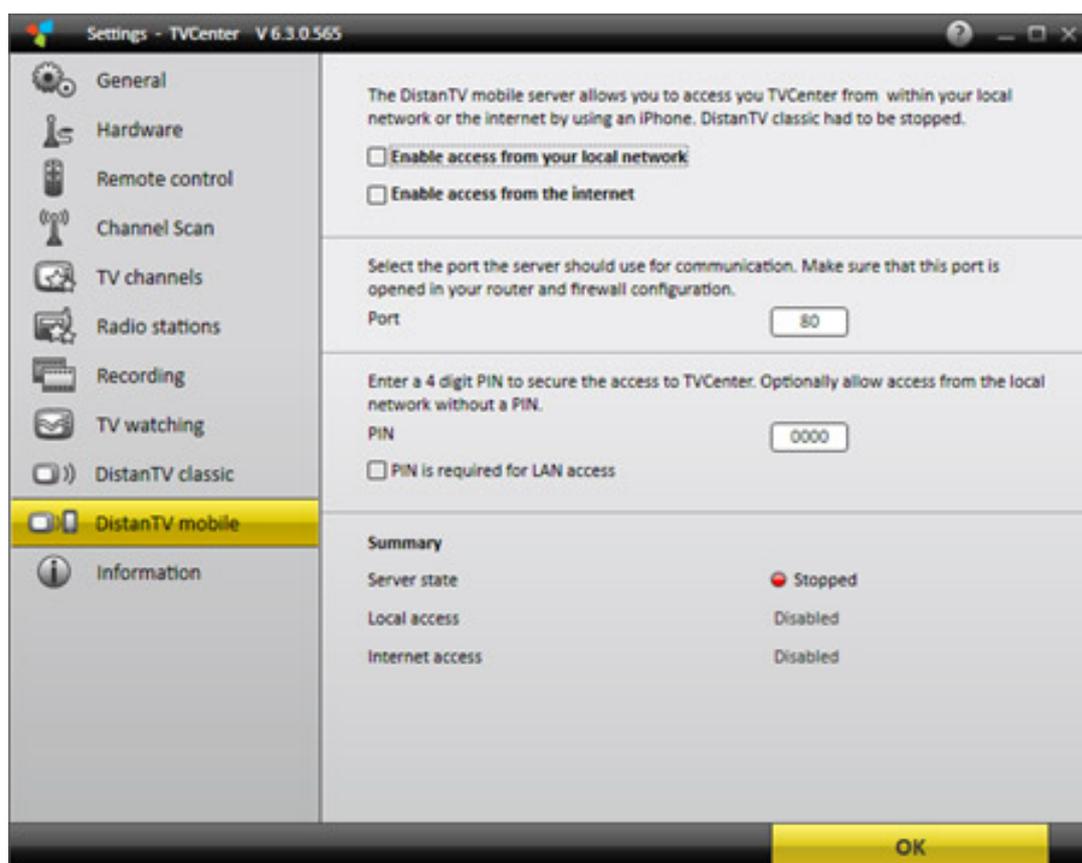
To set the DistanTV mobile server you first have to open the TVCenter Settings application.

To open TVCenter Settings do one of the following:

- while TVCenter is running, hover over the **Master Control**  button in the top control bar and click on the **Show Settings**  button.
- while TVCenter is running, hit the **F11** key of your keyboard.
- go to: **Start > Programs > TVCenter > TVCenter Settings**.

In the now open TVCenter Settings application, select the option **DistanTV mobile**.

Following dialog opens:



- To start the DistanTV mobile server, select the desired **Enable Access** option.

Note that if you enable the DistanTV mobile server the DistanTV classic server will be automatically disabled.  
You cannot simultaneously use both DistanTV mobile and DistanTV classic.

In the **Summary** section of the page you can always see the **server state** the name of your PC and the IP-address.

Once an **Enable Access** option is selected, the DistanTV mobile server will start automatically when you power up your PC.

To stop the DistanTV mobile server, deselect the **Enable Access** option.

- In the **Port** field you can change the port the DistanTV mobile server uses for communication. By default 80 is set.

Note that the communication port has to be open in your router and firewall configuration.  
For further details please refer to the user manual of your router and the help of your firewall software.

- In the **PIN** field, change the default PIN to secure the access to TVCenter.

Now you are ready to watch TV on your iPhone® / iPod touch®.

## Watch TV on your iPhone® / iPod touch®

Follow these steps to enjoy TV on your iPhone® / iPod touch®:

- In your iPhone® / iPod touch®'s web browser enter the IP-address or dynamic DNS host of your PC.

Here you can see the IP-address of your PC: **TVCenter Settings > DistanTV mobile > Summary**

- If prompted enter the PIN.
- The channel list page is displayed.
- Select the channel you want to watch.
- Enjoy TV on your iPhone® / iPod touch®.

### Important Information:

In general, TV streaming with DistanTV mobile to your iPhone® / iPod touch® can be performed via a WiFi network or through a UMTS/3G connection ( Not via GPRS/EDGE!).

Please note the following when using a UMTS/3G network:

- Streaming of video might be blocked by your UMTS operator. In case of streaming problems, please check the correct function of DistanTV mobile by connecting your iPhone® / iPod touch® to a WiFi router with broadband Internet access.
- Be aware of potential high data traffic cost, if you don't have a "flat-fee" UMTS contract.
- Be aware of a potential band-width throttling by your operator when reaching a certain total data volume ("fair flat" contracts).

*Example:*

*Your fair flat volume is 2GB per month and you are streaming at a data rate of 150kb/s. This will give you approx. 30h of pure TV streaming time per month until your connection speed will be decreased to e.g. GPRS speed – which makes any further streaming through this connection impossible.*

## Change TV Viewing Settings from your iPhone® / iPod touch®

If you are not satisfied with the default TV viewing settings on your iPhone® / iPod touch®, you can manually change them. You can do this directly from your iPhone® / iPod touch®.

Among others you can change: the streaming data rate of your local and/or Internet profile and the aspect ratio of the preview window.

To do so, follow these steps:

- Open the channel list page.
- Select the **Settings**  button in the top right corner.
- The **Settings** dialog opens:



- Make the desired changes.
- Confirm your changes by clicking the **DistanTV mobile** button.

# Online Support

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If you need further help you can write us an e-mail at:  
[support@pctvsystems.com](mailto:support@pctvsystems.com) or call our hotline.

For further details on how to contact our hotline refer to the support information sheet included with your product.

When you contact the PCTV Systems' Support, please be ready to provide the following information:

- **Product**
- **Version of the TVCenter application**
- **Serial number:** Located on the cover of your CD or in the Settings application of the TVCenter
- **Operating system version:** e.g. Windows Vista including the Service Pack version
- **Main board:** Name, chip set, BIOS version
- **CPU:** Type and speed (e.g., Pentium 4, 2.4 GHz)
- **RAM:** Size of main memory (e.g., 512 MB)
- **CD/DVD burner:** Manufacturer and model
- **Type of defect:** e.g. Crash, problems with video quality, installation problems, etc.
- **Brief description of the issue**
- **Information on how the issue can be reproduced**

To make it easier for you a part of the information needed by our support is accessible in the **System info** file.

TVCenter offers you the possibility to either save this file onto your hard disk or send it to our support.

You can find the two options here: **TVCenter Settings > Information**.

# TVCenter - Operating Shortcuts

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Following operating shortcuts are available:

Function	Keyboard	Mouse	Remote
<b>Main</b>			
Help	F1	-	-
TV	F5	-	-
Teletext	F6	-	Teletext
Radio	F7	-	-
EPG	F8	-	-
Playback	F9	-	-
Setting	F10	-	-
Exit	ALT + F4	-	Power On/Off

<b>Function</b>	<b>Keyboard</b>	<b>Mouse</b>	<b>Remote</b>
<b>Channels</b>			
Enter numbers	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9	-	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9
Switch video input	0	-	0 / AV
Previous channel	Cursor Up / Cursor Left / Media* Next	-	Channel Up
Next channel	Cursor Down / Cursor Right / Media* Previous	-	Channel Down
Last viewed channel	L	-	Last Channel (Jump)
Open channel selector	Enter	-	OK

\* "Media" stands for the multimedia keys on enhanced keyboards.

Function	Keyboard	Mouse	Remote
<b>Audio</b>			
Volume +	+ / Volume* Up	Wheel Up	Volume Up
Volume -	- / Volume* Down	Wheel Down	Volume Down
Mute on/off	M / Volume* Mute	Wheel click	Mute
Select audio stream	ALT + A	-	-

\* "Volume" stands for the multimedia keys on enhanced keyboards.

<b>Recording</b>			
Start Recording	C	-	Record
Stop Recording	S	-	Stop
Snapshot	ALT + C	-	-

<b>Function</b>	<b>Keyboard</b>	<b>Mouse</b>	<b>Remote</b>
<b>Timeshift / Playback</b>			
Pause (starts timeshift)	Space / Media* Play	-	Play / Pause
Play	Space / Media* Play	-	Play / Pause
Stop (ends timeshift)	Alt + Space / Media* Stop	-	-
Jump to beginning	Pos 1	-	-
Jump to end	End	-	-
Jump forward	Page Up	-	Fast Forward
Jump backward	Page Down	-	Fast Reverse

\* "Media" stands for the multimedia keys on enhanced keyboards.

Function	Keyboard	Mouse	Remote
<b>Other</b>			
Toggle fullscreen mode	F / ALT + Enter	Double-click left	Fullscreen
Zoom in	ALT + Cursor right	CTRL + Wheel Up	-
Zoom out	ALT + Cursor left	CTRL + Wheel Down	-
Show EPG information (OSD)	I	-	?
Show advance channel information	ALT + I	-	-
Change display mode (aspect ratio)	A	-	-
Select subtitle stream	ALT + T	-	-

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**md5.js 1.0b 27/06/96** - Javascript implementation of the RSA Data Security, Inc. MD5

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Version 2, June 1991

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# Glossary

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## #

**16:9-Format:** Also called widescreen. Is a TV format with the width-to-height ratio of 16:9. When viewed on traditional TV-sets with a 4:3 display area, part of the picture is black (black bars on top and bottom of the picture) to make it compatible with the traditional format.

**4:3-Format:** Is a TV format with the width-to-height ratio of 4:3. When viewed on TV-sets with a 16:9 display area, part of the picture is black (black bars on the left and right side of the picture).

## A

**Ac3:** also known as *Dolby Digital*. Is the common version of a data/audio compression technology developed by Dolby Laboratories. It contains up to six discrete channels of sound. Therefore it supports mono, stereo and 5.1 channel mode.

**Aspect ratio:** The width-to-height ratio of one pixel. Some video formats must have this ratio in order to display the picture properly. If the aspect ratio is 1, the pixel will be square. If the aspect ratio is not 1, the pixel will be rectangular. When rectangular pixels are used without adjustment, circles are displayed as ovals. This distortion can be eliminated by factoring in the aspect ratio. (see also "Pixel")

**ATSC:** The format of digital TV in the US, South Korea, Canada and Mexico. Defined by Advanced Television System Committee

## C

**ClearQAM:** Is the digital TV transmitted in the US via the cable network

**Client:** A system (computer or program) in a network or on the Internet that requests files or services. The system (computer or program) that provides the

files or services is called a server. The client can request a data transfer or a print job from the server.

**Closed Captioning:** offers the possibility to display a text on a running TV preview. This text is specifically intended for people who are deaf or hard-of-hearing and usually contains descriptions of important non-dialog audio as well.

**CoDec:** Is the abbreviation of *Coder/Decoder*. Is a device or program able to compress and decompress digital data streams like for instance video data.

**Composite Video:** The encoding of color and brightness information into a single signal. (see also "S-Video")

**Conversion:** See "Transcode"

## D

**Data rate:** The data rate is also known as the bit rate. The bit rate measures how fast bits of data can be transferred over a medium in a given period of time. This rate is listed in bits per second (bps).

**DTT:** Abbreviation of *Digital Terrestrial Television*. See also "DVB"

**Deinterlaced:** is the process of converting interlaced video, such as common analog television signals or 1080i format HDTV signals, into a non-interlaced form. (see also "Field")

**DHCP:** Abbreviation for "Dynamic Host Configuration Protocol". Windows-Server software that assigns an IP address to each computer in a network. (see also "IP Address")

**Digital Television:** See also "DVB" or "DTVB". Digital television transmission standard. Describes the transmission of video, audio and additional information as digital data signals.

**DiSEqC:** is the abbreviation of *Digital Satellite Equipment Control* and is a special communication protocol. This protocol facilitates the communication between a satellite receiver and a device such as a multi-dish switch or a small dish antenna rotor. DiSEqC is commonly used to control switches and motors.

**DivX:** is a video codec created by DivX, Inc. and is popular due to its ability to compress lengthy video segments into small sizes while maintaining relatively high visual quality.

**Dolby Digital:** Is the common version of a data/audio compression technology developed by Dolby Laboratories. It contains up to six discrete channels of sound. Therefore it supports mono, stereo and 5.1 channel mode.

**DVB:** Abbreviation of *Digital Video Broadcasting*. Transmission standard for digital television. Classified as "DVB-C", "DVB-S", and "DVB-T" depending on the transmission medium.

**DVB-C:** Abbreviation of *Digital Video Broadcasting Cable*. Transmission standard for digital television via the cable network. (see also "DVB")

**DVB-S:** Abbreviation of *Digital Video Broadcasting Satellite*. Transmission standard for digital television via satellite. (see also "DVB")

**DVB-T:** Abbreviation of *Digital Video Broadcasting Terrestrial*. Transmission standard for digital television via antenna. (see also "DVB")

## E

**EAc3:** more commonly known as "Dolby Digital Plus", is an enhanced coding system based on the Ac3 codec. It supports for more audio channels and offers improved coding techniques to reduce compression artifacts. It is not backward compatible with existing Ac3 hardware.

**EPG:** is the Abbreviation of *Electronic Program Guide* and is a digital TV guide that offers you information about the TV program

**Ethernet:** The most common type of local-area network. Each node (computer or server) in the network checks whether any other computer is transmitting data. It then waits for the other computers to finish with their transmissions before it starts its own transmission. (see also "LAN")

**EVR:** Abbreviation of *Enhanced Video Renderer*. It is a video renderer and mixer, part of the Microsoft Media Foundation (MF) multimedia framework for digital media in Windows Vista

## F

**FEC:** is the Abbreviation of *Forward Error Correction*. FEC is a system of error control for data transmission. The sender adds an error-correction code to its messages which allows the receiver to detect and correct errors (within some bound) without the need to ask the sender for additional data.

**Field:** A video image consists of horizontal lines divided into two fields. All the odd-numbered lines make up one field; the even-numbered lines make up the other field.

**Firewall:** is a part of a computer system or network that is designed to block unauthorized access while permitting authorized communications. Firewalls are frequently used to prevent unauthorized Internet users from accessing private networks connected to the Internet.

**Firmware:** Firmware is system software stored in ROM or Flash memory. Firmware is not deleted when the system has been turned off.

**Flash memory:** Re-writable permanent memory that behaves like a hybrid of RAM and a hard drive. Flash memory does not lose data even when its power supply has been turned off. (see also "RAM")

**FM:** is the Abbreviation of *Frequency Modulation*.

## H

**H.264:** is a standard for video compression. It is also known as MPEG-4 Part 10, MPEG-4 AVC or MPEG-4 AVC (H.264)

**HD:** Abbreviation of *High Definition*. Name for video signals with a resolution that exceeds the Standard Definition. Typical examples are "720p" (1280x720 progressive) and "1080i" (1920x1080 with line interlacing). The transmission of HD signals requires components or digital (DVI, HDMI) inputs. FBAS, S-video and SCART are not suitable for this. The compression algorithms for HD are extensions to the methods used for SD, for example, MPEG 2 HD, MPEG 4 HD, and Windows Media Video HD. Since for HD, substantially more pixels and therefore more data accumulate, significantly higher processing power is required for compression and decompression. (see also "SD")

**HTTP:** Abbreviation for *HyperText Transfer Protocol*. A standard mechanism used on the Internet to share documents between servers and clients.

## I

**Interlace:** A method of creating an image used in PAL and other systems. Interlacing uses fields. Each field has 312 1/2 lines that are inserted one after another. (see also "Field")

**IP Address:** Abbreviation of *Internet Protocol*. Every computer connected to the Internet receives a unique identification number that consists of four sections. This number is called an IP address. This allows other computers in the network to identify it, send data packets to it and to process data they have received from it. IP addresses make sure that the right data packets are sent to the right recipient via the right path.

**iPod:** Is a portable media player designed and marketed by Apple. To the product line belong: *iPod Classic* (hard drive-based), the *iPod Touch* (with touchscreen), *iPod Nano* (video capable), and the *iPod Shuffle*.

## L

**LAN:** Abbreviation of *Local-Area Network*. A local network located in a building or on company premises that is based on private transmission media and equipment. Ethernet and Token Ring are common LAN technologies.

**Letterbox:** The letterbox format is created when an image recorded in 16:9 format (or wider) is displayed on a normal television (4:3). This format typically displays the picture between black bars on the top and bottom of the screen. This term was probably derived from the wide, thin format that looks a lot like the slot of a letterbox.

## M

**MPEG:** Abbreviation of *Motion Pictures Experts Group*. Video-compression standard. There are different formats for different types of compression, such as MPEG 1, MPEG 2, MPEG 4 etc.

**Modulation:** is the process of conveying a message signal, e.g. a radio or TV signal, inside another signal that can be physically transmitted, the so called carrier wave. In radio communications or cable TV systems, electrical signals can only be transferred over a limited passband frequency spectrum. Varying the amplitude, frequency or phase of a carrier wave makes it possible to keep the frequency content of the transferred signal as close as possible to the centre frequency of the passband.

## N

**NTSC:** Abbreviation of *National Television Standards Committee*. A television standard with 525 lines and 60 fields per second that is used in North and Central America. (see also "PAL", "SECAM", "Field")

## P

**PAL:** Abbreviation of *Phase Alternation Line*. Television standard developed in Germany that uses 625 lines and 50 fields per second. This is the main TV standard in Europe. (see also "NTSC", "SECAM", "Field")

**PC:** Abbreviation of *Personal Computer*

**Pcr Pid:** is the abbreviation of *Program Clock Reference Packet Identifier*. It is a value in the program map table of an MPEG 2 program and represents the packet identifier (pid) containing the program clock reference (pcr). The program clock reference enables a decoder to present synchronized content, meaning the audio track matches the associated video.

**PCTV Device:** see "TV tuner"

**PIN:** Abbreviation of *Personal Identification Number*. A PIN is a secret code comprising several digits that identifies a given user.

**Pixel:** Also known as a "picture element" or "pel". In a video-recording device (such as a camera) or a playback device (such as a monitor), a pixel is a light-sensitive or light-emitting surface with a specified height and width. When stored electronically, pixels contain brightness and color information for a given image element. The aspect ratio, which also plays a key role in video playback, is stored separately in the files for some data formats. (see also "Aspect ratio")

**Pmt Pid:** is the abbreviation of *Program Map Table Packet Identifier*. It is the transport stream packet identifier (pid) containing the program map table (pmt). The program map tables provide information on each program present in the transport stream, including the program-number, and list the elementary streams that comprise the described MPEG 2 program.

**Port:** The end point of a logical connection within a network. The port number indicates the type or the type of use of the port. Certain port numbers are reserved for specific applications. For example, port 80 is used for http communication.

**PSP:** Abbreviation of *Playstation Portable* is a handheld game console manufactured and marketed by Sony Computer Entertainment. Among others the robust multimedia capabilities distinguishes this handheld game console from the others.

## Q

**QAM:** Abbreviation of *Quadrature Amplitude Modulation*. It is both an analog and a digital modulation scheme. This way digital cable channels are encoded and transmitted via cable television providers throughout North America.

## R

**Router:** Routers, also known as "Intermediate Systems (IS)", are linking elements that interconnect two or more subnetworks. In addition to acting as a bridge, routers can expand the boundaries of a network (number of nodes, physical extension). Routers also control data traffic by not forwarding defective data packets.

**Resolution:** Describes the detail an image holds and is characterized by the number of distinct pixels that can be displayed in each dimension. Referring to TV we distinguish between standard definition (SD) and high definition (HD) TV.

## S

**S-Video:** S-Video signals deliver brightness and color information separately through several cables. This means that the video does not need to be modulated and demodulated and image quality is not impaired as a result. (see also "Composite Video")

**SD:** Abbreviation of *Standard Definition*. When a resolution consists of up to 720 x 480 (NTSC) or 720 x 576 (PAL), we are talking about "Standard Definition". (see also "HD")

**SECAM:** Abbreviation of *Sequential Couleur à Mémoire*. A color-television standard developed in France and Eastern Europe based on the PAL system. SECAM uses 625 lines and 50 fields per second. (see also "NTSC", "PAL", "Field")

**Server:** A computer or a program that offers storage, data-transfer and other services in a network or on the Internet. Servers often provide services for requestors (clients) located on other computers.

**Set-top box:** A set-top box is an additional device that receives digital television stations and data. It can be hooked up to any standard television set.

**SPDIF:** is the abbreviation of *Sony Philips Digital InterFace*. It is a data link layer protocol and a set of physical layer specifications for carrying digital audio signals between devices and stereo components over either optical or electrical cable. SPDIF is commonly used to carry compressed or uncompressed digital audio signals to a receiver that supports Dolby Digital or DTS surround sound.

**Streaming:** The act of transferring compressed video and audio files over the Internet. Streaming does not download all the data at once, but downloads it in stages using a store-and-forward method. The data does not arrive as a continuous file, but is cached in the buffer, which can create delays at the start of transmission. The data can be transmitted live or it can be downloaded later. The computer receiving the data stream must have a program (player) installed on it that decompresses the data. Players are usually installed in browsers such as Internet Explorer. The speed and quality of the data depend heavily on how much bandwidth is available. In order to ensure smooth playback, the Internet

connection should offer at least 300 Kbps in bandwidth. There are various file formats for audio and video streaming. The most popular formats are MP3, RealAudio and WMA.

**Subtitle:** are textual versions of the dialog in films and television programs. They can either be the written translation of a dialog in a foreign language, or a written rendering of the dialog in the same language. Usually subtitles are displayed at the bottom of the screen.

## T

**Transcode:** is the direct digital-to-digital conversion of one encoding to another. The most popular method of transcoding is to decode the original data to an intermediate format, in a way that still contains the content of the original, and then encoding the resulting file into the target format.

**Transport Stream:** is a communications protocol for audio, video, and data and it is used in broadcast applications such as DVB and ATSC.

**TV:** Abbreviation of *Television*

**TV Tuner:** is a computer component that allows television signals to be received by a computer. Most TV tuners allow you to record the TV program onto the hard disk of your PC.

## W

**Widescreen:** See "16:9 format".

**WLAN:** Abbreviation of *Wireless Local Area Network*. (see also "LAN")