TotalRecorder On-line Help
(Version 8.5)

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1   Overview

Total Recorder is a powerful tool for recording, processing, converting, and playing sound and video files. Total Recorder supports many different types and formats of audio and video files.

The audio file types and formats supported by Total Recorder are:

– compressed and uncompressed RIFF-WAV (including High Quality PCM)
– MP3
– Ogg Vorbis
– Windows Media Audio
– FLAC
– Monkey's Audio (APE)
– AAC Audio within MPEG-4 and 3GP containers (*.mp4, *.m4a, *.3gpp, *.3gp, *.3g2, *.3gp2 - Windows 7 and later only)
– AAC Audio within MOV container (Windows 7 and later with playback only)

The video file types supported by Total Recorder are:

– AVI
– WMV
– FLV
– MPEG-4 and 3GP (*.mp4, *.m4v, *.mp4v, *.3gpp, *.3gp, *.3g2, *.3gp2 - Windows 7 and later only)
– MOV (Windows 7 and later with playback only)

With Total Recorder, you can do the following:

• Record sound reproduced by other programs, such as RealPlayer, Windows Media Player, iTunes, WinAmp, and others, including Internet telephony programs. The reproduced sound can be either sound from local files being played back or sound from Internet transmissions. **These recordings are performed without the need for special lines for your sound board and without a loss of quality due to redundant conversions from digital to analog to digital. While recording Internet-telephony conversations, the recording of both parties is possible. These features are provided by a Total Recorder driver.**

• Record from a microphone, a line-in, or another input line for your soundboard.

• Capture and record video from a screen (full screen, region, or window).

• Record video from hardware video devices, including DVD and cassette players/recorders, USB web cameras, DV cameras, and TV tuners. For more information about the hardware devices supported, refer to the Supported hardware video devices section.

• Playback audio and video files.

• Playback and capture (background record) Internet audio broadcasts in MP3, WMA, and Ogg Vorbis formats, and Internet video broadcasts in WMV and FLV formats, directly without decoding and re-encoding.

• Use the time-shift feature, which lets you listen during the recording or the background recording of an Internet broadcast.

• Split sound data on separate clips during a recording and tag the clips automatically.

• Split sound data to separate files during a recording based on various criteria (e.g. size, duration, and others).

• Work with cue-sheet files and use cue points as bookmarks or track separators. A media file can be split based on information in an associated cue file.

• Convert media data to any supported format. Total Recorder can convert data during a recording or it can convert a recorded file from one format to another.

- Work with file tags for any of the supported file types.

- Edit your recordings. Unlike most other editing programs, Total Recorder performs editing without any loss of sound quality even when editing compressed data.

- Normalize recordings or apply fading effects to recordings.

- Play an audio file or a video file at a slower or faster speed than normal while optionally preserving the original tone.

- Schedule playbacks or recordings using either Total Recorder's built-in scheduler or an external scheduler.

- Work with playlists in M3U, PLS, or WPL format.

- Enhanced functionality through the use of add-ons. Add-ons are available for you to do the following:

  – Restore sound (e.g. enhance the quality of recordings from tape or vinyl).

  – Refine speech recordings.

  – Accomplish automatic gain control.

  – Apply an equalizer.

  – Perform mixing functions.

  – Send your recordings to iTunes/iPod.

- Perform batch processing of audio files. For example, you can use batch processing to convert a set of files or you can use an add-on to process multiple files all at once.

- These are only some of the features of Total Recorder.

Note. Some features are available only with a particular Total Recorder Edition. For more information, refer to Total Recorder Editions.

2 General Information

2.1 Total Recorder Editions

Total Recorder is distributed in the following editions: Standard Edition (SE), Professional Edition (PE), VideoPro Edition (VE), and Developer Edition (DE).

Standard Edition includes the following features:

- Basic functionality of recording and playback of audio files.

- Use of a Total Recorder driver for recording. This includes the ability to record Internet telephony.

- Basic functionality of an internal scheduler.

- Convert audio data to any supported format. Total Recorder can convert data during a recording or it can convert a recorded file from one format to another.

- Select and save a fragment of a file.

- Normalization of sound files.

- Read, edit, and write tags (including artwork information) for all supported file formats.

- Support for playlists in M3U, PLS, and WPL formats.

- Ability to use various Total Recorder add-ons to process sound.

- Other features.

Professional Edition includes the following features:

- All the features provided by Total Recorder Standard Edition.
- Many additional features, such as the following:
    - In addition to ordinary recording, you can background record (i.e. capture or rip) Internet broadcasts in MP3, WMA, and Ogg Vorbis formats directly without decoding and re-encoding. You can also play back Internet broadcasts. For more information, refer to Background recording (capturing) and playing of Internet streams.
    - Ability to edit sound data. For example, you can cut, copy, and paste fragments. For more information, refer to Editing a Sound File.
    - Ability to work with high-quality formats, such as high-quality PCM, FLAC, and APE formats (up to 192kHz 24bit and float mono and stereo), high-quality Windows Media Audio Lossless stereo formats (up to 96kHz 24bit), and the stereo formats of the Windows Media Audio Professional codec.
    - Use of a Sound Image panel or window that provides a visual representation of sound data. For more information, refer to Working With Sound Images.
    - Record Internet transmissions using a built-in scheduler. For more information, refer to the How to record an Internet transmission using Total Recorder's scheduler.
    - Apply Fade In/Fade Out effects to a Sound File.
    - Automatic reduction in the lengths of pauses.
    - Ability to set different conditions under which a recording will stop. For more information, refer to the Using the Advanced stop recording conditions Dialog.
    - Split mode capabilities for creating new files during a recording, or you can manually split a file. For more information, refer to Split mode overview and How to get and use clip info from an external player.
    - Support for cue files. For more information, refer to Working with cue files.
    - Merge multiple sound files into a single file.
    - Play an audio file at a slower or faster speed than normal while optionally preserving the original tone.
    - Listen audio while capturing from a sound board.
    - Support for Favorites.
    - A batch processing facility allows you to process one or more files at the same time. You can use batch processing to change the format, apply fading effects, create or change tags, and perform other operations. For more information, refer to Batch Processing Overview.
    - Total Recorder can be set as the default system program for certain types of files.
    - Some additional add-ons, such as the Digital Mixer Add-on, the Send to iTunes/iPod Add-on, and the Streaming Add-on are available.
    - And much more.

VideoPro Edition includes the following features:

- All the features provided by the Total Recorder Professional Edition.
- Ability to work with video files, including the following:
    - Support for video files in AVI, WMV, MPEG-4 (Windows 7 and later only), 3GP (Windows 7 and later only), MOV (Windows 7 and later with playback only) and FLV formats.
    - Support for video files with multiple audio streams.
    - A video file can be played at its normal speed, or the speed can be increased or decreased.
    - Ability to record video files. Possible sources for the audio stream include: software source, sound-board source, and mixed software and sound-board source. Sources for the video

stream can include a captured screen region, a captured screen window, and hardware video devices.

– Ability to capture and/or play Internet streams in WMV and FLV formats. Refer to How to play or background record (capture) an Internet video stream using Total Recorder.

– Ability to convert a video file from one type to another.

– Perform editing operations on a video file. For example, you can save, cut, copy, or paste a selection. Refer to Considerations for editing video files. Editing of a video file is performed without re-encoding. This saves time and does not lead to any loss of video or audio quality.

– Replace an audio stream in a video file or add an audio stream to a video file. See Considerations for editing video files.

– Save an audio or a video stream from a video file as a separate file. See Saving operations for video files.

– Save a video frame as a bitmap (.bmp) file. See Saving operations for video files.

– Copy a video frame to the Clipboard. See Editing Operations.

Developer Edition includes the following features:

• All the features provided by the Total Recorder VideoPro Edition.

• Interfaces that give you the ability to write your own application, using COM and Automation technologies, to control Total Recorder. Your application can include, or extend, Total Recorder's functionality as you choose.

Parts of this document that deal with a particular Total Recorder edition are noted throughout. The screen captures in this document are for Total Recorder VideoPro Edition. Controls or elements that are specific to a particular Total Recorder Edition are noted throughout.

For information on writing an application that uses the Total Recorder's objects/interfaces provided by Total Recorder Developer Edition, refer to the Automation On-Line Help (TotRecAuto.chm).

You can use the "Help"-"About" command to display which edition is installed on your computer.

Feature Comparison Chart

The following table compares the main features available in the different editions of Total Recorder. The table does not list all of the features available.

Feature	SE	PE	VE	DE
Support of audio/video formats				
Compressed and uncompressed RIFF-WAV	Yes	Yes	Yes	Yes
MP3	Yes	Yes	Yes	Yes
Ogg Vorbis	Yes	Yes	Yes	Yes
Windows Media Audio	Yes	Yes	Yes	Yes
FLAC	Yes	Yes	Yes	Yes
Monkey's Audio (APE)	Yes	Yes	Yes	Yes
MPEG-4 files with AAC audio (*.mp4, *.m4a - Windows 7 and later only)	Yes	Yes	Yes	Yes
3GP files with AAC audio (*.3gpp, *.3gp, *.3g2, *.3gp2 - Windows 7 and later only)	Yes	Yes	Yes	Yes
MOV files with AAC audio (*.mov - Windows 7 and later with playback only)	Yes	Yes	Yes	Yes
High-quality audio formats (upper formats with more than 16 bits per sample or a sample rate of more than 48kHz)	–	Yes	Yes	Yes
Play multi-channel audio files in stereo	Yes	Yes	Yes	Yes
AVI	–	–	Yes	Yes

WMV (Windows Media Video)	–	–	**Yes**	**Yes**
FLV (Flash Video)	–	–	**Yes**	**Yes**
MPEG-4 (*.mp4, *.m4v, *.mp4v - Windows 7 and later only)	–	–	**Yes**	**Yes**
3GP (*.3gpp, *.3gp, *.3g2, *.3gp2 - Windows 7 and later only)	–	–	**Yes**	**Yes**
MOV (*.mov - Windows 7 and later with playback only)	–	–	**Yes**	**Yes**
Sound Recording				
Digital recording using a Total Recorder driver	**Yes**	**Yes**	**Yes**	**Yes**
Analog recording via a sound card (microphone, line-in, CD, etc.)	**Yes**	**Yes**	**Yes**	**Yes**
Record both parties in an Internet-telephony conversation	**Yes**	**Yes**	**Yes**	**Yes**
Recording Wizard	**Yes**	**Yes**	**Yes**	**Yes**
Convert to a supported sound format on the fly	**Yes**	**Yes**	**Yes**	**Yes**
Pre-recording feature	**Yes**	**Yes**	**Yes**	**Yes**
Auto-stop recording feature	**Yes**	**Yes**	**Yes**	**Yes**
Direct capturing (background recording) of an Internet audio stream	–	**Yes**	**Yes**	**Yes**
Time shift feature for the playback of recorded data during a recording	–	**Yes**	**Yes**	**Yes**
Pause reduction	–	**Yes**	**Yes**	**Yes**
Mixed recording from both software and a sound board	–	**Yes**	**Yes**	**Yes**
Video Recording				
Capture video from a screen	–	–	**Yes**	**Yes**
Record video from a video capture device, such as a web camera	–	–	**Yes**	**Yes**
Record video from a DV camera	–	–	**Yes**	**Yes**
Convert to a supported video format on the fly	–	–	**Yes**	**Yes**
Direct capturing (background recording) of an Internet video stream in WMV and FLV formats	–	–	**Yes**	**Yes**
Auto file creation, splitting and tagging				
While recording, split the audio based on various criteria (i.e. size, time, pause in sound, changed clip info, and manually)	–	**Yes**	**Yes**	**Yes**
Use captured clip information to tag a file being recorded	–	**Yes**	**Yes**	**Yes**
Create files with names based on file name generation rules	–	**Yes**	**Yes**	**Yes**
Audio/Video Editing and Processing				
Select and save a fragment of a file	**Yes**	**Yes**	**Yes**	**Yes**
Cut, copy, paste, and delete selected fragments	–	**Yes**	**Yes**	**Yes**
Insert an audio file into an existing audio file	–	**Yes**	**Yes**	**Yes**
Insert a video file into an existing video file	–	–	**Yes**	**Yes**
Normalize a sound file	**Yes**	**Yes**	**Yes**	**Yes**
Apply fade-In /fade-out effects to a sound file	–	**Yes**	**Yes**	**Yes**
Insert a portion of silence into an audio file	–	**Yes**	**Yes**	**Yes**
Mix an audio file with another audio file or the clipboard	–	**Yes**	**Yes**	**Yes**
Re-save a stereo audio file as a mono audio file with channel mixing	–	**Yes**	**Yes**	**Yes**
Add or replace audio streams in a video file	–	–	**Yes**	**Yes**
Extract audio and video streams from a video file	–	–	**Yes**	**Yes**

Audio/Video Conversion				
Convert an audio file from one supported sound format to another	Yes	Yes	Yes	Yes
Convert a video file from one supported sound/video format to another	–	–	Yes	Yes
Scheduler				
Schedule a playback or recording of an audio file	Yes	Yes	Yes	Yes
Schedule a playback or recording of a video file	–	–	Yes	Yes
Schedule direct capturing (background recording) of an Internet audio stream	–	Yes	Yes	Yes
Schedule direct capturing (background recording) of an Internet video stream	–	–	Yes	Yes
Start a scheduled job from standby mode or hibernate mode	Yes	Yes	Yes	Yes
Automatically launch an Internet transmission or an arbitrary program based on a schedule	–	Yes	Yes	Yes
Put a computer in standby mode or hibernate mode when a scheduled job completes	–	Yes	Yes	Yes
Perform post-processing of a recorded file	–	Yes	Yes	Yes
Tag Support				
Read/edit/write tags (including artwork info) for each supported file format	Yes	Yes	Yes	Yes
Playlists				
Support playlists in M3U, PLS and WPL formats	Yes	Yes	Yes	Yes
Cue Support				
Support standard cue files	–	Yes	Yes	Yes
Add/edit/delete cue points (bookmarks)	–	Yes	Yes	Yes
Split a file based on cue points	–	Yes	Yes	Yes
Favorites				
Add a file, playlist, or URL to your Favorites	–	Yes	Yes	Yes
Export/import favorites for backup purposes	–	Yes	Yes	Yes
Use predefined sample links	–	Yes	Yes	Yes
Maintain a history of opened files and links	–	Yes	Yes	Yes
Add-on Support				
Spectrum Analyzer and Graphic Equalizer Add-on	Yes	Yes	Yes	Yes
Audio Restoration Add-on	Yes	Yes	Yes	Yes
Automatic Gain Control (AGC) and Speech Enhancement Add-on	Yes	Yes	Yes	Yes
Ogg Vorbis Support Add-on	Yes	Yes	Yes	Yes
Digital Mixer Add-on	–	Yes	Yes	Yes
Send to iTunes/iPod Add-on	–	Yes	Yes	Yes
Streaming Add-on	–	Yes	Yes	Yes
User Interface				
Support for skins	Yes	Yes	Yes	Yes
Customizable shortcuts	Yes	Yes	Yes	Yes
Customizable global hot keys	Yes	Yes	Yes	Yes
Batch Processing				
Process multiple files at one time, for example, to change the	–	Yes	Yes	Yes

format, normalize, apply an add-on, split, etc.				
Miscellaneous				
Sound image display that shows a graphic representation of sound data	–	**Yes**	**Yes**	**Yes**
Listen to audio while capturing from a sound board	–	**Yes**	**Yes**	**Yes**
Playback an audio file at a slower or faster speed	–	**Yes**	**Yes**	**Yes**
Playback a video file at a slower or faster speed	–	–	**Yes**	**Yes**
Make Total Recorder the default system program for certain types of files	–	**Yes**	**Yes**	**Yes**
Automation				
Control Total Recorder through a COM interface	–	–	–	**Yes**

2.2 What's New in Version 8.5?

To review the new features of Total Recorder Version 8.5, refer to the following sections:
What's New in Total Recorder Standard Edition Version 8.5
What's New in Total Recorder Professional Edition 8.5
What's New in Total Recorder VideoPro Edition 8.5
What's New in Total Recorder Developer Edition 8.5.

General information for users of previous versions of Total Recorder

The Video Add-on is no longer available beginning with Total Recorder 8.0. However, a new Total Recorder Edition called Total Recorder VideoPro Edition has been introduced that has all of the features of Total Recorder Professional Edition with the Video Add-on.

System Requirements

Beginning with version 8.0, Total Recorder supports only Windows XP SP2 and later. If you want to use Total Recorder with an older operating system, you should use Total Recorder 7.1 or below.

Total Recorder Editions and the Video Add-on

The Video Add-on is no longer available beginning with Total Recorder 8.0. However, a new Total Recorder Edition called Total Recorder VideoPro Edition has been introduced that has all of the features of Total Recorder Professional Edition with the Video Add-on.

Also beginning with version 8.0, Total Recorder Developer Edition has all of the features of Total Recorder VideoPro Edition, which means that Total Recorder Developer Edition can work with video files. For additional information, refer to Total Recorder Editions.

Information for registered users

All registered users of Total Recorder's Video Add-on can upgrade at no charge to Total Recorder VideoPro Edition. Registration information for the Video Add-on is valid for the Total Recorder VideoPro Edition.

Total Recorder Skins

Beginning with version 8.0, a new type of skin is introduced. Unlike previous skins, you cannot develop your own skins for Total Recorder. Total Recorder 8.0 does not support skins designed for Total Recorder 7.1 and below.

2.2.1 Total Recorder Standard Edition

In addition to maintenance, Standard Edition Version 8.5 includes the following changes:

• Total Recorder is fully compatible with Windows 8.1.

● Other minor enhancements.

2.2.2 Total Recorder Professional Edition

In addition to maintenance, Professional Edition Version 8.5 includes the following changes:

● Total Recorder is fully compatible with Windows 8.1.
● Other minor enhancements.

2.2.3 Total Recorder VideoPro Edition

In addition to maintenance, VideoPro Edition Version 8.5 includes the following changes:

● Total Recorder is fully compatible with Windows 8.1.
● Other minor enhancements.

2.2.4 Total Recorder Developer Edition

In addition to maintenance, Developer Edition Version 8.5 includes the following changes:

● Total Recorder is fully compatible with Windows 8.1.
● Other minor enhancements.

2.3 Version Information

To review the new features of Total Recorder Version 8.5, refer to the following sections:
What's New in Total Recorder Standard Edition Version 8.5
What's New in Total Recorder Professional Edition 8.5
What's New in Total Recorder VideoPro Edition 8.5
What's New in Total Recorder Developer Edition 8.5.

Version 8.4

Total Recorder Standard Edition

● Total Recorder is fully compatible with Windows 8.
● Ability to specify whether Total Recorder should execute scheduled jobs in a minimized window or a normal window.
● Monkey's Audio (APE) support libraries have been updated to the latest version (version 4.11).
● Other minor enhancements.

Total Recorder Professional Edition

● Part of a file can now be normalized.
● Ability to edit the list of recent URLs.
● Other minor enhancements.

Total Recorder VideoPro Edition

Only maintenance and the new features added to Professional Edition Version 8.4 are new in Total Recorder VideoPro Edition Version 8.4.

Total Recorder Developer Edition

Only maintenance and the new features added to VideoPro Edition Version 8.4 are new in Total Recorder Developer Edition Version 8.4.

Total Recorder Add-ons

Ogg Vorbis Support Add-on Version 1.6

- This version of the add-on uses the latest version of the Ogg Vorbis source libraries (libogg version 1.3.0 and libvorbis 1.3.3).

Version 8.3

Total Recorder Standard Edition

- Support for MPEG-4 and 3GP files (*.mp4, *.m4a, *.3gpp, *.3gp, *.3g2, *.3gp2) with AAC audio streams (Windows 7 and later only).
- Support for playback of MOV (Apple QuickTime) files with AAC audio streams (Windows 7 and later only).
- The following tag fields are now supported for all types of files: "Album Artist", "ISRC", and "beats per minute".
- Optionally, add the recording's start time to the file tag.
- Other minor enhancements.

Total Recorder Professional Edition

- You can use batch processing to change the audio speed in files.
- If the recording's start time is added to the file tag then you can display the time that a particular position in a recording was recorded.
- Other minor enhancements.

Total Recorder VideoPro Edition

- Support of MPEG-4 and 3GP video files (*.mp4, *.m4a, *.m4v, *.mp4v, *.3gpp, *.3gp, *.3g2, *.3gp2) with AAC audio streams and AVC/H.264 or MPEG-4 part 2 video streams (Windows 7 and later only).
- Support for playback of MOV (Apple QuickTime) video files with AAC audio streams and AVC/H.264 or MPEG-4 part 2 video streams (Windows 7 and later only).
- Other minor enhancements.

Total Recorder Developer Edition

Only maintenance and the new features added to VideoPro Edition Version 8.3 are new in Total Recorder Developer Edition Version 8.3.

Version 8.2

Total Recorder Standard Edition

- Ability to schedule jobs on multiple days of the week.
- Other minor enhancements.

Total Recorder Professional Edition

- Ability to listen to audio being captured from a sound board. You can, for example, perform real-time monitoring of audio signals being received from an external audio device.
- The Send to iTunes/iPod add-on allows you to set the "Store position" and "Exclude from shuffle" options when sending files to iTunes/iPod.
- Many other enhancements.

Total Recorder VideoPro Edition

- Ability to copy the current frame to the Clipboard.
- Total Recorder can work with a wider range of video streams in FLV files.

Total Recorder Developer Edition

Only maintenance and the new features added to VideoPro Edition Version 8.2 are new in Total Recorder Developer Edition Version 8.2.

Total Recorder Add-ons

Ogg Vorbis Support Add-on Version 1.5

• This version of the add-on uses the latest version of the Ogg Vorbis source libraries (libogg version 1.2.2 and libvorbis 1.3.2).

Streaming Add-on Version 1.0

The Total Recorder Streaming Add-on Version 1.0 is a new add-on that allows real-time transfer of audio being played back or captured by Total Recorder over a local network or the Internet. Some of the uses for this add-on include the following:

• organize a radio station in a local network
• provide the audio source for an existing SHOUTcast- or Icecast2-compatible broadcast
• remote monitoring of the audio being played back or captured by Total Recorder
• send the audio from Total Recorder to a home-hardware device that can accept sources for a SHOUTcast or Icecast2 server.

Version 8.1

Total Recorder Standard Edition

• You can adjust the playing volume and recording level using hot keys.
• The recording state is displayed on Total Recorder's icon in the Task Bar or System Tray.
• A new command line parameter supports the "Jump to time" feature.
• Other minor enhancements.

Total Recorder Professional Edition

• In addition to the number of minutes, you can now specify the number of seconds when splitting a file based on time. For example, a file can be split every 5 minutes and 30 seconds.
• When using "Pause Reduction", you can specify the duration of preserved pauses after the reduction.
• The batch processing feature has been extended as follows:
  – Presets for your batch processing parameters can be saved and later reused.
  – Pause reduction is supported.
  – Batch processing of a folder or a list of files can be launched through the command line.
• Improved time calculation during the background recording of VBR MP3 streams.
• Many other enhancements.

Total Recorder VideoPro Edition

• Support for multiple monitors. You can do the following:
  – Specify the monitor to be used when playing video in full-screen mode.
  – Specify the monitor from which a window or region will be captured.
• Ability to perform background recording of FLV streams transmitted using HTTP.
• Total Recorder can work with a wider range of audio streams in FLV files.
• Many other enhancements.

Total Recorder Developer Edition

• Sample C# source code is added.

Total Recorder Add-ons

Ogg Vorbis Support Add-on Version 1.3

• This version of the add-on uses the latest version of the Ogg Vorbis source libraries (libogg

version 1.1.4 and libvorbis 1.2.3).

Version 8.0

Total Recorder Standard Edition

- A new kernel-mode filter driver is introduced. This new driver simplifies the settings for recording in software mode and resolves some of the problems with older types of Total Recorder drivers.
- Improvements to the user interface include the following:
  - A new skin engine. One default skin is supplied, which you can choose to use for many of the Total Recorder windows.
  - Total Recorder's main window has been redesigned, and it can now be resized.
  - The "Recording source and parameters" dialog and dialog for format selection, are restructured.
  - Many other improvements.
- Support for audio files in Monkey's Audio (APE) format.
- Ability to specify a pre-defined recording level for recording from a sound board. This level is automatically set when a recording starts and the original level is restored when the recording completes.
- Enhancements to playlist operations include the ability to find duplicates in a playlist and to sort playlist items based on their track numbers.
- After a system re-boot, Total Recorder's scheduler now looks for jobs that missed their start time or were executing, and launches them.
- Artwork is stored in Ogg Vorbis files based on official specifications.
- Other minor enhancements.

Total Recorder Professional Edition

- Total Recorder can now be set as the default system program for certain types of files.
- Total Recorder can save an audio file with a different speed than the speed with which it was recorded.
- An audio file can be converted to another format when saving based on split conditions or when saving tracks into separate files. You can also set the destination folder to be the same as the source folder during these save operations.
- Improved background-recording functionality:
  - If a reference URL contains alternative links, Total Recorder will try to use another link when one link does not work.
  - In the case of network problems during a scheduled background recording, Total Recorder can try to reconnect to the specified URL.
- In addition to the Sound Image Panel and the Sound Image Window, a new Ruler Panel can be used to position within a sound file.
- Many other enhancements.

Total Recorder VideoPro Edition

VideoPro Edition Version 8.0 is the first version of this Total Recorder edition. The new features listed below for this version are based on Total Recorder Professional Edition Version 7.1 with the Video Add-on Version 7.1.

- Total Recorder now supports video files in FLV (flash video) format.
- The separate video window has been eliminated. Video information is now displayed in a Video panel, with an option to display it in full screen.
- When viewing video in full screen, you can use a pop-up control panel.
- Many other enhancements.

Total Recorder Developer Edition

Only maintenance and the new features added to VideoPro Edition Version 8.0 are new in Total Recorder Developer Edition Version 8.0.

Total Recorder Add-ons

Ogg Vorbis Support Add-on Version 1.3

- This version of the add-on uses the latest version of the Ogg Vorbis source libraries (libogg version 1.1.4 and libvorbis 1.2.3).

Version 7.1

Total Recorder Standard Edition

- Windows Vista 64-bit is fully supported with the introduction of the 64-bit version of Total Recorder's kernel-mode driver.
- The user interface for working with tags has been redesigned. Support for tags has also been extended with the following enhancements:
  - Support for artwork in tags.
  - Total Recorder can read ID3v2 tags for all versions (version 2.2, 2.3, and 2.4).
- Ability to play multichannel audio files in stereo, provided that an appropriate audio codec is installed.
- Statistics, including the total duration and the total size for selected files in a playlist, are now available.
- Minor enhancements for the built-in scheduler, including the following:
- Tooltips have been added to the list of scheduled jobs so that the main characteristics of each job can be displayed without opening additional dialog boxes.
- The restriction where you could not schedule more than one job at the same time has been removed.
- Other minor enhancements.

Total Recorder Professional Edition

- Favorites are now supported by Total Recorder. Similar to the favorites you use in a browser, such as Internet Explorer, you can do the following:
  - Add a file, playlist, or URL to your Favorites list.
  - Open an item from your Favorites list in Total Recorder.
  - Import and export favorites.
  - Maintain a history of opened files and links.
- Play an audio file or a video file at a slower or faster speed than normal while optionally preserving the original tone.
- The process and the ability to capture a URL for background recording have been enhanced.
- New buttons have been added to the toolbar on the Sound Image panel.
- Many other enhancements.

Total Recorder Developer Edition

- Sample JavaScript source code is added.

Total Recorder Add-ons

Video Add-On version 7.1 (Professional and Developer Editions only)

- Support for video files that contain multiple audio streams. For such files, you can:
- Select an audio stream to play.
- Select a particular audio stream to save as an audio file.
- Select the audio streams to save when re-saving a video file that contains multiple audio streams.
- Support for video files with multichannel audio streams, provided that an appropriate audio codec is installed. For example, Total Recorder can work with video files that contain audio streams in Dolby Digital (AC3) format.
- You can now define some common video settings. For example, you can select a video renderer that will be used by the add-on to display video that gives you the best picture.

- Other minor enhancements.

Version 7.0

Total Recorder Standard Edition

- A new kernel-mode driver is introduced, which provides the following:
– Full support for Windows Vista 32-bit.
– Elimination of sound distortion when recording sound from applications that use DirectSound, such as Skype 3.x.
- Ability to export and import Total Recorder's configuration settings and scheduled jobs. This is useful if you need to reinstall your system, move Total Recorder from one computer to another, or as a backup.
- Tags for RIFF files are supported. This allows you to work with tags for WAV files, for example, in the same manner as MP3 files.
- You can rename files from a playlist using tag information.
- Use of the latest version of FLAC sources, resulting in higher speeds and better compression when encoding to FLAC format.
- Support for clear-type fonts and Windows XP visual styles.
- Current clip info is displayed in Total Recorder's main window.
- Ability to automatically start playing a file when you open the file.
- Improvements when working with playlists.
- Total Recorder's help is now in .chm format.
- Other minor enhancements.

Total Recorder Professional Edition

- Ability to background record (i.e. capture) Internet broadcasts in MP3, WMA, and Ogg Vorbis formats. This feature allows you to do the following:
  – Record Internet broadcasts in their original format without decoding and re-encoding.
  – Record without using an external player.
  – Extract track information from a stream.
  You can also play back an Internet broadcast.
- Use the unique time-shift feature which enables you to listen to recorded sound while a recording is being made. While listening, you can move anywhere within the recorded part of the sound stream and start playback. This feature is available for both ordinary recordings and when background recording Internet streams.
- Cue-sheet files are now supported by Total Recorder. Cue points can be created as follows:
  – Manually, to make a bookmark in a sound file.
  – Automatically during a recording session based on pause reduction, changes of clip info in an external player, etc.
  – Automatically when capturing an Internet transmission and the information about a track changes.
  A file can be split at any time using cue points.
- Sequential numbers can be assigned to tracks while recording in split mode.
- If a scheduled job is running and your computer is about to shut down, hibernate, or be put into stand-by mode, you can cancel any type of shut-down process.
- The features of saving a file based on split conditions and the manual splitting of files have been redesigned.
- Many other enhancements.

Total Recorder Developer Edition

- Sample JavaScript source code is added.

Total Recorder Add-ons

Ogg Vorbis Support Add-on version 1.2

- This add-on uses the latest version of Ogg Vorbis sources.

Digital Mixer Add-on version 1.1

- Minor interface improvements

Send to iTunes/iPod Add-on version 1.1

- Minor interface improvements

Spectrum Analyzer and Graphic Equalizer Add-On version 1.1

- Minor interface improvements and maintenance.

Audio Restoration Add-On version 1.1

- Minor interface improvements

Automatic Gain Control and Speech Enhancement Add-On version 1.1

- Improvements in the algorithm used when the AGC Add-on activates at the beginning of a sound stream.
- Minor interface improvements.

Video Add-On version 7.0 (Professional and Developer Editions only)

- Support for Windows Media Video (WMV) file format.
- You can use this add-on to record from an analog TV-tuner or a DV-camera..
- Support for the "Digital Video Type 1" subtype of the AVI-file format.
- Playback and background recording of Internet streams in WMV format.
- Ability to turn off video acceleration to resolve the problem of capturing a "black area" when recording screen video.
- Performance improvements when playing files and saving video files.
- Other minor enhancements.

Version 6.1

Total Recorder Standard Edition

- Total Recorder now supports playlists in M3U, PLS, and WPL format.
- A scheduled job can be started while your computer is in standby or hibernate mode.
- Other minor enhancements.

Total Recorder Professional Edition

- The new Video Add-on allows you to play, record, and edit video files in AVI format. You can record from a video device plugged into your computer, such as a camera, or you can capture video from your screen.
- Total Recorder can execute a command line after a file has been recorded or after a recording session has completed. This feature is available when recording in split mode and for a scheduled recording.
- In addition to the ability to shut down your computer when an automatic job completes, you can now have your computer put in standby or hibernate mode.
- Ability to save a stereo file as a mono file with channel mixing. This can be used, for example, to save the left and right channels of a stereo file to separate mono files.
- Total Recorder can merge multiple files into a single file. A period of silence can be inserted between the files or a fading effect can be applied to the files during a merge.
- You can use batch processing to split a number of files.

- You can select whether you want a file permanently deleted or moved to the Recycle Bin when you delete the file.

Total Recorder Developer Edition

- You can obtain the source code for the symbolic language (similar to Visual Basic) that corresponds to the interface operations you performed during your current Total Recorder session. The code can be appended with other useful information you can use to write applications to control Total Recorder. This feature can greatly facilitate writing your own code to control Total Recorder Developer Edition through COM technology.

Version 6.0

Total Recorder Standard Edition

- Total Recorder now supports the use of skins to customize the look and feel of the interface. Besides the skins distributed with Total Recorder, you can use a free-of-charge skin editor to develop your own skins.
- Total Recorder's driver is enhanced in many ways. Some of these enhancements are:
  – Support for multiple sound streams. This allows you, for example, to launch several scheduled recordings at the same time.
  – Resolved issues with the compatibility of some sound-board mixers.
  – Settings that allow you to control the driver's behavior based on the sound applications you use.
- "Monitoring mode" allows you to monitor sound signals passed through Total Recorder when it is not recording. You can preview the sound levels before you begin an actual recording.
- You can display information, including the activity, for all your sound applications that use the Total Recorder driver. For example, you can display the format used by an application for playback.
- Ogg Vorbis is now supported through a free-of-charge "Ogg Vorbis Support Add-on". This add-on is built based on the latest Ogg Vorbis engine. You can still work with Ogg Vorbis using the vorbishc.dll file as before.
- The "Recording Wizard" allows users to easily specify their settings for recording. The wizard can also help you resolve some problems you may experience.
- Other minor enhancements.

Total Recorder Professional Edition

- You can use the new free-of-charge Send to iTunes/iPod Add-on. This add-on allows you to send files directly to iTunes/iPod. You can manually send files, or Total Recorder can send the files automatically while recording in Split mode or as part of a scheduled recording.
- The sound image window has been greatly improved. Some of the improvements include the following:
  – Ability to change the horizontal (time) scale of a sound image. This allows you to edit sound with the most accuracy.
  – Ability to change the vertical (amplitude) scale of a sound image to the extent that separate samples can be viewed.
  – A sound image can be displayed in either amplitude form (as in previous versions of Total Recorder) or in wave form (as in many sound editors).
- Additional options are available when recording in split mode.
- If you use the scheduler to record Internet transmissions, you can specify a time when Total Recorder will establish an Internet connection and then wait until the scheduled recording starts.
- Ability to insert a portion of silence into a sound file.
- Many other enhancements.

Version 5.3

Total Recorder Standard Edition

- Ability to restore Total Recorder's default configuration and recording parameters.

- The real speed of accelerated recording is displayed.
- Other minor enhancements.

Total Recorder Professional Edition

- High quality formats are now supported. This includes high-quality PCM formats (up to 192kHz 24bit and float mono and stereo), high-quality FLAC formats (up to 192kHz 24bit mono and stereo), high-quality Windows Media Audio Lossless stereo formats (up to 96kHz 24bit), and the stereo formats of Windows Media Audio Professional codec.
- You can use the new free-of-charge Digital Mixer Add-on. This add-on allows you to mix a recording with another file or the contents of the Clipboard, record in mix-over mode (to add comments, for example), perform mixed software and sound board recording, and to save mixed sound streams separately.
- File name generation rules can now include the week number, job comments, or the day-of-week name.
- A new plug-in for capturing clip information from Windows Media Player is available, and has advantages over the older visualization plug-in. The plug-in can capture clip information while the Windows Media Player window is not in a normal state (e.g. playing video clips in full screen mode).
- The Sound image window has been improved with additional controls, buttons, and displays.

Version 5.2

Total Recorder Standard Edition

- Total Recorder now supports FLAC format.
- Ability to automatically adjust the recording level to set the optimal level.
- When normalizing a file, the loudest periods can be excluded. This can be helpful, for example, if you have a recording containing random peaks.
- On the "Recording source and parameters" dialog, you can now specify an input device for different recordings. This allows you to use different input devices for different scheduled jobs.
- You can copy tag information from one file to another by using tags stored in an existing sound file to fill in the tag fields.
- The "Options"-"Settings" dialog is redesigned.
- Other minor enhancements.

Total Recorder Professional Edition

- A pause reduction feature has been added. This feature reduces the lengths of pauses which are often present, for example, between Internet radio programs. The pause reduction feature can be used both during a recording and for an existing recording. Pause reduction can also be used in conjunction with split mode.

Version 5.1

Total Recorder Standard Edition

- Customization of the user interface lets you show Total Recorder in the System Tray, use Always on Top mode, and set up different views (Compact, Full, or Customized).
- Global hotkeys can be set up and used for various functions within Total Recorder regardless of whether it is running in the background, the foreground, or it is minimized.
- Multimedia keyboard keys can be used for global hotkeys and shortcuts.
- A drag-and-drop feature lets you open a sound file by dragging the file from Windows Explorer and dropping it onto Total Recorder's main window.
- Presets can be used to store settings for your recording source and parameters. This allows you to quickly set the recording source and parameters as required.
- Total Recorder's scheduler is redesigned. The "Schedule item" dialog has been split into three tabs.
- Other minor enhancements.

Total Recorder Professional Edition

- Ability to display and work with a sound image in a separate window. For example, you can change the size and scale of a sound image.
- During a scheduled job, Total Recorder can automatically reconnect to an Internet transmission or restart a program when problems arise, such as the failure of a connection.
- A scheduled recording can be muted. This is useful when a recording is scheduled in the middle of the night and you do not want to be disturbed.
- Generation rules can be used for some file tag fields, such as the Comment field.

Version 5.0

Total Recorder Standard Edition

- Support for Total Recorder add-on programs. Add-ons can be applied while playing, recording, or saving a sound file. They can be used to transform sound streams (e.g. apply equalizer settings or remove noise) or to monitor them (e.g. display results of spectrum analysis).
- New options for normalization. Now you can remove the DC offset of a sound stream and normalize the left and right channels of a stereo file independently.
- A boundary click suppression feature prevents clicks in boundary points when modifying a sound file (e.g. adding or deleting parts of a file).
- To adjust the playing volume and recording levels, balance controls have been added.
- Shortcut keys can be customized.
- The Playing volume and recording level panel is now hidden and can be toggled on/off.
- Other minor enhancements.

Total Recorder Professional Edition

- Ability to perform batch processing. Using this feature, you can select one or more files and do the following: change the format, apply sound effects (normalization, fade in/out, add-ons), repair MP3 files, manage file tags and file types, and define rules for generating target file names.

Version 4.5

Total Recorder Standard Edition

- You can play a file or part of a file using repeat playback mode. This causes playback to repeat continuously.
- Sound level indicators have been redesigned and can display peak levels.
- There are more ways to launch a recording of an unlimited duration. This can be done through the command line, using auto-stop mode, or by removing the stop time for a scheduled job while it is running.
- A new command line parameter lets you start a job and use parameters defined in a scheduled job. This allows you to use playback/recording parameters that cannot be set through the command line.
- Ability to edit the lists of time values that are used for the Jump to Time and Move forward/ backward features.
- Other minor enhancements.

Total Recorder Professional Edition

- URLs and Run commands for scheduled recordings can be generated based on templates. Besides other fields, a template can include a field for generating a month name. For a date field, an offset (in days) can be specified.
- When recording in Split mode, the last part of a recording can be duplicated. This is useful because a file may be split in the middle of a sentence.

Version 4.4

Total Recorder Standard Edition

- Total Recorder now supports Windows Media Audio format.
- The ability to change the sound level in MP3-formatted files without re-encoding.
- Other minor enhancements.

Total Recorder Professional Edition

- A fading effect can be applied to sound data.

Version 4.3

Total Recorder Standard Edition

- Total Recorder now has controls for playing volume and recording level.
- The ability to define rules for using in "Save as..." operations.
- The Auto-stop recording feature has been redesigned.
- A "Comment" attribute for a scheduled job has been added, and it can be used for sorting the list of scheduled jobs.
- New shortcuts have been added.
- Other minor enhancements.

Total Recorder Professional Edition

- Ability to split sound based on changed clip information in an external player.
- Ability to use clip information from an external player to form tags and file names.
- Predefined values for start time and duration can be set for a scheduled job.
- A context menu has been added to the Sound Image panel.

Version 4.2

Total Recorder Standard Edition

- Support for VBR (Variable Bit Rate) MP3 format.
- Ability to repair MP3 files.
- Generation of file names for "Save ... as" operations based on file/recording tags.
- Additional options for setting file/recording tags.
- Enhanced "Jump to time" feature.
- Ability to sort scheduled jobs by starting date and time.
- Total Recorder can run with some restricted functions to allow better compatibility with other programs.
- Other minor enhancements.

Total Recorder Professional Edition

- Ability to launch an application through the scheduler.
- Ability to split sound that has already been recorded.
- Tools to make it easier to manually split a file/recording.
- Generation of file names for "Save ... as" operations based on split mode conditions.

Version 4.1

Total Recorder Standard Edition

- Full support for the Ogg Vorbis format.
- "Jump to time" feature lets you easily navigate to a particular point in a sound file.
- Improved displays of the properties of files and recordings.
- Improved user interface and other minor enhancements.

Total Recorder Professional Edition

- Sound image visualization. This helps you navigate in sound data and allows you to see portions of sound with different characteristics.
- Ability to close the player after a scheduled recording completes.
- The Split mode feature has been enhanced so that a file can be split based on a low level of sound being recorded.
- "Split now" feature has been added.
- Advanced stop recording conditions have been extended. A recording can be stopped based on a low level of sound being recorded.

Version 4.0

Total Recorder Standard Edition

- The ability to directly use playback and recording devices.
- Extended functionality of the "Undo" and "Redo" operations.
- Sensitivity of the sound level indicators has been increased.
- Improved user interface.

Total Recorder Professional Edition

Total Recorder Professional Edition Version 4.0 is the first version in a family of professional editions. The Professional Edition covers all features provided by the Standard Edition and provides the following additional features:
- The ability to edit sound data. You can use the Clipboard for cut, copy, and paste operations, and insert a sound file anywhere in a recording.
- Split mode. A recording can be automatically split into separate files based on different conditions. For example, a new file can be created once a recording reaches a certain size or after a specified amount of time.
- Advanced file name generation rules let you specify options for the names of automatically generated files. These can be files created in split mode or by a scheduled job.
- Advanced options for automatically stopping a recording. For example, you can restrict a recording by time or size, or specify a time limit for no sound being recorded.
- The ability to play an Internet transmission when a scheduled recording starts.
- Other minor enhancements.

Version 3.4

- The ability to regulate the level of sound being recorded from a software source.
- Total Recorder can preserve pauses in a recording.
- The incompatibility with Lame encoder versions 3.90 and 3.91 is resolved.
- A frequency for writing cached data can be set. This can help prevent clicks and gaps in recordings.
- Diagnostic tools are enhanced.
- Compatibility with some software has been improved.

Version 3.3

- The sound level for each channel is displayed separately.
- The ability to schedule a job to run on weekdays or weekends.
- Version 3.3 is completely compatible with Windows XP.
- Other minor improvements.

Version 3.2

- Pre-recording mode. In this mode Total Recorder records continuously and stores the last specified

number of seconds of data. When you push the Record button, this data is added to the beginning of your recording.
- The ability to edit ID3v2 tags.
- Automatic removal of gaps while recording in software mode.
- Improved stability and compatibility.

Version 3.0

- The ability to play and record compressed sound using installed codecs.
- The ability to use external MP3 modules for recording in MP3 format.
- Compatibility with Windows Millennium Edition.
- A Fast-save capability.
- Automatic stop after a specified amount of recording time.
- Interface improvements.

Version 2.2

- Support for Windows NT 4.0 and Windows 2000.
- The ability to resample a recording (i.e. change sound stream parameters). Resampling can be done either during the recording process or when you save a recording.
- The maximum recording size is no longer limited to 2GB. It is now possible to record up to 49 continuous days. However, since an individual .wav file has a limit of 4GB, a long recording must be broken into pieces in order for it to be saved.
- A save progress indicator.
- The ability to increase the priority of the Total Recorder program and provide cleaner recordings.
- The ability to normalize the volume of a recording.

Version 2.1

- Accelerated recording/converting. This allows you to convert a sound file to standard wave format without listening to it. This operation normally takes a fraction of the time it would require to play the file.
- Markers. These allow you to select and save only part of a recording or part of an existing wave file.
- The ability to continue recording to the same file after it was stopped.
- A level indicator reflects the amplitude of a signal during recording and playback.
- The ability to have more than one open copy of Total Recorder (like in version 1.0).

Version 2.0

- Capturing and recording of sound streams that programs request from a sound card. This allows full duplex recording of Internet phone conversations when using programs such as NetMeeting and VoxPhone.
- Recording from CD, microphone and other input lines.
- Built-in scheduler that allows you to program jobs (record or playback) to start at a given time, similar to programming a VCR.
- Command line parameters that allow you to use an external scheduler such as Microsoft Task Scheduler to schedule a recording or playback.
- Automatic installation and uninstallation of the virtual device driver.

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Ogg Vorbis license

Total Recorder supports the Ogg Vorbis format by means of the "Ogg Vorbis Support Add-on". The add-on was developed by High Criteria and is based on the Xiph.org Foundation's source code implementation. The Xiph.org Foundation requires that the following information be included with any copy or redistribution of its code.

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FLAC license

Support for FLAC format in Total Recorder is based on the source code of the FLAC project. Using this code requires that the following information be included with any copy or redistribution of its code.

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Monkey's Audio (APE) Support

Total Recorder's support for Monkey's Audio (APE) format is based on using Monkey's Audio SDK (http://www.monkeysaudio.com/).

2.5 System Requirements

To use Total Recorder, you need the following:

- a sound card.

- 32-bit or 64-bit version of Microsoft Windows XP SP2 or later, Windows Vista, Windows 7, Windows 8, or Windows 8.1. Total Recorder may work with other operating systems but it has not been tested with these other systems.

To work with video in the Total Recorder VideoPro or Developer Edition, the following are additional requirements:

- DirectX version 9.0 or later.

- Your graphic card must meet the VMR System Requirements. Note that all modern video cards meet these requirements.

- Specific requirements for hardware resources depend on how you plan to work with video.

2.6 How Total Recorder works with different Sources

Total Recorder can record audio in two fundamentally different modes: Software and Soundboard. While recording in Software mode, Total Recorder records data that is captured by a Total Recorder driver. While recording in Soundboard mode, Total Recorder works like an ordinary recorder and records from a selected device and a line. This mode is intended to be used for recording from a microphone, line-in, etc.

The recording mode is specified in the "Recording source and parameters" dialog.

How Software Recording works

The following diagram shows how Total Recorder works when it captures and records sound played back or requested by other computer programs.
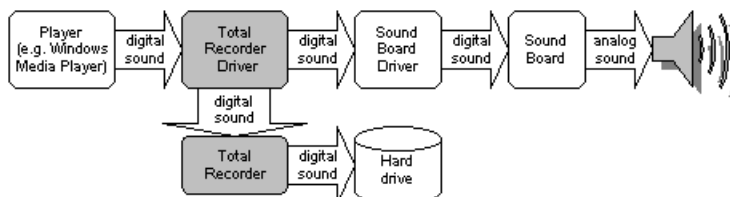
There are three types of virtual audio drivers:

- User-mode virtual device driver.

- Kernel-mode virtual device driver.

· Kernel-mode filter driver.

An instance of Total Recorder can work with only one type of driver at a time. For more information on Total Recorder drivers, refer to the Selecting the type of driver to be installed with Total Recorder section.

The requirements for Total Recorder to capture sound being played backed by an application differ based on the drive it uses.

If the kernel-mode filter driver is used:

· It is sufficient to specify that the kernel-mode filter driver will be used by Total Recorder. For more information, refer to the Driver Settings section.

If a virtual device driver (user mode or kernel-mode) is used:

· An application must play back the sound through a Total Recorder driver. A sound application plays an audio stream through a device that is often specified as an application setting. If such a setting is not provided by the application, then the application uses the system's default playback device. For an application to play back sound through a Total Recorder driver, the driver must either be specified as the playback device in the application's settings or as the system's default playback device (see also Setting Default Devices). Also note that the application should be set up to use Total Recorder's driver before it opens a sound stream.

· Total Recorder must be set up to use the same driver that is used by the application for playback. For more information, refer to the Driver Settings section.

For a Total Recorder virtual device driver to properly route audio streams to real sound boards, you should specify which devices will be used by Total Recorder's driver. For more information, refer to the Driver Settings section.

How Software Accelerate Recording works

The following diagram shows how Total Recorder works when it speeds up (or slows down) the capturing and recording of sound played back by other computer programs. In this mode, the sound cannot be heard while a recording is in process.
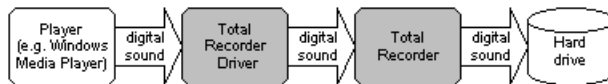
Note: Software Accelerate Recording will not work if the kernel-mode filter driver is used.

See also. Accelerated Recording.

How Board Recording works

The following diagram shows how Total Recorder works when it records sound digitized by a sound card. This includes a microphone, CD, or other input lines.
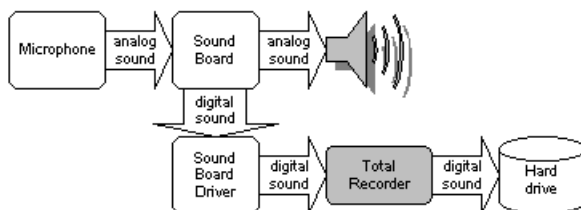
3   Installation and Configuration

3.1   Installing Total Recorder

3.1.1   Installing Total Recorder overview

Registration keys

Beginning with version 6.0, all editions of Total Recorder use a new format of the registration keys. If you install version 8.5 over a registered version of Total Recorder that is older than 6.0, it will be unregistered until you enter a new registration key.

The "Registering Total Recorder" section describes how to obtain a key, once you have installed and configured the software.

Note: Different editions of Total Recorder have different registration keys. For example, you cannot use the registration key for Total Recorder Standard Edition with any other edition of Total Recorder.

Total Recorder VideoPro Edition

All registered users of the Total Recorder Video Add-on can upgrade at no charge to the Total Recorder VideoPro Edition. Registration information for the Video Add-on is valid for the Total Recorder VideoPro Edition.

Upgrading your operating system

If you upgrade your Windows operating system to another version, it is recommended you reinstall Total Recorder. Otherwise, it may not work properly.

See also.

Installation Steps
Installing/uninstalling add-ons.

3.1.2   Installation Steps

Version 8.5 cannot coexist on the same machine with any previous version of Total Recorder. The different Total Recorder editions (Standard Edition, Professional Edition, VideoPro Edition, and Developer Edition) cannot be installed on the same computer.

Take the following steps to install Total Recorder on your PC:

1. Download the self-extracting (.exe) or regular (.zip) archive from the Total Recorder download page:
   http://www.totalrecorder.com/downloads.htm

2. Run the installation program:

   – If you downloaded the self-extracting archive, simply run it.

   – If you downloaded the regular archive, unzip it and run Setup.exe. Note that you must unzip the entire archive and not just the Setup.exe file.

   The installation program creates a directory for Total Recorder, copies all of the files to that directory, and creates a Program Group called Total Recorder. The installation program may also install a driver.

3. After installing Total Recorder, you may be prompted to restart Windows.

3.1.3   Selecting the type of driver to be installed with Total Recorder

Total Recorder has three types of audio drivers:

• **User-mode virtual device driver**. This is the same type of driver that has been supplied since the

first version of Total Recorder.

- **Kernel-mode virtual device driver**, which was added in version 7.0.
- **Kernel-mode filter driver**, which was added in version 8.0.

When installing Total Recorder, you can select any combination of Total Recorder drivers to be installed, or you can select not to install a driver. It is recommended you choose one of the following configurations during installation:

1) Simple configuration

   [ ] user-mode virtual device driver
   [ ] kernel-mode virtual device driver
   [v] kernel-mode filter driver

   This configuration is suitable in most cases because of its ease-of-use, an absence of undesirable effects due to additional drivers, and the main features of software recording, except for accelerated and silent recording, can be used.

2) Advanced configuration

   − For Windows XP:

      [v] user-mode virtual device driver
      [   ] kernel-mode virtual device driver
      [v] kernel-mode filter driver

   − For Windows Vista and later:

      [   ] user-mode virtual device driver
      [v] kernel-mode virtual device driver
      [v] kernel-mode filter driver

   This configuration provides the ability to use almost all of the features of software recording. More complex Total Recorder settings may be required especially if several sound devices are used.

3) Restricted configuration

   [ ] user-mode virtual device driver
   [ ] kernel-mode virtual device driver
   [ ] kernel-mode filter driver

   If you install Total Recorder without a driver, you will not be able to record in Software mode. An alternative to Software mode recording is to record in Soundboard mode from a line such as "Stereo Mix", "Wave", "What U hear", or similar. Most sound boards have such a line. Installing Total Recorder without a driver may be necessary if you encounter compatibility problems between the Total Recorder drivers and other software.

If you install Total Recorder with more than one driver, you can select which driver Total Recorder uses. See also Driver Settings.

To install or uninstall a driver, you must reinstall Total Recorder over the installed instance and select the appropriate driver options during installation. All of Total Recorder's settings and registration information are preserved except for any settings that are incompatible with the new driver's configuration.

Comparing Different Types of Total Recorder Drivers

User-mode virtual device driver

➢ *Advantages*

- Sound is captured exactly in the same format that is used by an audio player to pass audio data to a sound board.
- Sound can be captured from specific applications.
- Accelerated recording is faster and more reliable.

➤ *Disadvantages*

- This type of driver is not fully supported by modern operating systems. For Windows XP, you may find incompatibilities with some applications. For Windows Vista and later operating systems, most applications cannot be recorded with this driver. See information below.

Kernel-mode drivers (virtual device driver and filter driver)

➤ *Advantages*

- These drivers are fully compatible with modern operating systems.

- The kernel-mode filter driver does not require any change to your system audio settings.

➤ *Disadvantages*

- Sound is captured after it has been processed (mixed, resampled) by the operating system. This results in the following:

    - You cannot restrict recording to a particular application.

    - Additional conversions of the format may be performed.

    - Volume regulators can affect the sound being captured.

- Accelerated recording through the kernel-mode virtual device driver is slower and less reliable. Accelerated recording through the kernel-mode filter driver cannot be done at all.

- You may experience other problems. For more information, see below.

Advantages of the kernel-mode filter driver over the kernel-mode virtual device driver

- The kernel-mode filter driver does not add a sound device in your system whereas the kernel-mode virtual device driver does. When using the kernel-mode filter driver, no special configuration of system audio devices or devices used by a program to be recorded is required.

- The kernel-mode filter driver does not result in problems with USB microphones on Windows XP.

Advantages of kernel-mode virtual device driver over the kernel-mode filter driver

- The kernel-mode virtual device driver can record in accelerated mode and in silent mode.

- If the kernel-mode virtual device driver is used, usually you can configure your system and sound applications so that only the application's sounds will be recorded. If the kernel-mode filter driver is used, recording a particular application can be achieved only if there is more than one real sound playback device on your system.

- After installing the kernel-mode filter driver, a reboot is always required. After installing the kernel-mode virtual device driver, a reboot is not usually required.

Possible Problems with Total Recorder Drivers

Possible problems with Total Recorder's user-mode virtual device driver

➤ *Incompatibility with DirectSound*

Problems can occur with an application that uses Direct Sound. If such an application passes a sound stream through the driver, the sound may be garbled. For example, distortions often appear when using most versions of Skype 3.x.

➤ *Incompatibility with a small number of applications*

A small number of applications may not start at all, or they may function incorrectly, if the driver is set as a system default device. Examples of such applications include CyberLink software (e.g. PowerDVD, PowerProducer) and Adobe software (e.g. Adobe Premiere, Adobe Encore, etc.).

➤ *Partial compatibility with Windows Vista and later*

Windows Vista and later consider user-mode audio drivers to be legacy drivers and do not fully

support them. An audio device with a user-mode audio driver is not listed as an available audio device in the system (for example, in "Control Panel"-"Sounds"). Such a device cannot be set as a system default device. To record a playback program by Total Recorder through the user-mode Total Recorder virtual device driver, you must be able to set up the playback program to pass sound streams through the Total Recorder driver.

Windows Vista and later do not have a DirectSound emulator for user-mode audio devices. If a player uses DirectSound, then Total Recorder's user-mode audio driver will not appear in the list of available audio devices for the player, and it cannot be used to record such programs.

In many cases, Total Recorder's user-mode audio driver is not very useful on Windows Vista and later. Examples of programs that cannot be recorded through Total Recorder's user-mode driver under Windows Vista and later include Windows Media Player and RealPlayer. Programs that can be recorded include WinAmp (provided that it uses the WaveOut Output plug-in for playback) and Total Recorder itself.

Possible problems with Total Recorder's kernel-mode drivers (virtual device driver or filter driver)

➤ *Unable to record a particular application*

The system mixes audio streams being played before it arrives in the kernel-mode driver. Audio streams being played can only be recorded in mixed form. This is similar to recording from a line such as "Stereo Mix". It is not possible to single out a stream belonging to a particular application as it could be made using a user-mode driver. All appropriate recording parameters (i.e. "Record only streams opened after the recording has started" and "Record only this application") are disabled.

➤ *Volume regulator affects the level of recording*

The volume level of the Wave line affects the level of sound received by the kernel-mode driver. For quality recordings, it is recommended you set the volume level of the Wave line to the maximum position and do not change this level during the recording. You should use the level of the Master line to regulate the sound volume when recording.

Notes:

– Most players' volume regulators are connected to the Wave line. You should set the regulator to the maximum position and do not change it during a recording.

– The system volume regulator, which is the regulator that appears when you click on the system tray icon, is associated with the Master line. You can adjust it freely while recording.

– Under Windows XP, you can also use the volume regulator in Total Recorder's main window to adjust volume. Beginning with version 7.0, this regulator is associated with the Master line rather than the Wave line. Under Windows Vista and later, you should use only the system volume regulator.

➤ *Accelerated recording through the kernel-mode filter driver cannot be performed*

If Total Recorder is set to use the kernel-mode filter driver then Total Recorder cannot record in accelerated recording mode.

➤ *Additional format conversion is sometimes performed*

When a playback program passes a sound stream to the sound board, Windows can transform this sound stream to a format supported by your sound board. Total Recorder's kernel-mode driver receives this transformed stream rather than the original stream. The driver does not know the format of the original stream and Total Recorder can display only the format of the transformed stream.

In very rare cases, this conversion can result in a minor loss of quality, although this loss is normally not audible. Since the majority of recordings are performed in a compressed format, the compression results in more loss in quality (even if it is usually not audible) than the conversion.

Possible problems specific to Total Recorder's kernel-mode virtual device driver

➢ *For some sound boards, a sound stream cannot be played through the board while another stream is played through the kernel-mode driver if the driver is set to use the sound board*

This restriction can cause some problems:

– If an application plays silence continuously and the application cannot be closed, then switching a system default device may require you to restart your system or to log off and on before your sound program will work properly.

– You cannot record a particular sound stream by directing the stream to Total Recorder's kernel-mode driver while directing all other sound streams to the real sound board.

Note that this problem does not occur with most sound boards.

➢ *Incompatibility with USB-microphones under Windows XP*

Total Recorder's kernel-mode driver does not work with USB microphones under Windows XP. This can result in problems when recording an Internet telephony program, such as Skype. If you experience this problem, you should use the kernel-mode filter driver.

Note that this problem does not occur on Windows Vista and later.

➢ *Problems with accelerated recording*

The speed of an accelerated recording can be lower when using the kernel-mode driver compared with the user-mode driver. The recorded sound may be garbled even though no problems appeared when the recording was being made. For more information, see Accelerated Recording.

➢ *Driver's recording-level regulator may function improperly*

It is possible that the recording level regulator or the volume for specific playback lines of the driver do not work. This depends on the particular sound board. If you encounter this problem, follow these recommendations:

– For Windows XP: Launch the system mixer, and use the controls of the real sound board rather than the controls of Total Recorder's driver.

– For Windows Vista and later: From the "Control Panel", click "Sounds" (or select "Options" - "System settings" in Total Recorder's main menu), select the playback or recording device to be used, click the "Properties" button, and then go to the "Levels" tab.

➢ *Under Windows XP, if you record from Total Recorder's kernel-mode driver device, you should manually select the recording line*

Total Recorder's kernel-mode driver has only one recording line, called "Microphone". Recording actually occurs through the active recording line of a real sound board. If you find that a recording uses an incorrect line, you should manually select the proper recording line by using the system mixer.

This problem occurs mostly when recording Internet telephony programs, such as Skype. If you only want to record from a sound board, you should record directly from a real sound device rather than from Total Recorder's driver.

➢ *Under Windows Vista and later, if you record from Total Recorder's kernel-mode driver device, the recording can use an incorrect line*

If you use Total Recorder's kernel-mode driver to record from a recording device, sometimes the recording uses an incorrect line. This problem depends on the real soundboard driver.

This problem occurs mostly when recording Internet telephony programs, such as Skype. If you only want to record from a sound board, you should record directly from a real sound device rather than from Total Recorder's driver.

If this problem occurs, take the following steps:

– Stop using the recording device, and terminate the Internet-telephony conversation.

– From the "Control Panel", click "Sounds" (or select "Options" - "System settings" in Total Recorder's main menu), and then go to the Recording tab.

– Select a real device (normally a microphone) that should be used for capturing sound, and click the "Set Default" button.

– Select "Microphone. Total Recorder WDM audio driver", and click the "Set Default" button.

– Close the "Sounds" window.

See also. How Total Recorder works with different Sources, Driver Settings, Setting Recording Parameters.

3.1.4   Setting Default Devices

To make a recording in software mode, the sound to be recorded must pass through the Total Recorder driver selected for recording (see Driver Settings)

If you perform a recording from a sound board (e.g. from microphone, line-in, etc.) then you do not need to follow the procedures below.

Passing all sounds through Total Recorder's kernel-mode filter driver is provided automatically. **If the kernel-mode filter driver is used then you do not need to follow the procedures below.**

For Total Recorder to record an external program through one of its virtual device drivers, the program must play back through that virtual device. To record an Internet-telephony program, the program must capture sound through the virtual device. This can be accomplished by doing one of the following:

- Set the program to use a Total Recorder virtual device driver by selecting the device as the program's playback and/or recording device. Most sound programs let you specify playback and/or recording devices.

- Allow the program to use the system default devices as playback and/or recording devices. This is normally a default program setting. After that, set Total Recorder's virtual device(s) as the system default device(s). Note that if a sound program does not allow you to specify a playback or recording device, the program will use the system default devices.

The second method is often recommended because it is easier and probably does not require you to change the settings of the programs you want to record.

If Total Recorder is set to use its kernel-mode virtual device driver (see Selecting the type of driver to be installed with Total Recorder and Driver Settings), it is recommended you set this device as the system's default device and you do not change this setting.

If Total Recorder is set to use its user-mode virtual device driver, you can:

– Set the device as the system's default device and keep this setting.

– Specify that Total Recorder should set this device as the system's default device when it starts and to restore the system's default device upon exit (see Driver Settings).

Notes:

– You can change your system's default devices at any time.

– When changing a system default device, a new device will be used only for newly opened sound streams. If a program is currently playing sound through the system's default device and you change the system's default device, then the program will continue to play through the system's original default device.

A Total Recorder virtual device can be set as your system's default device in the following ways:

- Manually through Total Recorder settings (from the "Options" menu, click "Settings", and go to "Driver Settings"). For more information, refer to the Driver Settings section.

- Automatically by Total Recorder, if the "Auto switch Total Recorder's driver off when Total Recorder is not active" option is on (see Driver Settings).

- Automatically by Total Recorder when you start recording, if you agree to Total Recorder's prompt to set default devices.

- Manually through appropriate system settings. The procedure for setting default devices varies amongst operating systems and is described below.

Setting Default Devices under Windows XP

You can set default devices through your system's "Sounds and Audio Devices" settings.

To activate "Sounds and Audio Devices" from Total Recorder:

- From the "Options" menu, click "System settings".

To activate "Sounds and Audio Devices" from the Control Panel:

- From the "Start" menu, click "Control Panel" (for older versions of Windows: use "Start"-"Settings"-"Control Panel").

- From the Control Panel, select "Sounds and Audio Devices".

In the "Sounds and Audio Devices" dialog box, click the "Audio" tab. The dialog for this tab looks like this:
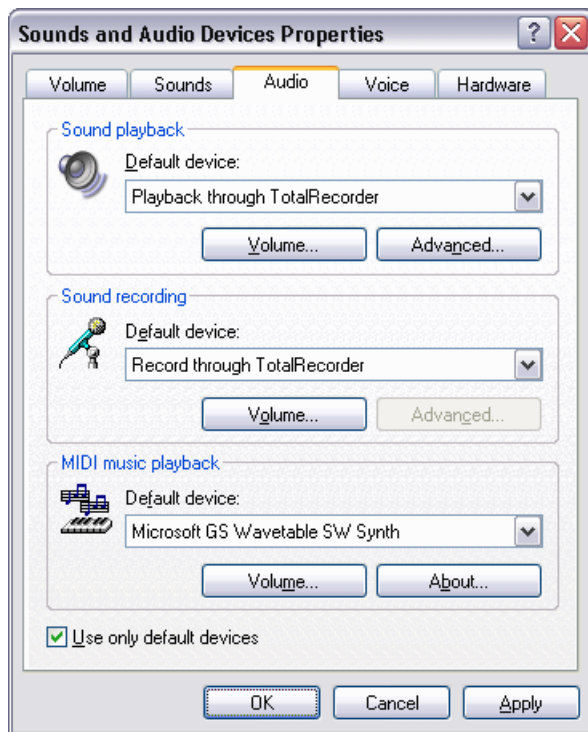
In the "Sound playback" section, select the desired device from the "Default device" drop-down list. If you want to set one of Total Recorder's virtual devices as your default playback device, select either "Playback through TotalRecorder" (for the user-mode virtual device driver) or "Total Recorder virtual device" (for the kernel-mode virtual device driver).

In the "Sound recording" section, select the desired device from the "Default device" drop-down list. If you want to set one of Total Recorder's virtual devices as your default recording device, select either "Record through TotalRecorder" (for the user-mode virtual device driver) or "Total Recorder virtual device" (for the kernel-mode virtual device driver).

Select the "Use only default devices" check box (or "Use only preferred devices").

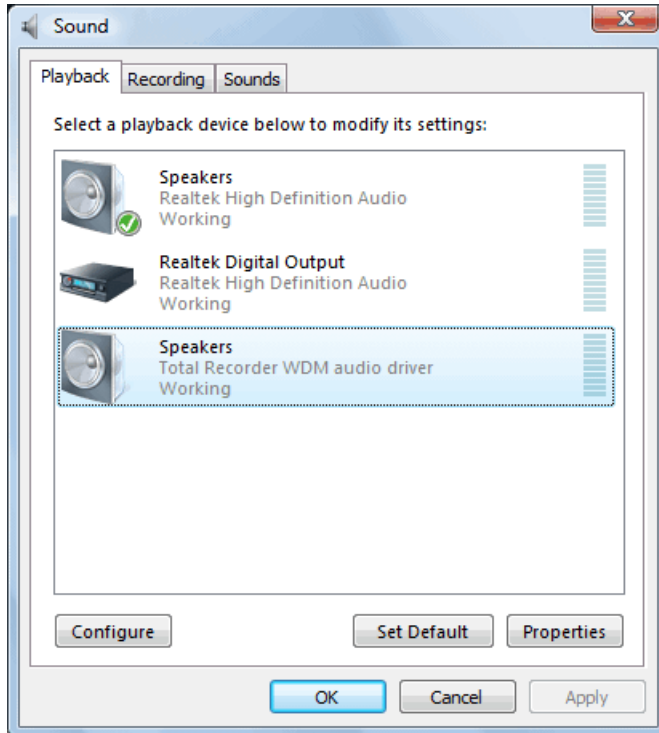## Setting Default Devices under Windows Vista and later

You can set default devices through the "Sound" screen.

To activate the "Sound" screen from Total Recorder: From the "Options" menu, click "System

settings".

To activate the "Sound" screen from the Control Panel: From the "Start" menu, click "Control Panel", and select "Sound".

A screen like the following appears:

On the "Playback" tab, select the desired device from the list, and click "Set Default". If you want to set Total Recorder's virtual device as your default playback device, select "Speakers - Total Recorder WDM audio driver".

On the "Recording" tab, select the desired device from the list, and click "Set Default". If you want to set Total Recorder's virtual device as your default recording device, select "Microphone - Total Recorder WDM audio driver".

See also. How Total Recorder works with different Sources, Selecting the type of driver to be installed with Total Recorder, Driver Settings.

3.2   Configuring Total Recorder

To configure Total Recorder:

1. Start the Total Recorder program.

2. Either select "Options"-"Settings", or click the 🔧 button on the Main toolbar. You are presented with a dialog box with the following list of items in a tree view.

Item	Use this item to …
General	Set options for representing the Total Recorder application when it is running (i.e. system tray or taskbar), set options for maintaining a history of your favorites, associate a file extension with Total Recorder (Professional, VideoPro, and Developer Editions only), and

| Item	Use this item to …
	configure some other general settings.
Driver	Set options for Total Recorder's driver.
Playback	Select your playback device; set options for playback speeds (Professional, VideoPro, and Developer Editions only).
Shortcuts	Customize shortcut keys.
Global Hotkeys	Customize global hotkeys.
Open/Save	Specify the following: folder for temporary files, default Open/SaveAs folder, a rule for assigning default file names for "Save ... as" operations, the action for making a new recording over a previous one, and the handling of deleted files.
Playlists	Set options for working with playlists.
File Names	Add, delete, or modify file name generation rules.
Split (Professional, VideoPro, and Developer Editions only)	Set parameters for auto-creating files, split mode, and cue settings.
Networking (Professional, VideoPro, and Developer Editions only)	Set options for the background recording of Internet streams.
Video (VideoPro and Developer Editions only)	Set options for working with video.
Formats	Set options for the tag to be used for new recordings.
PCM	Set the frequency conversion method.
MP3	Set the encoding engine to MP3 and the header type.
Ogg Vorbis	Display information about the Ogg Vorbis Support Add-on or the support libraries you have installed.
WMA/WMV/ASF	Display information about the Windows Media support libraries you have installed.
FLAC	Display information about the FLAC libraries being used. Set the default extension and the compression level for FLAC files.
APE	Display information about Monkey's Audio libraries being used. Set the compression level for APE files.
Pre-recording	Set the number of seconds to pre-record and activate pre-recording mode.
Add-ons	Review information about installed add-ons or uninstall an add-on.
Debug	Set options for driver debug information and internal debug information.

See also. Setting Recording Parameters.

3.2.1 General Settings

The dialog looks like this:
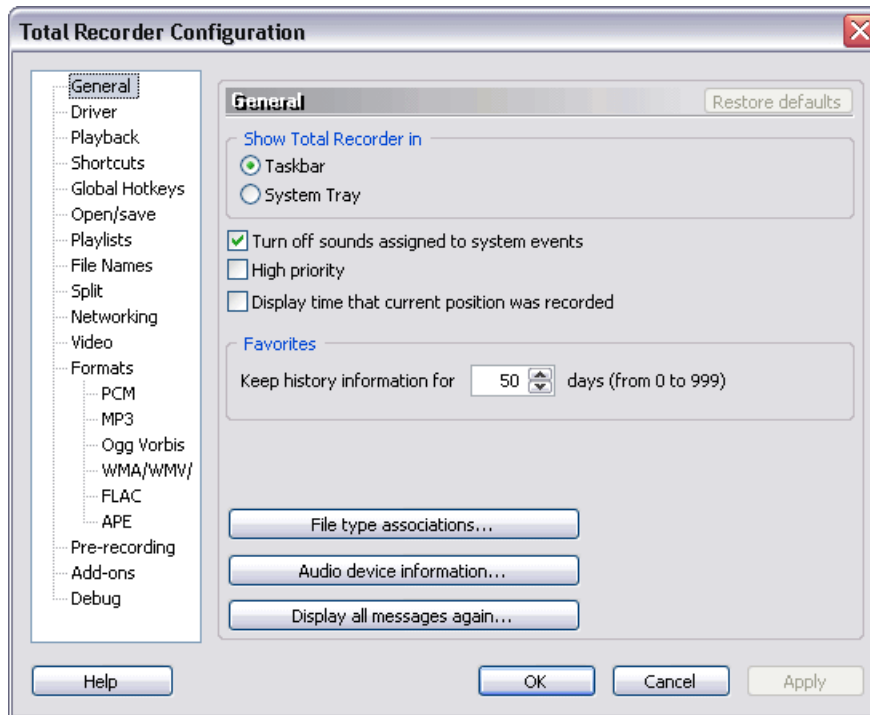
Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below.

Show Total Recorder in

This sets the mode for representing the Total Recorder application when it is running. You can choose from the following:

Taskbar – When Total Recorder is running, there is a corresponding button in the Windows taskbar. This is the behaviour for the majority of applications.

System Tray – When Total Recorder is running, there is a corresponding icon in the system tray area. A button for Total Recorder does not appear in the Windows taskbar. If you right-mouse-click on the Total Recorder icon in the system tray, a context menu appears.

See also. Controlling the Total Recorder main window view.

Turn off sounds assigned to system events – Select this option to prevent system sounds while Total Recorder is running. Your system sounds will return when you close Total Recorder.

High priority - Selecting this option raises the priority of the Total Recorder program. Because sound recording is a real-time process, any interruption can lead to skips, clicks, gaps, etc. This setting can help eliminate these problems and provide cleaner recordings.

Display time that current position was recorded (Professional, VideoPro, and Developer Editions only) - If this option is selected, then the recording time, which is calculated based on a timestamp in the file tag, is displayed in the Information Panel of the main window. The recording time is displayed only if this information exists in the file tag. Total Recorder will add the recording's start time to the file tag if you select the "Add recording's start time" option in the "Options" - "Settings" -

"Formats" dialog.

Caution. Because the displayed recording time is calculated based only on a single timestamp, some operations on the file can result in an incorrect time being displayed. For example, if you delete a section from the middle of a file then the times for all positions after the deleted section will be incorrect.

Favorites (Professional, VideoPro, and Developer Editions only)

Keep history information for NNN days - Specify the number of days in which the Favorite's history will be stored. Older history items will be removed automatically from your Favorites list.

To immediately clear the Favorite's history, specify zero, and click the "Apply" button. You can then specify the number of days for which you normally want to keep the history. If you do not want Total Recorder to keep any history of your Favorites, specify zero.

For information on Favorites, refer to the "Using Favorites" section.

File type associations (Professional, VideoPro, and Developer Editions only) – Click this button to associate or disassociate a file type with Total Recorder. After clicking the button, the "File Types" dialog appears.

Audio device information – Press this button to display information about the playback and recording devices on your system, including their supported formats.

Display all messages again

Some Total Recorder messages have prompts like "Don't ask this question again", which allows you to suppress the display of such prompts. If you suppress these prompts, you can later unsuppress them by pressing the "Display all messages again..." button and enabling the prompts.

File Types dialog (Professional, VideoPro, and Developer Editions only)

This dialog lets you set/unset Total Recorder as the default system program for a specified file type. For example, when you double click a file of a particular type in Windows Explorer, the file can automatically open in Total Recorder.

You can also use this dialog to add the "Open in Total Recorder" item in Windows Explorer's context menu.

The dialog looks like the following:
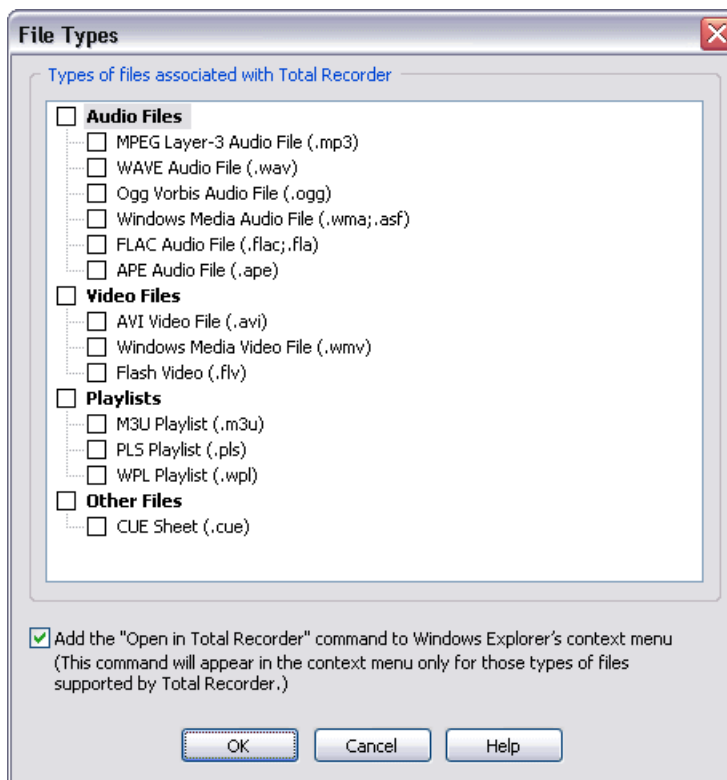
Types of files associated with Total Recorder – contains a list of the file types that can be associated with Total Recorder. To associate one of these file types with Total Recorder, select the corresponding check box.

Add the "Open in Total Recorder" command to Windows Explorer's context menu – Select this check box if you want the "Open in Total Recorder" item added to Windows Explorer's context menu for those types of files supported by Total Recorder.

Notes:

- This dialog is invoked on operating systems from Windows XP up to Windows 7 inclusive. On Windows 8, the standard system dialog for file type associations is used instead and it will not allow you to add the "Open in Total Recorder" item to the Windows Explorer menu.

- It may not be possible to add "Open in Total Recorder" to Windows Explorer's context menu for some file extensions.

- Restoring a file association can sometimes be unsuccessful. In such cases, you will need to change the settings of the program that you want to associate with a particular file type.

- Other applications can override the default system program based on the type of file.

3.2.2 Driver Settings

The dialog looks like this:
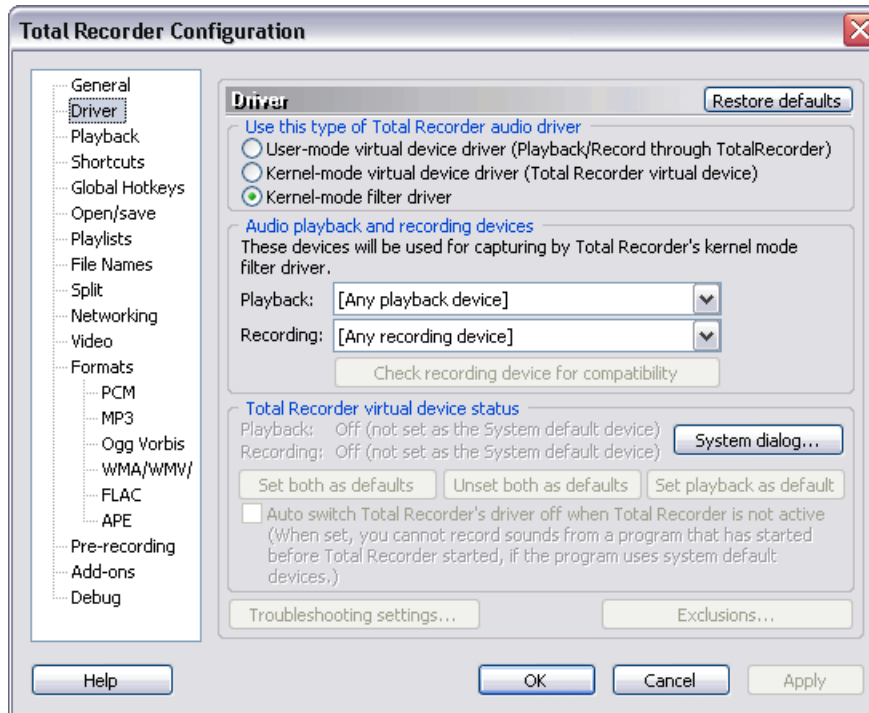
Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below.

Use this type of Total Recorder audio driver

Select the type of Total Recorder driver you want to use. For more information on the different types of Total Recorder drivers, refer to the Selecting the type of driver to be installed with Total Recorder section.

Audio playback and recording devices

The meaning of these devices depends on the type of Total Recorder driver.

- **If a virtual device driver is selected (user-mode or kernel-mode):** These devices are the names of the real drivers used by the Total Recorder driver for playback and recording. This is where the Total Recorder driver redirects its input and output sound streams. The installation program automatically sets these values based on your current system settings, and usually you do not need to change them.

- **If the kernel-mode filter driver is selected:** These devices are the names of the real drivers from which the filter driver will capture audio data. The values "[Any playback device]" and "[Any recording device]" indicate that audio data from any playback and recording device respectively will be captured.

To the right of the device lists, the current status of each of the selected devices appears. This status can be one of the following:

Present – The device is present in the system and can be used by the Total Recorder driver.

Absent – The device is not found. This can occur, for example, if you select a USB device, turn off the device, and activate the Driver dialog. If a device is absent then the driver will use the first available device.

Unable to use – The device is found on your system but it cannot likely be used by the Total Recorder driver.

Note: The setting of devices in this dialog deals with devices for the Total Recorder driver rather than Total Recorder itself. Total Recorder itself uses the playback device specified on the "Options" - "Settings" - "Playback" dialog. For the recording device, Total Recorder uses the device that you specify on the "Recording Source and Parameters Dialog".

Check recording device for compatibility - click this button to run a compatibility test of Total Recorder's kernel-mode virtual device driver and the selected real recording device. After performing a short test, the results will be displayed.

Total Recorder virtual device status

This group is used to display and set the status of a Total Recorder's virtual device drivers (user-mode or kernel-mode). If the kernel-mode filter driver is used, most of the controls in this group are disabled.

Playback – Displays the system status of Total Recorder's virtual device for playback. This status indicates whether this device is the system's default playback device (see also Setting Default Devices).

Recording – Displays the system status of Total Recorder's virtual device for recording. This status indicates whether this device is the system's default recording device (see also Setting Default Devices).

System dialog – Click this button to display the system dialog with sound and audio device properties.

Set both as default – Click this button to set Total Recorder's virtual devices as your default playback and recording devices.

Unset both as default – Click this button to unset Total Recorder's virtual devices as your default playback and recording devices. If Total Recorder's driver was set as a system default device, then the devices in the "Audio playback and recording devices" lists will become the system default devices.

Set playback as default – Click this button to set Total Recorder's virtual device as the default playback device and unset Total Recorder's virtual device as the default recording device.

Auto switch Total Recorder's driver off when Total Recorder is not active – If selected, Total Recorder sets its driver as the preferred device when it starts, and sets the devices you specified as your "Audio playback and recording devices" when you exit. It is recommended you select this option if the Total Recorder driver conflicts with another program and this conflict cannot be resolved by reconfiguring that program. For more information, refer to the "Sound system or playback programs not working properly" section. This option may be disabled depending on the type of Total Recorder driver being used and the version of the operating system.

⚠️ *Remember if the mode of automatic driver switching is turned on, you should start Total Recorder first and only after that should you start the playback program from which you are going to record sound.*

See also. Setting Default Devices.

Troubleshooting settings

These settings are intended to resolve compatibility issues between Total Recorder's user-mode virtual device driver and other applications. Only change these default settings if you cannot eliminate such problems by changing the settings for your application (see "Troubleshooting"-" Sound system or playback programs not working properly"). **Troubleshooting settings are enabled under Windows XP only if Total Recorder's user-mode virtual device driver is selected.**

You can use Total Recorder's driver for all applications, for all applications except those you specify, or for only the applications you specify.

Press the "Troubleshooting settings" button to open the following dialog.

Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Use Total Recorder's driver with all applications – Select this option if you want Total Recorder's driver to be loaded for any application that tries to load it.

Do not use Total Recorder's driver with the following applications – Select this option if you do not want Total Recorder's driver to be loaded for some applications. For the applications you list, Total Recorder's driver will not appear. By default, this option is turned off and the list contains programs that can cause compatibility problems with Total Recorder's driver.

Only use Total Recorder's with the following applications – Select this option if you want Total Recorder's driver to be loaded only for the applications you specify in the list below. For all other applications, Total Recorder's driver will not be available.

Adding an application to a list

To add an application to one of these lists, take one of the following steps:

– Start the application that you want to add to the list, and then press the "Add" button to select the application from the "Active sound applications" dialog.

– Use the "Browse" button to browse to the location of your sound application and add it to a list.

– Manually specify the file name, without the path, for the program's executable (e.g. *someprogram.exe*) at the bottom of the list.

Changing the settings on this dialog does not affect a program that is currently running. Changes will take effect the next time the program starts.

Exclusions

The **Exclusion settings are enabled only if Total Recorder's user-mode virtual device driver is selected**. If one of Total Recorder's kernel-mode drivers is used, you cannot exclude particular applications from being recorded (see Selecting the type of driver to be installed with Total Recorder).

You can use the "Driver exclusions" dialog to define a list of applications that will use Total Recorder's driver, but will not be recorded using Total Recorder. These settings are intended to be used mainly for those applications, such as screen readers, which can reproduce sound that could

interfere with the actual sound you want to record.

Press the "Exclusions" button to open the following dialog.
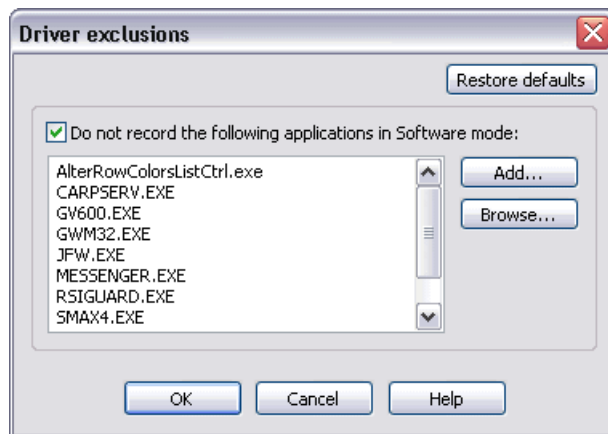
By default, the list of applications is not empty. It contains screen readers and programs that pass pure silence to a sound board.

Do not record the following applications in Software mode – If this check box is selected, Total Recorder will not record the applications in the list below.

To add an application to the list, take one of the following steps:

– Start the application that you want to add to the list, and then press the "Add" button to select the application from the "Active sound applications" dialog.

– Use the "Browse" button to browse to the location of your sound application and add it to a list.

– Manually specify the file name, without the path, for the program's executable (e.g. someprogram.exe) at the bottom of the list.

Notes:

• **Similarity between Troubleshooting settings and Exclusions:**

You can use either the "Troubleshooting settings" dialog or the "Driver exclusions" dialog to prevent the Total Recorder driver from being loaded for an application. These applications cannot be recorded by Total Recorder in Software mode.

• **Differences between Troubleshooting settings and Exclusions:**

– If the Total Recorder driver is not loaded for an application based on settings in the "Troubleshooting settings" dialog, then the driver cannot be used for that application. If an application is on the exclusions list, then this application can pass sound data through Total Recorder's driver, but Total Recorder cannot record this sound data.

– The "Active Sound Applications" window will display applications on your exclusions list when they are active, whereas those applications that do not load Total Recorder's driver based on your troubleshooting settings will not be displayed.

– Your "Audio playback and recording devices" settings affect applications on the exclusions list but they do not affect applications from the "Driver troubleshooting settings" dialog. This is important when you have more than one playback or recording device because a program that does not load the Total Recorder driver may not use the device you want to use. Total Recorder checks your configuration to see if such problems are possible and issues appropriate error messages.

• **When to use Troubleshooting settings and Exclusions:**

– If an application produces garbled sound during playback and the problem cannot be resolved by changing settings for that application (see "Troubleshooting"-" Sound system or playback programs not working properly"), use the "Driver troubleshooting settings" dialog.

– If an application produces sound (other than garbled sound) that should never be recorded with Total Recorder, use the "Driver exclusions" dialog. For example, you would not likely record sound produced by a screen reader.

3.2.3 Playback Settings

The dialog looks like this:
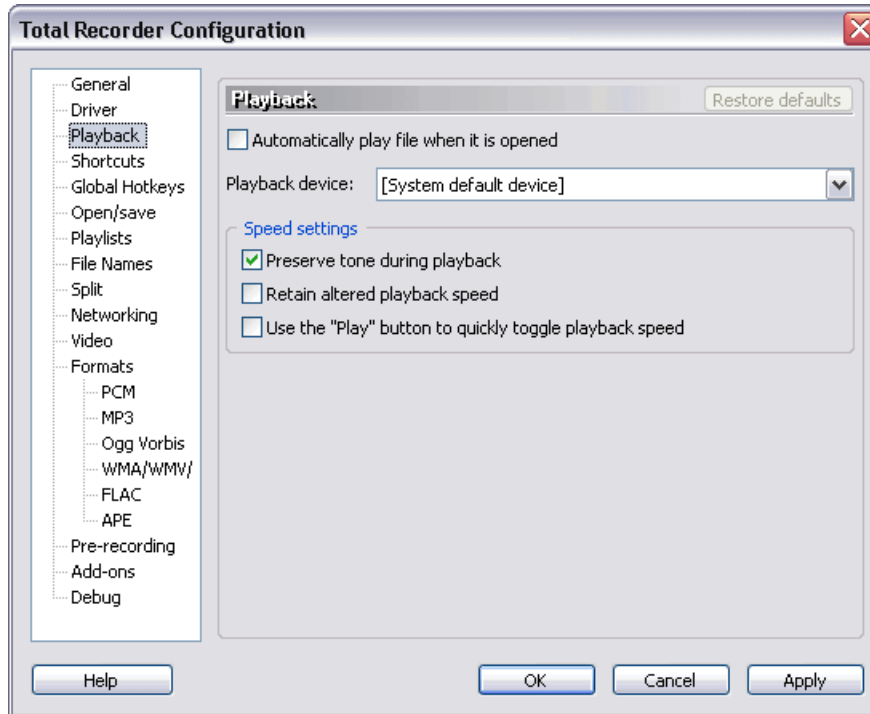
Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below.

Automatically play file when it is opened

Select this option if you want Total Recorder to start playing back a file as soon as you open it. This also applies when you open a URL.

Playback device

Use the drop-down list to set the playback device for Total Recorder.

Note: This setting is for selecting the playback device for Total Recorder itself. The real playback device for Total Recorder's driver is set on the "Driver" dialog.

Speed settings (Professional, VideoPro, and Developer Editions only)

These settings are used when playing back a file at a slower or faster speed than normal. For more information, refer to the "Playing a file at different speeds" section.

Preserve tone during playback - If this option is selected, Total Recorder preserves the original tone when playing at speeds other than normal. This enables you to listen to the playback over a shorter or longer period of time without compromising the sound.

Retain altered playback speed - If this option is selected, Total Recorder stores the last used playback speed and will use this speed the next time playback starts. Otherwise, the speed value for each new playback is reset to the normal speed (i.e. x1).
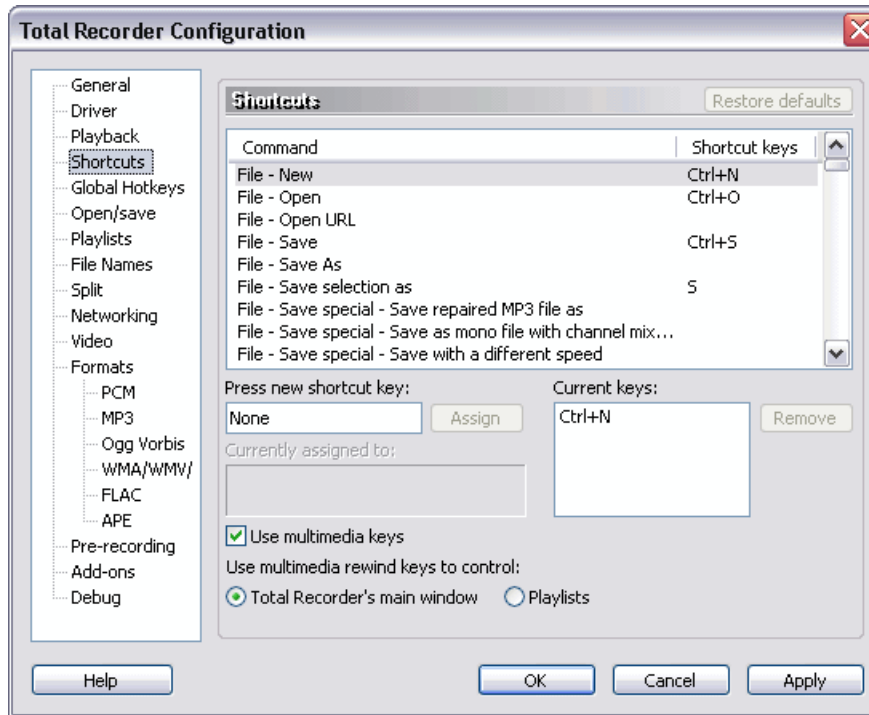
Use the "Play" button to quickly toggle playback speed - If this option is selected, the "Play"

button remains available during playback. You can click the "Play" button to toggle the playback speed between normal speed and the last used "abnormal" speed (i.e. a speed other than normal).

3.2.4   Shortcut Settings

The dialog looks like this:

Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below. An example of assigning a new shortcut key follows the descriptions.

Command list

This list contains a full set of commands for which shortcuts can be assigned. Currently assigned shortcuts for a command appear to the right of the command name.

The list of commands contains both the main Total Recorder commands and the commands for the Playlist window. You can assign the same keystroke to a main Total Recorder command and to a Playlist window command. In this case, pressing the keystroke results in executing the command belonging to the currently active window. If the Playlist window is currently active then the playlist command executes. Otherwise, the main Total Recorder command executes.

Press new shortcut key

Use this box to define a new shortcut key for the selected command in the Command list.

Assign

Use this button to assign the shortcut key displayed in the "Press new shortcut key" box to the selected command in the Command list.

Currently assigned to

Shows the command to which the shortcut key in the "Press new shortcut key" box is assigned. If there is no such command, then the "[unassigned]" caption appears.

Current keys

The set of shortcut keys that are currently assigned to the command selected in the "Commands" list are displayed in this box. Any command can have one or more shortcuts.

Remove

Use this button to remove the selected shortcut key in the "Current keys" box from the list of shortcut keys for the command.

Use multimedia keys

Select this box to use the keys of a multimedia keyboard as shortcuts in Total Recorder. You can use both multimedia keyboard shortcuts and non-multimedia keyboard shortcuts.

Note:

The ability to use multimedia keys depends strongly upon your multimedia keyboard driver. It is possible that setting this will not have any effect.

Use multimedia rewind keys to control

Total Recorder's main window. If this option is selected, the multimedia keys "<<" and ">>" act as the "Left by step" and "Right by step" commands respectively.

Playlist window. If this option is selected, the multimedia keys "<<" and ">>" act as the "Previous file" and "Next file" commands respectively for the current playlist. See also Playlist Window.

Note. This option also affects how these multimedia keys behave as global hotkeys.

Example - Adding a Shortcut Key

Suppose you want to assign the "Ctrl+Shift+S" shortcut to the "Save as" command. Take the following steps:

1. In the "Command" list, select "File - Save As".

2. Position your cursor in the "Press new shortcut key" box.

3. Press "Ctrl+Shift+S". Under the "Currently assigned to" box, review the command that currently corresponds to the "Ctrl+Shift+S" shortcut.

4. Press the "Assign" button. In the "Current keys" list, the "Ctrl+Shift+S" shortcut appears. In the "Command" list, the "Ctrl+Shift+S" shortcut appears to the right of the "File-Save as" command.

5. Press "Apply".

See also. Global Hotkey Settings.

3.2.5 Global Hotkey Settings

An application's global hotkeys are keys that act globally in the system when the application is running, whether it is in the foreground, the background, or in minimized mode. You can set up global hotkeys for Total Recorder functions.

The dialog looks like this:
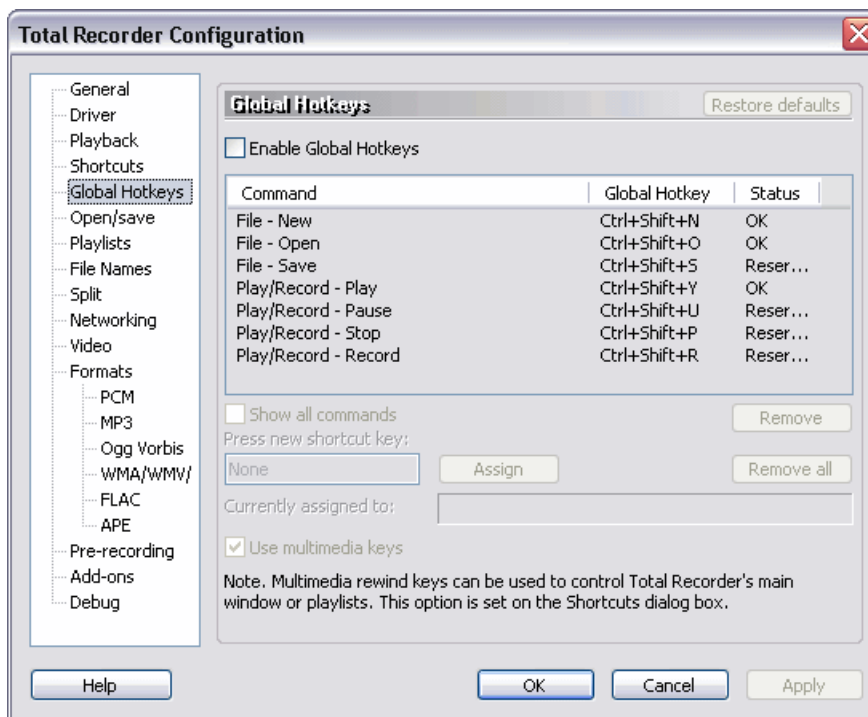
Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below. An example of assigning a new global hotkey follows the descriptions.

Enable Global Hotkeys

Select this box to turn on global hotkeys in Total Recorder.

Command list

The list contains the following columns:

Command - name of the command.

Global Hotkey - current keystroke assigned as the global hotkey for the command.

Status - status for the keystroke. It can be one of the following:

- **OK** - keystroke is free and successfully assigned, or can be successfully assigned, to the command.

- **Shortcut** - keystroke is assigned to a command locally (i.e. as a shortcut).

- **Reserved by another application** - keystroke is assigned as a global hotkey in another application (e.g. possibly another instance of Total Recorder).

Show all commands

Select this box to show all available commands in the Command list. If the box is not checked, the Command list contains only those commands that have associated keystrokes.

Remove

Use this button to remove the keystroke for the currently selected command.

Press new shortcut key

Use this box to define a new global hotkey for the selected command in the Command list.

Assign

Use this button to assign the shortcut displayed in the "Press new shortcut key" box as a global hotkey to the selected command in the Command list.

Currently assigned to

Shows the command to which the shortcut key in the "Press new shortcut key" box is assigned. If there is no such command, then the "[unassigned]" caption appears.

Remove all

Use this button to remove all keystrokes that are associated with commands.

Use multimedia keys

Select this box to use the keys of a multimedia keyboard as global hotkeys in Total Recorder. You can use both multimedia keyboard shortcuts and non-multimedia keyboard shortcuts.

> **Notes:**
>
> - The ability to use multimedia keys depends strongly upon your multimedia keyboard driver. It is possible that setting this will not have any effect.
>
> - The behaviour of the multimedia keys "<<" and ">>" as global hotkeys is defined by the "Use multimedia rewind keys to control" option on the Shortcut Settings dialog.

Notes:

- More than one application can have a particular keystroke as a global hotkey assigned. However, if such applications are running at the same time, the global hotkey will work in only one of the applications.

- If one of Total Recorder's global hotkeys does not work, review the Status field for that hotkey on this dialog.

Example - Adding a Global Hotkey

Suppose you want to assign the "Ctrl+Alt+S" shortcut to the "Save As" command as a global hotkey. Take the following steps:

1. Select "Enable Global Hotkeys".

2. Select "Show all commands".

3. In the "Command" list, select "File - Save As".

4. Position your cursor in the "Press new shortcut key" box.

5. Press "Ctrl+ Alt+S". Under the "Currently assigned to" caption, review the command that currently corresponds to the "Ctrl+Alt+S" keystroke.

6. Press the "Assign" button. In the "Command" list, the "Ctrl+Alt+S" keystroke appears to the right of the "File - Save As" command. In the Status column, a status for the "Ctrl+Alt+S" keystroke appears.

7. Press "Apply".

See also. Shortcut Settings.

3.2.6 Open/save Settings
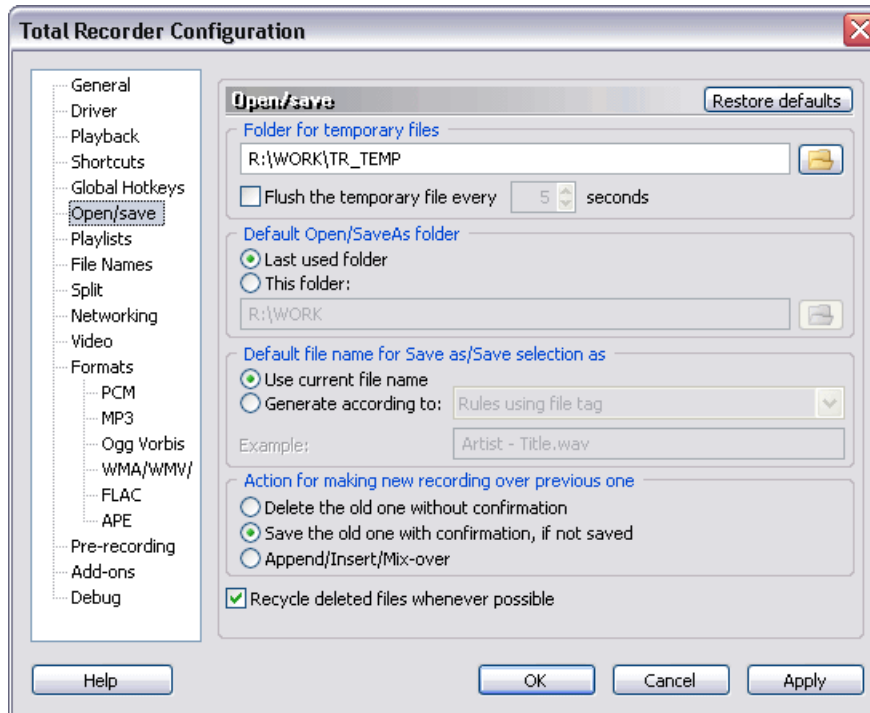
The dialog looks like this:

Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below.

Folder for temporary files

The size of recording files can be quite large. Because of this, Total Recorder saves recorded information, not in memory, but in a temporary file. You can specify the directory for this file, if you wish.

When you first start the Total Recorder program, it sets the directory for temporary files based on the following:

- If the system environment variable TMP exists, it uses its value.
- Else, if the TEMP system environment variable exists, it uses its value.
- Otherwise, it uses the directory where the program is installed.

It is recommended that you store temporary files on the same hard drive where you will save your recordings. Otherwise, a full copy operation will be required and this will be time consuming for large files.

It is not recommended that you store temporary files on a compressed drive. If the folder for temporary files is on a compressed NTFS drive, then you should remove compression from the folder.

Flush the temporary file every *nn* seconds

This option causes the operating system to write data to your hard drive every nn seconds, instead of keeping it in the processor's cache. If this mode is set and your computer shuts down, or restarts abnormally, your sound recording can be found in the folder for temporary files with a file name of ~TRr1.wav|mp3 (~TRr2.wav|mp3, ~TRr3.wav|mp3,...).

Setting this mode can sometimes result in sound defects, such as clicks or gaps, when making long

recordings from some soundboards. For more information, refer to the section "Troubleshooting, Sound recorded with gaps, Possible Cause #1".

It is not recommended that you change the default flush value of 5 seconds.

Default Open/SaveAs folder

When you first start Total Recorder, the default directory for opening and saving files is the directory from which the Total Recorder program was started. Subsequently, Total Recorder can use the previously used directory as the default (select "Last used folder") or you can specify the default directory yourself (select "This folder" and specify the location).

Default file name for Save As/Save selection as

When saving files, you can have a default file name appear in the "Save As" and "Save selection as" dialogs. You can select one of the following options:

Use current file name – default file name is the same as the current open file.

Generate according to [Rule name] – generate default file name based on the selected rule. Rules are defined and can be changed on the "File Names" dialog. An example of a file name for the current rule is displayed in the "Example" box below.

For additional information, see Saving a Recording.

Note for users of the Professional, VideoPro, or Developer Edition:

This option also sets rules for the default file name that appears in the "Save and delete before current position" operation. See also Working With Sound Images.

Action for making new recording over previous one

You can select one of the following options to specify the action to take when you attempt to record over an existing recording:

Delete the old one without confirmation – Clicking the "Record" button overwrites and destroys the previous recording unless it has not yet been saved (in full) to a file.

Save the old one with confirmation, if not saved – similar to the above, but if the recording has not been saved, you are prompted to save it. Recording does not start until you respond.

Append/Insert/Mix-over – a new recording is appended to, inserted into, or mixed with an existing recording regardless of it being saved. The behaviour depends upon which edition of Total Recorder you have, whether or not you have the Digital Mixer Add-on installed, and the recording mode. Insert mode is available only with the Professional, VideoPro and Developer Editions. Mix-over mode is available only if the Digital Mixer Add-on is installed.

Note:

If you want to create a new file, you must explicitly select "New" from the "File" menu or click the button in the main toolbar. Sound parameters (i.e. sample rate, mono/stereo, 8bit/16bit) are always inherited from the recording. Even if different parameters are set in the "Recording source and parameters" dialog they will not be in effect unless you implicitly create a new file. This note refers to all modes except for split mode.

A recording is not considered saved unless it was saved in full; partial recordings are not considered saved files.

Notes for Professional, VideoPro, and Developer Editions users and those users that have the Digital Mixer Add-on installed:

You can switch between Append, Insert, and Mix-over modes using the "Play/Record" menu ("Append recording mode", "Insert recording mode", and "Mix-over recording mode" items). If either "Delete the old one without confirmation" or "Save the old one with confirmation, if not saved" option is checked, you cannot switch between Append, Insert, and Mix-over modes.

Turning on split mode causes the "Save the old one with confirmation, if not saved" option to be automatically set.

Mix-over recording mode is available only if you have the Digital Mixer Add-on installed.

Recycle deleted files whenever possible (Professional, VideoPro, and Developer Editions only)

If this option is selected then the action taken when you delete a file is based on the property settings of your Recycle Bin. The file is moved to the Recycle Bin or deleted permanently.

If this option is not selected then deleting a file results in permanent deletion of the file regardless of the property settings of your Recycle Bin.

3.2.7 Playlist Settings

The dialog looks like this:
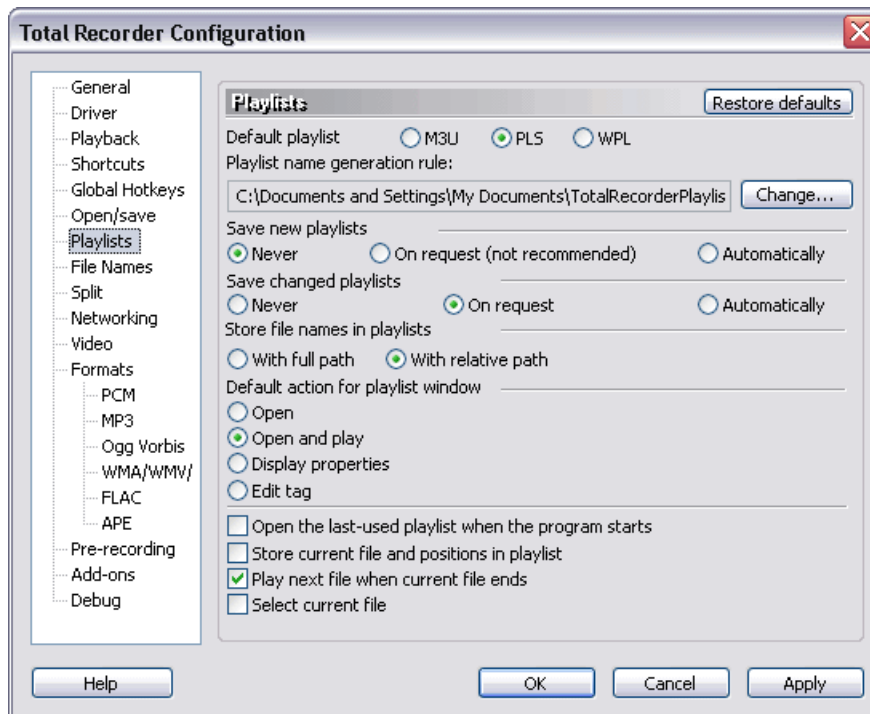
Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below.

Default playlist type

Identifies the default type of playlist for new playlists.

Playlist name generation rule

The template for playlist names appears in this field. This template is used to generate the playlist name for a new playlist. To change the template, press the "Change" button and use the "Playlist name generation rule" dialog.

Save new playlists

Identifies the mode for saving a new playlist. You can select from the following:

Never. A new playlist is not saved unless you explicitly save it using the "Save" or "Save as…" command from the Playlist window.

On request (not recommended). Each time a new playlist is closed, you are prompted to save the playlist. This option is not recommended because you may be prompted too often.

Note. Unlike saving a new sound recording, you will not be prompted to specify a file name for

the playlist. The file name is automatically generated based on your "Playlist name generation rule" template.

Automatically. A new playlist is saved automatically when you close the playlist. The file name for the playlist is automatically generated based on your "Playlist name generation rule" template.

Save changed playlists

Identifies the mode for saving an existing playlist. You can select from the following:

Never. An existing playlist is closed without any prompting regardless of the playlist being changed.

On request. Each time you change and then close an existing playlist, you are prompted to save the playlist.

Automatically. An existing and changed playlist is saved automatically, with its original name, when you close the playlist.

Store file names in playlists

Specifies the format for storing file names in a playlist. You can select from the following:

With full path. File names are stored using the fully qualified path (e.g. "c:\my music\artist1\song. mp3").

With relative path. File names are stored with a path relative to the folder of the playlist file (e.g. ".. \artist2\song.mp3").

Default action for Playlist window

Specifies the default action for the Playlist window. This is the action taken when you press the "Enter" key or double click the left-mouse button in the list of files on the Playlist window. You can select from the following:

Open. Open the currently selected file in Total Recorder.

Open and play. Open the currently selected file in Total Recorder and start playing it.

Display properties. Display the "File properties" dialog for the currently selected file.

Edit tag. Display a dialog box that allows you to view and edit the file's tag. See also Working with tags.

Open the last-used playlist when the program starts

If this option is selected, the last-used playlist opens when Total Recorder starts. If Total Recorder exits while there is no open playlist, Total Recorder will not open any playlist the next time it starts.

Store current file and positions in playlist

Selecting this option results in the following behaviour:

- Total Recorder stores the sound file that was last opened in the playlist and stores the last position for each of the files in the playlist. The last position for a file is the current position in the file at the time the file is closed.

- When you open a playlist that contains information about the last-used file, Total Recorder automatically opens this file.

- If you open a file in a playlist which contains information about the last position in that file, Total Recorder automatically sets the current position to the stored value.

Play next file when current file ends

If this option is selected, Total Recorder automatically starts playback of the next file in the playlist when the current file finishes playing.

Select current file

If this option is selected, Total Recorder discards the current selection in the list of files on the Playlist window and selects a file that has just been open or has just been assigned a file name (while saving)
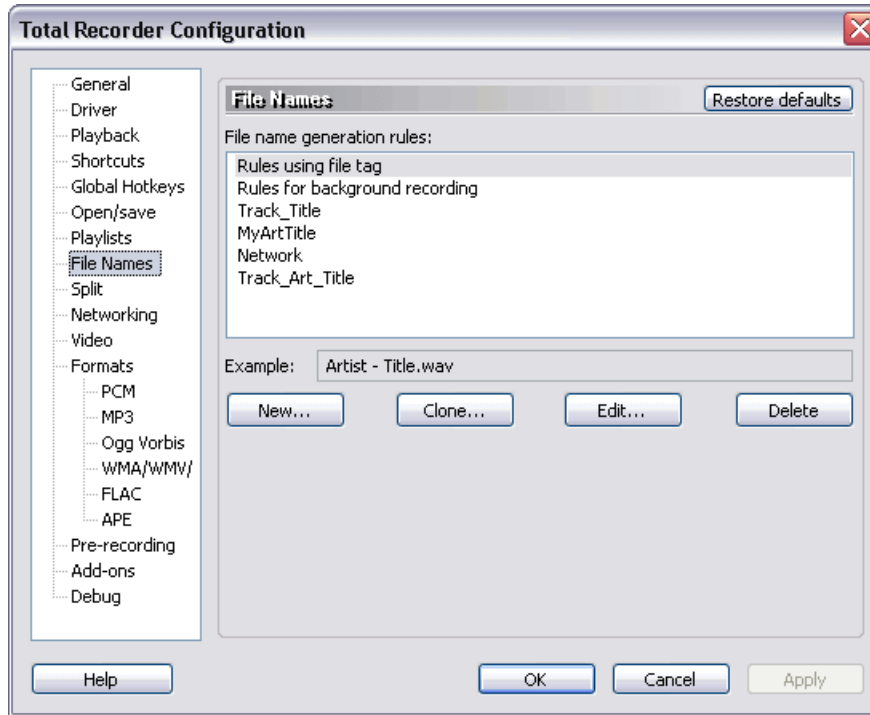
in Total Recorder.

See also. Using Playlists, Playlist Window.

3.2.8   File Name Settings

The dialog looks like this:

Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below.

File name generation rules list

The list contains a set of rules used by Total Recorder when generating file names for various operations. The rules can be used when generating file names for the following:

- "Save as..." and "Save selection as..." operations. For more information, refer to Open/save Settings and Saving a Recording.

- Creating a new file when recording in split mode (Professional, VideoPro, and Developer Editions only).

- Saving a scheduled recording (Professional, VideoPro, and Developer Editions only). For more information, refer to Using a Scheduler overview and Scheduling a Job.

- Batch processing. For more information, refer to Batch Processing Overview (Professional, VideoPro, and Developer Editions only).

Example

This box displays an example of a file name for the selected rule.

Controls

You can use the following controls from this dialog:

New button**.** Open the "File Name Generation Rule" dialog to enter a new rule.

Clone button**.** Build a new rule by copying the current one. The "File Name Generation Rule" dialog opens for editing the rule parameters.

Edit button**.** Open the "File Name Generation Rule" dialog for detailed viewing and editing of rule parameters.

Delete button**.** Deletes current rule, after confirmation.

Note: You cannot delete a rule if it is used as the current rule for "Save as..."/"Save selection as..." operations, for generating file names in split mode, or for generating the file name for a scheduled job.

3.2.9 Split Settings (Professional, VideoPro, and Developer Editions only)
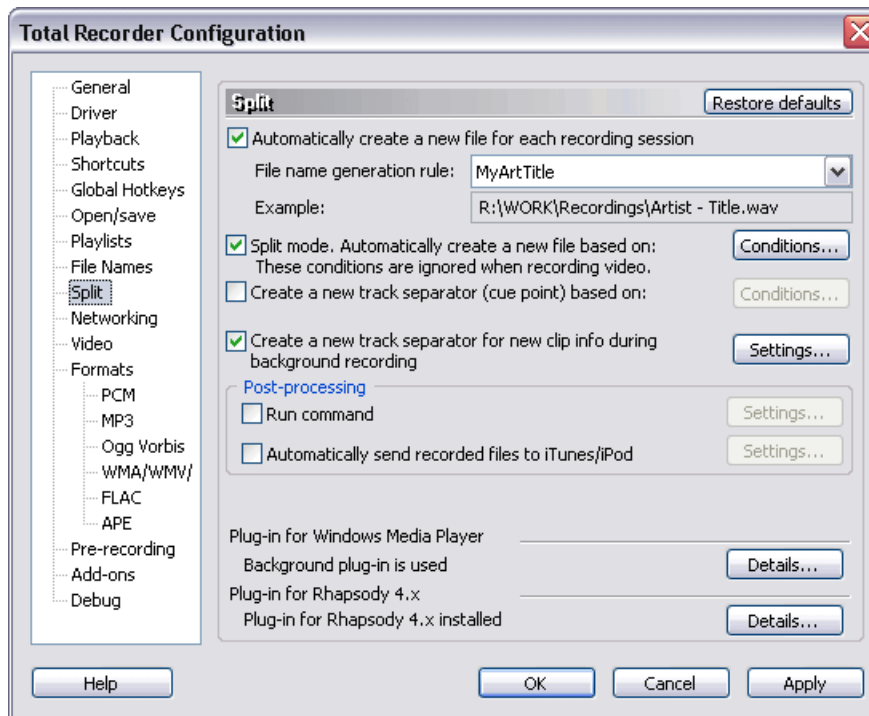
The dialog looks like this:

Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below.

Automatically create a new file for each recording session

Select this check box if you want a new file to be created for each recording session, from beginning to end. Turning on this auto-create mode causes the "Save the old one with confirmation, if not saved" option to be automatically selected as one of your "Open/save" configuration settings.

File name generation rule

When a file is automatically created, its name is generated based on the rule selected in the drop-down list. This list contains all rules that are defined in the File Names dialog.

Example

An example of the selected rule is displayed in this box.

Split mode

Select the "Split mode" check box to use split mode. A new file is created during a recording based on the split conditions you specify by clicking the "Conditions…" button. For more information, refer to the "Split mode overview".

Split mode requires the "Automatically create a new file for each recording session" check box to be selected as one of your "Open/save" configuration settings.

Split mode cannot be used with the "Create a new track separator (cue point)" setting.

Create a new track separator (cue point) based on:

Select this check box if you want a new track separator (cue point) created during a recording. Click the "Conditions…" button to specify the conditions for creating these separators. For more information, refer to "Working with cue files".

This option cannot be used with Split mode.

Create a new track separator for each new clip info during background recording

Select this check box if you want a new track separator (cue point) created while background recording an Internet stream. Click the "Settings…" button to specify your settings for creating these separators. For more information, refer to the "Working with cue files" and "Background recording of Internet streams" sections.

Post-processing

This group allows you to specify actions that will be performed after a file has been recorded in split mode or after a recording session has completed.

Run command. Select this check box if you want the specified command line to execute after a file has been recorded or after a recording session completes. To configure options for the command line to execute, click the "Settings" button to the right and use the "Run application" dialog.

Automatically send recorded files to iTunes/iPod (available only with the "Send to iTunes/ iPod Add-on"). Select this check box if you want the files that you record to be automatically sent to iTunes/iPod. To configure options for sending files, click the "Settings" button to the right and use the "Send files to iTunes/iPod" dialog.

Plug-in for Windows Media Player

Information about your Windows Media Player plug-in is displayed in the box. To review the details, or to change the settings for the Windows Media Player plug-ins, press the "Details…" button. The following dialog appears:

The dialog contains the following information and settings.

Version of Windows Media Player you have installed - Version of Windows Media Player you have installed.

NOTE: This note appears only if Windows Media Player is currently running.

Visualization plug-in "Clip info for TR" - installation and activity status for the Visualization plug-in.

Background plug-in "Clip info for TR background plug-in" - installation and activity status for the Background plug-in. If Windows Media Player is not currently running, you can turn on/off the plug-in by checking/unchecking "Turn on".

Features available with current settings – lists how clip information can be captured from Windows Media Player using the current settings.

Notes:

- If you have a version older than Windows Media Player 9.0, you cannot use the "Clip info for TR background plug-in".

- If you have Windows Media Player version 9.0 or later, it is recommended you use the "Clip info for TR background plug-in". This plug-in is different than the Visualization plug-in "Clip info for TR". It allows you to get clip information from Windows Media Player while Windows Media Player is playing video clips and in other circumstances.

- You can turn on both of the plug-ins. This can be useful, for example, if you want to capture clip information while Windows Media Player is minimized, or view clip information in Windows Media Player's main window when Windows Media Player is in a normal state.

Plug-in for Rhapsody 4.x

Information about your Rhapsody 4.x plug-in is displayed in this box. To review the details, or to change the settings for the Rhapsody 4.x plug-in, click the "Details…" button. The following dialog appears:

The dialog contains the following information and settings.

Version of Rhapsody 4.x you have installed - Version of Rhapsody 4.x you have installed.

Total Recorder plug-in for Rhapsody 4.x - installation status for the plug-in.

Install/Uninstall - click the "Install/Uninstall" button to install/uninstall the plug-in.

Note:

- This plug-in has been developed and tested with Rhapsody 4.x. If you have a version of Rhapsody other than 4.x, it may not be possible to install the plug-in through Total Recorder. The plug-in may work with other versions of Rhapsody but you would need to manually install the plug-in. For information on manually installing the plug-in, refer to Total Recorder's FAQ.

See also. How to get and use clip info from an external player.

3.2.10 Networking Settings (Professional, VideoPro, and Developer Editions only)
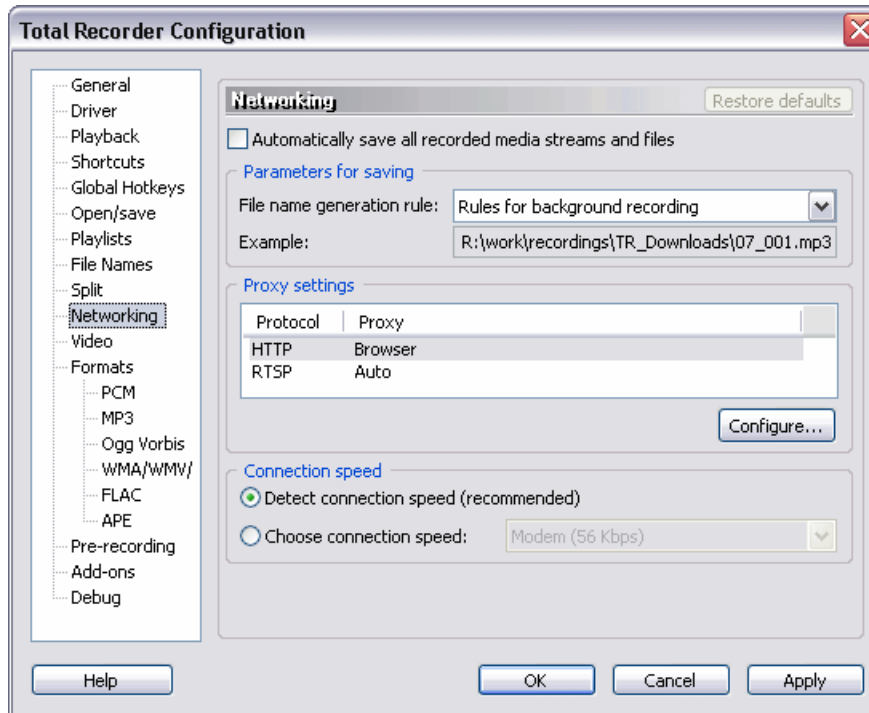
The dialog looks like this:

Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below.

Automatically save all recorded media streams and files

Select this option if you want Total Recorder to automatically save recorded data when a background recording stops. Saved files are assigned names based on your file name generation rules.

File name generation rule

When a file is saved after a background recording, its name is generated based on the rule selected in the drop-down list. This list contains all rules that are defined in the File Names dialog.

Example

An example of the selected rule is displayed in this box.

Proxy settings

This list contains a set of protocols and their current proxy settings. Settings for the HTTP protocol primarily affects background recording of MP3 and Ogg Vorbis streams. Settings for the RTSP protocol affects only background recordings of Windows Media streams.

Configure...

Click this button to configure proxy settings for the currently selected protocol. The "Proxy settings" dialog appears.

Caution. Some proxy servers can alter HTTP headers. This can result in Total Recorder not being able to properly capture an Internet stream. If you encounter this problem, set up Total Recorder to use a direct connection to the Internet instead of a proxy server.

Connection speed

These settings allow you to set the speed of the Internet connection, and they affect only background

recordings of Windows Media streams. If Total Recorder detects that a remote Windows Media object contains multiple mutually exclusive media streams, then Total Recorder selects the streams to be recorded based on these settings.

Detect connection speed (recommended)

Total Recorder will try to determine the connection speed itself.

Choose connection speed

Select this option if you want to manually set the connection speed using the drop-down list at right.

Proxy settings dialog

The dialog looks like the following:
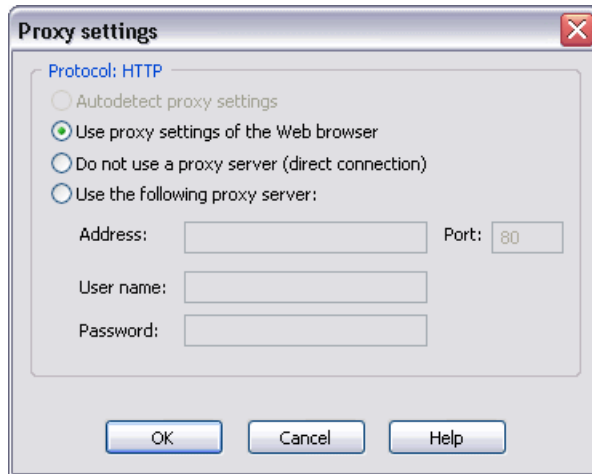
Autodetect proxy settings

Total Recorder will try to automatically detect your proxy settings. For the HTTP protocol, this option is disabled.

Use proxy settings of the Web browser

Total Recorder will use Internet Explorer's proxy settings. For the RTSP protocol, this option is disabled.

Do not use a proxy server (direct connection)

Total Recorder will connect to the Internet without using a proxy.

Use the following proxy server

Specify your proxy settings in the fields below.

See also. Background recording (capturing) and playing of Internet streams, How to play or background record (capture) an Internet audio stream using Total Recorder, How to play or background record (capture) an Internet video stream using Total Recorder.

3.2.11 Video Settings (VideoPro and Developer Editions only)
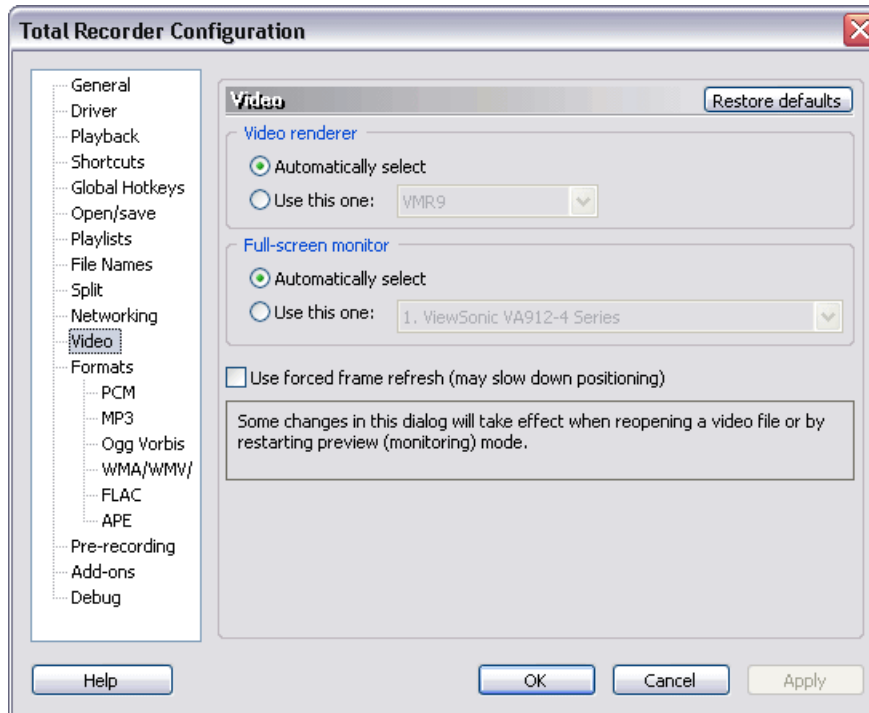
The dialog looks like this:

Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below.

Video renderer

A Video renderer is a system engine used to display video. You can select the video renderer to be used by Total Recorder. You may want to select a particular video renderer for the following reasons:

– The image quality produced by various renderers differs.

– Different renderers consume different amounts of system resources.

– A particular renderer detects bugs (e.g. in your video card driver, video filter, etc.) or it is not compatible with your drivers.

Automatically select. Select this option if you want Total Recorder to select a video renderer for you.

Use this one. You can manually select a particular video renderer from the list. The list depends on your operating system and other installed system components.

Full-screen monitor

This setting identifies the monitor on which full-screen video will be displayed.

Automatically select. Select this option if you want Total Recorder to display full-screen video on the same monitor as Total Recorder's main window.

Use this one. You can manually select a particular monitor from the list.

Use forced frame refresh

Sometimes, after repositioning, the picture in the Video panel does not correspond to the current position. This depends on many factors (i.e. video codec being used, video renderer being used, video card drivers, etc.). Select this option if you want Total Recorder to perform a forced frame refresh after

repositioning. The results are:

– The picture in the video window always corresponds to the current position.

– Repositioning may take longer.

– Blinking in the video window is likely to occur while repositioning.

3.2.12 Format Settings

The dialog looks like this:
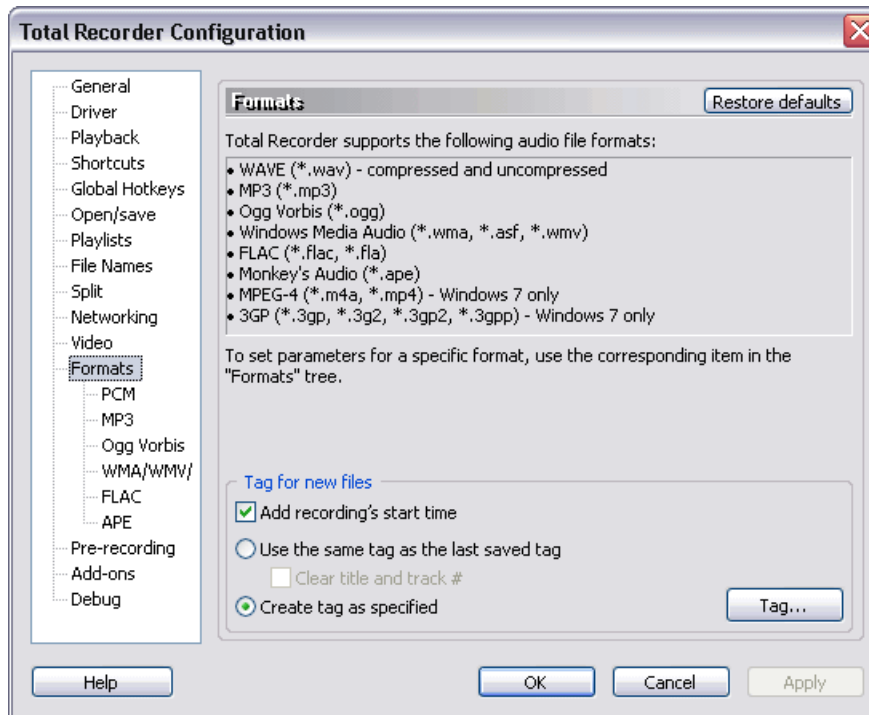
Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Tag for new files

You can specify options for the tag to be used for a new file. Each tag can contain such information as the artist name, the album, etc.

Add recording's start time – if this option is selected, a special field will be added to the file tag with a timestamp for the recording's start time. Users of the Professional, VideoPro, or Developer Edition can also select the option "Display time that current position was recorded" in the "Options" - "Settings" - "General" dialog to display the recording time for the current position in the Information panel of the main Total Recorder window.

Use the same tag as the last saved tag – if this option is selected, a new recording will have the same tag as the tag that was last set through either the "Save ... as" - "Tag" or the "File" - "Tag...." menu item.

Clear title and track # – when this check box is selected, a new recording will have the same tag as the one that was last saved but the title and the track # fields will be cleared.

Create tag as specified – if this option is selected, a new recording will have a tag with the values you specify. Click the "Tag" button at the right to specify these values.

See also. Working with tags.

3.2.13 PCM Settings

This dialog lets you set the method that will be used for converting between different uncompressed (PCM) formats.

The dialog looks like this:
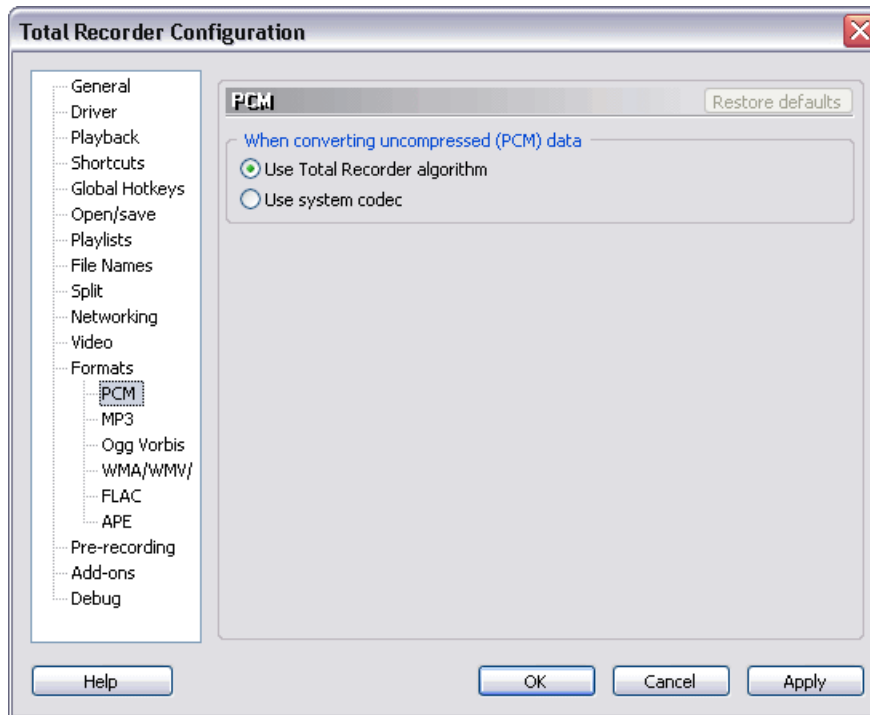
Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below.

When converting uncompressed (PCM) data

Select one of the following:

Use Total Recorder algorithm – use Total Recorder's internal algorithm. This is the default and recommended value. It provides a reasonable compromise between speed and quality.

Use system codec – in most cases, this is Microsoft PCM Converter. It is very fast but the quality may be unacceptable.

Note: If the system codec cannot convert between two uncompressed formats, then the Total Recorder algorithm is used for conversion.

3.2.14 MP3 Settings

Use this dialog if you plan to use Total Recorder with MP3 format. Before working with this dialog, you should review "Working with MP3 Format".

The dialog looks like this:
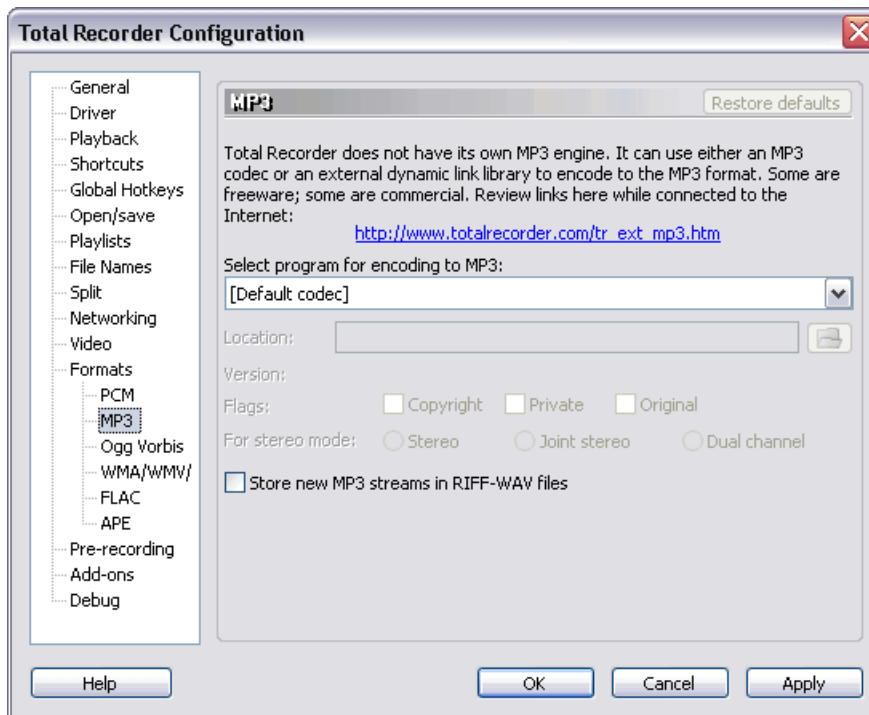
Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below.

Select program for encoding to MP3

You can select from the following:

Unable to encode MPEG Layer 3 – this item is the first in the list if there is no MP3 codec installed on your system. If you select this item, Total Recorder will not be able to create MP3 files and "MPEG Layer 3: press F1 to get help" appears in the list of sound formats. You can use F1 to display some links to find MP3 encoders.

[Default codec] – this item is the first in the list if there is at least one MP3 codec on your system. If you select this item, Total Recorder relies on the system to select an appropriate codec.

(Name of a particular codec) – one of these entries appears for each MP3 codec in the system. You can select any codec from the list. Normally there is only one MP3 codec installed, in which case you can either select it here or select [Default codec] as above.

Blade encoder (dll) – use BladeEnc.dll to encode to MP3. Total Recorder will show this item regardless of whether this DLL exists on your system. However, you can only save this setting if you provide a full path to BladeEnc.dll in the Location field.

Lame encoder (dll) –use Lame_Enc.dll to encode to MP3. Total Recorder will show this item regardless of whether this DLL exists on your system. However, you can only save this setting if you provide a full path to Lame_Enc.dll in the Location field.

Note that you can produce VBR MP3 files with the Lame encoder. For more information, refer to Setting VBR MP3 attributes.

Location

This identifies the full path for the external encoding program. Total Recorder will locate the program itself if it is in one of the PATH directories. Otherwise, click Change and enter the location. For example:

Location of Lame encoder (Dll)

R:\WORK\lame_enc.dll

OK   Cancel
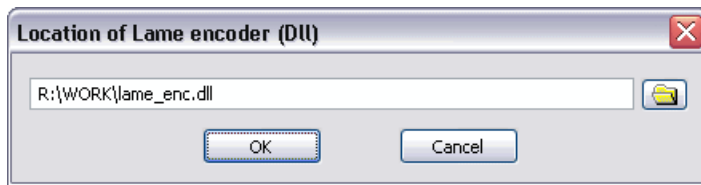
Version

Total Recorder checks the version of the external program. Some older versions are not supported, in which case an error message appears and you will need to download a newer version.

Flags

MP3 frame headers contain different flags. Note that setting a flag is available only for encoding using dll. You can select from the following.

Copyright – the flag indicating whether the audio is copyrighted.

Private – may be freely used for specific needs.

Original – the flag indicating whether the audio is original media.

For stereo mode

MP3 format supports different versions of encoding stereo audio signals. When Total Recorder displays a dialog for selecting a format, it only includes mono or stereo. If stereo is specified, signals are encoded according to the mode selected in this dialog.

You can select from the following, although some modes may not be available for some encoding programs:

Stereo – each channel is encoded separately but not necessarily the equal amount of space is allocated for each channel. For example, the encoding program may allocate a larger part to one channel based on the actual content of the sound stream.

Joint stereo – both channels are encoded together. The average of the two channels is calculated and encoded. The difference between channels is also encoded but with a lower bit rate. This method saves some space but the quality may suffer. This mode is not recommended for high-quality recordings with high bit rates (i.e. more than 192 kbit/sec.).

Dual channel – each channel is encoded separately and independently. This is recommended where the content is not actually a stereo recording but two independent sound streams.

Store new MP3 streams in RIFF-WAV files

You can select the header format for MP3 files – either RIFF-WAV (WAV-MP3) or "pure" MP3. Select this check box if you want new audio files containing MP3-format audio streams to be stored as RIFF-WAV files. Note that some programs or hardware devices may not work properly with such files.

See also. How to work with MP3 format using Total Recorder.

3.2.15 Ogg Vorbis Settings

Use this dialog if you plan to use Total Recorder with the Ogg Vorbis format. You can display the version of either the "Ogg Vorbis Support Add-on" or the Ogg Vorbis support library (vorbishc.dll) that you have installed. Before working with this dialog, you should review to "Working with Ogg Vorbis Format".

The dialog looks like this:
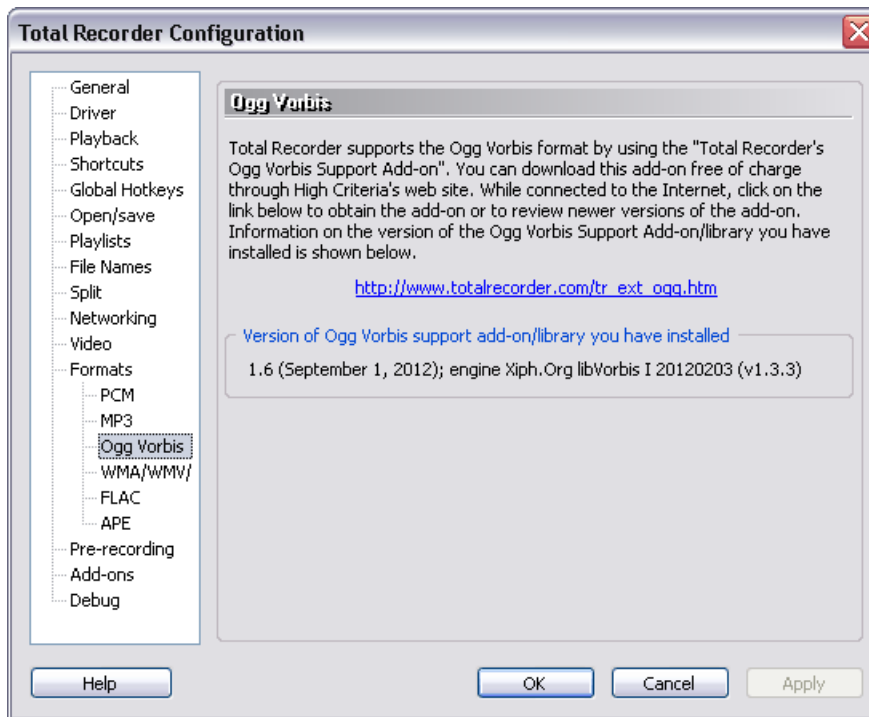
The dialog displays the version of the "Ogg Vorbis Support Add-on" or the Ogg Vorbis support library (vorbishc.dll) that is currently installed.
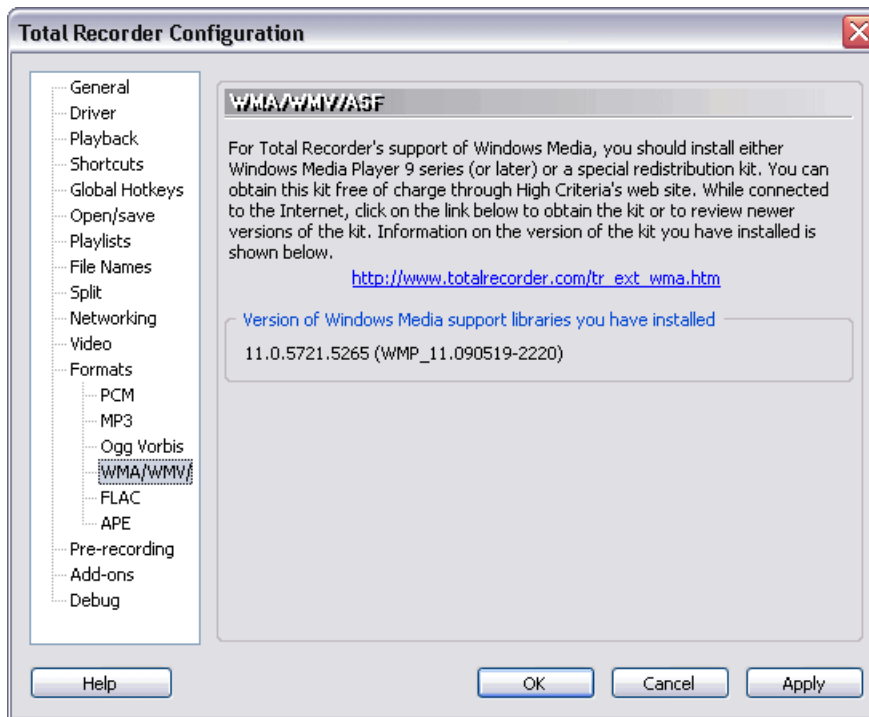
Note: Beginning with version 6.0, Total Recorder supports the Ogg Vorbis format through the "Ogg Vorbis Support Add-on". Although you can use vorbishc.dll to work with the Ogg Vorbis format, as in previous versions of Total Recorder, it is recommended you download and use the free-of-charge "Ogg Vorbis Support Add-on" instead.

See also. How to work with Ogg Vorbis format using Total Recorder.

3.2.16 WMA/WMV/ASF Settings

Use this dialog if you plan to use Total Recorder with a Windows Media format. You can display the version of the Windows Media support library (wmvcore.dll) that you have installed. Before working with this dialog, you should review How to work with Windows Media Audio format using Total Recorder.

The dialog looks like this:

Total Recorder Configuration

General
Driver
Playback
Shortcuts
Global Hotkeys
Open/save
Playlists
File Names
Split
Networking
Video
Formats
    PCM
    MP3
    Ogg Vorbis
    WMA/WMV/
    FLAC
    APE
Pre-recording
Add-ons
Debug

WMA/WMV/ASF

For Total Recorder's support of Windows Media, you should install either Windows Media Player 9 series (or later) or a special redistribution kit. You can obtain this kit free of charge through High Criteria's web site. While connected to the Internet, click on the link below to obtain the kit or to review newer versions of the kit. Information on the version of the kit you have installed is shown below.

http://www.totalrecorder.com/tr_ext_wma.htm

Version of Windows Media support libraries you have installed

11.0.5721.5265 (WMP_11.090519-2220)

Help   OK   Cancel   Apply

The dialog displays the version of the Windows Media support library (wmvcore.dll) that is currently installed. If the Windows Media support library is not installed or it is an unsupported version, an appropriate message is displayed.

See also. How to work with Windows Media Audio format using Total Recorder.

3.2.17 FLAC Settings

Use this dialog if you plan to use Total Recorder with FLAC format. FLAC is a lossless audio codec. Lossless means that if you encode uncompressed (PCM) data into FLAC format and then decode the resulting flac file, the decoded file will be exactly the same as the original PCM file.

Go to the following link to learn more about the FLAC format: http://flac.sourceforge.net/

Support for FLAC format is built into Total Recorder. You do not need to download any additional software or libraries to work with FLAC format. Note that Total Recorder supports flac files only in "native" flac format; ogg-flac files are not supported.

The dialog looks like this:
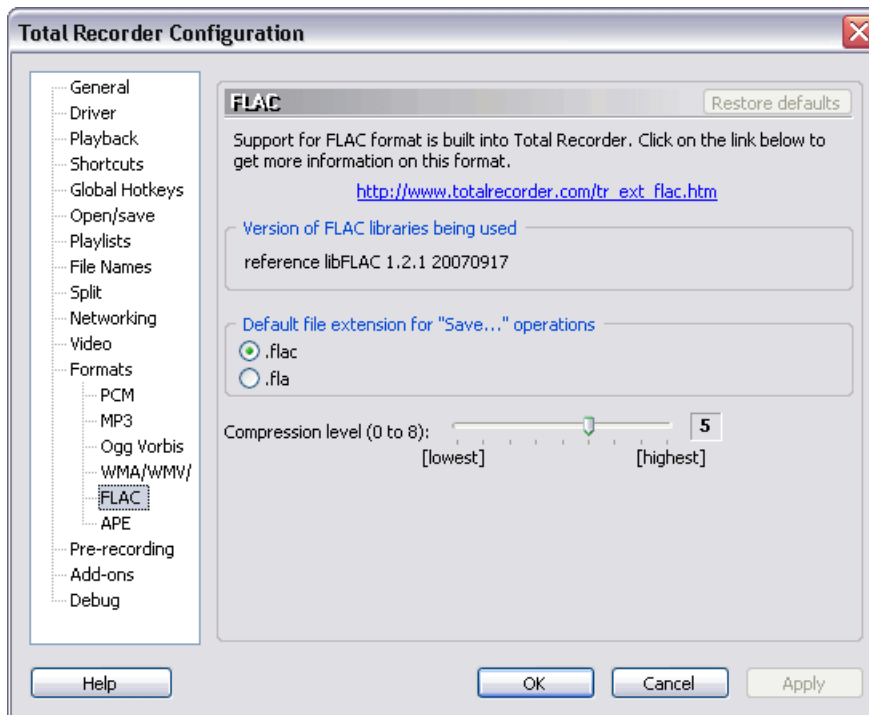
Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below.

Version of FLAC libraries being used

The version of the FLAC libraries being used by Total Recorder is displayed in this box.

Default file extension for "Save…" operations

Select the default extension for flac files. The commonly used extension is "flac". You may wish to change the extension to "fla", for example, if you plan to use saved files on a DOS system.

Compression level

Select the desired compression level when encoding to FLAC format. A higher compression level results in a reduction in the size of the compressed file, a slower encoding process, and higher system resource usage.

> **Note.** To decrease the size of a flac file, you may wish to re-encode the file with the same format attributes (sample rate, number of channels, bit depth) but with a higher compression level. Follow these steps to do this:

1. Select a higher compression level on this dialog.
2. Open the source flac file.
3. Select "File "-" Save as…".
4. In the "Save As" dialog, press the "Change…" button.
5. Without making any changes, in the "Format Selection" dialog, press "OK".
6. In the "Save As" dialog, press the "Save button".

Note that because FLAC is a lossless codec, re-encoding a flac file does not lead to a loss of sound quality.

See also. How to work with FLAC format using Total Recorder.

3.2.18 APE Settings

Use this dialog if you plan to use Total Recorder with Monkey's Audio (APE) format. Monkey's Audio is a lossless audio codec. Lossless means that if you encode uncompressed (PCM) data into Monkey's Audio format and then decode the resulting ape file, the decoded file will be exactly the same as the original PCM file.

Go to the following link to learn more about Monkey's Audio (APE) format: http://www.monkeysaudio. com/

Support for Monkey's Audio (APE) format is built into Total Recorder. You do not need to download any additional software or libraries to work with APE format.

The dialog looks like this:
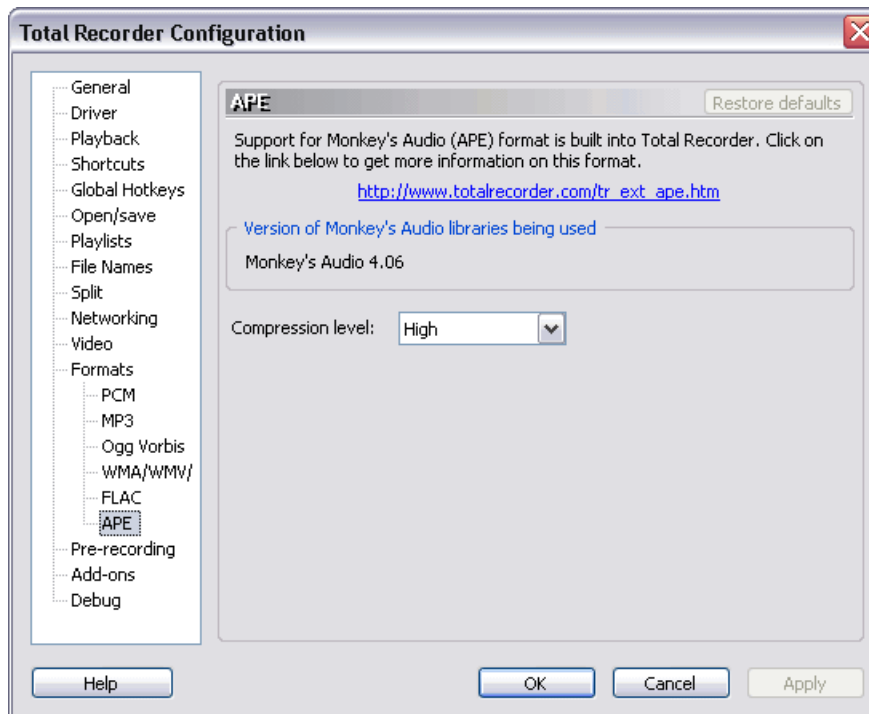
Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below.

Version of Monkey's Audio libraries being used

The version of Monkey's Audio libraries being used by Total Recorder is displayed in this box.

Compression level

Select the desired compression level when encoding to APE format. A higher compression level results in a reduction in the size of the compressed file, a slower encoding process, and higher usage of system resources.

> **Note.** To decrease the size of an ape file, you may wish to re-encode the file with the same format attributes (sample rate, number of channels, bit depth) but with a higher compression level. Follow these steps to do this:

1. Select a higher compression level on this dialog.

2. Open the source ape file.

3. Select "File "-" Save as…".

4. In the "Save As" dialog, click the "Change…" button.

5. Without making any changes, in the "Format Selection" dialog, click "OK".

6. In the "Save As" dialog, click the "Save button".

Note that because Monkey's Audio is a lossless codec, re-encoding an ape file does not lead to a loss of sound quality.

See also. How to work with APE format using Total Recorder.

3.2.19 Pre-recording Settings

The dialog looks like this:
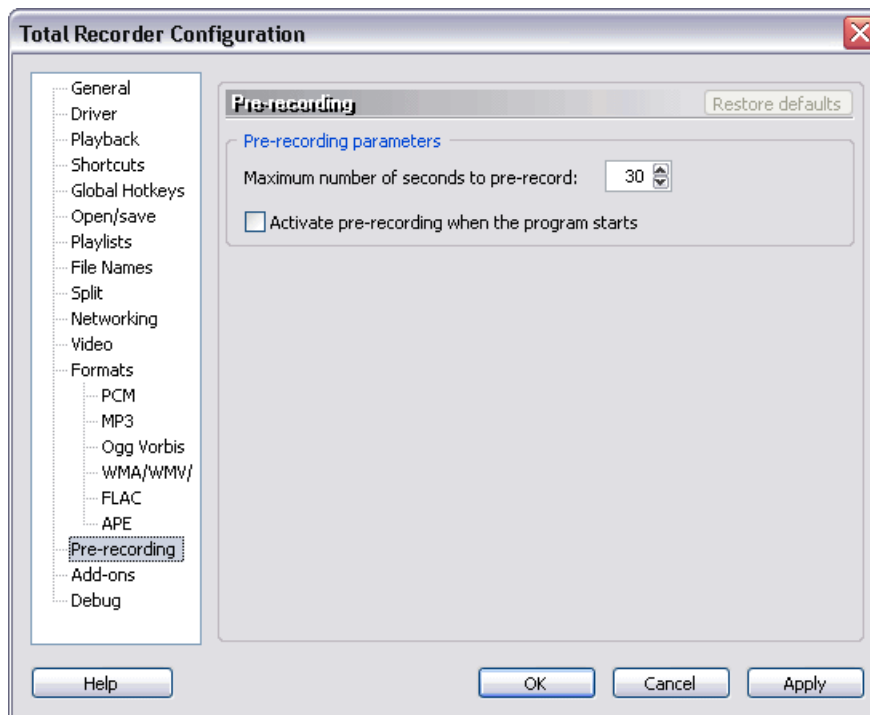
Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below.

Maximum number of seconds to pre-record

You can specify the maximum number of seconds to be pre-recorded in the box to the right.

Activate pre-recording when the program starts

When this box is checked, pre-recording mode activates automatically when Total Recorder starts.

For more information on pre-recording mode, refer to the "Pre-recording mode overview" section.

3.2.20 Add-on Settings

The dialog looks like this:
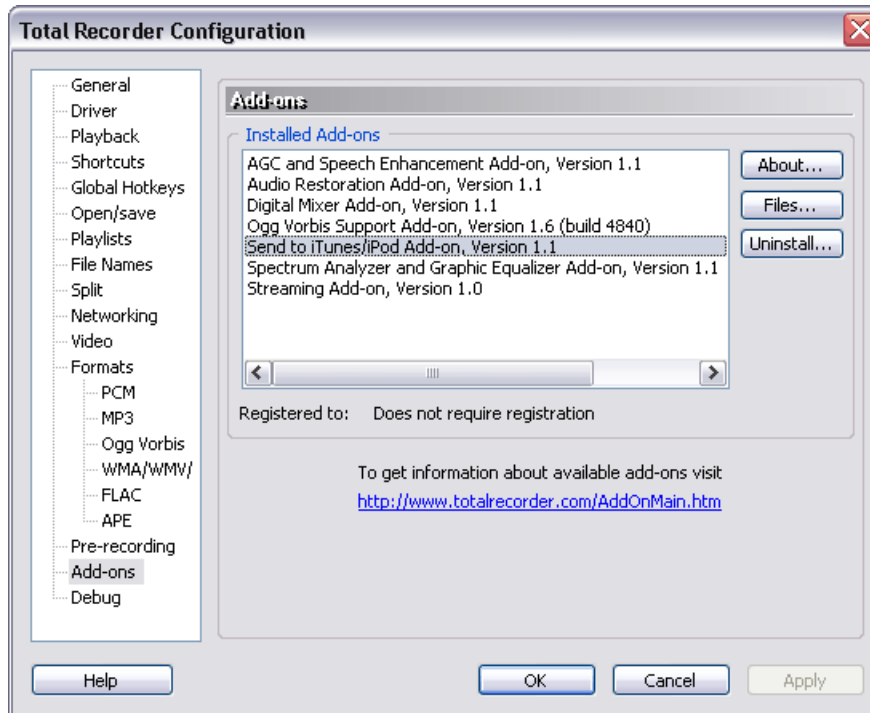
For the add-ons you have installed, you can display information and perform the following actions:

Installed Add-ons - list of all add-ons you have installed on your system.

About - Click this button to view information about the selected add-on.

Files - Click this button to view a list of files that belong to the selected add-on.

Uninstall - Click this button to uninstall the selected add-on.

Registered to - displays registration information for the selected add-on.

See also. Total Recorder Add-ons overview, Installing/uninstalling add-ons, Registering add-ons.

3.2.21 Debug Settings

The dialog looks like this:
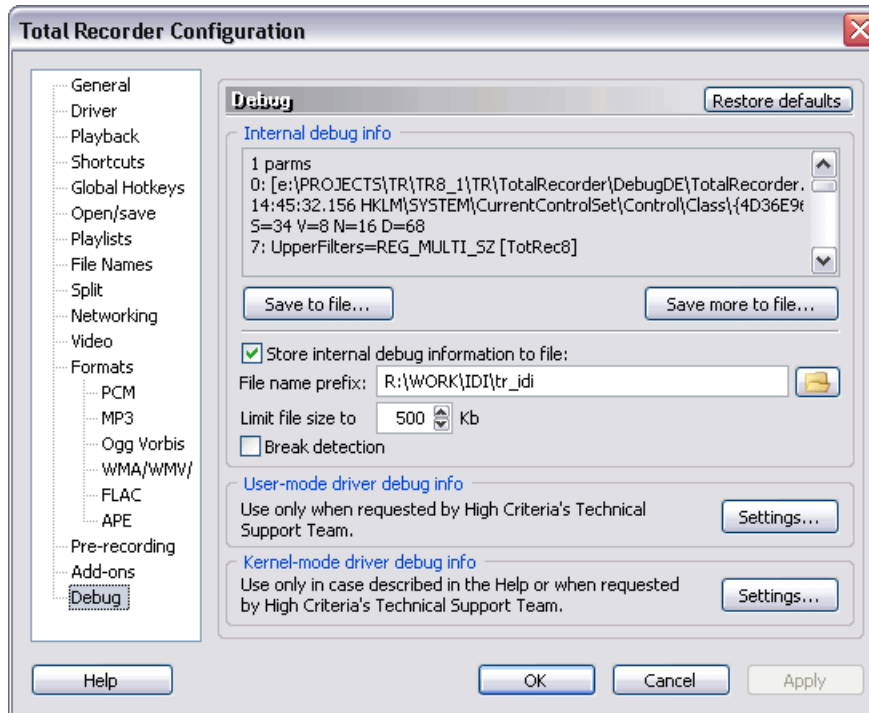
Restore defaults – Use this button to restore the default settings for this dialog. This button is disabled if the current dialog settings are the defaults.

Each of the configuration options is described below.

Internal debug info group

This box contains debug information that will help High Criteria's Technical Support staff diagnose a problem. If you experience a problem with Total Recorder that requires Technical Support, you should take the following steps:

1. As soon as the problem appears, click the "Save to file..." button to save information to a file.

2. Attach the saved file to your letter for Technical Support.

Note. Only use "Save more to file..." rather than "Save to file..." when advised by Technical Support.

It may be necessary for you to reproduce the problem in order to capture the debug information.

If you need to contact Technical Support because a box appears with an error message, you can copy the internal debug information, as follows:

1. Press the "Debug info>>" button in the error message box.

2. Use the Copy button to copy the debug information to the Clipboard.

3. You can then paste the information from the Clipboard into your correspondence with Technical Support.

Other options

Use the other options on this dialog only when advised by Technical Support. Enabling the "Store internal debug information to file" and "Break detection" options results in additional overhead on your system.

User-mode driver debug info

Use options from this group only when advised by Technical Support.

Kernel-mode driver debug info

Use options from this group only in the case described here or when advised by Technical Support.

3.3   Registering Total Recorder

After installing and verifying the program works properly, you should obtain a registration key from High Criteria.

If the program is unregistered:

- A short portion of noise is inserted into recorded sound about every one minute.

- You cannot process more than three files during batch processing (Professional, VideoPro, and Developer Editions only).

- When recording video, a mark is added to captured images (VideoPro and Developer Editions only).

Note: Beginning with version 6.0, all editions of Total Recorder use a new format of the registration keys. If you install version 8.5 over a registered version of Total Recorder that is older than 6.0, it will be unregistered until you enter a new registration key.

To register Total Recorder:

1. Receive the registration key.

   For registered users of any version below version 6.0. All registered users are entitled to a free registration key for the same edition. It is sent automatically by E-mail unless you specified that you do not want to receive E-mails from High Criteria or you have not provided your E-mail address. If you are a registered user wishing to upgrade, and you did not get your registration key, use the self-service registration key management system or contact support@totalrecorder.com.

   OR

   For registered users of any version of the Total Recorder Video Add-on. All registered users of the Total Recorder Video Add-on can upgrade to Total Recorder VideoPro Edition version 8.5 at no charge. Registration information for the Video Add-on can be used to register the VideoPro Edition.

   OR

   For new users and for registered users who want to upgrade to another edition. Follow the instructions given on High Criteria Inc.'s web site at the following address: http://hcserv1. highcriteria.com/Scripts/general/purchase.asp?product=trpeup.

   To **order by check**, refer to the Registration.txt file in the installation folder of Total Recorder.

2. Select "Help"-"Registration". Type in the same name you used to obtain the registration key and type your registration key. Note that after registration this menu item is not accessible.

Total Recorder Registration

Your name: Christopher Thompson

Your registration key: TRP4.WW2T.756Z.JU590.B3M4.THN7.XS2E.VQ5M.C54M.SUVC.VMR8.MRT

Buy Total Recorder (online registration):
http://www.totalrecorder.com/onlineReg.htm?id=trde
Lost your key? Click here:
http://hcserv1.highcriteria.com/scripts/getkey/getkey.asp

OK   Cancel   Help
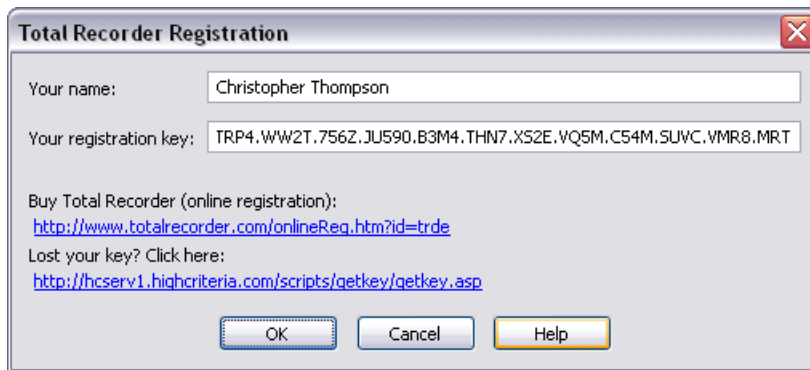
See also. How to restore a lost registration key, Registering add-ons.

3.4   Uninstalling Total Recorder

To uninstall Total Recorder, use "Start"-"Control Panel", "Add/Remove Programs" for Windows XP or "Programs - Programs and Features" (for Windows Vista and later). The Total Recorder driver remains in memory until you reboot.

3.5   Importing and Exporting Configuration Settings

Most of Total Recorder's configuration settings are stored in an XML file. You can export and import these settings. This may be useful, for example, if you need to reinstall your system and want to preserve your settings, or if you want your current settings to be set for another user on your computer.

To export your configuration settings:

1. From the "Options" menu, click "Export settings...".

2. Specify the name of the file to which you want to export your settings.

You can also export your configuration settings so that they can be used by all new users on your computer.

To export your settings for all new users:

• From the "Options" menu, click "Export settings for all new users".

In this case, your current settings will be exported to a file such as "C:\Documents and Settings\All Users\Application Data\TotalRecorder\TrSettings.xml". If Total Recorder is launched by a user that does not have his own settings, then this user will use the settings stored in this exported file.

Total Recorder determines which configuration settings to use for a particular user based on the following rules:

– Search the configuration-settings file for that user (e.g. "C:\Documents and Settings\<User>\Application Data\TotalRecorder\TrSettings.xml").

– If the configuration-settings file for that user is not found, search for a settings file for all users (e.g. "C:\Documents and Settings\All Users\Application Data\TotalRecorder\TrSettings.xml").

– If neither file is found then the default settings are used.

To import configuration settings from a file:

1. From the "Options" menu, click "Import settings...".

2. Specify the name of the file from which you want to import your settings.

Notes:

- Some settings may not be valid after importing. For example, some folders can be invalid in a different environment. You may need to adjust some of the settings manually after you import a configuration file.

- Configuration settings and the settings for scheduled jobs are stored separated. To export and import scheduled jobs, use the Scheduler window. See also Displaying and Controlling Scheduled Jobs.

4 How to... (Quick help)

Use the following links to quickly learn how to accomplish the described tasks.

How to record from a microphone.

How to record from tape or an LP player.

How to record an Internet transmission.

How to record an Internet transmission using Total Recorder's scheduler.

How to record Internet telephony.

How to Record Video from Screen/Software Video Player (VideoPro and Developer Editions only).

How to Record Video from Video Devices (VideoPro and Developer Editions only).

How to play or background record (capture) an Internet audio stream using Total Recorder (Professional, VideoPro, and Developer Editions only).

How to play or background record (capture) an Internet video stream using Total Recorder (VideoPro and Developer Editions only).

How to transfer files recorded with Total Recorder to CD.

How to work with MP3 format using Total Recorder.

How to work with Ogg Vorbis format using Total Recorder.

How to work with Windows Media Audio format using Total Recorder.

How to work with FLAC format using Total Recorder.

How to work with Monkey's Audio (APE) format using Total Recorder.

How to work with FLV files using Total Recorder (VideoPro and Developer Editions only)

How to work with MPEG-4, 3GP and MOV files using Total Recorder

How to convert an audio file to another format.

How to convert a video file to another format (VideoPro and Developer Editions only).

How to select the optimal sound format.

How to select the optimal video format (VideoPro and Developer Editions only)..

How to get and use clip info from an external player (Professional, VideoPro, and Developer Editions only).

How to restore a lost registration key.

4.1 How to record from a microphone

Take the following steps to record from a microphone:

1. Make sure that your microphone is connected to the mic jack of your soundcard.

2. After starting Total Recorder, in the main toolbar, click the "Parameters..." button. The "Recording

source and parameters" dialog appears. Indicate you want to record "Audio", and make the following settings on the Audio tab:

- Set your recording source to "Sound board".

- Select the device, from the list at the right, to which the microphone is connected.

- Select "Use this line", and choose "Microphone" from the list at the right. Note that the name of the line may differ depending on your sound board.

- Use the "Change" button to set the desired recording format (see "How to select the optimal sound format").

   Press "OK".

3. Press "Record".

4. To adjust the recording volume, use the "Level" slider from the "Playing volume and recording level" panel. To tune the recording level, you can also use the Automatic Recording Level Adjustment feature.

Note:

Soundboards often have additional ways to increase volume when recording from a microphone. To access it, use the Playing volume and recording level Dialog (to activate the dialog, click the "Playing volume and recording level" button (   ) on the Playing volume and recording level panel). In the "Advanced microphone settings" group, check the appropriate flag (i.e. "Microphone Boost", "Gain Control", or similar). Often microphone volume can be increased through your system settings, or by using configuration utilities provided by sound board manufacturers.

See also. Setting recording parameters, Recording overview, Using the Playing volume and Recording level Panel, Using the Playing Volume and Recording Level Dialog, Using Automatic Recording Level Adjustment, Using the Recording Wizard.

4.2   How to record from tape or an LP player

Take the following steps to record from tape or an LP player:

1. Make sure that your player is connected to the line-in jack of your sound card (rather than the microphone). You should be able to hear the sound through your computer's speakers. If you can't hear the sound then make sure that the "Mute" box for this line in the system mixer is not checked and that the volume for this line is adjusted correctly. You can launch the system mixer by clicking the "System mixer" button (   ) from the "Playing volume and recording level" panel).

2. After starting Total Recorder, in the main toolbar, click the "Parameters..." button. The "Recording source and parameters" dialog appears. Indicate you want to record "Audio", and make the following settings on the Audio tab:

- Set your recording source to "Sound board".

- Select the device, from the list at the right, to which the LP player is connected.

- Select "Use this line", and choose "Line-in" from the list at the right. Note that the name of the line may differ depending on your sound board.

- Use the "Change" button to set the desired recording format (see "How to select the optimal sound format").

   Press "OK".

3. Press "Record".

4. To adjust the recording volume, use the "Level" slider from the "Playing volume and recording level" panel. To tune the recording level, you can also use the Automatic Recording Level Adjustment feature.

See also. Setting recording parameters, Recording overview, Using the Playing volume and Recording level Panel, Using the Playing Volume and Recording Level Dialog, Using Automatic Recording Level Adjustment, Using the Recording Wizard.

4.3   How to record an Internet transmission

1. After starting Total Recorder, in the main toolbar, click the "Parameters..." button. The "Recording source and parameters" dialog appears. Indicate that you want to record "Audio", and make the following settings on the Audio tab:

   - Set your recording source to Software.

   - In the "Recording format" group, click the "Change..." button and specify the desired target format (see "How to select the optimal sound format").

   Press "OK".

2. Press "Record". Total Recorder starts recording sound data when the Internet transmission starts.

3. Launch the Internet transmission. Make sure you hear sound from your speakers.

4. To adjust the recording volume, follow these recommendations:

   - Set the recording level to 100% (+0 dB) (use "Level" slider from the "Playing volume and recording level" panel).

   - Some programs have playing volume regulators that affect the recording level. If you need to set the playing volume to maximum, try to regulate the playing volume of the recording by changing the playing volume in Total Recorder (use "Vol." slider on the "Playing volume and recording level" panel) and in the System Mixer (use "System mixer..." button ( ) on the "Playing volume and recording level" panel).

   - If, after these recommendations, the recording level is not acceptable, try to regulate the recording level using the "Level" slider from the "Playing volume and recording level" panel.

You may wish to make a recording using Total Recorder's scheduler and its minibrowser. For more information, refer to Using a Scheduler overview.

See also. Setting recording parameters, Recording overview, Using the Playing volume and Recording level Panel, Using the Playing Volume and Recording Level Dialog, Using Automatic Recording Level Adjustment, How to record an Internet transmission using the Total Recorder's scheduler, How to play or background record (capture) an Internet audio stream using Total Recorder, Using the Recording Wizard.

4.4   How to record an Internet transmission using Total Recorder's scheduler

Note that there is a difference amongst the different editions of Total Recorder with regard to scheduled recordings of Internet transmissions.

In Standard Edition, you cannot schedule an auto-start of a required transmission. It must either be started in advance and be active during the scheduled job, or you could use an external program to launch it at the required time.

In the Professional, VideoPro, and Developer Editions the scheduler starts and closes the transmission automatically. The mini-browser allows Total Recorder to connect to any pre-defined Internet site and invoke the applicable player to play an Internet transmission. It eliminates the requirement for users to leave their browsers active and connected to a website when they have scheduled recordings of Internet transmissions.

To record an Internet transmission you should either obtain the full URL of the transmission, or tune Total Recorder's minibrowser on to this transmission.

Some ways to obtain the full URL of the transmission are:

- **If the transmission is played in Internet Explorer's window.**
  - Look at the "Address" field of Internet Explorer's window. The field may contain the URL of the transmission.
  - Press CTRL+D to add a link to the "Favorites" folder in Internet Explorer, and then check the "Favorites" to get the complete address.
  - If the transmission is played in the Internet Explorer window (i.e. by an ActiveX® control), try to extract transmission information from the control. Sometimes pressing the right mouse button in the control and selecting "Properties" can help.

- **If the transmission is played by a player (e.g. Windows Media Player, Real One Player, WinAmp, etc.)**
  - Refer to the player's documentation for information about playing clips. You may find the appropriate menu item by looking through the player's menus.

Use one of the following methods to record an Internet transmission using Total Recorder's scheduler.

If you can obtain the full URL of the transmission that you wish to record, take the following steps:

1. Open the "Schedule Item – Advanced" Tab by taking the following steps: Select "Tools"-"Scheduler" (or press the 🕐 button in the main toolbar), press the "New" button in the "Play/Record Schedule" dialog, and click on the "Advanced" tab.
2. Enter the URL in the "Run" field.
3. Fill in other fields on the "Schedule Item" tabs as required. For additional information on the dialog settings, refer to the "Scheduling a Job" section.
4. Press "OK".
5. Press "Apply" or "OK" in the "Play/Record Schedule" dialog. The job is now scheduled.

If you cannot obtain the full URL of the transmission that you wish to record, take the following steps:

1. Open the "Schedule Item – Advanced" Tab by taking the following steps: Select "Tools"-"Scheduler" (or press the 🕐 button in the main toolbar), press the "New" button in the "Play/Record Schedule" dialog, and click on the "Advanced" tab.
2. Enable the "Connect to Website and Play Internet transmission" option, and press the "Tune…" button. This launches Total Recorder's minibrowser.
3. Go to the page from which you can immediately launch playing. In the "Address" field, specify the URL you want to go to, and press the "Enter" or "Go" button.
4. Press the "Capture transmission" button.
5. Click a link to start playing.
6. Answer "Yes" to the question "Save URL … as location to play?". The "Name", "Base page", and "Play address" fields in the "Transmission to play" group are filled in automatically.
7. Press the "Play" button to check if your transmission is being captured correctly. Press "OK" to go back to the "Schedule Item" dialog.
8. Fill in other fields on the "Schedule Item" tabs as required. For additional information on the dialog settings, refer to the "Scheduling a Job" section.
9. Press "OK".
10. Press "Apply" or "OK" in the "Play/Record Schedule" dialog. The job is now scheduled.

Make the same settings in the "Recording source and parameters" dialog as described in the How to record an Internet transmission section.

After a job has been scheduled, you can close Total Recorder. The Scheduler will launch a program at the start time, connect to the web site, launch the transmission, and record it.

Note: If you have the full URL of the transmission that you wish to record, you can also launch the transmission by entering the URL in the "Play address" field of the minibrowser. In some cases, using the minibrowser may prevent the window of an external player from appearing.

See also. How to record an Internet transmission, Using a Scheduler overview, Scheduling a Job, Tuning into Internet Transmissions.

4.5   How to record Internet telephony

Take the following steps to record from Internet telephony:

1. After starting Total Recorder, in the main toolbar, click the "Parameters..." button. The "Recording source and parameters" dialog appears. Indicate that you want to record "Audio", and make the following settings on the Audio tab:

   • Set your recording source to "Software".

   • Press the "Advanced…" button. Select the "Record also input stream (Internet telephony only)" check box in the "Advanced parameters for Software recording" dialog. Press "OK".

   • In the "Recording format" group, click the "Change..." button and specify the desired target format (see "How to select the optimal sound format").

   Press "OK".

2. Press "Record".

3. Start the Internet conversation using a program such as Skype, GoogleTalk, etc.

4. To adjust the recording volume, use the "Level" slider from the "Playing volume and recording level" panel. It is recommended you set the recording level to 100% (+0 dB).

See also. Setting recording parameters, Recording overview, Using the Playing volume and Recording level Panel, Using the Playing Volume and Recording Level Dialog, Using Automatic Recording Level Adjustment, Using the Recording Wizard.

4.6   How to record video from screen/software video player (VideoPro and Developer Editions only)

Follow this link to get information on how to use Total Recorder to record video from a screen/software video player.

Caution. Total Recorder, like other video recording software, cannot record screen video that is reproduced using hardware acceleration. Hardware acceleration is used by the majority of video playback programs, such as Windows Media Player, QuickTime, etc., for faster and smoother playback of movies. However, you can record this type of video after you turn off hardware acceleration. To turn off hardware acceleration, from Total Recorder's main menu, select "Tools"-"Turn video acceleration off". You can also turn off hardware acceleration through system settings and within some applications. Note that hardware acceleration should be turned off before a video player is launched.

See also. Recording overview, Setting Recording Parameters, How to Record Video from Video Devices, Working with video files.

4.7 How to record video from video devices (VideoPro and Developer Editions only)

Follow this link to get information on how to use Total Recorder to record video from a video device.

See also. Recording overview, Setting Recording Parameters, How to Record Video from Screen/ Software Video Player, Supported hardware video devices, Working with video files.

4.8 How to play or background record (capture) an Internet audio stream using Total Recorder (Professional, VideoPro, and Developer Editions only)

Internet audio streams can be played back through Total Recorder, in which case Total Recorder acts similarly to other players such as WinAmp, Windows Media Player, etc. Total Recorder can also be used to record these streams, using a 'background recording' process.

Playing an Internet stream

To play an Internet stream, take the following steps:

1. Verify that your network settings are correct in the "Options"-"Settings"-"Networking" dialog.

2. Ensure that you are connected to the Internet.

3. From the "File" menu, click "Open URL", or click the button. In the "URL" field on the "Open URL" dialog, enter the URL you want to open. Alternatively, you can open a URL by opening a remote item from a playlist or through your Favorites list.

4. Press the Play button ( ).

Note. If you stop the playback of an Internet stream, you can restore the received data using an "Undo" operation.

Background recording of an Internet stream

In Total Recorder terms, the direct recording of an Internet stream, without using an external player, is called background recording.

To background record an Internet stream, take the following steps:

1. Verify that your network settings are correct in the "Options"-"Settings"-"Networking" dialog.

2. In the "Options"-"Settings"-"Split" dialog, determine whether you should select the "Create a new track separator for new clip info. during background recording" check box.

3. Ensure that you are connected to the Internet.

4. From the "File" menu, click "Open URL", or click the button. In the "URL" field on the "Open URL" dialog, enter the URL you want to open. Alternatively, you can open a URL by opening a remote item from a playlist or through your Favorites list. After a URL has opened, the picture on the "Record" button changes to .

5. To start background recording the Internet stream, from the "Play/Record" menu, select "Record", or click the button. After background recording starts, the picture on the "Stop" button changes to .

6. To stop background recording, from the "Play/Record" menu, select "Stop", or click the button.

7. You can save the recorded stream just as you would any other recording.

Notes:

- You can record and play an Internet stream at the same time. If you start background recording

during playback, the data that has already been received will be pre-pended to the recorded data. If you start playback while background recording, this does not affect the recording process and the recording will continue normally.

- You can record an Internet stream using the scheduler or auto-stop mode.

- Background recording of several streams in different instances of Total Recorder can take place at the same time without the recording sessions interfering with each other. This means that you can schedule a number of overlapping background recordings.

See also. How to record an Internet transmission, How to play or background record (capture) an Internet video stream using Total Recorder, Background recording (capturing) and playing of Internet streams.

4.9 How to play or background record (capture) an Internet video stream using Total Recorder (VideoPro and Developer Editions only)

Working with video Internet streams in Total Recorder is similar to working with audio streams. Refer to the "How to play or background record (capture) an Internet audio stream using Total Recorder" section for more information. Also take into account the following when working with video streams:

- Only the following video streams are supported:
  – Video streams in Windows Media Video (WMV) format.
  – Video streams in FLV format transmitted using HTTP.

- You cannot reposition while background recording (e.g. rewind and fast-forward are disabled). Only the "Go to start" operation is allowed. If you stop playback while background recording, you will be able to restart playback only from the starting position of the recorded data.

There are detailed instructions on the Total Recorder web site: Background Recording of Video.

See also. How to play or background record (capture) an Internet audio stream using Total Recorder, Background recording (capturing) and playing of Internet streams, Working with video files.

4.10 How to transfer files recorded with Total Recorder to CD

To transfer files recorded with Total Recorder to CD, you need a CD burner to write the CDs and software to control the CD burner. Usually, the software to control the CD burner comes packaged with the burner.

When writing to a CD, the software program that controls the burner asks if you want a music CD or a data CD. If you choose a music CD then the software converts the source file to CDA format and the resulting CD can be played on a home or car stereo.

Usually you need CD-quality wav files (i.e. PCM 44.1KHz 16bit Stereo) to put them to a music CD. Some CD burning software can accept other formats and it automatically converts them to the required format. To record in this format, in the Recording source and parameters dialog, click the "Change..." button in the "Recording format" group, and select the CD-quality format. To convert an existing file, open it in Total Recorder, click "Save As", click the "Change" button, and select the CD-quality format.

If you specify that you want a data CD then the program retains the file type without any conversion. If you plan to listen to a data CD on a hardware player, make sure that the format of the audio file will be accepted by your player. Refer to your player's manual for a list of supported audio formats.

See also. Setting recording parameters, Recording overview, Saving a Recording, How to record from a microphone, How to record from tape or an LP player, How to record an Internet transmission, How to record Internet telephony, How to convert an audio file to another format, How to select the optimal sound format.

4.11 How to work with MP3 format using Total Recorder

Playing MP3 files

To play MP3 files, Total Recorder needs an external decoding program called codec. It is likely this codec exists on your operating system. If this is not the case, you will receive an error message when you try to play an MP3 file. You may download the codec (decoder only) free of charge (see http://www.totalrecorder.com/tr_ext_mp3.htm).

Recording MP3 files

To record in MP3 format, Total Recorder needs the external encoding engine in the form of a codec or an external DLL.

To check what encoding engines are present in your system, take the following steps:

- Select "Options"-"Settings"-"MP3".

- The drop-down list, "Select program for encoding to MP3", contains the following:
  - A list of codecs that were found on your computer.

    Each version of Windows includes a basic set of codecs. It is possible that there is no codec for MP3 encoding in your system. In this case, "Unable to encode MPEG Layer 3" appears in the list. Users can download, or buy and install, additional codecs.

  - A list of supported external MP3 encoders:
    – Blade encoder (dll)
    – Lame encoder (dll)

    Users can download one of these encoders. The Lame encoder is recommended. It is the only supported encoder that will produce VBR (Variable Bit Rate) MP3 files.

    For more information on how to obtain a codec or an external encoder, refer to http://www.totalrecorder.com/tr_ext_mp3.htm.

- Select the required codec or encoder from the list. Now, you are able to select the MP3 format.

MP3 encoders, including codecs, BladeEnc.dll, and Lame_Enc.dll, differ in price, speed and quality. Use the one you find most suitable.

To convert to MP3 on the fly

Take the following steps:

1. Click the "Recording source and parameters" button ( ).
2. At the bottom of this screen, in the "Recording format" group, click the "Change..." button. The Format Selection dialog appears.
3. Click the Audio tab.
4. Select the "Convert audio format to the one specified below" check box, and select "MPEG Layer 3" from the drop-down list of formats.
5. Select the desired attributes for MP3 format.
6. Click OK twice.

Now, when you press "Record", the file should convert automatically to MP3 format.

To convert to MP3 when you save

Take the following steps:

1. Select "Save As..." from the File menu.
2. Click the "Change" button. The Format Selection dialog appears.

3. Click the Audio tab.

4. Select the "Convert audio format to the one specified below" check box, and select "MPEG Layer 3" from the drop-down list of formats.

5. Select the desired attributes for MP3 format.

6. Click OK and "Save".

You can also use the Recording Wizard to facilitate recording in MP3. If you use the wizard to record in MP3 format, then the wizard will check your current MP3 settings and give you recommendations if necessary.

See also. How to convert an audio file to another format, How to select the optimal sound format, Working with MP3 format.

4.12   How to work with Ogg Vorbis format using Total Recorder

Take the following steps to add support for the Ogg Vorbis format to Total Recorder:

1. Download the "Ogg Vorbis Support Add-on" from http://www.totalrecorder.com/tr_ext_ogg.htm.

2. Install the add-on.

After installing the add-on, you can start Total Recorder, and select "Options"-"Settings"-"Ogg Vorbis" to display information about the version of the add-on and the engine used by this add-on.

See also. How to convert an audio file to another format, How to select the optimal sound format, Working with Ogg Vorbis Format.

4.13   How to work with Windows Media Audio format using Total Recorder

For Total Recorder to support Windows Media Audio formats, you either install Windows Media Player 9 series (or later). After completing the above step, you are ready to play and record Windows Media Audio files.

Caution. Total Recorder does not support DRM (digital right management)-protected files. If you try to open a DRM-protected file in Total Recorder, an error message appears.

To check if you can play and record Windows Media Audio files, select "Options"-"Settings"-"WMA" and review the version information for the Windows Media Audio support libraries.

To make a recording using one of the Windows Media Audio 9 codecs, select an appropriate format (with a name that begins with "WMA Codecs:") in the Audio tab of the Media Format dialog.

Note: Editing a Windows Media Audio file can be inaccurate. This is particularly noticeable within a couple of tenths of a second for every "slice point". It is not recommended you perform editing operations of Windows Media Audio files if you want accurate editing. If you plan to edit sound data and wish to have the result in Windows Media Audio format, it is recommended you record in an uncompressed format, edit the data, and then save it in the desired Windows Media Audio format.

See also. How to convert an audio file to another format, How to select the optimal sound format, Working with tags.

4.14   How to work with FLAC format using Total Recorder

FLAC is a lossless audio codec. Lossless means that if you encode uncompressed (PCM) data into FLAC format and then decode the resulting flac file, the decoded file will be exactly the same as the original PCM file.

Go to the following link to learn more about FLAC format: http://flac.sourceforge.net/

Support for FLAC format is built into Total Recorder. You do not need to download any additional software or libraries to work with FLAC format. Total Recorder Version 8.5 supports FLAC format based on version 1.2.1 of the FLAC libraries. Note that Total Recorder supports FLAC files only in "native" flac format; ogg-flac files are not supported.

Playing FLAC files

To play a flac file, simply open the flac file and press the "Play" button. Flac files generally have the "flac" or "fla" extension.

Converting to FLAC format

Prior to converting to FLAC format, select "Options"-"Settings"-"FLAC", and set the default flac file extension and the compression level.

To convert to FLAC format on the fly (when recording)

Take the following steps:

1. Click the "Recording source and parameters" button (Parameters...).
2. At the bottom of this screen, in the "Recording format" group, click the "Change..." button. The Format Selection dialog appears.
3. Click the Audio tab.
4. Select the "Convert audio format to the one specified below" check box, and select FLAC from the drop-down list of formats.
5. Select the desired format attributes in the drop-down list of attributes.
6. Click "OK" twice.

Now, when you press "Record", the file should automatically convert to FLAC format.

To convert to FLAC format when you save a file

Take the following steps:

1. Select "Save As..." from the File menu.
2. Click the "Change" button. The Format Selection dialog appears.
3. Click the Audio tab.
4. Select the "Convert audio format to the one specified below" check box, and select FLAC from the drop-down list of formats.
5. Select the desired format attributes in the drop-down list of attributes.
6. Click OK and "Save".

See also. How to convert an audio file to another format, How to select the optimal sound format, Working with tags.

4.15 How to work with Monkey's Audio (APE) format using Total Recorder

Monkey's Audio is a lossless audio codec. Lossless means that if you encode uncompressed (PCM) data into Monkey's Audio format and then decode the resulting ape file, the decoded file will be exactly the same as the original PCM file.

Go to the following link to learn more about Monkey's Audio (APE) format: http://www.monkeysaudio. com/

Support for Monkey's Audio (APE) format is built into Total Recorder. You do not need to download any additional software or libraries to work with APE format. Total Recorder Version 8.5 supports APE format based on Monkey's Audio SDK version 4.06.

Playing APE files

To play an ape file, simply open the file and click the "Play" button.

Converting to APE format

Prior to converting to APE format, select "Options"-"Settings"-"APE" and set the compression level.

To convert to APE format on the fly (when recording)

Take the following steps:

1. Click the "Recording source and parameters" button (● Parameters... ▼).

2. At the bottom of this screen, in the "Recording format" group, click the "Change..." button. The Format Selection dialog appears.

3. Click the Audio tab.

4. Select the "Convert audio format to the one specified below" check box, and select "Monkey's Audio (APE)" from the drop-down list of formats.

5. Select the desired format attributes in the drop-down list of attributes.

6. Click "OK" twice.

Now, when you press "Record", the file should automatically convert to APE format.

To convert to APE format when you save a file

Take the following steps:

1. From the File menu, select "Save As...".

2. Click the "Change" button. The Format Selection dialog appears.

3. Click the Audio tab.

4. Select the "Convert audio format to the one specified below" check box, and select "Monkey's Audio (APE)" from the drop-down list of formats.

5. Select the desired format attributes in the drop-down list of attributes.

6. Click OK and "Save".

See also. How to convert an audio file to another format, How to select the optimal sound format, Working with tags.

4.16   How to work with FLV files using Total Recorder (VideoPro and Developer Editions only)

Restrictions for FLV files in Total Recorder

FLV files can contain audio and video streams in various formats. Not all formats are supported by Total Recorder.

Total Recorder supports FLV files only with video streams in the following formats:

- Sorenson H.263 (FLV1)

- On2 VP6 (FLV4)

- AVC/H.264 (AVC1)

Total Recorder can create FLV files only with audio streams in the following formats:

- MP3

- PCM

The ability to play an audio stream in an FLV file depends upon the presence of appropriate codecs and DirectX-filters on your system.

Playing FLV files

To play an FLV file, Total Recorder needs an external decoding engine. This engine depends on the particular format of the file. The corresponding engine may already be installed in your system and you can successfully play FLV files. If Total Recorder indicates that an FLV file cannot be opened, this means the corresponding decoding engine is not installed. To resolve the problem, you can install free software such as FFDShow (see http://www.totalrecorder.com/tr_ext_flv.htm).

Recording FLV files

To record in FLV format, Total Recorder needs an external encoding engine. If you do not have such an engine, you can install one of the engines available for free, such as FFDShow (see http://www. totalrecorder.com/tr_ext_flv.htm).

The following steps assume you are using FFDShow.

To convert to FLV format on the fly

Take the following steps:

1. Click the "Recording source and parameters" button (Parameters...).
2. Indicate that you want to record Video or Audio+Video.
3. Select the sources for recording audio (if you record Audio+Video) and for recording video.
4. At the bottom of this screen, in the "Recording format" group, click the "Change..." button. The Format Selection dialog appears.
5. In the "File type (container)" field, select "FLV".
6. If you record Audio+Video, click the Audio tab and set the desired audio format.
7. Click the Video tab, and select "FFDShow video codec" in the drop-down list of codecs.
8. Configure FFDShow as described in the Video Format Selection for FLV section.
9. Click OK twice.

When you click "Record", the file should automatically convert to FLV format.

To convert to FLV format when you save a file

Take the following steps:

1. From the File menu, select "Save As...".
2. Click the "Change" button. The Format Selection dialog appears.
3. In the "File type (container)" field, select "FLV".
4. If you re-save a file with an audio stream, click the Audio tab and set the desired audio format.
5. Click the Video tab and select "FFDShow video codec" in the drop-down list of codecs.
6. Configure FFDShow as described in the Video Format Selection for FLV section.
7. Click OK and Save.

See also. Video Format Selection for FLV, Working with video files.

4.17   How to work with MPEG-4, 3GP and MOV files using Total Recorder

There is no need to install a third-party component to play or record MPEG-4, 3GP or MOV files. However, there are some restrictions you should be aware of when working with these types of files in Total Recorder.

The main restrictions are:

− Each of these file types is supported only on Windows 7 and later operating systems.

− Only files with AAC audio streams are supported.

− Encoding to an AAC audio format with only the following attributes is supported: 1 or 2 channels; 44100 or 48000 Hz; 96 kbit/s, 128 kbit/s, 160 kbit/s, or 192 kbit/s.

− For playback, only video files with AVC/H.264 or MPEG-4 part 2 video streams are supported (VideoPro and Developer Editions only).

− Playback of video files with AVC/H.264 video streams can only be done at normal (x1) speed (VideoPro and Developer Editions only).

− While saving files or performing recording, only encoding to AVC/H.264 video format is available (VideoPro and Developer Editions only).

− An MOV file cannot be created. You can only playback MOV files or re-save them in another container.

− If a video file has several audio streams then Total Recorder can preserve only one of them when re-saving the file (VideoPro and Developer Editions only).

− If an MPEG-4, 3GP or MOV video file contains B-frames, then these frames will be lost when re-saving the file without conversion (VideoPro and Developer Editions only).

− A file greater in size than 4GB cannot be created.

For more technical information on specific restrictions, refer to the following:

− For AAC decoder: http://msdn.microsoft.com/en-us/library/dd742784(v=VS.85).aspx.

− For AAC encoder: http://msdn.microsoft.com/en-us/library/dd742785(v=VS.85).aspx.

− AVC/H.264 Video Decoder: http://msdn.microsoft.com/en-us/library/dd797815(v=VS.85).aspx.

− AVC/H.264 Video Encoder: http://msdn.microsoft.com/en-us/library/dd797816(v=VS.85).aspx.

See also. How to convert an audio file to another format, How to select the optimal sound format, Working with tags, Video Format Selection for MPEG-4 and 3GP, Working with video files.

4.18   How to convert an audio file to another format

There are two ways you can convert an audio file to another format. If Total Recorder can open and play the source file, take the following steps:

1. Open the source file in Total Recorder.

2. Select the "File"-"Save as..." menu.

3. In the "Save as" dialog, click the "Change" button, and select the desired target file type and format in the Format Selection dialog (see also "How to select the optimal sound format").

4. Click the "Tag" button, and specify the file tag.

5. Press the "Save" button.

If Total Recorder cannot open and play the source file (this may be the case if the source file has a rare sound format), use the instructions in the How to record an Internet transmission section. Instead of a program that plays Internet transmission, a program that can play the source file is used.

Note for Professional, VideoPro, and Developer Edition users. You can change the sound format for a group of files. To learn more about processing a group of files, refer to the Batch Processing Overview section.

See also. Setting recording parameters, Recording overview, How to record an Internet transmission, How to select the optimal sound format, How to work with MP3 format using Total Recorder, How to work with Ogg Vorbis format using Total Recorder, How to work with Windows Media Audio format using Total Recorder, How to work with FLAC format using Total Recorder, How to work with Monkey's Audio (APE) format using Total Recorder.

4.19 How to convert a video file to another format (VideoPro and Developer Editions only)

Take the following steps to convert a video file:

1. Open the source file in Total Recorder.
2. Select the "File"-"Save as..." menu.
3. In the "Save as" dialog, click the "Change" button, and select the desired target file type and format in the Format Selection dialog.
4. Click the "Tag" button, and specify the file tag.
5. Press the "Save" button.

More detailed instructions are available on the Total Recorder web site: How to Convert Video Using Total Recorder.

If Total Recorder cannot open and play the source file because it doesn't support its format, you can try to play the video file using an external player and then re-record it in Total Recorder (see How to Record Video from Screen/Software Video Player). Using this conversion method will result in the quality of the target file being worse than the quality of the source file.

See also. Setting recording parameters, Recording overview, Working with video files.

4.20 How to select the optimal sound format

To select the target sound format for recording or converting a sound file, follow these recommendations:

- Consider the requirements based on how the target file will be used (e.g. target file is to be transferred to CD).

- Consider the sound format of the source. It is not necessary (see previous remark) to choose a target sound format with a higher quality than the source sound format. This only leads to an increase in the size of the target file.

- Make a test recording/conversion and choose the target format with an acceptable ratio of target size and quality. Generally, the better the format quality, the larger the target file.

If you record in Software mode, you can try to record without conversion, and then save the recording using various target formats. After listening to the recorded file, you can determine the desired sound format. Record from the same source and convert it to the determined sound format.

You can use the following table to select the target sound format based on characteristics of the recorded (source) sound.

Format	Attributes	Megabytes per hour (approximate)	Characteristics of source sound

DSP TrueSpeech	8.0kHz,1 bit, mono	4	Low-quality voice recording
MP3	11.5kHz, 16kBit/s mono	4.5	Low-quality Internet music
MP3	22.05kHz, 56kBit/s, stereo	25	Middle-quality Internet music
MP3	44.1kHz, 128kBit/s, stereo	56	Near high-quality recordings
A lossless format	44.1kHz,16 bit, stereo	350 (but this strongly depends on the audio data)	Lossless reserved copies of audio CD
PCM	44.1kHz,16 bit, stereo	600	High-quality (CD quality) recordings
PCM	96kHz, 24 bit, stereo (available for Professional, VideoPro, and Developer Edition users only)	1978	DVD Audio, Super Audio CD recordings

Lossless compression

A lossless codec compresses sound data resulting in a smaller sound file that has exactly the same quality as the original file. Normally, a sound file compressed by a lossless codec has a larger size than that compressed by a non-lossless codec.

Lossless codecs differ in the speed, degree of compression, and the sound formats they support. You can use Total Recorder for lossless compression by encoding to Windows Media Audio 9 Lossless format (see "How to work with Windows Media Audio format using Total Recorder"), to FLAC format (see "How to work with FLAC format using Total Recorder"), or to Monkey's Audio (APE) format (see "How to work with Monkey's Audio (APE) format using Total Recorder").

Note that it doesn't make sense to apply lossless compression to a file which was encoded using a non-lossless codec. Such action most likely will only result in a larger sound file.

See also. Setting recording parameters, Recording overview, How to convert an audio file to another format, Working with MP3 format, Working with Ogg Vorbis Format, How to work with Windows Media Audio format using Total Recorder, How to work with FLAC format using Total Recorder, How to work with Monkey's Audio (APE) format using Total Recorder.

4.21   How to select the optimal video format (VideoPro and Developer Editions only)

Read the Primer on Digital Video Recording online document for information on selecting the target video format for recording or converting.

See also. Working with video files.

4.22   How to get and use clip info from an external player (Professional, VideoPro, and Developer Editions only)

Take the following steps to automatically create a new file each time your player starts to play a new clip (file):

1. Select "Options"-"Settings"-"Split".
2. Select the "Automatically create a new file for each recording session" check box.
3. Select the "Split mode. Automatically create a new file based on:" check box.
4. Press the "Conditions..." button. The "Split recording conditions" dialog appears.
5. Choose one of the following options based upon your player.

   Option 1

   • Ensure each of the following checkboxes are checked:

   "for each new sound format (fixed option)";
   "for each software sound stream".

   • Ensure all other checkboxes are not checked.

   This option is recommended if your player plays each clip (file) through a different stream. The recording will be split precisely and efficiently. However, if your player plays all clips in one stream then the recording will not be split. To find out if this option is suitable, conduct a test.

   Option 2

   • Ensure each of the following checkboxes are checked:

   "for each new sound format (fixed option)";
   "when clip info in external player is changed".

   • Ensure all other checkboxes are not checked.

   Setting a lower value in the "Check state of players every XXX milliseconds" box results in more precise splitting but a greater load on your processor.

   It is also recommended you select a particular player in the "Check state of these external players" list. Selecting "[All known players]" results in additional processor load and incorrect behaviour when more than one player is running.

   See also: Extracting clip info from players.
5. Press "OK" twice.
6. Make a recording.

Take the following steps to copy clip info (Title and maybe Artist and other fields) from an external player to the tag(s) of the file to be recorded:

1. Ensure that a new file is automatically created each time your player starts to play a new clip (See instructions above).
2. Turn on "use clip info from external player for created file tag and name". Select a player from the "Check state of these external players" list.

   See also. Extracting clip info from players.
3. Take the following steps:

   • Select "Options"-"Settings"-"Formats".

   • Select the "Create tag as specified" check box, and click the "Tag" button.

   • When creating an MP3 file, select "Include ID3v1 tag in file", "Include ID3v2 tag in file", or both in the "ID3v1" and "ID3v2" tabs of this dialog box. For more information, see the "Working with tags" section.

   • Complete the fields as required.

   • Press OK twice.

Take the following steps to create files with names that are generated based

on clip info (Title and maybe Artist and other fields) from an external player:

1. Ensure a new file is automatically created each time your player starts to play a new clip (See instructions above).

2. Turn on "use clip info from external player for created file tag and name". Select a player from the "Check state of these external players" list (see Using the Split recording conditions Dialog).

   See also: Extracting clip info from players.

3. Select "Options"-"Settings"-"Split". Choose an appropriate rule for generating file names based on tag fields. To create a new rule, or to edit an existing rule, use the "File Names" dialog.

4.23   How to restore a lost registration key

If you lost your registration key, use the self-service registration key management system at: http://hcserv1.highcriteria.com/scripts/getkey/restorekey.asp.

See also. Registering Total Recorder.

5   Using Total Recorder

5.1   The Total Recorder Main Window

Note that the **"How to..."** section contains a quick reference for accomplishing different tasks. The Troubleshooting Overview section contains information to help you troubleshoot problems.

The Total Recorder main window is made up of many different parts, as shown below:
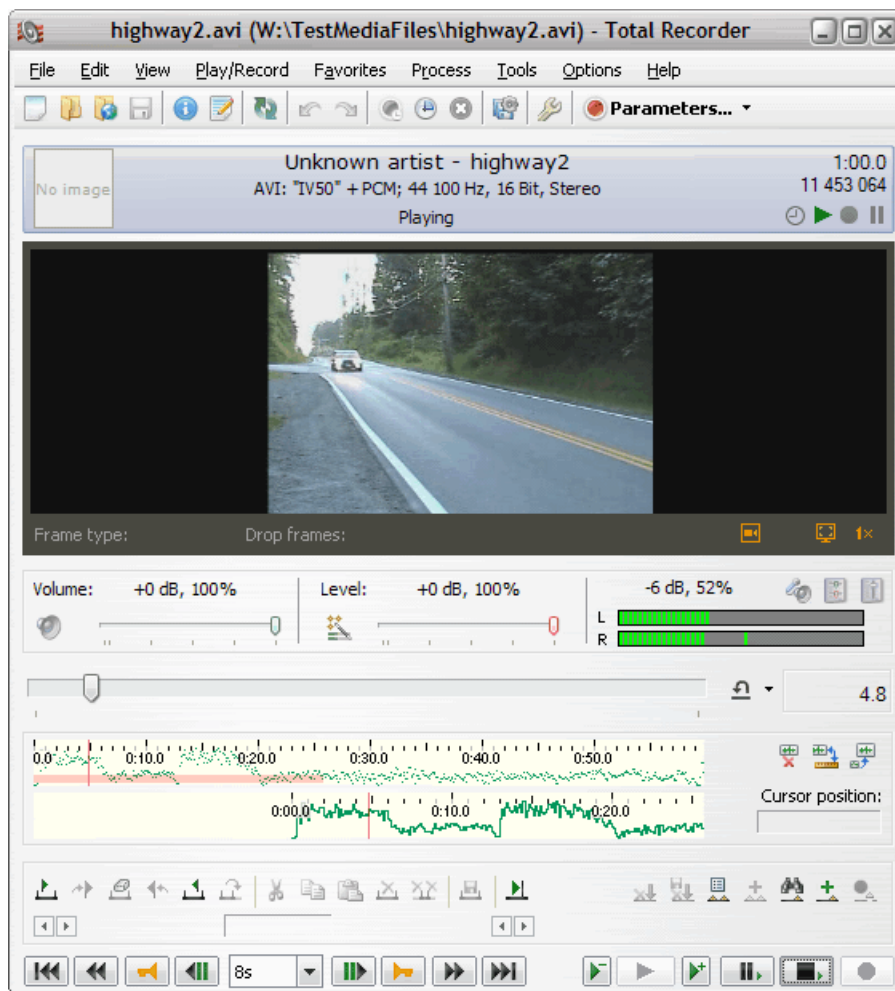
Main Toolbar

The main toolbar gives quick access to commonly used functions. See Main toolbar for a detailed description. To show/hide the main toolbar, use "View"-"Show Main Toolbar".

Information Panel

This part of the dialog displays information about the current file being played or recorded, and the current status of Total Recorder. See Information Panel for details. To show/hide this panel, use "View"-"Show Information Panel".

Video Panel (VideoPro and Developer Editions Only)

This part of the dialog displays video and some video-related information, and provides access to video-related functions. See Video Panel for details. The option "View"-"Always Show Video Panel" affects when this panel appears.

Volume and Level Panel

This panel has controls you can use to set the playing volume and the recording levels. To show/hide this panel, use "View"-"Show Volume and Level Panel". For more information on this panel, refer to the Volume and Level Panel.

Slider Panel

This panel contains a slider, displays the current position, and has the "Jump to time" control. For more information on this panel, refer to the Slider Panel.

Sound Image and Ruler Panel (Professional, VideoPro, and Developer Editions only)

This part of the dialog contains a visual representation of the characteristics of sound data. For more information, refer to the Working with the Ruler and Sound Images section.

Selection Panel

This panel allows you to perform various operations on a selection. For more information on this panel, refer to the Selection Panel.

Main Controls

This provides quick access to the most common actions for a media file. See the Main controls section for more information.

See also. Controlling the Total Recorder main window view, General Settings.

5.1.1 Controlling the Total Recorder main window view

The Total Recorder main window is made up of different parts. You can customize the appearance of the window using the "View" menu. The menu looks like this:

Skin. This submenu allows you to turn on or turn off the application of a skin to Total Recorder windows.

View modes. There are the following view modes:

Compact View - all parts of Total Recorder's main window that can be hidden are not shown. With this view, Total Recorder's main window occupies the least amount of space. You cannot customize which parts of the main window are shown.

Full View - all parts of Total Recorder's main window that can be hidden are shown. This mode displays all parts of the main window. You cannot customize which parts of the main window are shown.

Customized View - options from the "Show…" group below determine which parts of Total Recorder's main window are visible.

"Show…" menu item group. The group consists of the following items:

Show Main Toolbar - check this option if you want Total Recorder's main toolbar to be visible.

Show Information Panel - check this option if you want the Information panel to be visible.

Show Volume and Level Panel - check this option if you want the Volume and Level panel to be

visible.

Show Ruler (Professional, VideoPro, and Developer Editions only) - check this option if you want the Ruler to be shown in a panel as part of the main window.

Show Sound Image in Panel (Professional, VideoPro, and Developer Editions only) - check this option if you want the Sound Image to be shown in a panel as part of the main window. See also Sound Image panel.

Show Sound Image in Separate Window (Professional, VideoPro, and Developer Editions only) - check this option if you want the Sound Image to be shown in a separate window. See also Sound Image window.

Note. Only one of the Ruler, Sound Image Panel, and Sound Image Window can be displayed at a time.

Show Selection Panel - check this option if you want the Selection panel to be visible.

Show Playlist Window - check this option if you want the Playlist Window to be visible.

Show Cue-sheet Editor Window - check this option if you want the Cue-sheet editor window to be visible.

Group for controlling the Video Panel (VideoPro and Developer Editions only). This group consists of the following items:

Always Show Video Panel - If this option is selected then the Video panel is always visible. Otherwise, the Video panel is automatically hidden when there is no video to display.

Scale Video to 100% - Resize the Video panel to fit the original size of the video image.

Video in Full Screen - Switch to full screen. To switch back to normal mode, press the Escape button or double click the left-mouse button.

Always on Top - check this option if you want Total Recorder's main window to be in the "Always on Top" mode.

See also. Total Recorder Main Window, General Settings.

5.1.2   Main toolbar

This toolbar allows you easy access to common operations. You can use the following buttons:

Button	Edition	Description	Menu Item	Default Shortcut
	All	Close currently open media file.	File – New	Ctrl+N
	All	Open an existing media file.	File – Open	Ctrl+O
	PE, VE, DE	Open a URL	File - Open URL	None
	All	Save an open file using the same file name.	File – Save	Ctrl+S
	All	Displays properties dialog.	File – Properties	Alt+Enter
	All	Displays dialog for tag editing.	File – Tag	None
	All	Turn on/off repeat playback mode.	Play/Record – Repeat playback mode	E

↰	All	Undo previous operation.	Edit – Undo	Ctrl+Z
↱	All	Redo the previously undone action.	Edit – Redo	Shift+Z
⏺	All	Controls recording in Auto-stop mode.	Play/Record – Auto-stop recording...	None
🕐	All	Work with scheduled jobs.	Tools – Scheduler...	None
⊗	All	Interrupt automatic work.	Play/Record – Interrupt work	None
🖳	PE, VE, DE	Show/Hide batch processing window.	Tools – Batch processing...	None
🔧	All	Activate "Settings" dialog.	Options – Settings	None
⏺ Parameters... ▾	All	Activates the "Recording source and parameters" dialog and allows you to select predefined presets.	Options – Recording source and parameters	None

You can show/hide the main toolbar using "View"-"Show Main Toolbar".

See also. Total Recorder Main Window, Controlling the Total Recorder main window view.

5.1.3   Information Panel

This part of Total Recorder's main window displays information about the current file being played or recorded, and the current status of Total Recorder. For example:
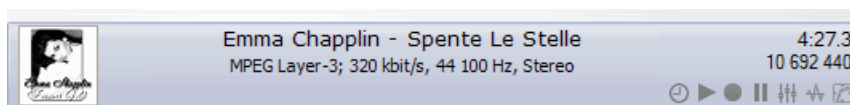
Information about the current track consists of the following: artwork (if present), artist name and track title, duration, length in bytes, and the file format.

Total Recorder's status (such as "Playing") is displayed at the bottom of the screen. The date and time of the recording, in the format YYY.MM.DD HH:MM:SS, may also appear (Professional, VideoPro, and Developer Editions only).

The status has these icons:

Clock icon - indicates that a scheduled job is currently in progress or Auto-stop is on. It does not relate to the fact that some jobs are scheduled.

Playback icon - indicates that a file is being played.

Recording icon - indicates that Total Recorder is currently in recording, pre-recording, automatic level adjustment, or preview (monitoring) mode.

Pause icon – indicates whether playback or recording is paused.

Other icons – icons displayed by add-ons. A Total Recorder add-on can add its own icons to this display. These icons can change based on the add-on's state. Normally, an add-on's icon indicates whether the sound stream is being processed by that add-on.

See also. Total Recorder Main Window, Controlling the Total Recorder main window view.

5.1.4 Video Panel (VideoPro and Developer Editions Only)

The Video panel automatically appears when Total Recorder needs to display video information. This can happen when a video file is opened or when you start to record or preview a recording ("Play/ Record"-"Preview (monitoring) mode") and your current recording parameter is set to record video.

The Video panel looks like this:
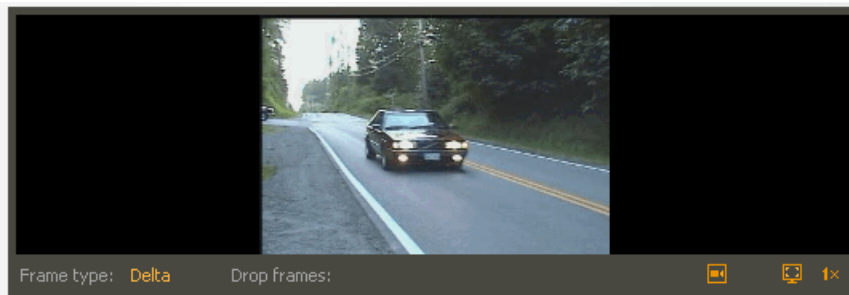
The controls on the Video panel are listed below.

Button	Description	Menu Item	Default shortcuts
▣	Turn on/off preview (monitoring) mode.	Play/Record – Preview (monitoring) mode	None
⤢	Switch to full screen. To switch back to normal mode, press the Escape button or double click the left-mouse button.	View – Video in Full Screen	None
1×	Resize the video window to fit the original size of the video image.	View – Scale Video to 100%	None

Additional information appears at the bottom of the panel.

Frame type ("Key frame", "Delta frame", or "Drop frame") – displays the type of the frame that currently appears in the window.

Note. A drop frame is a dummy frame that is "inserted" in place of a missed frame. If there are a large number of drop frames (about 30% or more), your system probably does not cope with on-the-fly video recording.

Drop frames - displays the number of drop frames (percentage and absolute value) that were encountered while recording the video. You can use this information to see whether your system supports video recording.

See also. Total Recorder Main Window, Controlling the Total Recorder main window view, Working with video files.

5.1.5 Volume and Level Panel

This part of the dialog contains controls and visual information you can use to adjust the playing volume and the recording level.
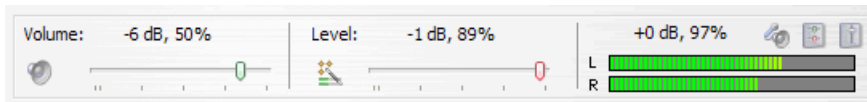
The panel controls are described below.

Playback Mute button ( ) - This button allows you to quickly mute playback. When playback is muted, the button changes to . The mute control may be disabled depending on your sound board mixer.

Volume Slider - This slider is used to set the playing volume. The regulator corresponds to the regulator for the "Master" line. The name of the line depends upon the driver for your sound board's mixer. Changing the slider position results in changing the position of the regulator for the output line and vice versa. At the top of the slider, the current volume level is displayed.

Automatic Recording Level Adjustment button ( ). Click this button to turn on automatic recording level adjustment. For more information, refer to the Using Automatic Recording Level Adjustment section. If Total Recorder is currently tuning the recording level, the button changes to .

Level Slider – This slider is used to set the recording level. The recording level can be set for both recording in Software mode and for recording in Soundboard mode. The current recording level is displayed at the top of the slider.

> **Recording in Software mode.** This level can be set from 0% to 999% of the original (up to +20 dB). The value corresponds to the one that is set in the "Advanced parameters for Software recording" ("Recording level XXX% of the original" box).

> **Recording in Soundboard mode.** This level can be set from 0% to 100% (up to +0 dB). The regulator corresponds to the regulator for the line that is currently being used for recording. This line is determined based on a setting in the Recording Source and Parameters dialog:

> – If "Use these lines of..." is selected, the regulator reflects the selected line.

> – If "Use the lines selected in the mixer (advanced)" is selected, the regulator reflects the line selected in the mixer.

> If more than one source line is used for recording, the regulator is disabled.

Listen while capturing button ( ) (Professional, VideoPro, and Developer Editions only). This button turns on/off the listen-while-capturing mode. When the mode is on, all sound captured from the sound board is sent to your speakers. This allows you to perform real-time monitoring of audio signals being received from an external audio device. This feature works for all "forms" of capturing: during an ordinary recording, when preview (monitoring) mode is on, and during pre-recording. Note that this option only works when recording in Sound board mode, which means "Sound board" is selected as the source on the Recording Source and Parameters dialog dialog.

Playing Volume and Recording Level button ( ). This button activates the Playing volume and recording level dialog.

System Mixer... button ( ). This button invokes the system mixer applet. Normally, this applet can also be activated by double clicking on the "Volume Control" icon in the system tray.

You can show/hide the Volume and Level panel using "View"-"Show Volume and Level Panel".

See also. Total Recorder Main Window, Controlling the Total Recorder main window view.

5.1.6   Slider Panel

This panel contains a slider, displays the current position, and has the "Jump to time" control. The panel looks like this:

Main Slider

You can use the main slider to control the current position in a file.

Jump to time button ( )

This button activates the "Jump to time" dialog. You can use this dialog to quickly navigate to a position within a recording. You can also click the arrow to the right of this button to jump to a pre-defined position or to store the current position for future use. For more information, refer to the "Jump to time dialog description" section.

To use this feature, you can also use the Ctrl+J shortcut or choose the "Play/Record"-"Jump to time…" menu item.

Position

This part of the panel displays the current position in a file.

See also. Total Recorder Main Window, Controlling the Total Recorder main window view.

5.1.7   Selection Panel

The Selection panel looks like this:
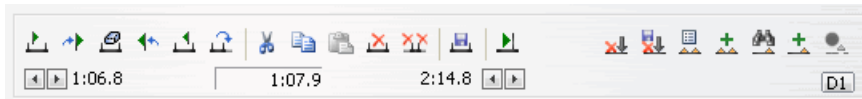
You can show/hide the Selection panel using "View"-"Show Selection panel".

The Selection panel has the following parts:

• A selection toolbar.

• Controls you can use to adjust the selection boundaries.

• A toolbar for splitting operations (Professional, VideoPro, and Developer Editions only).

Selection Toolbar

You can use the following buttons on the Selection toolbar:

Button	Edition	Description	Menu Item	Default Shortcut
	All	Set left selection boundary to current slider position.	Edit – Selection – Set beginning of selection	Shift+L
	All	Move the current position to left selection boundary.	Edit – Selection – Go to beginning of selection	L
	All	Toggle selection off	Edit – Selection – Toggle selection off	Ctrl+Shift+C
	All	Move the current position to right selection boundary.	Edit – Selection – Go to end of selection	R
	All	Set right selection boundary to current slider position	Edit – Selection – Set end of	Shift+R

			selection	
	All	Flip selection. This action flips the selected portion of a file with the closest unselected portion of the file. The closest selection boundary (the first position) is moved to the current position, and the other selection boundary is moved to the first position.	Edit – Selection – Flip selection	F
	PE, VE, DE	Delete selection and place it on Clipboard	Edit – Cut	Ctrl+X
	PE, VE, DE	Copy selection to Clipboard	Edit – Copy	Ctrl+C
	PE, VE, DE	Paste data from Clipboard to current recording	Edit – Paste	Ctrl+V
	PE, VE, DE	Delete selection	Edit – Delete selection	Delete
	PE, VE, DE	Delete data except what is selected	Edit – Delete except selection	Ctrl+Delete
	All	Save selection to specified file	File – Save selection as…	S
	All	Stop playing at nearest selection boundary	Edit – Stop playing at selection boundary	P

To select the entire sound data, either select "Edit"–"Selection"–"Select All" or press Ctrl+A.

You can use these shortcuts to work with a selection:

- Ctrl+Shift+Home – select to the beginning of the file
- Ctrl+Shift+End – select to the end of the file.

For more information on using the Selection panel to edit sound data, refer to the "Editing a Sound File" section.

Note for users of the VideoPro or Developer Edition. When you set a selection boundary in a video file, Total Recorder automatically adjusts the position of the boundary to the beginning of the video frame that contains the initial boundary of the selection. For example, suppose you work with a video file that has a format of 25 frames per second, and you try to set the left selection boundary to 1.01 seconds. This position of 1.01 seconds belongs to the 26th video frame (counting frames starting from 1). Since the 26th frame starts at the 1-second position, Total Recorder sets the left boundary of the selection to 1 second instead of to 1.01 seconds.

Controls for adjusting selection boundaries

You can use the pair of buttons ◀▶ to adjust the left and right selection boundaries. The selection boundary moves 0.1 seconds left or right; the main slider's position does not change. These operations can also be executed through menu items (Edit – Selection – Shift beginning/end of selection left/right by 0.1s) or keyboard shortcuts (Shift+M, Shift+N, Shift+S, Shift+T).

Between the ◀▶ controls, the length (in seconds) of the current selection is displayed.

Split Toolbar (Professional, VideoPro, and Developer Editions only)

You can use the following buttons on the Split toolbar:

Button	Description	Menu Item	Default shortcuts
	Delete sound data before the current position.	Tools – Split current file – Delete before current position	None
	Save and delete sound data before current position.	Tools – Split current file – Save and delete before current position	None
	Activate a dialog box where you can specify conditions for splitting the current file.	Tools – Split current file – Split conditions	None
	Split the current file into tracks.	Tools – Split current file –Split current file into tracks	None
	Find the next split point.	Tools – Split current file – Find next split point	None
	Insert a track separator at the current position.	Tools – Split current file – Insert track separator at current position	None
	Split now or Create track separator	Play/Record – Split now	Ctrl+I

When you click the **Delete before current position** button ( ), the sound data before the current position is deleted. Deleting can be undone and redone.

When you click the **Save and delete before current position** button ( ), the sound data before the current position is saved to a file and then deleted. Deleting can be undone and redone.

When you click the **Conditions for splitting current file...** button ( ), a [dialog box](#) appears where you can set the split conditions. Based on these settings, the current file is split.

Clicking the **Split current file into tracks** button ( ) results in splitting the current file based on your specified conditions. To specify these conditions, click the "Conditions for splitting current file..." button. In contrast to "Save based on split conditions", nothing is saved. Total Recorder only places track separators, or cue points, in the required positions and it may remove pauses.

When you click the **Find next split point** button ( ), Total Recorder searches from the current position to try to find a position in the sound data that satisfies one of the split conditions. To define these conditions, click the "Conditions for splitting current file..." button.

When you click the **Insert track separator** button ( ), Total Recorder prompts you to insert a track separator at the current position, and to specify the characteristics of the track separator through the ["Add track" dialog box](#).

The **Split now** button ( ) is enabled only while recording. When you click the Split now button ( ), Total Recorder either splits the current recording, if you are recording in split mode, otherwise, it inserts a cue point.

Besides the toolbar actions, you can use the "Tools – Split current file" sub-menu. This sub-menu has one additional action:

Use Save As dialog. If you want to use the standard "Save As" dialog for choosing a file name, click this menu item. Otherwise, the file name is generated based on the settings on the "Open/ Save" dialog. See also Saving a Recording.

Notes:

- Your setting for boundary click suppression can affect the "Delete before current position" and "Save and delete before current position" operations. For more information, refer to "Editing a Sound File".

- You can assign shortcuts to frequently used operations.

See also. Total Recorder Main Window, Controlling the Total Recorder main window view.

5.1.8 Main controls

The Main controls allow you quick access to the most common actions for a media file.

You can use the following buttons:

Button	Edition	Description	Menu Item	Default shortcuts
⏮	All	Rewind to the beginning	Play/Record – Go – To Start	Ctrl+Home
⏪	All	Left (one step)	Play/Record – Go – Left by nn. n sec.	Ctrl+L, <
◄	VE, DE	Left to the previous key frame	Play/Record – Go – Left to the previous key frame	None
◄‖	VE, DE	Left by one frame	Play/Record – Go – Left by one frame	None
‖►	VE, DE	Right by one frame	Play/Record – Go – Right by one frame	None
►	VE, DE	Right to the next key frame	Play/Record – Go – Right to the next key frame	None
⏩	All	Right (one step)	Play/Record – Go – Right by nn.n sec.	Ctrl+T, >
⏭	All	Fast forward to the end	Play/Record – Go – Go - To End	Ctrl+End
▶	PE, VE, DE	Decrease playback speed to the next smallest value in the list of playback speeds. Start playback at the greatest slow	Play/Record - Playback speed - Decrease playback speed/ Play at slow speed.	None

		speed less than normal (x1).		
▶	All	Play	Play/Record – Play	Ctrl+Y
▶⁺	PE, VE, DE	Increase playback speed to the next largest value in the list of playback speeds. Start playback at the smallest fast speed greater than normal (x1).	Play/Record – Playback speed – Increase playback speed/ Play at fast speed.	None
�II▸	All	Pause/Continue	Play/Record – Pause/Continue	Ctrl+U
■▸	All	Stop	Play/Record – Stop	Ctrl+P
●	All	Record	Play/Record – Record	Ctrl+R

The Stop and Pause buttons may contain a small picture at the bottom-right indicating what action will be stopped or paused.

Between the ◀◀ and ▶▶ buttons (or between the ◀II and II▶ buttons in the VideoPro and Developer Editions) is a list for selecting the step that these buttons use to position your recording. The step is specified in units of time. Default values range from 1/10 of a second (0.1s) to 15 minutes (15m). You can use the last item in the step list, "Edit...", to activate the "Time List Editor" dialog and customize your step list. This dialog can also be invoked using "Play/Record"-"Go..."-"Edit step list". To quickly go to the previous step or the next step in the step list, you can use the Ctrl+< or Ctrl+> shortcuts, respectively.

If you right click on one of these buttons ▶⁻, ▶, or ▶⁺, a context menu appears (Professional, VideoPro, and Developer Editions only). This menu allows you to select a playback speed from the list, or to activate a dialog box for editing the list of speeds (see also Playing a file at different speeds).

See also. Total Recorder Main Window, Controlling the Total Recorder main window view.

5.1.9   Working with the Ruler and Sound Images (Professional, VideoPro, and Developer Editions Only)

The Sound Image panel provides a visual representation of the characteristics of sound data. The Ruler is similar to the Sound Image panel but it does not show the sound data graphically.

You can either make the ruler visible, or you can work with the sound image using either the Sound Image panel (displayed as part of Total Recorder's main window), or by using a separate Sound Image window. Only one of these can be visible at a time.

By using a separate Sound Image window instead of the Sound Image panel, the following additional features are available:

• a scalable window

• a scalable image (by both time and amplitude)

• the ability to make some changes to the way in which the sound image appears

- other features.

This is particularly useful when working with a sound file that lasts for a few hours or more.

Using the Sound Image panel and Sound Image window

You can use the sound images to locate bits of silence between songs. These are represented in a small-scale image with green points that are close to the zero level. You can click somewhere within this group of points and adjust the current position using the scalable and large-scale images below.

The Sound Image panel and Sound Image window are also useful for manipulating sound data.

Note: It is recommended you display the Sound Image panel or open the Sound Image window only when necessary. If you work with the Sound Image panel displayed or the Sound Image window opened, then opening a file, or editing a recording, causes the sound image to be recalculated, and could take a long time. Also, the redrawing of sound images uses system resources. You can also choose to use the ruler instead of the Sound Image panel or the Sound Image window.

See also. Total Recorder main window overview, Controlling the Total Recorder main window view.

5.1.9.1 Ruler

The Ruler provides access to the same functionality as the Sound Image panel. It does not display a graphical representation of the sound data. However, because it has a time scale, the ruler simplifies moving within a file.

You can show/hide the Ruler panel using "View"-"Show Ruler". The ruler is also made visible automatically if you interrupt sound image calculation when displaying the Sound Image Panel.

The Ruler is shown below:
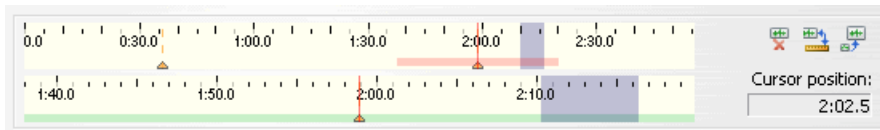
The Ruler panel has two images: a small-scale ruler at the top and a large-scale ruler at the bottom.

Small-scale ruler

This ruler represents the entire sound data. The graduation scale depends upon the amount of sound data. A red, vertical line shows the current position. You can click at any place in the image to navigate to the corresponding position in the media file. The position of the large-scale image is shown on the small-scale image as a pink rectangle.

Large-scale ruler

This ruler uses a larger scale, with each line representing 1 second, and it shows sound data to the left and right of the current position. A red, vertical line is always located at the center of the image. A light green line represents the presence of media data. You can click any place in the image to navigate to the corresponding position in the sound file.

Ruler Toolbar

You can use the following buttons on the Ruler toolbar:

Button	Description	Menu Item	Default Shortcut
	Close Ruler.	View – Show Ruler	None
	Switch Ruler to the Sound Image Panel.	View – Show Sound Image in Panel	None

| | Hide the Ruler and open the Sound Image window. | View – Show Sound Image in Separate Window | None |

Notes:

- You can use your right mouse button to activate a context menu from which you can perform various operations.

- You can drag your mouse to select part of the sound data. The current selection is displayed on both images.

- Triangles (▲) and lines above the images indicate the positions of track separators or cue points. You can drag these triangles to change the locations of track separators. See also Working with cue files.

- You can assign shortcuts to frequently used operations.

See also. Total Recorder main window overview, Controlling the Total Recorder main window view.

5.1.9.2   Sound Image panel

The Sound Image panel provides one of two ways to work with sound images. The other way is to use the Sound Image window. For additional information, refer to Working With Sound Images section.

You can show/hide the Sound Image panel using "View"-"Show Sound Image in Panel".

Here is the Sound Image panel:

The Sound Image panel has two images: a small-scale image at the top and a large-scale image at the bottom.

Small-scale image

This image represents the entire sound data. The graduation scale depends upon the amount of sound data. A red, vertical line shows the current position. A green point represents the level of sound at that point. You can click on any point in the image to navigate to the corresponding position in the media file. The position of the large-scale image is shown on the small-scale image as a pink rectangle.
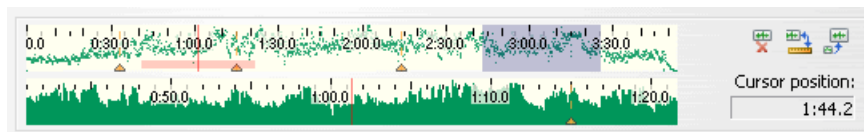
Large-scale image

This image uses a larger scale, with each line representing 0.1 second, and it shows sound data to the left and right of the current position. A red, vertical line is always located at the center of the image. A green point represents the level of sound at that point. You can click on any point in the image to navigate to the corresponding position in the sound file.

For a large scale image, you can select the representation of that image. From a right-click menu, you can choose from the following: "Show as line", "Show as dots", or "Show as filled area".

Sound Image Toolbar

You can use the following buttons on the Sound Image toolbar:

Button	**Description**	**Menu Item**	**Default Shortcut**
	Close Sound Image Panel.	View – Show Sound Image in	None

		Panel	
	Switch Sound Image Panel to the Ruler.	View – Show Ruler	None
	Hide the Sound Image panel and open the Sound Image window.	View – Show Sound Image in Separate Window	None

Notes:

- If you cancel the calculation of the sound image, then the Ruler panel automatically appears instead of the Sound Image panel.

- You can use your right mouse button to activate a context menu from which you can perform various operations.

- You can drag your mouse to select part of the sound data. The current selection is displayed on both images.

- Triangles (▲) and lines above the images indicate the positions of track separators or cue points. You can drag these triangles to change the locations of track separators. See also Working with cue files.

- You can assign shortcuts to frequently used operations.

See also. Total Recorder main window overview, Controlling the Total Recorder main window view.

5.1.9.3 Sound Image window

The Sound Image window provides one of two ways to work with sound images. The other way is to use the Sound Image panel. For additional information, refer to Working With Sound Images section.

You can open/close the Sound Image window using "View"-"Show Sound Image in Separate Window".

The Sound Image window has three images: a small-scale image (at the top), a scalable image (in the middle), and a large-scale image (at the bottom).

Here is the Sound Image window:
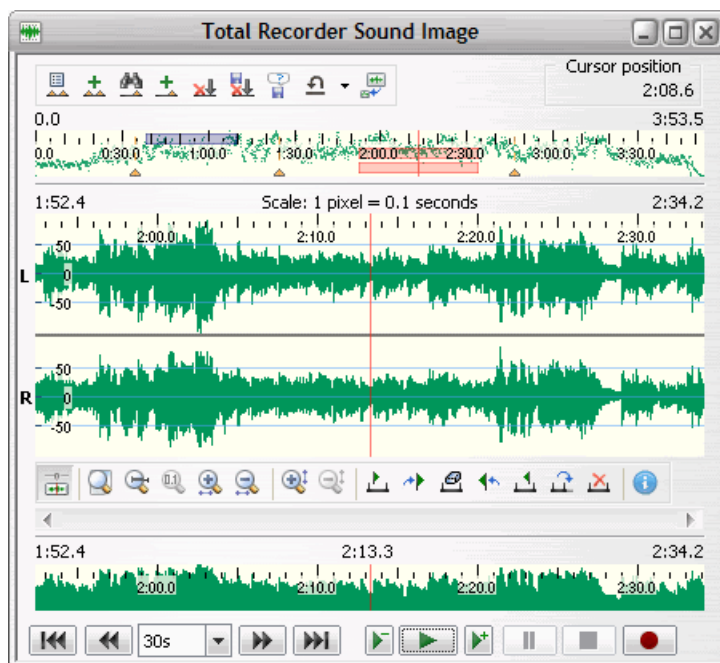
Sound image window toolbar

The Sound image window has a toolbar with the following buttons:

Button	Description	Menu Item	Default shortcut
	Activate a dialog box where you can specify conditions for splitting the current file.	Tools – Split current file – Split conditions	None
	Split the current file into tracks.	Tools – Split current file –Split current file into tracks	None
	Find the next split point.	Tools – Split current file – Find next split point	None
	Insert a track separator at the current position.	Tools – Split current file – Insert track separator at current position	None
	Delete sound data before the current position.	Tools – Split current file – Delete before current position	None
	Save and delete sound data before current position.	Tools – Split current file – Save and delete before current position	None
	Indicates whether to use the standard "Save As" dialog for choosing a file name for the "Save and delete sound data before the current position" operation.	Tools – Split current file – Use Save As dialog	None
	Change the current position to a specific time. This is the same as the "Jump to time" button on Total Recorder's main window.	Play/Record – Go – Jump to time…	Ctrl+J
	Hide Sound Image window and open the Sound Image panel.	View – Show Sound Image in Panel	None

When you press the **Conditions for splitting current file...** button (   ), a dialog box appears where you can set the split conditions. Based on these settings, the current file is split.

Pressing the **Split current file into tracks** button (   ) results in splitting the current file based on specified conditions. To specify the conditions, click the "Conditions for splitting current file..." button. In contrast to "Save based on split conditions", nothing is saved. Total Recorder only places track separators, or cue points, in the required positions, and it may remove pauses.

When you press the **Find next split point** button (   ), Total Recorder searches from the current position to try to find a position in the sound data that satisfies one of the split conditions. To define these conditions, click the "Conditions for splitting current file..." button.

When you press the **Insert track separator** button (   ), Total Recorder prompts you to insert a track

separator at the current position, and to specify the characteristics of the track separator through the "Add track" dialog.

When you press the **Delete before current position** button (⬇), sound data that is before the current position is deleted. Deleting can be undone and redone.

When you press the **Save and delete before current position** button (⬇), sound data which is before the current position is saved to a file and then deleted. Deleting can be undone and redone.

Press the **Use Save As dialog** button (💾) if you want to use the standard "Save As" dialog for choosing a file name. Otherwise, the file name is generated according to the settings on the "Open/Save" dialog. See also Saving a Recording.

Notes:

- You can also use the minimize button to switch the sound image view from a window to a panel.

- You can use your right mouse button to activate a menu from which you can perform various operations.

- You can drag your mouse to select part of the sound data.

- Your setting for boundary click suppression can affect the "Delete before current position" and "Save and delete before current position" operations. For more information, refer to "Editing a Sound File".

- You can use the following shortcuts to switch the active Total Recorder window:

    CTRL+TAB – to move forward between Total Recorder's windows;
    CTRL+SHIFT+TAB – to move backward between Total Recorder's windows.

Other elements of the Sound Image window are described below.

Cursor position

As you move your cursor over an image, the corresponding position in the recording appears in the cursor position box.

Small-scale image

This image represents the entire sound data. The graduated scale depends upon the amount of sound data. A red vertical line shows the current position. A green point represents the level of sound at that point. You can click on any point in the image to navigate to the corresponding position in the sound file.

The image also shows a representation of the following elements:

Element	Representation
Current selection	Blue rectangle at the top of the image
Scalable image position with respect to the small-scale image	Red rectangle at the middle of the image
Large-scale image position with respect to the small-scale image	Red rectangle at the bottom of the image

The time marks that correspond to the left and right borders of the image appear above the image.

Scalable image

This image represents an amount of sound data that is based on the selected scale. A red vertical line shows the current position. A green point represents the level of sound at that point. You can click on any point in the image to navigate to the corresponding position in the sound file.

You can use the buttons on the Scalable image toolbar, as described below.

Button	Description	Menu Item	Default

			shortcut
	Bind to current position. If this button is selected, the middle of the scalable window always corresponds to the current position. If the button is not selected, the image represents the amount of data that is selected by the scroll bar below.	None	None
	Set horizontal and vertical scales such that the whole file appears in the image.	None	None
	Set horizontal scale such that the current selection appears in the image.	None	None
	Set horizontal scale to the base value (1 pixel = 0.1sec.).	None	None
	Increase current horizontal scale.	None	None
	Decrease current horizontal scale.	None	None
	Increase current vertical scale.	None	None
	Decrease current vertical scale.	None	None
	Set left selection boundary to current position.	Edit – Selection – Set beginning of selection	Shift+L
	Move current position to left selection boundary.	Edit – Selection – Go to beginning of selection	L
	Toggle selection off.	Edit – Selection – Toggle selection off	Ctrl+Shift+C
	Move current position to right selection boundary.	Edit – Selection – Go to end of selection	R
	Set right selection boundary to current position.	Edit – Selection – Set end of selection	Shift+R
	Flip selection. This action flips the selected portion of a file with the closest unselected portion of the file. The closest selection boundary (the first position) is moved to the current position, and the other selection boundary is moved to the first position.	Edit – Selection – Flip selection	F
	Delete selection	Edit – Delete selection	Delete
	Opens the "File properties" dialog.	File – Properties	Ctrl+Enter

Notes:

- You can use your mouse wheel as follows to change the scales of the scalable image:
  - To change the vertical scale: place your mouse cursor at the left or right boundary of the image and scroll the mouse wheel.
  - To change the horizontal scale: place your mouse cursor away from the left and right boundaries of the image and scroll the mouse wheel.

- You can change the representation of the scalable image by right-clicking on the image and choosing "Show as level" or "Show as wave".

- You can use your arrow keys ("<-" and "->") to move the current position.

The time marks that correspond to the left and right borders of the image appear above the image. If a mark is enclosed in brackets ("[","]") then this means that the mark is outside the file boundaries.

The image indicates the current selection using a blue stripe.

See also. Considerations for editing sound files with compressed formats.

Large-scale image

This image uses a larger scale, with each line representing 0.1 second, and it shows sound data to the left and right of the current position. A red vertical line is always located at the center of the image. A green point represents the level of sound at that point. You can click on any point in the image to navigate to the corresponding position in the sound file.

Note: You can change the representation of the large-scale image. From a right-click menu, you can choose from the following: "Show as line", "Show as dots", or "Show as filled area".

The time marks for the left and right borders of the image are shown above the image. The time mark for the current position is displayed centered above the image. If a mark is enclosed in brackets ("[","]"), the mark is outside the file boundaries.

The image indicates the current selection using a blue stripe.

Triangles (▲) with lines above the images indicate the positions of track separators or cue points. You can drag these triangles to change the locations of track separators. See also Working with cue files.

The Sound Image Window has controls to allow easy access to the main functions, such as playback, recording, etc. These controls are described in the "Total Recorder main window overview" section.

See also. Total Recorder main window overview, Controlling the Total Recorder main window view.

5.2   Playing

Starting the Playback

To play an opened sound file or video file (the latter only in the VideoPro or Developer Edition), do one of the following: click the "Play" button (▶), select "Play" from the "Play/Record" menu, or press Ctrl-Y. Total Recorder starts to play the file from the current position or from the beginning if the current position is set to the end of the file.

For information on playback at a slower or faster speed than normal, refer to the "Playing a file at different speeds" section.

For information on using the built-in scheduler or command line to schedule a playback, refer to the section "Using a Scheduler".

You can set Total Recorder to start playback automatically when a media file is opened. For more information, see "Playback Settings".

Playing while recording (Professional, VideoPro, and Developer Editions only)

You can play back an audio file that is currently being recorded. As long as the audio data is being received, the playback becomes available shortly after you start to record. You can start playback, stop playback, and reposition within the range of recorded data while the recording continues. A small picture on the Pause and Stop buttons indicates what will be paused or stopped (i.e. playing or recording).

If the current position is near the end of the recording then playback will automatically stop.

Caution. In some cases, you should not start playing a file during a recording because the sound being played back could be mixed with the recorded sound. Do not use this playback feature for the following:

– recording in Soundboard mode from a line such as "Stereo Mix".

– recording in Software mode through a kernel-mode driver (virtual device driver or filter driver) when playback also uses this driver (see Selecting the type of driver to be installed with Total Recorder).

Playing Internet streams (Professional, VideoPro, and Developer Editions only)

You can play an open Internet stream. For more information, refer to the "Playing Internet streams" section.

Playing video files containing multiple audio streams (VideoPro and Developer Editions only)

When working with a file containing multiple audio streams, you can select an active audio stream, which is the stream that will be used for playback. From the "Play/Record" menu, click "Select audio stream".

Pausing the Playback

To interrupt the playing of a sound file, click the "Pause/Continue" button (▮▮▸), select "Pause" from the "Play/Record" menu, or press Ctrl-U. To resume a paused playing, click the "Pause/Continue" button, select "Continue" from the "Play/Record" menu, or press Ctrl-U.

Moving Within a File

To move forward or backward in a media file, you can use the slider, buttons (see Main Controls), and shortcuts. For moving within a file, you can also use the Jump to time operation, the Ruler or Sound Images.

Stopping

To stop playing, use the "Stop" button (■▸), select "Stop" from the "Play/Record" menu, or use Ctrl-P.

Playing a Selection

You can play a selection from the "Play/Record" menu by selecting "Special play"-"Play selection", or by using Ctrl-E.

Playing part of a Selection

You can play part of a selection. To play the first 4 seconds of a selection: from the "Play/Record" menu, select "Special play"-"Play the first 4 seconds of selection", or use the Ctrl-Shift-E shortcut. To play the last 4 seconds of a selection: from the "Play/Record" menu, select "Special play"-"Play the last 4 seconds of selection", or use the Ctrl-Alt-E shortcut.

Repeat playback mode

You can play a file or part of a file using repeat playback mode. This causes playback to repeat continuously. The part of the file that is played back continuously depends on the current selection and the "Stop playing at selection boundary" setting. You can turn repeat playback mode on or off from the "Play/Record" menu using the "Repeat playback mode" option, by using the E shortcut, or by pressing the (🔁) button on the main toolbar.

Applying add-ons while playing a file

The sound being played back can be processed by Total Recorder add-on programs. For more information, refer to "Total Recorder Add-ons overview".

See also. Playback Settings, Playing a file at different speeds (Professional and Developer Editions Only), Working With Sound Images (Professional and Developer Editions Only), Background recording (capturing) and playing of Internet streams.

5.2.1 Playing a file at different speeds (Professional, VideoPro, and Developer Editions Only)

Total Recorder can play an audio file or a video file (the latter only in the VideoPro or Developer Edition) at a slower or faster speed than normal. The options for this type of playback are set in the

Playback Settings dialog. Speeds can range from x0.334 to x3.0 for audio files and from x0.01 to x300.0 for video files. You can edit the list of possible speed values you want to use in the Speed List Editor (see below).

Note for VideoPro, and Developer Edition users. Playback of video files with AVC/H.264 video streams on the Windows 7 and later operating systems can only be done at normal (x1) speed.

You can use the following buttons to control the playback speed:

Button	Description	Menu Item	Default shortcut
▶	Decrease playback speed to the next smallest value in the list of playback speeds. Start playback at the greatest speed less than normal (x1).	Play/Record - Playback speed - Decrease playback speed/ Play at slow speed.	None
▶	Start playback; play with normal (x1) speed; play with last used slower or faster speed.	Play/Record – Play	Ctrl+Y
▶⁺	Increase playback speed to the next largest value in the list of playback speeds. Start playback at the smallest speed greater than normal (x1).	Play/Record - Playback speed - Increase playback speed/ Play at fast speed.	None

If you have selected the "Use the 'Play' button to quickly toggle playback speed" option in your Playback Settings, the picture on the "Start playback" button (▶) changes to ▶₁ or ▶⁺₋ during playback. Clicking the ▶₁ button causes the playback speed to be changed to normal (x1); clicking the ▶⁺₋ button causes the playback speed to be changed to the last used abnormal speed.

If you right-click on any of these buttons, the following context menu appears where you can change the playback speed or edit the list of possible values.

Play at normal speed x0.02
Play at normal speed x0.125
Play at normal speed x0.25
Play at normal speed x0.35
Play at normal speed x0.5
Play at normal speed x0.7
Play at normal speed x1
Play at normal speed x1.5
Play at normal speed x2
Play at normal speed x3
Play at normal speed x4
Play at normal speed x8
Play at normal speed x16
Play at normal speed x32
Play at normal speed x64

Edit list of playback speed values...

You can edit the list of numbers that appear in the menu above. Select "Edit list of playback speed values..." from the context menu, or from the main Total Recorder menu, select "Play/Record" - "Playback speed" - "Edit list of playback speed values...". The dialog for editing the list of speeds looks like this:

Speed List Editor

List of speed values:

```
0.02
0.125
0.25
0.35
0.5
0.7
1
1.5
2
3
4
8
16
32
64
```

Restore defaults

Enter the possible speed values you want to use in the box above. These values can range from 0.01 to 300.

OK   Cancel   Help
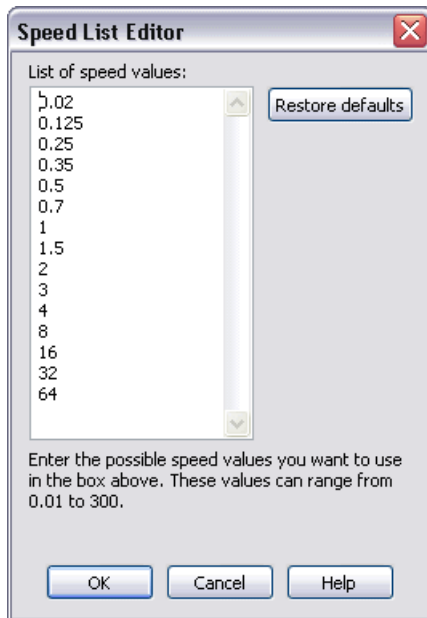
List of speed values - contains a list of speed values that can be used to adjust the speed. For example, a value of 0.25 allows you to play a file at 0.25 times its normal speed. You can edit the text directly in this box, allowing you to add, change, and delete elements in the list.

5.3 Recording

In order to record all of the sound generated from a software program, you should start the recording before starting the playback's program. Every playback program sends information to a driver with some delay, usually several seconds. If you start recording when sound has already played back, it will look as if nothing happens for several seconds and then the indicators will show the real beginning of the recording.

For information on using the **built-in scheduler** or **command line** to schedule a recording, refer to the section "Using a Scheduler" and Using the command line.

For information on recording using **Auto-stop recording mode**, refer to the section Using Auto-Stop Mode.

For information on recording using **"Software accelerated recording/converting"**, refer to the section "Accelerated Recording".

For information on using **pre-recording mode**, refer to the section "Pre-recording mode overview".

For information on **controlling the recording level**, refer to the sections: Using the Playing volume and Recording level Panel, Using the Playing Volume and Recording Level Dialog, and Using Automatic Recording Level Adjustment.

For information on listening while capturing from a sound board, refer to the Volume and Level Panel section under the heading **Listen while capturing** button.

For information on recording in split mode (Professional, VideoPro, and Developer Editions only), refer to the section "Split mode".

For information on creating track separators during a recording (Professional, VideoPro, and Developer Editions only), refer to the section "Working with cue files".

The sound being recorded can be processed by **Total Recorder add-on programs**. For more information, refer to "Total Recorder Add-ons overview".

For information on **mixing** capabilities **while recording**, refer to the section "Digital Mixer Add-on overview" (Professional, VideoPro, and Developer Editions only).

For information on **recording video files**, refer to the Working with video files section.

Note. The size of a .wav file cannot exceed 4GB. This is an internal limitation of the WAVE format. If you plan to make a long recording, consider using a compressed (possibly lossless) format. See "Setting recording parameters".

See also. Background recording (capturing) and playing of Internet streams.

5.3.1 Setting Recording Parameters

Before you begin recording, use the "Recording source and parameters" dialog to set your recording parameters. These parameters are saved for subsequent use. Changing parameters after a recording is finished affects only subsequent recordings. Total Recorder can convert already recorded sound when saving it.

When you schedule recordings using Total Recorder's built-in scheduler, you can use different parameters for each job (see Scheduling a Job).

From the main toolbar, click the "Recording source and parameters" button ( ), or from the "Options" menu, select "Recording source and parameters...". For a scheduled job, you can activate this dialog by clicking the "Recording source and parameters" ( ) button in the General tab. You are presented with the following dialog:
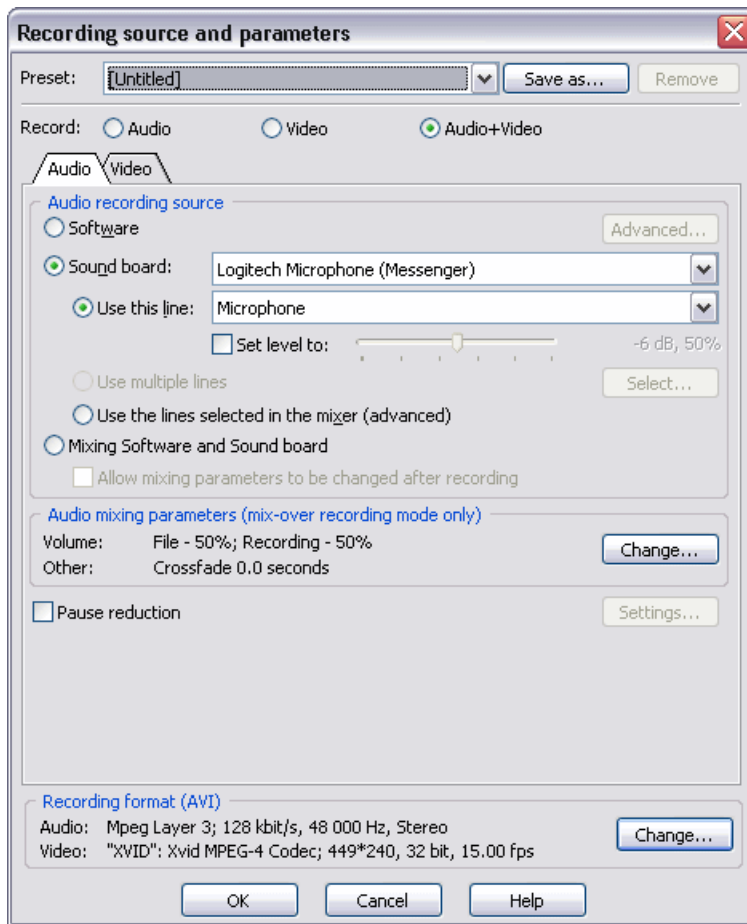
You can save frequently used recording parameters as a preset and then select the preset from the list as required.

Preset – list of saved recording parameters. You can select a preset from the drop-down list, from the context menu that appears when you click the down arrow on the button [Parameters... ▾] in the main toolbar, or after clicking the down arrow on this button [Recording source and parameters... ▾] in the Schedule Item dialog. If the current recording parameters correspond to a preset then the name of that preset appears selected in the context menu.

The list of presets contains a special preset called "[Default settings]". Selecting this preset results in Total Recorder setting defaults for the dialog.

Save as – assign a name to the recording parameters you have specified, and add it to the list of presets.

Remove – remove a preset from the list.

Record

You can select one of the following recording modes:

- **Audio** – record sound data only.

- **Video** - record video data only. This option is enabled only in the VideoPro and Developer Editions.

- **Audio+Video** – record audio and video at the same time. This option is enabled only in the VideoPro and Developer Editions.

Audio tab

Use this tab to set audio recording parameters. This tab is enabled only if you choose to record "Audio" or "Audio+Video". For information on setting these parameters, refer to the Setting Audio Recording Parameters section.

Video tab (VideoPro and Developer Editions only)

Use this tab to set video recording parameters. This tab is enabled only if you choose to record "Video" or "Audio+Video". For information on setting these parameters, refer to the Setting Video Recording Parameters section.

Recording format

In this group, the recording formats of audio and video (for VideoPro and Developer Editions) streams are displayed. To select the file type and format, click the "Change..." button. This button activates the "Media format" dialog.

Any necessary conversions are normally done on the fly (i.e. as the recording is being made). If a conversion requires too much time and cannot complete during the recording, it continues after the recording is finished.

Working with different audio formats while recording

The following explains how Total Recorder works with different audio formats and its conversion rules:

- If you select "Software" as the Recording source and PCM is specified, the conversion method depends on the value selected in the "Options"-"Settings"-"PCM" dialog.

- If you select "Software" as the Recording source and a compressed format is specified (non-PCM), the compression is performed based on the target format:

  – **For MP3 format.** Compression is performed either with a selected codec or with an external program. See the MP3 Settings section.

  – **For Ogg Vorbis format.** Compression is performed with an external program. See the Ogg Vorbis Settings section.

  – **For Windows Media Audio (WMA) family formats.** Compression is performed with system libraries which are the part of Windows Media Player. See the WMA Settings section.

  – **For AAC format.** Compression is performed using the Windows 7 built-in encoding engine. See also How to work with MPEG-4, 3GP and MOV files using Total Recorder.

  – **For FLAC format.** Compression is performed by Total Recorder internally. See the FLAC Settings section.

  – **For Monkey's Audio (APE) format.** Compression is performed internally by Total Recorder. See the APE Settings section.

  – **For all other compressed formats.** Compression is performed with a system codec (ACM codec).

- If you select "Sound board" as the Recording source and PCM is specified, no conversion is needed. The sound board produces the required format.

- If you select "Sound board" as the Recording source and a compressed format is specified (non-PCM), the closest PCM format is requested from a sound board and the file is compressed.

Working with different video formats while recording

Total Recorder converts video using the video codecs installed on your system.

Some video codecs require high amounts of CPU, which may lead to frame drop and desynchronization of video and sound. It is recommended you use your codec to perform a test recording with compression so that you can roughly determine the effects of using such compression when recording. Also take into account that you can record in an uncompressed format and then save your recording in the desired compressed format.

See also. How to select the optimal sound format, Using the Recording Wizard, Setting Audio

Recording Parameters section, Setting Video Recording Parameters section.

5.3.1.1 Setting Audio Recording Parameters

Audio recording parameters are set on the Audio tab of the Recording source and parameters dialog. The "Recording source and parameters" dialog with an active Audio tab looks like the following:
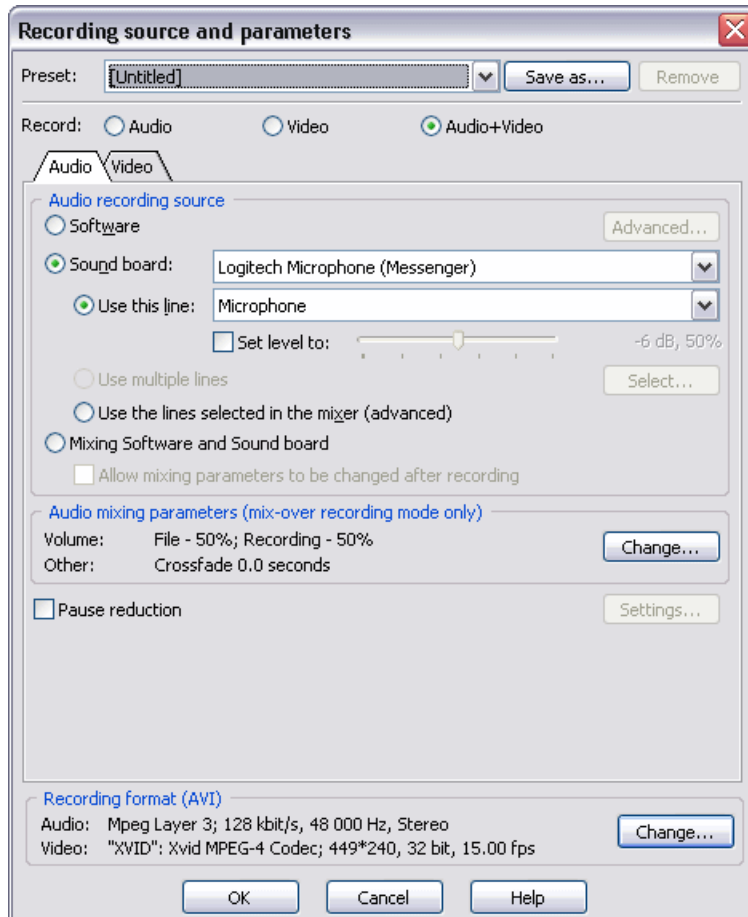
Audio recording source

Select one of the following (mutually exclusive) sound sources:

- **Software** – capture and record sound played back or requested by other computer programs.

- **Sound board** – record sound digitized by a sound card. This includes a microphone, CD or other input lines.

- **Mixing Software and Sound board (Professional, VideoPro, and Developer Editions only)** – simultaneously record sound from Software and sound board, and mix the recorded sound with a ratio of 50% (sound recorded from the Software source) to 50% (sound recorded from the Sound board source). This option is available only if you have the Digital Mixer Add-on installed.

   Additional parameters described below for each source, "Software" and "Sound board", can also be used with the "Mixing software and Sound board" source.

   Note. This option is hidden if the dialog is activated to set the recording parameters for a scheduled recording.

      Allow mixing parameters to be changed after recording – If this box is checked, you can use the Mixing dialog to remix a mixed Software and Sound board recording This option is

available only if the recording format is uncompressed. If this option is checked, Total Recorder does not write a ready-to-use file during recording. Sound data is mixed when saving the recording, and it will take longer to save the recording than it would if this option was not checked.

See also. How Total Recorder works with different Sources.

Additional parameters for source "Software"

If you select "Software", you can specify additional recording parameters. Clicking the "Advanced…" button opens the "Advanced parameters for Software recording" dialog.

Additional parameters for source "Sound board"

If you select "Sound board", you can specify the following:

- **Input device for recording.** You can select one of the following from the list:

  - **[System default device (not recommended)].** If you select the "[System default device] (not recommended)", then recording will be performed through the default Windows recording device (see Setting Default Devices). It is recommended you select a specific recording device rather than using this option.

  - **A specific input device.** You can select any input device for recording. The ability to specify separate input devices for each recording makes it possible to use different input devices for different recording sessions. For example, you can select "Device 1" as the input device for one scheduled job and "Device 2" for another scheduled job.

- **Input line for recording.** You can select one of the following:

  - **Use this line.** Use this option and the list at the right to specify a particular line for recording. The list of lines contains the names of the input lines for the selected input device. To adjust the volume for the selected line, use the "Level" slider on the Playing volume and recording level panel.

    Set level to. If you select this check box, Total Recorder sets the specified recording level before a recording starts, and restores the original level when the recording finishes.

  - **Use multiple lines.** Use this option if you wish to record from several lines simultaneously. To specify which lines should be used, press the "Select…" button and select at least one line.

    If the option "Use multiple lines" is disabled, it is likely because the selected input device does not support recording from multiple lines. Note that the majority of sound boards do not support recording from multiple lines.

  - **Use the lines selected in the mixer (advanced)** – use current system settings. Normally, they can be viewed or changed from the standard mixer by clicking on the "System mixer" button ( ) on the Playing volume and recording level panel.

Audio mixing parameters (for mix-over recording mode - Professional, VideoPro, and Developer Editions only)

This section appears only if you have the Digital Mixer Add-on installed. It displays the parameters for mix-over recording mode. To change mixing parameters, click the "Change..." button. The "Mixing parameters" dialog appears. You can switch to Mix-over recording mode using the "Play/Record" menu ("Mix-over recording mode" item). If either "Delete the old one without confirmation" or "Save the old one with confirmation, if not saved" option is set, then you cannot switch to Mix-over recording mode (see "Open/Save Settings").

Note. This section is hidden when setting recording parameters for a scheduled recording.

The mixing parameters are available only for Software or Sound board recording modes. To control the software signal level for Mixing software and Sound board recording mode, use the "Recording level" setting from this dialog. To control the sound-board's signal level for Mixing Software and Sound board recording mode, use the "Level" regulator from the "Playing volume and recording level" panel of

Total Recorder's main window, or use the system mixer.

Pause reduction (Professional, VideoPro, and Developer Editions only)

Check this option to reduce pauses when recording. Press the "Settings…" button to specify the pause reduction parameters on the "Pause reduction" dialog. Note that settings for pause reduction can affect the splitting of a file based on a low level of sound.

Note. Some parameters on the dialog are not compatible. If you try to set a parameter that is incompatible with the current dialog settings then either one of the incompatible parameters is changed automatically or the dialog message is displayed.

5.3.1.2   Setting advanced parameters for Software recording

The "Advanced parameters for Software recording" dialog can be opened from the Audio tab of the "Recording source and parameters" dialog.

The dialog looks like this:
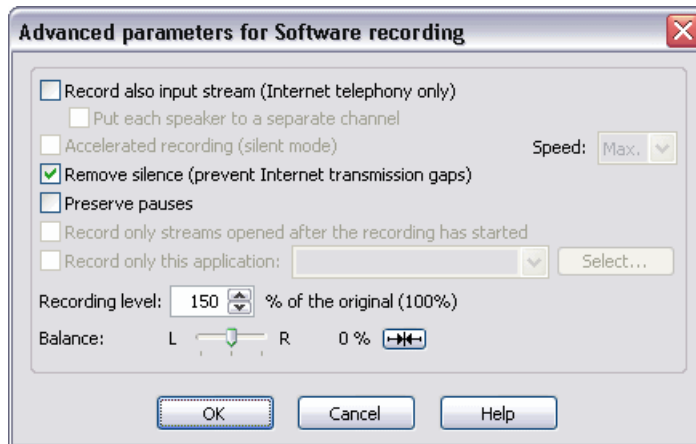
Record also input stream (Internet telephony only) – capture and record input sound streams, requested by programs from the soundboard. This applies only to the recording of Internet telephony conversations.

> **Put each speaker to a separate channel** – special mode for Internet-telephony only. You can set this option only if you have selected the "Record also input stream" check box above. This creates a stereo file where one voice is in one channel and the other voice is in another channel.

> If "Put each speaker to a separate channel" is not set, the voices of both speakers are mixed in one channel.

Accelerated recording (silent mode) - Total Recorder's virtual device drivers cause the playback program to generate sound with a faster speed and they suppress the actual sound. Not all playback programs are compatible with this mode. For more information, refer to the "Accelerated Recording" section. If you select this option, you must use the "Speed" pull-down menu to select the desired speed. When recording in accelerate recording mode, the real speed of the recording is displayed in the Information panel on Total Recorder's main window. Note that Total Recorder's kernel-mode filter driver does not support recording in accelerated mode (see also Selecting the type of driver to be installed with Total Recorder).

> **Speed: Max.** – Total Recorder tries to make the playback program play at maximum speed. This is recommended for converting a sound file from a non-standard format to a standard format.

> **Speed: a value** – set a particular speed. Total Recorder tries to make the playback program play a specified number of times faster than normal. For example, you can set this speed to "4" to cause the playback program to play 4 times as fast as normal. This setting is recommended if the maximum speed is not possible (e.g. when recording from the Internet).

Remove silence (prevent Internet transmission gaps) - Total Recorder tries to fix Internet transmission gaps. During the playback of an Internet transmission, failures of a short duration can occur. These are often due to an insufficient speed of data transfer and appear as pauses and replications during playback. When using some audio programs, such as Windows Media Player and Real Player, these pauses and replications can also appear in the recording. With the "Remove silence" mode turned on, Total Recorder removes pauses and replications from recording.

> **Notes:**
>
> - This mode does not guarantee sound repair. The benefit you will see depends strongly on the characteristics of the gaps.
>
> - It is very unlikely a recording will worsen when recording with this mode on.
>
> - If you forget to turn this mode on before you start a recording, you can later play back the recording with one instance of Total Recorder and record the sound with another instance of Total Recorder that has the "Remove silence" mode turned on. You can use accelerated recording mode in this case.
>
> - The Information panel displays the size of data without taking this mode into account. It displays the size of data passed to the soundboard. After a recording stops, the data size changes to reflect the size of actual data written to the file. If you see the data size become less after a recording has stopped, then some fixing of sound has taken place.

Preserve pauses - If this mode is set, Total Recorder records silence even if nothing is being played back by any software, or playback is paused. This mode requires you to set "Convert using parameters specified below". You cannot use this option with the following: "Accelerate recording" and "Remove silence".

Record only streams opened after the recording has started – If this option is selected, Total Recorder records only a sound stream that is opened after the recording starts. This option can be useful, for example, when you have several scheduled recordings for the same time and the scheduler launches an Internet transmission itself. This option is available only if you use Total Recorder's user-mode virtual device driver (see also Selecting the type of driver to be installed with Total Recorder).

Record only this application... – If this option is selected, Total Recorder records only the application specified in the box to the right. You can manually enter the application name without a path (e.g. someprogram.exe), select the name from the drop-down list, or press the "Select" button to select the application name using the "Active sound applications" dialog. This option is available only if you use Total Recorder's user-mode virtual device driver (see also Selecting the type of driver to be installed with Total Recorder).

Note: The two options above are useful if several sound streams can be open while recording in Software mode. Otherwise, you can leave these options cleared.

Recording level: XX % of the original (100%) – Total Recorder increases or decreases the level of recorded sound relative to the level of the original sound. Use this setting to adjust the level of recording if you know in advance that the level of original sound is too low or too high. Unlike the normalization feature, the sound level is changed during the recording stage and is not restricted to PCM target format.

Balance – Use this slider to adjust the balance between the left and right channels. The box to the right shows the current balance setting. To set the balance to the neutral (zero) position, use the ⊣⊢ button.

See also. Using the Recording Wizard.

5.3.1.3 Setting Video Recording Parameters (VideoPro and Developer Editions Only)

Video recording parameters are set on the Video tab of the Recording source and parameters dialog. The "Recording source and parameters" dialog with an active Video tab looks like the following:
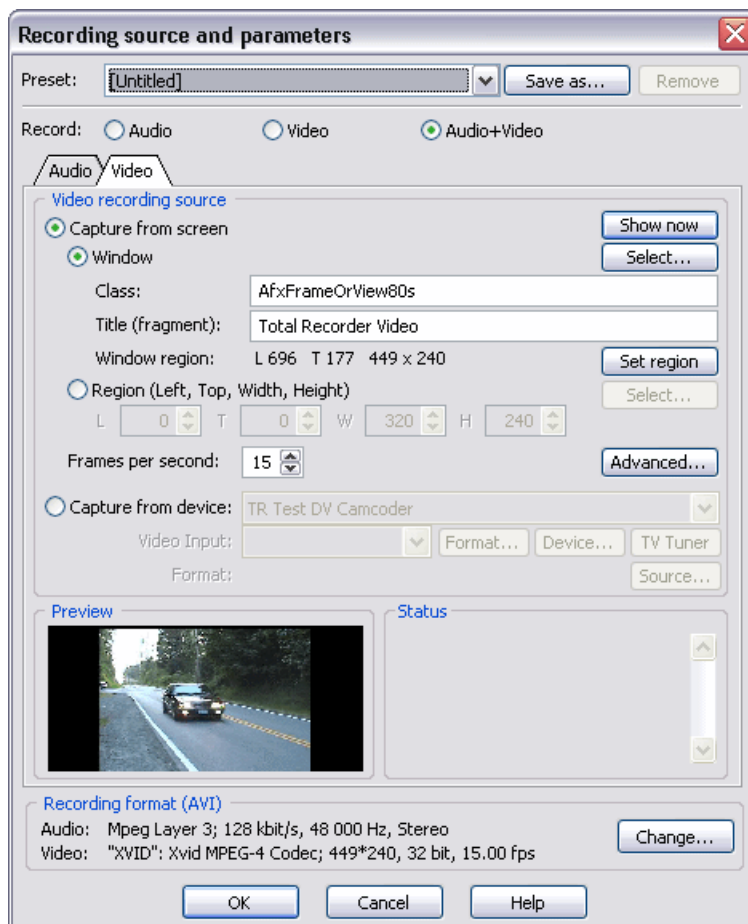
Each of the configuration options is described below.

Video recording source

Capture from screen. If this option is selected, Total Recorder records video captured from your screen.

Capture from device. If this option is selected, Total Recorder records video captured by the device selected in the combo box at the right.

Capture from screen options

To capture video from your screen, you need to choose either **Window** or **Region** as your capture area.

Window. If this option is selected, Total Recorder captures video from a window. The window used is based on the following settings:

Class - the name of the class to which the window belongs.

Title (fragment) - the text, or part of the text, in the window's title bar.

If both the **Class** and **Title (fragment)** fields are empty then Total Recorder captures the entire screen. To define a specific window, at least one field must be filled in. It is not recommended you manually fill in these fields, especially the **Class** field. To select the required window and to have those fields automatically filled in, click the **Select** button. You can then use your mouse to select the window from those on your desktop.

The **Window region** indicates the current coordinates and size of the screen area selected for capture.

Set region – when you click this button, the capture mode switches from **Window** to **Region**. All of the current parameters, such as the size and location of the capture area, are moved from the **Window region** to the **Left (L)**, **Top (T)**, **Width (W)**, and **Height (H)** fields.

Region. If this option is selected, Total Recorder records from the area of your screen that you select. To select the screen area, specify the following parameters: **Left, Top** (coordinates of the left top corner of the capture area), and **Width** and **Height** (size of the capture area). With the **Select** button, you can use your mouse to select the capture area.

Show now – when you press this button, the border of the current capture area is highlighted.

For both capture modes, **Window** and **Region**, you can use the additional settings described below:

Frames per second – specifies the frame rate with which your video is recorded.

Advanced Video Recording Parameters – if you click the "Advanced..." button, the "Advanced Video Recording Parameters" dialog appears (see below).

Note: If you select a very big screen area to be captured (more than 320x240) or a very high frame rate (more than 15 frames per second), this will lead to a sharp increase in the demands for your processor. As a result, this can cause frame drop and desynchronization of video and sound, and it can significantly increase the size of the recorded file.

Capture from device options

If this option is selected, Total Recorder captures video from the video capture device attached to your computer. For more information about supported hardware devices, refer to the Supported hardware video devices section. You can select any video capture device from the list.

Video Input – allows you to select the source of the video signal.

Format – launches a dialog you can use to change your video settings. The resulting dialog box depends on the manufacturer of your capture device and the software that comes with it. Typically, you can control video settings such as the display size and frame rate.

Device – launches a dialog you can use to configure the capturing device. The resulting dialog box depends on the manufacturer of your capture device and the software that comes with it. Typically, you can control device settings such as color, brightness, and contrast.

TV Tuner – launches a dialog you can use to configure the TV tuner. The resulting dialog box depends on the manufacturer of your TV tuner and the software that comes with it.

Source – launches a dialog you can use to configure input lines for your capturing device, if your video device has more than one physical input or it supports more than one hardware path for data. The resulting dialog box depends on the manufacturer of your capture device and the software that comes with it.

Note. The **Format**, **Device**, **Source** and **TV Tuner** options may not be available if your video capturing device does not support them.

The **Preview area** shows the image that will be recorded using the current recording parameters. If nothing appears in the **Preview area** except for a black block, it indicates that the recording parameters may have been set incorrectly or you have set to record a screen movie that is being played back using hardware acceleration (see note in the How to Record Video from Screen/Software Video Player section). Review the **Status** field for detailed information on possibly incorrect recording parameters.

Advanced Video Recording parameters

Capture monitor

This setting identifies the monitor from which video (window or region) will be captured.

Automatically select. Select this option if you want Total Recorder to capture video from the same monitor as Total Recorder's main window.

Use this one. You can manually select a particular monitor from the list.

Auto-align image size when recording starts - if this option is selected, Total Recorder can increase the size of the region being captured by a few pixels to meet the requirements of the video codec being used.
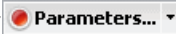
Minimize Total Recorder when recording starts - if this option is selected, the Total Recorder window is minimized when the recording starts. This prevents the video from being accidentally covered by Total Recorder's window.

Highlight capture during recording - if this option is selected, the border of the screen area that is currently being recorded is highlighted.

Record cursor – if this option is selected, Total Recorder records the cursor image if it is located in the selected screen area.

See also. Saving operations for video files, Supported hardware video devices, Working with video files.

5.3.2 Starting a Recording

Before you begin recording, set your recording source and other parameters if these have not been set as required. In the main toolbar, click the "Recording source and parameters" button (Parameters...), or select "Recording source and parameters..." from the "Options" menu. For additional information, refer to the "Setting Recording Parameters" section.

To start recording, either click the "Record" button (●), select Record from the "Play/Record" menu, or press Ctrl-R.

If you try to make a new recording before saving the previous one, the result depends on the "Action on new recording over the previous one" setting and the recording mode (Append, Insert, or Mix-over). For more information, refer to the "Open/save Settings".

If "Software" is selected as a source, "Preserve pauses" has not been set (see Setting advanced parameters for Software recording), and you did not choose video recording (VideoPro and Developer Editions only), then a sound is recorded only when some program reproduces it or requests it. After starting to record, the corresponding indicator on the "Information" panel becomes highlighted. This indicates Total Recorder is ready to record but the real recording process does not start until Total Recorder receives some sound from another program. If the level indicators do not become green, there is no data to record.

The sound being recorded can be processed by Total Recorder add-on programs. For more

information, refer to "Total Recorder Add-ons overview".

5.3.3 Pausing a Recording

To temporarily interrupt recording, either use the "Pause/Continue" button ( ), select "Pause" from the "Play/Record" menu, or use Ctrl-U. To continue a paused recording either use the "Pause/ Continue" button again, select "Continue" from the "Play/Record" menu, or use Ctrl-U.

If "Software" or "Mixed Software and Sound board" is selected as the source, all information during a pause is written to a temporary file. This allows a recording to continue immediately after the pause is finished. Remaining in "pause" for a long time may take a lot of your hard disk space and is therefore not recommended.

5.3.4 Stopping a Recording

To stop recording, use the "Stop" button ( ), select "Stop" from the "Play/Record" menu, or use Ctrl-P.

You can use the "Undo" ( ) and "Redo" ( ) buttons to undo and redo your last recording.

5.3.5 Saving a Recording

To save recorded data to a file, use "Save" or "Save As" on the "File" menu, or press Ctrl-S.

For more information on saving operations, refer to the Saving section.

5.3.6 Using Auto-Stop Mode

You can start a recording in auto-stop mode and you can switch the current recording to auto-stop mode. In this mode, you specify the time when the recording will stop along with other parameters. You can set, or reset, auto-stop mode on the "Auto-stop recording" dialog. The dialog is activated using the "Play/Record"-"Auto-stop recording" menu or the button from the main toolbar.

The dialog can also be activated for command line recording and when recording scheduled jobs. In these cases, all dialog settings are inherited from the parameters you specify on the command line or when scheduling the job, respectively. You can use this dialog to change some of those settings (e.g. modify the duration of the recording).

The dialog looks like this:
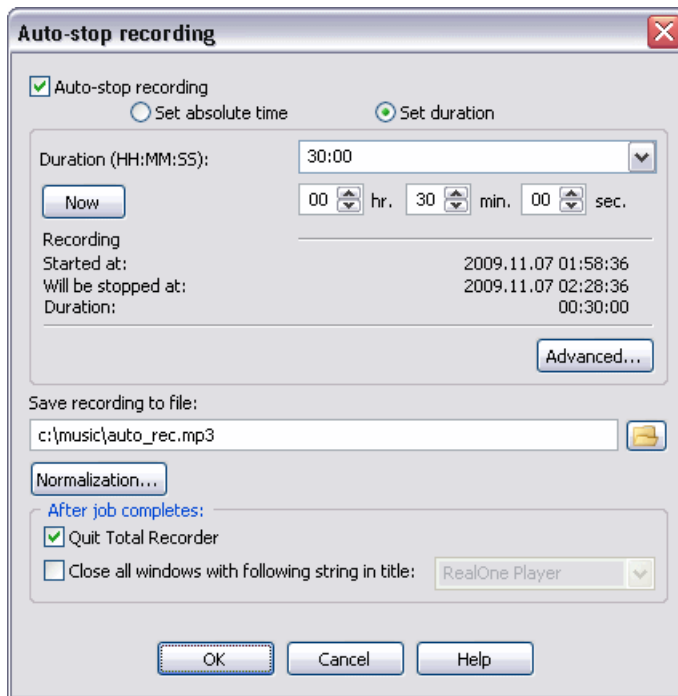
Auto-stop recording – turn auto-stop mode on or off. If you want to change the current recording mode, you must check or uncheck the flag and confirm your choice by pressing the "OK" button. Unchecking the flag during a scheduled or a command-line recording changes the recording to a recording that was started manually.

You can specify either an absolute time (e.g. 10:05:00) or a duration (e.g. 01:00:00).

Set absolute time – choose this option if you want to specify an absolute stop time for the recording. The stop time can be selected from the drop-down list below or specified in the time fields (hr., min., sec.) below the list. The drop-down list contains absolute time values you have used recently. Choosing this option causes the name at the left of the list to change to "Absolute time...". You can use the "Now" button to display the current time in the time fields and adjust as required.

Set duration – choose this option if you want to specify the duration for the recording. The duration can be selected from the list at the bottom or specified manually in the time fields (hr., min., sec.) below the list. The list contains duration values you have used recently. Choosing this option causes the name at the left of the list to change to "Duration...". The duration of a recording is calculated from the start time of the recording and not from the time when auto-stop mode was activated. You can use the "Now" button to display the current duration in the time fields and adjust as required.

Note: Clearing the duration or stop time field is the same as specifying a recording of unlimited duration.

Recording information – displays information about current auto-stop mode settings.

Started at – displays the time when the recording was started.

Will be stopped at – displays the time when the recording will stop.

Duration – displays the duration of the recording.

Advanced (Professional and Developer Editions only) – activates the "Advanced stop recording conditions" dialog. Here you can set additional options for automatically stopping a recording. For more information, refer to the Using the Advanced stop recording conditions Dialog section.

Save recording to file – the file name where the recording will be saved. This field is mandatory

except for recordings in split mode. If recording is in split mode, the field is disabled and the file name is automatically generated based on the file name generation rule that is currently used for split mode (see the Split Settings section).

Normalization – press this button to activate the "DC offset and Normalization" dialog. This button is enabled only if recording is performed in PCM or MP3 format. For more information, see Working with Normalization and DC offset. Normalization cannot be used when "Automatically create a new file for each recording session" is selected (see Split Settings) or for background recordings (see Background recording (capturing) and playing of Internet streams).

After job completes:

Quit Total Recorder – Total Recorder will close when the recording stops.

Close all windows with following string in title: (Professional and Developer Editions only) - This box causes all windows with the specified string in their titles to be closed when the recording completes. You can select this string from the drop-down list, or type it manually in the box at the right.

Caution. Use this option carefully. All windows with the specified title will be closed. For example, let's say you specify that you want all windows closed with "WinAmp" in the title. If you have a document called "About WinAmp" open in an application when the job completes, then that application will be closed along with the WinAmp player.

If you try to activate this dialog when recording is off then Total Recorder will prompt you to start recording before the dialog is activated.

When auto-stop is active, all other controls are disabled. The behavior is similar to that of a scheduled job (see Executing Schedule Jobs). Any error messages are written to the Total Recorder Log (see Handling Errors and Other Problems).

5.3.7   Accelerated Recording

Software accelerated recording (silent mode) lets you convert sound files of different formats to standard wave format. This is normally done at a fraction of the time required to play the file. Total Recorder suppresses playback, makes the sound stream go through the driver with an above normal speed, and records it.

You cannot use accelerated recording mode and pre-recording mode at the same time.

You can turn accelerated recording mode on or off using the "Advanced parameters for Software recording" dialog.

When using accelerated mode, you cannot hear any sound but the slider of the playback program moves faster than normal. Total Recorder also shows the recording moves by the following:

- the indicator of the current position moves faster than normal.
- the level indicators change from being empty to green.
- The Information panel of the main window shows the real speed of accelerated recording.

Note for users of the VideoPro or Developer Edition. You cannot use accelerated recording mode to record video.

Accelerated Recording compatibility

Since the playback program has to work faster than was intended, some programs are not compatible with this mode. They will either work with normal speed or some error may occur (e.g. some fragments may be lost or repeated more than once, or some extra pauses or noises may be inserted). Different versions of the same program may behave differently.

This document does not provide a list of compatible and incompatible programs. The simpler the playback program the more likely it will work correctly in accelerated mode. Programs that synchronize sound with some other events such as games or video players will not likely work in accelerated mode.

The maximum possible speed may also vary. This usually depends on some internal parameters of a playback program, which are not documented and are not configurable, because normally they do not matter.

Through experimentation, you can determine both the compatibility of a particular program with accelerated mode and the optimal speed. Make your recording then listen to it. If there is no problem, or a problem that can be easily corrected with a selective save, you may use the accelerated mode. Otherwise, you can lower the speed. If this doesn't help you can either use regular recording or change your playback program.

If a program plays a sound from a hard disk or a local area network and it allows accelerated mode, it will probably allow maximum speed. However, there are some exceptions. If the program plays a sound from the Internet, it is usually impossible because the sound driver will request the information faster than the connection supplies. In this case, you can manually adjust the speed based on the available bandwidth.

Accelerated Recording through Total Recorder drivers

This section assumes you are familiar with the [Selecting the type of driver to be installed with Total Recorder](#) and the [Driver Settings](#) sections.

When using accelerated recording through the user-mode virtual device driver, Total Recorder can usually set an acceptable speed for recording. Total Recorder does not increase the speed of the recording to values that could result in problems.

The kernel-mode virtual device driver cannot determine whether a playback program correctly sends sound data. This can result in crackles, gaps, or stuttering in the recorded sound file. If you plan to use accelerated recording through Total Recorder's kernel-mode virtual device driver, you should make a test recording using the same playback program, the same recording speed, and the same soundboard that will be used later, and then verify the results. Other active programs can also affect the quality of accelerated recording if these programs use too many system resources.

The actual recording speed is noticeably faster if the user-mode virtual device driver is used.

It is recommended you use Total Recorder's user-mode virtual device driver for accelerated recording rather than the kernel-mode virtual device driver.

Note: Total Recorder's kernel-mode filter driver cannot be used for accelerated recording.

5.3.8   Using the Recording Wizard

The Recording Wizard helps you specify your recording settings. It can also help with diagnostic procedures, inform you about problems, and present ways to help you resolve problems.

Launch the wizard by selecting "Tools" - "Recording wizard…".

If you press the "Cancel" button while running the wizard then all Total Recorder settings remain unchanged.

Note. This wizard does not set all of the options for recording. To use Total Recorder's full capabilities, you can manually set other options as required. The wizard may alter some of your current recording settings, even if you do not change them using the wizard.

See also. [Recording overview](#), [Configuring Total Recorder overview](#), [Setting recording parameters](#).

5.3.9   Auto-create mode (Professional, VideoPro, and Developer Editions only)

Setting auto-create mode causes a new file to be created for each recording session, from beginning to end. In auto-create mode, a file is saved immediately when the recording stops. If you modify the file after recording has stopped, you must manually save the file.

Auto-create mode can be set independently for regular recordings and for scheduled recordings.

To activate and set auto-create mode options, take the following steps.

For a regular recording:

1. On the "Split" dialog (see "Split Settings" section), select the "Automatically create a new file for each recording session" check box.

2. Select a file name generation rule from the list. To add a new rule, or edit an existing rule, use the File Names dialog.

Turning on auto-create mode for a regular recording causes the "Save the old one with confirmation, if not saved" configuration option to be set automatically (see "Open/save Settings").

For a scheduled recording:

1. To activate auto-create mode for a scheduled recording, on the "Scheduled item – General" tab (see the "Scheduling a Job" section), select the "Automatically create" option.

2. Click the "Rules..." button to specify a file name generation rule that will be used to generate the file name.

See also. Split mode.

5.3.10 Pre-recording Mode

5.3.10.1 Pre-recording mode overview

Sometimes when listening to an audio program (e.g. Internet transmission), you do not know exactly when to start recording. With previous versions of Total Recorder, which did not have the pre-recording mode feature, you could either record sound continuously or start your recording when you hear the part in which you are interested. Each case has its own problems. Either you would likely end up with a large file, where you would need to remove large amounts of unwanted sound, or you would miss essential data.

Using Total Recorder's pre-recording mode, a pre-specified amount of sound is stored internally. When you start your actual recording, the pre-recorded sound is added to the beginning of your recording and the storing of information in an internal buffer stops. If you were to start and stop a recording multiple times, where the number of seconds stopped each time is less than your specified pre-recording time, then your resultant recording will be the same as that obtained by an ordinary uninterrupted recording (see concerns when appending to a recording).

For more information on using pre-recording mode, refer to the "Using Pre-recording Mode".

Notes:

- You cannot use pre-recording when "Accelerated recording" mode is on. For more information on "Accelerated recording" mode, refer to the "Accelerated Recording" section.

- You cannot use pre-recording when the current recording mode is Mixing Software and Sound board mode or Mix-over recording mode.

Note for users of the VideoPro or Developer Edition. You cannot use pre-recording when the current recording mode is set to record video.

5.3.10.2 Using Pre-recording Mode

To set pre-recording parameters, select "Options"-"Settings"-"Pre-recording". For more information, see the "Pre-recording Settings" section.

To turn pre-recording mode on or off, use the "Pre-recording xxx last seconds" menu item from the "Play/Record" menu. You can also use the Ctrl+G shortcut. The actual number of seconds specified on the "Pre-recording" dialog is displayed in the menu item name.

To clear the pre-recording buffer, use the "Clear pre-recording buffer" menu item from the "Play/ Record" menu. You can also use the Ctrl+B shortcut. You may want to clear the pre-recording buffer if you do not wish to include pre-recorded sound in your recording. The pre-recording buffer can be cleared if it is not empty.

If Total Recorder starts to perform a scheduled job or starts with command line parameters, pre-recording mode will not be turned on at program start regardless of the "Activate pre-recording when the program starts" setting.

When pre-recording mode is on, the following takes place:

- a message appears in the Information panel that indicates the number of actual pre-recorded seconds (e.g. "xx.x sec. pre-recorded").

- the record notification picture ● changes to ◉, if there is no actual recording.

- the "Pre-recording xxx last seconds" menu item changes.

- the level indicators display the level of pre-recorded sound.

For an overview of pre-recording mode, refer to "Pre-recording mode overview".

Caution. Pre-recording uses computer hardware resources. This mode should only be used when necessary.

Note:

When you record and pre-record using compressed (non-PCM) format, a gap may appear in your recording at the point when you switch from recording mode to pre-recording mode.

5.4 Background recording (capturing) and playing of Internet streams (Professional, VideoPro, and Developer Editions only)

Total Recorder supports the capturing of Internet streams. You can record an Internet transmission either through an ordinary recording (see also How to record an Internet transmission) or through capturing (referred to as background recording in Total Recorder').

For an **ordinary recording** of an Internet stream through Total Recorder, the following occurs:

1. A playback program (e.g. WinAmp, WMP, etc.) connects to an Internet server.

2. The playback program receives data from the server in a compressed format (e.g. mp3, wma, etc.).

3. The playback program decodes the data to an uncompressed (PCM) format and passes the uncompressed data to the soundboard.

4. Total Recorder captures this uncompressed data, often encodes the data in a specified compressed format, and writes the data to a file.

For **direct background recording** of an Internet stream, the following occurs:

1. Total Recorder connects to an Internet server.

2. Total Recorder receives data from the server in a compressed format (e.g. mp3, wma, etc.).

3. Total Recorder writes the data to a file in its original (compressed) format.

4. This data can be saved to a file as an ordinary recording.

When you play back the file, Total Recorder reads data from the file, decodes it, and passes it to your sound board and/or video rendering device.

Although the approach for an ordinary recording is more universal and there are no requirements for server types or stream formats, direct background recording has the following advantages:

- There is no need to use an external program.

- Re-encoding is not required to save a stream to a file.

- A decreased load on your system.

- There is no need to use a Total Recorder driver. Also, if you do not listen to the Internet stream being recorded then your soundboard is not used at all.

- Total Recorder can extract data from Internet streams and insert track separators based on that

data.

- Background recording of several streams in different instances of Total Recorder can take place at the same time without the recording sessions interfering with each other. This means that you can schedule a number of overlapping background recordings.

You can background record an Internet stream manually or using a scheduled job.

To manually background record an internet stream, take the following steps:

1. Open an Internet stream (see Opening an Internet stream).

2. Start playback or background recording.

For information on using the built-in scheduler or command line, refer to the sections "Using a Scheduler" and Using the command line.

For information on background recording using auto-stop recording mode, refer to the section Using Auto-Stop Mode.

For information on creating track separators during a background recording, refer to the "Working with cue files" section.

Note

The following types of streams and servers are supported:

– MP3 and Ogg Vorbis streams transmitted by IceCast/ShoutCast-compatible servers.

– Windows Media Audio (WMA) streams transmitted by Windows Media Servers.

– Windows Media Video (WMV) streams transmitted by Windows Media Servers (VideoPro and Developer Editions only).

– Flash Video (FLV) streams transmitted through HTTP protocol.

See also. How to play or background record (capture) an Internet audio stream using Total Recorder, How to play or background record (capture) an Internet video stream using Total Recorder.

5.4.1 Opening an Internet stream

You can open an Internet stream by doing one of the following:

- Using the "Open URL" dialog.

- Opening an item that refers to a URL from a playlist.

- Opening an item that refers to a URL from your Favorites list.

To open an Internet stream through the "Open URL" dialog: from the "File" menu, click "Open URL", or click ( ) on the main toolbar. The following dialog appears:
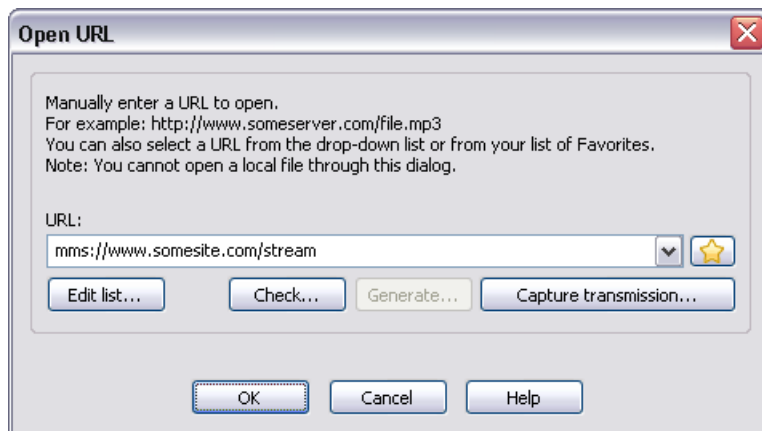
URL

Specify the URL in this field or select a recently opened URL from the drop-down list.

Note that you should specify the exact URL for the transmission. For example, if you specify a URL that refers to a page containing a link to a transmission, or to a page that contains an ActiveX control that plays a stream, then Total Recorder will fail to open the URL.

You can click the Favorites button ( ) to select a URL from your list of Favorites.

Edit list...

Click this button to edit the list of URLs that appear in the URL drop-down list. After clicking the button, the URL List Editor dialog will be activated. Using this dialog, you can remove, add, or change items in the list.

Check...

Click this button to check if the specified URL can be background recorded. Total Recorder connects to the server, requests a small amount of data from the server, analyzes the received data, and displays the results.

Note that successful checking of a URL does not guarantee 100% that the data from the URL will be successfully background recorded.

If checking or opening a URL fails, review the log information in the "Opening URL" dialog. If the reason for the failure is not clear, try to open the same URL in another program. For example, if a URL cannot be opened in WinAmp or Windows Media Player, it is unlikely Total Recorder will be able to open the URL.

Generate...

Click this button to activate the URL generation rule dialog. This button is enabled only if the "Open URL" dialog is invoked for a scheduled job.

Capture transmission...

Click this button to capture the URL. For more information, refer to the "Capturing the URL of a stream" section.

Note. Before opening an Internet stream, you may need to verify or change your network settings. For more information, refer to the "Networking Settings" section.

URL List Editor dialog

This dialog lets you edit the list of URLs that appear in the URL drop-down list. The dialog looks like the following:

URL List Editor

List of URLs:

```
mms://a937.l211056936.c2110.g.lm.akamaistream.net/D/937
mms://a823.l211056822.c2110.g.lm.akamaistream.net/D/823
http://www.voanews.com/wm/live/newsnow.asx
http://www.nasa.gov/145588main_Digital_Edu.asx
mms://rs4wms.i2ic.com/wlc_2500
mms://stream01.massive-mag.tv/massivemag_mq
mms://live1.wm.skynews.servecast.net/skynews_wmlz_live30
http://mfile.akamai.com/80874/live/reflector:50722.asx
http://kuscstream.org/mp3/kusc128.m3u
http://205.188.215.229:8040
http://scfire-ntc-aa03.stream.aol.com:80/stream/1014
mms://a138.l1387324137.c13873.g.lm.akamaistream.net/D/1
http://www.bbc.co.uk/worldservice/meta/tx/nb/live/eneuk.as
http://127.0.0.1:8000
http://streams.tvknob.com/tvloops/Ch3/ch3.wsx
http://live.camstreams.com/csbonavista
http://3083.live.streamtheworld.com:80/XPRSFMAAC_SC
```

OK   Cancel   Help

Editing the list of recent URLs is similar to editing text in a text editor. One URL must occupy exactly one line. Click OK to save your changes.

See also. Background recording (capturing) and playing of Internet streams.

5.4.2   Capturing the URL of a stream

For background recording of an Internet stream by Total Recorder, you should know the exact URL for the stream. The following are some ways you can obtain the URL of a stream:

- If you can play the stream through an external player, such as WinAmp or Windows Media Player, you can use "File"-"Properties" or similar to display the URL.

- If the stream is played in an ActiveX Control, sometimes the URL of the stream can be displayed through the control. Note that the majority of the controls hide the URLs of transmissions.

- Use Total Recorder to capture the URL of the transmission.

- Use a special program, such as a network sniffer, network monitor, etc., that traces network traffic.

To capture the URL of a stream using Total Recorder, take the following steps:

1. In the "Open URL" dialog, click the "Capture transmission..." button.

The following dialog appears:
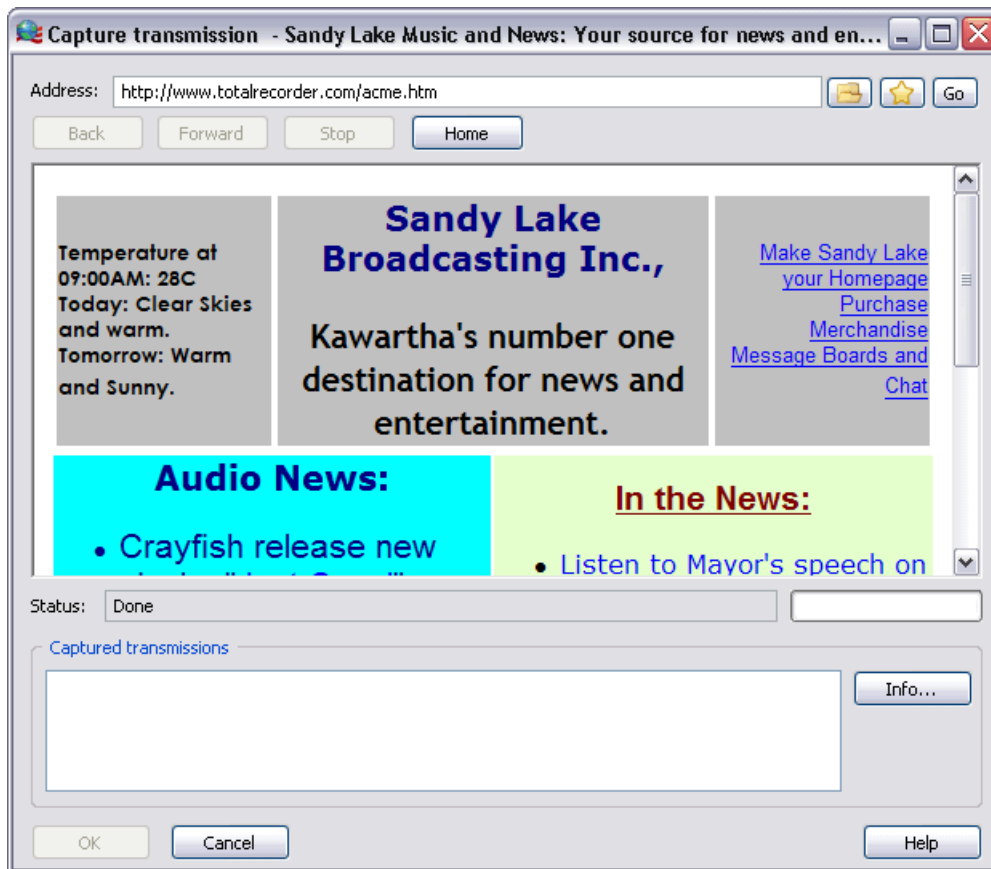
The dialog is similar to the Total Recorder minibrowser dialog.

You can use the Favorites button ([star]) to navigate to the home page of a selected favorite.

2. Navigate to the desired transmission and start the playback. While navigating, Total Recorder will analyze the URL. If it appears to be suitable for background recording, the URL will be added to the "Captured transmissions" list. To get more information on a transmission in the list, click the "Info" button at the right.

3. From the "Captured transmissions" list, select a captured transmission. If the list is empty then Total Recorder did not capture any transmissions.

4. Click the "OK" button.

See also. Background recording (capturing) and playing of Internet streams.

5.4.3   Displaying stream properties

Once you have opened a URL stream, you can view its properties. From the "File" menu, click "Properties", or press the Alt+Enter shortcut. A dialog like the following appears:
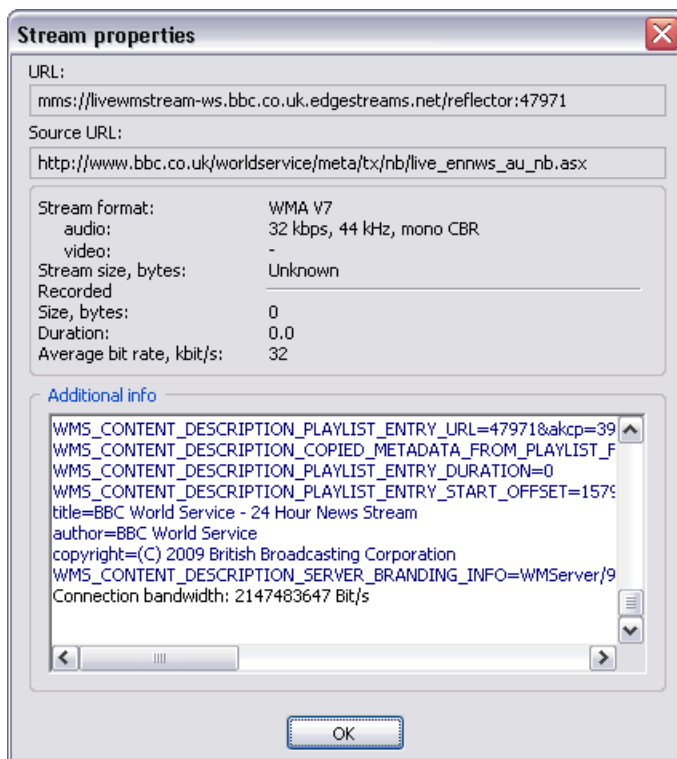
URL

Displays the exact URL from which the data will be received.

Source URL

This is the URL you entered in the "Open URL" dialog. The "Source URL" and "URL" fields may differ because you are sometimes redirected to a new URL when you address an Internet server.

Stream format

This is the format of the media stream, including details about the audio and video formats.

Stream size, bytes

Displays the stream size. This value is available only for remote files.

Recorded

Displays information on the data recorded from the URL, including the size, duration, and the average bit rate of the stream.

Additional info

Additional information about the stream is displayed.

See also. Ripping (capturing) Internet Background recording (capturing) and playing of Internet streams.

5.4.4   Playing Internet streams

Starting the playback

To play an Internet stream, take the following steps:

1. Open the stream.

2. Do one of the following: click the "Play" button ( ), select "Play" from the "Play/Record" menu, or press Ctrl-Y. Note that you can slow down or speed up the playback of an Internet stream just as

you can for a regular audio or video file (see Playing a file at different speeds).

If the "Automatically play file when it is opened" check box is selected on the Settings-Playback dialog, Total Recorder will start to play the stream as soon as you open it.

If there is not enough data to play back, Total Recorder enters a buffering state and playback continues when it receives enough data from the server.

Pausing the playback

To pause the playback of a sound or video stream, do one of the following: click the "Pause/Continue" button ( ), select "Pause" from the "Play/Record" menu, or press Ctrl-U. To resume a paused playing, do one of the following: click the "Pause/Continue" button, select "Continue" from the "Play/Record" menu, or press Ctrl-U.

Note that if you pause the playback of an Internet stream, the data continues to be transferred from the server. The data is written to a temporary file and is available for playback when playback is resumed.

Moving within a stream

For audio streams, you can use the slider to move forward or backward in the part of the stream that has already been downloaded. You can also use buttons (see Main Controls), shortcuts, and the Jump to time button to move within a stream.

For video streams (VideoPro and Developer Editions only), you can only pause/resume during playback and restart playback from the beginning of the stream (e.g. using the button).

Stopping the playback

If you play an Internet stream without background recording, stopping the playback results in stopping the transmission of data from the server. All of the recorded data is lost, however you can restore it through an "Undo" operation.

If you play an Internet stream with background recording, stopping the playback results only in the playback stopping; background recording and transmission of data from the server continue.

Applying add-ons while playing a file

The sound being played back can be processed by one of Total Recorder's add-on programs. For more information, refer to "Total Recorder Add-ons overview".

Restrictions when playing Internet streams

While playing an Internet stream, you can select part of the stream. However, the following operations on the selection are disabled: playing a selection, playing part of a selection, save selection as, stop playing on selection boundary, and repeat playback mode.

See also. Playback Settings, Background recording (capturing) and playing of Internet streams, How to play or background record (capture) an Internet audio stream using Total Recorder.

5.4.5   Background recording of Internet streams

The intention of background recording of an Internet stream is to allow you to save received data to a file. Background recording is quite similar to regular recording. It can be initiated manually or via a scheduled job.

Before opening an Internet stream, you may need to verify or change your network settings. For more information, refer to the "Networking Settings" section.

To start ordinary background recording of an Internet stream:

1. Open the stream. When you have an Internet stream open, the picture on the Record button is shown as .

2. To start background recording, click the button, or from the "Play/Record" menu, select "Record". When background recording is running, the picture on the Stop button is shown as .

To stop the background recording, click ▬, or from the "Play/Record" menu, select "Stop".

To use auto-stop mode for background recording, you need to open a URL. If you have a URL open then the auto-stop settings will work for the background recording rather than for a regular recording. For additional information, refer to the "Using Auto-stop Mode" section.

For information on using the built-in scheduler or the command line, refer to the sections "Using a Scheduler" and "Using the command line".

If an Internet transmission contains data about the current clip, Total Recorder can extract this information and insert corresponding track separators. For additional information, refer to the "Creating track separators while background recording" section.

See also. Background recording (capturing) and playing of Internet streams, How to play or background record (capture) an Internet audio stream using Total Recorder, How to record an Internet transmission.

5.5 Saving

To save recorded data to a file or to re-save a file, use "Save" or "Save As" on the "File" menu, or press Ctrl-S.

If you save over an existing file, the resultant file format is:

• the same format of the source file, if you use "Save"

• the specified format, if you use "Save As".

If your recording was performed with "Automatically create a new file for each recording session" selected (see Split Settings), the recording is saved immediately when it stops.

File names for saving operations

When you save a file using the "Save As", "Save selection as", or "Save before current position" dialog, the initial file name in the dialog is generated based on your settings in the "Open/Save" dialog.

Applying add-ons when saving

The sound being saved can be processed by Total Recorder add-on programs. For more information, refer to "Total Recorder Add-ons overview".

Saving multiple files using batch processing (Professional, VideoPro, and Developer Editions only)

You can process multiple files using the batch processing feature. For more information, refer to Batch Processing Overview.

Saving a particular stream to a file (Professional, VideoPro, and Developer Editions only with the Digital Mixer Add-on installed)

If you have mixed sound data, you may be able to save a selected stream to a file using the "Stream saving" dialog. See also Digital Mixer Add-on overview.

See also:

Saving Part of a File or Recording
Saving in a Different Format (Converting)
Saving a stereo file as a mono file with channel mixing (Professional, VideoPro, and Developer Editions only)
Saving an audio file with a different speed (Professional, VideoPro, and Developer Editions only)
Saving operations for video files (VideoPro and Developer Editions only)
Using Fast Save
Repairing MP3 files
How to select the optimal sound format

5.5.1 Saving Part of a File or Recording

You can select and save only part of a file or a recording by taking the following steps:

1. Make the Selection panel visible. If it is not visible, select "View"-"Show Selection Panel" from the menu.

2. Select the left and right boundaries by moving the slider and marking the left and right selection boundaries. For more information, refer to the "Using the Selection Panel" section earlier in this document. You can set selection boundaries during recording and then slightly reposition them. You cannot set selection boundaries when recording in split mode.

3. Save your selection. Use the ( ) button in the Selection group, or select "File"-"Save selection as" from the menu.

Part of a recording can also be saved using the "Save and delete before current position" feature. For more information, refer to Working With Sound Images.

Your setting for boundary click suppression can affect the "Save selection as" operation. For more information, refer to "Editing a File".

Note: When you save part of a recording that uses Windows Media Audio format, the saved fragment may be slightly longer or shorter (within a couple of tenths of a second) than you have selected.

Saving Multiple Recording Fragments

You can save multiple recording fragments as different files. The size of a .wav file cannot exceed 4GB. This is an internal limitation of the WAVE-file format.

5.5.2 Saving in a Different Format (Converting)

You can save your recording or file in a format different than the original, which means you can convert a file.

To change the format, take the following steps:

1. Choose "Save As". The dialog like the following appears.
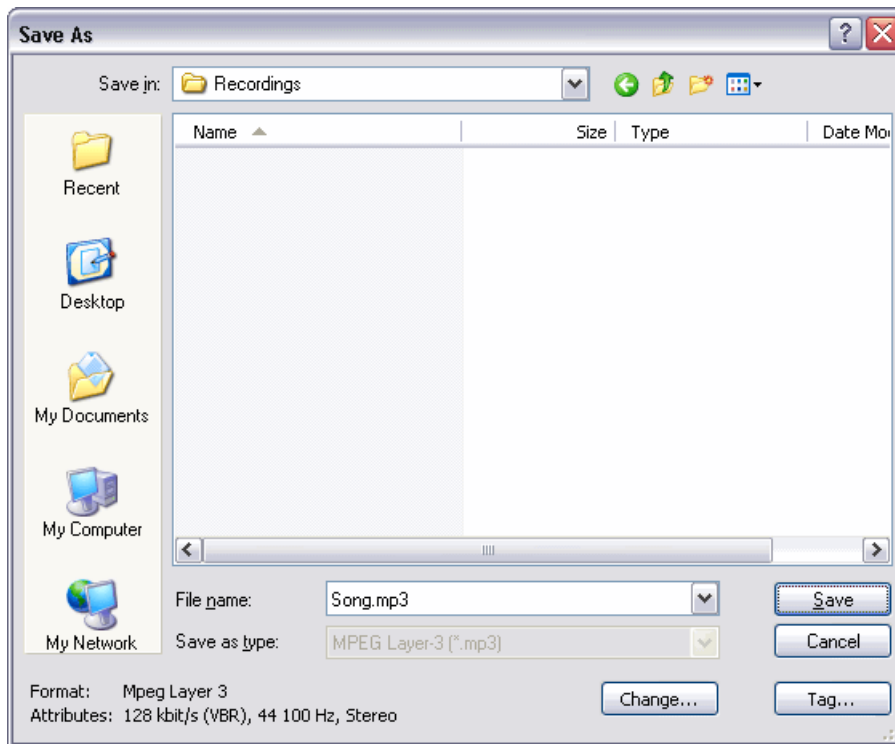
2. Click the "Change" button. Select the file type and the audio format and/or video format (VideoPro and Developer Editions only). For more information, refer to the <u>"Format selection Dialog"</u> section.

    If you choose to convert the audio or video format, the format description in the "Format:" line will be prepended with the text "Convert to".

3. If you want to change the file tag, click "Tag" and specify your tag settings. For more information, see the <u>"Working with tags"</u> section.

4. Enter the name of the new file, if you haven't already done so. The default extension is determined based on the type of file and format being saved. You cannot specify an extension manually.

    See also. <u>FLAC Settings</u>.

5. Click "Save" to save your recording.

5.5.3   Saving a stereo file as a mono file with channel mixing (Professional, VideoPro, and Developer Editions only)

You can save a stereo file as a mono file with channel mixing and optionally mix the channels with different proportions. For example, you could extract only the left or the right channel from a stereo file.

To save a stereo file as a mono file, take the following steps:

1. Open the stereo file.

2. From the File menu, click "Save special" - "Save as mono file with channel mixing...". The following dialog appears.
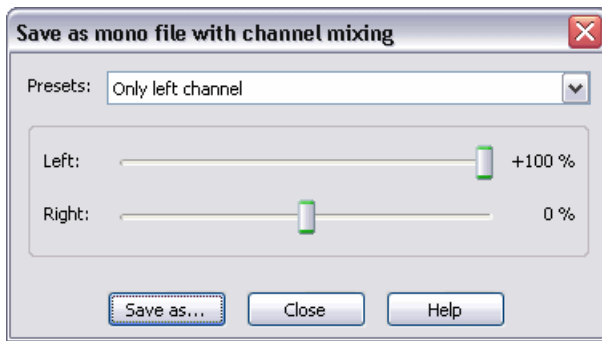
3. Do one of the following:

   a. Select a preset from the list of presets. For example, to save only the left channel, you can select the "Only left channel" preset.

   b. Use the Left and Right sliders to indicate the percentage value for each channel that will be used for mixing. The possible values range from –100% to +100%. A negative value means that samples will be inverted while mixing. To save only one channel, the value for the other channel should be set to 0.

4. Press the "Save as…" button. This activates a dialog for specifying the name of the target file and its format. See also Saving in a Different Format (Converting).

Tip. You can also perform the inverse operation. You can make a stereo file from two mono files, where, for example, the left channel of the stereo file represents the first mono file and the right channel of the stereo file represents the second mono file. Take the following steps:

1. Convert each of the mono files to the same uncompressed stereo format.

2. Edit each of the uncompressed mono files to make the lengths of the files the same.

3. Normalize the first uncompressed stereo file. In the "Normalization and DC Offset" dialog, select the "Normalize channels independently" flag and set the percent value for the left channel to 0.

4. Normalize the second uncompressed stereo file. In the "Normalization and DC Offset" dialog, select the "Normalize channels independently" flag and set the percent value for the right channel to 0.

5. Mix the two stereo files using the "Digital Mixer Add-on".

5.5.4   Saving an audio file with a different speed (Professional, VideoPro, and Developer Editions only)

You can save an audio file with a different speed than the speed with which it was recorded. This can be useful, for example, when you have recorded a news transmission and you want to listen to the recording at a faster speed.

To save an audio file with a different speed, take the following steps:

1. Open the sound file.

2. From the File menu, click "Save special" - "Save with a different speed...". The following dialog appears.
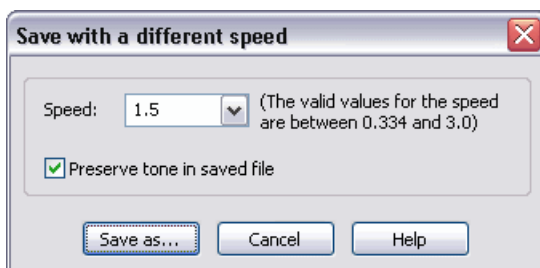
3. Specify a valid speed value or select it from the list of pre-defined values, and indicate whether the original tone should be preserved.

4. Click the "Save as…" button. This activates a dialog for specifying the name of the target file and its format. See also Saving in a Different Format (Converting).

Note. You can save a one or more files with a different speed using batch processing. See also Choosing Specific Operations for Batch Processing.

See also. Playing a file at different speeds.

5.5.5 Saving operations for video files (VideoPro and Developer Editions only)

Common saving operations for video files, such as "Save", "Save as", and "Save selection as", are available (see Saving a Recording). You can specify both the audio format and the video format when saving a video file (see Format Selection Dialog).

In addition, there are several saving operations specific to video files.

Saving the audio stream of a video file

You can save the audio stream of a video file to a sound file. From the File menu, click "Save special" - "Save audio stream separately as...".

Saving the video stream of a video file

You can save the video stream of a video file to a new video file. From the File menu, click "Save special" - "Save video stream separately as...".

Notes.

- You can also add an audio stream to a video file (if the video file does not contain an audio stream) or replace the audio stream in a video file (if the video file contains an audio stream). From the Edit menu, click "Add/replace audio stream…".

- Saving the audio and video streams separately may be required. For example, if you want to process an audio stream by an add-on, you should save the audio stream to an audio file, process the audio file by the add-on, and then replace the audio stream with the processed audio file.

Saving a video frame as a bitmap

You can save the current frame of a video file as a bitmap file. From the File menu, click "Save special" - "Save current frame as bitmap...".

You can also copy the current frame of a video file to the Clipboard (see Editing Operations).

Saving a video file with multiple audio streams

When saving a video file that contains multiple audio streams, a dialog similar to the following prompts you to select the audio streams:
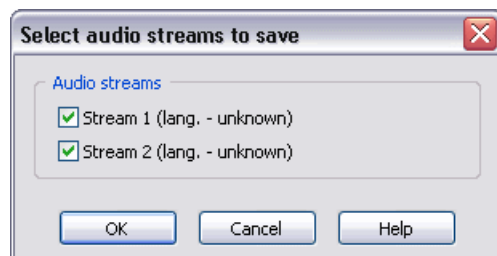
See also. Working with video files.

5.5.6 Using Fast Save

While recording, Total Recorder writes a ready-to-use media file without saving any intermediate working files. After recording stops and you save the recording, this usually just renames, or moves, the working file. This is almost instantaneous regardless of the file size. However, the following situations will prevent this and require copying of the entire file:

- The file is being saved to a different drive, either physical or logical, than the drive that stores the working file. Use "Options"-"Settings"-"Open/save" to change the location of the working file.

- The file format changes.

- Any editing operation on the file (e.g. appending or inserting new data, deleting part of the sound data, normalization, fading, other operations including those performed by add-ons).

- The header type changes, for example, from RIFF-WAV to MP3 or vice versa.

- Adding or removing the ID3v2 tag. Editing the ID3v2 tag may require a full file copy.

- Adding, removing, or editing an Ogg Vorbis, FLAC, MPEG-4, 3GPP or Windows Media Audio tag requires a full file copy.

- Adding, removing, or editing a RIFF tag may require a full file copy.

- The file is a sound file that contains multiple mixed sound streams. For more information, see Digital Mixer Add-on overview.

Note that changing the ID3v1 tag does not prevent a fast save operation.

5.6 Split mode (Professional, VideoPro, and Developer Editions only)

Overview

Split mode allows a recording to be split into separate files based on different conditions. This mode requires that auto-create mode is turned on. Split mode can be used independently for regular recordings and scheduled recordings.

When dividing a recording into separate parts, you can choose to use split mode or to create cue points. For more information, refer to "Working with cue files" section.

Note for users of the VideoPro or Developer Edition. Split mode cannot be used with video recording and any split-mode settings are ignored. However, you can insert cue points when recording video (see Working with cue files).

To activate and set split mode options, take the following steps.

For a regular recording:

1. On the "Split" dialog (see "Split Settings" section), select the "Automatically create a new file for each recording session" check box.

2. Select a file name generation rule from the list below. To add a new rule, or edit an existing rule, use the File Names dialog.

3. Select the "Split mode" check box.

4. Click the "Conditions..." button to specify conditions for splitting a file.

For a scheduled recording:

1. On the "Scheduled item – General" tab (see the "Scheduling a Job" section), select the "Automatically create" option to turn on auto-create mode.

2. Click the "Rules" button and specify a file name generation rule.

3. Select the "Split file according to the specified conditions" check box.

4. Click the "Conditions..." button.

5. On the "Split recording conditions" dialog (see "Using the Split recording conditions Dialog" section), set the required options.

Using the "Split now" feature

When you record in split mode, the "Split now" feature lets you immediately split a file. You can use this feature by selecting "Play/Record"-"Split now" or by clicking the "Split now" (🔴) toolbar button in the Selection Panel. The current file is closed and recording to a new file begins.

Saving a recording based on split conditions

You can split an existing file or a completed recording. For more information, refer to the "Splitting an existing file" section.

Splitting multiple files

You can split many files at the same time using batch processing. For more information, refer to the "Choosing Operations for Batch Processing" section.

See also. Working With Sound Images.

5.6.1   Using the Split recording conditions Dialog

The dialog looks like the following.
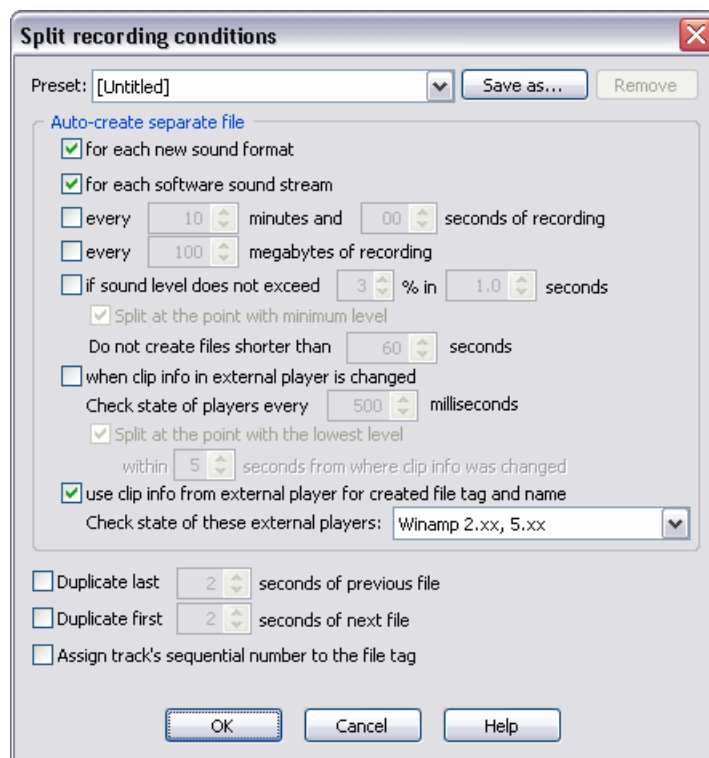
The dialog lets you set additional conditions for which a new file is created during a recording. If you specify more than one condition, a new file is created as soon as one of the specified conditions is true.

Preset – list of saved split parameters. You can select a preset from the drop-down list.

Save as – assign a name to the split parameters you have specified, and add it to the list of presets.

Remove – remove a preset from the list.

Auto-create separate file

for each new sound format – a new file is created if the sound stream format differs from the format of the previous sound stream. This option applies only when recording in Software mode and the <Convert using "Recording parameters" specified below> option is cleared (see "Setting Recording Parameters" section).

for each software sound stream – a new file is created for each new sound stream being recorded in software mode. Setting this option can be useful if you want to write each sound stream to different files. For example, if you are using WinAmp to play a playlist, you can play each song from the playlist in a different stream. If you set this option and start recording sound that is being played by WinAmp, each song from the playlist will be recorded to a separate file.

every nnn minutes and mm seconds of recording – a new file is created every nnn minutes and mm seconds of the recording. Note that splitting based on sound with a variable bit rate (VBR) is approximate.

every nnnn megabytes of recording – a new file is created once the current file reaches nnnn megabytes in size.

if sound level does not exceed mmm% in xx.x seconds.

Split at the point with minimum level – if this option is selected then Total Recorder uses a sophisticated algorithm to find the optimal position for splitting.

Do not create files shorter than kkk seconds – a new file is created if the recording level during an interval of xx.x seconds is less than mmm% of the maximum sound level. This setting is useful, for example, when you record from an audio cassette and want to record each song to a different file. Setting the value of kkk seconds can help prevent Total Recorder from saving long intervals between songs.

Note. This split condition is affected by Pause Reduction operations. When using pause reduction, the values for mmm% and xx.x seconds are ignored. Pauses are reduced but splitting occurs only when files of length kk.k seconds can be generated.

when clip info in external player is changed – a new file is created when clip information in an external player is changed. Players to be monitored are identified in the "Check state of these external players" list. You can select a particular player or choose "[All known players]" from the list.

Split at the point with the lowest level within x seconds from where clip info was changed – if this option is selected then Total Recorder uses a sophisticated algorithm to find the optimal position for splitting around the position where the clip info is changed. The size of the region to search is specified by the "x" value.

check state of players every XXXX milliseconds – Total Recorder will check clip info for the specified players every XXX milliseconds.

use clip info from external player for created file tag and name – the tag and file name will be formed based on clip info. To specify a player from which clip info will be retrieved, select a particular player, or choose "[All known players]", from the "Check state of these external players" drop-down list.

Duplicate last N seconds of previous file – selecting this option and specifying the number of seconds, N, results in the first N seconds of the new file being the same as the last N seconds of the previous file.

Duplicate first N seconds of next file – selecting this option and specifying the number of seconds, N, results in the last N seconds of the previous file being the same as the first N seconds of the new file.

Using one of these "duplicate" options may be useful for the following:

- You do not want a file to be split in the middle of a sentence.

- If you use "when clip info in external player is changed" or "use clip info from external player for created file tag and name", there may be some delay in the player updating its title to reflect the new clip. For example, when a new clip starts playing, a short period of time elapses before the

player updates its title based on the new clip.

Note that the sound is not duplicated if the recorded files correspond to different input sound streams. For example, suppose a recording is performed in Software mode, a player plays FILE1 and FILE2 through different sound streams, and the recording is split on the boundary of FILE1 and FILE2. In this case, the second recorded file will not contain data from the end of the first recorded file.

Assign track's sequential number to the file tag – selecting this option results in a sequential number for each recorded file being put into the tag field. The tag field in the first recorded file will be set to 1, in the second file to 2, etc. If you restart the recording, numbering restarts from one.

See also. Extracting clip info from players.

Notes:

- If a file being created has a default tag, then only the fields that are received from the players are replaced. All other fields are taken from the default tag.

- Some split flags are incompatible. If you try to set incompatible flags, red exclamation marks are displayed.

- To set limits on an overall recording session, refer to the "Using the Advanced stop recording conditions Dialog" section.

5.6.2   Extracting clip info from players

The majority of players display information about the clip being played in the title of their window. Total Recorder is aware of the formats of window titles for most of the popular players. For such players, Total Recorder can extract information about the clip being played and use it for file tags and when generating file names for files that are created when recording in split mode.

The name of a playing clip can be extracted from the title of a player. Many, but not all, players allow you to extract information regarding the performer of a clip if such information is present in the file being played. Only Windows Media Player 9.x (or later) with a special plug-in (see below) lets you obtain values for all ID3 tag fields (ID3v1 and ID3v2) if such tags are present in the file being played.

Generally, while playing an Internet transmission only the title of the transmission can be extracted.

Total Recorder has a list of supported players from which you can extract clip info. The list does not contain any browsers, such as Internet Explorer. If an Internet transmission is played by a browser rather than by a player, clip information cannot be extracted. This is because there is often more than one browser window open at a time, and it is not possible to determine the window from which to extract clip info.

Extracting clip info from Windows Media Player

Windows Media Player 7.1 (and later) does not show clip information in its window title. To use clip info from Windows Media Player:

- **version 7.1 (and later).** There is a visualization plug-in which is supplied and installed with Total Recorder. To use clip info using this plug-in, activate the plug-in from Windows Media Player's menu by selecting "View "-"Visualizations"-"Clip info for TR"-"Clip info for Total Recorder".

  To get clip info using the plug-in, Total Recorder needs Windows Media Player running in a normal state; it must not be minimized.

  For Windows Media Player 7.1-8.x, only the title can be extracted when a clip is being played.

  For Windows Media Player 9.x and later, values for all fields of the ID3 tag can be obtained.

- **version 9.0 (and later).** There is a special plug-in background plug-in "Clip info for TR background plug-in" which is supplied and installed with Total Recorder. To use clip info using this plug-in, turn on the plug-in through Total Recorder (see Split Settings) or through Windows Media Player ("View"-"Plug-ins"-"Other"-" Clip info for Total Recorder" menu item).

  To get clip info using the plug-in, Total Recorder does not need Windows Media Player running in a

normal state. It can be running in minimized or full-screen (e.g. while playing video) mode.

Values for all fields of the ID3 tag can be obtained.

If you have Windows Media Player version 9.0 (or later), it is recommended you use the background plug-in.

The state of plug-ins for Windows Media Player appear in the "Total Recorder plug-ins for Windows Media Player" dialog.

Extracting clip info from Rhapsody

To use clip info from Rhapsody Player:

- **For Rhapsody Player version prior to 4.0.** See information in Total Recorder's FAQ.

- **For Rhapsody Player version 4.x.** There is a special Total Recorder plug-in for Rhapsody 4.x. The plug-in allows you to extract information about the artist, album, and title from Rhapsody 4.x. To use clip info with this plug-in, you should install the plug-in through Total Recorder. For more information, refer to the Split Settings section.

Specific Player Settings

Some players vary the title of their window during playback by scrolling it. For Total Recorder to extract information from the title of the player window, you should turn off this scrolling mode.

To turn off the scrolling mode for WinAmp, take the following steps:

1. Launch WinAmp.

2. Select "Options"-"Preferences" (or use the Ctrl+P shortcut), and select "Options"-"Display".

3. Uncheck the "Scroll song title in the Windows taskbar" option.

Note: The instructions here are for WinAmp 2.91. For other versions, the steps may vary.

To turn off the scrolling mode for MusicMatch Jukebox, take the following steps:

1. Launch MusicMatch Jukebox.

2. Select "Options"-"Settings" (or use the Ctrl+Shift+S shortcut) and select the "Display" tab.

3. Uncheck the "Scroll the track title in the Windows taskbar" option.

Note: The instructions here are for MusicMatch Jukebox 8.0. For other versions, the steps may vary.

See also. How to get and use clip info from an external player.

5.6.3 Splitting an existing file

You can split an existing file in two ways:

- Save the file based on split conditions.

- Save the file based on existing track separators (cue points). For more information, refer to the "Working with cue files" section.

To split a file based on split conditions:

1. Open the file.

2. From the "File" menu, select "Save special"-"Save based on split conditions..."

The following dialog appears:
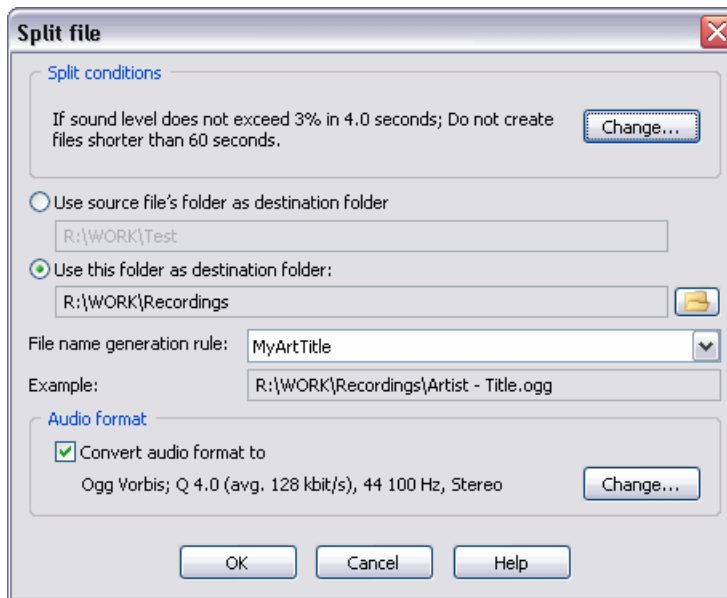
Split conditions

The current split conditions appear. To change split conditions, click the "Change..." button. The button activates a dialog similar to the one that is used for defining split conditions for batch processing. For more information, refer to the "Using the Split conditions for batch processing Dialog" section.

Destination folder

Select one of the following:

Use source file's folder as destination folder

The source file's folder will be used as the destination folder. The folder appears in the box below.

Use this folder as destination folder

The folder you specify below will be used as the destination folder. To change the folder, click the 📁 button.

File name generation rule

Select a rule from the drop-down list. You can add or edit rules using the "Settings"-"File Names" dialog. When constructing a file name, the name is generated based on the specified rule and then interpreted with regards to the destination folder.

Example

An example of a file name based on the selected file name generation rule is displayed.

Audio format

You can choose to change the audio format when splitting a recording. If you want to change the format, select the "Convert audio format to" check box, and click the "Change..." button to specify the format.

Note for VideoPro or Developer Edition users. Each part of the video file must start from a key frame. Since every split point is moved to the next nearest key frame following the point where the split condition is satisfied, split conditions may not give the exact expected results.

5.7   Working with video files (VideoPro and Developer Editions only)

Before you start to record video in Total Recorder, it is recommended you familiarize yourself with the online tutorial Primer on Digital Video Recording.
Other video tutorials on Total Recorder's web site include:

See also:

5.7.1 Supported hardware video devices (VideoPro and Developer Editions only)

Total Recorder supports recording from the following types of hardware video devices:

- USB web cameras.

- External video devices, including DVD players/recorders and cassette players/recorders, connected to analog input, such as Composite and S-Video, of a video card or a video capture device.

- Analog TV tuners. TV tuners that use hardware compression are not supported.

  Note that your TV tuner may have a setting that allows you to specify whether the tuner will use hardware compression. In this case, you should turn off hardware compression to allow the add-on to record from the tuner.

- DV cameras of standard definition (SD) connected to an IEEE1394 (FireWire) port.

Note.

Compatibility with all device models listed above is not guaranteed. It is recommended you test your video device for compatibility with the Total Recorder VideoPro Edition or Developer Edition using a trial version of Total Recorder before purchasing it.

If the specifications for your hardware video device contain a phrase like "the device will not function within the Media Center application", then the device will most likely be incompatible with Total Recorder. You should use software supplied with the device to work with that device.

See also. Setting Video Recording Parameters, Working with video files.

5.8 Working with cue files (Professional, VideoPro, and Developer Editions only)

Overview

A cue file is a standard file that contains information about the tracks in a media file. Normally, a cue file has an associated media file. Track information includes the track offset in the media file and usually data about the performer, title, etc. The extension for a cue file is usually ".cue". There are

many programs that support cue files themselves or through the use of plug-ins.

Total Recorder supports cue files. In Total Recorder's terminology, the track separators in cue files are cue points or bookmarks. Support for cue files and cue points include the following:

- If you open a media file, Total Recorder searches the associated cue file and opens both files if the cue file was found. When searching an associated cue file, Total Recorder takes the full name of the media file and appends the ".cue" extension to the name. For example, if you open the file "c:\media\song.mp3", then Total Recorder looks for the file "c:\media\song.mp3.cue".

- If you open a cue file, Total Recorder searches the corresponding media file and opens both files if the media file was found. If the media file is not found, the open operation fails. You cannot process a cue file on its own in Total Recorder.

- If there is cue information then Total Recorder will automatically save an associated cue file when saving the media file.

- If the associated cue file is modified then the current file is considered modified (and asterisked in the title of the main window).

- All track separators (cue points) are displayed in the Cue-sheet editor window. You can manually add, edit, and delete track separators.

- Track separators are displayed in the sound image panel and the sound image window. You can drag a cue mark (represented by a small triangle) to move a track separator.

- Information about the current track is displayed in the property panel of Total Recorder's main window.

- During recording, Total Recorder can automatically create track separators based on different criteria.

- Total Recorder can create track separators in the current file based on specified conditions.

- You can split the current media file into a number of files based on existing track separators.

- You can perform other cue-related operations.

All operations that alter cue points are placed in the Undo buffer and can be undone and redone.

Split mode vs. creating cue points (track separators)

In Total Recorder, some of the operations with regards to cue points and split operations are similar. For example, sound data can be split based on tracks during a recording, and an existing file can be split into separate files.

When dividing a recording into separate parts, you can choose to use split mode or to create cue points. You cannot use both at the same time. The following are some guidelines:

- When recording in split mode, each part of the data is written to a separate file. When recording with cue points, all of the recorded data is written to one file.

- When recording with cue points, the result is one recording file and one associated cue file. Later you can split the media file into separate files based on the cue file. When recording in split mode, the result is a number of media files; no associated files are created.

- The conditions for split mode and recording with cue points are different.

- After recording with cue points, you can manually move the cue points.

- You cannot record video in split mode.

- You cannot play back the current recording when recording in split mode.

Cautions:

– Be careful when working with either a cue file or a media file that has an associated cue file outside of Total Recorder. For example, if you move or rename a cue file, you should also move or rename the corresponding media file. You should also use Total Recorder's file naming conventions (see

above).

– Cue files are preserved only if you save the current file through a "Save" or "Save as" operation. In other operations, cue points are not taken into account. For example, if you use "Save selection as", cue points for the selection will not be saved. Or if you insert a file, cue points from the file being inserted will not be inserted.

– All time values have an accuracy of 1/75 of a second.

5.8.1 Cue-sheet editor window

You can manually show or hide the Cue-sheet editor window. From Total Recorder's "View" menu, click "Show Cue-sheet editor". You can also close the window to hide it. The Cue-sheet editor window opens automatically when you do one of the following: open a cue file, open a media file that has an associated cue file, or create a new cue point.

The Cue-sheet editor window looks like this:
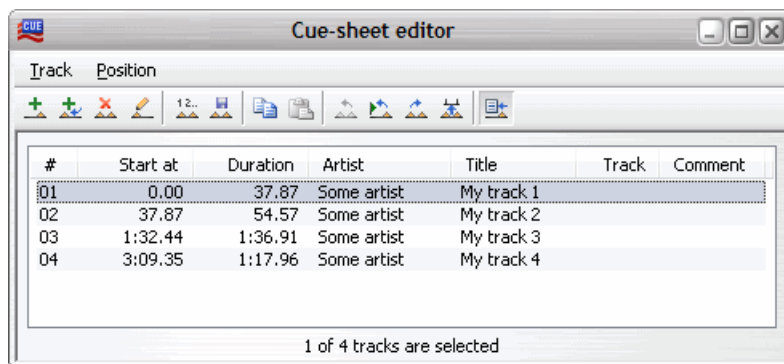
The Cue-sheet editor window consists of the following main parts:

- Cue-sheet editor window main menu.

- Cue-sheet editor window main toolbar.

- List of tracks, including the following information for each track: sequential track number, offset (starting position), duration, artist, title, track number, and any comments you decide to use for the track.

You can right-click in the track-list area to work with cue points.

When you double-click on a track in the list, Total Recorder starts to play the track from its beginning.

You can customize shortcuts and global hotkeys for cue commands. See also Shortcut Settings, Global Hotkey Settings.

5.8.2 Cue-sheet editor main menu

Track Submenu

Menu Item	Action	Butt on	Default shortcut
Insert track separator at current position...	Activate the "Add/Edit track" dialog box where you can set parameters for the new track separator. Initial values for the new track are based on the current position.	⊞	None
Insert track separator into	Activate the "Add/Edit track" dialog box where you can set parameters for the new track separator that will be inserted into	⊞	Ins

current track...	the selected track.		
Remove track separator(s)	Remove the selected track separator(s).	🗙	Del
Edit track...	Activate the "Add/Edit track" dialog box for editing the selected track.	✐	None
Copy track info	Copy information from the selected tracks to the Clipboard.	📋	Ctrl+C Ctrl+Ins
Paste track info	Paste information from the Clipboard into selected tracks.	📋	Ctrl+V Shift+Ins
Assign numbers to selected tracks...	Assign sequential numbers to the selected tracks. You are prompted to enter an initial value for this numbering.	12..	None
Save selected tracks to separate files...	Activate the "Save tracks to separate files" dialog box for saving the selected tracks.	💾	None

Position Submenu

Menu Item	Action	Button	Default shortcut
Go to previous track	Set the current position to the start position of the previous track.	⬆	None
Go to track's start position	Set the current position to the start position of the current track.	⬆	None
Go to track's start position and play	Set the current position to the start position of the current track, and start playback.	None	Enter
Go to next track	Set the current position to the start position of the next track.	⬆	None
Set selection to range of tracks	Select from the beginning of the first selected track to the end of the last selected track.	⬇	None
Select All	Select all tracks.	None	Ctrl+A
Select track for current position	If selected, Total Recorder automatically selects the track in the list that corresponds to the current position in the file.	⬇	None

.

5.8.3 Cue-sheet editor main toolbar

This toolbar allows you easy access to common cue operations. You can use the following buttons:

Button	Description	Menu Item	Default shortcut
➕	Insert a track separator at the current position.	Track – Insert a track separator at the current position...	None
➕	Insert a track separator into the current track	Track – Insert track separator into current track...	Ins
🗙	Remove the selected track separators.	Track – Remove track separator(s)	Del
✐	Activate the "Add/Edit track" dialog box for editing the selected track.	Track – Edit track...	None

🔢	Assign sequential numbers to the selected tracks. You are prompted to enter the initial number. See also Assigning track numbers.	Track – Assign track numbers to selected tracks...	None
💾	Activate the "Save tracks to separate files" dialog box for saving the selected tracks.	Track – Save selected tracks to separate files...	None
📋	Copy information from the selected tracks to the Clipboard.	Track – Copy track info	Ctrl+C Ctrl+Ins
📋	Paste information from the Clipboard into the selected tracks.	Track – Paste track info	Ctrl+V Shift+Ins
⬆	Set the current position to the start position of the previous track.	Position – Go to previous track	None
⬆	Set the current position to the start position of the current track.	Position – Go to track's start position	None
⬆	Set the current position to the start position of the next track.	Position – Go to next track	None
⬆	Select from the beginning of the first selected track to the end of the last selected track.	Position – Set selection to range of tracks	None
▤	If selected, Total Recorder automatically selects the track in the list corresponding to the current position in the file.	Position – Select track for current position	None
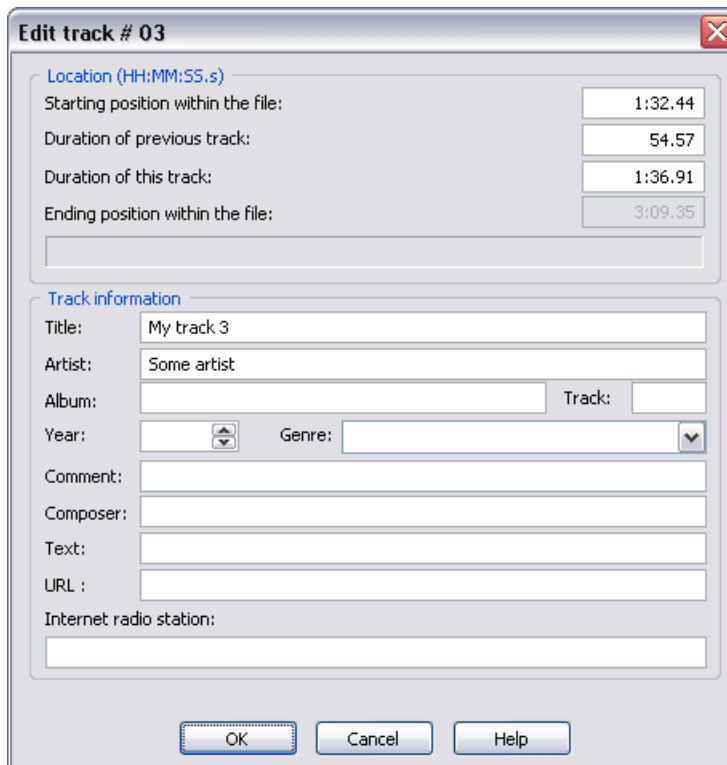
5.8.4   Add/Edit track dialog

The "Add/Edit track" dialog appears when you do any of the following:

– Add a new track by selecting "Track"-"Insert track separator into current track..." on the Cue-sheet editor window (or click the ➕ button on the Cue-sheet editor toolbar).

– Add a new track by selecting "Track"-"Insert track separator at current position..." on the Cue-sheet editor window (or click the ➕ button on the Cue-sheet editor toolbar).

– Add a new track by selecting "Tools"-"Split current file"-"Insert track separator at current position" on Total Recorder's main toolbar (or click the ➕ button in the Selection Panel).

– Edit a track by selecting "Track"-"Edit track..." on the Cue-sheet editor window (or click the ✏ button on the Cue-sheet editor toolbar).

The "Add/Edit track" dialog looks like this:

Edit track # 03

Location (HH:MM:SS.s)

Starting position within the file: 1:32.44

Duration of previous track: 54.57

Duration of this track: 1:36.91

Ending position within the file: 3:09.35

Track information

Title: My track 3

Artist: Some artist

Album: | Track:

Year: | Genre:

Comment:

Composer:

Text:

URL :

Internet radio station:

OK | Cancel | Help

Start position within the file - start position within the file for the track to be added or edited.

Duration of previous track - duration of the track previous to the current one.

Duration of this track - duration of the track to be added or edited.

Ending position within the file - end position within the file for the track to be added or edited.

Below the "time group", you can view and edit fields similar to those for a file tag.
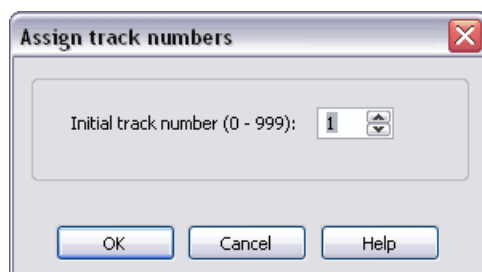
Adding/editing a track can be undone and redone.

Note. All time values have an accuracy of 1/75 of a second.

5.8.5   Assigning track numbers

To assign sequential track numbers, take the following steps:

1. Select a set of tracks to which you want to assign numbers.

2. In the Cue-sheet editor window, select "Track"-"Assign track numbers to selected tracks...", or click the button on the Cue-sheet editor toolbar. The following dialog appears:

Assign track numbers

Initial track number (0 - 999): 1

OK | Cancel | Help

3. Specify the initial track number and click "OK".

Total Recorder will assign sequential track numbers to the selected tracks starting with the number

you specified.

5.8.6 Saving tracks to separate files

To save tracks to separate files, take the following steps:

– Select a set of tracks you want to save.

– In the Cue-sheet editor window, select "Track"-"Save tracks to separate files....", or click the 💾 button on the Cue-sheet editor toolbar.

– Complete the fields on the dialog box below.
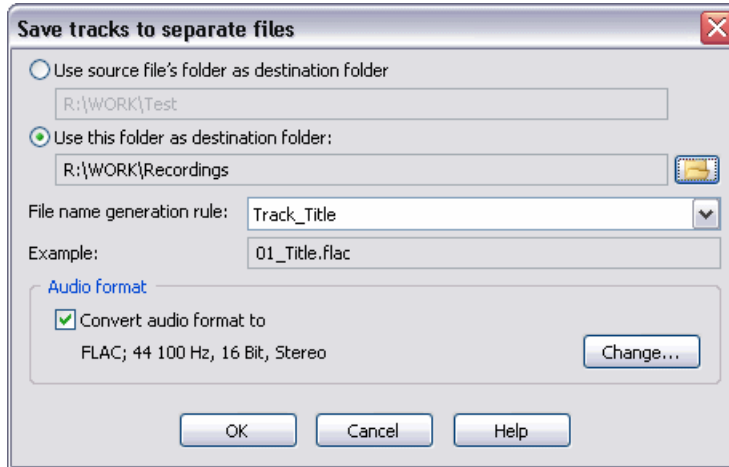
Save tracks to separate files

- ○ Use source file's folder as destination folder
  R:\WORK\Test
- ● Use this folder as destination folder:
  R:\WORK\Recordings

  File name generation rule: Track_Title

  Example: 01_Title.flac

  Audio format
  ☑ Convert audio format to
  FLAC; 44 100 Hz, 16 Bit, Stereo   [Change...]

  [OK] [Cancel] [Help]

Destination folder

Select one of the following:

Use source file's folder as destination folder

The source file's folder will be used as the destination folder. The folder appears in the box below.

Use this folder as destination folder

The folder you specify below will be used as the destination folder. To change the folder, click the 📂 button.

File name generation rule

Select a rule from the drop-down list at the right. The rules can be added or edited in the "Settings"-"File Names" dialog. When constructing a file name, the name is generated according to the specified rule and then interpreted with respect to the destination folder.

Example

An example of the file name based on the selected file name generation rule is displayed.

Audio format

You can choose to change the audio format when splitting a file. If you want to change the format, select the "Convert audio format to" check box, and click the "Change..." button to specify the format.

Note for VideoPro or Developer Edition users. Each part of the video file must start from a key frame. Since every split point is moved to the next nearest key frame following the point where the split condition is satisfied, split conditions may not give the exact expected results.

5.8.7   Creating track separators while recording

To turn on the creation of track separators during a recording, take the following steps.

For a regular recording:

In the "Settings"-"Split" dialog, select the "Create a new track separator (cue point) based on:" check box.

For a scheduled recording:

In the "General" tab, select the "Create a new track separator (cue point) based on:" check box.

To set conditions for creating track separators, click the "Conditions" button at the right of the check boxes. The following dialog appears:
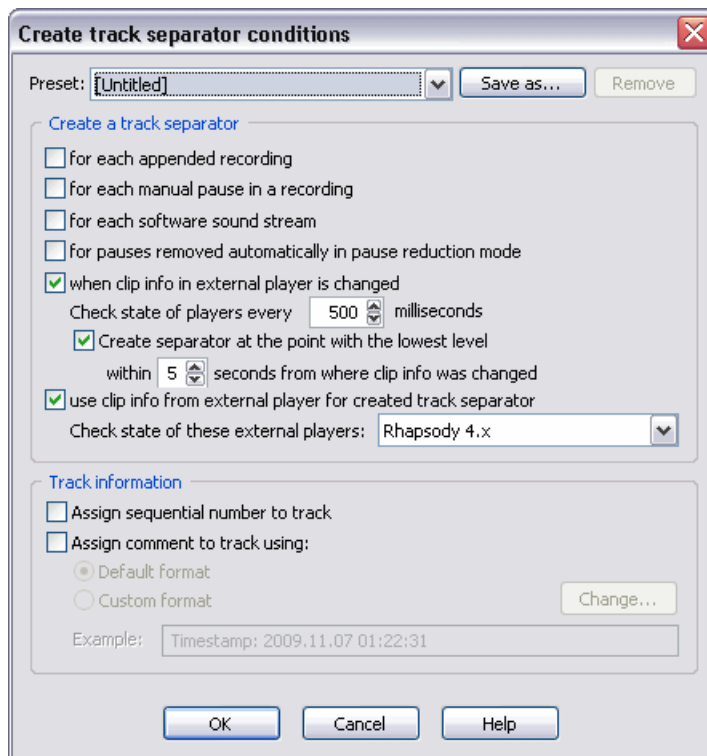
Preset – list of saved conditions for creating cue points. You can select a preset from the drop-down list.

Save as – assign a name to the conditions you have specified for creating a cue point, and add it to the list of presets.

Remove – remove a preset from the list.

Create a track separator

for each appended recording – a new track separator is created each time you start recording and the recording mode is append mode. See also "Open/save Settings".

for each manual pause in a recording – a new track separator is created each time you pause a recording.

for each software sound stream – a new track separator is created for each new sound stream being recorded in software mode. Setting this option can be useful if you want to separate different streams by track separators. For example, if you are using WinAmp to play a playlist, you can play each song from the playlist in a different stream. If you set this option and start recording sound that is being played by WinAmp, each song from the playlist will be recorded to a separate track.

for pauses removed automatically in pause reduction mode – a new track separator is created where a portion of sound is removed due to pause reduction mode. See also Setting Recording parameters.

when clip info in external player is changed – a new track separator is created when clip information in an external player is changed. Players to be monitored are identified in the "Check state of these external players" list. You can select a particular player or choose "[All known players]" from the list.

Check state of players every XXXX milliseconds – Total Recorder will check clip info for the specified players every XXX milliseconds.

Create separator at the point with the lowest level within x seconds from where clip info was changed – if this option is selected then Total Recorder uses a sophisticated algorithm to find the optimal position for placing a track separator around the position where the clip info is changed. The size of the region to search is specified by the "x" value.

use clip info from external player for created track separator – the track data will be filled in based on clip info. To specify the player from which the clip info will be retrieved, select a particular player, or choose "[All known players]", from the "Check state of these external players" drop-down list.

Track information

Assign sequential number to track

If this check box is selected, each track number will be assigned a sequential number starting from 1.

Assign comment to track using

Select this check box if you want a track's comment to be based on one of these formats:

Default format - use Total Recorder's predefined template.

Custom format – use a specific template. To edit the template, click the "Change..." button at the right. The "Tag field generation rule" dialog box appears where you can define your own template for track comments.

Example

An example of a comment field based on the current template is displayed.

See also. Extracting clip info from players.

5.8.8   Creating track separators while background recording

Total Recorder can analyze a stream being background recorded and extract data from the stream, as long as the server supplies the data. Based on the extracted data, Total Recorder can insert track separators (cue points) in appropriate positions.

To use this feature, take the following steps:

For a regular background recording:

In the "Settings"-"Split" dialog, select the "Create a new track separator for new clip info during background recording" check box.

For a scheduled background recording:

In the "General" tab, select the " Create a new track separator for new clip info during background recording" check box.

To set additional options, click the "Settings" button at the right of the check box. The following dialog appears:
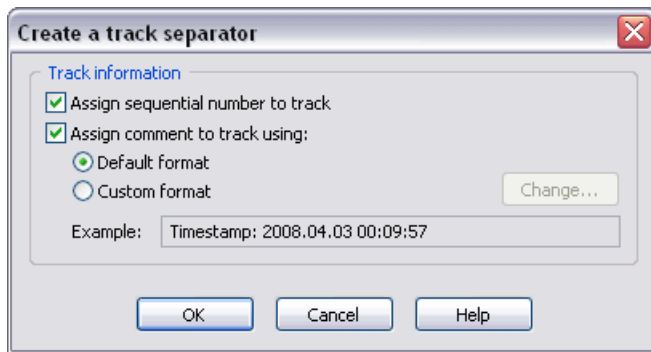
Assign sequential number to track

If this check box is selected, each track number will be assigned a sequential number starting from 1.

Assign comment to track using:

Select this check box if you want a track's comment to be based on one of these formats.

> **Default format** - use Total Recorder's predefined template.

> **Custom format** – use a specific template. To edit the template, click the "Change..." button at the right. The "Tag field generation rule" dialog box appears where you can define your own template for track comments.

> **Example**

> An example of a comment field generated based on the current template is displayed.

See also. Background recording (capturing) and playing of Internet streams.

5.8.9   Automatic creation of track separators for existing file

You can automatically have track separators created based on different conditions by taking the following steps:

– Specify the conditions for creating a track separator. From Total Recorder's main menu, click "Tools"-"Split current file"-"Split conditions...", or click the ⊞ button on the selection panel. The "Split conditions" dialog box appears (see below).

– From Total Recorder's main menu, click "Tools"-"Split current file"-"Split current file into tracks", or click the ⊞ button on the selection panel.

You use the following dialog to specify your split conditions. Note that these conditions are also used for the "Find next split point" operation.
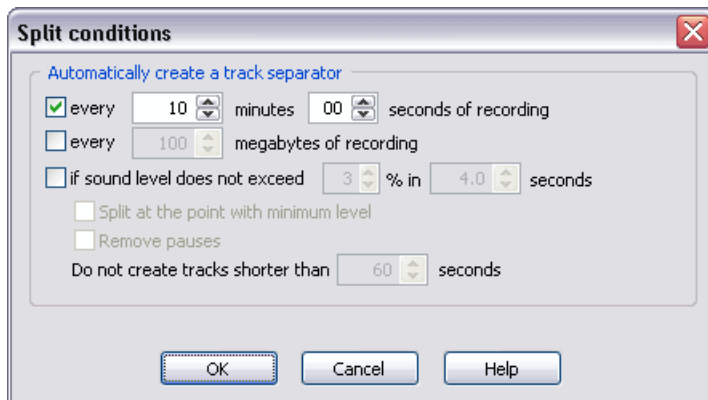
Automatically create a track separator

every nnn minutes of recording – a track separator is created every nnn minutes.

every nnnn megabytes of recording – a track separator is created every nnnn megabytes.

if sound level does not exceed mmm% in xx.x seconds

Split at the point with minimum level – if this option is selected then Total Recorder uses a sophisticated algorithm to find the optimal position for placing a track separator.

Remove pauses – if this option is selected then Total Recorder removes pauses.

Do not create tracks shorter than kkk seconds – the next track separator must be at least kkk seconds from the previous track separator.

5.9 Automatic Playing and Recording: Scheduler, Command Line

5.9.1 Using a Scheduler

Total Recorder lets you program jobs (recording, background recording or playback) to start at a given time, similar to programming your VCR. You can either use Total Recorder's built-in scheduler or use command line options with an external scheduler, such as Microsoft Task Scheduler. The preferred method is to use the built-in scheduler because it lets you set all the parameters using a GUI and you can set different parameters for each job.

To start the built-in scheduler:

- From the "Tools" menu, select "Schedule…", or press the button on the main toolbar. You are presented with the "Record/Play Schedule" dialog.

To use an external scheduler:

- Put Total Recorder as one of the scheduled tasks using the appropriate command line parameters. These command line parameters are described in the section "Using the Command Line".

The Total Recorder Log contains a list of all messages relating to jobs scheduled by the built-in scheduler or initiated through the command line. For information on this log, refer to the section "Using the Total Recorder Log".

See also. How to record an Internet transmission using Total Recorder's scheduler.

5.9.1.1 Executing Scheduled Jobs

Launching scheduled jobs

Launching of a scheduled job starts five seconds before the scheduled time. However, the actual job (playing, recording, or background recording) starts at exactly the scheduled time. A scheduled job stops at exactly the scheduled time regardless of the time it was started.

For each scheduled job, a new copy of Total Recorder is launched regardless of another copy being present. This copy closes after the job is finished except in the following cases:

- You started the job with command-line parameters (either explicitly or implicitly) and you indicated the copy should stay active.

- You interrupted the job.

- You switched a scheduled recording to a manually started recording. For more information, refer to Using Auto-Stop Mode.

- You scheduled a recording or a background recording and the data being recorded is playing back (Professional, VideoPro, and Developer Editions only).

Terminating scheduled jobs

Actions that can terminate a scheduled execution are the following:

• Interrupting the job by clicking the Interrupt (⊗) button on the Main toolbar, or the "Interrupt work" item on the "Play/Record" menu.

• Exiting Total Recorder, either by clicking "File"-"Exit" or pressing the Alt+F4 shortcut.

You can change a recording from a scheduled state to an auto-stop state without the recording terminating. To activate Auto-Stop mode, click the ⊙ button, or from the "Play/Record" menu, click "Auto-stop recording".

With the exception of activating auto-stop mode, interrupting a job by clicking a button or the corresponding menu item, stops the job. Information that has already been recorded is saved to a file, the informational message "Job interrupted by user" is written to the Total Recorder Log, and Total Recorder stays active. When you use "Exit" from the "File" menu or you close Total Recorder in any other way (e.g. Alt-F4), all of these actions are performed after the program terminates.

Actions You Can Take During a Scheduled Job

During a scheduled job or a job initiated from the command line, many buttons and menu items are disabled. Note that if you are using the Professional, VideoPro, or Developer Edition then you can start the playback of data that is being recorded or background recorded.

See also. Using a Scheduler overview.

5.9.1.2 Handling Errors and Other Problems

Error messages during a recorded job, such as "file does not exist", do not go directly to a user since a user is not always present. These messages are written to the Total Recorder Log. If a job was executed through the internal scheduler, you can also review log messages for the job on the Schedule Item - Status Tab.

If recording was active but nothing was actually recorded, the empty file is not saved and a message "Nothing has been recorded" is written to the Total Recorder Log. This may happen if "Software" was set as a source but none of the programs played sound during the recording time. The job is considered to perform normally if it was not interrupted.

See also. Using a Scheduler overview.

5.9.1.3 Displaying and Controlling Scheduled Jobs

The "Record/Play Schedule" dialog shows a list of scheduled jobs. From this dialog you can control scheduled jobs and create new ones.

From the "Tools" menu, select "Schedule", or press the ⊙ button from the main toolbar and you are presented with the following dialog:
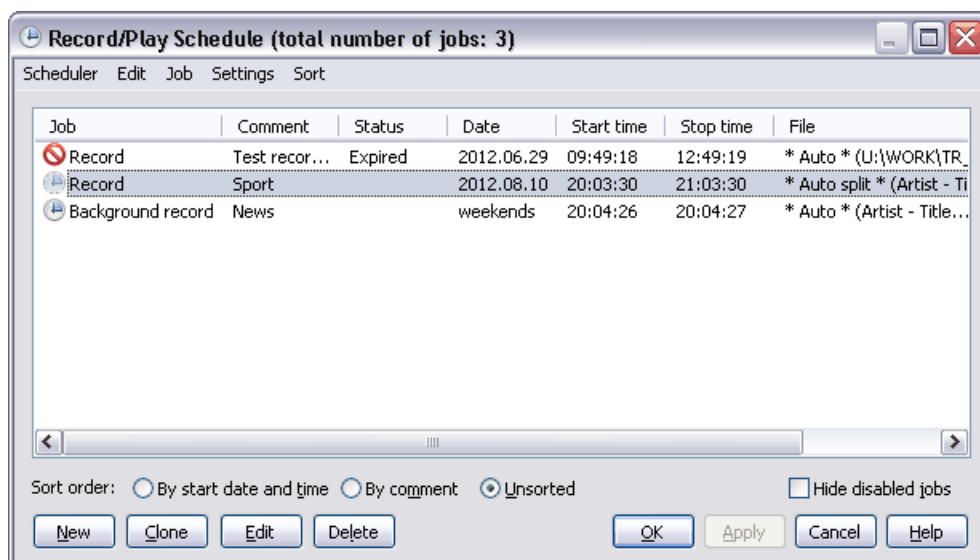
Main menu

Scheduler submenu

Menu Item	Action	Shortcut
Import and append jobs...	You will be prompted to select a file for importing jobs. This file should contain exported jobs from Total Recorder.	None
Export selected jobs...	Selected jobs are exported to a file. You can later import these jobs.	None
Save (Apply)	Same as the "Apply" button.	Ctrl+S
Save changes and exit (OK)	Same as the "OK" button.	Ctrl+Shift+S
Discard changes and exit (Cancel)	Same as the "Cancel" button.	Esc

Edit submenu

Menu Item	Action	Shortcut
Select All	Select all jobs in the list.	Ctrl+A

Job submenu

Menu Item	Action	Shortcut
New...	Same as the "New" button.	Ins
Clone...	Same as the "Clone" button.	Ctrl+Ins
Edit...	Same as the "Edit" button.	F2
Enable	Enable the selected jobs.	Ctrl+E
Disable	Disable the selected jobs.	Ctrl+D
Reverse Enable/ Disable	All selected jobs that are disabled become enabled. All selected jobs that are enabled become disabled.	Ctrl+I
Delete...	Same as the "Delete" button.	Del

Note that items from this submenu are also available through a context menu.

Settings submenu

Menu Item	Action	Shortcut
Delete job when done	If selected, a job that finishes normally will automatically be deleted from the list.	None
Run scheduled jobs minimized	If selected, Total Recorder's jobs will run in a minimized window. Otherwise, they will run in a normal window.	None
Hide disabled jobs	Same as the "Hide disabled jobs" check box.	None

Sort submenu

Menu Item	Action	Shortcut
Sort by start date and time	Jobs in the list are sorted by starting date and time.	None
Sort by comment	Jobs in the list are sorted by their comments.	None
Unsorted	Jobs appear in the order in which they were defined.	None

Scheduler window elements

Job – scheduled job type: "Play", "Record", or "Background Record" (Professional, VideoPro, and Developer Editions only. See Background recording (capturing) and playing of Internet streams). There is an icon to the left that reflects the job status:

Icon	Status
(icon)	job should be run
(icon)	job would be run if it was not disabled
No icon	job is enabled and should not be run because the time has passed
(icon)	job is disabled and should not be run because the time has passed

Comment – a user defined comment for the job.

Status – the result of the job. For a job with a regular frequency (e.g. daily), the last result is displayed. You can view detailed results using the "Schedule item - Status" tab, accessed with the "Edit" button. This tab is described later.

The Status field can be one of the following:

Status	Explanation
Empty	Never run.
Done	Job ran normally.
Expired	Job did not run and never will because the time has already passed. Your computer being switched off at the scheduled time for the job may have caused this. For repeated jobs, this will never be displayed.
Interrupted	Job was interrupted by a user.
Error	Error during the job. The error message can be viewed in the "Schedule item - Status" tab.
No signal	Job ran normally, but nothing has been recorded.
Running	Currently the job has been performed by another running instance of Total Recorder. It is also possible that the job was started but there is no information of a normal or abnormal termination. Your computer being switched off during the job may have caused this.

The **Status** field contains information from the Total Recorder Log. If records were deleted from the Total Recorder Log, either automatically or manually, they will not appear here. If all records for a particular job were deleted, the job will appear as if it had never run.

Date – identifies when the job should run:

Date	Explanation
Daily	each day
Day of the week	each week on the given day, weekdays, or weekends
List of days of the week	each week on the given list of days
YYYY.MM.DD	the date when the job should run

Start time – the time the job should start (in 24-hour format, hh:mm:ss).

Stop time – the time the job should finish (in 24-hour format, hh:mm:ss). If the "Stop time" is less than the "Start time", it is assumed that the "Stop time" belongs to the next day. For playing a file, you can omit the "Stop time" and the file will be played back once.

File – the name of the file being played or recorded. This is always a full path. When using automatic file name generation rules for recording, it shows:

- "*Auto* (example of file name)" - if split mode is disabled.
- "*Auto split* (example of file name)" - if split mode is enabled.

Controls

You can use the following controls from this dialog:

Sort order group. Select the sort order. You can choose from: "By start date and time", "By comment" and "Unsorted" (jobs appear in the order in which they were defined).

Hide disabled jobs box. If checked, only enabled jobs are included in the list of jobs.

New button. Open the "Schedule item" tabs for entering a new job.

Clone button. Build a new job by copying the current one and then open the "Schedule item" tabs for editing. This is useful, for example, if you need to schedule a job to run on certain days of the week but not daily.

Edit button. Open the "Schedule item" tabs for detailed viewing and editing of job parameters.

Delete button. Deletes current job, after confirmation.

Apply button. Accept all changes without closing the dialog.

OK button. Accept all changes and close the dialog.

Cancel button. Discard all changes. If any changes were made, confirmation is required.

Notes:

- You can perform some actions (e.g. delete, enable, disable) on multiple scheduled jobs. You can use the standard Ctrl+click and Shift+click operations to select/deselect scheduled jobs in the list.

- You can also perform actions through a right-click drop-down menu.

See also. Using a Scheduler overview.

5.9.1.4 Importing and Exporting scheduled jobs

Beginning with version 7.0, Total Recorder stores scheduled jobs in an XML file. You can export and import your scheduled jobs. This is useful if you need to reinstall your system, move Total Recorder from one computer to another, or as a backup.

To export scheduled jobs:

1. From the "Tools" menu, click "Scheduler" (or click the 🕐 button in the main toolbar).

2. In the list of scheduled jobs, select those you want to export.

3. From the "Scheduler" menu, click "Export selected jobs..."

4. Specify a file name to which you want to export the selected jobs.

To import scheduled jobs:

1. From the "Tools" menu, click "Scheduler" (or click the ⏰ button in the main toolbar).

2. From the "Scheduler" menu, click "Import and Append jobs...".

3. Specify the file from which you want to import the scheduled jobs.

All scheduled jobs from the file will be added to the list of your existing scheduled jobs.

See also. Importing and Exporting Configuration Settings.

5.9.1.5　Scheduling a Job

Use the "Schedule item" tabs to schedule a job, either a recording or a playback.

1. Open the "Record/Play Schedule" dialog.

2. Use the "New" button to create a new job.

   OR

   Select a job and use the "Clone" button to copy the current job for editing. This is useful, for example, if you need to schedule a job that is slightly different from an existing job.

3. Use the following "Schedule item" tabs to specify your requirements:

   General - use this tab to define the most commonly used parameters for a scheduled job. See the Schedule item - General Tab section for details.

   Advanced (Professional, VideoPro, and Developer Editions only) - use this tab to specify advanced parameters for a scheduled job. See the Schedule Item - Advanced Tab for Playing and Recording and Schedule Item - Advanced Tab for Background Recording sections for details.

   Post-processing (Professional, VideoPro, and Developer Editions only) – use this tab if you want to run a command line or you want recorded files to be sent to iTunes/iPod. See the Schedule Item - Post-processing Tab section for details.

   Status - in this tab, all of the Total Recorder Log messages for the current job are listed in chronological order. See the Schedule Item - Status Tab section for details.

See also. Using a Scheduler overview.

5.9.1.6　Schedule Item - General Tab

Use the "General" tab to define the most commonly used parameters for a scheduled job.

The tab looks like this.

Comment. You can specify a comment for the job. Comments can be used when sorting lists of scheduled jobs.

Job. You must specify the action. Select "Play", "Record", or "Background record" (Professional and Developer Editions only).

Stop job based on:

    Absolute time – stop time is determined by the values entered in the Stop at/Duration field.

    Duration – duration is determined by the values entered in the Stop at/Duration field.

Date. You can schedule jobs with the following frequency:

Frequency	Explanation
Once	one time. Specify year, month and day (in that order) when the job should start.
Daily	each day
Weekly	each week. From the list you can select a day of the week, weekdays (Monday through Friday), or weekends (Saturday and Sunday).
Special	each week. You can select any days of the week from the dialog. For example, you can specify the job runs each week on Tuesday and Friday.

Depending on the type of start date you have specified, the part of the General Tab below the date type selection allows you to choose particular start conditions.

Time. You can specify a starting time and a stopping time, as follows:

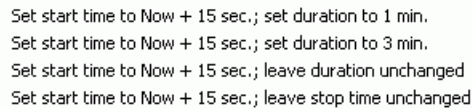   **Start at** – time (hours, minutes, and seconds) when the job should start.

    Stop at/Duration – time (hours, minutes, and seconds) when the job should stop, or the duration for the job. The meaning depends on the "Stop job based on" setting. This is required for recording and is optional for playback.

If "Stop job based on" is set to "Stop time", zeroes in this field means midnight and not the absence of a stop time. If the "Stop at" time is less than the "Start at" time, the activity (either play or record) will stop the next day.

If you want to specify a stopping time for playback, select the "Stop at" check box to the left, and enter your stop time. A file will be played continuously from the "Start at" time until the "Stop at" time, regardless of the length of the file. Without a stop time, the file will be played once.

Now. Use the "Now" button to set the current date and time as the start time for the job. The time when the job should stop is set as the current time plus one second. After that, you can modify these parameters manually. Under the "Now" button, there is a clock that displays the current time.

Use predefined criteria (Professional, VideoPro, and Developer Editions only). This button activates a popup menu you can use to quickly set the start time and predefined values for the stop time/duration. The menu looks like this:

> Set start time to Now + 15 sec.; set duration to 1 min.
> Set start time to Now + 15 sec.; set duration to 3 min.
> Set start time to Now + 15 sec.; leave duration unchanged
> Set start time to Now + 15 sec.; leave stop time unchanged

Advanced (Professional, VideoPro, and Developer Editions only). This button activates the "Advanced stop recording conditions" dialog. For more information, refer to the "Using the Advanced stop recording conditions Dialog" section.

Recording source and parameters... When you use this button the Recording source and parameters dialog appears. Refer to the "Setting Recording Parameters" section.

Tag... This button lets you specify tag information for your recording. When you click this button, the appropriate dialog box appears (see Working with tags).
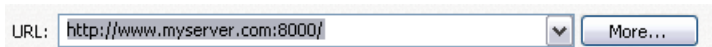
> **Note for Professional, VideoPro, and Developer Edition users.** If you record in split mode with the option "use clip info from external player for created file tag and name", your tag fields can be overridden by those extracted from an external player.

Normalization… – press this button to display the "DC offset and Normalization" dialog. The Scheduler lets you specify normalization for all formats including compressed. For compressed format, the actual recording is in MP3 format if the target format is MP3 and the "Normalize MP3 files without re-encoding" option of the "DC offset and Normalization" dialog is selected. Otherwise, it is in PCM format and will be normalized and converted when saving. Normalization operations cannot be done when split mode is on. For more information, see Working with Normalization and DC offset.

> **Note for Professional, VideoPro, and Developer Editions users.** If you record in split mode, normalization cannot be used and this button is disabled.

When saving an automatically recorded file, Total Recorder overwrites an existing file with the same name and no message is written to the Total Recorder Log. If a file with a given name cannot be created (e.g. the directory does not exist) a message is put to the Total Recorder Log and all recorded information is lost. It is recommended you use automatic file name generation to decrease the risk of these errors.

If you switch the type of job to "Background record" (Professional and Developer Editions only) then the area with the "Recording source and parameters...", "File properties...", and "Normalization…" buttons is replaced with the following controls:

> URL: http://www.myserver.com:8000/ ▼ More...

URL – specify a URL for background recording. Click the "More.." button to open the "Open URL" dialog box.

File name. This specifies the name of the file you want to create or play: You can use these options:

> **Automatically create filename (TRyyyymmdd_hhmmss) (Standard Edition only)** – this may be used for recording only. A new file is created based on the current date and time when the job completes. The file will be placed in Total Recorder's current directory.

Automatically create (Professional, VideoPro, and Developer Editions only) – this can be used for recording only. A new file is created based on the file name generation rules. You can set the rules by pressing the "Rules…" button.

Rules (Professional, VideoPro, and Developer Editions only) – this can be used for recording only. This button activates the "File name generation rule for job" dialog.

Note: If a date or time field is used in the file name generation rules, then the date and time depend upon your auto-create mode setting:

If auto-create mode is active	File names are generated during the creation of files. The date and time are set when the first portion of the sound data is received.
If auto-create mode is not active	File names are generated after the recording has finished.

Split file according to the specified conditions (Professional, VideoPro, and Developer Editions only) – this may be used for recording only. This box enables or disables split mode. For more information, refer to the "Using Split Mode" section. You can set Split conditions by pressing the "Conditions…" button.

Conditions (Professional, VideoPro, and Developer Editions only) – this may be used for recording only. This button activates the "Split recording conditions" dialog. For more information, refer to the "Using the Split recording conditions Dialog" section.

This name – a file name for recording or playback. You can enter it manually or use the "Browse" ( ) button.

Create a new track separator (cue point) based on (Professional, VideoPro, and Developer Editions only) – this can be used for recording only. If selected, a new track separator (cue point) will be created. Click the **Conditions** button to display the "Create track separator conditions" dialog box where you specify the conditions for creating a new track separator. For more information, refer to the "Creating track separators while recording" section.

Create a new track separator for new clip info during background recording (Professional, VideoPro, and Developer Editions only) – this can be used for background recording only. If selected, a new track separator (cue point) will be created for each new clip info. Click the **Settings** button to display the "Create track separator conditions" dialog box where you specify the conditions for creating a new track separator. For more information, refer to the "Creating track separators while background recording" section.

See also. Using a Scheduler overview, Scheduling a Job, Schedule Item - Advanced Tab for Playing and Recording, Schedule Item - Advanced Tab for Background Recording, Schedule Item - Status Tab , Schedule Item – Post-processing Tab, Background recording (capturing) and playing of Internet streams.

5.9.1.7   Schedule Item - Advanced Tab for Playing and Recording (Professional, VideoPro, and Developer Editions only)

Use the "Advanced" tab to define advanced parameters for a scheduled job.

The tab for the "Playing" and "Recording" job types looks like this. For the "Background Recording" job type, refer to the Schedule Item - Advanced Tab for Background Recording section.
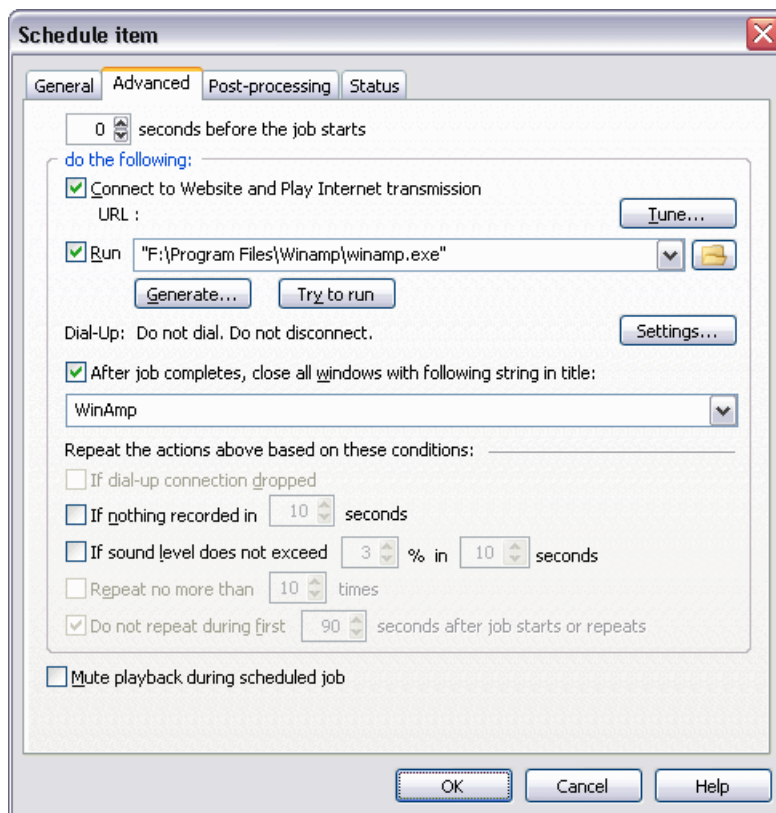
NNN seconds before the job starts - Set this field to a non-zero value if you want the actions in the **do the following** group below to be performed NNN seconds before the time specified in the General Tab for the scheduled job. This may be useful, for example, if you want to record an Internet transmission and connecting to the Internet typically takes a long time. In this case, setting a non-zero value results in the job connecting to the Internet earlier, waiting for the required period, and then starting the recording.

Connect to Website and Play Internet transmission - This feature can be used only for recording. This box causes the Internet transmission, selected through the "Tune" button, to be played when a scheduled recording starts. A play-URL is displayed below the check box. To specify the Internet transmission to play, use the "Tune…" button. For more information, refer to the "Tuning into Internet Transmissions" section.

> **Tune** – this button activates Total Recorder's mini-browser to tune into an Internet transmission. For more information, refer to the "Tuning into Internet Transmissions" section.

> **See also.** How to record an Internet transmission using Total Recorder's scheduler.

Run - This box causes the specified program to be launched each time a scheduled recording starts. You can type the name of this program, or you can use the "Browse" button at the right. You must specify the full path and all required parameters for the program. If the path contains spaces then it must be enclosed in quotes.

> **Generate** – use this button to define a Run command template using the Run command generation rule dialog.

> **Try to run** – use this button to test launching the program you have specified.

> **See also.** How to record an Internet transmission using Total Recorder's scheduler.

Dial-up – Use this group to work with dial-up options. The current dial-up settings are shown at the right. To specify dial-up settings, use the "Settings" button.

> **Settings** – this button activates the "Connection to Internet" dialog. For more information refer to

the "Connecting to the Internet" section.

After job completes, close all windows with following string in title - causes all windows with the specified string in their titles to be closed when the scheduled job completes. You can select this string from the drop-down list, or type it manually in the box at the right. This feature can be useful, and sometimes required, if you need to close the player before the next scheduled recording starts.

> **Caution:** Use this option carefully. All windows with the specified title will be closed. For example, let's say you specify that you want all windows closed with "WinAmp" in the title. If you have a document called "About WinAmp" open in an application when the job completes, then that application will be closed along with the WinAmp player.

Repeat the actions above based on these conditions – Use this group to reconnect to the Internet transmission or rerun the specified program when certain conditions are met. This allows a job to continue running even when a failure occurs, such as a dropped dial-up connection or a terminated transmission. When repeating the actions, Total Recorder closes any specified windows, hangs-up (if specified), and then performs the actions specified in the "Connect to Website and Play Internet transmission" and "Run" options. All of these operations take place without stopping the recording or interrupting the job. Records are written to the Total Recorder log for the job when the actions are repeated. You can choose from the following options:

> **If dial-up connection dropped** – select this box to repeat the actions when the line drops.

> **If nothing recorded in nnn seconds** – select this box to repeat the actions when nothing is recorded during an nnn-second period. This criteria is commonly used when recording in "Software" mode.

> **If sound level does not exceed mmm % in nnn seconds** - if this option is enabled, the actions repeat when the recording level during an nnn-second interval is less than mmm% of the maximum sound level. This criteria is commonly used when recording in "Sound Board" mode.

> **Repeat no more than nnn times** – if this option is enabled, the actions are repeated no more than nnn times. If this option is disabled, the actions can be repeated any number of times until it completes.

> **Do not repeat during first nnn seconds after job starts or repeats** – if this option is enabled, the actions are not repeated during the specified number of seconds after a job has started or the actions have been repeated. This gives time for the job to initialize (e.g. connecting to Internet, launching particular URL or application, and so on) before playback actually begins. Otherwise, the absence of sound coming into the sound board during initialization could be incorrectly interpreted by the scheduler as a failure condition. To avoid such a situation, select this box and specify the number of seconds that is sufficient to allow for job initialization.

Mute playback during scheduled job – if this option is enabled, playback is muted only while the scheduled job is running. This is useful when you have scheduled jobs running late at night and you do not want their playback to disturb you.

See also. Using a Scheduler overview, Scheduling a Job, Schedule Item - General Tab, Schedule Item - Advanced Tab for Background Recording, Schedule Item - Status Tab, Schedule Item - Post-processing Tab.

5.9.1.8 Schedule Item - Advanced Tab for Background Recording (Professional, VideoPro, and Developer Editions only)

Use the "Advanced" tab to specify any advanced parameters for the scheduled job.

The tab for the "Background Recording" job type looks like this. For the "Playing" and "Recording" job types, refer to the Schedule Item - Advanced Tab for Playing and Recording section.
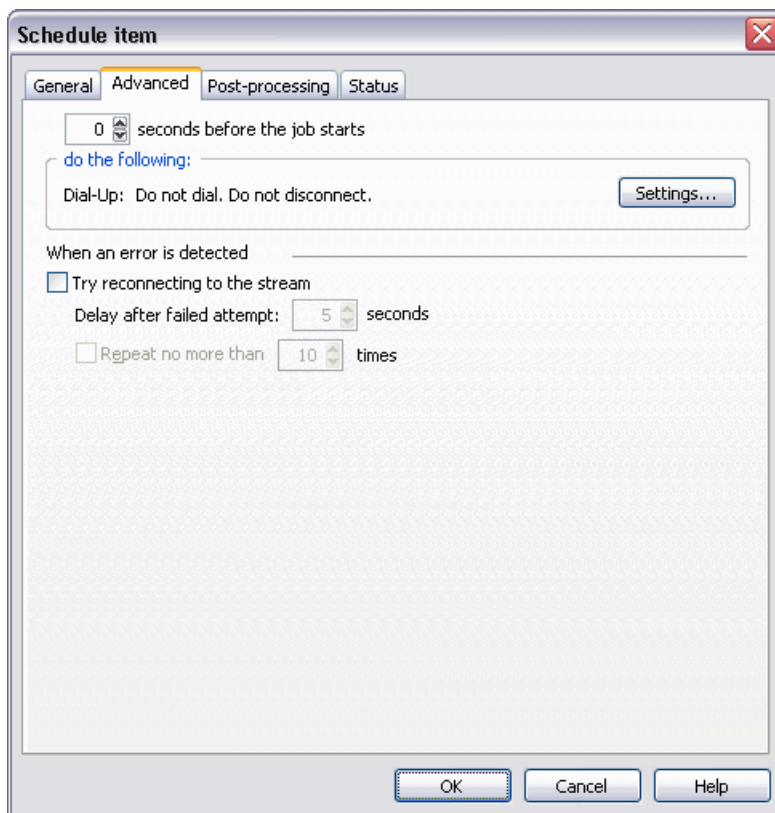
NNN seconds before the job starts - Set this field to a non-zero value if you want the actions in the **do the following** group below to be performed NNN seconds before the time specified in the General Tab for the scheduled job. This may be useful, for example, if connecting to the Internet takes a long time. In this case, setting a non-zero value results in the job connecting to the Internet earlier, waiting for the required period, and then starting the recording.

When an error is detected

This group contains options that define Total Recorder's behaviour in the case of errors. These options are primarily to allow a scheduled background recording to continue when a network or transmission server error occurs. Note that sometimes there is no reliable method of determining whether an actual error has occurred.

Caution. This feature does not work for Ogg Vorbis streams.

Try reconnecting to the stream. If this check box is selected, in the case of an error, Total Recorder will try to reconnect to the stream and continue the background recording.

> **Delay after failed attempt - XXX seconds.** This value specifies the number of seconds to wait after a failed attempt to try to reconnect.

> **Repeat no more than XXX times.** If this check box is selected, Total Recorder will try to reconnect no more than the specified number of times. Otherwise, Total Recorder will try to reconnect until the job time expires.

See also. Using a Scheduler overview, Scheduling a Job, Schedule Item - General Tab, Schedule Item - Advanced Tab for Playing and Recording, Schedule Item - Status Tab, Schedule Item - Post-processing Tab.

5.9.1.9 Schedule Item – Post-processing Tab (Professional, VideoPro, and Developer Editions only)

Use the "Post-processing" tab to specify actions that will be performed after a file has been recorded or after a recording session has completed.

The tab looks like this.
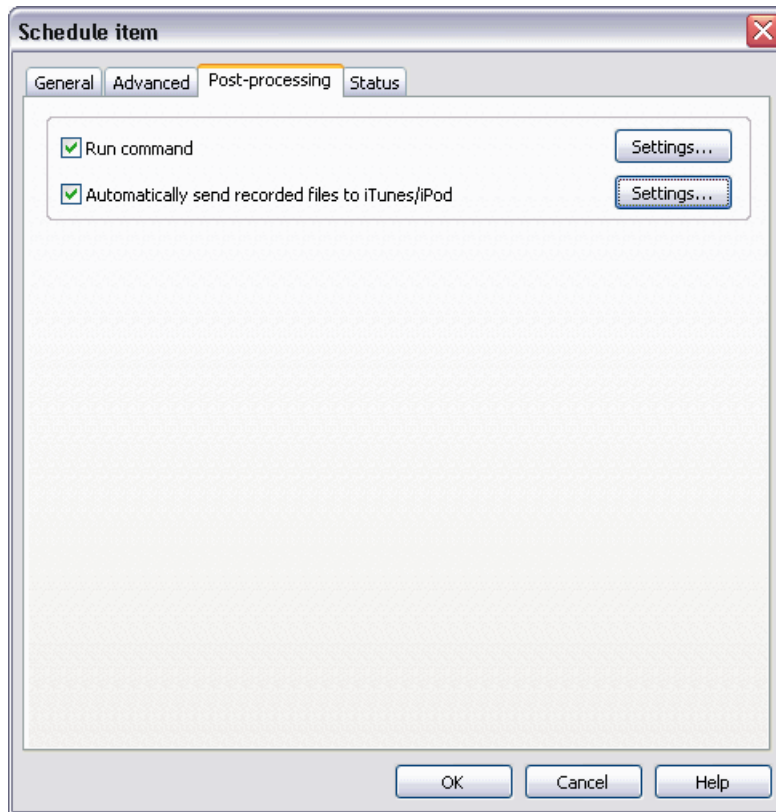
Run command. Select this check box if you want a command line to be executed after a file has been recorded or after a recording session completes. To configure options for the command line, click the "Settings" button to the right and use the "Run application" dialog.

Automatically send recorded files to iTunes/iPod – select this check box if you want recorded files to be sent to iTunes/iPod automatically. To set sending parameters, press the "Settings…" button and use the Send files to iTunes/iPod dialog.

See also. Using a Scheduler overview, Scheduling a Job, Schedule Item - General Tab, Schedule Item - Advanced Tab for Playing and Recording, Schedule Item - Advanced Tab for Background Recording, Schedule Item - Status Tab.

5.9.1.10 Schedule Item - Status Tab

Use this tab to display all of the log messages from Total Recorder's log file for the current job. Messages appear in chronological order. You can use this tab to see how the job executed in the past, what happened during job execution, and what the results were.

The tab looks like this.
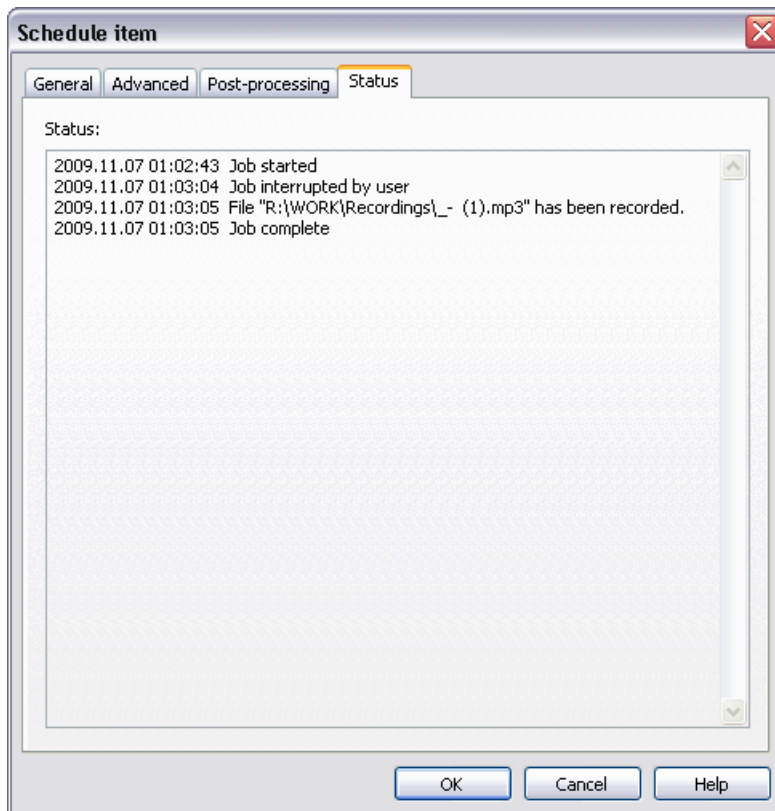
See also. Using a Scheduler overview, Scheduling a Job, Schedule Item - General Tab, Schedule Item - Advanced Tab for Playing and Recording, Schedule Item - Advanced Tab for Background Recording, Schedule Item - Post-processing Tab, Using the Total Recorder Log.

5.9.1.11 **Using File name generation rule for job Dialog (Professional, VideoPro, and Developer Editions only)**

This dialog is used to set the rule that will be used for generating file names during a scheduled recording. The dialog can be invoked by pressing the "Rules" button on the "Schedule item - General" tab.

A similar dialog is used to define file name generation rules when choosing the output destination for batch processing. In this case, the dialog is called "File name generation rule for batch processing".

The dialog looks like this:

There are two choices for setting the rule for a scheduled job:

Use named rule. File names are generated based on a specific named rule. If the named rule is modified (on the File Names dialog), then the rule that is used in the job is changed to the modified rule. Select the rule from the drop-down list at the right.

Use private rule. File names are generated based on a private rule. Any modifications of rules (made in the File Names dialog) do not affect the rule that is used for generating file names for the job.

Copy from named rule button – use this button to copy settings for the currently selected named rule into the private settings

Change button – activates the "File Name Generation Rule" dialog. Use this button to modify settings for the private rule.

Example – shows an example of a file name generated based on the current rule.

See also. Using a Scheduler overview.

5.9.1.12 Tuning into Internet Transmissions (Professional, VideoPro, and Developer Editions only)

Total Recorder can tune into an Internet transmission and have it play when a scheduled recording starts. To tune into an Internet transmission, enable the "Connect to Website and Play Internet transmission" option and press the "Tune…" button on "Schedule item - Advanced" tab.

The Total Recorder mini-browser, similar to the following, appears:

Address – specify the URL you want to go to and press the "Enter" or "Go" button. You can use the "Browse" (🗁) button to select and open local files.

Go, Back, Forward, Stop, Home buttons – same functionality as that of Internet Explorer.

Capture transmission – This button is used to capture Internet transmission. After pressing this button, it changes from "Capture transmission" to "Abort capturing". If you decide to stop capturing, press the "Abort capturing" button.

To capture an Internet transmission, take the following steps:

1. Go to a page from which you can immediately launch playing. For example, you can launch playing from the page http://www.totalrecorder.com/acme.htm immediately by clicking on an "Listen to Mayor's speech on increased pedestrian traffic" link.

2. Press the "Capture transmission" button.

3. Click a link to start playing (e.g. "Listen to Mayor's speech on increased pedestrian traffic" link).

4. Answer "Yes" to the question "Save URL … as location to play? …". The "Name", "Base page", and "Play address" fields in the "Transmission to play" group will be filled in.

5. Press the "Play" button to check if your transmission is being captured correctly.

Transmission to play group

Name – list of named transmissions. By naming a saved transmission, it can be easily selected from the list in the future.

Save as – assign a name to the transmission. This name appears in the "Name" list at the left.

Remove – remove a named transmission.

Use base page – check this box if you want the minibrowser to first navigate to the "Base page" to play the Internet transmission. Only after the base page is loaded will the minibrowser start to load the "Play address". Sometimes a server requires a transmission to be launched from a particular page, and rejects direct queries to play a URL. In such cases, selecting this option may help. This check box is ignored if the Play address is JavaScript.

The page from which the transmission was captured appears to the right when capturing begins.

Generate – use this button to define a URL for the Base page template using the URL generation rule dialog.

Go – pressing this button takes you to the page specified in the "Base page" field.

Play address – the address being used by Total Recorder to play transmission. This field is filled in when capturing begins. However, you can specify the field explicitly (e.g. extract it from another Internet-related program).

Generate – use this button to define a URL for the Play Address template using the URL generation rule dialog.

Play – pressing this button causes Total Recorder to perform the same actions as those performed during scheduled playing of the specified Internet transmission.

Notes:

- If a transmitting server requires registration procedures, you must complete these before using Total Recorder's mini-browser to access the server.

- Playing a transmission could cause some external player (e.g. WinAmp or Windows Media Player) to be launched.

- It is not guaranteed that you will successfully capture or play every Internet transmission.

- It is recommended you use the "Play" button to test captured or manually entered transmissions.

See also. Using a Scheduler overview, How to record an Internet transmission using Total Recorder's scheduler.

5.9.1.13 Connecting to the Internet (Professional, VideoPro, and Developer Editions only)

If you choose to play an Internet transmission during a scheduled recording or a scheduled background recording, you may want Total Recorder to connect and disconnect from your Internet Service Provider (ISP) by a dial-up line. You can do this by setting parameters on the "Connection to Internet" dialog shown below.

The dialog looks like the following:
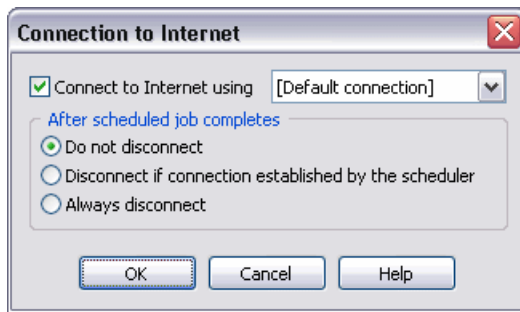
Connect to Internet using … - enables or disables connection to your ISP by dial-up line. You must choose a particular ISP from the list or use "[Default connection]". If you choose "[Default connection]", then Total Recorder will try to connect to the Internet through the ISP which is set in Internet Explorer as your default connection.

If a connection to the Internet is established at the same time a scheduled job starts, then Total Recorder will not try to establish a new connection.

After scheduled job completes

Select one of the following options:

Do not disconnect. Total Recorder will not disconnect from the ISP after a scheduled job completes.

Disconnect if connection established by the scheduler. Total Recorder will disconnect from the ISP after a scheduled job completes only if Total Recorder's scheduler established the connection to the ISP.

Always disconnect. Total Recorder will disconnect from the ISP after a scheduled job completes regardless of which program established the connection to the ISP.

Notes:

* Your dial-up entries must be set correctly.

* Since a scheduled job does not require user intervention to execute the job, your connection to your ISP must not require that you enter any information such as a user name or password.

* You should try to make a connection in test mode before using connection capabilities for regular connection.

See also. Using a Scheduler overview, Scheduling a Job, Schedule Item - Advanced Tab.

5.9.2   Using the Command Line

Performing a job specified in the command line is similar to performing a job started by the built-in scheduler. From the command line, you can play or record a file.

General Command Line Syntax

The syntax of Total Recorder's command line is:

TotalRecorder
[Filename1 [Filename2 ...] | DirectoryName]
[/Play | /Record | /BatchFile[:BatchPreset] | /BatchDir[+][:BatchPreset]]
[/Time:[[*hh:*]*mm:*]*ss*]
[/Move:[[*hh:*]*mm:*]*ss*]
[/Normalize[:*percent*]]
[/Noclose]
[/Job:*JobName*]

Filename1 Parameter

The name of the file you want to load, play or record. If the name contains spaces, enclose it within double quotes (e.g. "My Recordings"). If command line recording is performed in Split mode then this parameter is ignored, and file names are generated according to the rules used for Split mode.

Filename1, Filename2, ... Parameters (Professional, VideoPro, and Developer Editions only)

The names of the files you want to process in batch. If a name contains spaces, enclose it within double quotes (e.g. "My Recordings"). Multiple file names are allowed only with the **/BatchFile** parameter. Note that an asterisk character (*) and a question mark (?) can be used as a wildcard in file names.

DirectoryName Parameter (Professional, VideoPro, and Developer Editions only)

The name of the directory you want to process in batch. If the name contains spaces, enclose it within double quotes (e.g. "My Music"). This parameter can only be used with the **/BatchDir** parameter.

/Play Parameter

Play a file. The filename is mandatory.

You can use the abbreviation - **/P**.

/Record Parameter

Perform recording. The current source and recording parameters will be used. If a file name is specified the result will be saved with this name. Otherwise:

For Standard Edition. A name in the form of *TRyyyymmdd_hhmmss.WAV* will be generated based on the current date and time. The file will be stored in Total Recorder's current directory.

For Professional, VideoPro, and Developer Editions. A name will be generated based on the rule used for generating file names in Split mode.

You can use the abbreviation - **/R**.

/BatchFile Parameter (Professional, VideoPro, and Developer Editions only)

Process the specified files in batch. If you specify a *BatchPreset*, (for example, "/BatchFile: ConvertMP3") then processing of the files using this preset will start automatically. The only other parameter that can be used with **/BatchFile** is **/Noclose**. If you specify a batch preset and do not specify **/Noclose** then Total Recorder closes automatically when processing completes successfully.

You can use the abbreviation - **/bf**.

/BatchDir Parameter (Professional, VideoPro, and Developer Editions only)

Process the specified directory in batch. If you specify a *BatchPreset*, (for example, "/BatchDir: ConvertMP3") then processing of the directory using this preset will start automatically. If you specify a "+" sign after this parameter, then the directory is processed along with its subdirectories. The only other parameter that can be used with **/BatchDir** is **/Noclose**. If you specify a batch preset and do not specify **/Noclose** then Total Recorder closes automatically when processing completes successfully.

You can use the abbreviation - **/bd**.

Note that batch processing ignores files with unsupported extensions. Supported extensions include the following: wav, mp3, ogg, fla, flac, ape, wma, wmv, asf.

Note for Professional, VideoPro, and Developer Edition users. If you want to perform background recording via the command line, you should define a scheduled job for the background recording, and then schedule the job through the command line. Refer to the "**/Job Parameter**" description below.

/Time Parameter

Specifies the duration of recording or playing. If you do not specify this and the "/Job" parameters then the duration of the recording is unlimited.

If you omit this parameter for playing, the entire file will be played once. If you specify this parameter for playing, a part of a file may be played or the playing may be repeated as necessary. For example, if you schedule a 4-minute file to play for 10 minutes, it will play 2 ½ times. Or if you schedule a 10-

minute file to play for 4 minutes, only the first 4 minutes of the file will play.

You can use the abbreviation - **/T**.

There are three different ways to specify duration. The following examples each specify the same duration (1 hour, 1 minute, and 1 second):

/T:*hh:mm:ss*, for example: /T:1:01:01 or /T:1:1:1

/T:*mm:ss*, for example: /T:61:01 or /T:61:1

/T:*ss*, for example: /T:3661

The following are examples of incorrect formats:

/T:1:61:01 - since mm cannot exceed 59

/T:2:60 - since ss cannot exceed 59

/Move Parameter

This parameter causes Total Recorder to reposition within the file to the specified time value (i.e. "Jump to time" feature) when the file is opened. The time format is the same as the **/Time** parameter.

You can use the abbreviation - **/M**.

/Normalize Parameter

This parameter causes Total Recorder to normalize the file to a given percentage after it is recorded. You can specify a value from 1 to 999. The default is 100%. For example: /Normalize:95.

You can use the abbreviation - **/Norm**.

/Noclose Parameter

This parameter causes Total Recorder to stay active after the job is done. If not specified, Total Recorder will close except in the case where neither /Play nor /Record were specified.

You can use one of the abbreviations - **/NC** or **/N**.

/Job Parameter

This parameter causes the job to take all parameters that are not explicitly specified in the command line from the scheduled job with the **Comment** field equal to *JobName*. This allows you to use playback/recording parameters that cannot be set through the command line (e.g. name of external program that will be closed when the job completes).

If you use this parameter, it is not necessary to specify the /Play or /Record parameters. If they are specified then they must not conflict with the job's *JobName* activity (either playback or recording).

If the job name contains spaces, enclose it within double quotes (e.g. "My Job").

If more than one job exists with *JobName* as a comment then the parameters are taken from the job that was added to the scheduled list of jobs first. It is recommended you use different comments for the scheduled jobs that you want to use as templates for command-line jobs.

You can use the abbreviation - **/J**.

Examples

- Open the file "C:\My Files\example.mp3", start playing 1 minute into the file, and do not close the program when playing completes

   TotalRecorder "C:\My Files\example.mp3" /P /M:1:00 /NC

- Perform recording for five minutes, save the result in a file with an automatically generated name and do not close the program:

   TotalRecorder /R /T:5:00 /NC

- Perform recording for an hour, and take all parameters from the job with "Sample job" as its Comment field:

> **TotalRecorder /R /T:1:00:00 /J:"Sample job"**

- Play a sound file and close the program:

  TotalRecorder C:\MyFolder\MySoundFile.wav /P

- Play a bell (Ring.WAV) continuously for one minute:

  TotalRecorder C:\MySoundDir\Ring.wav /P /T:60

- Start Total Recorder and load a sound file. You can then use the "Play" button to play the file:

  TotalRecorder "C:\My folder\My sound file.wav"

- Process one file and all mp3 files from a folder:

  TotalRecorder "C:\My folder\My sound file 1.wav" "C:\MP3 Collection*.mp3" /BF

- Process a directory and its subdirectories using the "Split My Files" preset and do not close Total Recorder when batch processing completes:

  TotalRecorder "C:\My folder\My sound files" /BD+:"Split My Files" /NC

See also. Using a Scheduler overview.

5.10 Working with MP3 and Ogg Vorbis formats

5.10.1 Working with MP3 Format

For a quick reference on using MP3 format with Total Recorder, see How to work with MP3 format using Total Recorder.

To work with MP3 format, Total Recorder requires an external program in the form of an ACM codec or DLL.

Using ACM Codecs

An ACM codec (or simply "codec") is a special program (driver) that converts sound formats. When a codec is registered (installed) it can be used by any audio processing application. Each version of Windows includes a basic set of codecs. Users can also download, or buy and install, additional codecs.

There are different types of codecs that support MP3. A simple codec can only decode MP3 and is sufficient for playing MP3 files. However, to create an MP3 file you need a codec that supports encoding. A codec that only supports encoding for low bit rates is included in most versions of Windows. This is sufficient for recording radio broadcasts but not for CD-quality music. You can buy codecs that support higher bit rates.

Using DLLs

Total Recorder can also use a DLL (dynamic link library) dedicated to MP3, either BladeEnc.dll or Lame_Enc.dll. Unlike codecs, neither one of these DLLs can decode an MP3 file, which means that Total Recorder may be able to record but not play MP3 files. If you use one of these DLLs, it is recommended that you also install a decoding-only codec to enable both playing and recording of MP3 files.

Take the following steps to add support of MP3 format through a DLL:

- Go to the http://www.totalrecorder.com/tr_ext_mp3.htm link page. Read the information on this page, and download a package with the required DLL.

- Unzip the archive. This will create a folder that contains a file with a .dll extension.

- Copy the file to the same folder where you installed Total Recorder (default is "C:\Program Files\HighCriteria\TotalRecorder").

- Start Total Recorder. Select "Options"-"Settings"-"MP3". Select the required DLL from the "Select

program for encoding to MP3" list. If the DLL was correctly copied to the Total Recorder folder, the name and version of the DLL appears on this dialog. You are now able to record in MP3 format using this DLL.

Working with VBR (Variable Bit Rate) MP3 Format

Total Recorder supports VBR (Variable Bit Rate) MP3 format. For encoding in this format, you need to use the Lame_Enc.dll.

VBR MP3 encoding parameters should be used with Lame_Enc.dll's engine, version 3.93.1 and above. If you use DLLs of an older version then it is not guaranteed your encoding settings will work properly. Note that Total Recorder treats engine versions 3.93 and 3.93.1 as the same.

An MP3 file is considered a VBR MP3 file only if it has a VBR MP3 header. If you experience problems with MP3 files (such as, problems determining file duration or with exact positioning), it may be because of an incorrect header. In such cases, you can use the Repairing MP3 files feature.

Types of MP3 File Format

Total Recorder can play and record MP3 files in either WAV or MP3 format. The difference is in the file header.

WAV-format files have a standard RIFF-WAVE header. These files usually have a .wav extension. As long as an appropriate codec is installed and recognized, any playback program can play them.

Pure MP3-format files do not contain any special headers but may contain an ID3 tag. These files usually have a .mp3 extension. To play this type of file, you need a program that can decode MP3 format.

See also. How to convert an audio file to another format, How to select the optimal sound format, How to work with MP3 format using Total Recorder, Considerations for editing sound files with compressed formats.

5.10.2 Repairing MP3 Files

Total Recorder considers an MP3 file to be a VBR MP3 file only if it has a VBR MP3 header. If an MP3 file does not have such a header then it is considered an MP3 file with a constant bit rate.

If you have a VBR MP3 file without a VBR MP3 header, or the header is invalid, then some operations on that file may not work correctly. To solve these problems, you can try to repair the file using the "File" - "Save special" - "Save repaired MP3 file as..." menu item.

When saving a repaired MP3 file, Total Recorder scans the MP3 file, removes incorrect MP3 frames, and writes a VBR MP3 header, if necessary. The repaired file is saved with the name you specify on the "Save As" dialog. The sound source data does not change.

Note for Professional, VideoPro, and Developer Edition users. You can repair multiple MP3 files using the batch processing feature. To learn more about processing a group of files, refer to Batch Processing Overview.

5.10.3 Working with Ogg Vorbis Format

For Total Recorder to play and record Ogg Vorbis files, you need the "Ogg Vorbis Support Add-on". For information on this add-on, refer to How to work with Ogg Vorbis format using Total Recorder.

Setting Ogg Vorbis Parameters

You set parameters relating to Ogg Vorbis on the "Ogg Vorbis" dialog of the configuration dialog. For more information, see Ogg Vorbis Settings.

5.11 Working with tags

Most file formats support the storing of data that describes the media data. This includes data such as the artist, title, artwork, etc. Often this data is referred to as a tag, and the method for storing tags in files is called a tagging system or tag type. Various tag types have different capabilities and restrictions. For example, an ID3v1 tag can store only a small number of tag attributes (tag fields) and the length of the fields is strongly restricted. Different types of tags are supported by various software and hardware to different degrees.

Total Recorder supports tags for the following types of files:

- Windows Media (.wma, .wmv, .asf)

- MPEG-4 (*.mp4, *.m4a, *.m4v, *.mp4v)

- 3GP (*.3gpp, *.3gp, *.3g2, *.3gp2)

- MOV (*.mov)

- Ogg Vorbis (.ogg)

- FLAC (.flac, .fla)

- Monkey's Audio (.ape)

- MP3 (.mp3). Total Recorder supports ID3v1 and ID3v2 tags for MP3 files. Total Recorder can read ID3v2 tags for all versions (v2.2, v2.3, and v2.4). When writing an ID3v2 tag, ID3v2 version 2.3 is used.

- RIFF (.wav, .avi). Total Recorder supports RIFF tags in the form of LIST INFO chunks. Note that tag information for RIFF files is not supported by many software and hardware systems. Also, there is no standard way to store artwork in RIFF files, so the artwork created by Total Recorder will not likely be recognized by another program.

Total Recorder lets you work with tags in the following ways:

- Specify a default tag for newly created files. For more information, refer to the Format Settings section.

- Specify a tag for files that are created through the built-in scheduler. For more information, refer to the Schedule Item - General Tab section.

- Add/Modify tags for an existing file. You can do this using the "File – Tag" menu item or when saving a file.

- Automatically fill in tag information based on captured clip info. For more information, refer to the Split mode section.

- Specify auto-generated values for some tag fields. For more information, refer to the Tag - Basic Info section.

- Change tags for multiple files. For more information, refer to the Batch Processing section.

See also. Working with cue files.

While editing a tag, a dialog box with multiple tabs appears. The tabs depend on the type of tag being edited. The following tabs may be available:

Basic Info
Artwork
Advanced
ID3v1
ID3v2

5.11.1 Tag - Basic Info

The dialog looks like this:

An explanation for some of the controls follows.

Allow file tag generation rules for fields (press Ctrl+G in field to define rule) (Professional and Developer Editions only) – if you select this option, you can use templates for generating some of the tag fields. To define a template for a field, position your cursor in the field, and press Ctrl+G to activate the "Tag field generation rule" dialog. This option appears only if the dialog is invoked from the Formats dialog or when defining a tag for a scheduled job.

Clear tag (**)** – use this button to clear the tag.

Set the tag as last saved tag (**)** – use this button to fill in the dialog fields with the tag that was last saved in either the "Save ... as"-"Tag" or the "File"-"Tag" dialog box.

Set the tag as default tag (**)** – use this button to fill the dialog fields with the tag that is defined in the "Options"-"Settings"-"Formats" dialog.

Copy the tag from a file's tag (**)** – use this button if you want to fill in the tag fields on this dialog based on the tag information contained in a saved sound file. After clicking the button, you are prompted to select a file from which the tag information will be extracted.

See also. Working with tags.

5.11.2 Tag - Artwork

The dialog looks like this:
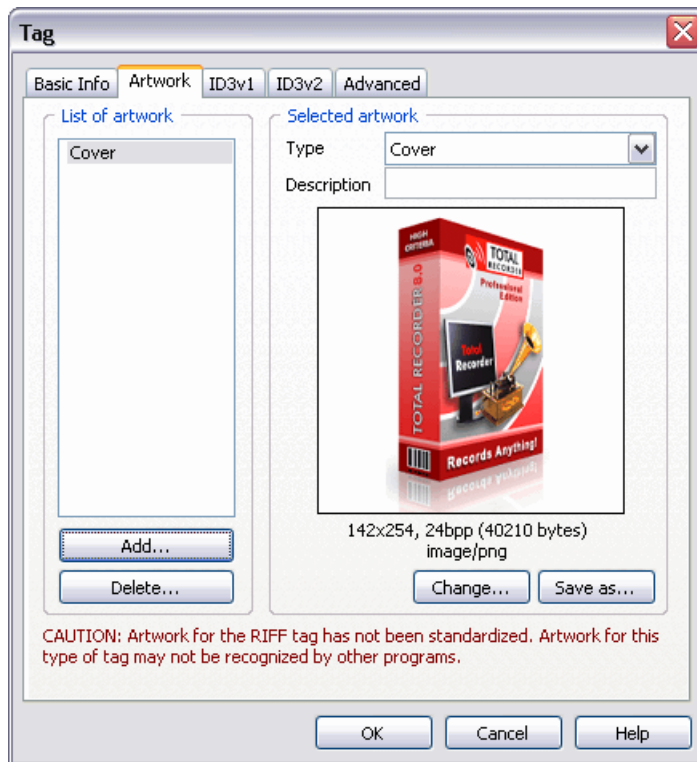
List of artwork

The list contains all of the artwork in the tag.

Add - click the button to select a file with artwork to be added to the tag.

Delete - click the button to delete the currently selected artwork from the tag.

Selected artwork

This group lets you work with the current artwork you have selected.

Type - the drop-down list contains a list of predefined types of artwork. This list cannot be modified. Select the type of artwork from the list.

Caution. Some tags have restrictions on the type of artwork that can be included. For example, a particular tag may be restricted to no more than one piece of artwork of a particular type. Total Recorder does not verify the restrictions, and different software can treat the tag differently. To learn more about these restrictions, it is recommended you search the Internet for relevant information.

Description. A short description of the current artwork.

Change. Click the button to change the picture of the selected artwork.
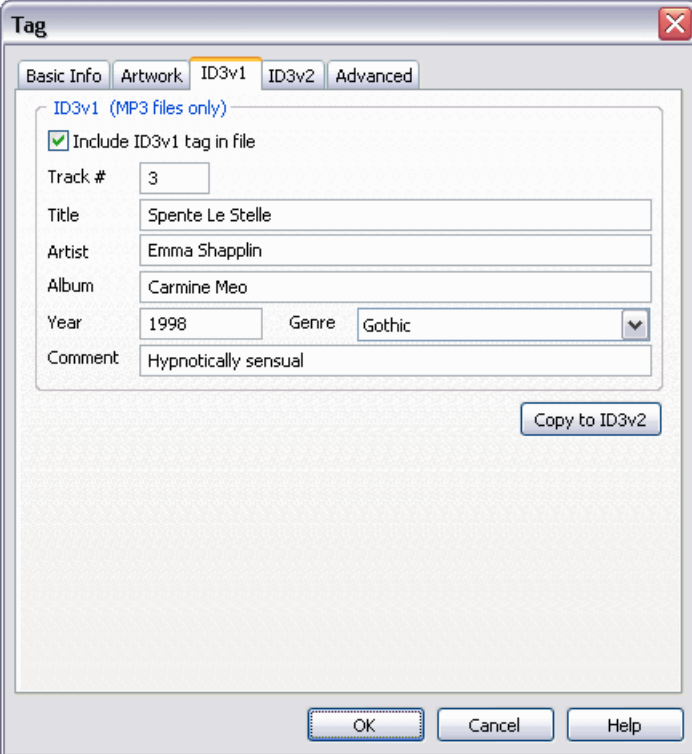
Save as. Click the button to save the picture of the selected artwork to a specified graphic file.

Caution. It is not recommended you store large-sized pictures in tags.

See also. Working with tags.

5.11.3 Tag - ID3v1

The dialog looks like this:

Copy to ID3v2 - use this button to copy the content of an ID3v1 tag to an ID3v2 tag.

See also. Working with tags.

5.11.4 Tag - ID3v2

The dialog looks like this:

Copy to ID3v1 - use this button to copy the content of an ID3v2 tag to an ID3v1 tag.

See also. Working with tags.

5.11.5 Tag - Advanced

The dialog looks like this:
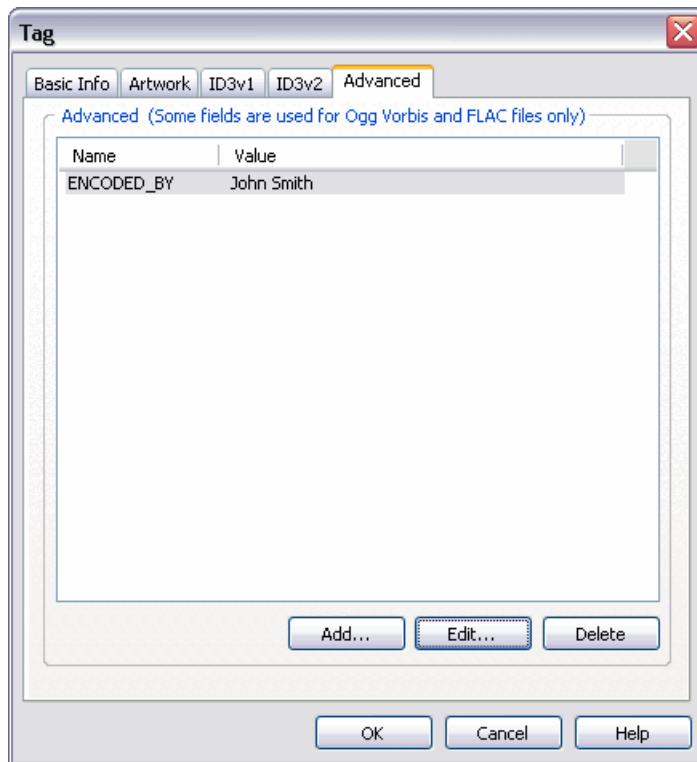
Add – add a new field to the tag.

Edit – edit an existing field in the tag.

Delete – delete the current field from the tag.

When you click the "Add" or "Edit" button, the following dialog appears where you can assign a name and a value to the field.
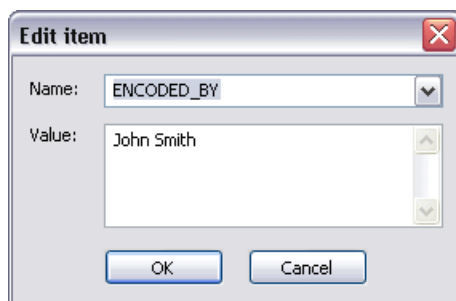
Note: For Ogg Vorbis and FLAC tags, you can choose a name from the drop-down list or use a different name. For all other types of tags, you must select a name from the list.

See also. Working with tags.

5.12 Editing a File

The Professional, VideoPro, and Developer Editions of Total Recorder have built-in editing capabilities. For more information on working with the Selection panel, see "Using the Selection Panel".

Note: Editing a Windows Media Audio file can be inaccurate. This is particularly noticeable within a

couple of tenths of a second of every "slice point". It is not recommended you edit Windows Media Audio files if you want accurate editing. If you plan to edit sound data and wish to have the result in Windows Media Audio format, it is recommended you record in an uncompressed format, edit the data, and save it in the desired Windows Media Audio format.

Note for users of the VideoPro or Developer Edition. For information on editing video files, refer to "Considerations for editing video files".

See also. Editing Operations, Using Boundary click suppression.

5.12.1   Editing Operations

Using the Clipboard (Professional, VideoPro, and Developer Editions only)

Total Recorder supports standard Windows Clipboard functionality. You can copy, cut and paste fragments of a recording within Total Recorder and between Total Recorder and other applications that support the Windows Clipboard.

Copying a Fragment

To copy a fragment:

1. Select the fragment.

2. Click the 🔲 button, or select "Edit" – "Copy" on the Selection panel.

Copying the Current Video Frame (VideoPro and Developer Editions only)

To copy the current video frame:

1. Go to the frame that you want to copy.

2. From the "Edit" menu, select "Copy current frame".

Note that you cannot paste an image from the Clipboard into Total Recorder. However, a copied frame can be pasted into another program such as a graphic editor or a word processor.

Cutting a Fragment

To cut a fragment:

1. Select the fragment.

2. Click the ✂ button, or select "Edit" – "Cut" on the Selection panel.

Pasting a Fragment

To paste a fragment from the Clipboard:

1. Use the Slider to set the current position.

2. Click the 🔲 button on the Selection panel, or select "Edit" – "Paste".

If the parameters of a fragment are different from the parameters of the current sound data, the fragment is converted using the parameters of the current sound data.

Saving a Fragment to a File

You can save part of your recording as a separate file by taking the following steps:

1. Select the desired fragment.

2. Click the 🔲 button on the Selection panel.

3. Choose a file name using the standard "Save As" dialog.

Part of a recording can also be saved by manually splitting a file. See "Save and delete before current position".

Inserting a File (Professional, VideoPro, and Developer Editions only)

You can insert a media file anywhere in your recording by taking the following steps:

1. Use the Slider to set the current position.

2. From the "Edit" menu, select "Insert a File at Current Position".

3. Choose the file name using the standard dialog.

If the parameters of an inserted file are different from the parameters of the open file, the inserted fragment is converted using the parameters of the open file.

Inserting a Portion of Silence (Professional, VideoPro, and Developer Editions only)

You can insert silence into a recording by taking the following steps:

1. Use the Slider to set the current position.

2. If the length of silence in the "Edit" – "Insert special" - "Insert ... seconds of silence" menu item is not appropriate, then select "Edit" - "Insert special" - " Set duration of silence to be inserted..." and specify the length of the silence.

3. Click "Edit" - "Insert special" - "Insert ... seconds of silence".

Deleting a Fragment (Professional, VideoPro, and Developer Editions only)

You can delete part of your recording by taking the following steps:

1. Select the desired fragment.

2. Click the button on the Selection panel.

Part of a recording can also be deleted by manually splitting a file. See "Delete before current position" and "Save and delete before current position".

Deleting Data Except for a Fragment (Professional, VideoPro, and Developer Editions only)

You can delete parts of your recording except for a selected fragment by taking the following steps:

1. Select the fragment you want to keep.

2. Click the button on the Selection panel. All data is deleted except for the fragment.

Mixing a Recording with a File or the Clipboard (Professional, VideoPro, and Developer Editions with the Digital Mixer Add-on installed only)

To mix the current recording with a file or the Clipboard, use the "Mixing" dialog. For more information, see the Digital Mixer Add-on overview.

Undoing the Previous Operation

To undo an operation, click the button on the main toolbar. Note that you cannot undo an operation once a file is saved.

The Redo button on the Main toolbar reverses Undo.

The Undo buffer stores all selection operations (e.g. set beginning of selection), normalization operations, recording operations, editing operations, and manual split operations. The Undo buffer is cleared after saving the current file.

The Undo and Redo actions for the Standard Edition apply only to the operations that are available in the Standard Edition.

See also. Editing a Sound File, Using Boundary click suppression, Considerations for editing sound files with compressed formats (Professional, VideoPro, and Developer Editions only).

5.12.2 Using Boundary click suppression

Sometimes after an editing operation, such as inserting or deleting part of a file, a click occurs at the junction points. This occurs because the sound wave may become non-continuous and a large jump in amplitude at a junction point is likely. Also, clicks can sometimes occur at the beginning and at the end of saved sound when splitting sound at random points. Using boundary click suppression allows you to perform editing operations such that no clicks appear in junction points.

To enable or disable boundary click suppression, use "Edit"-"Boundary click suppression".

When boundary click suppression is on, Total Recorder tries to make adjustments to "non-click" positions. These are points of zero amplitude such that the signal to the left of the point is less than or equal to zero and the signal to the right of the point is greater than or equal to zero.

Boundary click suppression affects the following operations:

- Setting a selection, and consequently, all operations performed with a selection (saving selection to file, copying to clipboard, cutting, deleting, etc.). If boundary click suppression is on, Total Recorder tries to adjust the selection boundaries to non-click positions. These positions are searched in close proximity to the actual selection boundaries.

- Pasting from the Clipboard or inserting a file. If boundary click suppression is on, Total Recorder tries to adjust the insertion point to a non-click position.

- Recording in append or insert mode. If boundary click suppression is on, Total Recorder tries to adjust the point to which the recording will be appended/inserted to a non-click position. Also, no more than 0.05 seconds at the beginning and at the end of the recorded sound are cut to "non-click positions". See also "Recording overview".

- "Delete before current position " and "Save and delete before current position" operations. If boundary click suppression is on, Total Recorder tries to adjust the current position to the nearest non-click position. Deleting and saving will be performed according to this new position. See also "Working With Sound Images".

- Reducing pauses during a recording with the "Pause reduction" option turned on. If boundary click suppression is on, Total Recorder tries to adjust the boundaries of pauses being removed to non-click positions. See also Setting Audio Recording Parameters.

- Applying the Pause Reduction feature. If boundary click suppression is on, Total Recorder tries to adjust the boundaries of pauses being removed to non-click positions.

- Finding the next split point. If boundary click suppression is on, Total Recorder tries to adjust the split point found to a non-click position. See also Selection Panel.

- Splitting an existing file. If boundary click suppression is on, Total Recorder tries to adjust the position where the file is split to a non-click position. See also Splitting an existing file section.

- Saving tracks to separate files. If boundary click suppression is on, Total Recorder tries to adjust the position between tracks to a non-click position. See also Saving tracks to separate files.

Notes:

- Boundary click suppression applies only when working with uncompressed (PCM) format.

- Boundary click suppression does not guarantee the entire absence of clicks when editing a file. However, it should reduce the number of clicks. For mono recordings, nearly 100% of the clicks should be removed. For stereo recordings, the probability of removing a click is greater than 50%.

See also. Editing a Sound File, Editing Operations, Considerations for editing sound files with compressed formats (Professional and Developer Editions only).

5.12.3 Considerations for editing sound files with compressed formats (Professional, VideoPro, and Developer Editions only)

If you plan to further edit a recording and you need very accurate results, it is recommended you record in an uncompressed format such as PCM, PCM (High Quality), or PCM IEEE float. With these formats, positioning, and features such as normalization, fading effects, applying add-ons (including the Digital Mixer Add-on), copy/paste/delete, and boundary click suppression mode all work accurately.

Note for users of the VideoPro or Developer Edition. For information on editing video files, refer to "Considerations for editing video files".

There are a number of considerations for working with compressed formats.

Normalization and **fading effects** can be applied only to files with MP3 format. You can apply normalization and fading to other formats using batch processing but re-encoding will be performed.

Mixing operations are allowed for any formats, but while mixing with a compressed format, re-encoding is performed. Also, re-mixing will not be possible.

Applying other sound processing add-ons (with the exception of the Digital Mixer Add-on). Applying such add-ons to a file with a compressed format is allowed only during playback or recording. You can apply these add-ons to other formats using batch processing but re-encoding will be performed.

Copy/Paste/Delete and other. You can apply these operations to files with any format, and there is no loss of quality. However, the accuracy of these operations depends upon the particular format:

- Lossless formats (FLAC, APE, Windows Media Audio 9 lossless). Editing operations are accurate. Re-encoding is performed when you save the file and this could take a long time.
- MP3. Editing is performed by full MP3 frames (i.e. indivisible blocks). The duration of a frame depends upon the particular format and can be about a few hundredths of a second.
- Ogg Vorbis. Editing is performed accurately. However, any editing operation results in the creation of a new stream in the Ogg Vorbis file. The amount of overhead increases and multiple editing of an Ogg Vorbis file is not recommended.
- WMA. Editing is performed by full WMA samples (not PCM samples). The duration of a WMA sample can be about a few tenths of a second.
- Other formats. Editing is performed by full blocks. The duration of a block depends upon the particular format and generally does not exceed a few tenths of a second.

Boundary click suppression mode. This mode does not work with compressed formats.

Scalable image in the Sound image window with large scales. The scalable image allows compressed sound data to be represented in large scales but you should be aware of the following:

- Positioning and editing operations will act as described above.
- While the image picture is moving (e.g. when an arrow key is pressed), the change in the representation of the sound may not be fluent.

If you have a file in a compressed format and need to perform accurate editing, you should save the file in an uncompressed format and process this uncompressed file.

See also. Editing a Sound File, Editing Operations, Using Boundary click suppression.

5.12.4 Considerations for editing video files (VideoPro and Developer Editions only)

You can perform many editing operations (see Editing a File) on video files. Any restrictions for editing sound files with compressed formats also apply to the editing of video files.

Editing of video files is performed without re-encoding. This saves time and does not lead to a loss of video or audio quality.

For a video file, you can add an audio stream to a video file or replace the audio stream in a video file. From the Edit menu, click "Add/replace audio stream…".

Notes:

- When you set a selection boundary in a video file, Total Recorder automatically adjusts the position of the boundary to the beginning of the video frame which contains the initial boundary of the selection. For example, suppose you work with a video file that has a format of 25 frames per second, and you try to set the left selection boundary to 1.01 seconds. This position of 1.01 seconds belongs to the 26th video frame (counting frames starting from 1). Since the 26th frame starts at the 1-second position, Total Recorder sets the left boundary of the selection to 1 second instead of to 1.01 seconds.

- An editing operation may require that the current position or a selection boundary to be set to the start position of a key frame. From the "Play/Record" menu, you can use "Go"-"Left to the previous key frame" (or press the ◀ button) or "Go"-"Right to the next key frame" (or press the ▶ button).

See also. Editing a Sound File, Editing Operations.

5.13 Processing sound files

5.13.1 Working with Normalization and DC offset

This dialog can be used to view the amplitude and DC offset of the current file. You can apply normalization and/or remove the DC offset.

Users of the Professional, VideoPro or Developer Editions can also use the dialog to view the amplitude of a selection or to apply normalization to a selection.

Normalizing is a process of increasing the sound level (loudness) so that the amplitude of the loudest parts is close to the maximum allowed for a given sound format. Because it also increases the level of noise, normalizing should only be used if there is no other way to adjust the volume. For example, you should not use normalizing with Sound Board mode recording because you can always adjust the level using a mixer. Only non-compressed (PCM format) and MP3 files can be normalized. This restriction does not apply when normalizing a scheduled recording or for batch normalization. When normalizing files during batch processing, only non-compressed and MP3 files are normalized without re-encoding.

The DC offset indicates the offset of the sound wave with respect to the neutral (zero) level. A large DC offset when a playback starts and a playback finishes can lead to clicks at the beginning and end of playback. The DC offset can be removed only for non-compressed (PCM) format. This restriction does not apply when removing the DC offset for scheduled recordings or for batch operations. When removing the DC offset in files during batch processing, only non-compressed files are processed without re-encoding.

The dialog for controlling normalization and the DC offset can be invoked in various contexts:

- To review the current amplitude and DC offset, to remove the DC offset, or to apply normalization to an open file (menu "Process" - "Normalization and DC offset...").

- **Professional, VideoPro, and Developer Editions only.** To review the current amplitude of a selection, or to apply normalization to a selection (menu "Process" - "Normalize selection...").

- To apply normalization or remove the DC offset while recording in Auto-stop mode.

- To apply normalization or remove the DC offset during a scheduled recording.

- To apply normalization or remove the DC offset during batch processing.

Depending on the context, some parts of the dialog may be hidden or disabled. Availability of some parts of the dialog also depends upon the sound format.

The dialog for normalization and DC offset looks like this:
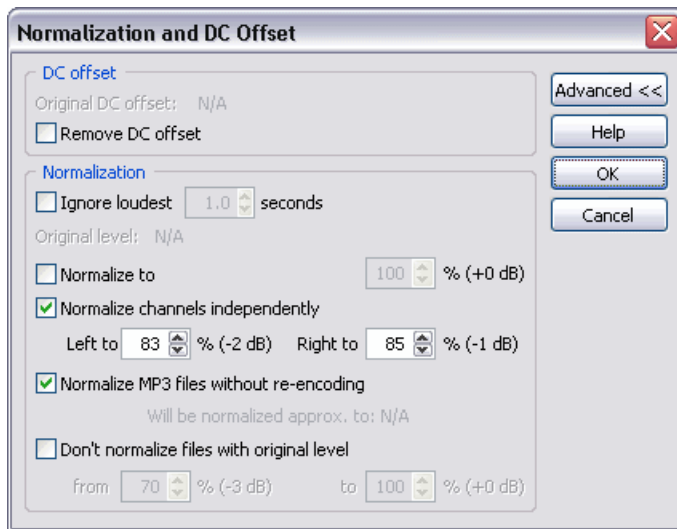
DC offset

This contains the following settings:

Original DC offset. Displays the original DC offset for the currently opened file. This field is unavailable in the contexts of auto-stop recording, scheduled job, and batch processing.

Remove DC offset. Check this box to remove the DC offset. This option is available only for non-compressed (PCM) format.

Normalization

Use this section to set options for normalization.

Ignore loudest nnn seconds. If this box is checked, Total Recorder excludes the specified number of loudest seconds when calculating the original level. This option is intended to be used to ignore random surges of sound level. You can specify from 0.1 to 99.9 seconds. If you specify too low a value or turn off this option by unchecking or setting the value to 0, then random undesirable peak levels are taken into account when calculating the original level. Specifying a large number of seconds may result in undesirable clipping.

Each file is divided into fragments of 0.05 seconds. If you specify "Ignore loudest 2 seconds", for example, then the 40 (i.e. 2 / 0.05) loudest fragments are ignored.

Original level. Displays the original level of the currently opened file. This field is unavailable in the contexts of auto-stop recording, scheduled job, and batch processing.

Normalize to nnn%. Check this box and set the normalization percent to apply normalization. If this type of normalization is used, then channels of a stereo file are normalized jointly (i.e. amplitude of both channels will be increased or decreased using the same factor).

Normalize channels independently. Left to nnn%. Right to mmm%. Check this box and set the normalization percents for independent normalization of the left and right channels of a stereo file. In contrast to "ordinary" normalization, channels of a stereo file are normalized separately (i.e. amplitude of each channel will be increased or decreased according to the settings in the "Left to…" and "Right to…" boxes). Independent normalization can be useful, for example, if you use Total Recorder to record Internet telephony with the "Record also input stream" and "Put each speaker to a separate channel" options. In this case, the loudness of the voices of the two parties may be different.

Note: Applying normalization of channels independently to Joint Stereo MP3 files cannot be done.

Normalize MP3 files without re-encoding. Select this check box if you wish the normalization of MP3 files to be performed without re-encoding. Normalizing without re-encoding means normalization is performed approximately, quickly, and without loss of quality. Normalizing with re-

encoding means normalization is performed more precisely based on the uncompressed (PCM) sound stream, but it takes more time and the quality of sound may become worse. This field is available only for scheduled jobs and batch processing. In the case of ordinary normalization, the normalization of MP3 files is always performed without re-encoding.

Note: Modifying the level of MP3 files can be performed only with a step of 1.5 dB, which means that two adjacent values must differ by a factor of 1.19. This is a specific feature of MP3 format. For example, if the sound level is 100% and you want to normalize to a lower level, then the next lowest level is 100/1.19 or 84%. If you try to use a value in between, Total Recorder selects the closest possible value. The value appears in the bottom part of the normalization dialog.

Will be normalized approx. to. Displays the approximate amplitude of the MP3 file after applying normalization, if the approximate amplitude can be calculated.

Don't normalize files with original level from nnn% to mmm%. If this box is checked and the amplitude of the file falls in the range specified, then the file is not normalized. This field is available for auto-stop recording, scheduled job, and batch processing only.

Advanced

Use this button to show/hide advanced normalization settings of the dialog. This includes all normalization settings other than "Normalize to nnn%".

Notes:

- If you use the Normalization feature for a compressed file or for a video file, calculation of the sound amplitude requires decoding of the file and lengthens the time required.

- If you plan to later transform your sound file (to compress it, for example), it is recommended you set the normalization percent to 80-90% to avoid distortion.

- **Professional, VideoPro, and Developer Editions only.** While normalizing a selection, a cross-fading effect is applied to small portions of sound around the selection boundaries to avoid a clicking sound at the selection boundaries after normalization.

You can use the "Undo" (🔙) and "Redo" (🔜) buttons to undo and redo the last normalization.

See also. Using the Playing volume and Recording level Panel, Using the Playing Volume and Recording Level Dialog, Using Automatic Recording Level Adjustment, Considerations for editing sound files with compressed formats.

5.13.2 Applying Fade-In/Fade-Out Effects to a Sound File (Professional, VideoPro, and Developer Editions only)

You can use fading effects in a sound file that is in non-compressed (PCM format) or MP3 format. Fading effects do not apply to video files. The Fade In effect increases the sound level at the beginning of a fragment. The Fade Out effect decreases the sound level at the end of a fragment.

These effects avoid sharp high-level sound at the boundaries of sound fragments that may occur when extracting part of a recording with continuous sound.

To apply fading effects, select "Process"-"Fading Effects" from the main menu. The "Fading Effects" dialog appears, as shown below.
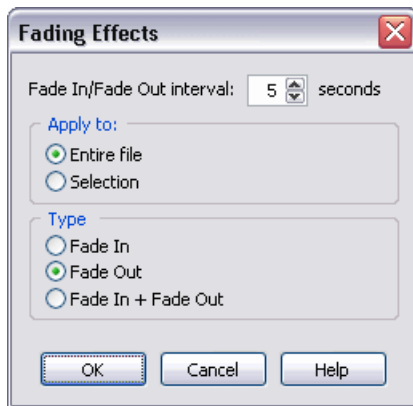
Fade In/Fade Out interval: nn seconds. Specify the number of seconds during which the level of sound will be increased/decreased at the left/right boundary of the sound fragment.

Apply to: – specifies the extent of the fading effect. You can choose from the following:

Entire file. Select this option to apply the Fade-In/Fade-Out effect to the left/right boundary of the entire sound file.

Selection. Select this option to apply the fading effects to the left/right boundary of the selection. This option is disabled when there is no fragment selected or when the duration of the selection is zero.

Type – specifies the type of fading effect. You can choose from the following:

Fade In. Select this option to apply the Fade-In effect. The sound level during the specified Fade In/Fade Out interval, beginning at the left boundary of the sound fragment, will be gradually increased.

Fade Out. Select this option to apply the Fade-Out effect. The sound level during the specified Fade In/Fade Out interval. ending at the right boundary of the sound fragment, will be gradually decreased.

Fade In + Fade Out. Select this option to apply both the Fade-In and Fade-Out effects.

You can use the "Undo" ( ) and "Redo" ( ) buttons to undo and redo the last fading effect you applied.

Notes:

- After applying a fading effect, you can observe the sound characteristics using the Sound Image panel or Sound Image window.

- You can apply the same fading effect more than once. For example, you can apply two Fade-Out effects of length 5 seconds to the same sound fragment. This causes the fading out effect to take place more quickly.

- You can apply fade in/out to a group of files. To learn more about processing groups of files, refer to Batch Processing Overview.

**See also.** Considerations for editing sound files with compressed formats.

5.13.3 Merging files (Professional, VideoPro, and Developer Editions only)

Take the following steps:

1. Open the Playlist window (from the "View" menu, click "Show Playlist window").
2. Form a playlist that contains the files you want to merge.
3. In the playlist, select the files you want to merge.

4. From the "File" menu on the Playlist window, click "Merge files" .The following dialog appears.
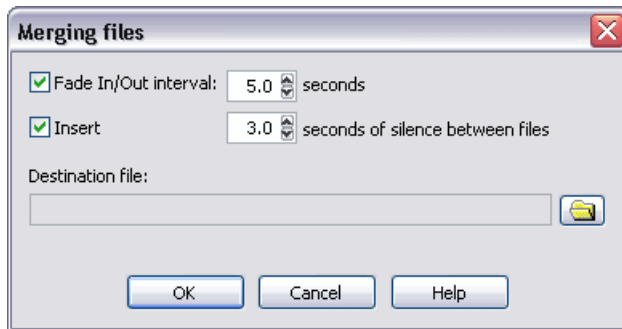
5. Optionally, select from the following options:

   Fade In/Out interval: x.x seconds. If you want to merge the files with a fade in/out effect between files, select this option and specify the interval in seconds.

   > **Note.** If this option is selected and one of the files being merged is not in MP3 or an uncompressed format then the fading operation requires that the file be re-encoded.

   Insert x.x seconds of silence between files. If you want silence to be inserted between the files being merged, select this option and specify the length of the silence in seconds.

6. Use the "Browse" button () to specify the name of the destination file.

If the format of all of the files is MP3, all of the files have the same sample rate and the same number of channels, and at least two files have a different bit rate, then the format of the destination file is VBR MP3. Otherwise, the format of the destination file is the same as the format of the first file in the merge.

The tag of the destination file and the type of destination file (for MP3 format) are the same as those of the first file in the merge.

Note. You can also merge files using the Insert file operation (see Editing a File). In this case, you insert files one by one.

5.13.4   Pause Reduction (Professional, VideoPro, and Developer Editions only)

Pause reduction reduces the lengths of pauses which are often present in a recording. For example, when playing Internet radio transmissions, long pauses can exist between radio programs. The pause reduction feature can be used both during a recording and for an existing recording.

To reduce pauses during a recording:

- In the "Recording Source and Parameters" dialog, check the "Pause reduction" box. To set pause reduction parameters, press the "Settings…" button to display the "Pause reduction" dialog.

To reduce pauses for an existing recording:

- Open the file.

- Select "Process" – "Pause reduction". Total Recorder calculates the sound image, if it has not been calculated. The "Pause reduction" dialog appears.

Use the following dialog to specify the pause reduction parameters:
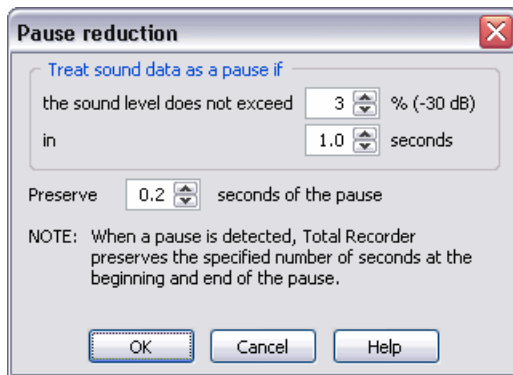
Treat sound data as a pause if the sound level does not exceed nn% in x.x seconds. These settings specify which parts of sound data Total Recorder treats as pauses. If Total Recorder detects a continuous part of sound data where the sound level does not exceed nn% in x.x seconds, Total Recorder treats this part as a pause.

Preserve y.y seconds of the pause. When a pause is detected, Total Recorder preserves the specified number of seconds at the beginning and at the end of the pause. For example, if you specify a value of "0.2 seconds", then a 10-second pause between sound data would be reduced to a pause of 0.4 seconds. If the pause is at the beginning of the recording, Total Recorder preserves the specified number of seconds at the end of the pause. If the pause is at the end of the recording, Total Recorder preserves the specified number of seconds at the beginning of the pause.

The "y.y" value cannot be greater than the "x.x" value. Also note that you cannot set the "Preserve y.y seconds of pause" parameter if pause reduction is used during recording. In this case, the "Preserve y.y seconds of pause" parameter is automatically assigned the "x.x" value.

You can use the "Undo" ( ) and "Redo" ( ) buttons to undo and redo the last pause reduction operation.

Note:

- After applying pause reduction, you can observe the sound characteristics using the Sound Image panel or Sound Image window.

Pause reduction and split mode

Pause reduction can be used in conjunction with split mode (see also Split Settings). If you specify that a recording is to be split based on a low level of sound ("if sound level does not exceed…" in the "Split recording conditions" dialog is checked) and pause reduction when recording is on ("Pause reduction" box in the "Recording Source and Parameters" dialog is checked), then the values of percent and the number of seconds for pause reduction are used instead of the corresponding values on the "split recording conditions" dialog. The recording is actually split at points of reduced pauses.

5.14   Format Selection Dialog

Format selection may be required in different places, for example, to select the recording format and when selecting the target format while saving a recording. You use the "Media format" dialog to select the format. The dialog looks like this:
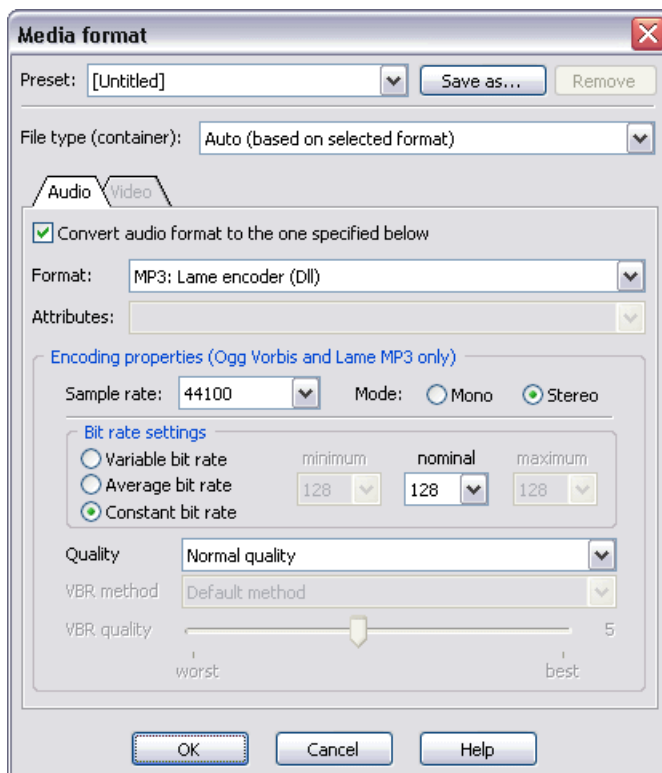
Preset – list of presets. You can select any format from the list. You can save a frequently used format as a preset for future use. There are also a number of pre-defined formats.

Save as – save current format specifications as a preset.

Remove – remove a preset. Note that some pre-defined presets cannot be removed.

File type (container). You can select a container from the drop-down list for the audio and video (VideoPro and Developer Edition only) file types.

   For an audio file:

      Auto (according to selected format). The type of file is determined automatically based on the selected audio format. If an MP3 format is selected, the "Store new MP3 streams in RIFF-WAV files" (see "MP3 Settings") option is taken into account when determining the target file type.

      RIFF-WAVE. The target file type is RIFF-WAVE. Possible audio formats for this container include all codec formats and MP3 format.

      MP3. The target file type is pure MP3. Only an MP3 format can be selected for this container.

      Ogg Vorbis. The target file type is Ogg Vorbis. Only an Ogg Vorbis format can be selected for this container.

      Windows Media. The target file type is Windows Media (or ASF). Only one of the Windows Media Audio formats can be selected for this container.

      MPEG-4 Audio (Windows 7 and later only). The target file type is MP4 (or M4A). Only an AAC format can be selected for this container.

      3GP (Windows 7 and later only). The target file type is 3GPP. Only an AAC format can be selected for this container.

      FLAC. The target file type is pure FLAC. Only a FLAC format can be selected for this container.

      APE. The target file type is Monkey's Audio (APE). Only Monkey's Audio (APE) format can be selected for this container.

For a video file (VideoPro and Developer Editions only):

AVI. The target file type is an AVI video file. Possible audio formats include all codec formats and the MP3 format. The list of video formats contains only formats that can be stored in the AVI container.

Digital Video (DV). Record in AVI format and DV subformat. This file type can be selected only for recording from a DV camera connected to the IEEE1394 (FireWire) port. If you select this type, all audio parameters will be disabled, and the format of the audio stream is determined by the format of the DV recording.

WMV. The target file type is Windows Media Video (WMV). The possible audio formats are Windows Media Audio formats. The list of video formats contains only those formats that can be stored in the WMV container.

MPEG-4 (Windows 7 and later only). The target file type is MP4. The only possible audio format is an AAC format. The only possible video format is AVC/H.264.

3GP (Windows 7 and later only). The target file type is 3GP. The only possible audio format is an AAC format. The only possible video format is AVC/H.264.

FLV. The target file type is Flash Video (FLV). The possible audio formats are PCM and MP3 formats.

Audio tab. Click this tab to set options for encoding audio streams. For more information, refer to the Audio Format Selection section.

Video tab (VideoPro and Developer Editions only). Click this tab to set options for encoding video streams. For more information, refer to the Video Format Selection for AVI, Video Format Selection for WMV, Video Format Selection for FLV and Video Format Selection for MPEG-4 and 3GP sections.

See also. MP3 Settings, Working with MP3 format, How to select the optimal sound format.

5.14.1 Audio Format Selection

The audio format is set on the Audio tab of the Format Selection dialog. The Format Selection dialog with the Audio tab active looks like the following:
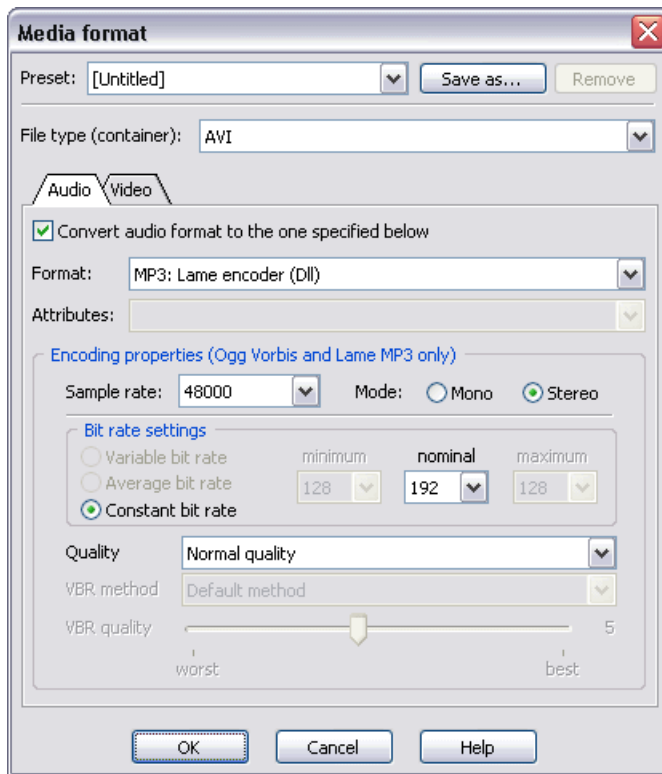
Convert audio format to the one specified below – select this check box if you want to specify a particular audio format. If this option is not selected, then the following occurs:

While setting audio-format recording parameters. The audio stream will be recorded in the same format as captured by the Total Recorder driver (recording in Software mode). If recording is performed in SoundBoard or Mixing mode, this option is always selected.

While setting the audio format when saving a recording. The audio stream will be re-saved without any conversion.

This option may be selected and disabled, for example, when a file type was selected that does not allow you to select the format without conversion.

Format – list of format types.

> **Notes:**
>
> - To record in MP3 format, you must have a fully functional codec (i.e. one that can encode and decode) or a special program. For more information, refer to the "Working with MP3 format" and "MP3 Settings" sections.
>
> - To record in Ogg Vorbis format, you must have the "Ogg Vorbis Support Add-on". For more information, refer to the "Working with Ogg Vorbis format" section.
>
> - To record in Windows Media Audio format, you must install Windows Media Player 9 series (or later). For more information, refer to the "How to work with Windows Media Audio format using Total Recorder" and "WMA Settings" sections.
>
> - Working with AAC format is supported only on the Windows 7 and later operating systems.

Attributes – list of format parameters. This field is available for all formats except Ogg Vorbis and MP3 (with the Lame DLL as the MP3 encoding tool).

Encoding properties – this group is for encoding in Ogg Vorbis format and for encoding in MP3 format using the Lame DLL. The parameters displayed depend on the current format.

Encoding properties for Ogg Vorbis format

If you select the Ogg Vorbis format in the "Format" list then the options for encoding in Ogg Vorbis become available.
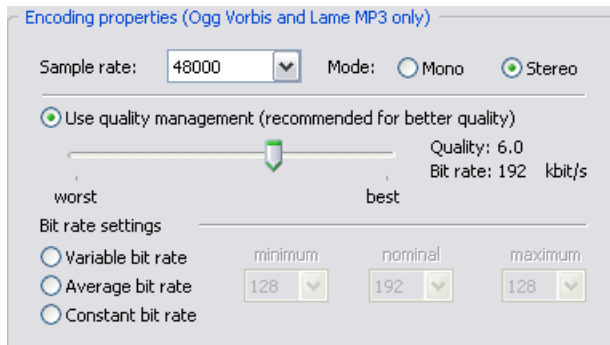
You can select from the following encoding properties.

Sample rate – encoding sample rate.

Mode – either Mono or Stereo.

Choose one of the encoding methods below. You can either select a method based on quality (Use quality management) or based on the bit rate (variable, average, or constant).

Use quality management – sets the desired level of quality. This is the recommended setting. The approximate bit rate for the selected quality is shown to the right.

Variable bit rate – sets the minimum and maximum bit-rate boundaries for encoding. Data is encoded with various bit rates within these bounds.

Average bit rate – sets the nominal bit rate for encoding. Data is encoded with various bit rates keeping to the nominal bit rate.

Constant bit rate – sets the nominal bit rate for encoding. Data is encoded with a constant bit rate.

Encoding properties for MP3 format (if Lame DLL is selected as MP3 encoder)

If you choose the Lame DLL as the MP3 encoder and MP3 format in the "Format" list, then options for encoding in MP3 become available.

You can select from the following encoding properties.

Sample rate – encoding sample rate.
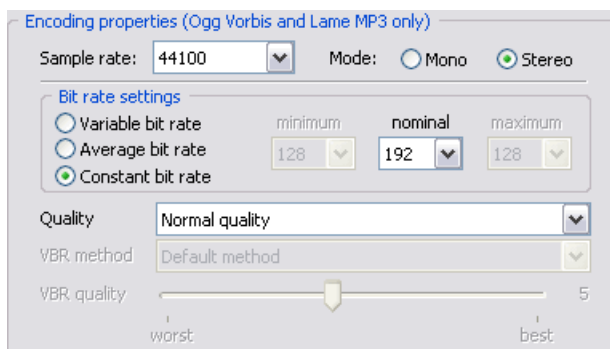
Mode – either Mono or Stereo.

Variable bit rate – sets the minimum and maximum bit-rate boundaries for encoding. Data is encoded with various bit rates within these bounds.

Average bit rate – sets the nominal bit rate for encoding. Data is encoded with various bit rates

keeping to the nominal bit rate.

Constant bit rate – sets the nominal bit rate for encoding. Data is encoded with a constant bit rate.

Quality – sets the quality of encoding. This affects the encoding time and the quality.

**VBR method** – specifies the method for encoding with a variable bit rate.

VBR quality – sets the quality for encoding with a variable bit rate.

Note: For more specific information on these encoding parameters, refer to the documentation for the Lame encoder.

See also. MP3 Settings, Working with MP3 format, How to select the optimal sound format.

5.14.2 Video Format Selection for AVI (VideoPro and Developer Editions only)

The video format for the AVI file type is set on the Video tab of the Format Selection dialog after you select AVI from the "File type (container)" list. The Format Selection dialog with an active Video tab and the AVI file type selected looks like the following:
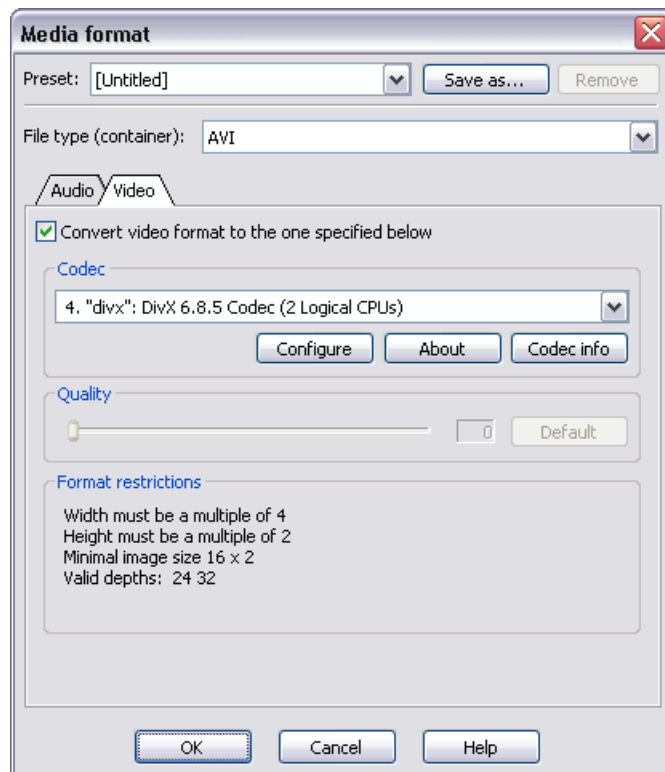
Convert video format to the one specified below – select this check box if you want to specify a particular video format. If this option is not selected, then the following occurs:

While setting the video format for your recording parameters. The video stream will be recorded in the same format as captured by Total Recorder.

While setting the video format when saving a recording. The video stream will be re-saved without any conversion.

Codec – list of installed video codecs. You can select any video codec from the list.

Configure – launches a codec-specific dialog where you can specify parameters for the selected codec. Consult your codec's documentation for further information.

About – launches a dialog with a description of the video codec.

Codec info – opens a dialog with additional information about the video codec.

Quality – sets the encoding quality. If necessary, you can click the "Default" button to set a codec-specific default value.

Format restriction – many codecs have limitations related to the size of the video frame or the color quality. Total Recorder attempts to detect such limitations and displays relevant information in this area. The message "Could not find a compatible format" means that the codec you specified cannot be used.

Notes:

- Some video codecs are designed only to decompress video and not to compress it. You cannot use these codecs for encoding. Also, video codecs are sometimes part of a particular program and are therefore protected by its license. You cannot use these codecs in Total Recorder either.

- You can only change the Quality parameter when the codec does not have its own settings dialog that can be launched via the Configure button. Some codecs do not allow you to adjust the Quality parameter.

See also. Video Format Selection for WMV, Video Format Selection for FLV, Video Format Selection for MPEG-4 and 3GP, Working with video files.

5.14.3 Video Format Selection for WMV (VideoPro and Developer Editions only)

After you select WMV from the "File type (container)" list, the video format for this file type is set on the Video tab of the Format Selection dialog. The Format Selection dialog with an active Video tab and the WMV file type selected looks like the following:
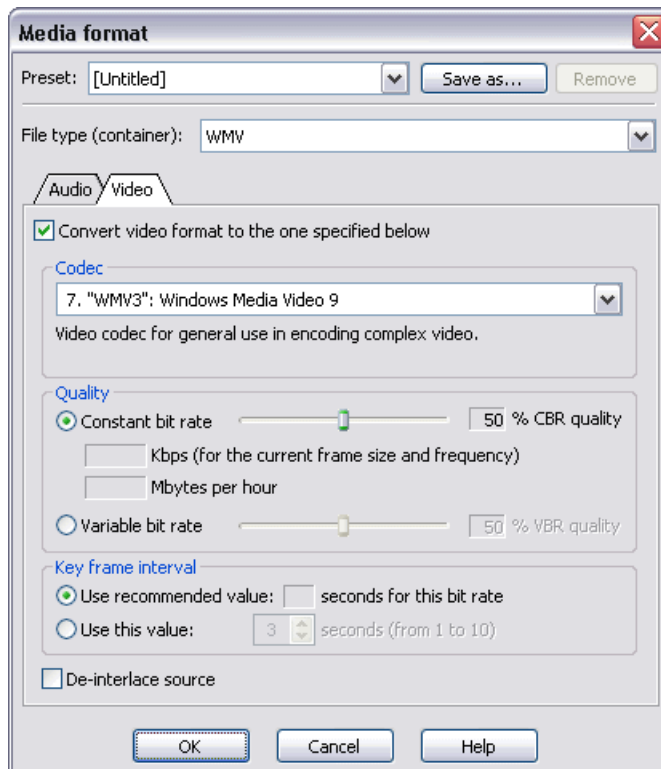
Convert video format to the one specified below – select this check box if you want to specify a particular video format. If this option is not selected, then the following occurs:

While setting the video format for your recording parameters. The video stream will be recorded in the same format as captured by Total Recorder.

While setting the video format when saving a recording. The video stream will be re-saved without any conversion.

Codec – list of installed video codecs which can be used for the WMV format. You can select any video codec from the list.

Quality – sets the encoding quality.

> **Constant bit rate.** Use this option if you want to encode video with a constant bit rate. To change the bit rate and the quality of encoding, use the slider below.

> **Variable bit rate.** Use this option if you want to encode video with a variable bit rate. To change the bit rate and the quality of encoding, use the slider below.

Key frame interval

> **Use recommended value.** If you select this option, Total Recorder will use the value specified in the frame at the right as the key frame interval.

> **Use this value.** Use this option if you want to manually specify the key frame interval.

De-interlace source. Select this option to de-interlace the video stream while encoding.

See also. Video Format Selection for AVI, Video Format Selection for FLV, Video Format Selection for MPEG-4 and 3GP, Working with video files.

5.14.4 Video Format Selection for FLV (VideoPro and Developer Editions only)

Before reading this topic, make sure you are familiar with the How to work with FLV files using Total Recorder section.

After you select FLV from the "File type (container)" list, the video format for this file type is set on the Video tab of the Format Selection dialog. The Format Selection dialog with an active Video tab and the FLV file type selected looks like the following:
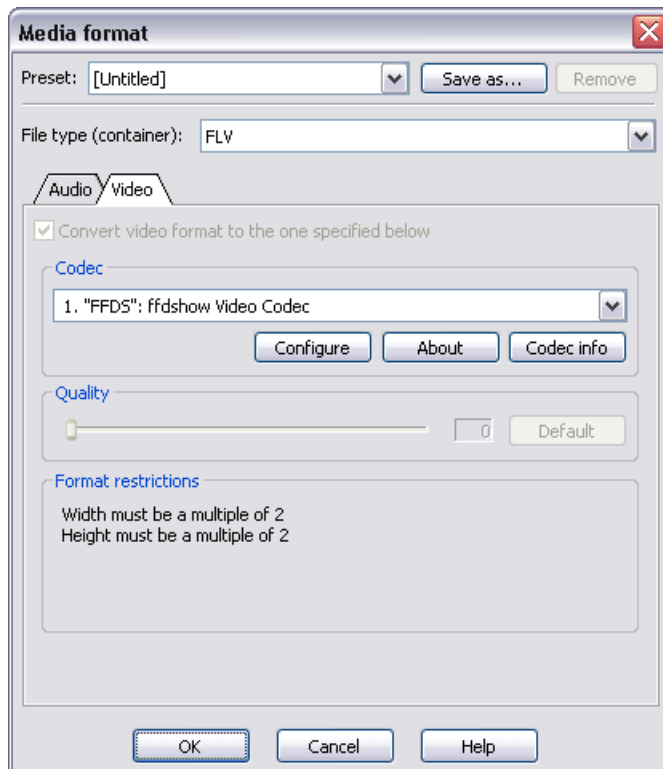
Convert video format to the one specified below – select this check box if you want to specify a

particular video format. If this option is not selected, then the following occurs:

While setting the video format for your recording parameters. This option is selected and cannot be unselected.

While setting the video format when saving a recording. The video stream will be re-saved without any conversion.

Codec – list of installed video codecs. You can select any video codec from the list.

If "Unable to encode to FLV" appears in the box, then you do not have an appropriate encoding engine installed. Refer to the How to work with FLV files using Total Recorder section to resolve this problem.

Configure – launches a codec-specific dialog where you can specify parameters for the selected codec. Consult your codec's documentation for further information.

If you select "FFDShow Video Codec", then FFDShow must be properly configured to encode to FLV. Take the following steps to configure FFDShow for encoding to FLV:

1. Click the "Configure" button.

2. Select the Encoder tab in the FFDShow configuration dialog.

3. In the "Encoder" drop-down list, select "FLV1".

4. Set the desired bit rate as the "Bitrate (kbps)" setting.

5. Click OK to close the FFDShow configuration dialog.

About – launches a dialog with a description of the video codec.

Codec info – opens a dialog with additional information about the video codec.

Quality – sets the encoding quality. If necessary, you can click the "Default" button and set a codec-specific default value.

Format restriction – many codecs have limitations related to the size of the video frame or the color quality. Total Recorder attempts to detect such limitations and displays relevant information in this area. The message "Could not find a compatible format" means that the codec you specified cannot be used.

Note:

- You can only change the Quality parameter when the codec does not have its own settings dialog that can be launched via the Configure button. Some codecs do not allow you to adjust the Quality parameter.

See also. Video Format Selection for AVI, Video Format Selection for WMV, Video Format Selection for MPEG-4 and 3GP, Working with video files.

5.14.5 Video Format Selection for MPEG-4 and 3GP (VideoPro and Developer Editions only)

This topic applies to Windows 7 and later users only.

After you select MPEG-4 or 3GP from the "File type (container)" list, the video format for this type of file is set on the Video tab of the Format Selection dialog, as shown below:
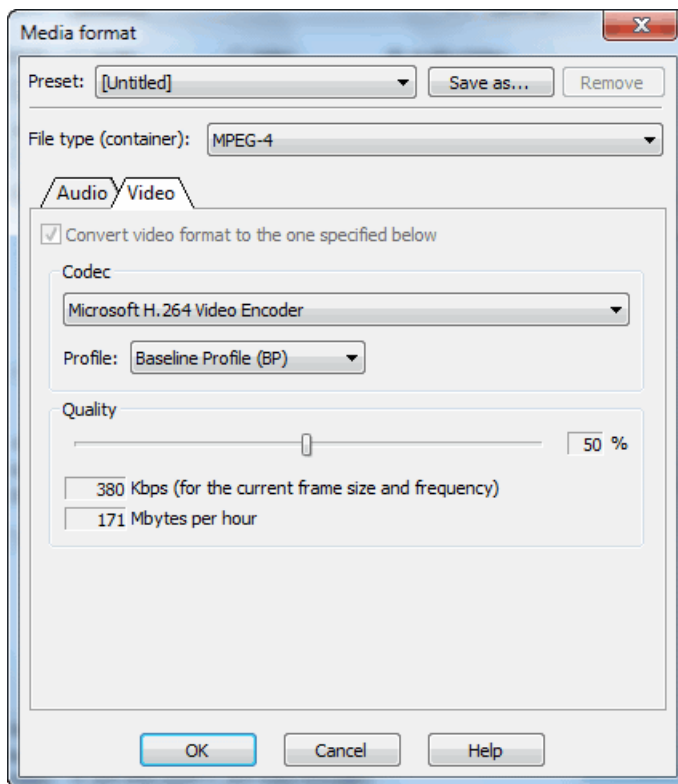
Convert video format to the one specified below – select this check box if you want to specify a particular video format. If this option is not selected, then the following occurs:

While setting the video format for your recording parameters. This option is selected and cannot be unselected.

While setting the video format when saving a recording. The video stream will be re-saved without any conversion.

Codec – the list contains only one codec: "Microsoft H.264 Video Encoder".

Profile – select the profile you want to use from the drop-down list.

Note. For information on AVC/H.264 profiles, refer to AVC/H.264 specifications (ISO 14496 Part 10: Advanced Video Coding). If you are not familiar with profiles, leave the profile setting as the default.

Quality – sets the encoding quality (bit rate).

See also. Video Format Selection for AVI, Video Format Selection for WMV, Video Format Selection for FLV, Working with video files, How to work with MPEG-4, 3GP and MOV files using Total Recorder .

5.15   Using Playlists

Total Recorder supports playlists in M3U, PLS, and WPL format. You can perform general operations on playlists, such as add files to a playlist, delete files, save a playlist, etc., as well as other operations specific to Total Recorder, such as merge multiple files in a playlist.

A playlist is always open in Total Recorder. Any named file (i.e. a file which is not "Untitled") belongs to the current playlist. If you did not open a playlist explicitly then the current playlist is a new "Untitled" playlist.

When you open or save a file in Total Recorder, the file is added to the current playlist if the file was not there before. When you close a playlist, Total Recorder attempts to close any named open file in the playlist.

If you use the default playlist settings and hide the Playlist window, Total Recorder works with playlists transparently to you.

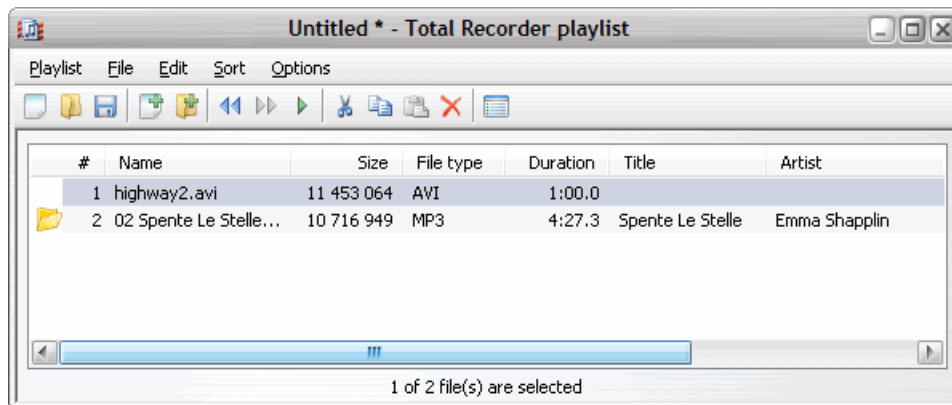You can use a playlist to keep a history of recorded files, by doing one of the following:

- If, in the Playlist Settings dialog, you have set "Save new playlists" to "Automatically" and you perform a scheduled recording in split mode, then all recorded files are stored in a new playlist. The playlist is automatically saved with a name generated based on your playlist name generation rule (see Playlist Settings dialog). You can then open the saved playlist to view or process the recorded files.

- If you record in split mode, you can open the Playlist window and view or process (e.g. edit tags) the recorded files.

See also. Playlist Settings, Playlist Window, Playlist Window Toolbar, Playlist Window Menu, Using Favorites.

5.15.1 Playlist Window

You can manually show/hide the Playlist Window by clicking "Show Playlist Window" from Total Recorder's main View menu. Or you can close the window to hide it. When you open a playlist file, the Playlist window opens automatically.

The Playlist window looks like this:

#	Name	Size	File type	Duration	Title	Artist
1	highway2.avi	11 453 064	AVI	1:00.0		
2	02 Spente Le Stelle...	10 716 949	MP3	4:27.3	Spente Le Stelle	Emma Shapplin

1 of 2 file(s) are selected

The Playlist window consists of the following main parts:

- Playlist Window Menu.

- Playlist Window Toolbar.

- List of playlist files.

Each item in a playlist has an item number (optionally pre-pended with a picture) and a list of details which you can include in the display. To indicate which details you want to display and their order, from the Options menu, click "Choose details to display, or press the ▭ toolbar button. The "Choose details" dialog appears.

A playlist item may be pre-pended with a picture. These pictures indicate the following:

- 📁 - The file is currently open in Total Recorder.
- ⚠️ - An error occurred while opening the file. To view detailed information on the error, try to open the file in Total Recorder.
- 🔴 - This file is currently recording.

By clicking the right-mouse button in the area where the files are listed, you can activate a context menu to work with a playlist.

Note. You can customize shortcuts and global hotkeys for playlist commands. See also Shortcut

Settings, Global Hotkey Settings.

See also. Playlist Settings.

5.15.2 Playlist Window Menu

Playlist Submenu

Menu Item	Edition	Action	Butt on	Default shortcut
New	All	Create a new playlist.	🗋	Ctrl+N
Open	All	Open an existing playlist.	📁	Ctrl+O
Save	All	Save an open playlist using the same file name.	💾	Ctrl+S
Save as…	All	Save an open playlist using a new file name.	None	None
Save selected files as a playlist…	All	Save selected files as a new playlist.	None	None
Add playlist to Favorites...	PE, VE, DE	Activates a dialog for adding the playlist to your Favorites list.	None	None
Properties...	All	Display the properties of the playlist.	None	None
Close Playlist window	All	Close the Playlist window.	None	None

File Submenu

Menu Item	Edition	Action	Butt on	Default shortcut
Open	All	Open the selected file in Total Recorder.	None	None
Open and Play	All	Open the selected file in Total Recorder and start playing it.	▶	Ctrl+Y
Previous file	All	Open the previous file in the playlist and start playing it, if Total Recorder is currently playing.	◀◀	Z
Next file	All	Open the next file in the playlist and start playing it, if Total Recorder is currently playing.	▶▶	B
Display properties…	All	Display the properties dialog for the selected file.	None	Ctrl+Enter
Edit tag…	All	Display a dialog for editing the tag. See also Working with tags.	None	None
Rename files...	All	Display a dialog for renaming the selected files. See Renaming files from playlist.	None	None
Merge files…	PE, VE, DE	Activates a dialog for merging selected files. See also Merging files.	None	None
Send to – Batch processing	PE, VE, DE	Forms a temporary playlist of the selected files and opens it for batch processing.	None	None
Send to – iTunes/iPod	PE, VE, DE (*)	Send selected files to iTunes/iPod. See Using the Send files to iTunes/iPod dialog.	None	None

Delete current file/Move current file to the Recycle Bin	All	Delete permanently or recycle current file depending on a setting in the Open/Save Settings dialog.	None	None

(*) – Requires the Send to iTunes/iPod Add-on installed.

Edit Submenu

Menu Item	Edition	Action	Button	Default shortcut
Select All	All	Select all items in the current playlist.	None	Ctrl+A
Select non-existing and invalid files	All	Select non-existing and invalid files in the current playlist.	None	None
Select duplicate items	All	Select duplicate items. These items can, for example, be deleted from the playlist.	None	None
Invert selection	All	Invert the selection.	None	None
Cut	All	Delete the selection and place it on the Clipboard.	✂	Ctrl+X
Copy	All	Copy the selection to the Clipboard.	📋	Ctrl+C, Ctrl+Insert
Paste	All	Paste data from the Clipboard to the current playlist.	📋	Ctrl+V, Shift+Insert
Remove from playlist	All	Remove selected files from the playlist.	✕	Delete
Add file(s)…	All	Activate a dialog for selecting files to be added to a playlist.	📄	Insert
Add URL...	PE, VE, DE	Activate a dialog for adding a URL.	None	None
Edit URL title...	PE, VE, DE	Activate a dialog for editing the URL title.	None	None
Add folder…	All	Add media files from the selected folder and its subfolders.	📁	None
Permanently delete selected file (s)/Recycle selected file(s)	All	Delete permanently or recycle the selected files depending on a setting in the Open/Save Settings dialog.	None	None

Sort Submenu

Items from this submenu can be used to sort the current playlist.

Options Submenu

Menu Item	Edition	Action	Button	Default shortcut

Preferences…	All	Activates the Playlist Settings dialog.	None	None
Choose details to display…	All	Activates a dialog for customizing the details being displayed in the Playlist window. See Customizing the details displayed in the Playlist Window.		None

Notes:

- Shortcuts can be customized using the Shortcuts dialog.

- You can assign global hotkeys to playlist functions.

See also. Using Playlists, Playlist Window, Playlist Window Toolbar, Playlist Settings.

5.15.3 Playlist Window Toolbar

This toolbar allows you easy access to common playlist operations. You can use the following buttons:

Button	Edition	Description	Menu Item	Default shortcuts
	All	Create a new playlist.	Playlist – New	Ctrl+N
	All	Open an existing playlist.	Playlist – Open	Ctrl+O
	All	Save an open playlist using the same file name.	Playlist – Save	Ctrl+S
	All	Activate a dialog for selecting files to be added to the playlist.	Edit – Add file(s)…	Ins
	All	Add media files from the selected folder and its subfolders.	Edit – Add folder…	None
	All	Open the previous file. If Total Recorder is currently playing then the open file starts playing back.	File – Previous file	Z
	All	Open the next file. If Total Recorder is currently playing then the open file starts playing back.	File – Next file	B
	All	Open the selected file and start playback.	File – Open and Play	Ctrl+Y
	All	Delete the selection and place it on the Clipboard.	Edit – Cut	Ctrl+X
	All	Copy the selection to the Clipboard.	Edit – Copy	Ctrl+C, Ctrl+Insert
	All	Paste data from the Clipboard to the current playlist.	Edit – Paste	Ctrl+V, Shift+Insert
	All	Remove the selected files from the playlist.	Edit – Remove from playlist	Delete
	All	Customize the representation of the file list.	Options – Choose details to display…	None

See also. Using Playlists, Playlist Window, Playlist Window Menu, Playlist Settings.

5.15.4 Displaying playlist properties

You can display the properties of both local and remote playlists. From the main playlist menu, select "Playlist"-"Properties". The "Playlist properties" dialog appears. It displays the location of the playlist, type of playlist, last saved date and time, file size, and other information. Statistics for selected local files in a playlist, such as the total duration of these files, may also appear.
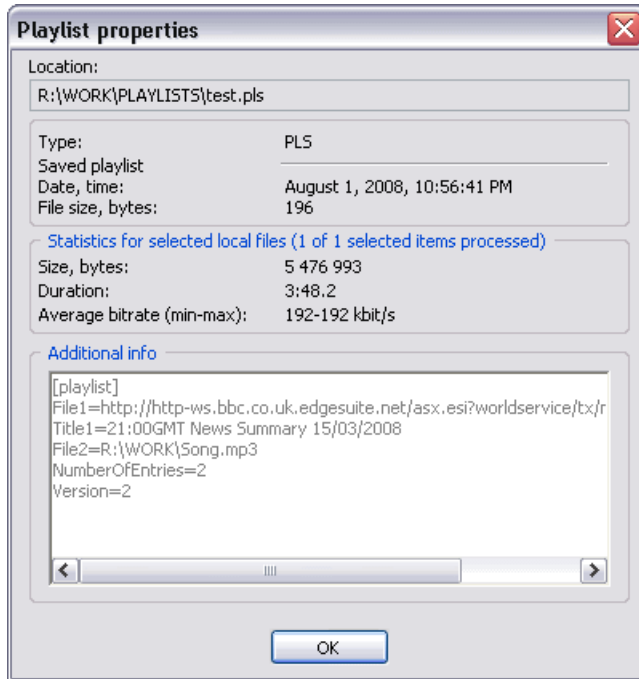
See also. Displaying File and Recording Properties, Displaying stream properties.

5.15.5 Customizing the details displayed in the Playlist Window

To customize the details displayed in the Playlist window, take the following steps:

1. From the "Options" menu, click "Choose details to display", or press the ▦ button on the toolbar. The following dialog appears:
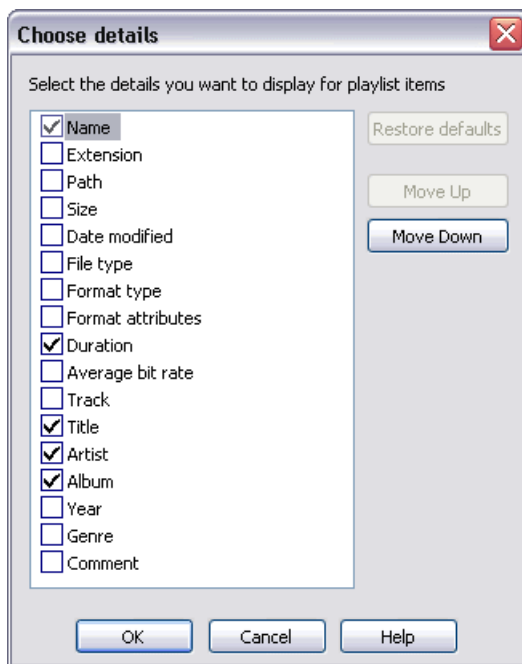
2. Select which columns you want to be displayed in the Playlist Window.

3. Columns in the Playlist window are displayed in the same order as the corresponding items in this dialog. You can use the Move Up/Move Down buttons to move the selected item up/down.

You can use the Restore defaults button to restore the default settings.

See also. Using Playlists, Playlist Window.

5.15.6   Renaming files in a playlist

To rename one or more files in a playlist, take the following steps:

1. Open the playlist.

2. Select the files you want to rename.

3. From the playlist main menu, click "File"-"Rename files". The following dialog appears:
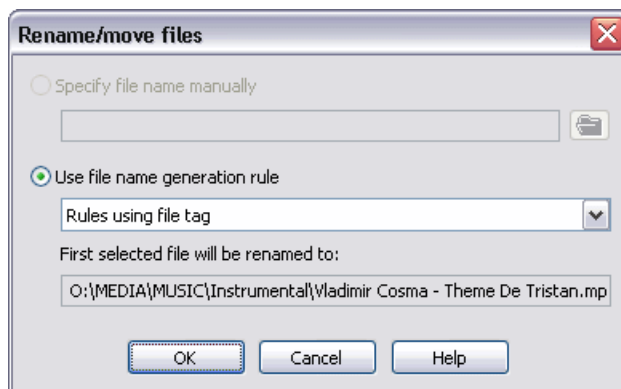
Specify file name manually

This option can only be used if you selected a single file to rename. Specify the new name for the file in the box below.

Use file name generation rule

The selected file name generation rule will be used for creating new file names. You can add, edit, and delete these rules on the "Options"-"Settings"-"File names" dialog. At the bottom of the box, the file name that will be used for renaming the first selected file is shown.

5.15.7 Editing URL title (Professional, VideoPro, and Developer Editions only)

For remote links in a playlist, you can edit the URL title. This is the title that is displayed in the Title column for the playlist item. To edit the URL title, select an item with a remote link in the playlist, then from the main playlist menu, click "Edit"-"Edit URL title". The "Edit URL title" dialog appears:
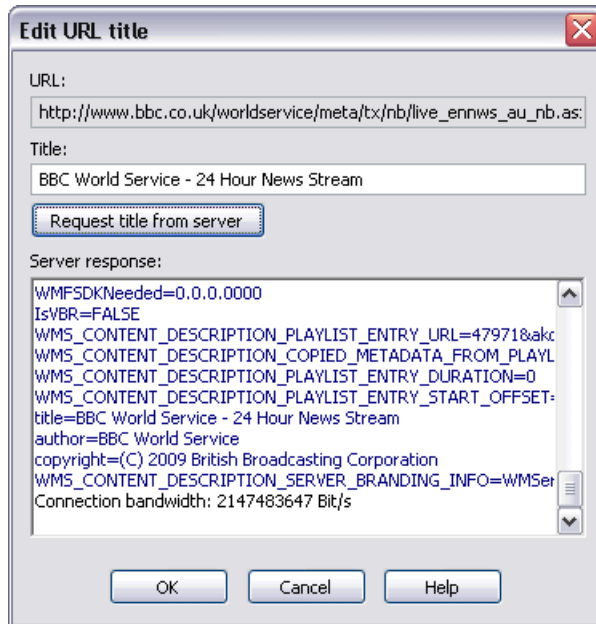
URL

URL for the selected playlist item.

Title

Title of the item. You can also click the **Request title from server** button below to cause Total Recorder to request the title of the stream from the URL.

Server response

This shows some additional information that was received from the server.

Tip. You can use this dialog simply to review or copy the full URL of a playlist item to the Clipboard.

See also. Background recording (capturing) and playing of Internet streams.

5.16 Using Favorites (Professional, VideoPro, and Developer Editions only)

Favorites in Total Recorder is similar to the Favorites you use in a browser, such as Internet Explorer. The Favorites can be used to maintain a hierarchical, easily accessible, collection of named links to local or remote files (including links to playlists and Internet streams). They support history and you can use predefined sample links.

You can work with your Favorites in the following places:

• Through the "Favorites" menu item, you can open a Favorite, add to your Favorites list, and

organize your Favorites. Favorites can be imported and exported.

- Through the Playlist - Add playlist to Favorites menu item, you can add a playlist to your Favorites list.
- In the Open URL dialog, you can open a remote link from your Favorites list.
- In the Capture transmission dialog, you can open the home page of a favorite item.
- In the Options - Settings - General dialog, you can define parameters for keeping a history of your Favorites and you can manually clear the history.

There are two special folders in Favorites: *History* and *Sample Links*. *History* is used to store a history. *Sample Links* contains links to predefined Internet transmissions. It is not recommended you manually add any items to either of these folders.

See also. Using Playlists.

5.16.1 Adding a Favorite

To add a file or a remote link to your Favorites list:

1. Open the saved file or remote link.
2. From the Favorites menu, click "Add to Favorites".

To add a saved playlist to your Favorites list:

1. Open the playlist.
2. In the main menu of the Playlist window, from the Playlist menu, click "Add playlist to Favorites".

A dialog like the following appears:
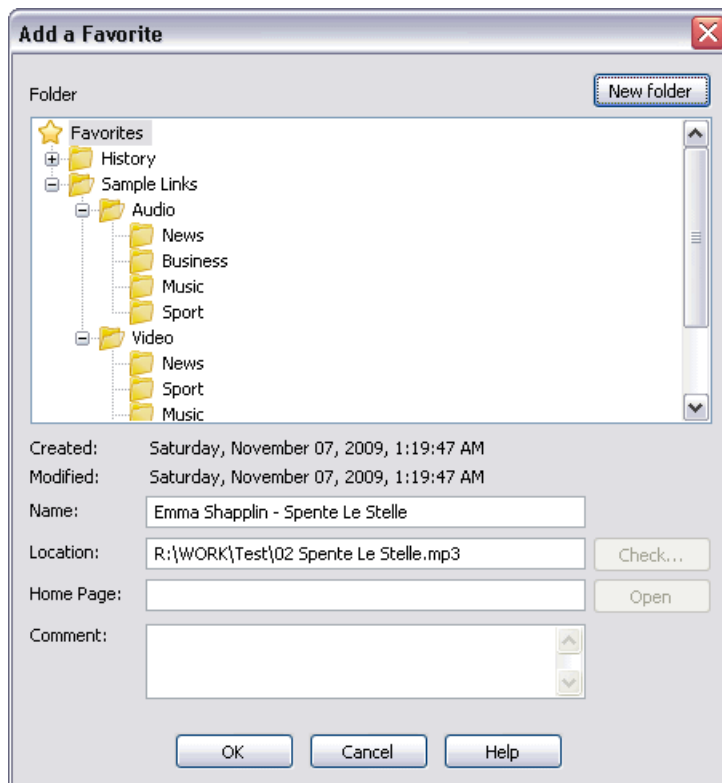
Select a folder to which the new item will be added.

New folder. Click the button to create a subfolder in the currently selected folder.

Name. Specify a name for the favorite. The name will appear in many places, such as in your Favorites tree, to identify your favorites.

Location. This is the location that will be used to open the item. You can click the "Check" button at the right to verify a remote link.

Home Page. You can specify a Home Page. The Home Page can be used to simply store a URL. Also, the URL can be selected in the Capture transmission dialog.

Comment. You can include a comment for your Favorites item.

Note: You can right-click to access a context menu for some of these functions.

See also. Using Favorites.

5.16.2 Organizing Favorites

To organize your Favorites: from the main menu, click "Favorites" – "Organize Favorites". The dialog like the following appears:
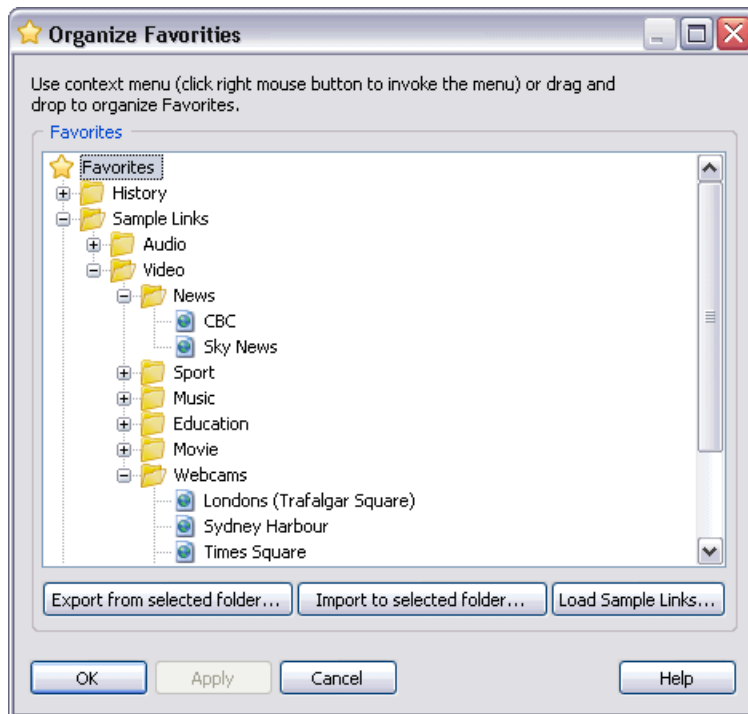
You can right-click to use a context menu and you can use drag-and-drop operations to organize your Favorites.

Export from selected folder. Click this button to export all favorites from the currently selected folder. You will be prompted for the name of the file to which these favorites will be exported. This allows you to keep a backup of your favorites or send your favorites to another user.

> **Tip.** To export all of your favorites, select the "Favorites" item with a star beside it in the tree, and click the "Export from selected folder" button.

Import to selected folder. Click this button to import favorites from a file into the selected folder. You will be prompted for the name of the file from which these favorites will be imported.

Load Sample Links. *Sample Links* contains links to predefined Internet transmissions. Click the "Load Sample Links" button to load the latest version of these links from High Criteria's web site.

See also. Using Favorites.

5.17   Batch Processing (Professional, VideoPro, and Developer Editions only)

You can use batch processing to process one or more sound files and take the following actions:

- Change the format.

- Normalize.

- Apply Fade In/Out effects.

- Change the audio speed.

- Repair MP3 files.

- Split files.

- Reduce pauses.

- Change or create tags.

- Create file names using tag information or sequential numbers.

- Perform additional processing supported by add-ons.

Note for VideoPro and Developer Edition users. Batch processing of video files in Total Recorder is not supported.

The main steps in batch processing are:

- From the main menu, select "Tools" - "Batch processing", or click the 🔘 button in the main toolbar.

- Look through the list of sound files supported by Total Recorder. These files can either be in a folder (with or without subfolders) or included in a playlist. Look through the different properties of these files (date modified, size in bytes, duration, format, artist, title, etc.). You can sort the files if needed.

- Mark the files to be processed in batch, and click the "Process..." button. The Batch processing wizard starts.

- Choose the operations to be performed as part of the batch process.

- Refine operations for audio processing.

- Choose the destination (i.e. output location).

- Save the specified batch processing parameters as a preset for future use, if required.

- Process the marked files.

Note that you can also launch batch processing using the command line.

5.17.1   Displaying and Controlling Batch Processing

Batch processing works in a window independent of the main window. While batch processing operations are being performed, you can continue working in the main window. If you try to close the main Total Recorder window during batch processing, then batch processing will stop. If an error occurs for a file during batch processing (e.g. access is denied while reading), this file is skipped and batch processing continues with the remaining files.

To perform batch processing: from the "Tools" menu, select "Batch processing …", or press the 🔘 button on the main toolbar. You can also select a set of files for batch processing from the Playlist window and click "File" - "Send to" - "Batch processing" from the Playlist window menu.

The "Batch Processing – Total Recorder" window looks like this:
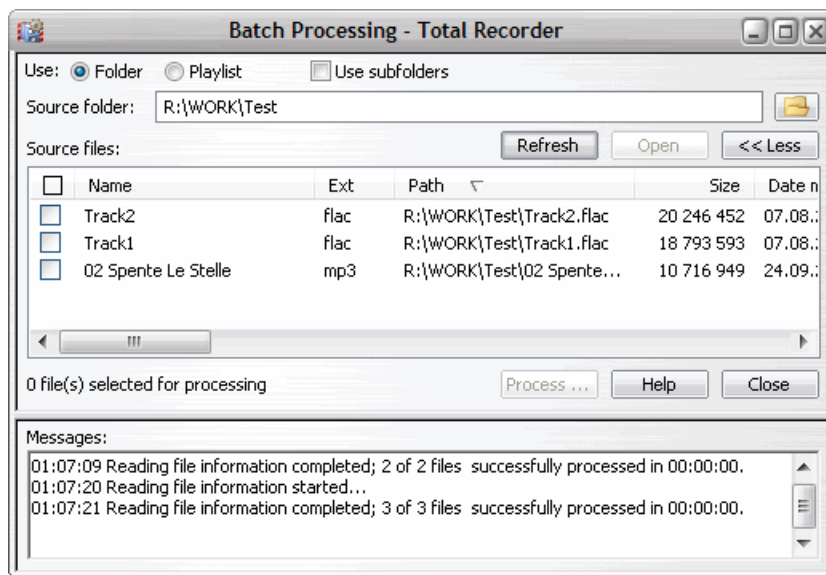
Use – indicates the source type:

> **Folder** – specify the path to the folder with the source files. Select "Use subfolders" if you want the list of source files to consist not only of files from the specified folder, but also from its subfolders.

> **Playlist** – specify the path to a playlist. Total Recorder supports M3U, PLS, and WPL playlists.

Source folder/Source playlist – specify the source folder or source playlist.

Refresh – refreshes the list of source files. This is useful when a file has been added, deleted, or changed. You can also refresh the list by clicking "Refresh" in the context menu.

Open – press this button to open the selected file in Total Recorder. Alternatively, double click the file, or right click in the list and select "Open file".

More >>/ << Less – allows you to show/hide some information about the file. "More >>" displays the columns: "Type", "Format type", "Format attributes", "Duration", "Average bit rate", "Track", "Title", "Artist", "Album", "Year", "Genre", "Comment". "Less <<" displays only "Name", Ext", "Path", "Size", and "Date modified".

Source files – list of files for batch processing. If a file is not available, is damaged, or is not a sound file, it is shown in gray. Such files cannot be processed in batch.

Note for VideoPro and Developer Edition users. Batch processing of video files in Total Recorder is not supported.

The first column in the list of files lets you mark files for batch processing. You can select any combination of files individually, or click the square box in the header of the column to mark all files.

The other columns are described below.

> **Name** – file name without extension.

> **Ext** – file extension.

> **Path** – full path to the file.

> **Size** – size of the file in bytes.

> **Date modified** – date and time of the last modification to the file.

> **Type** – type of file header (see descriptions of types in the Displaying File and Recording Properties section).

> **Format type** – type of file format (PCM – main, non-compressed format; all other formats are compressed).

Format attributes – attributes of file format (e.g. frequency, number of channels, and other format-dependent parameters).

Duration – duration of sound file. The duration for some files cannot be measured exactly without long calculations. In this case, an approximate figure is given, and appears with a '~'.

Average bit rate – average bit rate (kbits per second). If the Duration has not been specified exactly, this parameter is also approximate and appears with '~'.

Track, Title, Artist, Album, Year, Genre, Comment – information from the file tag (ID3 or others supported by Total Recorder).

Process – press this button to display the Batch Processing Wizard, which will help you process the marked files. This button is available if at least one file is marked for processing.

Close – press this button to close the "Batch processing – Total Recorder" window.

Messages – displays the state of the batch process, including any errors. Other information, such as the time frame of the process (start, finish, and duration) also appears. Each line starts with a time stamp.

Source-file list menu

If you right click on the list, the following menu appears:

```
Open file
─────────────────
Mark this file
Unmark this file
Mark selected files
Unmark selected files
Mark all files
Unmark all files
─────────────────
Refresh
```
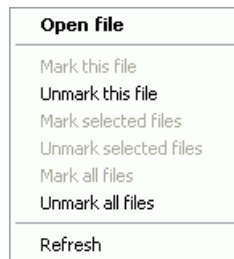
You can use the following options:

Open file – open current (focused) file in Total Recorder.

Mark this file – mark current (focused) file in the list for processing.

Unmark this file – unmark current (focused) file in the list for processing.

Mark selected files – mark all selected files in the list for processing.

Unmark selected files – unmark all selected files in the list for processing.

Mark all files – mark all files in the list for processing.

Unmark all files – unmark all files in the list for processing.

Refresh – refresh the list of source files.

5.17.2 Choosing Operations for Batch Processing

To choose the operations for batch processing, in the "Batch processing – Total Recorder" window, click the "Process" button. The following dialog appears.
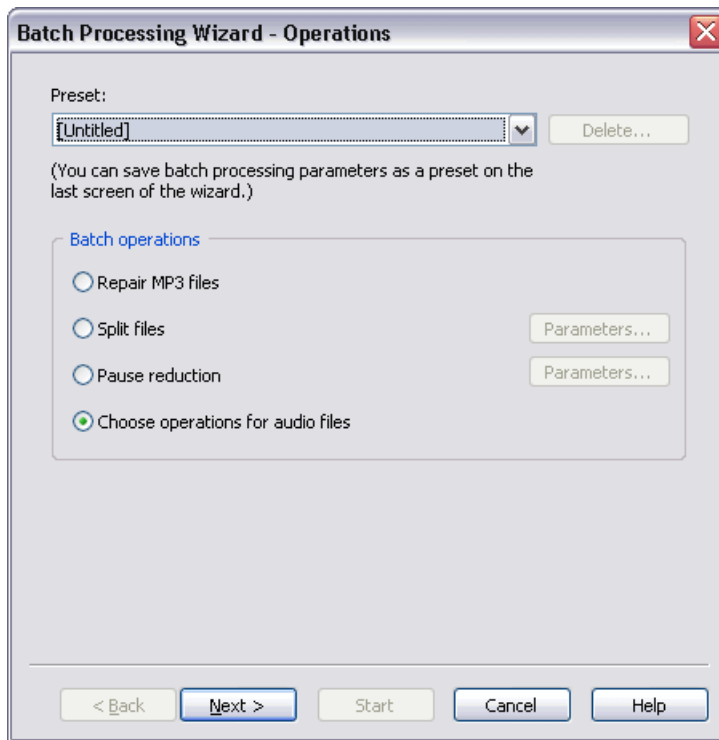
Preset – this list contains the names of saved batch processing presets. Batch processing parameters can be saved as preset on the final screen of the wizard. A preset can later be used to quickly set the parameters you want to use. You can also use these presets on the command line for batch processing.

If a preset is selected, you can immediately start batch processing by clicking the "Start" button.

Repair MP3 files - select this option to repair the marked files. This operation can be used only with MP3 files (see Repairing MP3 files).

Split files – select this option to split marked files.

    Parameters… - press this button to set splitting parameters using the "Split recording conditions" dialog.

Pause reduction – select this option to reduce pauses.

    Parameters… - press this button to set pause reduction parameters using the "Pause reduction" dialog.

Choose operations for audio files – select this option to choose the operations for audio files. If you select this option, the screen for choosing these operations is activated when you click the "Next>" button.

5.17.3 Choosing Specific Operations for Batch Processing

The dialog for choosing specific operations looks like the following:
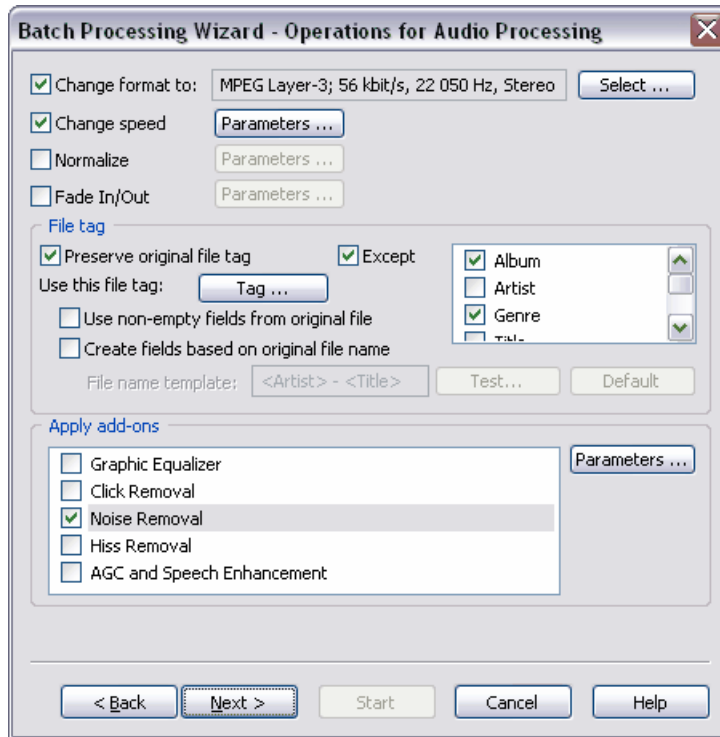
Change format to – select this option to change the format of the marked files (see How to select the optimal sound format).

Select... – press this button to specify the new format using the Media Format dialog.

Change speed – select this option to change the audio speed.

Parameters… - press this button to set the parameters using the "Saving with a different speed" dialog.

Normalize – select this option to normalize the marked files.

Parameters… - press this button to set the parameters using the Normalization dialog.

Fade In/Out – select this option to apply Fade In/Out effects to the marked files.

Parameters… - press this button to set the parameters using the Fading Effects dialog.

File tag

In this section, you can set parameters for changing the file tag. Select either of the following options:

Preserve original file tag

– If the file type does not change, the tags are transferred without any changes.

– If the file type changes, the tag fields are transferred as completely as the original and resulting formats allow.

Except

This option lets you change only specified tags in the resulting files and preserve all other tags.

Use this file tag

This option lets you change the tags in the resulting files. Click the "Tag" button to specify the file tag.

Use non-empty fields from original file – non-empty fields in the original file are copied to the destination file. Those tag fields that are empty in the original file are created according to the properties described above. To transfer all the fields of the original file, and only them, define an empty tag.

Create fields based on original file name – if you select this option, the information that is kept in the name of the original file is taken into account when forming the resulting tag. To divide the file name into components, you must define a template.

For example, if the original file name is "Joe Dassin – Salut.wav" and the template is <Artist> - <Title>, Total Recorder creates the following fields for the new tag: Artist – "Joe Dassin", Title – "Salut".

File name template – in this box you can define a template for generating tags from the file names. The template can consist of the following fields: <Track>, <Title>, <Artist>, <Album>, <Year>, and <Genre>. Fields must be separated by at least one character. The template can only be used for file names. You cannot use relative or absolute paths in the template.

Test … – after defining the template, you can test it. If the template is correct, a dialog appears containing the information about how the names of all the files have been processed. See Testing the template for tag generation.

Default – gives the template the default value "<Artist> - <Title>".

Apply add-ons - lists the Total Recorder add-ons you have installed. To apply an add-on to the original files, select it from the list.

Parameters… – press this button to set parameters for a selected add-on.

5.17.4 Choosing the Destination for Batch Processing

The dialog for choosing the destination looks like the following:
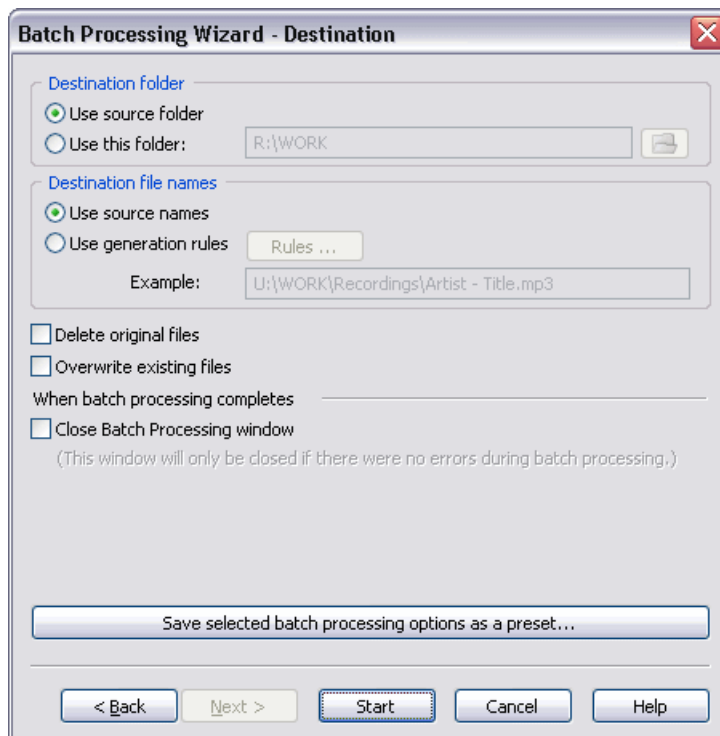
Destination folder

Select either of the following options:

Use source folder – save the resulting files in the source folder.

Use this folder – save the resulting files in the folder specified to the right.

If you have selected "Folder" and "Use subfolders" in the list of the source files, the structure of the subfolders for the destination folder will be the same as for the source folder.

For example:

Source folder (use subfolders):	D:\src
List of source files:	D:\src\file1.wav D:\src\fold1\file2.wav
Destination folder:	D:\dest
Resulting files:	D:\dest\file1.wav D:\dest\fold1\file2.wav

If the d:\dest\fold1 folder did not exist before batch processing started, it will be created.

If the list of the files is based on a playlist, the source tree of subfolders will not be restored in the destination folder.

For example:

Contents of the playlist	C:\file1.wav D:\file2.wav D:\src\file3.wav
Destination folder:	D:\dest
Resulting files:	D:\dest\file1.wav D:\dest\file2.wav D:\dest\file3.wav

More than one file could have the same resulting name. In this case, only one of them is saved. If "Overwrite existing files" is selected, the last of the files with the same name is saved. Otherwise, the first one is saved. If "Delete original files" is selected, it can lead to a loss of some files that cannot be recovered.

For example:

Contents of the playlist	D:\src\file.wav D:\src\fold\file.wav
Destination folder:	D:\dest
Resulting files:	D:\dest\file.wav D:\dest\file.wav

The real folder where the resulting files appear depends also on the file generation rule (see below).

Destination file names

Select either of the following options:

- **Use source names** – give the resulting files the same names as those of the source files.

- **Use generation rules** – specify the rules for the creation of the file names.

   Rules - press this button for the "File name generation rule for batch processing" dialog. This dialog is similar to the "Using File name generation rule for job" dialog.

   Example – shows an example of how this rule works.

   If the rule for the file name generation contains an absolute name, this name has priority over the "Destination folder" settings, and is used to form the destination path of the file. Even if "Use source folder" is specified, the path from the file name generation rules is used.

   For example:

Source file:	D:\src\file1.wav
Destination folder:	D:\dest
Generation file name rule:	C:\fold\fileTR<CurrYear-4-4>
Resulting file:	C:\fold\fileTR2005.wav

If the rule for the file name generation contains a relative name, the subfolders defined in this name will be created in the folder, after applying all of the other rules.

For example:

Using source folder:

Source folder (use subfolders):	D:\src
List of source files:	D:\src\file1.wav
	D:\src\fold1\file2.wav
Destination folder:	D:\dest
Generation file name rule:	fold2\fileTR<CurrYear-4-4>
Resulting files:	D:\dest\fold2\fileTR2005.wav
	D:\dest\fold1\fold2\fileTR2005.wav

Using playlist:

Contents of the playlist:	C:\file1.wav
	D:\file2.wav
	D:\src\file3.wav
	D:\src\fold1\file4.wav
Destination folder:	(Use source folder)
Generation file name rule:	fold2\fileTR<CurrYear-4-4>
Resulting files:	C:\fold2\fileTR2005.wav
	D:\fold2\fileTR2005.wav
	D:\src\fold2\fileTR2005.wav
	D:\src\fold1\fold2\fileTR2005.wav

Options

You can set the following options:

   Delete original files – delete each original file after it is processed.

   Overwrite existing files – rewrite files that already exist.

Close Batch Processing window – Select this check box if you want the Batch Processing window to be closed when processing completes successfully.

Save selected batch processing options as a preset

Click this button to save your selected parameters as a preset. This preset can be used later to quickly set batch processing parameters. You can also specify this preset when invoking batch processing from the command line.

Start – starts batch processing. After clicking "Start", the process begins, and the dialog of long operations appears. If it is necessary, you can stop the process. If the process stops, the files being processed will remain unchanged. When you press "Start", all the parameters that you have specified are saved and used as defaults the next time you use the "Batch Processing Wizard".

5.17.5 Testing the template for tag generation

In order to test the template for the tag fields that will be extracted from a file name, press "Test" in the "Batch Processing Wizard – Choose Operations" dialog.

If the template is correct, the following dialog appears:
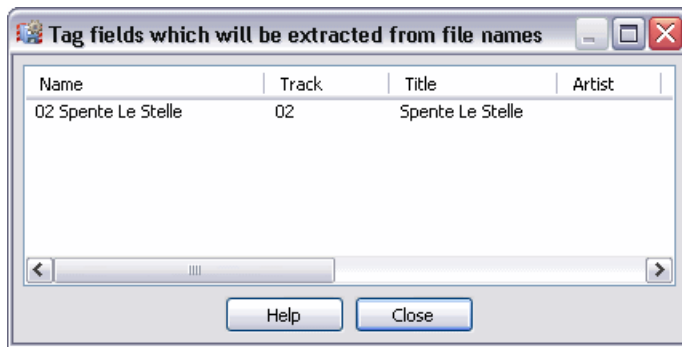
Each column corresponds to a field in the template. If all the fields other than "Name" are empty, the file names do not correspond to the template, and you will need to choose another template.

5.17.6 Using the Split conditions for batch processing Dialog

The dialog looks like the following.
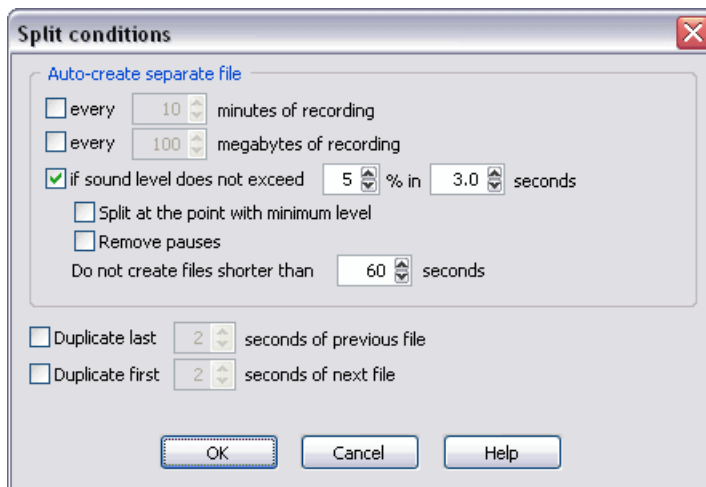
Each of the options is described below.

Auto-create separate file

> **every nnn minutes of recording** – the source file is split in nnn-minute sections.

> **every nnnn megabytes of recording** – the source file is split in nnnn-megabyte sections.

> **if sound level does not exceed mmm% in xx.x seconds**

>> **Split at the point with minimum level** – if this option is selected then Total Recorder uses a sophisticated algorithm to find the optimal position for splitting.

>> **Remove pauses** – if this option is selected then Total Recorder removes pauses between files while splitting.

>> **Do not create files shorter than kkk seconds** – a new file is created if the sound level during an interval of xx.x seconds is less than mmm% of the maximum sound level.

Duplicate last N seconds of previous file – selecting this option and specifying the number of seconds, N, results in the first N seconds of the new file being the same as the last N seconds of the previous file.

Duplicate first N seconds of next file – selecting this option and specifying the number of seconds, N, results in the last N seconds of the previous file being the same as the first N seconds of the new file.

See also. Split mode overview, Using the Split recording conditions Dialog.

5.18   Using Total Recorder Add-ons

5.18.1   Total Recorder Add-ons overview

Total Recorder supports add-on programs. These add-ons can be used to process a sound stream or to monitor some sound characteristics. The features provided by the add-on depend upon the particular add-on. To learn more about add-ons, refer to the add-on's help file and add-on home page. To launch an add-on's help file, open any of the add-on's windows and either press the F1 button or use the "Help" button.

There are some add-ons that are closely integrated with Total Recorder. Help information for these add-ons is included in this help. These add-ons are the following:

- **Digital Mixer Add-on.** The Digital Mixer Add-on works only with Total Recorder's Professional, VideoPro, and Developer Editions Version 5.3 and later.

- **Send to iTunes/iPod Add-on.** The Send to iTunes/iPod Add-on works only with Total Recorder's Professional, VideoPro, and Developer Editions Version 6.0 and later.

Some add-ons are distributed free-of-charge while others are purchased through the Internet. Refer to the "Options"-"Settings"-"Add-ons" dialog for information about the add-ons you have installed.

Total Recorder can use only its own add-ons. Add-ons that are developed for other software cannot be used with Total Recorder.

An add-on may require a particular version and/or edition of Total Recorder. Refer to the documentation for the particular add-on you want to use.

An add-on can add its own menu items to Total Recorder's menu and add its own icons to the Information panel.

Add-ons can be used to process multiple files in batch. For more information, refer to Batch Processing Overview.

Caution. The use of an add-on requires additional processing time and memory. As such, add-ons should only be used when needed.

See also. Installing/uninstalling add-ons, Registering add-ons.

5.18.2   Installing/uninstalling add-ons

To install an add-on, take the following steps:

- Go to the add-on home page and follow the instructions. All add-ons are installed in the [Total Recorder installation folder]\AddOns\ folder.

- After installing the add-on, you should restart Total Recorder. See also the "Options" - "Settings" - "Add-ons" dialog.

- If the add-on requires registration, follow the registration procedure. See also Registering add-ons.

To uninstall an add-on, take the following steps:

1. Select "Options"-"Settings".

2. Open the "Add-ons" dialog.

3. Select the add-on you want to uninstall.

4. Click the "Uninstall" button.

When uninstalling Total Recorder itself, all Total Recorder's add-ons are automatically uninstalled.

See also. Total Recorder Add-ons overview.

5.18.3 Registering add-ons

After installing an add-on, it may require registration. To review registration information for all installed add-ons, select "Options"-"Settings", and open the "Add-ons" dialog.

Note: You cannot register an add-on if your version of Total Recorder is not registered.

To register an add-on:

1. Receive the registration key by following the instructions on the add-on home page at the following address:
   http://www.totalrecorder.com/AddOnMain.htm

   To order by check, refer to the Registration.txt file in the installation folder of the add-on.

2. Select "Help"-" Add-on registration". The following dialog appears:
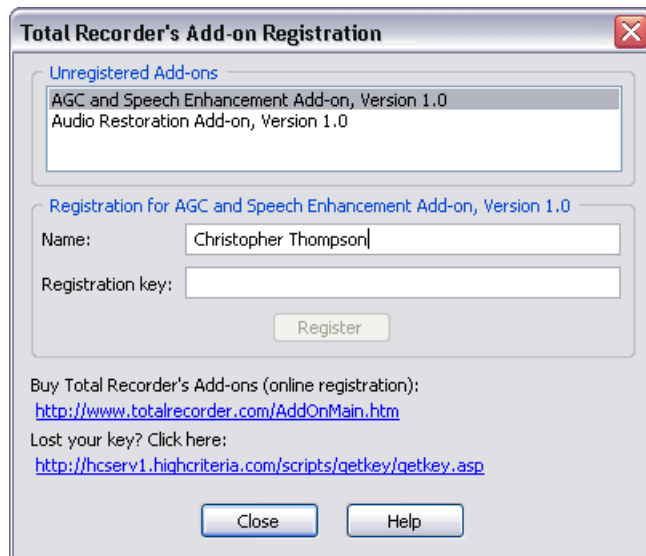
3. In the "Unregistered add-ons" list, select the add-on you want to register. If the list is empty, then you have no unregistered add-ons installed.

4. Type in the same name you used to obtain the registration key, type your registration key, and press the "Register" button. After registration, this add-on is removed from the list of unregistered add-ons.

Note: You cannot use your registration key for Total Recorder itself or the registration key for a different add-on.

See also. Total Recorder Add-ons overview, Installing/uninstalling add-ons, Add-on Settings.

5.18.4 Digital Mixer Add-on (Professional, VideoPro, and Developer Editions only)

The Digital Mixer Add-on is a special Total Recorder add-on that is closely integrated with Total Recorder. Help information for this add-on is included in this help. You can download the Digital Mixer Add-on from the add-on home page **free of charge**.

The Digital Mixer Add-on works only with Total Recorder's Professional, VideoPro, and Developer Editions version 5.3 and later.

The Digital Mixer Add-on has the following features:

- Mix the current recording with a file or the contents of the Clipboard. You can remix mixed data later. For more information, refer to "Using the Mixing Dialog".

- Record in Mix-over recording mode. This feature allows you, for example, to add comments to an existing recording. For more information, refer to "Open/Save Settings".

- Perform mixed Software and Sound board recording. This feature allows you, for example, to use Total Recorder for karaoke. For more information, refer to "Setting recording parameters".

- Save mixed sound data separately (i.e. save each mixed sound stream to a file). For more information, refer to "Saving a mixed stream to a file".

Caution. It is strongly recommended you perform all mixing operations with uncompressed formats: PCM, PCM (High quality), or PCM IEEE float 32 bit. Mixing compressed sound data results in re-encoding. This can result in poorer sound quality and can take a long time. Also, if you mix compressed sound data, you will not be able to change any parameters of the mixing operation (i.e. perform remixing).

Note for VideoPro and Developer Edition users. The Digital Mixer Add-on works only with audio files. If you need to process the audio stream of a video file, you should extract the audio stream from the file first (see Saving operations for video files), process the audio stream by the add-on, and then replace the source audio stream with the processed one.

Note for Developer Edition users. The capabilities added by the Digital Mixer Add-on are available through automation. See the Automation On-Line Help (TotRecAuto.chm) for more information.

See also. Total Recorder Add-ons overview, Installing/uninstalling add-ons.

5.18.4.1 Using the Mixing Dialog

The dialog can be invoked in the following contexts:

- for mixing operations (mixing with a file, mixing with the Clipboard, remixing). To activate the dialog, use the "Edit"-"Mix…" menu item. Mixing starts from the current position.

- to set mixing parameters for recording in Mix-over recording mode. To activate the dialog, use the "Change…" button from the Mixing parameters group of the Recording source and parameters dialog. If the dialog is used to set mixing parameters, then the dialog has "Mixing parameters" as the title and some of the controls described below do not appear.

The dialog looks like this.
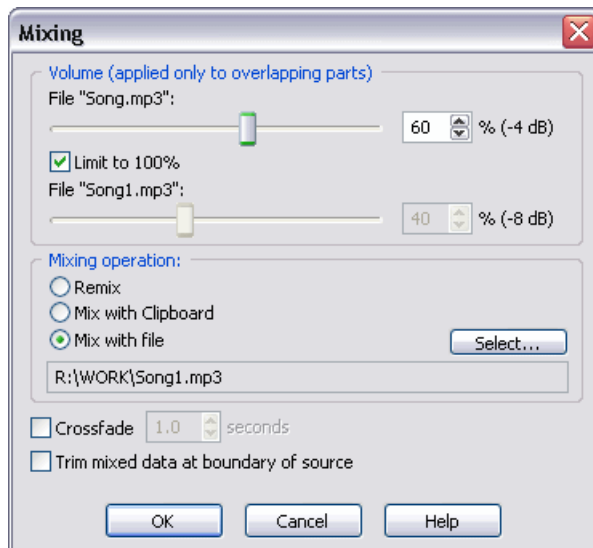
Volume (applied only to overlapping parts). The first slider sets the target volume of the source sound data (e.g. song.wav); the second slider sets the volume of the sound data to be mixed (e.g. song2.wav). The volume is changed only in the parts that overlap.

Limit to 100% - If this box is checked, then setting the volume of sound data to be mixed is disabled. The volume is automatically calculated based on the source volume in such a manner that the sum of the two volumes equals 100%. You can use this box to avoid clipping when mixed

sound data overflows.

Mixing Operation - identifies the type of mixing operation.

Remix - allows you to change the parameters of the last mixing operation.

Remixing is available if one of these conditions is true:

- You performed mixing either with a file or the Clipboard and the source file was uncompressed.

- You recorded in Mixing Software and Sound board mode and the "Allow mixing parameters to be changed after recording" option was checked. For more information, see "Setting recording parameters".

- You used Mix-over recording mode to record over a file with an uncompressed format. For more information, see "Open/Save Settings".

Mix with Clipboard - mix the current data with sound data in the Clipboard.

Mix with file - mix the current data with a file. Use the "Select…" button to specify the location of the file.

Crossfade x.x seconds - If this option is checked, then during the number of seconds you specify, the proportion of the mixing is changed from the ratio 100:0 to the ratio defined in the Volume group (at the beginning mixing point), and from the ratio defined in the Volume group to 100:0 (at the ending mixing point). Crossfading is useful if you wish to have a fluent junction at the beginning and ending mixing points. Note that if you remix data obtained during Mixed Software and Sound board recording, the Crossfade option is disabled.

Trim mixed data at boundary of source - If this option is checked then the sound data to be mixed is trimmed at the end boundary of the source data.

See also. Digital Mixer Add-on overview, Saving a mixed stream to a file.

5.18.4.2 Saving a mixed stream to a file

To activate the dialog for saving mixed streams select the "File"-"Save mixed data separately as…" menu item.

You can save mixed streams if any of these conditions is true:

- You performed mixing with a file or the Clipboard and the source file was uncompressed. For more information, see "Using the Mixing Dialog".

- You recorded in Mixing Software and Sound board mode and the "Allow mixing parameters to be changed after recording" option was checked. For more information, see "Setting recording parameters".

- You used Mix-over recording mode to record over a file with an uncompressed format. For more information, see "Open/Save Settings".

The dialog for saving mixed streams looks like this:
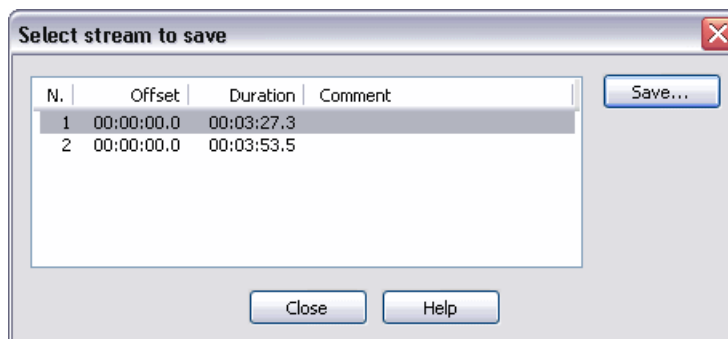
To save a stream select the stream from the list and press the "Save…" button.

The list contains the following columns:

NN - Stream number.

Offset - Time offset of the stream in the current file.

Duration - Duration of the stream.

Comment - If the current file was obtained while recording in Mixing Software and Sound board mode, then streams that correspond to Software stream and Sound board stream are marked accordingly.

See also. Digital Mixer Add-on overview, Using the Mixing Dialog.

5.18.5 Send to iTunes/iPod Add-on (Professional, VideoPro, and Developer Editions only)

The Send to iTunes/iPod Add-on is a Total Recorder add-on that is closely integrated with Total Recorder. Help information for this add-on is included in this help. You can download the Send to iTunes/iPod Add-on from the add-on home page **free of charge**.

This add-on works only with Total Recorder's Professional, VideoPro, and Developer Editions Version 6.0 and later. It requires iTunes Version 6.0 or later.

The Send to iTunes/iPod Add-on allows you to do the following:

- Send an open file to iTunes/iPod directly from Total Recorder. For more information, refer to Using the Send files to iTunes/iPod dialog.

- Send recorded files to iTunes/iPod while recording in split mode. For additional information, refer to Split Settings.

- Send recorded files to iTunes/iPod during a scheduled recording. For additional information, refer to Schedule Item – Post-processing Tab.

Note: Total Recorder does not verify the format of the file being sent to iTunes. You need to verify which formats are recognized. The PCM and MP3 formats are known to be recognized by iTunes.

See also. Total Recorder Add-ons overview, Installing/uninstalling add-ons, Using the Send files to iTunes/iPod dialog, Sending files to iTunes/iPod process.

5.18.5.1 Using the Send files to iTunes/iPod dialog

The dialog can be used in the following contexts:

- To send an open file to iTunes/iPod. Use "File" - "Send to" - "iTunes/iPod".

- To send files to iTunes/iPod when recording in Split mode. To open the dialog, select the "Automatically send recorded files to iTunes/iPod" check box and click the "Settings…" button on the Split Settings dialog.

- To send files to iTunes/iPod during a scheduled recording. To open the dialog, select the "Automatically send recorded files to iTunes/iPod" check box and click the "Settings…" button on the Schedule Item – Post-processing Tab.

The dialog looks like this.

Send only after recording has completed. If this option is selected, then all recorded files are sent only after the entire recording has completed. Otherwise, each recorded file is sent immediately after it has been recorded. To avoid distortion in recordings, it is recommended you select this option if iTunes may not be running when files are being sent (in which case, Total Recorder will need to start it) or if files are being sent with conversion.

Add files to playlist. If this option is selected, the files being sent are placed in the playlist specified below. You can type the name of the playlist, select it from the drop-down list, or use the "Select" button to open a dialog where you can choose the playlist from a list of all existing iTunes playlists. If a playlist with the name you specify does not exist, the playlist will be created when sending a file.

Note that playlists can be created only in the "root iTunes folder", which means you cannot send a file to a playlist in some other folder.

If this option is not selected, files are added only to the iTunes Library.

You can specify a template for generating playlist names by pressing the "Generate" button, which opens the "Playlist name generation rule" dialog.

Remember playback position. If this option is selected, then iTunes will remember the playback position. You can also select or clear this option in iTunes.

Skip when shuffling. If this option is selected, then the file will be skipped when playback is shuffled. You can also select or clear this option in iTunes.

Convert to the iTunes default format. If this option is selected, then the file is converted to the default iTunes format while sending. Otherwise, the file is added to iTunes/iPod in its original format.

You can set the default format for iTunes in iTunes ("Edit"-"Preferences" - "Advanced" tab, "Importing" tab). If you plan to send a recording to iTunes/iPod with conversion, it is recommended the recording is performed in an uncompressed (PCM) format. Otherwise, there may be some loss in quality.

Update songs on iPod after files sent. If this option is selected, then updating iPod is launched after Total Recorder sends all files to iTunes. This action is similar to choosing "File" - "Update iPod" in iTunes.

Cautions:

- Whether or not the updating of files on iPod is successful depends upon your settings on the "Edit" - "Preferences" - "iPod" tab -"Music" tab of iTunes.

- If iTunes did not have time to establish a connection with iPod (e.g. because iTunes has just started or iPod is just connecting), then updating iPod will be unsuccessful. To avoid this problem, it is recommended that iTunes is already running and connected to iPod before a scheduled recording starts.

Close iTunes when complete. If this option is selected then Total Recorder will close iTunes after all specified actions have completed.

Information regarding the sending of files is shown in the "Send to iTunes/iPod" dialog.

See also. Total Recorder Add-ons overview, Installing/uninstalling add-ons, Send to iTunes/iPod Add-on overview.

5.18.5.2 Progress of files being sent to iTunes/iPod

When you send a file to iTunes/iPod, a dialog like this appears:
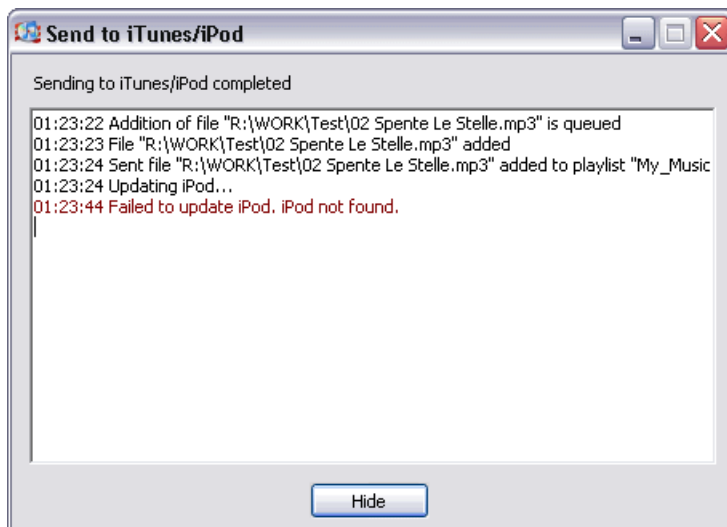
If Total Recorder did not encounter any problems when sending files to iTunes/iPod then this dialog is closed automatically.

Unsuccessful actions appear in red. If an unsuccessful action occurs during a scheduled, auto-stop, or command line recording, then this action appears in the log.

See also. Total Recorder Add-ons overview, Installing/uninstalling add-ons, Send to iTunes/iPod Add-on overview, Using the Send files to iTunes/iPod dialog.

5.19   Reference

5.19.1   Jump to time dialog

This dialog can be activated by clicking the "Jump to time" button (), using the Ctrl+J shortcut, or with the "Play/Record"-"Go"–"Jump to time…" menu item. You can use this dialog to quickly position within a recording.
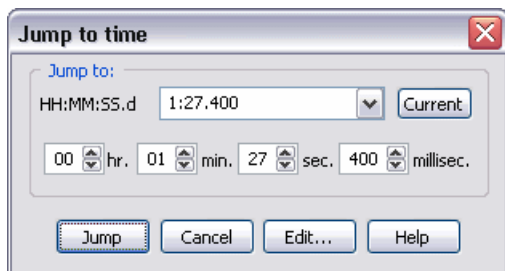
To jump to a position:

1. Specify the position by doing one of the following:

   - type the position in the HH:MM:SS.d field

   - use the drop-down list for the HH:MM:SS.d field and select a pre-defined position. You can

press the "Edit…" button to launch the Time List Editor dialog and edit the list of times that appear.

- set values in the hr. (hours), min. (minutes), sec. (seconds), and 1/10th sec. (10ths of seconds) fields.

2. Click the Jump button.

Alternatively, you can click the arrow at the right of the "Jump to time" (⟲ ▾) button and select a pre-defined position from the drop-down list.

To store a position for future use, take one of these steps:

- From the "Jump to time" dialog, click the "Current" button. The current position is placed in the "HH: MM:SS.d" field.

- Click the arrow to the right of the "Jump to time" (⟲ ▾) button, and select "Add current position".

- Select "Play/Record" - "Go" - "Add current position to the Jump list".

5.19.2 Using Automatic Recording Level Adjustment

The Automatic Recording Level Adjustment feature is intended to help you set the optimal recording level without manual tuning.

To use this feature, take the following steps:

1. Set the recording parameters to be used when recording.

2. Select "Options"-"Automatically set optimal recording level", or press the 🔧 button on the Playing volume and Recording level Panel. The record notification picture changes to 🔴 if there is no actual recording and pre-recording mode is off.

3. Start to reproduce the sound to be recorded under the same conditions that will exist during the actual recording. For example, if you plan to record from a microphone, start speaking into the microphone with the same loudness as you will use during recording. If you plan to record from a line-in, start playback through the external device to be used while recording connected to the line-in.

4. Wait for the automatic tuning of the recording level to be turned off automatically.

You can interrupt automatic recording level adjusting by unchecking "Options "-"Automatically set optimal recording level" or by pressing the 🔧 button.

If automatic recording level adjustment is active, then the 🔧 button appears pressed, the picture changes to 🔧, and the "Options"-"Automatically set optimal recording level" menu item becomes selected. While automatic recording level adjustment is running, the level indicators work as during pre-recording, and the level slider becomes disabled preventing you from changing the recording level manually.

You can turn on automatic recording level adjustment at any time. (i.e. while playing or recording).

Caution. Automatic recording level adjustment is not intended to be used permanently. Sound distortion can occur when automatically tuning the recording level because the recording level is modified. It is recommended you perform automatic recording level adjustment before recording has started.

If the level of signal to be recorded varies throughout the recording, it is recommended you use this feature during the loudest signal.

If you wish to record sound where the level is unknown in advance or where the level varies (e.g. recording a set of songs with different loudness), it is recommended you use the "Automatic Gain Control and Speech Enhancement Add-on" instead of the "Automatic recording level adjustment" feature. This add-on performs digital processing of sound and does not change the sound board's

settings. This avoids sound distortions which can occur when changing the sound level. For more information, refer to the add-on home page. For general information on using add-ons in Total Recorder, refer to "Total Recorder Add-ons overview".

Using Automatic Recording Level Adjustment in Software mode

It is not recommended you use the Automatic Recording Level Adjustment feature to adjust recording levels in software mode. If you record in software mode, it is recommended you set the recording level to 100% (+0 dB). Otherwise, additional distortion can occur.

If, while recording in software mode, the level of sound signal is too low, check whether the playback level in the playback program affects the level of recorded sound. This will depend upon the particular playback program. If the playback level in the playback program affects the level of recorded sound, it is recommended you set the playback level to the maximum, and use the volume regulator or system mixer to adjust the playing volume.

If the level of recorded sound is still too low, it is recommended you use normalization after the recording has finished, or use the "Automatic Gain Control and Speech Enhancement Add-on".

If recording is performed in compressed (non-PCM) non-lossless format (i.e. not in any of Windows Media Audio 9 Lossless, FLAC format, or APE format), it is recommended you set the recording level such that the level indicators do not go into the red zone. Otherwise, audible distortion can occur after encoding.

Notes:

- Although automatic recording level adjustment is not recommended for software mode, this feature can be used if you encounter problems when recording in software mode. In this case, Total Recorder will try to tune the recording level and display possible causes of problems when tuning is unsuccessful.

- For mixed Software and Sound board mode, automatic recording level adjustment affects only the level of the Sound board source.

See also. Using the Playing volume and Recording level Panel, Using the Playing Volume and Recording Level Dialog, Troubleshooting - No sound recorded, Troubleshooting - Silence is recorded, Using Monitoring Mode.

5.19.3 Using Preview (Monitoring) Mode

Preview (monitoring) mode lets you monitor sound signals and/or video pictures (for VideoPro and Developer Editions) that would be recorded if you started to record. This allows you to preview the sound levels and/or video image before you begin an actual recording.

Unlike Automatic Recording Level Adjustment mode, monitoring mode does not change the current recording level.

While monitoring mode is running, the Level indicators display the levels of the sound signal. The record notification picture changes to ⭕ if there is no actual recording and pre-recording mode is off.

To turn on/off preview (monitoring) mode, click "Play/Record" - "Preview (monitoring) mode". If the Video panel is visible (VideoPro and Developer Editions only), then preview (monitoring) mode can be turned on/off by clicking the 🔲 button. Before turning on this mode, you should set the recording parameters to be used for recording.

Caution. Monitoring mode uses computer hardware resources. Only use this mode when necessary.

**See also.** Using the Playing volume and Recording level Panel, Using the Playing Volume and Recording Level Dialog, Pre-recording mode overview, Using Automatic Recording Level Adjustment.

5.19.4 Using the Active sound applications Dialog

This dialog displays information for each of your sound applications that use Total Recorder's driver.

You can use this dialog to select an application for the "Driver troubleshooting settings" dialog, the "Driver exclusions" dialog, or the application to be recorded in the "Advanced parameters for Software recording" dialog. The "Active sound applications" dialog can be shown/hidden by selecting "Tools" - "Show active sound applications".

The dialog looks like this:
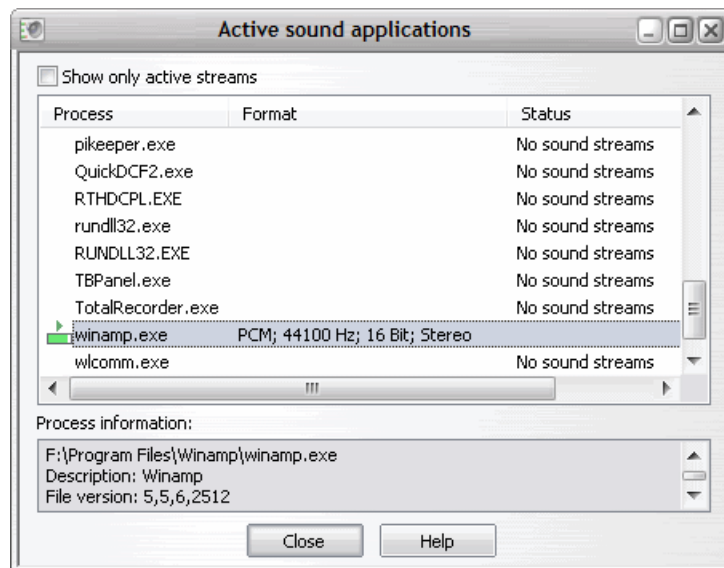
Show only active streams – If this option is selected then only data for opened sound streams are shown in the list below.

Applications and sound streams list. This list contains the following columns:

Process - name of the process that uses the Total Recorder driver.

Format - format of the sound data passing through the Total Recorder driver.

Status - status information for the application and the sound stream currently being played back or recorded.

Process information - additional information about the current process.

Caution. It is recommended you display the "Active sound applications" dialog only when necessary because the monitoring of sound applications uses additional system resources.

Notes:

- The dialog shows only applications that loaded the Total Recorder driver. This means, for example, that if an application did not load Total Recorder's driver based on your "Driver troubleshooting settings", this application will not appear in the list.

- If an application loaded Total Recorder's driver but is bypassing this driver when playing or recording sound, this application will appear as inactive in the dialog, and the "Format" field for this application will be empty.

- If one of Total Recorder's kernel-mode drivers (virtual device driver or filter driver) is used, information in this dialog can be inaccurate. For additional information, refer to the Selecting the type of driver to be installed with Total Recorder section.

- If one of Total Recorder's kernel-mode drivers (virtual device driver or filter driver) is used, the "Show only active streams" box is always selected and disabled.

- In the "Format" column, a multi-channel format can appear when playing a stream with stereo

format. This can occur because the system mixer, for some reason, has converted the stereo format to multi-channel format.

5.19.5 Displaying File and Recording Properties

You can display properties of a file and of a recording by selecting "File", "Properties". The following dialog appears:
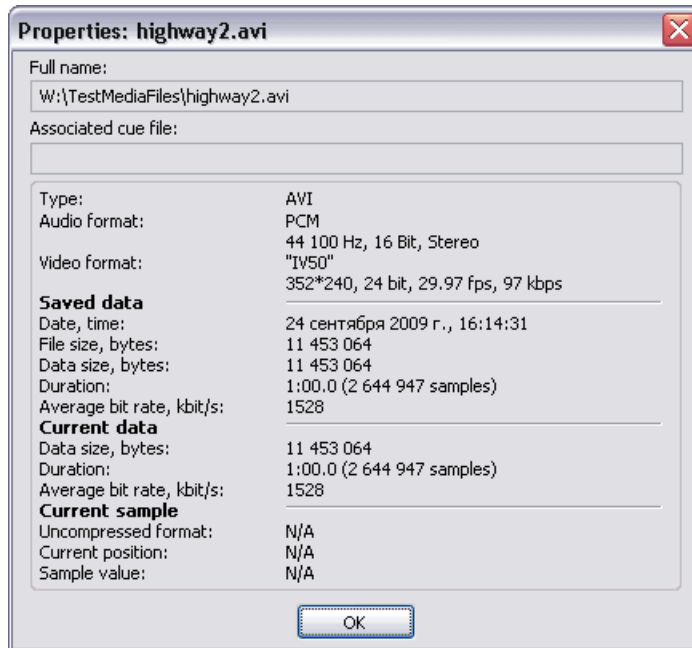
Full name – name of the file.

Associated cue file – cue file name (if it exists) that is associated with the current file.

Type – file header type (container).

Audio format – audio format description. This indicates the format type (PCM – non-compressed format; all other formats are compressed) and format characteristics (e.g. frequency, number of channels, and other format-dependent parameters).

Video format (VideoPro and Developer Editions only) – description of the video format. This indicates the type (e.g. DIV3) and other characteristics.

Saved sound data – this group relates to a disk file (i.e. the last saved version).

Date, time – date and time of the last modification.

File size – full size of file.

Data size – size of data in the file. This excludes headers and tags.

Duration – duration (hh:mm:ss.tt). This is an approximate time only and the accuracy depends on the compression and the particular codec.

Average bit rate – average bit rate, in kbit/s. This value indicates a degree of compression. A lower value corresponds to a higher level of compression.

Current sound data – this group relates to the current recording, which can contain both saved and unsaved data.

Data size – size of data in the file. This excludes headers and tags.

Duration – duration (hh:mm:ss.tt). This is an approximate time only and the accuracy depends on the compression and the particular codec.

Average bit rate – average bit rate, in kbit/s. This value indicates a degree of compression. A lower value corresponds to a higher level of compression.

Current sample (Professional, VideoPro, and Developer Editions only) – this group relates to the current sample. If a field in this group contains a value of "N/A" then Total Recorder could not calculate an appropriate value. The values are calculated after increasing the horizontal scale in the scalable image on the sound image window.

Uncompressed format – When working with a sound image, the sound data should be transformed to an uncompressed format. This is the format displayed here.

Current position – Current position in time (seconds) and number of samples.

Sample value – Represented as a number (calculated based on the format in the "Uncompressed format" field) and as a percentage for the left and right channels.

Note: If you display the properties for Ogg Vorbis sound data, then additional information appears for each logical bitstream.

See also. Displaying stream properties, Displaying playlist properties.

5.19.6 Using the Advanced stop recording conditions Dialog (Professional, VideoPro, and Developer Editions only)

The "Advanced stop recording conditions" dialog is available from the "Auto-stop recording" dialog (see "Using Auto-stop Mode") and the "Schedule item - General" tab (see "Scheduling a Job"). This dialog lets you specify conditions under which a recording will stop. Note that if the dialog is invoked for a background recording (see Background recording (capturing) and playing of Internet streams), some of these options are hidden.

Limit recording to – the size limit of the recording. If recording is performed in split mode, the limit is for all the files that have been recorded.

Approx. time – displays approximate duration of the recording that has specified size. If the recording format is unknown, then the field displays "Unknown".

Stop recording if nothing recorded in nnn sec. - if this option is enabled, recording will be stopped if nothing is recorded during a nnn-second period. Setting this option can be useful, for example, if you do not want the recording of an Internet transmission to continue after the Internet transmission has finished, or your connection to the Internet has been lost.

Stop recording if sound level does not exceed mmm % in nnn seconds.
Do not stop recording if less than kkk seconds has been recorded. If this option is enabled, recording will be stopped if the recording level during an nnn-second interval is less than mmm % of the maximum sound level. This setting can be useful, for example, if you want to stop recording after a

radio transmission ends and the Internet radio station transmits low-level noise. Or, for example, if you record from an audio cassette and want the recording to stop when the cassette ends. Setting the value of kkk seconds can help prevent a recording from stopping immediately (for example, if there is a delay when starting to play an audio cassette).

Choose power options when job completes

You can choose one of the following options when the job completes:

Do nothing. Total Recorder will not turn off your computer.

Shut down. Your computer will be shut down.

Stand by. Your computer will be switched to standby mode.

Hibernate. Your computer will be switched to hibernate mode.

Notes.

- The standby and hibernate modes require that these modes are supported by your hardware and other system resources.

- Hibernate mode requires that this mode is enabled on your system ("Control Panel", "Power options", "Hibernate" tab, "Enable hibernation" check box).

- Entering a power-off state can be prevented by other software running when Total Recorder tries to switch to this state.

5.19.7 Using the Generation Rule Dialogs

There are a number of similar dialogs used for defining different types of rules used within Total Recorder. You can define rules for generating file names, run commands for scheduled jobs, URLs for scheduled jobs, fields for file tags, run commands for post-processing, for generating playlist names, and names for iTunes/iPod playlists. The name of the dialog changes based on the context in which it is invoked. The name can be "File name generation rule", "Run command generation rule", "URL generation rule", "Tag field generation rule", or "Playlist name generation rule".

File Name Generation Rules

Total Recorder can use file name generation rules for the following:

- Generating initial file names for "Save ... as" and "Save and delete before current position" operations. The rule to be used is specified on the Open/Save dialog.

- Generating file names during recording in split mode. The rule to be used is specified on the Split dialog.

- Generating file names for saving files during a scheduled recording. The rule to be used is specified on the Schedule item – General Settings.

- Generating file names for saving files during batch processing.

File name generation rules are defined using the "File Name Generation Rule" dialog. The dialog can be invoked from the following:

- File Names dialog. For "Save as..." operations, split mode recording, or as named rule for a scheduled recording, you must set the rule on this dialog.

- File Name Generation Rule For Job dialog. To change the rule that is used in a scheduled job, use this dialog.

- File Name Generation Rule For Batch Processing dialog. To change the rule that is used for saving files during batch processing, use this dialog.

Run Command Generation Rules (Professional, VideoPro, and Developer Editions only)

Rules similar to file name generation rules are used for defining a template for generating a Run command for post-processing and for a scheduled job. The dialog can be invoked from the following:

- "Split Settings" dialog. To change templates for command lines to be launched while recording in split mode.

- "Schedule item - Advanced" tab. To change the template for generating a Run command.

- "Schedule item - Post-processing" tab. To change templates for command lines to be launched for a scheduled recording.

URL Generation Rules (Professional, VideoPro, and Developer Editions only)

Rules similar to file name generation rules are used for defining a template for generating URLs for a scheduled job. For more information, see Tuning into Internet Transmissions.

The dialog for defining a template for generating URLs can be invoked from the "Total Recorder's minibrowser" dialog.

Tag Field Generation Rules (Professional, VideoPro, and Developer Editions only)

Rules similar to file name generation rules are used for defining a template for generating fields for a file tag. For more information, see the "Working with tags" section.

Playlist Name Generation Rules

Rules similar to file name generation rules are used for defining a template for generating the names of playlists. For more information, see Playlist Settings.

iTunes/iPod Playlist Name Generation Rules (Professional, VideoPro, and Developer Editions only with the "Send to iTunes/iPod Add-on")

Rules similar to file name generation rules are used for defining a template for generating the names of iTunes/iPod playlists. For more information, see the Send to iTunes/iPod Add-on overview.

The dialog looks like this:
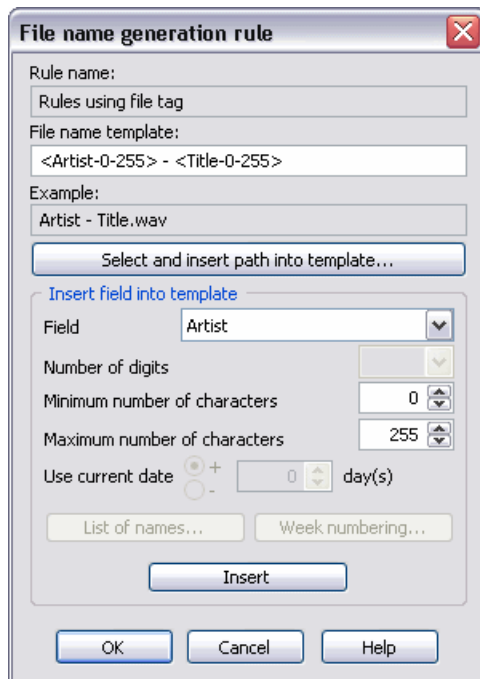
Rule name – specifies a name for the rule. This field is disabled when defining a Run-command, URL,

or Tag field template.

File name template, Run command template, URL template, Tag field template, or Playlist name template – represents a template for file names, a Run command, a URL, a Tag field, or for a playlist name. The template consists of predefined tokens (enclosed with "<" and ">") and optional text that you provide. When generating data, the pre-defined tokens are replaced with the real tag-field values, current date/time values plus/minus an offset, or a sequential number. You define a template by providing text and inserting fields using the "Insert field into template" section of this dialog, as described below.

Example – shows an example of a name generated based on your template.

Select and insert path into template – activates a dialog for choosing a directory. The directory chosen will be inserted at the beginning of the template.

Insert field into template – inserts a field into the template, as described below.

Inserting fields into the template

To insert fields into the template:

1. Place your cursor in the "File name template" field (or similar) where you want to insert a field.
2. Optionally, type text to be included.
3. Select the name of the field from the drop-down list. The set of available fields depends on the context in which the dialog is invoked.
4. Specify the number of characters to be used to form the part of the name that corresponds to the current field. For some fields, you must specify the number of digits. For other fields, you must specify the minimum and maximum number of characters using the following guidelines:

   - In the "Minimum number of characters" field, select the minimum number of characters for the tag field. For numeric fields, leading zeroes are used to pad the field to the minimum number of characters. For alphanumeric fields, spaces are appended to the end of the field to the minimum number of characters.

   - In the "Maximum number of characters" field, select the maximum number of characters for the tag field. Any data greater than this number will be cut off.

5. Optionally, for fields that relate to the current date, specify the offset from the current date in the "Use current date..." group. See examples below.
6. Press the "Insert" button.
7. Repeat steps 1. to 6. for each field you want to include in the template.

Notes:

- The fields in the "Field" list that are prefixed with "Curr" correspond either to current date/time values or to a sequential number. All other fields correspond to file tag values.

- There are two special tokens that are used for URL name, Run command name, and Tag field generation. These tokens are "LT" and "GT" and represent the symbols "<" and ">" respectively.

- If you select the "CurrMonthName" or the "CurrDayOfWeekName" field from the list, the "List of names..." button is enabled. If you want to change the names of the months or days of the week, press this button to activate the "List of months" or "List of days of week" dialog respectively. For example, you may want to use names in a language other than English.

- If you select the "CurrWeekAbs" field from the list, the "Week numbering..." button becomes available. If you want to define a rule for determining week numbers, press this button to activate the "Week numbering" dialog.

- The "JobComment" field is meant to be used for scheduled jobs.

- The "SourceFileName" field is meant to be used for batch processing.

Examples

Example 1

Suppose you want to define a template with the following requirements:

- The default file name is: c:\songs\"Artist"\"Album" "Sequential Number", where "Artist" and "Album" are the values of the tag's "artist" and "album" fields respectively. "Sequential Number" is a sequential number. For example, files could be named: "c:\songs\Emma Shapplin\Carmine Meo001.wav", "c:\songs\Emma Shapplin\Carmine Meo002.wav", etc.
- Field values are limited to 30 characters.

Take the following steps:

1. In the "File name template" field, type "c:\songs\".
2. Set the cursor in the template field after "c:\songs\".
3. From the "Field" drop-down list, select the "Artist" field.
4. Set "Minimum number of characters" to 0.
5. Set "Maximum number of characters" to 30.
6. Press the "Insert" button.
7. At the end of the "File name template" field, type "\".
8. From the "Field" drop-down list, select the "Album" field.
9. Set "Minimum number of characters" to 0.
10. Set "Maximum number of characters" to 30.
11. Press the "Insert" button.
12. From the "Field" drop-down list, select the "CurrNumb" field.
13. Select 3 from the "Number of digits" drop-down list.
14. Press the "Insert" button.

Example 2

Suppose you want to define a template with the following requirements:

- The default file name represents yesterday's date in the format "YYYYMMDD".

Take the following steps:

1. Select CurrYear from the drop-down list. Specify 4 as the number of digits. Specify "Use current date – 1 day(s)" in the options to the right of "Use current date". Press the "Insert" button.
2. Select CurrMonth from the drop-down list. Specify 2 as the number of digits. Specify "Use current date – 1 day(s)" in the options to the right of "Use current date". Press the "Insert" button.
3. Select CurrDay from the drop-down list. Specify 2 as the number of digits. Specify "Use current date – 1 day(s)" in the options to the right of "Use current date". Press the "Insert" button.

For example, on March 1, 2005, the name generated is "*20050228*" to reflect Feb. 28, 2005.

Example 3

Suppose you want to define a template with the following requirements:

- The default file name has the format: 4-digit current year followed by the 3-character name of the current month.

Take the following steps:

1. Select CurrYear from the drop-down list. Specify 4 as the number of digits. Be sure 0 is selected for the days in the "Use current date ..." box. Press the "Insert" button.
2. Select CurrMonthName from the drop-down list. Specify 3 as the maximum number of characters.

Press the "List months" button to make sure the month names are appropriate. Modify the list of months if required (see "List of months" dialog). Be sure 0 is selected for the days in the "Use current date ..." box. Press the "Insert" button.

For example, on March 1, 2005, the name generated using English month names is "*2005Mar*".

Example 4

The following is an example of a template for generating URLs.

http:\\www.totalrecorder.com\<CurrYear-4-4>-
<CurrMonthName-"January","February","March","April","May","June",
"July","August","September","October","November",
"December"-1-255>-<CurrDay-2-2>.htm

The URL generated according to this template on April 1, 2005 is:
http:\\www.totalrecorder.com\2005-April-01.htm

Example 5

The following is an example of a template for generating tag fields.

Suppose you use Total Recorder's built-in scheduler to record a file each day. You want the "Comment" field in the form: "News: YYYY-MM-DD".

To set up a template to generate this field:

1. Check "Allow file tag generation rules for fields" box for the schedule job.

2. In the "Tag field generation rule" dialog, use the following template for the Comment field: "News: <CurrYear-4-4>-<CurrMonth-2-2>-<CurrDay-2-2>".

The tag field generated according to this template on April 1, 2005 is:
News: 2005-04-01

Example 6

Suppose you want the URL generated by Total Recorder to have the form "http:\\www.totalrecorder. com\XXaaa.htm", where "XX" is a 2-digit number for the current week number, starting from January 1, 2005, and "aaa" is the 3-character day-of-week name for the current day.

To set up a template to generate such names:

1. In the "File name template" field, type "http:\\www.totalrecorder.com\.htm"

2. Set the cursor position before the period separating the file extension (i.e. between the last "\" and ".").

3. From the "Field" drop-down list, select the "CurrWeekAbs" field.

4. From the "Number of digits" drop-down list, select "2".

5. Optionally, press the "Week numbering…" button and set the week numbering rule.

6. From the "Field" drop-down list, select the "CurrDayOfWeekName" field.

7. Set "Minimum number of characters" to 3.

8. Set "Maximum number of characters" to 3.

9. Optionally, press the "List of names…" button and modify the day of week names.

10. Press the "Insert" button.

The URL generated according to this template on September 26, 2005 (which falls on Monday in the 39th week of the year) is:
http:\\www.totalrecorder.com\39Mon.htm

5.19.8 Using the Playing Volume and Recording Level Dialog

The dialog looks like this:

This dialog lets you set advanced settings for playing volume and recording level.

For all controls in the "Playing volume" and "Recording level" groups, you can adjust the balance between the left and right channels using the ⏻ ‒⎯⊟⎯‒ ⏻ slider. To the right of the slider, the current balance value, in numerical format, is displayed. To set the balance to the neutral position, use the ⊞ button.

Playing volume – group of settings related to playing volume.

> **Master Volume** – the overall regulator of the playing volume. The name of the regulator depends on your soundboard's driver. The regulator corresponds to the "Vol." slider of the "Playing volume and recording level" panel on Total Recorder's main window.

> **Wave** – the regulator of the playing volume for the wave output line. The name of the regulator depends on your soundboard's driver.

Recording level – group of settings related to recording level.

> **Master level** – the overall regulator of the recording level. The particular name of the regulator depends on your soundboard's driver. If your soundboard's driver has no overall regulator for recording level, then the settings are disabled.

> **Microphone** – the regulator of the recording level for the line from which the recording takes place. The particular name of the regulator depends on your soundboard's driver. If the recording source is set to "Software", then "Software" is displayed as the name of the regulator. The regulator corresponds to the "Level" slider of the "Playing volume and recording level" panel of Total Recorder's main window.

> Note, if Automatic Recording Level Adjustment is on, the regulator is disabled.

Maximum level during playing/recording - displays the maximum level for the overall playing/recording session (i.e. from start to finish).

Advanced microphone settings – group of flags to control advanced microphone settings. The names and the number of flags depend on your soundboard's driver.

All volume/level settings can be set both through sliders and with edit boxes at the right of the sliders.

Note. Because of some of the features of the sound subsystem in Windows Vista and later, balance regulators and options from the Advanced microphone settings box will be disabled. To adjust the balance or advanced microphone settings, use the system mixer: in the "Control Panel" - "Hardware and Sound" - Sound", select a device, and click the "Properties" button.

**See also.** Setting Recording Parameters, Setting advanced parameters for Software recording, Using

the Playing volume and Recording level Panel, Using Automatic Recording Level Adjustment.

5.19.9 Using the Run application Dialog (Professional, VideoPro, and Developer Editions only)

You can use the "Run application" dialog to specify command lines to execute during post-processing. The dialog can be invoked from the following:

- Split Settings dialog. To define post-processing options while recording in split mode.

- Schedule Item - Post-processing Tab. To define post-processing options for a scheduled recording.

The dialog looks like this:
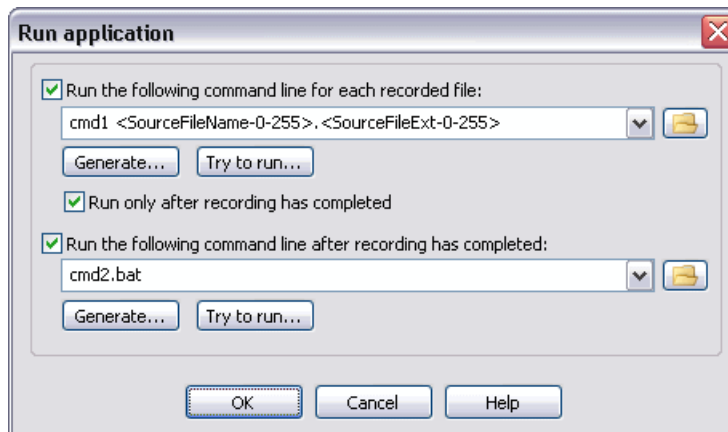
Run the following command line for each recorded file: If this option is selected then the command line is generated based on the specified template and the recorded file. For each recorded file, the specified command line will be formed and launched. The command line will run immediately or be queued, depending upon your "Run only after recording has completed" setting below.

You can use the "Browse" button to locate the command file to run and then use the "Generate" button to specify the template.

> **Generate.** Press this button to activate the Run command generation rule dialog.

> **Try to run.** Prompts you to select a file, generates the command line, and runs the command (or places the command in the command queue if a command is currently running).

> **Run only after recording has completed.** If this option is selected then the command will not run immediately. All commands to be executed are queued and this queue of commands is processed only after the recording completes.

Run the following command line after recording has completed: If this option is selected then the command line is generated based on the specified template, and it will run after recording has completed. The option is used in the context of a recording session.

You can use the "Browse" button to locate the command file to run and then use the "Generate" button to specify the template.

Generate. Press this button to activate the Run command generation rule dialog.

Try to run. Generates a command line and runs the command (or places the command in the command queue if a command is currently running).

Note.

A command will not be launched until the process initiated by the previous command has completed. For example, suppose the recording of files "File1" and "File2" results in launching the commands "Cmd1" and "Cmd2". Suppose also that "Cmd1" results in starting "Process1". "Cmd2" will not be executed until "Process1" has completed.

> **Caution.** If a command can result in an unfinished process, then the command can freeze the processing of the commands queue.

5.19.10 Editing Time Lists

You can customize the lists of times that appear in different dialogs using the "Time List Editor". You can edit the following:

- The list of time values for rewinding forward/backward. In this case, the dialog can be activated by selecting the last item, "Edit...", of the step list, or by selecting the "Play/Record"-"Go"-"Edit step list..." menu item.

- The list of time values for the "Jump to time" function. In this case, the dialog can be activated by pressing the "Edit..." button of the "Jump to Time" dialog.

The "Time List Editor" dialog looks like this:
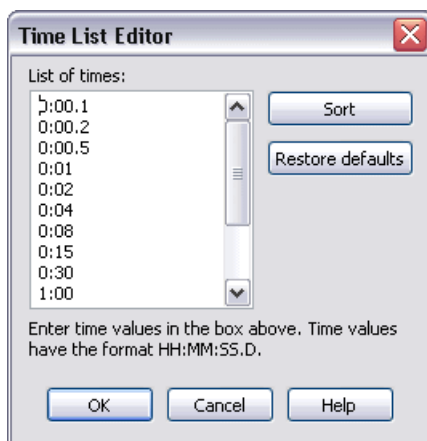
List of times - contains a list of time values in the format HH:MM:SS.D. You can edit the text directly in this box, allowing you to add, change, and delete elements in the list.

Sort - press this button to sort the list in ascending order.

Restore defaults - press this button to restore the default settings for the list. If the "Time List Editor" dialog is used for working with elements for the "Jump to Time" feature then this button is hidden.

5.19.11 Editing the List of Names

You can edit the list of names that are used in file name generation rules, Run command generation rules, URL generation rules, and Tag field generation rules (see Using the Generation Rule Dialogs).

The "List of months" dialog looks like this:
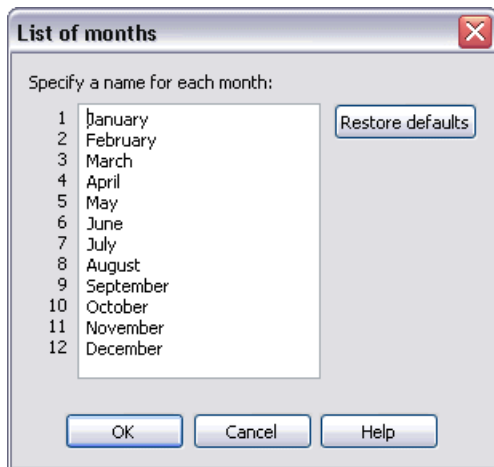
Similar dialogs are used to edit the list of month names and the list of day-of-week names.

The default values for the month names are in English. Each of the 12 months must have a name; empty values are not allowed.

The default values for the day-of-week names are in English. Each of the days of the week must have a name; empty values are not allowed.

You can insert these values into a template. Since these values are stored in the template, you can edit the list of names at any time. Changes do not affect templates that have already been created.

5.19.12 Defining Week Numbering

You can define a rule for determining the week numbers that are used in file name generation rules, Run command generation rules, URL generation rules, and Tag field generation rules (see Using the Generation Rule Dialogs).

The "Week numbering" dialog looks like this:
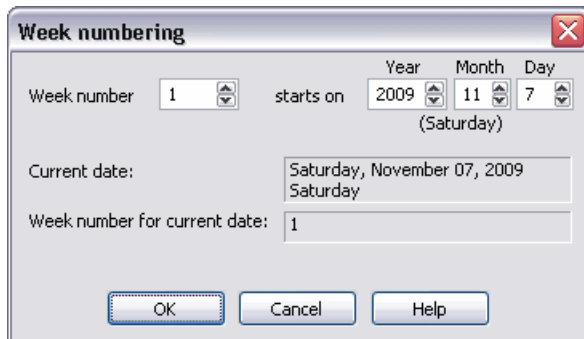
The fields in the dialog are intended to be used to determine the week numbers used in a template.

Specify the "Week number" and the date on which that week number starts. For example, week number 1 starts on 2006/11/5 (November 18, 2006). Normally, you specify week number 1 and the starting date. However, if you are beyond week number 1, you can specify the date on which any week number starts. See the example below.

You can insert "CurrWeekAbs" into a template. Since week numbering rules are stored in the template, you can edit the rules at any time. Changes do not affect existing templates with the "CurrWeekAbs" field.

Note. Week numbers continue to increment. They are not automatically reset each year.

Example

Suppose you know that the site "http:\\www.totalrecorder.com\" launches radio transmissions every Sunday. URLs of these transmissions include the number of the week. On Sunday, September 25, 2005 the transmission included "26" as the week number. To define week numbering, enter the following on this dialog:

– 26 as the "Week number"

– 2005.09.25 in the "starts on" box.

If you insert the "CurrWeekAbs" field into a template you will get the valid week number for any date.

5.19.13 Using the Total Recorder Log

The Total Recorder Log contains a list of all messages relating to jobs scheduled by the built-in scheduler or initiated through the command line or auto-stop. This log sits in the registry and unlimited expansion is not desirable. By default, all records older than one week will be automatically deleted.

Some errors cannot be written to the Total Recorder Log, for example, errors when writing to the registry and syntax errors in command line parameters. These errors will not occur when working with the built-in scheduler.

To review or control information in the Total Recorder Log, select "View log" from the "File" menu. You are presented with the following dialog:
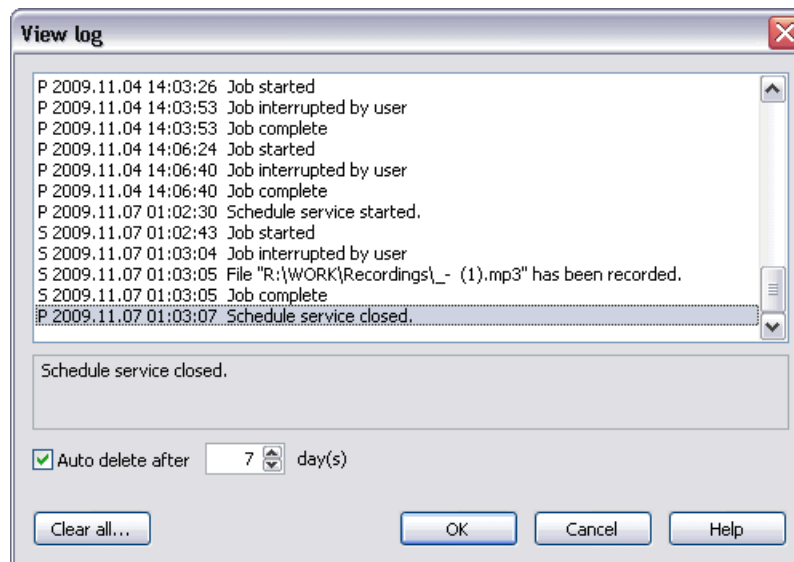
Message list

The list contains all messages, in chronological order, relating to jobs scheduled by the built-in scheduler or initiated through the command line. For each job it includes the starting time, ending time, and all error messages. Scheduler messages are marked with the letter "S"; command line messages and auto-stop related messages are marked with the letter "P". The current message is displayed below the list.

Controls

You can use the following controls from this dialog:

Auto delete after – controls the automatic deletion of obsolete records. This is the default mode. Switching it off is not recommended because it will cause the registry to grow and decrease system performance.

Day(s) – records will be deleted after this number of full days. Records are deleted at midnight on the expiry date or the next time your computer is turned on after this date. For example, "0" means that only records from the current day are accessible, "1" means that records will be kept for one

full day and deleted at midnight the following day, and so on.

Clear all – delete all records. Confirmation is required.

Close – close the dialog. All changes are made immediately.

See also. Scheduling a Job, Schedule Item - Status Tab.

5.19.14 Using helper functionality for writing applications to control Total Recorder (Developer Edition only)

The helper functions can greatly facilitate writing your own code to control Total Recorder Developer Edition through COM technology.

The helper functions allow you to do the following:

- Get the source code for the symbolic language (similar to Visual Basic) that corresponds to the interface operations you performed during your current Total Recorder session and display them in a dialog box. To view this dialog box, from the "Tools" menu, click "COM automation helper" - "Interface operations performed...".

- Write the source code and the current property values to a file. From the "Tools" menu, click "COM automation helper" - "Save all helper info as...".

If you encounter difficulties writing source code for some particular Total Recorder functionality, you can do the following:

- Run Total Recorder Developer Edition.

- Execute the desired actions through the Total Recorder interface.

- Get the source code corresponding to the actions you performed through the interface. Modify the code using your own programming language and include the code in your program.

6   Menus and Keyboard Shortcuts

6.1   File menu

Menu Item	Edition	Action	Button	Default shortcut
New	All	Create a new file.		Ctrl+N
Open	All	Open an existing file.		Ctrl+O
Open URL	PE, VE, DE	Open a URL. See "Opening an Internet stream".		None
Save	All	Save an open file using the same file name. See "Saving a Recording".		Ctrl+S
Save as	All	Save an open file using a new file name. See "Saving a Recording".	None	None
Save selection as	All	Save selection to a file. See "Editing a Sound File".		S
Save special - Save repaired MP3 file as	All	Repair current MP3 recording and save it using a new file name. See Repairing MP3 files.	None	None
Save special - Save as mono file with channel	PE, VE, DE	Save the current stereo file as a mono file with channel mixing. See Saving a stereo file as a mono file with channel	None	None

mixing		mixing.		
Save special - Save with a different speed	PE, VE, DE	Save the current audio file with a different speed. See Saving an audio file with a different speed.	None	None
Save special - Save based on split conditions	PE, VE, DE	Save current recording based on split conditions. See Split mode overview.	None	None
Save special - Save mixed data separately as	PE, VE, DE (*)	Save a mixed stream to a file. See Saving a mixed stream to a file.	None	None
Save special - Save audio stream separately as	VE, DE	Save the audio stream of a video file to a sound file. See Saving operations for video files.	None	None
Save special - Save video stream separately as	VE, DE	Save the video stream of a video file to a video file. See Saving operations for video files.	None	None
Save special - Save current frame as bitmap	VE, DE	Save the current frame of a video file as a bitmap (.bmp) file. See Saving operations for video files.	None	None
Delete/Recycle current file	PE, VE, DE	Delete current file	None	None
Properties	All	Display the properties of the current file. See Displaying File and Recording Properties and Displaying stream properties.	None	None
Tag	All	Display, add, delete, or edit the file tag. See Working with tags.	None	None
Send to – iTunes/iPod	PE, VE, DE (**)	Send current file to iTunes/iPod. See "Using the Send files to iTunes/iPod dialog".	None	None
View log	All	View the Total Recorder Log. See "Using the Total Recorder Log".	None	None
Exit	All	Exit Total Recorder	None	Alt+F4

(*) – Requires the Digital Mixer Add-on installed.

(**) – Requires the Send to iTunes/iPod Add-on installed.

Notes

- Additional menu items may exist if you have installed Total Recorder add-ons.

- Shortcuts can be customized using the Shortcuts dialog.

- You can assign global hotkeys for Total Recorder functions.

6.2 Edit menu

Menu Item	Edition	Action	Button	Default shortcut

Undo	All	Undo previous operation.	↰	Ctrl+Z
Redo	All	Redo the previously undone action.	↱	Shift+Z
Boundary click suppression	All	Turns on/off boundary click suppression. See also Using Boundary click suppression.	None	None
Cut	PE, VE, DE	Delete selection and place it to the Clipboard.	✂	Ctrl+X
Copy	PE, VE, DE	Copy selection to the Clipboard.	▤	Ctrl+C
Copy current frame	VE, DE	Copy current video frame to the Clipboard.	None	None
Paste	PE, VE, DE	Paste data from the Clipboard to the current recording.	▦	Ctrl+V
Delete selection	PE, VE, DE	Delete selection.	⊠	Delete
Delete except selection	PE, VE, DE	Delete data except what is selected.	⊠	Ctrl+Delete
Insert a file at current position	PE, VE, DE	Insert a file at current position.	None	None
Insert special - Insert X seconds of silence	PE, VE, DE	Insert a portion of silence at the current position.	None	None
Insert special - Set duration of silence to be inserted	PE, VE, DE	Opens a dialog for setting the period of silence to be inserted.	None	None
Add/replace audio stream	VE, DE	Add or replace an audio stream in a video.	None	None
Mix	PE, VE, DE (*)	Activates the Mixing dialog.	None	None
Selection	All	Selection submenu. See "Selection Sub-menu".	None	None
Stop playing at selection boundary	All	Stop playing at nearest selection boundary.	▶▮	P

(*) – Requires the Digital Mixer Add-on installed.

You can also use the following shortcuts to work with a selection. These shortcuts do not have corresponding menu items:

- Ctrl+Shift+Home – select to the beginning of the file;
- Ctrl+Shift+End – select to the end of the file.

Notes

- Additional menu items may exist if you have installed Total Recorder add-ons.
- Shortcuts can be customized using the Shortcuts dialog.
- You can assign global hotkeys for Total Recorder functions.

See also. Editing a Sound File.

6.3 Selection Sub-menu

Menu Item	Edition	Action	Button	Default shortcut
Set beginning of selection	All	Set left selection boundary as the current position of the slider.		Shift+L
Shift beginning of selection left by 0.1s	All	Shift beginning of selection left by 0.1s.		Shift+M
Shift beginning of selection right by 0.1s	All	Shift beginning of selection right by 0.1s.		Shift+N
Go to beginning of selection	All	Move current position of slider to left selection boundary.		L
Set end of selection	All	Set right selection boundary as the current position of the slider.		Shift+R
Shift end of selection left by 0.1s	All	Shift end of selection left by 0.1s.		Shift+S
Shift end of selection right by 0.1s	All	Shift end of selection right by 0.1s.		Shift+T
Go to end of selection	All	Move current position of slider to right selection boundary.		R
Flip selection	All	Flip selection. This action flips the selected portion of a file with the closest unselected portion of the file. The closest selection boundary (the first position) is moved to the current position, and the other selection boundary is moved to the first position.		F
Select all	All	Select entire sound data.	None	Ctrl+A
Toggle selection off	All	Toggle current selection off.		Ctrl+Shift+C

Notes

- Shortcuts can be customized using the Shortcuts dialog.
- You can assign global hotkeys for Total Recorder functions.

See also. Using the Selection Panel.

6.4 View menu

Menu Item	Edition	Action	Button	Default shortcut
Skin	All	Allows you to turn on or turn off the application of a skin to Total Recorder windows.	None	None
Compact View	All	Switch main window to compact view	None	None

		mode.		
Full View	All	Switch main window to full view mode.	None	None
Customized View	All	Switch main window to customized view mode.	None	None
Show Main Toolbar	All	Show/Hide main toolbar.	None	None
Show Information Panel	All	Show/Hide information panel.	None	None
Show Volume and Level Panel	All	Show/Hide Playing volume and Recording level Panel.	None	None
Show Ruler	PE, VE, DE	Show/Hide Ruler.	None	None
Show Sound Image in Panel	PE, VE, DE	Show/Hide Sound Image panel.	None	None
Show Sound Image in Separate Window	PE, VE, DE	Show/Hide Sound Image window.	None	None
Show Selection Panel	All	Show/Hide Selection panel. See also "Using the Selection Panel".	None	None
Show Playlist Window	All	Show/Hide Playlist window. See Playlist Window.	None	None
Show Cue-sheet Editor Window	PE, VE, DE	Show/Hide Cue-sheet editor window. See Cue-sheet editor window.	None	None
Always Show Video Panel	VE, DE	Controls visibility of the Video panel in the case when there is no video to display. See also Controlling the Total Recorder main window view.	None	None
Scale Video to - 25%	VE, DE	Resize the Video panel to fit 25% of the original size of the video image.	None	None
Scale Video to - 50%	VE, DE	Resize the Video panel to fit 50% of the original size of the video image.	None	None
Scale Video to - 100%	VE, DE	Resize the Video panel to fit the original size of the video image.	1×	None
Scale Video to - 200%	VE, DE	Resize the Video panel to fit 200% of the original size of the video image.	None	None
Video in Full Screen	VE, DE	Switch to full screen.	⛶	None
Always on Top	All	Turn on/off the "Always on Top" mode for Total Recorder.	None	None

Notes

- Additional menu items may exist if you have installed Total Recorder add-ons.

- Shortcuts can be customized using the Shortcuts dialog.

- You can assign global hotkeys for Total Recorder functions.

See also. Controlling the Total Recorder main window view.

6.5   Play/Record menu

Menu Item	Edition	Action	Button	Default shortcut
Play	All	Play file. See "Playing a sound file".	▶	Ctrl+Y
Special Play - Play selection	All	Play back a selected fragment of a file.	None	Ctrl+E
Special Play - Play the first 4 seconds of selection	All	Play back the first 4 seconds of the selection.	None	Ctrl+Shift+E
Special Play - Play the last 4 seconds of selection	All	Play back the last 4 seconds of the selection.	None	Ctrl+Alt+E
Playback speed - Decrease playback speed/ Play at slow speed	PE, VE, DE	Decrease playback speed to the next smallest value in the list of playback speeds, or start playback at a slow speed. See Playing a file at different speeds.	▶	None
Set normal playback speed	PE, VE, DE	Set playback speed to normal (x1). See Playing a file at different speeds.	▶₁ (if the option Use the "Play" button to quickly toggle playback speed is set)	Ctrl+Y (if the option Use the "Play" button to quickly toggle playback speed is set)
Set last used playback speed	PE, VE, DE	Set playback speed to last used "abnormal" (not equal to x1) speed. See Playing a file at different speeds.	▶± (if the option Use the "Play" button to quickly toggle playback speed is set)	Ctrl+Y (if the option Use the "Play" button to quickly toggle playback speed is set)
Playback speed - Increase playback speed/ Play at fast speed	PE, VE, DE	Increase playback speed to the next largest value in the list of playback speeds, or start playback at a fast speed. See Playing a file at different speeds.	▶	None
Edit list of playback speed values	PE, VE, DE	Display a dialog for editing the list of possible playback speed values. See Playing a file at different speeds.	None	None
Pause/Continue	All	Pause or continue playing or recording file.	⏸▶ or ⏸	Ctrl+U

Stop	All	Stop playing or recording a file.	▪▶ or ▪.	Ctrl+P
Record	All	Start recording. See Starting Recording.	●	Ctrl+R
Preview (monitoring) mode	All	Turn on/off Preview (monitoring) mode.	▣	None
Listen while capturing	PE, VE, DE	Turn on/off listen-while-capturing mode. See also Volume and Level Panel.	🔊	None
Split now or Create track separator	PE, VE, DE	Either split current recording immediately, or insert a cue point.	●ₐ	Ctrl+I
Go - To start	All	Rewind to the beginning.	⏮	Ctrl+Home
Go - Left by…	All	Move current position to the left with a fixed step.	◀◀	Ctrl+L, <
Go - Left to the previous key frame	VE, DE	Move current position to the previous key frame.	◁	None
Go - Left by one frame	VE, DE	Move current position to the previous frame.	◀‖	None
Go - Right by one frame	VE, DE	Move current position to the next frame.	‖▶	None
Go - Right to the next key frame	VE, DE	Move current position to the next key frame.	▷	None
Go - Right by…	All	Move current position to the right with a fixed step.	▶▶	Ctrl+T, >
Go - To End	All	Fast forward to the end.	⏭	Ctrl+End
Go - Jump to time	All	Opens the "Jump to time" dialog.	↩ ▾	Ctrl+J
Go - Add current position to the Jump list	All	Add current position to the jump list.	None	None
Go – Use previous step...	All	Activates the previous step from the step list.	None	Ctrl+<
Go – Use next step...	All	Activates the next step from the step list.	None	Ctrl+>
Go – Edit step list...	All	Activates the Time List Editor that you can use to edit the step list. See Editing Time Lists and The Total Recorder main window.	None	None
Select audio stream	VE, DE	Select the active audio stream for video files that contain multiple audio streams.	None	None
Repeat playback mode	All	Turns on/off repeat playback mode. See Playing a sound file.	🔁	E

Append recording mode	PE, VE, DE	Switch to Append recording mode. See "Open/save Settings".	None	None
Insert recording mode	PE, VE, DE	Switch to Insert recording mode. See "Open/save Settings".	None	None
Mix-over recording mode	PE, VE, DE (*)	Switch to Mix-over recording mode. See "Open/save Settings".	None	None
Pre-recording … last seconds	All	Turn pre-recording mode on or off. See "Using Pre-recording mode".	None	Ctrl+G
Clear pre-recording buffer	All	Clear the pre-recording buffer. See Using Pre-recording mode.	None	Ctrl+B
Auto-stop recording	All	Activates a dialog to set or reset auto-stop recording mode. See Using Auto-Stop Mode.	🔴	None
Interrupt work	All	Interrupt current job. See Executing Schedule Jobs and Using the command line.	⊗	None

(*) – Requires the Digital Mixer Add-on installed.

Notes

- Additional menu items may exist if you have installed Total Recorder add-ons.
- Shortcuts can be customized using the Shortcuts dialog.
- You can assign global hotkeys for Total Recorder functions.

6.6 Favorites menu

Menu Item	Edition	Action	Button	Default shortcut
Add to Favorites...	PE, VE, DE	Activates dialog for adding the current open file or URL to your Favorites list.	None	None
Organize Favorites...	PE, VE, DE	Activates a dialog for organizing your Favorites.	None	None
Other items	PE, VE, DE	Opens corresponding Favorites item.	None	None

Notes

- Additional menu items may exist if you have installed Total Recorder add-ons.
- Shortcuts can be customized using the Shortcuts dialog.
- You can assign global hotkeys for Total Recorder functions.

6.7 Process menu

Menu Item	Edition	Action	Button	Default shortcut
Normalization and DC offset	All	Normalize the volume of a sound file. See Normalizing a Sound File.	None	None
Normalize selection	PE, VE, DE	Normalize the volume of a selection of a sound file. See Normalizing a Sound		

			File.		
Fading Effects	PE, VE, DE	Apply fading effects to a sound file. See Applying Fade-In/Fade-Out Effects to a Sound File.	None	None
Pause reduction	PE, VE, DE	Reduce pauses in a sound file. See Using the Pause Reduction dialog.	None	None

Notes

- Additional menu items may exist if you have installed Total Recorder add-ons.

- Shortcuts can be customized using the Shortcuts dialog.

- You can assign global hotkeys for Total Recorder functions.

6.8   Tools menu

Menu Item	Edition	Action	Button	Default shortcut
Split current file - Split conditions	PE, VE, DE	Activate a dialog for defining the placement of track separators. See Automatic creation of track separators for existing file.	🔲	None
Split current file - Split current file into tracks	PE, VE, DE	Split the current file based on existing tracks. See Automatic creation of track separators for existing file.	➕	None
Split current file - Find next split point	PE, VE, DE	Find the next position in the sound data that satisfies the current split conditions. See Working With Sound Images.	🔍	None
Split current file - Insert track separator at current position	PE, VE, DE	Insert a track separator at the current position. See Add/Edit track dialog.	➕	None
Split current file - Delete before current position	PE, VE, DE	Delete the sound data that is located before the current position. See Working With Sound Images.	🔽	None
Split current file - Save and delete before current position	PE, VE, DE	Save the sound data, which is located before the current position, to a file, and then delete that data. See Working With Sound Images.	🔽	None
Split current file - Use Save As dialog	PE, VE, DE	Set whether the "Save As..." dialog is used with the "Save and delete before current position" action. See Working With Sound Images.	None	None
Scheduler	All	Display and control scheduled jobs. See Using a Scheduler overview, Displaying and controlling Scheduled Jobs, Scheduling a Job.	🕐	None
Batch processing	PE, VE, DE	Shows/hides the main batch processing window. See Batch Processing Overview.	🖼	None

Show active sound applications	All	Shows/hides the Active sound applications window.	None	None
Recording wizard	All	Start the Recording Wizard.	None	None
COM automation helper - Interface operations performed...	DE	Display a dialog showing the interface operations performed during your current Total Recorder session. See Using helper functionality for writing applications to control Total Recorder.	None	None
COM automation helper - Save all helper info. as...	DE	Store the interface operations performed and additional information in a file. See Using helper functionality for writing applications to control Total Recorder.	None	None
Turn video acceleration off	VE, DE	Turn off video hardware acceleration. See also How to Record Video from Screen/Software Video Player.	None	None

Notes

- Additional menu items may exist if you have installed Total Recorder add-ons.

- Shortcuts can be customized using the Shortcuts dialog.

- You can assign global hotkeys for Total Recorder functions.

6.9 Options menu

Menu Item	Edition	Action	Button	Default shortcut
Settings	All	Configure Total Recorder. See Configuring Total Recorder overview.	🔧	None
Recording source and parameters	All	Set recording source and parameters. See Setting recording parameters.	● Parameters... ▾	None
Playing volume and recording level	All	Activates the "Playing volume and recording level" dialog. See Using the Playing Volume and Recording Level Dialog.	🔼	None
Volume and level Up/Down - Volume Up	All	Increase playing volume.	None	F9
Volume and level Up/Down - Volume Down	All	Decrease playing volume.	None	F8
Volume and	All	Mute playing volume.	🔊	F7

level Up/Down - Mute				
Volume and level Up/Down - Level Up	All	Increase recording level.	None	
Volume and level Up/Down - Level Down	All	Decrease recording level.	None	
Automatically set optimal recording level	All	Turn on/off automatic recording level adjustment. See Using Automatic Recording Level Adjustment.		None
System settings	All	Show Multimedia panel with system settings	None	None
System mixer	All	Invokes the system mixer applet. See Using the Playing volume and Recording level Panel .		None
Import settings	All	Import Total Recorder configuration settings from a file. See also Importing and Exporting Configuration Settings.	None	None
Export settings	All	Export Total Recorder configuration settings to a file. See also Importing and Exporting Configuration Settings.	None	None
Export settings for all new users	All	Export Total Recorder configuration settings to a directory with data for all users (e.g. "C:\Documents and Settings\All Users\Application Data\TotalRecorder\") .	None	None

Notes

- Additional menu items may exist if you have installed Total Recorder add-ons.

- Shortcuts can be customized using the Shortcuts dialog.

- You can assign global hotkeys for Total Recorder functions.

6.10 Help menu

Menu Item	Edition	Action	Button	Default shortcut
Help Topics	All	Index to help topics.	None	None
Internet Links – Total Recorder homepage	All	Display home page for Total Recorder's web site.	None	None
Internet Links – MP3 compression support	All	Display a page with information on MP3 support in Total Recorder and related software. See Working with MP3 format.	None	None
Internet Links – Ogg Vorbis compression support	All	Display a page of links to Ogg Vorbis software. See Ogg Vorbis Settings.	None	None
Internet Links – WMA compression support	All	Display a page of links for support of Windows Media Audio format. See WMA Settings.	None	None
Internet Links – Add-on's home page	All	Display the home page for Total Recorder's add-ons.	None	None
Internet Links – Frequently Asked Questions	All	Display a page with Frequently Asked Questions.	None	None
Internet Links – How to buy Total Recorder	All	Display a page that enables you to buy Total Recorder.	None	None
Check for updates	All	Display up-to-date information on Total Recorder.	None	None
Registration	All	Register program. See Registering Total Recorder.	None	None
About Total Recorder	All	Display the version number, edition, and registration information	None	None

Notes

- Additional menu items may exist if you have installed Total Recorder add-ons.
- Shortcuts can be customized using the Shortcuts dialog.
- You can assign global hotkeys for Total Recorder functions.

6.11 System Tray Icon menu

Menu Item	Edition	Action
Open main	All	Open Total Recorder's main window. See Total Recorder main

window		window overview.
New	All	Create a new file.
Open	All	Open an existing file.
Save	All	Save an open file using the same file name. See Saving section.
Play	All	Play file. See "Playing a sound file".
Record	All	Start recording. See Starting Recording.
Pause/ Continue	All	Pause/continue playing or recording a file.
Stop	All	Stop playing or recording a file.
Quit Total Recorder	All	Exit Total Recorder.

Note

- If you have a global hotkey assigned to a system tray menu item then this hotkey is displayed beside the name of the menu item.

See also. General Settings.

7   Troubleshooting

This section can help you resolve problems that you may experience. Use the following recommendations to solve your problem.

- Try to find a symptom for your problem. This section contains information on the following problems:

Problems with Total Recorder:

Total Recorder unable to find a real sound device

Total Recorder reports problems with Remote Desktop

Information for Total Recorder's driver has been removed from the registry

Total Recorder failed to load its driver

A previous version of the Total Recorder driver is still in memory

Scheduler service is not configured properly

No sound recorded

After installing Total Recorder with its kernel-mode virtual device driver you have problems with a USB microphone

Silence is recorded

Sound recorded with gaps

Recorded sound has too low quality

Total Recorder cannot play MP3 format

Total Recorder reports problems with a codec and terminates

ACMERR_NOTPOSSIBLE error while encoding to MP3

Total Recorder reports a large number of drop frames

Problems with other programs after Total Recorder has been installed:

Sound system or playback programs not working properly

After installing Total Recorder with its kernel-mode virtual device driver you have problems with a USB microphone

After installing Total Recorder with a kernel-mode driver, you experience the "Blue Screen of Death" (BSOD) and/or system rebooting

- To resolve a problem that is not described here, read the explanations in Other Problems.

7.1   Total Recorder unable to find a real sound device

Possible Cause #1

A real driver for the sound board was uninstalled.

Action #1

Total Recorder issues an error message when no sound-card driver is installed on your system. You need to find and install a suitable sound-card driver. This is normally on the CD that was supplied with your sound card. Alternatively, you can try to find the driver on the Internet, or contact the supplier or manufacturer for your sound card.

Possible Cause #2

Some software is blocking Total Recorder's access to system sound devices. This may occur with ZoneAlarm Pro, for example.

Action #2

If you have ZoneAlarm Pro installed, review its settings. In the "Program Control" group, select the "Programs" tab. If in the "Trust Level" column, "Restricted" is set for Total Recorder, then change the value to "Ask" or "Trusted".

Possible Cause #3

Total Recorder's virtual device driver (user mode or kernel-mode) conflicts with the real driver for your sound board due to some unknown reason.

Action #3

Install Total Recorder without the Total Recorder driver or try to use another type of driver (see Selecting the type of driver to be installed with Total Recorder).

Possible Cause #4

You are using Windows Vista or later and there are no playback devices enabled.

Action #4

If you get this message on Windows Vista or a later operating system, go to "Start" - "Control Panel" – "Hardware and Sound" - "Sound", "Playback" tab. Check that there are no playback devices enabled. To resolve the problem, try the following steps:

- Check whether your acoustics are plugged into the sound board.

- Try to install the latest version of the drivers for your sound board.

- Enable a disabled device by taking the following steps:

  1. On the Playback tab, right-click in the device list, and select "Show Disabled Devices".

  2. For each disabled device: select the device, click the "Properties" button, and select "Use this device (enable)" from the drop-down list.

7.2   Total Recorder reports problems with Remote Desktop

Sometimes Total Recorder's virtual device driver (user mode or kernel-mode) may not appear if you are using Microsoft Remote Desktop. If you get an error message, try one of the following.

If there is no need to use Total Recorder's driver (i.e. there is no need to record in Software mode), then you can ignore this message.

If you need to use Total Recorder's driver, then you should do one of the following:

1) Try to switch to using Total Recorder's kernel-mode filter driver instead of one of Total Recorder's virtual device drivers. See Driver Settings.

2) Fix the Remote Desktop settings. After you connect ("Start" menu - "All Programs" - "Accessories" - "Communications" - "Remote Desktop Connection"), in the "Remote Desktop Connection" dialog, click "Options >>". On the "Local Resources" tab, set "Remote computer sound" to "Leave at remote computer".

Note: Sometimes the "Leave at remote computer" setting does not work properly. If setting this mode does not resolve your problem, try to log onto your server locally, and leave the session open (do not use "Log Off" or "Switch User"). Then try to establish a remote connection. If this is not feasible because of security rules, you can try the following:

1. Log on to your server locally.
2. Start Total Recorder.
3. Click "Recording source and parameters...", and select "Sound board".
4. Click "Settings" (or use "Options" - "Settings..."), "Pre-recording" tab, and set "Maximum number of seconds to pre-record" to 1.
5. Start monitoring mode (menu "Play/Record" - "Monitoring mode").
6. Switch user ("Start" menu - "Log Off" - "Switch User").

After doing this, you can connect, disconnect, and log off the remote computer repeatedly.

7.3   Information for Total Recorder's driver has been removed from the registry

This topic applies only if you have Total Recorder's user-mode virtual device driver installed (see Selecting the type of driver to be installed with Total Recorder).

An external application may remove some information about Total Recorder's driver from the registry. Reasons for this include the following:

- An attempt to protect the registry from modifications.
- An attempt to restore some previously saved registry information.
- Incorrect behaviour of the application.

To restore the information about Total Recorder's driver to the registry, click "Yes".

However, there is a chance this problem will occur again. You may wish to use the TRDrvProtector utility to protect the list of drivers in the registry. Take the following steps:

1. Download TRDrvProtector.exe from http://www.totalrecorder.com/download/TRDrvProtector.exe.
2. Install Total Recorder once again over the existing copy, but do not restart your computer yet.
3. Start TRDrvProtector.exe and select the "Protect TR Driver" check box.
4. Restart your computer.

If an application attempts to modify the registry information for the Total Recorder driver, the attempt will fail.

If you get an error message from a program that indicates it cannot change information in the registry, you may wish to contact the vendor for the program to discuss this further.

If you later need to install or uninstall some driver or program that contains a driver (e.g. Total

Recorder), you must first run the TRDrvProtector utility and clear the "Protect TR Driver" check box.

7.4   Total Recorder failed to load its driver

Some features of the Windows operating system can cause the Total Recorder driver to fail to load. This may occur, for example, if Total Recorder was launched by a scheduler (a system scheduler or Total Recorder's scheduler) using the name of a user who is working in the system in background mode.

In such cases, working with the Total Recorder driver (and consequently recording in Software mode) cannot take place. Try to record in Soundboard mode from a line such as "Stereo Mix", "Wave", "What U hear", or similar (see "Setting recording parameters").

7.5   A previous version of the Total Recorder driver is still in memory

This topic applies only if you have Total Recorder's user-mode virtual device driver installed (see Selecting the type of driver to be installed with Total Recorder).

This can occur due to problems with the system-files replacement procedure on your system.

Take the following steps to resolve the problem:

1. Install Total Recorder, without the Total Recorder driver (see Selecting the type of driver to be installed with Total Recorder), over your existing version.

2. Restart Windows.

3. Remove the files listed below:

   C:\WINDOWS\System32\DrvTrNTm.dll
   C:\WINDOWS\System32\DrvTrNTl.dll
   C:\WINDOWS\System32\DrvTrNTm.dl2
   C:\WINDOWS\System32\DrvTrNTl.dl2

   Note: These file names are based on Windows being installed in the C:\WINDOWS folder. In other cases, use [Windows installation folder] instead of "C:\WINDOWS".

4. Install Total Recorder and its driver over your existing version.

5. Restart Windows.

7.6   Scheduler service is not configured properly

If the problem does not go away after you restore the scheduler information, it means that some software you have installed does not permit modifications to the auto-run registry key (HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Run), or the software deletes information that other programs recorded in this key.

These programs are likely firewall, anti-spyware, or anti-adware programs that protect your system from harmful software. Refer to the program documentation to determine how you can allow Total Recorder to change the registry key.

7.7   No sound recorded

Sound is reproduced but Total Recorder does not record it. The slider remains at the left edge and the "Length (sec.)" counter does not change.

Possible Cause #1

Some programs have the ability to select the necessary audio driver manually and ignore system settings.

This cause applies only if Total Recorder uses a virtual device driver (user mode or kernel-mode). See

also Driver Settings and Selecting the type of driver to be installed with Total Recorder).

Action #1

Read the program manual and set the Total Recorder driver as both the driver for playing and recording.

See also. Setting playback and recording devices for some applications.

Possible Cause #2

The mode "Auto switch Total Recorder's driver off when Total Recorder is not active" is turned on (see Driver Settings). If the playing back of the sound you are attempting to record was started before Total Recorder was started, the playback program does not use the Total Recorder virtual device driver. You have changed playback or recording preferred device either manually or it has been done after the play back was started.

This cause is applicable only if Total Recorder uses the user mode virtual device driver (see also Driver Settings and Selecting the type of driver to be installed with Total Recorder).

Action #2

Without closing Total Recorder, close the playback program and restart it. Try to make your recording again.

⚠️*Remember if the mode of automatic driver switching is turned on, you should start Total Recorder first and only after that should you start the playback program from which you are going to record sound.*

Possible Cause #3

You need to ensure the audio stream passes through a Total Recorder virtual device driver instead of through the soundboard driver. Usually, you can set one of Total Recorder's virtual device drivers as your default audio driver, and the system should move the Total Recorder driver to the top position in the device list. Sometimes, this doesn't happen.

This cause applies only if Total Recorder uses a virtual device driver (user mode or kernel-mode). See also Driver Settings and Selecting the type of driver to be installed with Total Recorder.

Action #3

Take the following steps:

1. Select the "Control Panel-Sounds and Audio Devices, Audio" tab (or similar if your operating system is other than Windows XP);

2. Manually select a real audio device as your default device, and press "Apply".

3. Select the Total Recorder driver as your default driver for playback and recording, and press "Apply".

4. Close the dialog and open it again ("Control Panel - Sounds and Audio Devices, Audio" tab).

If the Total Recorder driver moves to the top of the device list, this problem should be resolved.

After following these recommendations, you should restart Total Recorder.

Possible Cause #4

Total Recorder's driver perceives a sound stream in main wave-format (PCM, pulse-coded modulation) only. If the reproducing program sends a sound stream in any other format (e.g. compressed), Windows usually calls the decoding drivers itself to perform all of the required translation. However, if your sound card can make some translation at the hardware level, then Windows can direct the sound stream to the driver of such a sound card immediately, and bypass Total Recorder's driver. As a result, sound cannot be recorded.

Action #4

Select "Start"-"Settings"-"Control Panel" (for Windows XP select "Start"-"Control

Panel")-"Multimedia" (or "Sounds and Multimedia", or "Sounds and Audio Devices") (or from the Total Recorder menu, select "Options"-"System settings" and check the box "Use preferred devices only"). This eliminates the use of any device other than the default one.

If the previous recommendations did not help, try the following:

Action #5

Beginning with Total Recorder Version 8.0, instead of the actions above, you can try to use the kernel-mode filter driver instead of the other types of drivers. See also Selecting the type of driver to be installed with Total Recorder and Driver Settings.

Action #6

Try to record in "Sound board" mode from a line such as "Stereo Mix", "Wave", "What U hear", or similar. Most sound boards have such a line.

See also. Using Automatic Recording Level Adjustment.

7.8   Silence is recorded

Recording is performed and the "Length (sec.)" counter is changed but the level indicators show a very low recording level.

Possible Cause #1

You are recording in soundboard mode and an inappropriate source line is selected.

Action #1

Open the Audio tab of the "Recording Source and Parameters" dialog and select an appropriate line.

See also. How to record from a microphone, How to record from tape or an LP player, Using Automatic Recording Level Adjustment.

Possible Cause #2

You are recording in soundboard mode and an external playback device is not connected correctly.

Action #2

Make sure that the device is connected to an appropriate jack of your sound board. Review your sound board manual.

Possible Cause #3

Your sound board is configured in such a manner that an input line is used as an output line (e.g. "line-in" is configured to be used as the output for your rear speakers).

Action #3

Reconfigure your sound board in the correct manner using the software supplied with your sound board.

7.9   Sound recorded with gaps

Sound is recorded with gaps.

Possible Cause #1

There are incompatibility problems between your soundboard and hard drive controller. This may occur in Sound Board mode when using some soundboards with recordings of a long duration.

Action #1

Select "Options"-"Settings"-"Open/save" and disable the "Flush the temporary file every XX seconds" setting.

Possible Cause #2

Your computer is overloaded with other jobs.

Action #2

Select "Options"-"Settings"-"General" and enable the "High priority" setting.

Possible Cause #3

Total Recorder does not have enough time to record sound. This can happen on slow computers or when a slow device (e.g. a diskette) is used as a destination device for the temporary recording file.

Action #3

Use a faster device for storing temporary files.

7.10   Recorded sound has too low quality

Possible Cause #1

The selected quality of the recording format is too low. For example, if you select an 8-bit recording format, the recording can have a high level of noise.

Action #1

In the "Recording Source and Parameters" dialog set the recording format to a higher quality.

See also. How to select the optimal sound format.

7.11   Total Recorder cannot play MP3 format

Possible Cause #1

An MP3 codec has been disabled.

Action #1

Enable the MP3 codec by following the steps below. The steps are for Windows XP; the steps are similar for other operating systems.

1. Select "Start"-"Control Panel".
2. Select "Sounds and Audio Devices", and click the "Hardware" tab.
3. In the "Devices" list, select "Audio codecs". Press the "Properties" button, and select the "Properties" tab.
4. In the "Audio Compression Codecs" list, find "Fraunhofer IIS MPEG Layer-3 Codec…". If this codec is not in the list then the MP3 codec is probably uninstalled. You should read the recommendations for Possible Cause #2.
5. Press the "Properties" button and select "Use this audio codec".
6. Restart Total Recorder.

Possible Cause #2

Information in the registry regarding the MP3 codec is broken.

Action #2

Go to "Start"-"Run", type *regsvr32.exe l3codeca.acm*, and press "Enter". If your command executes successfully, then this should be okay. Otherwise, read the recommendations for Possible Cause #3.

Possible Cause #3

An MP3 codec was uninstalled or one of the MP3-codec files was deleted.

Action #3

You should reinstall the codec from the Windows XP distribution.

1. Insert the CD-ROM in your CD-ROM drive. This example assumes the drive letter is "F".
2. Go to the system folder (e.g. C:\WINDOWS\SYSTEM32), and try to find the l3codeca.acm file. If the file is found, then make a backup copy and delete the original file.
3. Go to "Start"-"Run".
4. Type the following:

   expand F:\I386\l3codeca.ac_ C:\Windows\System32\l3codeca.acm

   and press "Enter".
5. Make sure that after running this command, the file C:\WINDOWS\SYSTEM32\l3codeca.acm is present.
6. Go to "Start"-"Run", type regsvr32.exe l3codeca.acm, and press "Enter".

7.12 Total Recorder reports problems with a codec and terminates

Possible Cause #1

There is a codec installed which has bugs. It is possible this codec is the "LAME MP3 Codec..." codec.

Action #1

Uninstall the codec identified in the error message.

To uninstall a codec on Windows XP:

1. Select "Start"-"Settings"-"Control Panel".
2. Click "Sounds and Audio Devices".
3. Select the "Hardware" tab.
4. From the "Devices" list, select "Audio Codecs", and press the "Properties" button.
5. Select the "Properties" tab.
6. In the "Audio Compression Codecs" list, select the codec to be removed, press the "Remove" button, and confirm this action.

The process for removing a codec on other operating systems is similar.

If an error occurs while trying to remove a codec, you should remove the first file of the codec, and then repeat the steps above. Codec files normally have the ".acm" extension and are located in the system directory ("…\WINDOWS\SYSTEM32\"). The "LAME MP3 Codec..." codec is likely named "lameACM.acm".

7.13 ACMERR_NOTPOSSIBLE error while encoding to MP3

Possible Cause #1

This error probably occurred because the MP3-encoding program that Total Recorder is set to use behaved incorrectly when processing some specific data.

Action #1

Try to change the bit rate of the target format (e.g. from 64 kbps to 56 kbps).

Action #2

Try to use another encoding engine for encoding to MP3. For additional information, refer to How to work with MP3 format using Total Recorder.

7.14 Sound system or playback programs not working properly

After installing Total Recorder, the sound system or some playback programs are not working properly (e.g. produce garbled sound), even when Total Recorder is not active.

Possible Cause #1

There is an incompatibility between Total Recorder's user-mode virtual device driver and Direct Sound. When a playback program uses Direct Sound, the sound can sometimes be garbled.

Action #1

Many programs can be set up to optionally use Direct Sound. To see how to turn off Direct Sound in some popular applications, refer to the "Turning off Direct Sound in some applications" section.

For additional information, refer to the Total Recorder FAQ at http://www.totalrecorder.com/FAQ_TR.HTM#other01.

If these recommendations do not help, use the recommendations from Action #2.

Possible Cause #2

Total Recorder's user-mode virtual device driver is not compatible with other applications you have installed.

Action #2

If you need to record an application in Software mode that is causing a conflict, try to use one of Total Recorder's kernel-mode drivers (virtual device driver or filter driver) instead of the user-mode virtual device driver (see Selecting the type of driver to be installed with Total Recorder and Driver Settings).

Otherwise, you should change either your settings in Total Recorder, your settings in the conflicting application, or your Windows settings so that the application will not use Total Recorder's user-mode virtual device driver. Here are some recommendations:

- If the playback program has its own settings for the playback or recording device, try to change the program to use a real device instead of Total Recorder's virtual device. See Setting playback and recording devices for some applications.

If this recommendation does not help, try the actions described below.

- Disable the use of the Total Recorder user-mode virtual device driver for this application using the "Options" - "Settings" - "Driver" - "Driver troubleshooting settings".

- You can eliminate the conflict when Total Recorder is not active by using Total Recorder's virtual device driver as a preferred device only when necessary. For additional information, refer to Setting Default Devices.

If these recommendations do not help, install Total Recorder without the driver that is causing the conflict (see Selecting the type of driver to be installed with Total Recorder).

7.15 Total Recorder reports a large number of drop frames (VideoPro, and Developer Editions only)

Possible Cause #1

There are not enough system resources.

Action #1

Video recording is a process that can consume a lot of system resources. Insufficient system resources may result in a large number of drop frames, garbled audio and/or video, or desynchronization of audio and video. You can display the use of system resources during a recording in the system Task Manager.

Total Recorder displays the number and percentage of drop frames in the <u>video panel</u>. If Total Recorder reports a large number of drop frames after a recording has completed, take one of the following actions to try to decrease the usage of system resources when recording video.

- Decrease the resolution of the video being recorded. If you are recording video captured from the screen then make the area being captured as small as possible, as suggested below:
  - Record a particular window or region instead of the full screen.
  - In the playback program, do not resize video to a resolution that is larger than the original resolution of the video. Such resizing can only result in a loss of quality and an additional resource load. For example, if a playback program plays an Internet stream with a video resolution of 320x240, do not resize the video area of this program to a resolution that is larger than 320x240. The majority of video playback programs allow you to select the video size relative to the original size, such as "x1", "original size", etc.

- Do not specify a large number of frames per second (see <u>Setting Video Recording Parameters</u>). Generally, it is not practical to specify more than 30 frames per second.

- Try to use another video encoder (see <u>Format Selection Dialog</u>). Different video encoders can require very different system resources to perform real-time encoding. First, you should make a test recording to help you select an appropriate encoder that will result in satisfactory quality and will not overload your system.

- Do not launch other resource intensive operations on your system, such as backup archiving or disk virus scans, while recording video.

See also the <u>Primer on Digital Video Recording</u> document on Total Recorder's web site.

7.16   After installing Total Recorder with its kernel-mode virtual device driver you have problems with a USB microphone

After installing Total Recorder with its kernel-mode virtual device driver you may experience these problems with a USB microphone:

- A recording program, including an Internet telephony program, reports problems with the microphone.

- A recording program, including an Internet telephony program, does not report a problem, but sound data from the microphone is not being received. Silence is recorded or sound cannot be heard by the other party.

- A recording program, including an Internet telephony program, acts correctly but Total Recorder, even with the correct settings, does not record your voice. Only the voice of the other party is recorded.

Such problems can occur **only with USB devices under Windows XP with Total Recorder's kernel-mode virtual device driver installed**. These problems can occur because USB audio devices under Windows XP can use a special protocol that does not allow the device to work properly with Total Recorder's kernel-mode virtual device driver.

To determine whether such a problem exists, open the <u>Options-Settings-Driver dialog</u>, select an appropriate recording device for Total Recorder's virtual device driver, and click the "Check recording device for compatibility" button.

Actions that you can take to resolve these problems:

1) Provide direct use of a real recording device for the recording program instead of recording through Total Recorder's kernel-mode virtual device driver.

– If you do not need to record in software mode, you do not need to install the kernel-mode virtual device driver. Or you do not need to set Total Recorder's kernel-mode virtual device driver as the

system default recording device (go to the Options-Settings-Driver dialog and click the "Unset as default both" button). If you need to record in software mode, set Total Recorder's kernel-mode virtual device driver only as the default system playback device (go to the Options-Settings-Driver dialog and click the "Unset as default playback" button).

– For programs that use a recording device, the preference is that you specify an appropriate real recording device to be used. Alternatively, you can select the system default device as the recording device rather than Total Recorder's virtual device. This applies to all recording programs, including Internet telephony programs.

2) If there is a need to use a USB microphone in an Internet telephony program and you want to use Total Recorder to record the conversation, use one of the following methods:

a) Set Total Recorder to use another type of driver (kernel-mode filter driver). For more information, refer to the Driver Settings and Selecting the type of driver to be installed with Total Recorder sections.

b) Try to record in mixing recording mode (Professional, VideoPro, and Developer Editions only). Take the following steps:

– Download and install the free Digital Mixer Add-on.

– In the "Recording source and parameters" dialog, set "Mixing software and Sound board" as your recording mode.

– In the "Recording source and parameters" dialog, indicate you want to record from the same device and line that are used by the Internet telephony program.

– If there is need to separate the voices, select "Allow mixing parameters to be changed after recording".

– Start recording.

See also. How Total Recorder works with different Sources, Selecting the type of driver to be installed with Total Recorder..

7.17   After installing Total Recorder with a kernel-mode driver, you experience the "Blue Screen of Death" (BSOD) and/or system rebooting

After installing Total Recorder with a kernel-mode driver (virtual device driver or filter driver), you may experience the "Blue Screen of Death" (BSOD) or an unexpected reboot of your system.

Possible Cause #1

An unexpected error occurred in Total Recorder's kernel-mode driver or the driver appears to be incompatible with some software or hardware on your system.

Action #1

Additional information about the failure is required by the Technical Support Team. To obtain this information, take the following steps after you reboot your system either in normal mode or in safe mode:

a) On the "Options"-"Settings"-"Debug" dialog, click the "Settings" button in the "Kernel-mode driver debug info" box. Another way to invoke this dialog is to launch the TrWdmDrvTrace.exe utility from Total Recorder's installation folder. The following dialog appears:
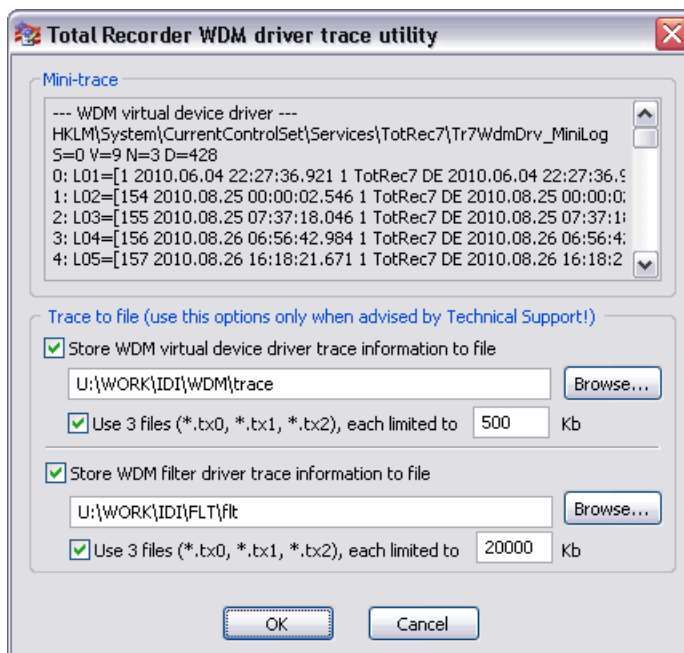
Copy the information from the "Mini-trace" box to the Clipboard and save it to a text file.

To get more detailed information if the error occurs again: select the "Store WDM driver trace information to file" and "Use 3 files..." check boxes, and enter a file name to store driver trace information.

Note that writing the trace information to a file will slow down your system. So if the BSOD does not appear for a long time, or tracing greatly slows down your system, you should turn off the storing of trace information to a file.

b) Launch the TrDumpAnalyzer.exe utility from Total Recorder's installation folder. The main window of the utility looks like this:
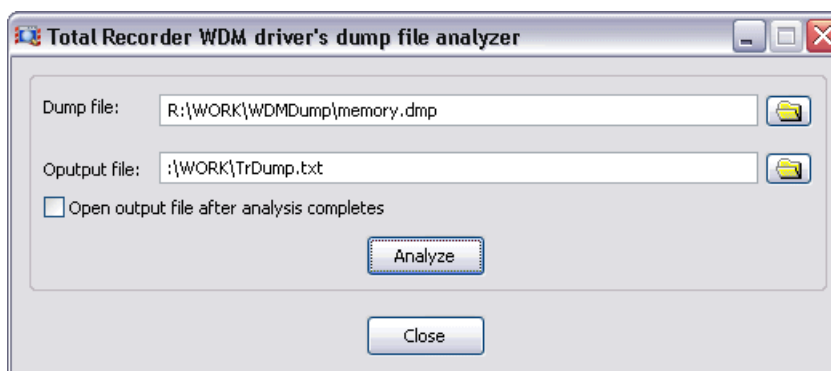
Click the "Analyze" button to start an analysis of your dump file.

By default, Windows does not make a kernel-mode dump. You may receive the message "<FileName> was not found". If the message appears you need to set system dump options. In Windows Vista, do the following (for other versions of Windows, the steps are similar):

Go to the "Control Panel"->"System"->"Advanced system settings"->Advanced tab. In the "Startup and Recovery" group, click the "Settings" button.

In the dialog that appears, take the following steps:

- Select the "Write an event to the system log" check box.

- In the "Write debugging information" drop-down list, select "Kernel memory dump".

- In the "Dump file" field, specify the name of the dump file.

- Select the "Overwrite any existing file" check box.
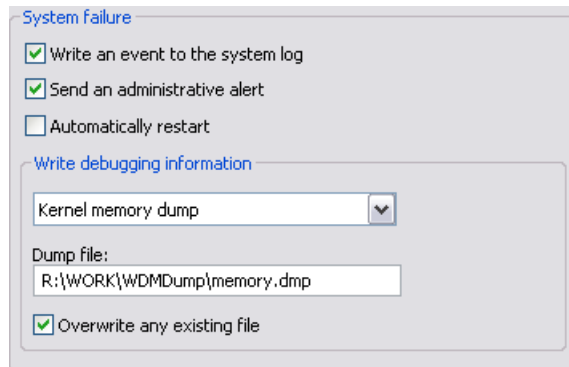
Your settings in the "Startup and Recovery" dialog should look like the following:

It is recommended you use these settings permanently. These settings will not require additional system resources.

c) Send the following materials to the Technical Support Team:

– A description of your problem.

– Saved information from the "Mini-trace" box.

– File obtained as a result of the dump file analysis (in the case of successful analysis).

You should send the full package with information described in c) to the Technical Support Team again if the problem re-occurs and one of the following conditions takes place:

– You already sent information described in c) but the information was obtained while storing driver trace information (see a)) was turned off, and now the problem appears while storing driver trace information is turned on.

– You already sent information described in c) but the information was obtained while kernel-mode dump was turned off, and now the problem appears with the kernel-mode dump turned on.

If BSODs appear frequently, then after sending information to the Technical Support Team, you can install Total Recorder without the kernel-mode driver (see Selecting the type of driver to be installed with Total Recorder).

7.18   Other Problems

If you experience problems with Total Recorder that you cannot resolve yourself, visit the support area at http://www.totalrecorder.com/support.htm. You should read **Frequently Asked Questions** at http://www.totalrecorder.com/faq_tr.htm before sending a letter to support.

When addressing the Technical Support Team, it is recommended you include a description of the problem and debug information. The following are some guidelines on the steps to take for different types of problems.

If the problem appears through an error message displayed in Total Recorder or its install program:

1. Press the "Debug info>>" button in the message box.

2. Press the Copy button in the message box. Debug information will be copied to the Clipboard.

3. Insert the information from the Clipboard into your letter to the Technical Support Team.

If the problem does not appear with a Total Recorder error message:

1. Do not close Total Recorder. Select "Options"-"Settings"-"Debug".

2. Press the "Save to file..." button of the "Internal debug info" group. Select a file to store the debug information.

3. Attach the debug information to your letter to the Technical Support Team.

If you cannot use the previous instructions or the problem is not directly related to Total Recorder (e.g. problem occurs in another programs):

1. Run Total Recorder and select "Options"-"Settings"-"Debug".

2. Press the "Save to file..." button of the "Internal debug info" group. Select a file to store the debug information.

3. Attach the debug information to your letter to the Technical Support Team.

8   Appendix

8.1   No sound recorded. Try to manipulate with system sound devices.

You need to make sure that the audio stream is passing through the Total Recorder virtual device driver instead of through the sound-board driver. Usually, you can set the Total Recorder virtual device driver as your default audio driver, and the system should move the Total Recorder driver to the top position in the device list. Sometimes, this doesn't happen.

Take the following steps to fix the problem:

1. Select the "Control Panel-Sounds and Audio Devices, Audio" tab (or similar if your operating system is not Windows XP).

2. Manually select a real audio device as your default device, and press "Apply".

3. Select the Total Recorder driver as your default driver for playback and recording, and press "Apply".

4. Close the dialog and open it again ("Control Panel - Sounds and Audio Devices, Audio" tab). If the Total Recorder driver moves to the top of the device list, this problem should be resolved.

5. Restart Total Recorder.

8.2   No sound recorded. Try to change the program's playback and recording devices.

Some programs have the ability to select the necessary audio driver manually and ignore the system settings. In this case, you should review the program's documentation and set the Total Recorder virtual device driver as the driver for both playback and recording.

See also. Setting playback and recording devices for some applications.

8.3   No sound recorded. May be because of certain qualities of your sound board and the software you have installed for that sound board.

Possible Cause #1

You need to make sure that the audio stream is passing through the Total Recorder virtual device driver instead of through the sound-board driver. Usually, you can set the Total Recorder virtual device driver as your default audio driver, and the system should move the Total Recorder driver to the top position in the device list. Sometimes, this doesn't happen.

Action #1

Take the following steps to fix the problem:

1. Select the "Control Panel-Sounds and Audio Devices, Audio" tab (or similar if your operating system is not Windows XP).

2. Manually select a real audio device as your default device, and press "Apply".

3. Select the Total Recorder virtual device driver as your default driver for playback and recording, and press "Apply".

4. Close the dialog and open it again ("Control Panel - Sounds and Audio Devices, Audio" tab). If the Total Recorder driver moves to the top of the device list, this problem should be resolved.

5. Restart Total Recorder.

Possible Cause #2

Some programs have the ability to select the necessary audio driver manually and ignore system settings.

See also. Setting playback and recording devices for some applications.

Action #2

In this case, you should review the program's documentation and set the Total Recorder virtual device driver as both the driver for playback and recording.

If none of the above actions help, try one of the following:

- Try to use the kernel-mode filter driver instead of the other types of drivers (see also Selecting the type of driver to be installed with Total Recorder and Driver Settings).

- Try to record in "Sound board" mode from a line such as "Stereo Mix", "Wave", "What U hear", or similar. Most sound boards have such a line.

8.4 No sound recorded. This may be because a system default device was changed after the application to be recorded opened the sound stream.

Possible Cause #1

This possible cause applies only if you use Total Recorder's user-mode virtual device driver (see Selecting the type of driver to be installed with Total Recorder and Driver Settings).

The "Auto switch Total Recorder's driver off when Total Recorder is not active" option in the "Options"-"Settings"-"Driver" dialog is set, and the playback program uses devices that were the default playback and recording devices before switching.

Action #1

Try to restart the playback program.

⚠️ *Remember if the mode of automatic driver switching is turned on, you should start Total Recorder first and only after that should you start the playback program from which you are going to record sound.*

Possible Cause #2

The system playback or recording device was manually changed or changed through a Total Recorder prompt. The playback program does not use Total Recorder's virtual devices.

Action #2

Try to restart the playback program.

Possible Cause #3

Some programs have the ability to select the necessary audio driver manually and ignore the system settings.

See also. Setting playback and recording devices for some applications.

Action #3

In this case, you should review the program's documentation and set the Total Recorder driver as both the driver for playing and recording.

If none of the above actions help, try one of the following:

- Try to use the kernel-mode filter driver instead of the other types of drivers (see also Selecting the type of driver to be installed with Total Recorder and Driver Settings).

- Try to record in "Sound board" mode from a line such as "Stereo Mix", "Wave", "What U hear", or similar. Most sound boards have such a line.

8.5   No playback sound detected

Possible Cause #1

Some programs have the ability to select the necessary audio driver manually and ignore the system settings.

See also. Setting playback and recording devices for some applications.

Action #1

In this case, you should review the program's documentation and set the Total Recorder virtual device driver as both the driver for playing and recording.

If none of the above actions helped, try one of the following:

- Try to use the kernel-mode filter driver instead of the other types of drivers (see also Selecting the type of driver to be installed with Total Recorder and Driver Settings).

- Try to record in "Sound board" mode from a line such as "Stereo Mix", "Wave", "What U hear", or similar. Most sound boards have such a line.

8.6   An application is playing pure silence

Possible Cause #1

An application is sending a silent signal to the sound board and Total Recorder records it.

Action #1

If you use Total Recorder's user-mode virtual device driver and there is no need to record sound from this application, try one of the following:

– If the program that translates silence allows you to manually select the playback and recording devices, review the program's documentation and set the driver of a real sound device as both the driver for playback and recording.

   See also. Setting playback and recording devices for some applications.

– Add the application to the Exclusions list in the "Options"-"Settings"-"Driver"-"Exclusions" dialog.

If you use Total Recorder's kernel-mode virtual device driver, refer to the section "Troubleshooting" - "No sound recorded".

8.7   An application produces garbled sound

Possible Cause #1

There is an incompatibility between Total Recorder's user-mode virtual device driver and Direct Sound.

When a playback program uses Direct Sound, the sound can sometimes be garbled.

Action #1

Many programs can be set up to optionally use Direct Sound. To see how to turn off Direct Sound in some popular applications, refer to the "Turning off Direct Sound in some applications" section.

For additional information, refer to the Total Recorder FAQ at http://www.totalrecorder.com/FAQ_TR.HTM#other01.

If these recommendations do not help, use the recommendations from Action #2 below.

Possible Cause #2

Total Recorder's user-mode virtual device driver is not compatible with other applications you have installed.

Action #2

If you need to record a conflicting application in Software mode, try to use a kernel-mode driver (virtual device driver or filter driver) instead of the user-mode virtual device driver (see Selecting the type of driver to be installed with Total Recorder and Driver Settings).

8.8 Windows Vista and later does not allow you to set a user-mode driver as a system default device

Windows Vista and later do not let you set a user-mode virtual device driver as the system default device and it does not list these devices as available system devices. As a result, Total Recorder's user-mode virtual device driver can be used for Software recording only if the program to be recorded lets you set "Playback through TotalRecorder" as the playback device.

See also. Selecting the type of driver to be installed with Total Recorder, Setting Default Devices, Setting playback and recording devices for some applications.

8.9 Setting playback and recording devices for some applications

This section contains information about setting playback and recording devices for some popular sound applications. The information is for particular versions of applications; settings for other versions may vary.

WinAmp 5.x

To set the playback device in WinAmp, go to the "Options"-"Preferences…" menu, select "Plug-ins - Output"-"WaveOut output…", and press Configure. Select a device in the "Device" list. Click "OK" and "Close".

Windows Media Player 9.x-11.x

To set the playback device in Windows Media Player, go to the "Tools"-"Options…" menu, select "Devices" tab. Select "Speakers" from the "Devices" list, and press "Properties". Select an audio device from the "Audio device to use" list. Click "OK" twice.

Musicmatch Jukebox 10.x

To set the playback device in Musicmatch Jukebox, go to the "Options"-"Settings…" menu, and select the "Player" tab. Select an audio device from the "Output control" list. Click "OK".

Skype 2.x-3.x

To set the playback and recording devices in Skype, go to the "Tools"-"Options…" menu, and select "Sound Devices". Select audio devices from the "Audio In" and "Audio Out" lists. Click "Save".

Other applications

The following programs do not have their own settings for playback devices:

- QuickTime 7.x

- iTunes 6.x

- RealPlayer 10.x.

These programs use devices that are set in your system.

See also. Setting Default Devices.

8.10   Turning off Direct Sound in some applications

This section contains information about how to turn off Direct Sound for some popular sound applications. The information is for particular versions of applications; settings for other versions may vary.

WinAmp 5.x

Go to the "Options"-"Preferences…" menu. Select "Plug-ins - Output"-"WaveOut output…" rather than "DirectSound output…".

QuickTime 6.x

Make sure QuickTime and iTunes are closed. Go to "Start"-"Control panel" and launch the QuickTime settings. Go to the "Sound Out" tab and select ""waveOut: Playback through Total Recorder" as the playback device.

iTunes

If you have iTunes with QuickTime 6.x installed, then follow the recommendations for QuickTime 6.x.

If you have iTunes with QuickTime 7.x installed, then do the following:

1. Make sure QuickTime and iTunes are closed.

2. Go to "Start"-"Control Panel" and launch the QuickTime settings.

3. Select the "Audio" tab and select "Safe mode (waveOut only)".

Real Player 10.x

Go to the "Tools"-"Preferences…" menu, and select "Hardware". Click the "Settings…" button in the "Sound card compatibility" group. Click "Disable Direct Sound".

Other applications

The following programs do not allow you to turn off Direct Sound:

- QuickTime 7.x

- Windows Media Player 9.x-11.x.