MAGIX

MOVIE

edit pro **2004**

Manual

Foreword

Thank you for purchasing MAGIX Movie Edit Pro 2004! Now you can make impressive movies by bringing the power of a production studio into your home. MAGIX Movie Edit Pro is a user-friendly desktop video editor that offers top-quality professional tools, amazing visual and sound effects, studio-style scene transitions and even DVD authoring and recording, to ensure that you produce simply stunning results.

The creative possibilities are endless:
– DVD Movie memories of vacations, parties, sports or special family events
– Video web pages
– CD or DVD movies and slideshows
– Email greetings or Streaming Movies
– Enhanced Presentations (MS PowerPoint®-compatible)
– Ad spots or TV trailers
– Music videos, karaoke shows, Animation
– Plus much more

Inside this package you will find a printed manual explaining the features and functions of MAGIX Movie Edit Pro 2004, a complete video tutorial full of useful tips and tricks, and an electronic PDF manual for convenient reference.

To get started, we recommend taking a moment to play the video tutorial and read through the quick course on filmmaking included in the manual, and then browse the first few chapters of the manual to get a good overview of the powerful features included in MAGIX Movie Edit Pro 2004. This information will get you started on your way to making your first movie masterpiece.

Have fun and enjoy creating and sharing your movies with MAGIX Movie Edit Pro 2004, the Ultimate Desktop Video Editor.

The MAGIX Team

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Package contents

2 CDs for installation & multi-media content

You will find MAGIX music world and the audio and video media library files on the MAGIX Movie Edit Pro 2004 installation manager. Note: The multimedia content (images, videos, titles, sounds)on the installation CDis "royalty-free".and may be used for all projects without additional license.

Manual

The printed manual explains the functions of MAGIX Movie Edit Pro 2004 and includes a quick filmmaking course that is full of tips and tricks for budding filmmakers. Note: The printed manual contains only an introduction to the basic functions of MAGIX Movie Edit Pro 2004. For more detailed information, please refer to the PDF manual found on your hard drive after installation

The complete documentation is also found as a .pdf file on your hard drive after the program is installed. This electronic manual describes program functions and provides a helpful explanation of the various types of discs you can create with the program such as video CDs, super video CDs and DVDs.

The PDF manual will require Adobe Acrobat Reader. If you do not have Acrobat already installed on your system, you can install it from the program directory or the installation CD from the „Add-ons" folder.
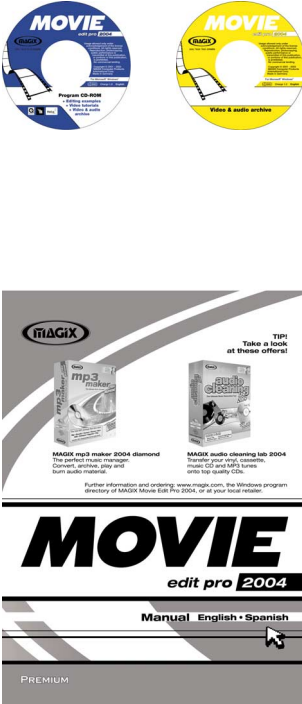
System requirements

– Microsoft® Windows® 98 / 98 SE / ME / 2000 / XP
– 450 MHz Processor
– 128 MB RAM (256 MB recommended)
– Min. 1 GB free hard disk space for video files (5 GB recommended).
– Hard drive with data access rate min. 4 MB/s recommended
– 800x600 display resolution
– 16-bit SVGA graphic card with min. 4 MB RAM
– 16 bit soundcard
– CD-ROM drive for installation
– Microsoft-compatible mouse
– Optional: Microphone for recording

Video Capture Card:
– Digital: OHCI-compatible IEEE-1394 DV capture card (FireWireTM) with Microsoft® DirectX8a-compatible driver
– Analog: Video capture card compatible with Video For Windows or DirectShow
– TV Recording: TV tuner cards or graphic card with video input compatible with Windows Direct Media drivers.

Note: WDM drivers are required for virtual VCR function.

Disc Burning:
– SCSI or IDE CD or DVD Recorder [CD-R, DVD-R(W), DVD+R(W)] recorder.

Playback/Display:
– VCD, SVCD, DVD-R(W), DVD+R(W) and miniDVD playback requires compatible home DVD player or appropriate Windows-compatible drive.
– Import/Export of DivXTM and MPEG-4 file formats require installed codecs.
– Video Emails are sent using standard Email software (Microsoft® OutlookTM or Microsoft® Outlook ExpressTM).
– Video Websites can be displayed on Microsoft® Internet ExplorerTM 4.0 and higher. Online publishing with individual web account.

Support

If you experience any problems with your software, please get in touch with our support team:
Support website: http://support.magix.net

This website will lead you to the MAGIX user service page, which, among other things, contains the following free offers:
– **FAQ**s (frequently asked questions) and general tricks and tips. In most cases you'll find the solution to your problem here. If not, use the Email support form.
– **E-mail support form**: Via the special form you inform our support staff about your system. This information is used to solve your problems quickly and competently. Simply fill out and send with a mouse-click!
– **Support forum**: You are not alone. Perhaps other users had a similar problem and can help you solve yours. Our support staff is also a regular contributor.
– **Download section**: Updates, improvements and patches are likewise offered free of charge via download. Many problems you may experience are well-known to us, and can be solved by downloading the latest patch. Besides patches, there are also wizards for checking and optimizing your system.
– **Links**: In the links list you will find the contact addresses of all the most important hardware manufacturers.

You can also reach our support team either by telephone or by fax.
Phone: For upgrades: 1-305-695-6363
Fax: 1-305-695-6330

Please have the following information at hand:
– Program version
– Configuration details (operating system, processor, memory, hard drive...)
– Soundcard configuration (type, driver)
– Information regarding other audio software installed

Installation

1

Place the installation CD into the CD-ROM drive.

2

The installation program will start up automatically. If it does not, simply open the File Manager/Explorer and click on the drive letter representing the CD-ROM drive (generally D:\.) Double-click on **mworld.exe.**

3

MAGIX music world will now start up automatically. To begin t installation of MAGIX Movie Edit Pro 2004, click on **INSTALL**

4

The MAGIX Movie Edit Pro 2004 installation program will start up. Simply follow the onscreen instructions to complete the installation process. Once all the files have been copied to the hard-drive, a program group will be created. The installation is now complete. Confirm the installation by clicking ‚**Finish'**. You may now launch the program at any time from the Windows Start menu.

MAGIX on the Internet

Visit our website at:
www.magix.com

Here you'll find:
– "MAGIX.TV" and "MAGIX web publishing area": New entertainment and direct online publishing resources
– Contests
– Online shop with regular special offers
– Events and news
– User forums and Support sites
– Plus much more that you can explore.

Connecting your equipment

How do I connect my digital video camera to my computer?

The best way to capture Digital Video into your computer is via "Firewire". FireWire is a fast peripheral interconnect standard capable of transfer speeds up to 400 Mbs. It works well for multimedia peripherals such as DV (Digital Video) cameras and other high-speed devices like the latest hard disk drives, CD/DVD burners and printers. To connect your DV camera to your computer through firewire, connect your cable from the firewire port on your camera to an IEEE 1394 compliant firewire jack on your computer.

Firewire port on digital camera
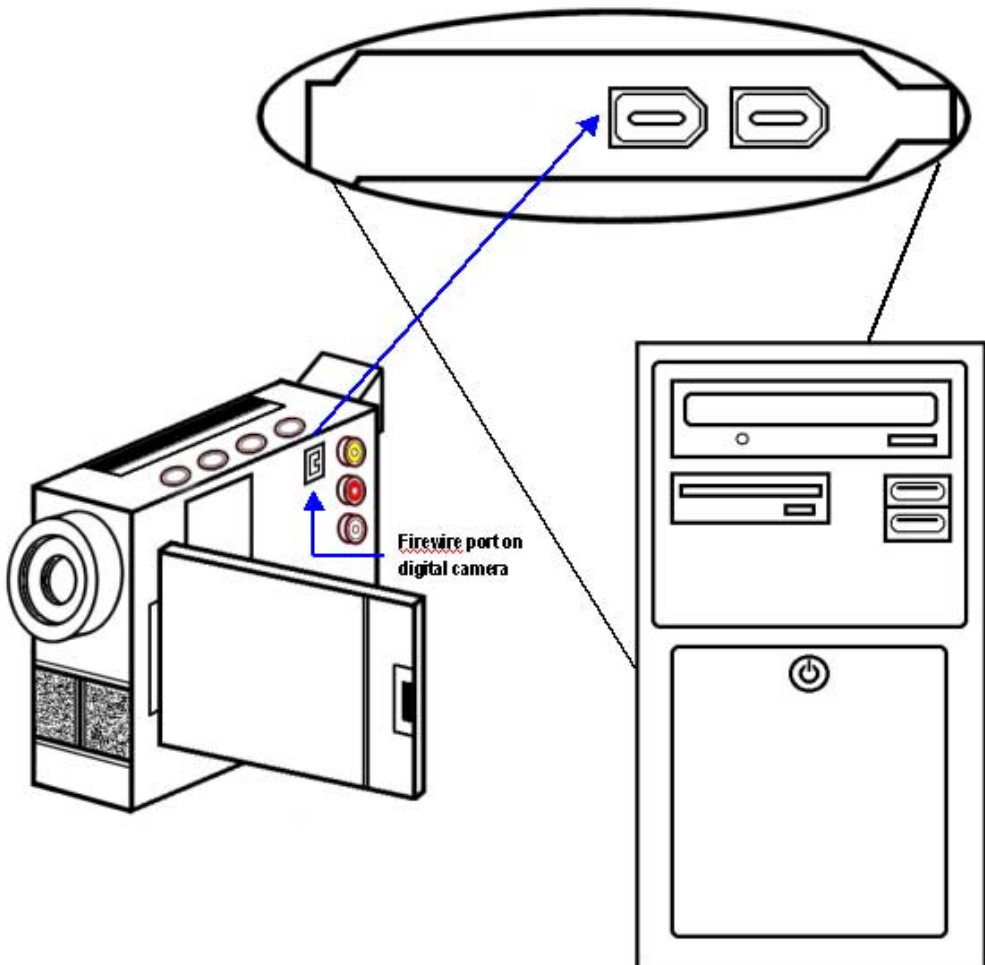
How do I connect my camcorder to my analog capture card?

To connect your camcorder to your capture device simply connect the composite or SVHS cable out of the camera to the composite or SVHS in of the capture card.
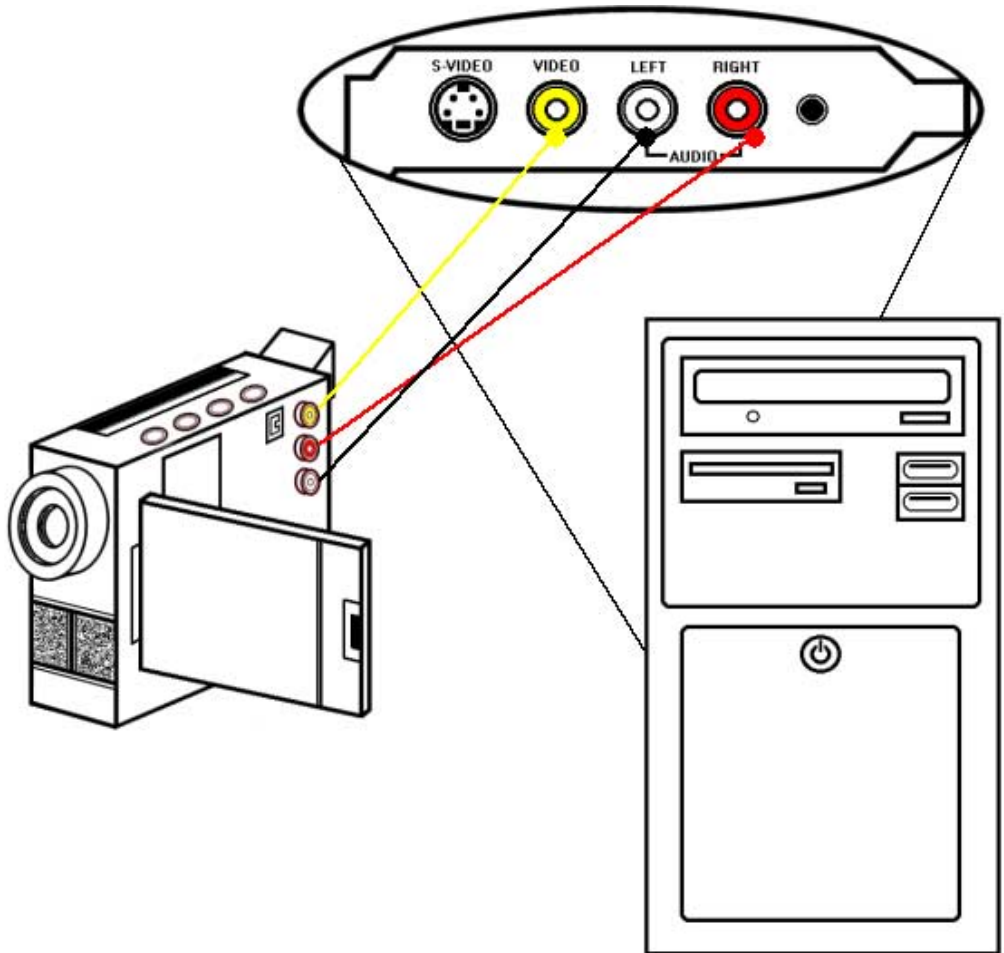
How do I connect my audio equipment to use the audio capture function of this program?

Check the system requirements section of this manual to ensure you have the appropriate hardware to perform this function. Most connections required for this program are to your computer's graphics and sound card as shown in the diagram below. When you are connecting a microphone directly to the computer, you will connect to the usually red "Mic" jack of your sound card. Anything else that is not a microphone will be connected to the usually blue "Line In" jack of your sound card. Consult your hardware manual for more details.

MIC IN   LINE IN

Any instrument or device that outputs line level needs to be connected to the computer via the "Line In" jack on the computer's sound card.

*Ex. Keyboards, drum machines, electric guitars, CD players, cassette deck, Minidisk players etc...

A microphone is the only thing that should be plugged into the "Mic In" jack of a soundcard.
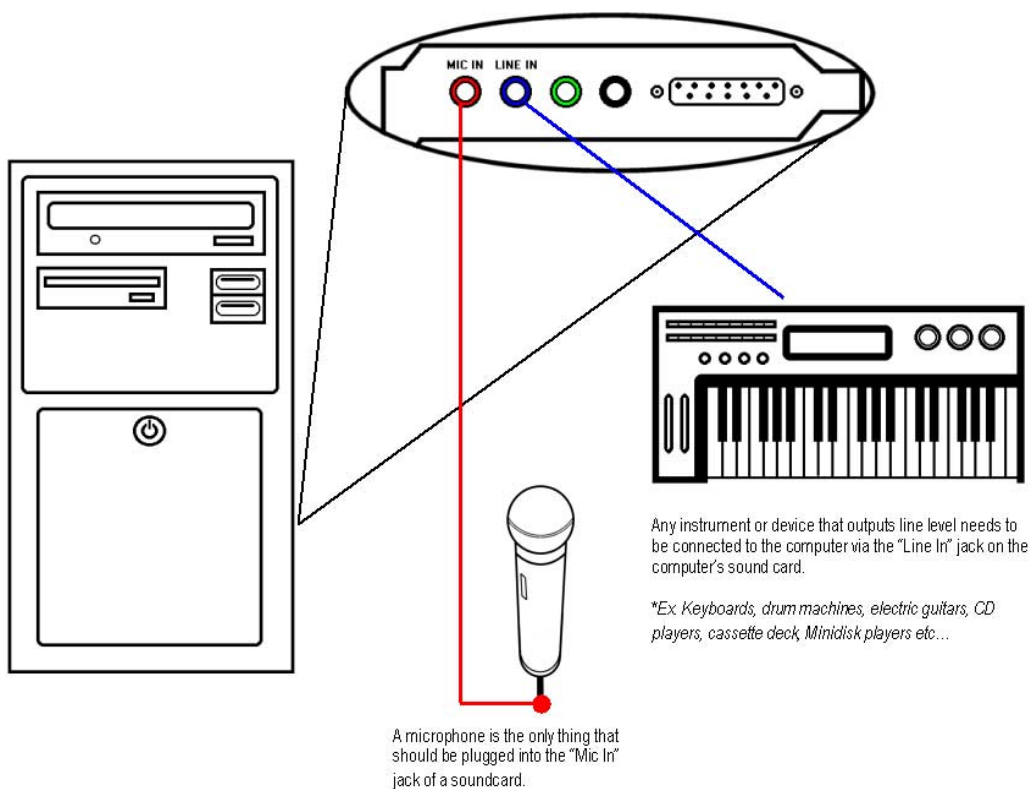
Introduction

What is MAGIX Movie Edit Pro 2004 ?

MAGIX Movie Edit Pro 2004 is a production studio for the PC, Edit videos, movies, photos and audio from a wide range of sources Divide long movies into different chapters and/or scenes automatically, or do the opposite by automatically incorporating short takes into a movie. A choice of edit screen views and professional, yet easy-to-use features make it a snap for anyone to transform raw video footage into impressive movies. The Storyboard edit mode represents all scenes in linear sequence on the storyboard. They can be arranged and re-ordered by dragging them with the mouse, or adding text, transitions, effects and a new soundtrack with a simple mouse click.
The time-line edit mode is recommended for more detailed editing. Files are displayed as objects on different tracks. Objects positioned on tracks stacked on top of each other are played simultaneously, while objects positioned next to each other are played chronologically. Import additional material such as video, photos, graphics, subtitles, narration, sounds, songs, .rtf text files or a MIDI music file from the Media Pool by dragging and dropping it into a track or by double-clicking on the file. When you have completed your video, share it! Record it back to videotape or your camcorder for playback. Archive it on CD-ROM, burn it onto Video CD, Super VideoCD or DVD and enjoy watching it on TV, or present your work on the Internet – as a streaming video off your website, as a Video email to friends, or as a creative contribution to Web TV on www.magix.com. If you need help creating a web page, choose from the templates included in Movie Edit Pro 2004 to help you build it.

Feature Highlights

MAGIX Movie Edit Pro 2004 is the ultimate desktop video editor. Make sensational cuts, build special effects and 3D transitions, and create your own soundtracks. Here's just a few of the powerful features you'll use to create professional-quality projects:

Animated DVD menus with background music
Integrate videos into DVD menus. The videos play back in infinite loops while the menu is displayed on your TV screen. Background sounds or images in various formats can also be integrated into the menu.

Image Resizing for Optimum Television Display
This option ensures that the image size is adapted to fit your television screen without cropping the display image.

Re-edit mode
Archive your movie project, together with the corresponding project data, and store it on VCD, Scrod DVD. With this feature, your project and the source files are always available for editing.

Automatic disc spanning
Automatically split longer film sequences onto several CDs or DVDs without quality loss.

VCR/PVR function
If you have a compatible TV card and Windows Direct Media driver you can record any TV channel automatically at any time. MAGIX Movie Edit Pro 2004 provides this virtual TV tuner through both remote control and programmable timing.

Direct TWAIN connection
MAGIX movie edit pro supports import from scanners and digital cameras using the TWAIN interface. MAGIX Movie Edit Pro 2004 accesses the scanner or camera then imports the image into the program.

Image-with-Sound support
Some digital cameras feature an audio recording function that attaches a WAV file to the image file upon capture. MAGIX movie edit pro 2004 imports both the image file and the audio file separately to enable easy editing. The sound file will appear as a small WAV display below the image preview in the storyboard mode.

Professional Real-time Effects
3D transitions, and amazing Video Controller help you design pro-quality movies.

Intuitive Scene Arrangement
The added choice of a thumbnail scene overview mode helps simplify changes in scene arrangement and can sort up to 400 scenes in one overview.

Streaming Video Format Support
The latest Microsoft® Windows® Media 9 and Real Helix™ file formats are supported.

Function Overview

Import and Export
VIDEO AND IMAGE FORMATS: AVI (also non-compressed), MPEG-1/-2 (Ligos Motion Encoder), MPEG-4, DivX, Windows Media™, MOV (Quicktime Movie), MXV, MJPEG, BMP, JPG as well as MAGIX Movie Edit Pro 2004 project files (for integrating into a new project).

Note: Video files in DivX and MPEG 4 formats can be imported only with the appropriate installed codecs! DivX codecs can be downloaded from www.divx.com. Mpeg-4 codecs should have been installed with Windows. Visit www.windows.com for more information.

AUDIO FORMATS: WAV, Audio CDs (Ripping), MP3 and MIDI files.

ADDITIONAL EXPORT FORMATS: Real Media™, rendered DV-AVIs, Stills Capture/Snapshot function (unlimited export of film motifs as BMP or JPG files).

Possible Applications
From MAGIX Movie Edit Pro 2004, all movies and videos can be directly...
– burned onto an autoplay-capable CD-ROM, Video CD, Super Video CD or DVD
– played back on a video recorder or on a digicam
– integrated into a presentation program (such as MS PowerPoint)
– uploaded to the web and placed on your own website or on www.magix.com
– sent to friends via E-mail
– exported using high-quality compression in various file formats

Capturing
MAGIX Movie Edit Pro 2004 supports most analog and digital source devices such as digital video recorders, VCRs, digicams, TV cards, graphic cards or USB-connected cameras.
– Analog capture requires capture cards compatible with Video for Windows or DirectShow. DV capture may be performed through an OHCI-compatible IEEE 1394 host

adapter (Firewire or iLink) and MicrosoftÒ DirectX8a-compatible driver.

– MAGIX Movie Edit Pro 2004 also supports remote control of most digital camcorders.

– A TV tuner card or graphic card with video input and compatible Windows Direct Media drivers are required to record TV programs and use your computer as a personal video recorder or VCR. For convenience, there is a programmable timer with this feature so you can record programs at any time.

MAGIX Movie Edit Pro has overcome the Windows 4 GB file limitation. Now you may record video as long as there is available space on your hard drive. Using real-time compression during capture creates smaller file sizes and more available space.

Media library
Included in this package is a comprehensive, license-free media library. These music, video and graphics files are stored on the two CDs and make it easy to find the right sounds for your videos or the right videos for your sound material. Use just the sounds *and* videos from the MAGIX Movie Edit Pro 2004 media library exclusively to create a movie without creating any new content.

Storyboard-Mode
All of the movie's scenes are listed consecutively the Storyboard mode, and are represented as a preview image. Simply drag and drop the scenes in the Storyboard to arrange them in the desired sequence, and then choose from 10 different types of fades to blend the scenes together and quickly make a professional-looking movie.

Time-line Mode
Videos, sounds, music, photos, graphics, text or logos can be edited and cut in the 16-track time-line mode To add content, select files from the Media Pool and "drag & drop" them into the arranger, then edit and add transitions and effects. The files will be depicted as objects that may be freely arranged and edited.
Create custom soundtracks, mute any track, select one for solo playback to emphasize a sound at a particular scene, or add an effect an individual track. This allows you to control the intensity of effects at any particular moment. Important functions also work *during* playback: you can move

objects and cut and add effects and see or hear the results in real-time while playing back the video or soundtrack.

Media Pool with Multi-scene overview mode

Preview any format to choose video, bitmap, audio or MIDI files from the Media Pool overview mode and "drag & drop" them into the arranger.

A series of special buttons lets you open files or complete scenes with subtitles, audio, video and cross fading effects, border presets and takes. You can also preview special functions such as subtitles, effect configuration, borders and scenes. Finding content has never been simpler. Just explore the directories and click on the files to immediately preview the content.

Effects with previews

Any video or bitmap object can be modified individually with a variety of individual or combined effects. If they are frequently used effect combinations, save the combinations separately as presets for use later on different objects. Effect curves may be drawn to dynamically control the impact of the effect and vary its intensity. Determine the specific configuration and application of these effects by using the video controller or by selecting an effect from the effects menu and dragging it onto the object. The effects mixer ("Slide FX") combines or interweaves an assortment of recordings to create a complex visual arrangement. To execute this effect, simply drag the ‚Slide FX' to the space between two videos. Each video effect may be previewed to see the final result.

Credits, Subtitles and Texts

Import .rtf text files to create subtitles for your videos, or use the integrated title generator. The title generator allows you to write and design your own titles and title templates that can then be positioned anywhere "on" the video. The title templates provided are in the special "Title" directory and have preview & drag & drop functionality.

Wizard for adding sound tracks

This Wizard creates background music or an instant music clip. Simply choose the length, the style and the instruments and let the Wizard create the music.

Multimedia- Mixer with DirectX support

MAGIX Movie Edit Pro 2004 also features a real-time 2-way mixer for DirectX Plug-In effects, which may be used

to mix the tracks in your arrangement. This utility also controls the brightness of visual objects and the volume and stereo panorama of audio objects.

MIDI integration
With MAGIX Movie Edit Pro 2004 you can load, arrange and play MIDI files. The MIDI remote controls the sound chip of your sound card, external samplers or synthesizers. You can combine and arrange sound files with video and MIDI files.

Note: If you want to export your videos with integrated MIDI files, you must first record the MIDI files as an audio file using your sound card.

Disk Selection/DVD Menus
A menu is automatically applied to all movies and chapters for easy navigation and numerous menu templates have been included. Create your menu by choosing one complete layout, or by combining of templates for background pictures, fonts, frames and composition.

Burning CDs & DVDs
After completing your video project you can choose to burn a Video CD, Super Video CD, DVD or Mini-DVD that can be played on compatible devices. The movie will be automatically compressed (usually in encoding in MPEG-2 format). Use the virtual remote control interface, to preview the disc you are about to burn prior to the encoding to see how it will look in finished form.

Internet functions: Your own web page downloads and web publishing
Create your own web page to share your projects with our quick and easy web page design templates. Simply select the layout, insert text, songs, videos or slide shows, load it up, and you're done! Using FTP connect, you can use the Internet as a resource for countless images or samples, and also integrate additional multimedia building blocks into your arrangement from the web. The "MAGIX.TV" publishing area is there for you to present your work to a worldwide audience.

MAGIX CD-R
This utility allows you to make backups of your projects and archive all of the files used in the project by burning them onto a CD-ROM. You can also launch "mxcdr.exe" as

a standalone CD-burning software suite for any data backup tasks (you will find the program file in the "mxcdr" subdirectory in your applications directory).

MAGIX Media Manager silver
MAGIX Media Manager silver MAGIX Media Manager silver is a multimedia console that combines browser, converter, viewer, editor, player, and even Internet radio into one powerful application.
Launch MAGIX Media Manager separately from the MAGIX program group.

Tutorial

This chapter addresses the basic functions of MAGIX Movie Edit Pro 2004 through step-by-step explanations. More detailed descriptions of the program functions appear later in this manual.

Program start and orientation

Install MAGIX Movie Edit Pro 2004 and launch the program from the Windows® start menu.

Viewing the Demo Tutorials
MAGIX Movie Edit Pro 2004 offers several instructional videos to illustrate many of the important program functions. To select and view a video tutorial:
1) Double-click on the "Own" file, in the upper right part of the media pool.
2) Double-click on "Demo project".
3) Double-click any of the listed MVD project files to select the desired video.
4) Click the play button in the transport control below the video screen, or use your keyboard space bar for the "play" and "stop" functions.

A vertical line, called the play cursor, moves across the arranger when a video plays. This indicates the current position.
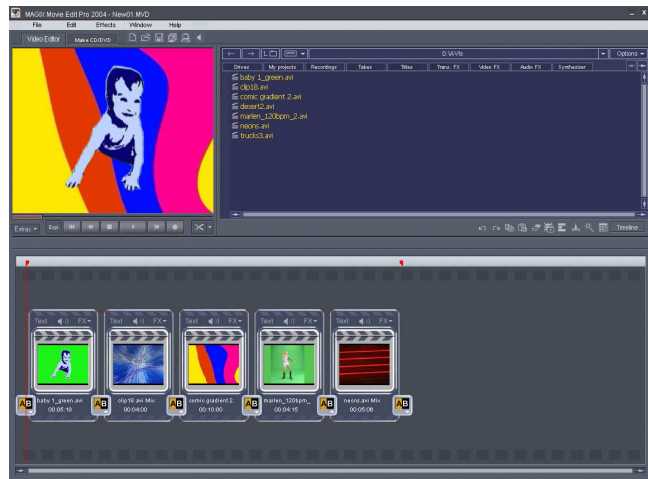
Playback markers:
Look for the red markers in the time-line at the top of the tracks. These markers indicate the start and the end of the part that will be played. When an end-marker is reached, the play cursor will jump back to the beginning and play the arrangement again (a never-ending loop). Both start and end-markers may be moved with you mouse to change the section that will be played.

Setting playback markers: Left-click your mouse on the time-line to set the start-marker and right click to set the end-marker.

Two Production Screens
MAGIX Movie Edit Pro 2004 offers two production screens for the two most important production processes: The video editor screen, which is displayed when the program starts, and the Make CD/DVD screen, which is used when burning your movie onto CD or DVD.

Two Editing Modes
The Video Editor screen operates in one of two modes: Storyboard mode or Timeline mode. Switch between them at any time using the Tab key.

Storyboard Mode
In Storyboard mode, all scenes are listed consecutively in a series. Each scene is represented by a preview image on the storyboard. You can choose from 10 fades to blend scenes together.

Timeline Mode
The 16-track timeline mode displays your film chronologically. The movie is as long as the representative "object(s)" in the track. The Timeline mode offers everything you need for detailed, extensive video editing: adding & editing a soundtrack, custom effects & transitions, and precise cuts and fades.

Media Pool
The buttons above the Media Pool open special directories containing samples, effects and fade. Try opening a directory, such as "Video FX", "Audio FX", "Slide FX", "Titles" and "Borders" and clicking on a file within one of these folders. This will show you previews and descriptions on the video screen that explain the function of the file.

Playback markers:

Make CD/DVD screen

Video Editor: Timeline-Mode

Media Pool

27
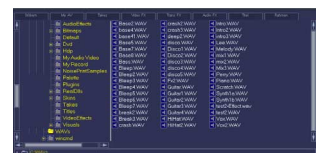
FX and Context menus

A right mouse-click on an object opens the context (effects) menu containing effects available for the selected object in the Timeline mode. You may also reach this menu through the 'FX' menu in the Storyboard mode.

The FX/context menu for audio objects offers effects and options different from those in the FX/context menu for video objects. In many cases, if you right-click on other areas of the MAGIX Movie Edit Pro 2004 interface additional context menus with additional options will become available.

Starting a Project

If you want to immediately begin a video project, select the "New Movie" option in the File menu, then read the following sections on digital and analog video capturing.

If you'd like to continue with this tutorial and work with the demo project, skip to "Video Editing" later in the Tutorial section of this manual.

Video-Capturing

1. Connection

Connect the video output of the source device (VHS camcorder or digital camcorder) to the video input of your PC and the audio output to your soundcard's line input. (Refer to the installation section of this manual)

Tip: Many VHS recorders have RCA outputs: two for the stereo sound track, and one for the picture. In this a case, you'll require a cable with 3 RCA jacks at each end. Most soundcard inputs are 1/8" mini stereo jacks. You will then require a stereo RCA to mini stereo jack adapter to connect the VHS recorder audio output to the soundcard's stereo input. However, source device configurations can vary significantly. Please refer to your recorder, video card or graphic card user manuals to determine proper configuration.
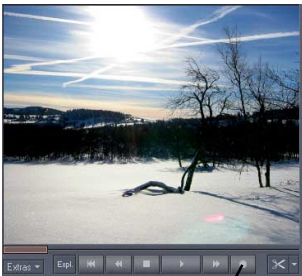
2. Analog Capturing

How to capture video from analog sources

1. Connect your analog source device (camera, VCR, etc.) to your analog capture device.
2. Click on the Record button at the bottom of the video screen and select "Video capturing".
3. Choose the center button called "analog video capture".

Record button

This will open the video capture dialog:
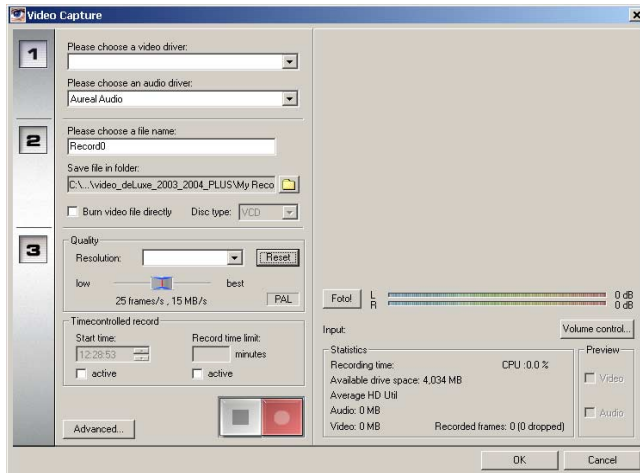
1. Choose drivers – Select the correct video card and audio card driver (in the event you have several installed) on your PC. A video preview window is immediately displayed.
2. Name the capture: Name your file and choose the file path it will be stored to so you can find it later,
3. Set the quality – this drop-down menu lets you set the video quality you desire.

Note: setting this too high may result in dropped frames, making your video look jerky. This is due to a lack of computer resources. Set this only as high as your system can handle. The quality slider ranges from 'low' quality to 'best' quality. There is an 'uncompressed checkbox, which sets quality to the highest possible, but requires the most resources!

ADVANCE SETTINGS: Set frame rate, image size or streaming bit rate.

START AUTOMATICALLY: Capture with a built-in timer like your VCR.

RECORD START & STOP: Initiates Video and Audio capture

VIDEO PREVIEW SCREEN: Preview your capture

VOLUME CONTROL: Opens the Windows Recording mixer controls for setting input levels

RECORD STATISTICS: This provides information on your capture, including dropped frames. (If you see any dropped frames, lower your capture quality. If, for example, more than 10 frames are dropped per minute, the quality of your video will be compromised, and indicates that your computer may be overburdened)

PREVIEW OPTIONS: the Video and Audio checkboxes must be checked so that you will capture video and audio

L & R VOLUME METERS: these show you the signal strength of your incoming audio, provided you have the proper Windows Mixer settings

Once you have finished your capture by pressing the 'Stop' button (white button next to the big red record button), close the capture dialog by pressing OK.

You can now view your capture using the film bar in the lower third of your screen. To check the footage, start the playback by pressing the space key. The video you capture will be accessible from the media pool in the folder you captured to. Simply drag and drop the file onto the arranger and start editing!

DV-Capture

Please check the system requirements section of this manual to ensure that your PC meets the hardware requirements for DV capturing. You will need a Firewire or iLink interface and Microsoft "DirectX8a" or higher installed on your PC.

– Turn off the camcorder and connect it to the computer with your computer Firewire card.
– Switch the camcorder to the "Video recorder" or "Playback" mode.
– Click on the Record button at the bottom of the video screen and select "DV Capturing".
– Select the appropriate DV camera driver.
– Name the file and path so you can find it later.
– Using the virtual remote control buttons, locate the appropriate location of the desired scenes. Fast-forward, reverse and playback controls provide optimal control.
– Start capturing by pressing the "Record" button. Be sure to track the available hard-drive space. DV captures require approximately 220 MB of space per minute of video!
– Stop the capture by clicking the "Stop" button and exiting the capture dialog.

– You can now see your footage in a file form the film bar below. For a playback, simply press the space key.

Tip: You can batch-capture, or choose sections throughout the source digital videotape for sequential recording, within the Digital Video recording dialog. A list of possible passages, from which you can capture in sequence, is provided to choose from. Batch capturing saves time and hard drive space by only capturing the desired content. .

Video Editing

Storyboard Mode Editing:
In Storyboard mode, all scenes are listed consecutively in a series. Each scene is represented by a preview image on the storyboard.

ADJUSTING SOUNDTRACK VOLUME: The overall soundtrack volume can be modified by selecting the loudspeaker symbol on the Filmbox.

IMPROVING PICTURE OR SOUND QUALITY: Click the "FX" symbol on the Filmbox and select "Video Cleaning" for the appropriate film track. , You can also adjust "Color", "Brightness" and "Contrast". Minimize unwanted background noise on the soundtrack by selecting "Audio Cleaning", then "Denoiser".

ADDING A TITLE OR OTHER TEXT: You can add titles, subtitles or credits to your movie. Simply click on the "Text" symbol, enter your text into the editor, then select an "effect", a "design", or a "movement" (such as "downwards") from the "Template" menu.

TRANSITIONS: You can also select the type of transition used to connect scenes together. Simply activate the large button between scenes and select a transition of your choice.

ROTATE PHOTOS (ONLY WITH PHOTO FILES): If a photo is on its side or upside down, click on the Rotate button. The photo then rotates 90 degrees. You can control the effect directly on the video screen.

MEDIA POOL: In the upper right corner of the screen is the Media Pool (file explorer). From the Media Pool you can access your computer's drives and directories, load multimedia files in a variety of formats – either with a double click or by drag & drop.

Volume   *FX*

Text   *Transitions*

Rotation
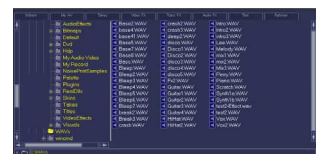
Media Pool

CUTTING: There are many different ways to cut longer videos into shorter scenes or individual takes. Cutting with Movie Edit Pro 2004 is non-destructive. Making cuts does not destroy the original video. You are simply setting scene markers, or playback instructions. .

1. The easiest way to cut is by selecting the automatic "Scene recognition" in the context menu. The editor searches the video content for prominent movements or color changes. Based on this search, a variety of takes will be automatically inserted according to the sensitivity adjustment.

2. Alternatively, you can cut the video by placing the "S" marker at the start and the "E" marker at the end of the desired scene, then press the "Cut" button. This process creates individual objects that can be copied, if you choose, by dragging and dropping them into the "Takes" directory.

3. If you want to use only a particular take from a file without loading the complete file, you can cut up a longer video from within the Media Pool. Select the video file in the explorer and click on the "Expl." button below the video screen. The transport control functions are now valid for the selected video file in the explorer, instead of the objects in the arranger.

Note: The "Extra" button allows you to set in and out markers for copying takes into the "Takes" directory. The takes directory is a special directory for administering scenes with complex storyboards can be created. Simply cut up the individual scenes, pull them onto the storyboard from the takes directory using drag & drop, then arrange them.

Timeline-Mode

Timeline Mode Editing
Extensive editing should be made in the Timeline mode. In the Timeline mode, your movies and scenes are displayed according to the duration of the file. The length of an active object in the track is reflects by its length in the overall movie project. Simply use the Tab key to switch to the Timeline mode.

OBJECT HANDLES: The length of objects can be stretched by moving the mouse cursor to one of the lower corners of an object. This mouse-over action will display a stretch symbol that lets you change the object to any length.
The top corners of every object have two fade handles, which may be pulled towards the object's center for creating fade-

ins and fade-outs. The handle in the top center of the object adjusts the volume of audio objects and the brightness of video objects.

5 "handles": length, fade, brightness / volume

OBJECT SELECTION/MARKING: For any other modifications, such as applying effects, you must choose and "mark" the object first. Click on an object to select it. When an object is selected, the three handles on top change to a different color. If you want to select several objects, simply hold the Shift key down while selecting other objects. You can open up a rectangle positioning the mouse over the object, then holding down the mouse button and marking all objects within the rectangle ("elastic band selection") by left-click-dragging).

VIDEO MIX/CHROMA KEY EFFECT: Video mix effects are also known as Bluescreen/Greenscreen/Whitescreen or White screen compositing or Chroma-key. With this effect you can choose a foreground and background video and overlay on the other. Video mix effects are placed adjacent to the video objects on tracks to enable foreground and background videos to be grouped or combined in different ways. The difference between foreground and background videos is the motif. Background videos are landscapes or animations and foreground videos are subjects on a single-colored field. For example, if you want to use a "dancer on a blue screen" clip in the foreground and a lake picture clip in the background, then place one of these objects right below the other on the tracks. Next, go to the "Video FX" directory, select the "Blue Box" effect and drag and drop it onto the foreground video.

Play the arrangement and the dancer will now appear to dance on the lake. This effect can also be performed with subjects shot on green, white or black backgrounds.

Video Output Options

Export video as a file (AVI)

Exporting the video arrangement converts the project to a single file, which may be stored anywhere on your hard-drive, copied to the Windows® clipboard. If you want to use a MAGIX Movie Edit Pro 2004 arrangement in Powerpoint® you must first export the arrangement as an AVI file first. Then open Powerpoint® and insert the AVI file into the PowerPoint slide with the option "Insert".

1. From the FILE menu, choose EXPORT MOVIE...VIDEO as AVI. This will open the following dialog:

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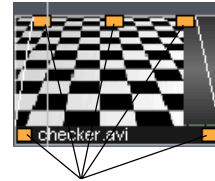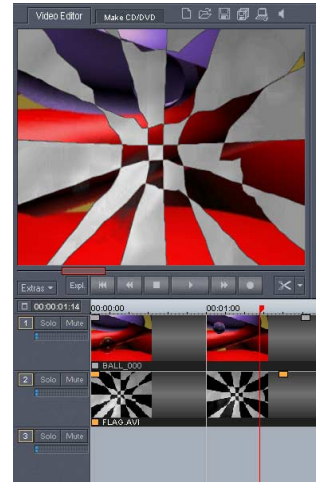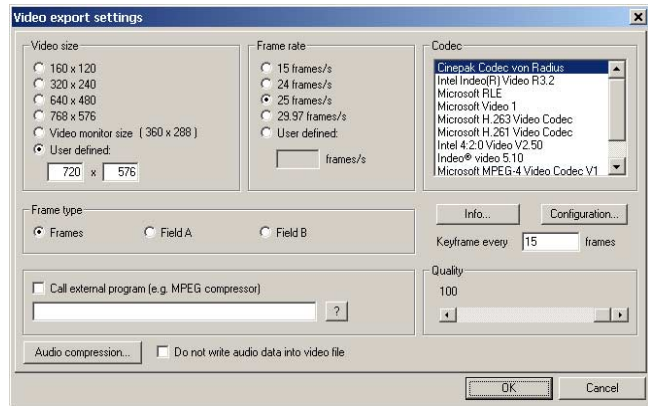
2. Choose your VIDEO SIZE
3. Choose your FRAME RATE
4. Choose the CODEC you wish to create the AVI file from the list provided

Each codec in the list may have individual settings you can access and set by clicking on the CON-FIGURATION button. The INFO button will show you the version number and manufacturer of the CODEC selected. REMEMBER — Different codecs have different quality results!

Note: you can use an external compressor program as well, if you check the box to CALL EXTERNAL PROGRAM, and provide a FILE PATH to that program in the command line provided

5. FRAME TYPE –allows you to choose interlaced frames or deinterlaced A or B frames
6. KEYFRAME amount –lets you set how often to place a keyframe. These special frames act o track the playback position in a movie. More keyframes allow you to locate around to more points in a movie, but these also add to the over-all file size, so the default setting is best.
7. QUALITY slider – lets you choose a quality ver-sus file size compromise
8. DO NOT WRITE AUDIO DATA INTO VIDEO FILE —this checkbox prevents audio tracks from being embedded in the AVI file
9. Press OK to start the AVI creation process with the settings chosen.

Export Video as a Streaming Video File

If you wish to send the video by email or stream it from a website, simply choose the appropriate compression format, such as RealVideo or QuickTime for the export.

To export as a QuickTime (MOV) File:

1. From the FILE menu, choose EXPORT MOVIE...VIDEO as QUICKTIME.

This will open the following dialog:
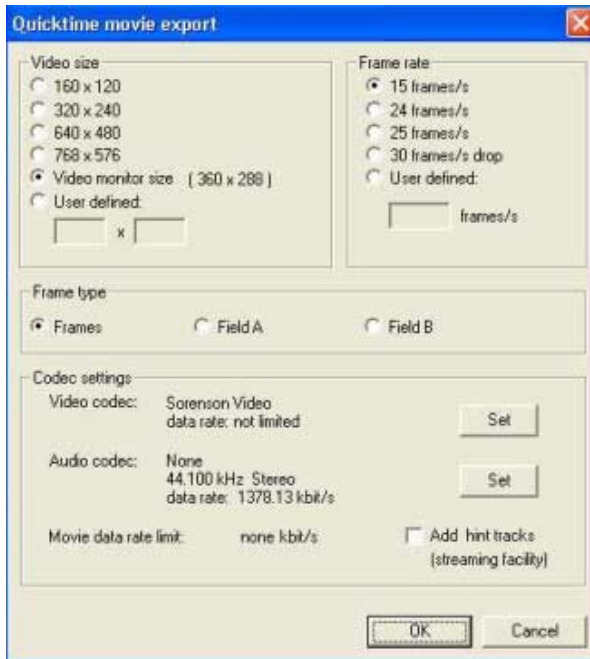
2. Choose your VIDEO SIZE from the selections, or enter a USER-DEFINED value
3. Choose your FRAME RATE from the selections, or enter a USER-DEFINED value
5. FRAME TYPE –allows you to choose interlaced frames or deinterlaced A or B frame
4. Choose the CODEC SETTINGS you wish to create the Video and Audio tracks. Each available codec may have individual settings you can access from the SET button: REMEMBER —Different codecs have different quality results!

5. In this dialog, you can choose the CODEC COMPRESSOR, any color options, the QUALITY and also MOTION parameters such as FRAMES PER SECOND (FPS), the amount of KEYFRAMES to use, and also set DATALIMITS to constrain streaming file size
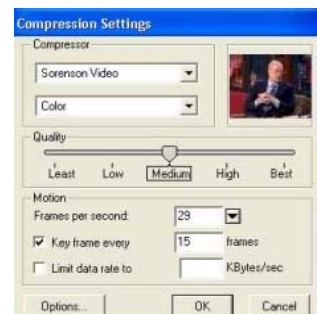
6. Press OK to start the AVI creation process with the settings chosen.

To Export as a Real Media (.RM) File:
1. From the FILE menu, choose EXPORT MOVIE...REAL MEDIA EXPORT.

This will open the following dialog:
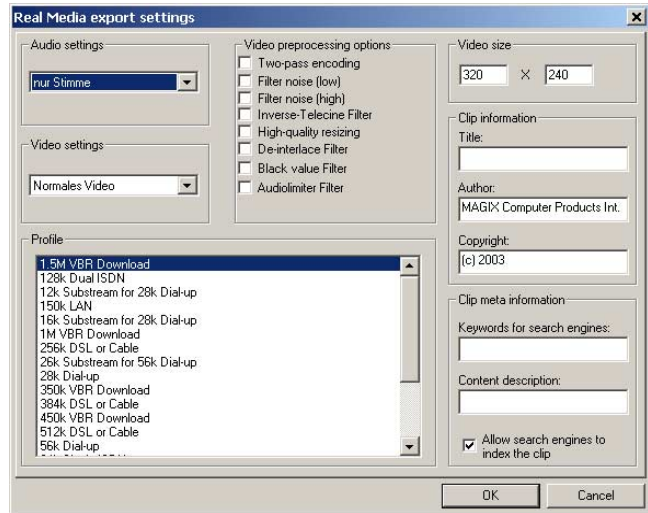
2. Choose your AUDIO CONTENT & VIDEO CONTENT
3. Choose your VIDEO PRE-PROCESSING OPTIONS & VIDEO SIZE
4. Enter your CLIP INFO & CLIP META INFORMATION
5. Choose the TARGET AUDIENCE bit-rate to accommodate different modem speeds REMEMBER: Real Media is an Internet streaming format!
6. The three tabs of the dialog allow settings for AUDIO, VIDEO and TARGET BITRATE.
7. Press OK to start the AVI creation process with the settings chosen.

Export as a Windows Media File (.WMV or .WMA)
1. From the FILE menu, choose EXPORT MOVIE... WINDOWS MEDIA EXPORT.

This will open the following dialog:

2. Choose your PROFILE for the WINDOWS MEDIA FILE streaming quality. There are a very wide variety of choices here for various qualities and accommodations. NOTE THAT some of the selections in the list are for AUDIO, and not VIDEO!!! Windows Media is an Internet streaming format

3. Enter your TITLE, AUTHOR, DESCRIPTION, and COPYRIGHT information

4. Press OK to start the AVI creation process with the settings chosen.

EXPORT VIDEO AS AN UNCOMPRESSED FILE

1. From the FILE menu, choose EXPORT MOVIE...VIDEO as UNCOMPRESSED VIDEO. This will open the following dialog:
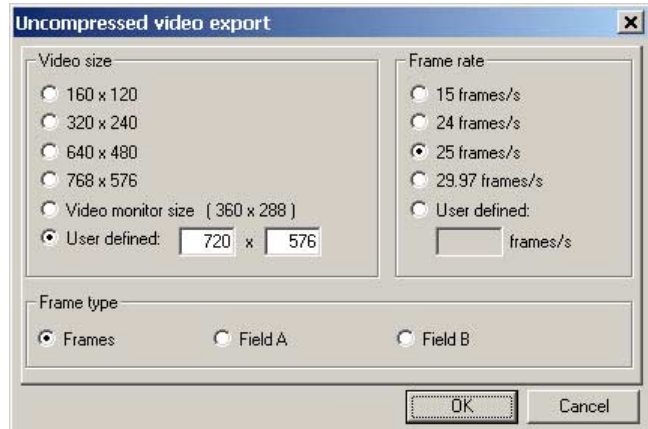
2. Choose your VIDEO SIZE from the selections, or enter a USER-DEFINED size
3. Choose your FRAME RATE from the selections, or enter a USER-DEFINED size
4. FRAME TYPE –allows you to choose interlaced frames or de-interlaced A or B frames
5. Press OK to start the AVI creation process with the settings chosen.

Note: Uncompressed video files can be extremely large!

When working with digital video, you must often work with AVI files that are many gigabytes in size. Until recently, however, many computers were not designed to support files of such a large size. Because of this, people often have trouble when creating large AVI videos. The two most common limits are the 2 GB and 4 GB barriers. These barriers are caused by two factors: the limits of the standard AVI file format and the file system of your operating system. In order to store files on a hard drive, your computer uses a file system. Depending on your operating system, there are many different file systems that you may be using. Here is a table that lists the maximum file sizes for different operating systems and file systems:

	Windows 95 (pre-OSR2)	Windows 95 OSR2+, Windows 98/SE/ME
FAT16	2 GB	2 GB
FAT32	N/A	4 GB
NTFS	N/A	N/A

	Windows NT 4.0	Windows 2000/XP
FAT16	4 GB	4 GB
FAT32	N/A	4 GB
NTFS	Nearly unlimited	Nearly unlimited

The underlined values represent the most common file systems and limits for each respective operating system. Here is a quick list of common computer setups and their limitations: A) If you are running an early version of Windows 95 (before OEM Service Release 2), your AVI files are limited to 2 GB. B) If you are running Windows 95 (after OEM Service Release 2), Windows 98, Windows 98 SE, or Windows ME with the FAT32 file system (as most people are), your AVI files are limited to 4 GB. C) If you are running Windows NT 4.0 or Windows 2000/XP with the NTFS file system, your AVI files can be of virtually unlimited size. D) If you are running Windows 2000/XP with the FAT32 file system (this is less common), your AVI files are limited to 4 GB.

Export video through TV output connection
Video and graphics cards with a TV-out connection can transmit video signals to an external video recorder when connected by a cable, enabling you to record your video with a VCR. Note: Your video must be played back in full-screen mode to record properly. Playing the arrangement back in full screen mode may cause image interruptions if the system processor cannot process all the information necessary for real-time calculation of video effects or cross fades. If you are uncertain of your processor's capabilities or a slower processor, we recommend that you render the video first, then play the rendered movie in full screen mode to record it to VCR.

 To record video to your VCR or other external device:
1) Make sure that the TV-out option in your Windows system control panel (look for "Display") is activated
2) Select the option "Output audio/video to device" from the file menu. The first option in the video export dialog will play the arrangement in full-screen mode. The second option ("Render changes") will render the movie and process all of the effects and transitions first, to reduce the demand on your processor (see Note above). Choose the third option for digital export to digital devices. This will give you no problems as the data is then transferred digitally.

Export video through video or graphics card

To save your MAGIX Movie Edit Pro 2004 video onto digital videocassette, you must first export it as an AVI file, typically DV-AVI, which uses a special codec for compression. Please check your video card's user manual for more information. Your video card utilities may offer tools to save the file onto videocassette. To export your movie as a DV-AVI:

1. From the FILE menu, choose EXPORT MOVIE...VIDEO as DV-AVI. This will open the following dialog:
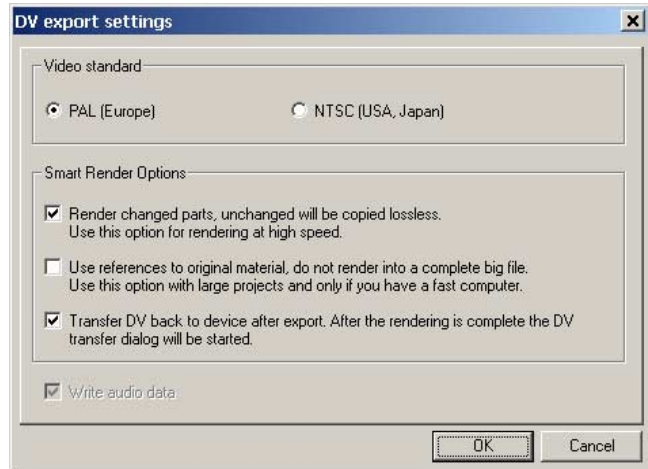
2. VIDEO STANDARD —you may choose PAL or NTSC
3. WRITE AUDIO DATA —gives the option to not include audio in the AVI
4. SMART RENDER OPTIONS —three different options are provided, including the ability to transfer the DV-AVI created back into your DV device (DV camera)
5. Clicking OK will begin the process with the settings chosen

Burning CDs or DVDs

Switch to the "Make CD/DVD" screen.

ASSEMBLING MOVIES: You may burn several movies at a time onto CD or DVD. Simply open all the movies you'd like to burn to disc, one after the other. Use the Window menu to access all of the opened movies.

SELECTING THE FILE FORMAT: On the right are two buttons for burning different data formats: CD-ROMs, (S) Video

CDs or DVDs. The CD-ROM option burns all image files as well as the MAGIX Media Manager playing program onto a disc.The original image files on your hard-drive remain unchanged. All effects and settings made in the "edit slide show" screen are calculated in real-time when the MAGIX Media Manager player program plays the CD-ROM. This CD-ROM option may also be used for archiving files on disc.
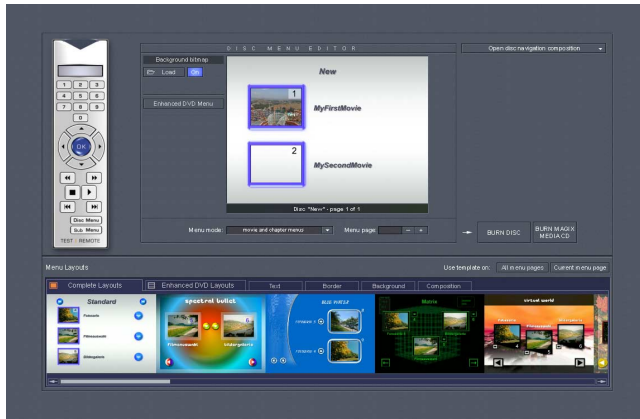
SELECTION MENU (ONLY FOR VIDEO CDs, SUPER VIDEO CDs AND DVDs): In the center of the Make CD/DVD screen you will see a preview of the selection menu. All movies appear as the upper entries, and chapters appear as subordinate entries.

To achieve accurate chapter partitioning within the DVD selection menu, each video must first be divided into chapters. This is done in the video editor screen with the Edit menu. Place the start marker where you want to set a new chapter, and then select the "chapter marker" option. The blue chapter markers appear in the time-line above the tracks and are movable by drag & drop or can be deleted from the "Delete (all) chapter markers" menu option.

With the "Open disc navigation structure" button, you are presented with the overall structure of the selection menu. Here you can cut out redundant chapters by deactivating the appropriate checkmark. Of course, only the entry is taken out of the menu, *not* the associated scene from the movie. Once you are happy with the way the movie and chapters are organized, you can move on to designing the layout of the Selection menu:

At the bottom of the screen is a row of menu layout templates to choose from. View them by using the scroll bar.

– To select a complete template, choose Layout and then double-click the layout of your choice.

– To combine elements of different templates, such as the text format from one template and the background from another, simply select "Text" and double-click the template containing the text you wish to use. Then select "Background" and double-click the applicable template. The preview in the middle of the screen displays the result immediately.

– Double-clicks the preview picture or an entry within the menu, to open a title editor. This editor enables you to change the name of a movie or a chapter – or even select a new preview.

Once the movie is organized and the disc menu has been designed, you are ready to move to disc burning. First, test the look of the final disc using the virtual remote control, then proceed to the section on Making CDs/DVDs later in this manual, or proceed to the next section, Desktop Overview.

Program Desktop Overview

VIDEOSCREEN: Displays video and picture objects and previews

MENU BAR: Contains important editing commands

TOOL BAR: Contains the quick access tool buttons.

MOUSE MODE BAR (TIME-LINE MODE): Selects mouse modes for different editing tasks.

ARRANGER (TIME-LINE MODE): Drag & drop files from the Media pool, then arrange and edit files in detail here.

TIMELINE WITH RANGE MARKERS: Defines the range that will be played. The timeline mode includes a time scale.

OBJECTS (TIMELINE MODE): Graphic objects represent audio, video or image files and special effects.

SCROLLBARS: The lower scroll bar controls horizonal scrolling through the timeline. The right-hand scroll bar controls scrolling vertically through the tracks.

MEDIA POOL: Left side explorer accesses computer directories or Internet files. Right side explorer lists files and shows all supported multimedia files within the current directory. All files have a preview function and can be dragged & dropped onto the tracks.

MEDIA POOL buttons: Provides direct access to important directories.
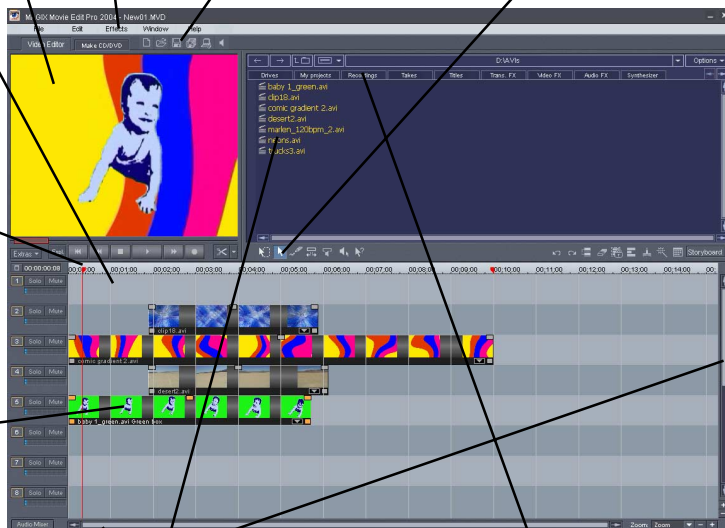
Storyboard mode

What is the Storyboard mode?

The Storyboard mode is the default Video Editor-screen view. This view offers an easy, streamlined interface to simplify the editing process. The alternative Timeline mode offers a more detailed interface for more extensive editing and photo arrangements. Switch between the two modes by using the tab key.

In the Storyboard mode, all of the files in your movie project displayed as previews, sequentially ordered, one after the other on the storyboard.

This mode enables you to play back your files, rearrange them by drag & drop, and apply fades with real-time effects. Unwanted scenes (such as commercials during a TV feature or the first few seconds of your own footage) can be cut out and removed with a click on the scissor button.

Scenes

If a film has not yet been divided into scenes, it is considered one long scene by the video editor and is difficult to manage. Cutting the file into shorter scenes enables you to change and organize or 'edit' the scenes to create a movie. The following is a list of functions or tool buttons for editing your movie:

Volume   *FX*

Text   *Transitions*

TEXT: The text button opens the Title Editor dialog, from which you can enter text (such as subtitles or credits) in a variety of fonts or colors. The text can be set to scroll (perfect for rolling credits) or edited to add effects, designs or other forms of movement.

LOUDSPEAKER SYMBOL: Click the loudspeaker symbol to modify (or mute) the movie soundtrack.
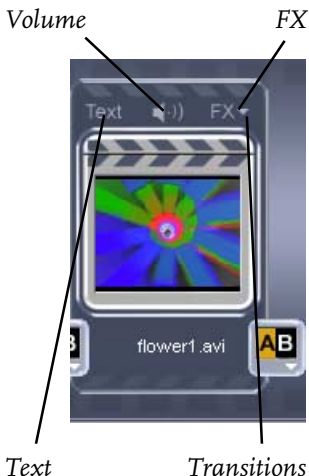
FX: You can select any number of effects for sound and image editing in the FX menu. For more details, please read the "Effects" chapter.

TRANSITIONS: You can also select the type of transition you would like to connect scenes. Simply activate the large button between scenes and select a transition of your choice.

ROTATE PHOTOS (ONLY WITH PHOTO FILES): If a photo is on its side or upside down, click on the Rotate button. The photo will rotate 90 degrees. You can control the effect directly on the video screen.

PLAY: The range between the Start and End markers above the storyboard is the playback range. Both markers can be relocated with the mouse (or with a left or right mouse-click). To start or stop playing, use the space bar, or use the playback control buttons beneath the video screen. The play cursor shows which scene is currently being played. It is a red vertical line that runs from left to right over the scene.

CUTTING: The "Scissor" button offers various options for cutting. Redundant sequences (such as the commercials in a TV feature or the first few seconds of your own movie.) can be cut with this menu's options. Note: It is important to consider the difference between a "cut scene" and a "separate movie": A "Cut scene" cuts the scene and thereby increases the number of current scenes by one. A "Separate movie" divides the current movie into two independent movies that can be accessed using the window menu. Please read the following "Timeline Mode" chapter for more details regarding individual cutting menu options.

MEDIA POOL / MEDIA LIBRARY: Access the Media Pool, for quick access to additional music for your soundtrack. Access the Media Library that comes with the program for a large selection of songs, ambient noises, effects and other material useful for adding additional impact to your project. Simply drag the desired item onto the scene by drag & drop.

Rotate Photos

Start and End markers   **45**

Scene Recognition

Automatic scene recognition may be found in the effects menu. Launching this feature opens an editor in which each file may be played back and automatically reviewed for changes in color or movement. Based on this review, a variety of takes will be automatically inserted according to the sensitivity adjustment.
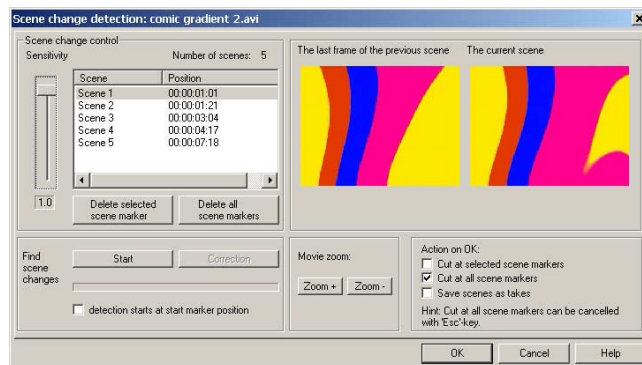
Note: "Time stamps" from digital video devices, which are automatically created and mark the times at which the device was turned on or off, mark the range as a scene.

For more about the scene recognition options, please review the Chapter "Videos and Images".

Time-line mode

What is the Time-line mode?

In the Timeline mode, your movies and scenes are chronologically displayed according to the duration of the file. The length of an active object in the track is reflects by its length in the overall movie project. Each scene or file is as long as the representative "object(s)" in the track. Simply use the Tab key to switch to the Timeline mode.

Tracks

MAGIX Movie Edit Pro 2004 offers 16 tracks for object positioning. In principle, any object type may be placed on any of the tracks. Mute a single audio track by clicking on the "Mute" button or play individual tracks separately ("Solo") to emphasize a particular scene.

Navigating the Timeline Window

The right-hand scroll bar moves the visible tracks up and down in the window vertically. The lower scroll bar moves the visible section of the arrangements in accordance to the time, horizontally across the screen. Placing the mouse at the edge of the slider activates the Stretch symbol. Use the Stretch scroll mode in longer movies to lengthen the amount of time moved with each scroll. The size of the lower slider indicates which part of the overall arrangement is currently displayed. This scroll bar is full size in the total picture mode. Double-click the slider to access the total picture mode. Right- clicking on the lower zoom bar enables you can to set specific options and positions.

Lower scroll bar

Zoom

Bars and Grids

The vertical area of the tracks represents the horizontal expansion of the arrangement. To determine the arrangement's length relationship to elapsed time, you will
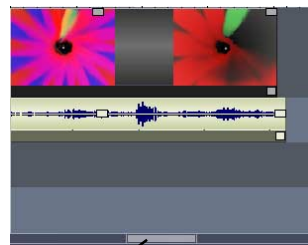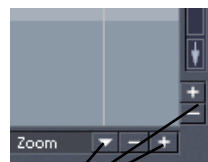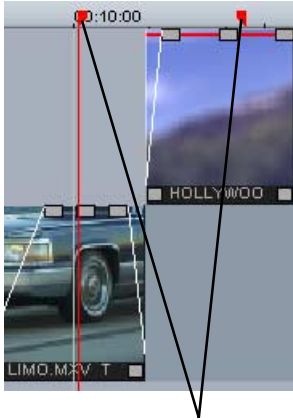
see a bar at the top, above the first track. Furthermore, the arranger screen is placed under a grid. The grid helps to ensure that objects only engage at particular points to make the timing of events, such as the beginning and ending of an effect, easier to control.

Playback

The area between the Start and End marker above the first track will be played back. Both markers can be repositioned with the mouse (or with a left or right mouse-click). To start or stop playing, use the space bar, or use the control buttons under the video screen.

The cursor (vertical line) indicates the current position within the replay. , This cursor line moves steadily left to right over all tracks, and in relation to the buffer settings, regardless of how long a scene is. Reduce the buffer setting in the set-up dialog (key y), to get a smoother cursor flow. However, if the replay is interrupted or skips you may need to increase the buffers again.

Organizing the arranger view

There are several screen configurations for the Arranger. Video screen and Media Pool can either be deactivated or repositioned on the monitor. The standard setting can always be called up from the "window" in the Menu bar.

You can maximize the arranger view (in the window menu) or close the video screen and the Media Pool to obtain more space for arranging. If the video screen is reopened and the Media Pool is closed, the video screen can be freely repositioned.

Organizing the video screen

You can adjust the size of the video screen with a right mouse-click. Select a definably size within the context menu. If desired, a large time indicator can be integrated into the video screen from the context menu. "Display playtime" displays the current play cursor position on the video screen. The foreground color, background color and transparency are all selectable.

Playback/Transport control

Below the video screen you will find the playback or transport controls, with standard FF, REW, PLAY, REC, STOP & PAUSE buttons. Note: The Transport control may be used to play the longer videos in the Media pool and, if necessary, to mark individual scenes to be dragged into the arranger or saved as takes.

Start and End markers

PLAY: The center Play button starts continuous replay of the arrangements. The area between the start and end markers is played as a loop.

STOP: The stop button ends replay.

REWIND: This button "winds" the arrangement back. That means that the start marker defining the play area's beginning moves to the LEFT. Each mouse-click on the button jumps the cursor one space to the LEFT.

Video screen und Transport control

FAST FORWARD: This button "winds" the arrangement forward. That means that the start marker defining the play area's beginning moves to the RIGHT. Each mouse-click on the button jumps the cursor one space to the RIGHT.

TO THE START: With this button, the start marker is quickly reset to the beginning of the arrangement.

CAPTURE: With this function, you can capture audio and video files. Choose between "Analog video capturing", "Digital video capturing", and "Video for Windows capturing "or" Audio recording.
A dialog window with the capture set-up parameters pops up after you have made your choice. Please read the "Videos and Images" and "Audio" chapters for more details.

Set play markers

The "Editing" menu lets you set a play marker at the current position of the Start marker. The 3 markers can be set using the number keys 1-2-3. This allows you to jump to a particular position of a longer video immediately, without scrolling and searching.

Selecting objects

To edit or delete objects using the menus, you must first select them by clicking on the object to be selected. The handles of selected objects turn gray to show that the accompanying object has been selected and can be edited using the menu functions.
Several objects are selected by holding the Shift key down while clicking each object. Any object editing, such as cuts, moves, and effects will apply to all of the selected objects. .
If you want to select several objects, simply hold the Shift

key down while selecting other objects. You can open up a rectangle positioning the mouse over the object, then holding down the mouse button and marking all objects within the rectangle ("elastic band selection") by left-click-dragging).

Any object can be combined with others to make up a group, to avoid the objects being unintentionally moved out of relation to each other. Once they are combined, clicking on one object of a group will select the entire group. To ungroup objects, use the buttons in the tool bar or the corresponding commands in the 'edit' menu.

Build group / ungroup

Moving Objects

Any object selection can be moved (dragged) along the horizontal timeline or vertically into different tracks by clicking and holding the left mouse button on the selected objects. After releasing the mouse button, the objects appear at the new location.

If the Shift key is pressed while moving the object selection, the object's horizontal time position is maintained. The object selection can only be moved vertically (up and down to different tracks).

Splitting objects

Objects may be split to separate each individual component, turning each component into an independent object for editing. To use this function, you select the option 'splitting objects' in the 'edit' menu.

In order to rejoin these split objects at a later stage, simply highlight the individual parts and select the command 'forming group' to join the selected objects together alone group.

Scissors

Cutting up a scene
This command cuts a scene at the point where the Start marker is positioned.

Shortcut Key: t

Delete Scene start
This command cuts a scene at the point where the Start marker is positioned, and deletes all material that precedes the start position simultaneously.

Shortcut Key: *Ctrl + t*

Delete Scene end
This command cuts a scene at the point where the Start marker is positioned, and deletes all material that follows the start position simultaneously.

Shortcut Key: *Shift + z*

Divide Film
This command splits a movie at the point where the Start marker is positioned, making two self-standing movies.

Shortcut Key: *Alt + t*

Duplicating/Copying objects

It is easy to copy objects to quickly create larger arrangements. First select the objects to be copied, then activate the duplicate button in the button bar. A copy of the object, which can be moved to any position with the mouse, appears right next to the original. Speed up this process by clicking on the object to be copied with the mouse while holding down the Ctrl-key. This generates a copy, which you can immediately drag to the desired position. Note: Object copies are "virtual" and take up almost no additional working memory!

Object Handles

All objects can be re-sized with their lower edge "object handles". Move the mouse over one of the lower corners of the object until the mouse pointer becomes a double arrow. Now click and drag the object to the desired length.
An object can be faded in or out with the handles to the left and right upper corners of the object. Cross-fades between different objects can be created by overlapped positioning of objects that are fading in and out. The length of the cross-fade can be adjusted with the handles. For more about cross-fades, please read the "Videos and Images" chapter.
The objects provided by the media library can not only be shortened with the lower object handle, but also stretched. When stretched, the object is played as a loop until the play cursor reaches the end of the object, regardless of length. This allows you, to create, for example, a complete drum track from a short drum loop, or a long video from a short video sequence.
Using the brightness/volume handle located centrally at the top of the object, adjusts the volume of audio or MIDI objects, or the brightness of video and image objects. Simply drag the handle either up or down. Even if several ob-
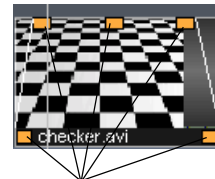
5 "handles": length, fade, brightness / volume

jects are playing simultaneously, the volume or brightness of individual objects can still be altered.

Media Pool
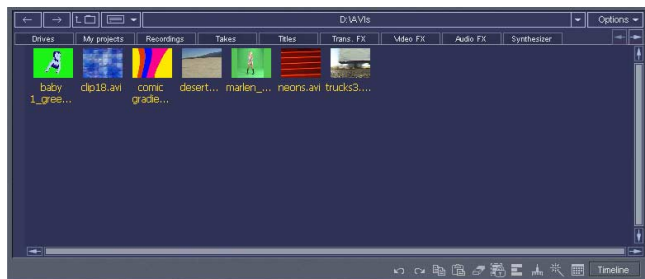
Function

The appearance, set-up and procedure of the MAGIX Movie Edit Pro 2004 Media Pool are essentially the same as the Windows® Explorer. Use it to browse your file sources, access and load multimedia files of all types: video files, images and audio files in various formats, audio CD tracks and even RTF text files. They can be loaded using Drag & Drop from the hard-drive, a floppy disc, the CD-ROM drive or from the Internet, directly into the arrangement and played. .

Directory and file list

The MAGIX Movie Edit Pro 2004 Media Pool displays a directory list on the left and the file list on the right.
The directory list serves as a navigator through the directory structure of your computer. Double-click to open each directory. The parent button within the Media Pool allows you to access the directory level above.
The file list displays all supported multimedia files and the sub-directories of the current directory. Select from three different display choices (List, Details, Large Symbols) with a right click from the Media Pool Context menu. The large Symbols display conveniently places a frame around video and picture files, quickly identifying them for possible selection. Using this display choice, however, requires more time to load the directory content.

Preview function

All file types have preview functions. Click on audio objects and you get an audio "preview" through your sound card. Video, graphics and text objects will be previewed on the video screen. Effects and the special directories "Takes", "Video FX", "Slide FX", "Audio FX" "Titles" and "Borders" also have previews to display their functions.

Deleting, copying and moving files

All files listed in the file list can be selected in Windows®
Explorer, deleted, copied or moved by Drag & Drop to other
directories. In this way, all objects considered for an ar-
rangement can be collected in a separate directory.

All files listed in the file list can be loaded in the arranger
by double-clicking or dragging and dropping onto the de-
sired track or position where they are displayed as objects
and can be processed. For more info, please see the chap-
ter "Arranging Objects".

Integrating videos, takes or audio files into your arrangement

Loading audio, video and images
To integrated video, audio or images into your movie, sim-
ply drag them (while holding down the mouse key) onto
the storyboard or onto the desired track in Timeline mode.
Double-clicking on the file loads video and graphic files at
the end of a scene, and titles and sound files will load at the
Start-marker position.

The following formats can be imported into your movie:
– Video files
– Audio files: The following formats are supported for the
  soundtrack: Wave, MP3, MPEG 1 Audio, WMA, MIDI
  files and Audio CDs.
– Graphic files: Windows Bitmaps (*.bmp) and JPEG
  (*.jpg).
– Text files in RTF format. Create lengthier edited texts,
  such as credits, in another program, then save them in
  the universal .rtf text format. These text documents cre-
  ate a text object when loaded into MAGIX Movie Edit
  Pro 2004.

Expl/Extras Buttons
These buttons below the video screen select and load indi-
vidual scenes from longer video files in the Media Pool.
When you press the Expl button, the Play/Rewind/
FastForward controls are no longer active for objects in the
arranger, but only for the selected video file in the Media
Pool window. The Extras button, sets in and out points for
a scene and saves it in the Takes directory.

Options
All context menu functions (creating new shortcut buttons,
file-name changes or deletions, etc.) can also be accessed
from the "Options" button.

Media-Pool buttons

At the top of the Media Pool are the Shortcut buttons for exploring \the most important directories:

DRIVES: The button on the left accesses the navigation bar on the left-hand side of the Media Pool.

OWN: This button opens the 'MyAudioVideo' directory, which is automatically created upon program installation. All arrangements are exported to and saved in this directory unless changed by the user.

RECORDS: This button opens the "My Records" directory, which is automatically created when the program is installed. All MAGIX Movie Edit Pro 2004 captures are stored in this directory.

TAKES: This button opens the Takes directory. The Takes directory stores the individual scenes taken from longer videos and objects edited with effects. All the takes recognized by automatic scene recognition dare stored in this directory. The drag & drop function for moving objects from the arranger to the Takes directory enables you to use the arranger to neatly cut up videos into individual takes.

TITLES: This button accesses the titles directory. The titles directory contains the various RTF files that may be dropped onto the tracks and used for video subtitles. Further information on subtitles and use of RTF text objects can be found in the chapter "Videos and Pictures".

TRANS FX: In the Timeline mode you can drag & drop the transitions onto the objects. Click this button to open the directory "transitions", select a transition of your choice, and drag and drop the transition between two objects.

VIDEO FX: This directory contains video effects that may be applied to videos or   images. Simply drag & drop the effects onto videos or images in the arranger. To see all of the effects available for the selected object, select the video controller form the effects menu or the context menu.

AUDIO FX: This directory contains the audio object effects. Simply choose an effect and drop it onto audio objects in the arranger. Effects may be combined for more customization of the final sound,

Effects in the effects menu or the context menu may be activated and deactivated to enable additional fine-tuning with a realistic effect module.

VISUALS: This directory contains visual objects (*.vis file type). Visual objects (or 'visualizations') are visual animations that change and move to the beat as the music plays. Load and edit visuals exactly as you would other objects.

BORDERS: This directory contains image patterns (in JPG-files) for the borders of photos and videos, similar to picture frames. If you drag a border onto a photo box you can decide if you want to use the border just for the selected photo or for all photos within the arrangement. To edit or to delete the borders, simply switch to the Timeline-mode by pressing the Tab key.

Tools

Undo

When editing footage, you can undo/remove the previous editing action. Simply press "Undo".

Key: *Ctrl + z*

Redo

This command reapplies the previously removed edit action

Shortcut Key: *Ctrl + γ*

Copy (Storyboard mode)

This command copies the selected scene onto the clipboard. From there, it can be inserted into any other film with the "Paste" tool.

Shortcut Key: *Shift + Ins*

Paste (Storyboard mode)

This command inserts the scene from the clipboard into the active movie at the start marker position. The scenes following this insertion will be moved forward to the right.

Shortcut Key: *Ctrl + Ins*

Duplicating objects (Timeline mode)

It is easy to copy objects to quickly create larger arrangements. First select the objects to be copied, and then activate the duplicate button in the button bar. A copy of the object, which can be moved to any position with the mouse, appears right next to the original. Speed up this process by clicking on the object to be copied with the mouse while holding down the Ctrl-key. This generates a copy, which you can immediately drag to the desired position. Note: Object copies are "virtual" and take up almost no additional working memory!

Delete

This menu option lets you delete all selected objects from the arrangement. To select more than one object, use the "Shift" key while you click on objects with the mouse.

Key: *Del*

Group

This menu option lets you group all selected sound files together. As soon as you click to select one sound file of a group, all sound files of the group become selected.

Shortcut Key: *Ctrl + l*

Ungroup

All selected sound files become independent again.

Shortcut Key: *Ctrl + m*

Optimize View

This option determines the optimal view level for working in the arranger so that all objects in the arrangement can be seen on screen at once. The start and end markers are once again placed at the beginning and end.

Shortcut Key: *Shift + b*

Song Maker

You can let the Song Maker arrange background music for your video. Please refer to the chapter "Audio Objects".

Mouse modes

Intelligent mouse mode

This is the preset mouse mode. With a left mouse-click you can select objects and move them by keeping the button pressed as you drag. This will move all the objects that are aligned at the same mouse position in other tracks as well as the selected object.

If you want to move a single object, switch to the "Mouse mode for single objects". To select several objects, hold down the shift key. All objects can be cross-faded, looped or reduced with the 5 handles.

Open the context menu with a right mouse-click. The context menu displays the most important effects and adjustments for the selected object.

If an effect "curve" on the object is activated, a curve handle can be selected and moved. A double-click on the curve creates a new handle.

Shortcut Key: Alt + 1

Mouse mode for single objects

This mode works t like the "Intelligent mouse mode", but moves only the selected object.

Shortcut Key: Alt + 2

Curves Mouse Mode

This mouse mode is designed specifically for drawing volume and effects curves. When activated, a new curve can be drawn on the object by holding down the left mouse button and "drawing" by dragging the mouse along the track. To deactivate this special mouse mode, simply click on an object with deactivated effects curves.

Shortcut Key: Alt + 3

Object stretch mode

This special mode is used to adjust the length of objects. Audio objects are time-stretched or compressed by dragging the bottom corner handles. Stretching or compressing objects results in a faster or slower loop playback from standard mode.

Video objects can also be sped up or slowed down by means of the bottom handles.

Shortcut Key: Alt + 4

Audio pre-listening mode

In this mode, an object can be previewed without muting the other tracks.

Shortcut Key: Alt + 5

Scrub mode

Press the mouse button to listen to the location of your current mouse position within the arrangement. The re-play cursor will follow the mouse movements—you will hear what you drag the mouse over.

Shortcut Key: Alt + 6

Context help mode

When this mouse mode is active, clicking on any area of MAGIX Movie Edit Pro 2004 immediately provides access to the corresponding section in the Context Help.

Shortcut Key: Alt + 7

Videos and Pictures

Load videos and images

Click on a file in the Media Pool to see a preview of the file on the video screen. To use the complete video in your arrangement, click on the video or bitmap file, and while holding the mouse button down, drag the file onto one of the tracks in the arranger.

To use only sections of a video, apply the automatic scene recognition feature and open the "Takes" directory.

To load several photos, select them by holding down the Ctrl key while clicking the desired files. To load an entire directory of images, hold down the Shift key and click only on the first and last entry. All entries between will be selected. Once the files are selected, they may be dragged into the Timeline.

Digital video capturing (DV capturing)

DV devices

MAGIX Movie Edit Pro 2004 supports continuous editing of DV (digital video) files. You will require a DV camcorder or DV recorder with an IEEE 1394 interface (also known as Firewire or iLink) as well as an OHCI conforming IEEE 1394 host adapter for your PC.

To record digitally, the digital output of the Mini-DV camcorder or DV video recorder must be connected to the DV interface of the PC, yet switched off. You must also have Microsoft's "DirectX8.a" (or higher) installed. Now switch your camcorder to "video recorder" or "playback" (according to your particular device) and open the DV capturing dialog.

Capturing from DV recorders or cameras
– Connect the (turned off) camcorder to the PCs Firewire card.
– Switch the camcorder to the "Video recorder" or "Playback" operating mode.
– Click on the Record button at the bottom of the video screen and select "DV Capturing".
– Click on "Record Video" and select "DV Capturing".
– Check to see if a DV camera driver has been selected.
– Name the capturing appropriately so as to be able to find it later.
– Using the remote control buttons, you can locate to the appropriate place on the camcorder tape: For optimal

control, you can shuttle forward, backwards and start/ stop playback.

– Start capturing by pressing the "Record" button. Keep an eye on the available hard-drive space. DV capture requires approx. 220 MB per minute of video!

– Cease capturing with the "Stop" button and exit the capturing dialog.

– For a playback, simply press the space bar.

"DV capturing" dialog
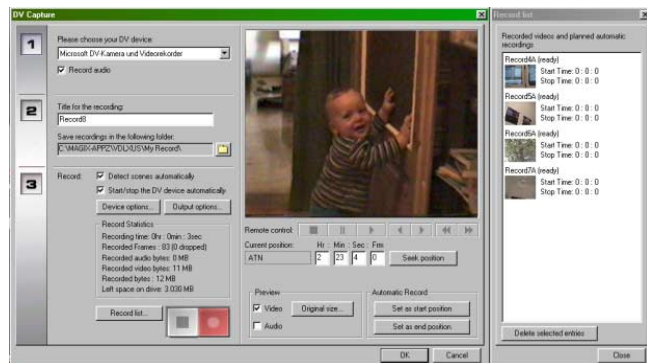
DRIVER: This is where the driver for your DV device is displayed. When Audio Recording is deactivated, only video without sound is recorded.

TITLE: Here you can name the audio file about to be recorded, as well as designating a directory to which it should be saved.

AUTOMATIC SCENE RECOGNITION: You can use this option to divide your captured DV files into scenes. The material is scanned for changes in brightness and makes a cut at the appropriate position. Captured DV files also provide data about the positions where the capturing device was turned on or off ("time stamps").

START DEVICE AUTOMATICALLY: Starts the DV recorder or DV camera automatically when the Capturing button is pressed. This function, however, only works with compliant digital cards or video devices

PREVIEW: On the preview monitor you can see a preview of your video. You can also determine whether you want a preview with Only Video, Only Audio, or a complete preview with both sound and picture.

ORIGINAL SIZE: This option allows you to preview the video in the original size. To return to the dialog, use the Escape key.

REMOTE CONTROL: Digital camcorders can be controlled remotely. This function, however, only works with compliant digital cards or video devices. The buttons cannot be activated if your hardware does not support remote control.

AUTOMATIC CAPTURING: Here the start and end points can be set for the capturing. In this way you can search the entire possible scene captures on a videotape and list them for planned batch capture. This is then processed in sequence when the capturing starts (via the red button). It therefore does not have to record each scene individually. Simply specify the capturing times and the computer works out the remainder.

RECORD: Starts the capturing process. If the capturing list contains planned timed captures, it will be processed step-by-step ("batch capturing).

STOP: stops the capturing process.

CAPTURING STATISTICS: Displays various data regarding your captured video.

Notes:
1) Keep an eye on the available hard-drive space. DV capture requires approx. 220 MB per minute of video.
2) Some DV capture cards and video editing software programs install software drivers or codecs that interfere or modify Windows drivers or codecs required by MAGIX Movie Edit Pro 2004. This may result in various file format errors. We recommend that you test capture a few short scenes to ensure that the files will be captured in an editable format. If you experience problems, try uninstalling other video editing software or reinstalling Windows drivers.

Video capture from analog sources

Analog devices
MAGIX Movie Edit Pro 2004 can be used with USB cameras, graphic cards, video cards, or video cards that are compatible with Video for Windows or DirectShow

Capturing from video recorders or camcorders
Camcorders with USB ports are connected to the computer by a USB interface. Video recorders or other devices are connected to the video input of the video card, TV card or graphic card. If your card also possesses audio ports, these should be used for capturing and playing back sound so that the image and sound do not diverge during a lengthy video.

To record from analog sources:
– Start MAGIX Movie Edit Pro 2004.
– Click on "Record Video" and select "Record video".
– In the Video Record-Dialog, select the correct video card and soundcard drivers. A video preview window is now displayed.
– Name the file and select storage path so you can easily find the file after capture.
– Now determine the desired video quality with the fader. The default setting is the highest quality that your PC system is capable of.
– Start the capture by pressing the "Record" button – end it by pressing "Stop".

Note: setting this too high may result in dropped frames, making your video look jerky. This is due to a lack of computer resources. Set this only as high as your system can handle. The quality slider ranges from 'low' quality to 'best' quality. There is an 'uncompressed'' checkbox, which sets quality to the highest possible, but requires the most resources!

– End the video capturing dialog by clicking "OK". Your capture can now be viewed in the film bar in the lower third of your screen. Press the space bar to play back the capture.

"Record Video" dialog
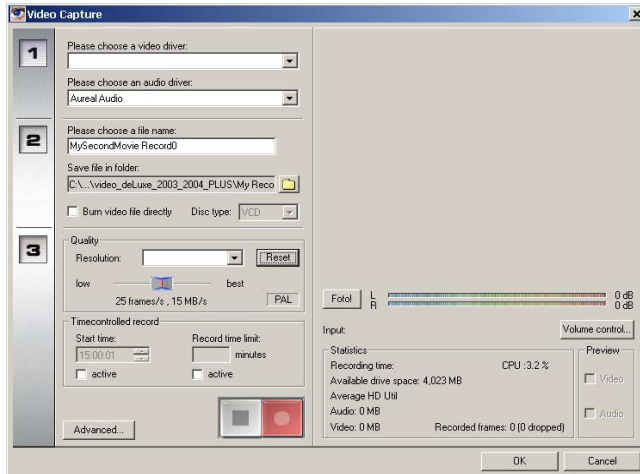
Video/Audio drivers: This dialog enables you to select the video or sound card drivers for the recording. In many cases, the driver software that comes with the hardware must be installed. Make sure that the drive is compatible with the operating system. Often a drive compatible with Win9x won't run on Win 2000. Appropriate drives can usually be found on the manufacturer's website.

Name: Name the file and select storage path so you can easily find the file after capture.

Recording Quality: Here you can determine the quality of your recording. The higher the quality, the more hard-drive space is required.

NOTE: setting this too high may result in dropped frames, making your video look jerky. This is due to a lack of computer resources. Set this only as high as your system can handle. The quality slider ranges from 'low' quality to 'best' quality. There is an 'uncompressed'' checkbox, which sets quality to the highest possible, but requires the most resources!

You can select from a variety of predefined quality levels from the list box. Your choice depends upon the eventual use of the material and the capacity of your computer. Define more precise bit rates for the presets with the fader. Simply press "Reset" to return to the preset recording quality.

RECORDING CONTROL: Click the red Record button to begin capture, and the Stop button to discontinue recording.

RECORDING DATA: This shows statistical information such as the recording time, available space on the hard-drive, the recorded frames, and the "dropped" frames. Dropped frames are frames that have been left out because the computer processor is too slow for the selected image format and cannot accept all of the frames received.

TIMER: This setting enables you to use your computer as a fully-functional VCR. By setting a recording time (requires TV card & compatible Windows Direct Media drivers).

PHOTO: The photo button can be used to capture a still image from the movie in the preview monitor. The images are stored at the requested resolution as BMP files in the recording directory.

DIRECT BURNING: With this option you can record and burn in one. Simply select the format you want to burn in (VCD, SV-CD, DVD or Mini-DVD), put a suitable blank CD into the recorder and activate the recording. After recording, the Make Disk screen automatically launches, the burn dialog is opened and burning commences.

Tip: This function is particularly suitable for burning lengthy disc projects directly to disc: You can start recording in the evening and have the finished CD or DVD. The following morning

ADVANCED: opens the video driver configuration dialog (see below). Use this dialog if your video card supports several sources, for example a card possesses a remote control (ATI All-in-Wonder, Terratec TV Value), or several inputs (S-VHS, Composite.). Otherwise, simply leave the default settings unchanged.

Advanced configurations (Video Capturing dialog)
Several different configurations for the video recording driver can be defined here.
So-called "property sheets" are made available by the video card drivers. The features specific to each driver vary considerably. Consult your hardware manual for setting the configurations. If you experience difficulties with the driver, contact the manufacturer of your video card for a driver update.

INPUT: This engages the video card's crossbar. The crossbar determines which input will be recorded. The crossbar passes the input signal on to the capturing module.

In the "Output" field you can adjust the "Video" or "Audio decoder in", because the crossbar should pass their output signals on to the decoder.
In the "Input" field, select the signal source that will be used by the video card to capture for this input. If you have a problem, try out the different configurations until the right sound matches the right image.
Composite In = the normal video input
SVHS In= SVHS input (special cable)
Tuner In =TV Signal of the integrated tuner

VIDEO DECODER CONFIGURATION: Should your picture only appear in black & white, or if it flickers, it may be because the video standard is incorrectly configured. In mainland Europe, PAL_B is used. NTSC is used in the United States.

VIDEO PROCAMP: Adjusts color, brightness and contrast. It is not recommended that you alter the manufacturer's settings.

IMAGE FORMAT: Do not alter this setting. The capturing format is set in the "Recording quality" option in the video recording dialog.

TV CHANNEL SELECTION: This option is only available when a TV tuner is integrated into your video card. Select the TV tuner as an input, select the tuner's TV channel and use MAGIX Movie Edit Pro 2004 as a video recorder for the television programs on your PC.

Snapshots

Snapshots capture a still image directly from the preview screen. The pictures are stored as JPEGs in the resolution indicated in the photograph listing.

Under "Photo duration", you can specify the length of time the image is to be displayed.

Scene Recognition

Click on the FX button on the Filmbox or on the scene within the Timeline Mode and select "Scene Recognition" from the menu.

The scene recognition ion function analyzes the film for scene transitions and scans for drastic changes in the brightness and color distribution within the picture. The program then partitions the movie into individual scenes based upon the analysis.
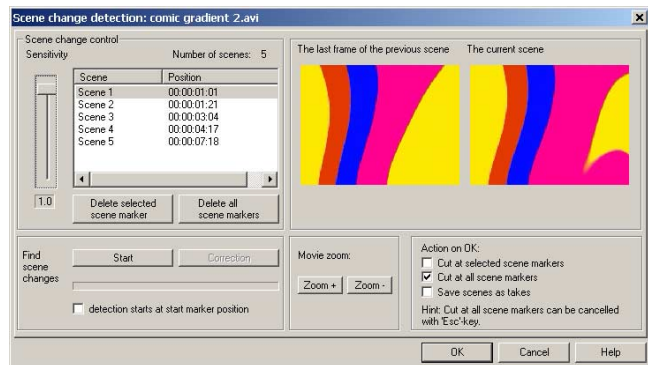
Note: Digital Video "time stamps" (points in time at which the device was switched on and off) are also recognized as separate scenes.

The complete analysis must be made only once for each recording as the resulting data is stored with the source file.

If the scene recognition is performed again with the same source material, the scene transitions found are immediately displayed. If you are still not happy with the resulting scene partitioning, simply repeat and correct where necessary.

Automatic
Makes cuts automatically at each scene transition without prior confirmation.

Manual

Makes cuts only after confirmation at each scene transition. The preview always displays the end of the previous scene and the beginning of the new scene. This option is helpful, for example, if a camera flash was captured in the source footage. The flash from the camera would cause a sudden brightness modification even though there was no actual scene change.

SEPARATE AT THIS POINT: Select this option when there is significant variation between two images in the display.

NEXT SCENE: This option enables you to skip a point without cutting in the event that the scene was identified incorrectly. Use this option to deliberately skip scene transitions and treat several scenes as a unit.

AUTOMATICALLY CUT ALL FURTHER SCENES: This ends manual scene recognition. All future points will be automatically cut to create a new scene.

Tip: You can also use the cut menu for cutting scenes. Place the s-marker where you wish to perform a cut, and then select the "Cut scene" command.

Takes

Takes are handled like other objects within the Timeline mode. (See Timeline mode). They are references to multimedia files or special objects (visuals, titles etc.) and include the additional characteristics an object may possess, such as start and end points, fades, effects editing and effects curves. Takes can be used for the following applications:

1. Divide your videos into takes while loading into the arranger. Begin by pressing the "Expl" button. The Play/Rewind/Fast-Forward transport functions are now active for the selected video file within the Media Pool. The Extras button allows you to set the In and Out points for the scene. The selected scene can subsequently be saved to the Takes directory.

SET IN/OUT POINT (Keys I/O): Determines the start and end of a take.

GO TO IN/OUT POINT (Shift+I/Shift+O keys): Skip quickly to the start/end of the take.

JUMP BETWEEN IN/OUT POINTS (Ctrl+K): Check out the scene!

SAVE TAKE (Shift+T): The scene is saved to the Takes directory.

2. All scenes found by the automatic scene recognition function can be stored in the Takes directory, enabling quick assembly of scenes.
3. The takes directory may be used to as either a source or a destination directory. Use the Takes directory to build complex storyboards: You can place takes from the directory into the arranger, or drag new scenes into the Takes directory – allowing you to build complex storyboards along the way: The individual scenes that make up the video are cut first, before being arranged on the tracks.
4. Since Takes also contain corresponding effects, one can store different variations of the same movie with different effects in the Takes directory. The Takes directory uses very little memory in contrast to rendering out the actual video files!

Separate audio from video material

Select "Adjustment/information" > "Audio/video adjustments" > "Extract sound from video" from the File menu. Videos with a sound track will now appear in the Timeline Mode as two separate objects (audio object and video object). The two objects automatically form a group.
To edit the audio and video objects separately, select the function "Dissolve group". Now you can replace the audio or the video track, or process each file separately. Re-join/regroup the tracks with the "Export arrangement" function.

Transitions

When you drag scenes into the arranger, the individual video scenes in the timeline or storyboard usually sequentially follow one after the other. This is called a "hard cut". However, you can make scenes blend or "transition" into each other. This means that for the duration of the transition, two clips are playing simultaneously and are mixed in a variety of "blends". You will find numerous blends in the Media Pool's transition directory.

Transitions in Storyboard mode

Click on the transition button between scenes and select a transition. All of the transition directory's presets are listed in the menu. You can also determine the length of a transition, or by selecting "Apply to all", all of the transitions throughout a movie will be of the same length. You can also apply a selected preset to any individual transition automatically, or apply the selected preset to all transitions.

Simple cross-fades in time-line mode

To create a cross fade transition in the arranger, simply drag an object to overlap the previous object. This creates a cross-fade. During this standard transition, the brightness of both objects are increased, the first clip fades out while the second clip fades in. The duration of the cross-fade is displayed in the arranger as white lines crossing each other. The fade-in of the second object and the fade-out of the first object (the length of the cross-fade) are regulated with the object handle above the second object. You can fine-tune the cross-fade with the trimmer. There you can also change the type of transition if a more effective transition is required.

Transitions

Drag & drop onto a "hard" transition

Click on the Slide FX button next to the Media Pool and the transition directory appears within the list of files. Clicking on a transition preset shows a preview of the transition effect. Simply drag the desired transition preset onto the border between the two clips. When the mouse pointer is over a scene change along with the transition preset, it activates an object symbol, enabling you to place a transition in the selected position. The rear object is shifted forward for the duration of the transition (if you don't want that to happen, use the trimmer for the transitions).

Clips that are to be blended must be on the same track, but transitions do not need to be on the same track. This allows for a more concise overview in the arranger window.
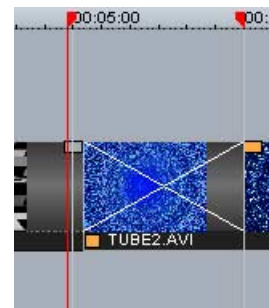
VFX transitions and Alpha transitions

There are two different types of transitions, VFX transitions and alpha transitions. Vfx transitions may be of any length— when the length of the transition is shortened, the effect will be played faster. They are displayed in the Media Pool as blue/yellow icons and abbreviated with A/B.

The VFX transition is also displayed within the arrangement. A double-click on the cross-fade (crossed white lines)

opens a settings dialog from which you can set the effects parameters.

The alpha transitions (named Iris, Objects, Random etc. in the sub-directory) are pre-produced black & white videos that may be utilized for transitions in tandem with the Alpha keying effect. These transitions have a preset length—when you shorten the transition, the effect is cut rather than played quicker.

Note: Use transitions economically! Most professional movies or TV shows use hard cuts as the rule and transitions less frequently.

Custom Slide FX with Alpha-keying
Alpha keying extends the range of transition effects used to produce black & white movie transitions or selected color fade-ins and fade-outs. Select "Alpha effect" in the video controller and configure it as its own transition. Alpha keying uses the brightness of alpha key objects to regulate the transition between two videos on adjacent tracks.

The alpha-keying object should reside between both videos. Where the alpha-keying object is black, the upper video should fade in where the alpha key object is black, and the lower video should fade into the white areas. Gray passages will result in a blend of both videos to produce a mix. In colored passages, the brightness of the colors is used.

Copy your alpha key videos into the transition plug-ins sub-directory so you can easily access them for other projects.

Trimming or Fine-tuning videos

You can call up two trimming editors, a cut trimmer and an object trimmer, from the Window menu or from the context menus of video or image objects.

Both trimmers fine-tune objects on the tracks. The object trimmer positions the individual object and its handle precisely within a frame. The cut trimmer configures cross-fades or hard cuts in the same manner. Both trimmers are tools for precise cutting.

Working method
The trimmers perform the tasks as object handles and shifting of objects on the tracks, only more precisely. . The video material is movable *within* the object, without having to move the object itself. Consider that an Object represents an instruction to play: The object specifies which material is to be played and when. If you shift the playback starting point, the object moves too. If you move the mate-

rial within the object, the object remains in its place within the arrangement, but the playback order of the content with the object has been moved or rearranged.

General advice for operating both trim editors
PLAY FUNCTIONS: The trim window contains its own play functions that allow the object to be played individually or in relation to the arrangement.
– The right play button plays the arrangement normally. Note: Replays can sometimes appear shaky because the processor may be over-worked and some frames may be left out.
– The middle play button plays the arrangement "frame by frame", which means no frames are left out, but that the replay may be slower.
– The left play button renders material before playing. This method ensures a smoother playback.

The start marker in the timeline is reset when the rewind and fast-forward functions are activated, allowing for complete control of transitions between two videos.

INCREMENTS: A click on the +/- buttons in both trim editors sets the handle or the material within an object exactly into a frame. With the Ctrl key you can increase the frame rate (5 frames/sec per mouse-click).

Trimmer for individual objects
A schematic display of the selected object and its handles can be found in the center of the trimming window.

FADE IN/OUT: This button adjusts the upper handles of an object.

OBJECT CONTENTS: This moves the video material about to be played without changing the length of the object.

POSITION: Moves the object on the track.

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First Frame / End Fade-In: Switches the left monitor between the first frame of the object and the end of the transition.

Start Fade-Out / last Frame: switches the right monitor between the start of the transition and the last frame of the object.

Left/Right -/+ buttons: Adjusts the lower object handles.

Next (previous) Object/cut: The buttons below and to the right skip to the next/previous object and/or cut in the arranger. These buttons make it easy to move and trim objects in the arrangement without having to leave the trimmer.

Cut Trimmer
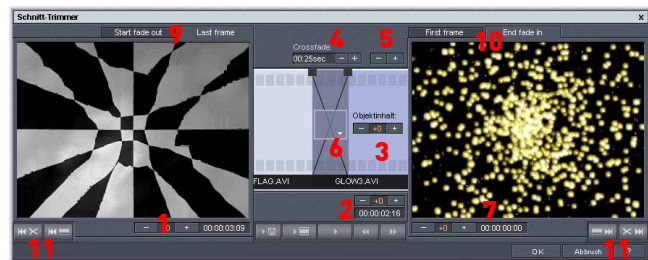
Left -/+ button (1): This button moves the last frame of the first object while adjusting the second. The length of the transition remains unchanged. The display (in illustration 4) indicates the relative change in comparison with the starting situation when the trimmer was opened.

Position (2): Moves the second object, altering the length of the transition. This corresponds to shifting an object in the arranger

Object contents (3): This moves the movie "underneath" the second object without changing the length of the object and the transition.

Cross-fade (4): changes the transition's length between both objects. The objects remain of equal length. The length can be numerically entered.

MIDDLE -/+-BUTTON (5): Shifts the existing transition. Both objects remain in their positions, only the transition's center point moves.

TRANSITION (6): displays the type of transition. A mouse-click opens a pop-up window from which you can select a transition.

RIGHT -/+ BUTTON (7): Move the first frame of the second object. The first object and the transition remain unchanged, only the length of the second object changes.

START FADE-OUT / LAST FRAME (9): switches the left monitor between the start of the transition and the last frame of the object.

First FRAME / END FADE-IN (10): switches the right monitor between the first frame of the following object and the end of the transition.

NEXT (PREVIOUS) CUT (11): These buttons skip to the next/previous cut in the arranger. These buttons make it easy to move and trim cuts in the arrangement without having to leave the trimmer.

Minimizing Videos or Nestling One video inside another

Videos can be made smaller in the video screen to appear as a video within a video e.g. in order to appear upon the surface of another video:
– Place two videos on two tracks. The video, which is to serve as background for the currently selected object, must be situated on the track above that object.
– Select the option "Video effects" in the context or effects menu of the foreground video object.
– Change the size of the video with the help of the zoom buttons
– Change the position of the foreground video with the help of the position buttons or by drag & drop in the video screen of the video controller.

Image Stabilization

The motion stabilizer reduces unsteady camera motion and helps to smooth pans.

Functionality

The motion stabilizer adjusts inadvertent movements in the picture by shifting each incorrect movement in its opposite direction. This produces unusable edges in the footage that are cut off automatically, and black strips replace the edge of the shifted picture, which are then removed using a zoom shot. The result: a clearly more stable, almost imperceptibly larger picture.

Operation

Activate the motion stabilizer in the video object FX or context menus.

You will see the current video object in the top left corner of the dialog.

– First click the "Analyze" button to scan the footage. – Based on the preset parameters, a relative shift between the pictures is calculated. After concluding the analysis, take a look at the suggested correction, then use the slider for further adjustments. Once you are happy with the final correction, click OK.

If the first scan did not provide a satisfactory result, try changing the parameters below and repeat the process:

Image stabilization dialog.
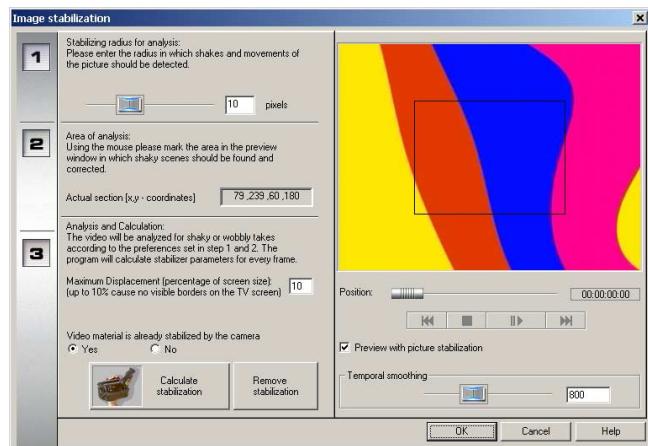
STABILIZING RADIUS: To prevent the motion stabilizer from recognizing every camera movement as unwanted shakiness, you can determine the radius within which movement is accepted: The larger the stabilization radius, the more shakiness is corrected. Note: Changing this parameter will require re-analysis of the source footage.

ANALYSIS AREA: This area determines the area of the footage that should be analyzed. The center of the image is preset. If shakiness occurs in another part of the picture, relocate the analysis area. To do this, use the lasso to "capture" the shaky area. The smaller the area, the quicker the analysis. Note: Changing this parameter will require reanalysis of the source footage.

TEMPORAL SMOOTHING: This value determines the speed of the movements considered blurry. This allows you to differentiate between a panning shot and a nervous handheld shot. Changes to this value are immediately applied.

CANCEL: exits the dialog without accepting changes to settings.

DELETE CORRECTIONS: Resets the current settings.

NEW VALUE: The altered value for the temporal correction is accepted and the new correction curve is set.

Video effects

All video effects work in real-time and can be dragged and dropped from the "Video FX" directory onto video and picture objects in the arranger.
Generally speaking, you can combine as many effects as you want (for example, Blue Screen for a chroma-key effect, color enhancements, and a fast-motion effect). Call up the video controller from the effects or context menu to edit these effect combinations.
For further details on video effects and adjustments, see the chapter "Video controller".

Video mix

This term refers to mixing various videos while simultaneously playing them. The video objects to be mixed must be placed one below the other in the arranger so they overlap in time. Add a special video mix effect to the lower video, which determines the parts that will be transparent for the upper video. Note: The background video object must be placed in the upper track. Example, if you want to put a dancer on a landscape, place the landscape on track 1, the dancer on track 2 and activate the Blue Screen effect for the dancer.
For further information on video mix effects and adjustments, see the chapter "Video effects".

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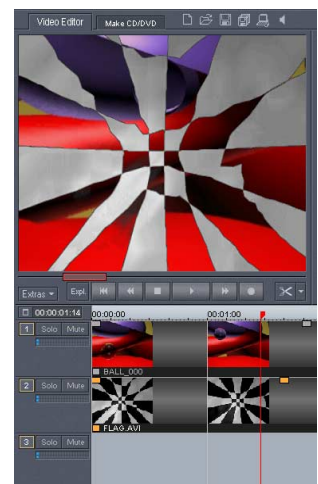
Borders

Call up the "Borders" directory with the "Borders" button to the left of the Media Pool. This directory contains bitmap patterns for the borders of videos much like picture-frames that can be modified by video mix effects. Drag them to the lowest track of the arranger and select the Blue Screen or Green Screen effect to make the blue or green space in the middle transparent for the upper videos. This way you can see the objects of the upper tracks of the arranger in the field.

You can use the lower handles to adjust the size of the borders to fit any length of the video. You can also achieve interesting effects by inserting and discarding borders within a video.

"Text": Subtitles and credits

Activating the Text button in either the Filmbox or scene opens a title editor. Enter text of any color or font for subtitles or credits, then choose from a variety of movements (such as scrolling credits), effects and designs within the template menu.
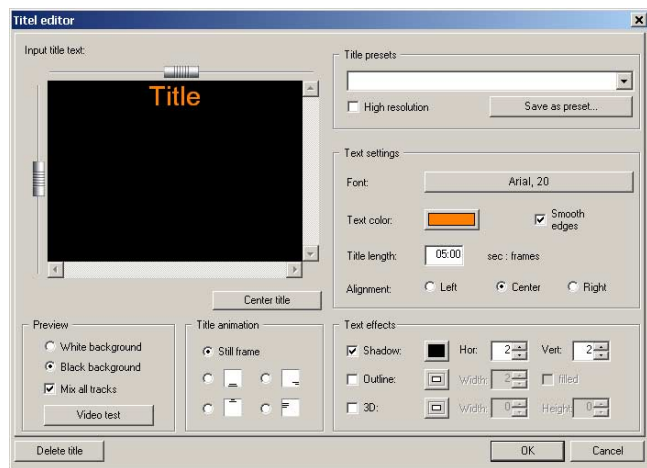
– Type the text for your video subtitles in the title editor.
– Enter the type of font, color, size etc. of your text. If you want to format individual words or letters, mark them with the mouse and select a different format.
– Select effects and dynamic animation from the "Templates" flip menu (such as downward-scrolling text).
– Use the scrollbar to the left and above the text window to organize your text in the video screen and position it horizontally or vertically. You can position the text verti-

cally or horizontally. If you have selected moving text, this position determines the starting position. A double-click on the scrollbar re-centers the title.

– Note: Setting movement to text places the starting position of the title outside of the video window. You can, however, always change the starting position.

– The "Title length" setting determines the amount of time a title is displayed.

– The "Video Test" button previews the title in the video monitor, together with the movie or scene.

– Close the title editor by clicking the "OK" button.

Text objects and title presets

You can also use RTF files that can, like other media files, be pulled from the Media Pool by drag & drop. Please note that MAGIX Movie Edit Pro 2004 reconfigures RTF files into bitmap files, which take up a lot of memory. The smaller the RTF file, the better!

Access the "Titles" directory is accessed with the "Title" button in the Media Pool. This directory contains a selection of preset title templates. To integrate a title template into your project, proceed as follows:

– Select a file. With a simple click, a preview is displayed in the video window so that you can see how the template affects the title.

– Once you've found the right title template, drag & drop it onto a track in the arranger. It is represented there as a title object.

– The title editor (see above) opens automatically. Double-click to re-open it (or with a right mouse-click in the context menu under "Title Editor").

Create a video project for the Internet

Internet video/Streaming Export formats such as Real Video, Windows Media and Quicktime Movie can are found in the 'File > Export Arrangement' menu. When you select one of these options, the current arrangement will be converted to the chosen format.

The Internet video formats are different from normal AVI files in two ways:

– Streaming capability: Modern Internet browsers can play Real Video, Windows Media and to a limited extent also Quicktime videos even during the downloading process, whereas normal AVI files must be completely downloaded prior to the start of play.

– Lower data rate: the Internet formats are optimized for the lower data rates used by today's Internet access de-

vices. A dialog appears on export, for setting the play-back data rate (i.e. dialup modem, or high speed access). If you use Windows Media or Quicktime videos for the Internet, choose a suitable codec and use a small pixel resolution to set up the necessary data rate.

Tip: In addition to the Internet export formats, MAGIX Movie Edit Pro 2004 offers a function to help you create your own web page. Please read the "Internet Functions" chapter for more details.

Video export via video or graphics card

To save your MAGIX Movie Edit Pro 2004 video onto digital videocassette, you must first export it as an AVI file, typically DV-AVI that uses a special codec for compression. Please check your video card's user manual for more information. Your video card utilities may offer tools to save the file onto videocassette.

Trouble-shooting checklist
If you encounter problems, check this list:
– In the AVI export dialog you must adjust the video size to the size required by the video playback device. As the resolution of the first video clip of your project determines the preset value, the size is usually also compatibly set. If you use videos with different resolutions in your project, you must adjust the correct size manually, for example 768x576 for full-screen, 720x540 for PAL devices and 640x480 for NTSC videos
– The frame rate (number of images per second) must correspond to the video playback device for example 25 frames/second for PAL video and 30 frames/second for NTSC video.
– The video compressor must be identical to the video card compressor. Usually the name, which contains MJPEG and the card name, identifies the video compressor.
– The data rate and the compression ratio must match your system. The lower the compression, the higher the video quality and the more memory that is required. As a general rule, a normal video in S-VHS quality requires approximately 2 MB per second, or 120 MB per minute.
– The drive where you want to store the target video should be fast, large capacity hard-drive suitable for media-applications to guarantee a replay session without interruptions. Modern EIDE and SCSI hard-drives with a capacity of several gigabytes are usually well suited for these operations.

– If you export a video from MAGIX Movie Edit Pro 2004, your system media player will start automatically and video replay will be set up. The current Microsoft Media player uses a technology that is usually able to replay most video formats without interruption. This Media player is also included on the MAGIX Movie Edit Pro 2004 installation CD, so you can use it even if your system has an older version. Some video cards include video players specially designed and optimized for the hardware. In this case, close MAGIX Movie Edit Pro 2004, load the video in this video player and start the replay.

– Make sure you have connected everything correctly:
  – Video-out of the video card to video-in of the video recorder
  – Audio-out of the video or sound card to audio-in of the video recorder
  – Video-out of the video recorder should be connected to a monitor or TV-set, so you can make sure thathe video recorder is receiving the correct signal for capture.

– Set the video recorder to the external port to which you have connected the cable, for example AV1

– Check whether the media player actually exports the sound material using the video card export device. If not, you must adjust the video card driver: go to "System > Multi-media > Replay > Favorite device". If necessary, you can also activate the button "Use only favorite device".

– Set the sound control for the video (if you have one) to a level where the maximum audio signal from the PC equals the maximum level without distortion.

– Now set the video recorder to pause before capturing.

– Start the replay on your PC and deactivate the pause on the video recorder at the same time. Now the replay should work.

A further suggestion: the first replay of a new AVI is often erratic, as the PC still has to work on swapping and caching its data. Stop the replay after a few seconds and start it again. This time the replay should be smoother and uninterrupted.

Showing videos with the TV output

Video and graphics cards with a TV-out connection can transmit video signals to an external video recorder when connected by a cable, enabling you to record your video with a VCR. The arrangement must however be played in full-screen mode and recorded by the external device.

1) Make sure that the TV output is activated in the Windows system control. Note: When this function is called up for the first time, the program asks which screen mode is being used (resolution and hue). This setting will always be applied unless changed from the "file menu > settings/information > full-screen playing options". The greater the resolution, the greater the demand placed upon the computer. Try to reach a compromise between stable playbacks and picture quality. The first option in the dialog plays the video in full-screen mode directly from the arrangement. This often causes problems if the processor has trouble keeping up with real-time calculations of video effects or transitions.

2) If the first option works well, select "Render and play in full-screen mode". All of the tracks and effects are combined (rendered) into one file and subsequently played. If you want to play a completed movie several times, export it as an AVI file and then load it into a new movie. It will now play without a constant need for re-rendering.

Playing videos on digital devices

The arrangement can be easily played on a digicams using a Firewire interface.

Simply select the "Export Movie > Video as DV-AVI" option in the file menu. This opens the DV Export settings dialog, however in most cases you can keep the existing presets as they are. For more information, check out the options available in the dialog.

If you want to play a rendered movie on DV, there's no need to render it again. Simply activate the "Play own DV file" option and select your DV video from the "My audio video" directory.

Audio

Load and edit audio files

All importable audio files can be accessed from the Media Pool and previewed (as sound) by a click on the file name. After listening to a few sound files, select one you wish to work with and move it to the arranger window. To do this click and hold on to the name of the sound file while dragging it into the arranger window. A rectangle the size of your selection will appear. The sound file will be loaded into the arranger at the position you release the mouse button. You can repeat this process as many times as you like to build your arrangement. To play two or more sound files simultaneously, place the new sound file in a separate, adjacent track.

You can remove sound files from the arrangement by selecting them and pressing the delete key.

Edits, fine positioning, volume adjustment, fading in and out, are all processed using the object tab directly in the Arranger.

Scanning an audio CD

Loading music directly from an audio CD is a very useful Media Pool function. The steps are similar to transferring Wave files into an arrangement:

– Insert an audio CD into the CD-ROM drive on the PC
– Browse with the Media Pool to the new CD using the "Scan CD" button
– The individual CD titles appear on the screen
– A simple mouse-click starts the playback of the CD title for sampling purposes
– Drag & Drop into one track of the current arrangement and the CD title will be digitally scanned and copied to the hard-drive.
– The audio object appears in the track and can be played back or edited immediately.

The scanned CD titles can be used later much in the same way as normal audio objects (fades, audio effects or mixing).

Scanning CD tracks with the recording dialog

A special extraction routine is used to scan audio CDs in the CD ROM drive: The audio data is extracted in digital form by the CD-ROM drive. Some CD-ROM drives do not support this mode (trying digital extraction results in an

error message) or only support it with difficulty (results in audio objects with cracking noise, skips, etc.). In this event, the CD may be 'scanned' by recording it into the computer. When recording the CD to the computer, the CD titles are simply played back from the CD-ROM drive and are re-recorded as .WAV by the sound card. Before recording a CD to your computer, change the program settings in the"File > Audio / Video Options" menu.. To ensure trouble-free recording of the CD titles using Dialog Recording, the audio output on the CD-ROM drive must also be connected with the sound card input. This connection is usually already set up in today's multimedia PCs. If not, this is easily done by installing a cable inside the computer case.

Audio recording

Songs, noises or instruments can be easily recorded in MAGIX Movie Edit Pro 2004 using the recording function.

RECORDING FROM A STEREO SYSTEM: Use the lineout or AUX-out jacks on the back of your amplifier, receiver or tape deck. This requires connecting the device output to the soundcard input (usually red in color). If your amplifier doesn't have a separate output (other than the speakers), use the connection intended for headphones. In this case, you will need a cable with two 1/8" mini-stereo jacks. This type of connection has the advantage of the separate volume control used to set the headphone input signal level. However, since headphone connections generally do not sound the best we suggest that t you use the line outputs wherever possible.

RECORDING CASSETTES FROM A TAPE DECK: Connect the tape deck's lineouts directly to the soundcard input.
Recording LPs (vinyl records), do NOT connect the record player's output directly with to soundcard, because the phonon signal must be pre-amplified. In this case, the headphone connection output or an external photo pre-amp output is recommended.

Adjusting the signal level
Adjusting the signal level to the sound card is also recommend to get the best sound quality when recording digitally.
Once a recording source is connected to the soundcard, the Record button opens the recording dialog and starts

the recording source. If the adjustment is set too high, distortion occurs and the incoming signal must be reduced. If you have connected the source through either an amplifier or tape deck output to the soundcard, you can only reduce the signal level in your soundcard's software mixer interface. You can call it up in the recording dialog by activating "Level adjustment".

If you reduce input sensitivity by using the input fader, the resolution at which the analog signal is digitized is also reduced. Try to set these automatic controllers to the loudest sound level possible! The maximum setting for an optimal level is the loudest part of the material. The loudest part should be adjusted to be the maximum.

"Audio" recording dialog

AUDIO DRIVER: Selects the soundcard for the recording.

NAME: Name the audio file about to be recorded, and the destination path and director where it will be saved.

PLAYBACK DURING THE RECORDING: This option is particularly helpful for overdubbing narrations. When activated, the selected movie will be played while recording the audio, allowing better overdub timing.

ADVANCED: opens a window in which you can select one of three special functions:

– By selecting the "Normalize after recording" option, the material is set to the maximum volume after recording. For the best results, try to set the source material as loud as possible without distorting it. Use the peak meter display in the recording dialog to assist you with this.
– "Mono" creates a mono recording and requires half of the hard drive space required for stereo.
– "Real-time sample rate adjustment" automatically matches the sample rate of a new file to be recorded with the sample rate of the selected movie sound track.

RECORDING QUALITY: Sets the sound quality of the recording. Choose from medium wave, FM or CD quality from the preset menu.

RECORD: Click this button to start recording

STOP: Click this button to stop recording

"DUCKING" (REDUCING THE SOUND VOLUME): To add narration or other sound material to a video that already has sound volume levels set, activate the option "Automatic reduction of sound volume of remaining audio tracks". This automatically reduces the volume of audio objects in the arranger during the recording session ("ducking"). A volume curve controls the whole process, produces the fading in and out of effects automatically and guarantees consistent overall volume.

Adding background music using the Wizard (Song Maker)

Arrange your own background music or let the Wizard do it for you.
1. Activate the Song Wizard with the "Wizard" button or from the file menu.
2. Select a music style.
3. Select the instruments that you want to use. A blue highlight under names in the instrument selection box means that those particular instruments have been chosen. If, for example, you only want a rhythm section with drums and bass, deactivate the other instruments with a mouseclick.
4. Enter the desired length of the song or portion of a song in seconds. You will always achieve an appealing musical result.
5. Specify whether a Wizard will create a completely new arrangement, attach a new part to an existing arrange-

ment, or add new elements to the existing blocks. The Wizard will automatically add new virtual sound blocks to the tracks in the Arranger. These are simply musical suggestions and are not yet permanent.6. Listen to the suggestion by pressing, "Play" under "Preview (audio)". If you do not like the result, create other arrangements, song parts or enhancements by selecting the appropriate option in the "Arrangement Options" section of the Wizard Dialog.
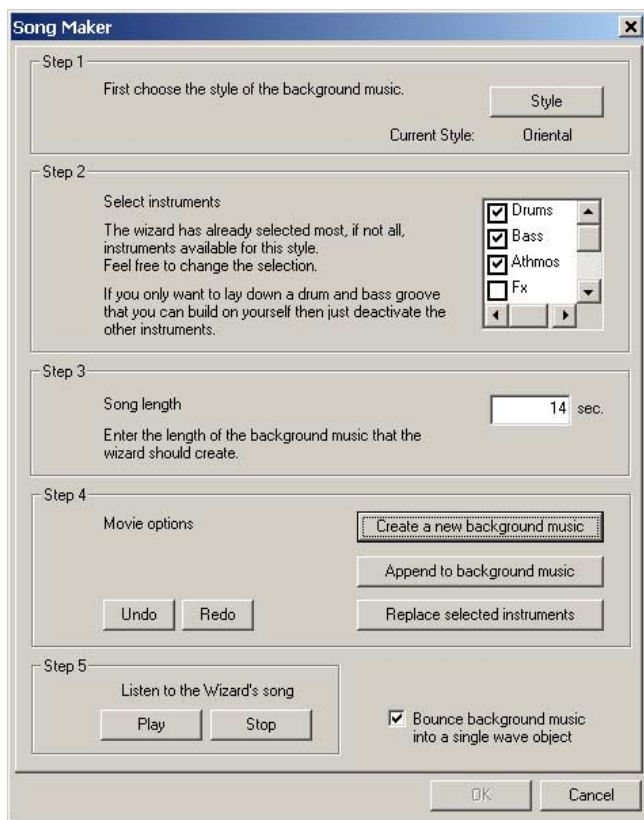
7. If you agree with the Wizard's suggestions, click on "OK" to add the suggested blocks to the existing arrangement. A click on "Terminate" ends the Wizard and returns to the original arrangement status.

Arranging MAGIX sound files

The name of each sound file gives you detailed information about its content.

bass a 01 . wav

Sound   Type of groove   Tonality/Pitch   Extension
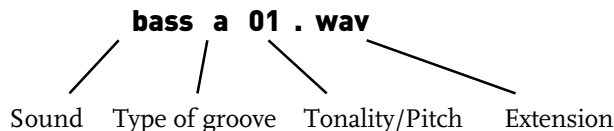
You can tell which sound files work well together by their names. For example: sound files with the number 01 sound good together. String section, trumpet, singer or keyboard, it doesn't matter. You can create melodies by combining various combinations of numbers. e.g.

bass_a**01**   bass_a**04**   bass_a**02**   bass_a**03**

For some interesting harmonies try combining different instruments using the same order. e.g.

keys_a**01**   keys_a**04**   keys_a**02**   keys_a**03**

The type of groove the sound file has is expressed by a letter. A possible combination could be:

bass_**a**01   bass_**b**04   bass_**a**02   bass_**c**03

The pitch remains the same while the rhythm changes. Here are several combinations to get you started:

T1:	drum_01	drum_01	drum_01	drum_01
T2:	bass_a01	bass_b04	bass_a02	bass_c03
T3:	keys_a01	keys_a04	keys_a02	keys_b03
T4:	guit_a01	guit_c04	guit_b02	guit_d03

Effects for adding music

The MAGIX Movie Edit Pro 2004 special effects are designed for modifying sound and adding sound tracks. Produce the sensation of spatial depth using reverb and echo effects. The equalizer allows you to modify the frequency, such as boosting the bass. The compressor is a dynamic volume control that lets you produce a focused and more powerful sound. The Stereo FX processor allows you to adjust the position in the stereo panorama while the de-noiser and de-hisser functions give you professional sound quality. Each effect has a preview function and works

in real-time. . For further information on the individual effects options, see the chapter on "Audio effects".

Mix down of audio objects

If the arranger becomes too full to manage, the system is out of RAM, or you just want to "summarize" your production, use the mix down function to convert the entire audio arrangement into a single audio file. Just click on the mix down button in the button bar or select the function from the "Processing" menu.

You can choose a name and a destination for storing the mix down object. The default directory is "MyAV".

Storage of the audio arrangement will take up a little more space on your hard-drive, but it requires less RAM for playback than an unmixed entire arrangement. Note:

The mix down effect optimizes the volume automatically. Even if the mix down function is used various times, you will not lose audio quality.

Adding a sound track using MIDI songs

MAGIX Movie Edit Pro 2004 can load, arrange and play back MIDI files as easily as Wave files, video or bitmap files or software plug-ins.

A few words about MIDI: MIDI files do not contain the actual sounds like Wave files, only the note control information. This data is interpreted to effect playback by the synthesizer chip on the sound card. This has several advantages:

1. MIDI files need a lot less memory than Wav files. Therefore, more MIDI files fit on a CD-ROM.
2. MIDI files can be adapted to any beat (BPM) without affecting the sound. Only the playback tempo needs to be changed.
3. MIDI files are very easy to transpose to another pitch – as a result, a section in a song does not have to be saved in several different keys. The version in C major is sufficient – it can then be transposed to any key by simply clicking on the right mouse button.

The disadvantage of MIDI files: The sound is not true audio. The audio is only produced when the synthesizer chip on the sound card plays it back. As a result, high-quality sound cards or external synthesizers will sound completely different and better than standard sound cards, depending upon the settings for playback "voices". Therefore, it is definitely worth using a good sound card or external MIDI-to-sound generator with your MAGIX Movie Edit Pro 2004!

Arranging MIDI files

Integrating MIDI files in an arrangement:

Search for a directory containing MIDI files using the Media Pool located at the left edge of the screen. Click on a file – it will be played back immediately so that you do not need to guess which file you want to load. Now drag the desired file into the arrangement – and that's all!

An object will appear in which the MIDI notes are shown by dots. The high notes are dots in the upper section; the lower notes are the dots further down in the lower section. You can even see the striking intensity of the notes. The louder the note is played, the brighter it appears on the screen.

MIDI objects may be arranged, the volume may be modified (middle handle) or fades (in or out) may be added (top right and left handles) in the same way as audio, video or synthesizer objects. The Element Bar lets you "open" an entire track instantly from a MIDI loop. If you do not hear anything on the MIDI file, check the MIDI replay device in the Playback parameters window (P key or Menu "File > Settings > Playback parameters"). Your sound card driver or your MIDI interface must be set here!

MIDI interface and external sound generator

Naturally, MIDI objects can also be played back over a MIDI interface onto external synthesizers, sound modules, etc. Initially set FX to 1.0. The timing between MIDI and audio can be balanced later if you notice a drift between the two. This is important for very slow arrangements, where the sample rate on the sound card is not precise enough. The MIDI drivers can be set in the Playback parameter window (P key or Menu "File > Settings > Playback parameters").

Convert MIDI files to audio files

Before exporting (as a video, for example) an arrangement, all MIDI objects must first be "transformed" into audio objects. They contain only pure control information for the sound reproduction.

First, connect the MIDI sound producer (usually the soundcard) output to the soundcard input. Now the MIDI file can be played back and simultaneously recorded as an audio file using the record function. The result is an audio file that can be processed and exported normally, together with other multimedia files.

Video effects

Using video effects

Drag & Drop
The video effects are stored in the "Video FX" directory, which maybe opened using the corresponding Media Pool button. All video effects feature preview functions can be dragged & dropped onto video and picture objects in the arranger.

Video controller
Select a video or picture object before opening the video controller from the effects menu or context menu (right mouse-click on the object). The starting image of the video is displayed on the video screen in the video controller. Play or stop the video object using the corresponding buttons. This causes the entire object to be played in a loop within the arranger, together with the background video in a mixing effect. Forward or reverse the video with the position slider.

Try any effect or effect combination. The video controller will not adopt the setting until the OK button is clicked to close the video controller. Clicking on the X button will close the controller (abort the process) without adopting the settings.

Effects curves
Many effects may be manipulated using the effect curves for a more dynamic application of the effect.

Video controller

Zoom
Zoom resizes the entire video.

Position Control
The 'position' control allows you to shift the originally centered video in any direction. This makes it possible to superimpose several videos by setting the mixing effect 'stamp' for the respective bottom video (see below).

Rotary control
It is possible to rotate the image with the large rotary control, located on the right, below the video screen. A double-click returns it to the neutral twelve o'clock position.
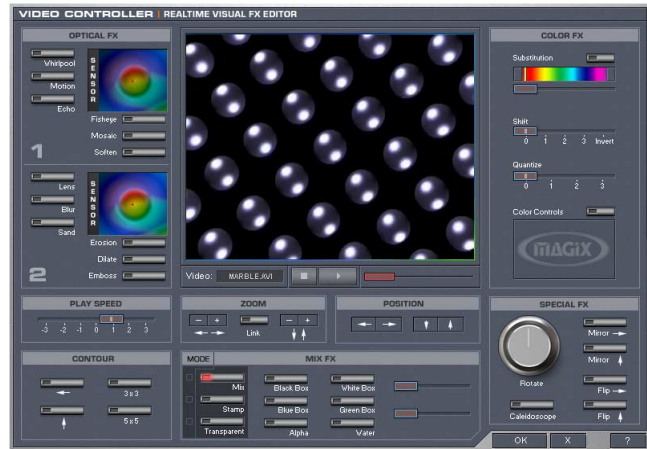
Optical FX

In this section you will find several optical effects.

Sensor fields

You can intuitively influence sensor fields with mouse movements. The graphics and the respective effect setting change in response to each other.

WHIRLPOOL: The image is twisted into an S-shape.

MOTION: Moving parts of the image are intensified and enhanced.

ECHO: The moving images create an optical 'echo'; previous images stand still and gradually turn paler until they completely disappear.

FISH-EYE: The perspective is distorted as if the image was viewed through a fish-eye lens.

MOSAIC: The video is composed of different images and resembles a mosaic.

SOFTEN: A soft-focus image is shown.

LENS: The image is dynamically distorted at the edges.

BLUR: The image becomes blurred.

SAND: The image is depicted in a granulated manner.

EROSION: The image is broken-up by means of small rectangles and resembles a 'patchwork'.

DILATE: The image is broken down into cell-like elements.

EMBOSS: The edges are put in strong relief.

Contour
The image is reduced to its contours in two sizes (3x3 or 5x5). It is possible to either select vertical or horizontal contours.

Speed
The playing speed can be adjusted with the slider control. In the minus range, the video plays backwards. If the playing speed is increased, the object length in the arranger is automatically shortened.

Color FX
This dialog changes the colors.

SUBSTITUTION: Based on the RGB scale, the red, green and blue portions are exchanged for a surreal color effect.

SHIFT: Colors are increasingly reversed. Blue colors turn red, green ones appear purple.

QUANTIZE: Depending on the setting, colors are either rounded up or down so that the overall number of colors is reduced. This creates grids and patterns.

COLOR CONTROLS: Focus, brightness, contrast and color intensity can be adjusted individually for every object by means of the four sliding controls, similar to a monitor adjustment.

Symmetry
This section contains video effects for breaking down images.

MIRROR V/H: The object is mirrored vertically or horizontally to appears the reversed or upside down.

FLIP V/H: The upper or left half of the object is flipped to the bottom or to the right.

KALEIDOSCOPE: the left upper corner is mirrored horizontally and vertically.

Mix FX

This section contains the mixing effects used to mix together a foreground and background videos to create an overlay effect. The video chosen to serve as the background for the currently selected foreground object must be positioned on the track above that object.

For all mixing effects, which are situated in the light blue range of the mix FX, special adjustments can be made with the two slide controls.

MIX: This button mixes the two videos together. With the aid of the fade handles, very soft cross-fades can be achieved between the partially overlapping videos.

STAMP: The currently selected object is 'stamped' into the video on the track above the object. This is only possible if the bottom video only takes up part of the image, as otherwise only the bottom (currently selected) video would be visible. The object should be reduced first, or moved by means of the edit functions (see above).

TRANSPARENT: One video is made transparent. The video on the top track is seen "through" the video on the lower track.

BLACK/BLUE/WHITE/GREEN SCREEN (CHROMA KEY): This function creates a composite of two videos. The selected video covers up the video on the top track and all black/blue/white/green areas appear transparent. With this studio-style effect it is possible to 'place' a person who has been recorded in front of a blue (or green, white or black) background into any type of landscape or background.

ALPHA: This video effect uses the brightness of a video to control a cross-fading effect between two other videos on neighboring tracks. The additional videos should be situated directly above and below the alpha-keying object. In all black passages of the alpha-keying object, the top video is faded in, while in all white passages the bottom video is shown. Grey passages are permeable for both videos and create a mixture of the two. In the case of colored passages, the brightness of the color is used for control purposes.

Video cleaning

This option opens an editor for correcting discrepancies in video material.
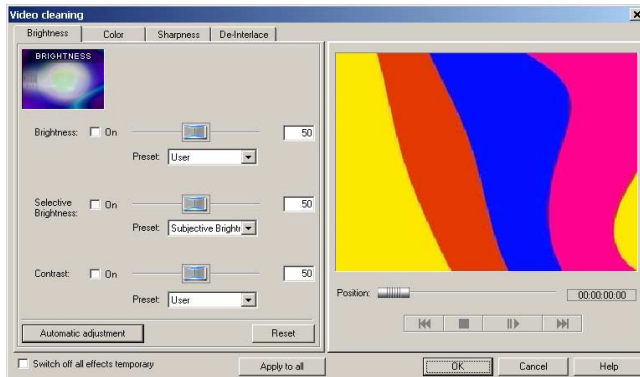
Select the cleaning function you desire from the upper part of the dialog: Brightness & Contrast. Sharpness, Color or De-interlace.
The position fader allows you to see how the selected setting works for a particular part of a movie or scene.

PRESETS: Try out the presets in the preset menu.

AUTOMATIC SETTING: This button usually offers a good effect setting. Simply select an image with the fader, then click on "Automatic setting". The optimum cleaning setting will be applied to the whole scene.

ALL EFFECTS OFF: Switches off all of the effects off, allowing you to compare the original and edited material.

APPLY TO ALL SCENES: Applies the selected cleaning settings to every scene of the selected movie.

Practical example
Let's assume that you want to remove an overexposed passage from your video that spoils an otherwise perfect recording.
1. In Timeline mode, turn the passage that you want to correct into an object. To do this, place the S marker at the beginning and at the end of the passage, each time clicking the scissor button ("Cut scene", shortcut: t).
2. Select the object you want to correct and click on "Video Cleaning" in the effects menu.

3. Modify the brightness until the image is exposed correctly (and if necessary, the contrast too) before exiting the editor by clicking on "OK".

Brightness

The faders increase or decrease image brightness and contrast. By selecting "Brightness" in the preset list, you can choose from a number of standard curves or edit only the darkest, mid-range, or brightest parts of the image.

Sharpness

The fader allows you to regulate the level of image sharpness.
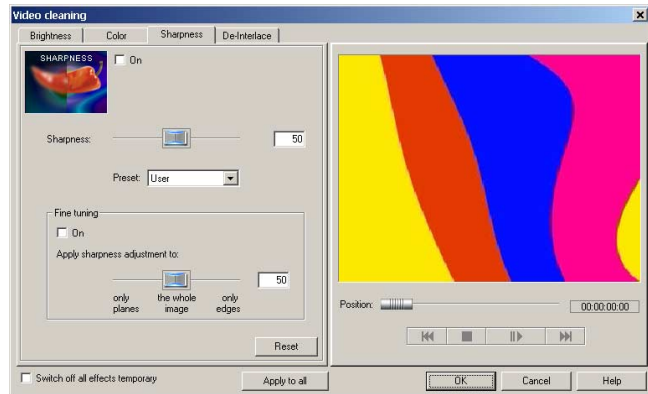
The "Fine Tuning" option allows you to determine the level of focus for particular surfaces or borders.

Color
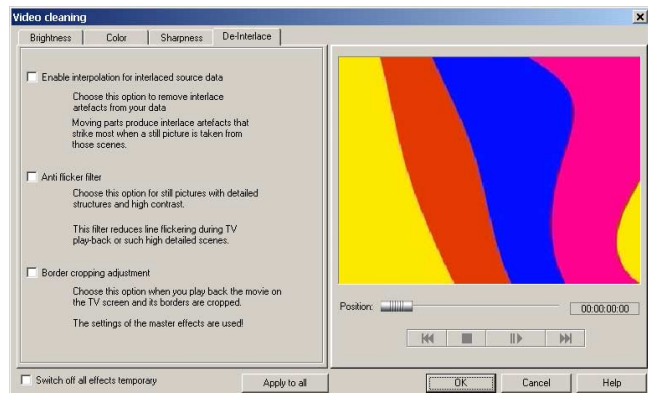
You can increase or reduce the color portions of images with the "hue" fader. A newly developed algorithm makes the change in color as natural as possible. With some experimenting, you can achieve some amazing results – such as turning summer images into autumnal pictures, or creating funky Pop Art…

COLOR: A selection of colors to add to images.

HUE: Increases or reduces the color portions of an image.

RED/GREEN/BLUE: Changes the color portion mix.

De-Interlace

This option serves to open an editor for performing various adjustments for the TV picture. Apart from the interlace and anti-flicker filter, you can also adapt the photo show to the actual scale of the television frame. A special algorithm ensures an optimal ratio between image size and image borders (anti cropping).
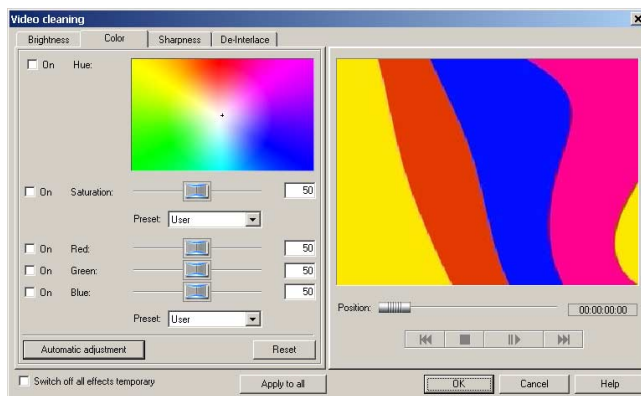
INTERPOLATION FOR INTERLACE SOURCE MATERIAL: Select this option to remove ridge structures from the (video) image. If you, for instance, extract freeze frames from a video, these ridge structures appear in image sections showing movement.

ANTI-FLICKER FILTER: Select this option for freeze frames with very fine structures and high contrast. You can use it to remove the flickering on your TV screen during playback.

BORDER CROPPING - OFFSET: Select this option if the edges are cropped during playback on your television. In this case the values of the master effect setting are used (see below).

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Scene Recognition/ Creating subtitles/Anti-Shake Filter/Trimmer

Please read the "Videos and Images" chapter for more details.

Movement

With the help of these functions, you can move cropped image in such a way that it appears as though the camera is panning. The crop can be either 50 % or pre-selected. Zooming can be simulated, e.g. for viewing far into distant landscapes.

Pan left - > right (right - > left): This option is suitable for particularly broad panorama shots. The picture is panned from left to the right (or vice versa). The time indicator of the picture is extended automatically for pictures in the standard 4:3 format.

Zoom in
Zooms slowly into 50% of the picture. If a crop has already been assigned, then the zoom in is implemented within the cropped material. Select the crop by drawing a frame on the video screen with the mouse.

Zoom out
Zooms out to the entire picture. If a crop has already been assigned, then the zoom out is implemented within the cropped material. Select the crop by drawing a frame on the video screen with the mouse.

Reset
Resets the image movement back to its original status. All zoom effects are also reset.

Crop

Crops can be used,
– to only show part of an image.
– to apply a movement effect to the cropped material – the result is a form of camera movement. Please read the "Movement" chapter.

Zoom 2*
Zooms two-fold into the image so that you only see 50% of the original image.

Zoom 3*

Zooms three-fold into the image so that you only see 3% of the original image.

Free

Select your own crop area by drawing a frame around the area on the video screen with the mouse.

Retain Proportions

As with "Free", you can select your own area for cropping – except that in this case the original 4:3 dimensions are retained.

Reset

Resets the image size back to its original. Status. All effects are also reset.

Section

Section > Zoom 1/2

The video takes up only 50% of the screen.

Section > Zoom 1/3

The video takes up only 33% of the screen.

Section > Free

Select the area into which the picture is to be shown by describing the area in the video screen with the mouse.

Section > Proportions fixed

Just like with "Free", this feature also allows you to select any segment you want, however, the proportional relationships of the photo's height and width remain unchanged such that there are no distortions.

Section > Reset

Allows you to restore the segment back to the full size of the photo. The entire photo can be seen again. Consequently, all motion effects are automatically reset as well.

Controlling Effects with Curves

In addition to static object-based effects, it is also possible to use dynamic object effects controlled by freely definable curves.

Selection and editing of the object curve effects takes place within the Dynamic Effects dialog, which is opened from the context menu and/or the FX menu.
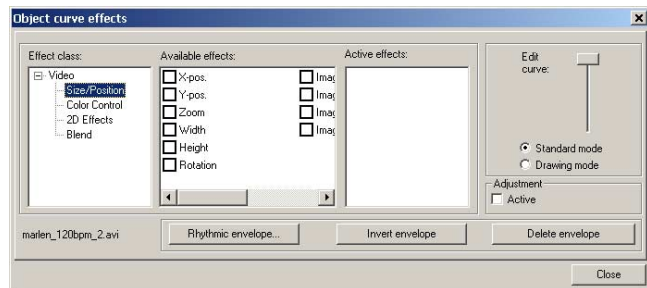
Here you can activate different effects to be controlled by a definable curve. All effects are arranged according to groups; activated effects are check-marked and are separately listed in the bottom part of the dialog. The bottom part of the dialog lists all the audio and video effects, which are currently activated and which can be adjusted with an accompanying curve.

Invert envelope
The current curve is mirrored on the horizontal 0-axis.

Delete envelope
The current effect curve is deleted.

ACTIVE ADJUSTMENT: This option ensures that the effect curve matches any extension or reduction of the object. e.g. If you want to control a zoom shot via an effect curve (and at the end of the zoom shot the object should be extended in the track), you should deactivate this option.

Rhythmic envelope
This option creates a so-called 'envelope' for controlling effects. It 'envelops' the audio files on the track in different ways. In this manner it is possible to directly control effects by rhythm of the music.
After you have called the option 'rhythmic envelope' in the 'dynamic effects' dialog, a selection dialog appears where you can define the shape of the envelope more closely.

BEAT-BASED: With this option, the shape of the envelope – and thus the effect portion in the video – follows the beat of the arrangement. Four different basic shapes are available for the beat-based envelope: 2 saw-tooth shapes, rectangle and triangle.

These shapes are regularly run through the video (visualized) in time with the beat and control the intensity of the activated effect.

On the left side of the dialog you can adjust whether the basic envelope shape is to be run through once per eighth, quarter, half or whole note.

OPTIONS: This takes you to an additional dialog, which determines the direction and strength of the beat influence on the envelope.

SCAN ENVELOPE: As an alternative to the beat-based envelope, the volume course of an audio track can be used as an envelope for the video. Loud passages make strong video effects, while quiet passages create weak effects. In this way, a drum loop can, for instance, control the distortion of a dancer.

NORMALIZE FIRST: With this function, the level of the audio object is normalized first before the object is scanned to create an envelope. (See also 'audio effects', section 'normalizer' in this regard).

Editing the effect curve on the track
– The curve can either be edited with the individual handles (in standard mouse mode) or by freely drawing the effect curve (in curve-editing mouse mode).
– New handles can be added to the curve in standard mode with a double-click, existing ones can be deleted with a double-click.

– All handles can be moved with the mouse in a horizontal and vertical direction. The intensity of the effect simultaneously changes during playback.

Editing the effect curve in the dialog
STANDARD MODE: Before playback, it is possible to use a slider to create and vertically move a point of the effect curve at the start cursor's position. During playback, an effect curve can be created using the slider to create a handle at the respective position of the play cursor, depending on the desired slider position.

DRAWING MODE: If you move the slider in the dialog, a curve which follows the slider movement is drawn on the track between start and end marker.

Audio effects

Using audio effects

Drag & Drop
The audio effects are stored in the "Audio FX" directory. Open the directory by clicking the corresponding Media Pool button. All audio effects feature preview functions and can be dragged & dropped onto audio objects in the arranger.

FX or context menu
The majority of effects also have an effect module, which allows you to intuitively adjust them. First select an audio object and drop an effect on it. Feel free to play with the module's buttons, faders and sensors, as they are non-destructive the sound will be calculated in real-time during replay) and will not harm your original sound material. Test it out with the presets first.

Master FX rack
"Master FX" gives you audio effects for the overall sound. You can open the Master FX rack from the mixer window.

Effect curves
Apart from the audio and video effects and the global audio effects, MAGIX Movie Edit Pro 2004 offers object effects, which can be controlled using freely definable curves.

Audio Cleaning

This option opens an editor for correcting noise, distortion or other audio discrepancies.
Select the cleaning function you desire from the upper part of the dialog:
– The equalizer allows you to manipulate the frequency spectrum – perfect for cleaning-up muffled dialog.
– The compressor is a dynamic volume control lends a deeper, richer quality to the overall sound.
– The StereoFX processor controls the position of the sound within the stereo panorama.
– The denoiser and dehisser are professional noise reduction tools for removing noise and hisses.
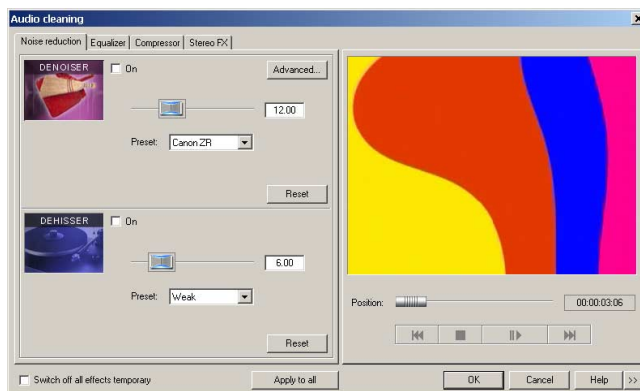
PRESETS: Select and test the variety of presets in the preset menu.

AUTOMATIC SETTING: This button offers a good effect setting for the material selected.

TEMPORARILY DEACTIVATE ALL EFFECTS: Switches off all the effects.

APPLY TO ALL SCENES: Applies the selected cleaning settings of all effects to every scene of the selected movie.

Denoiser
The denoiser removes persistent background noise, such as computer hum, hissing, noises from sound charts, disturbance from ground circuits, interference from audio-equipment with high-impedance outputs (such as record-players), impact noise or the turntable rumble.

The denoiser requires a noise sample. Some typical noise sounds are included in the flip menu.
Set the degree to which the noise should be reduced with the fader. It is often better to reduce interference signals by 3-6 dB rather than as much as is possible so as to keep the sound "natural". Or, create a noise sample yourself by capturing a short sample from the sound track in which only the background noise can be heard. Then switch to the denoiser dialog using the "Advanced" button.
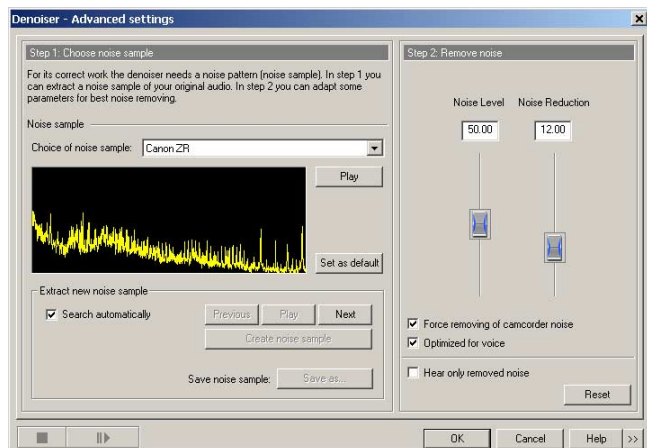
Step 1: Select noise sample
You have two possibilities:

PICK OUT TYPICAL BACKGROUND NOISE: You can select and use a number of typical background noises from the flip menu. Select one and listen to it with the "Play" button. If it is similar to the background noise in your sound track, go ahead and use it (see "Step 2: Removing background noise").

EXTRACTING A NEW NOISE SAMPLE FROM A SOUND TRACK: You can also pick out a short passage (from the existing sound track) in which you can hear the background noise.

AUTOMATIC SEARCH: Searches especially quiet passages in which background noise is most noticeable.

PREVIOUS / PLAY / NEXT: This button allows you to play all of the passages found for easy comparison.

SAVE AS: Once found, you can save noise samples on the hard-drive. They then appear as entries in the "Typical background noises" flip menu to be used in other projects. There's no need to save it if you only want to use it once, in which case switch to "Remove background noise".

Step 2: Remove background noise
NOISE LEVEL: The level of the noise reduction function should be set as precisely as possible. Low settings result in incomplete deletion of the hissing noise. An incomplete deletion of the hissing noise can leave artifacts and should

be avoided. High settings produce dull results – useful signals (such as the "air" of a wind instrument), that sound similar to hissing noise are also filtered away. It's worth your time to seek out the best setting.

REDUCER: This sets the balance between the original signal and the signal with the applied noise reduction. It is often better to reduce interference signals by 3-6 dB rather than as much as is possible so as to keep the sound "natural". With buzzing, it's best to apply complete removal.

Dehisser
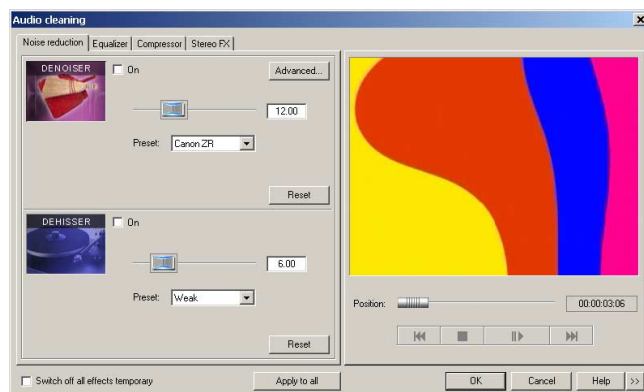
The Dehisser eliminates regular "white" noise, typically produced by analog tape recordings, microphones, pre-amplifiers or transformers.
Noise reduction can be adjusted in decibel increments with the fader. It is often better to reduce interference signals by 3-6 dB rather than as much as is possible so as to keep the sound "natural".

Equalizer
The 10-track equalizer divides the frequency spectrum into 10 areas (bands) and supplies each with separate volume controls, which allows you to achieve many impressive effects from the simple boosting of the bass, to total sound transformation. Note that if you raise the low frequencies too much throughout the whole level, it can cause distortions.
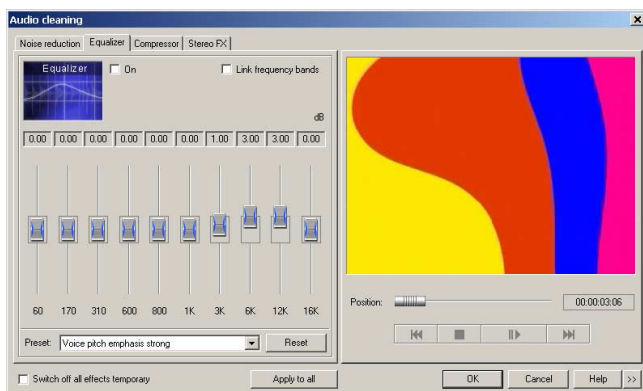
FADER: The volume of each of the ten frequency bands can be set separately with the ten volume controls.

LINK FREQUENCY BANDS: The frequency fields can be bundled together flexibly in order to avoid artificial-sounding overemphasis in individual frequency fields.

Compressor
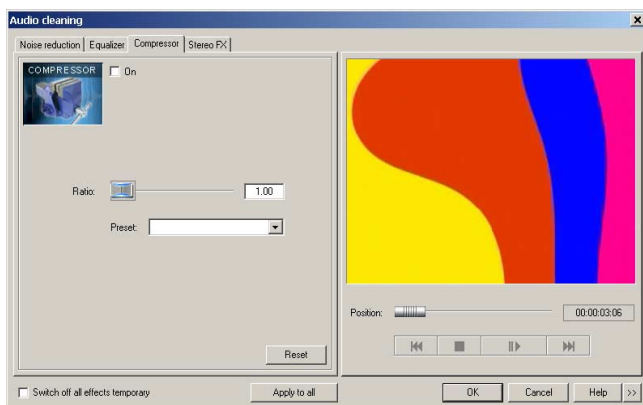
The compressor is an automated dynamic volume control. It limits overall dynamics, maintains the volume of loud passages so they stay loud, and increases the volume of low passages. Compression is often used to make the material sound more powerful, particularly for bass-heavy recordings and vocals, but also as master effects in the mixer for adding to the overall sound.

RATIO: Regulates the amount of compression applied.

FUNCTION: Defines the compressor's mode of operation depending upon the sound material.

Stereo FX
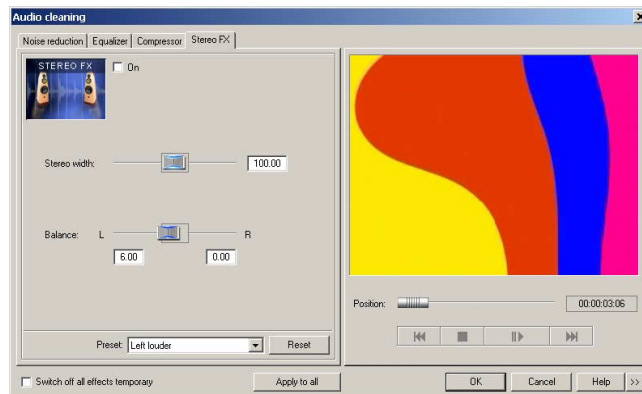
With the Stereo-FX processor you can treat the positioning of the audio material in the stereo balance. If the stereo recordings sound unfocused and undifferentiated, in terms of being able to pinpoint an instrument's location in the panorama between right and left speakers, an extension of the stereo base-width can often provide a better transparency.

BANDWIDTH CONTROL: This adjusts bandwidth between mono (on the extreme left), unchanged base-width (center) and maximum band-width ("wide", on the extreme right).
Reducing the bandwidth can produce a rise in the level. In extreme cases - when the left and the right channels include identical material and the bandwidth control is pushed to the extreme left on "mono" - the result can be a level rising to 3 decibels hotter.
Raising the band-width (values of 100) diminishes the mono compatibility.

Effect devices and Master FX

These effects are controlled in the conventional way by the use of slider controls, turning knobs, or buttons or alternatively using the graphic sensor fields.

Sensor fields
Sensor fields can be intuitively used with mouse movements, the sound of the audio and the respective effect settings change according to the mouse movement. For every effect, 2 settings are simultaneously affected with in the sensor fields (such as echo delay and feedback).

Power
Every effect device in the rack can be separately switched on or off.

Reset
Every effect has a reset button that restores the effect device's initial default (off). The effect is not calculated into the sound, and the effect is not rendered.

Preset
Each effect device is equipped with a selection of presets are selected through the drop-down menu.

Bypass
Some effects are equipped with a bypass button, which bypasses the effect device. The bypass button allows you to directly compare the neutral, unedited sound of the audio object with the effect setting you have chosen.

A/B
Similar to the bypass button, the A/B-button also compares two settings with each other. If you have selected a preset for the effect and make manual changes to it later, you can compare the original preset sound with the new settings by using the A/B-button.

EQ (Master FX)

The 10-band equalizer subdivides the frequency spectrum into ten areas ('bands') and equips them with separate volume controls. This way it is possible to create many impressive effects, from a simple boosting of the bass to complete elimination of a certain range of frequencies. Note: If low frequencies are boosted too much, the overall sound level is heavily increased which may lead to distortion. In this event, adjust the overall volume downward by using the 'master volume' control situated at the bottom center of the effect rack.

SLIDER CONTROL: Each of the ten frequency ranges can be separately boosted or turned down with the ten volume controls.

LINK BANDS: Using this button randomly combines the frequency ranges with each other in to avoid artificial-sounding overemphasis of an individual frequency range.

TOUCH SCREEN (RIGHT EQ SECTION): This is the 'sensor field' of the EQ. Here you can draw any type of curve with the mouse. This will be immediately translated into a corresponding control setting on the left side of the EQ.

Compressor (Master FX)

The compressor is an automated, dynamic volume control: loud peaking passages are evened out while soft ones become louder, creating a uniform, impressive sound. A compressor can be put to good use for bass recordings and vocals, but also as master effect in the mixer for subsequent editing of the overall sound.

Processing is carried out using a "look-ahead" method, similar to high-quality studio appliances. There are no peak over-modulations or other artifacts, as the algorithm can never be 'surprised' by sudden level peaks.

RATIO: This parameter controls the amount of compression.

THRESHOLD: Set the volume threshold, below and above which compression is applied.

ATTACK: Set how quickly the algorithm takes to react to increasing sound levels. Short attack times can create an undesirable 'pumping' sound, as the volume is quickly reduced or increased correspondingly.

RELEASE: Set how quickly the algorithm takes to react to falling sound levels.

Stereo FX (Master FX)

With the Stereo FX processor, you can determine the positioning of the audio material in the stereo balance. If the stereo recordings sound unfocused and undifferentiated, an extension of the stereo base-width can often provide a better transparency.

BANDWIDTH CONTROL: Adjusts the bandwidth between mono (on the extreme left), unchanged band-width (center), and maximum band-width ("wide", on the extreme right).

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Reducing the bandwidth can raise the level. In extreme cases – when the left and right channels include identical material and the bandwidth control is pushed to the extreme left on "mono" – the result can be a level rise of 3 decibels. Raising the band-width (values of 100) diminishes the mono compatibility.

VOLUME CONTROL: Adjusts the volume of every single channel, thereby adjusting the entire balance. The reduction of left and right levels is displayed under the control buttons. A centered recording can be moved later to the left or right of the stereo balance.

STEREO METER: This provides a graphic display of the phase relation of the audio signal. You can use it to review the orientation of the signal in the stereo balance and the effect of the stereo enhancer.
In order to get a maximum stereo compatibility, the displayed graphic should be close to a diagonal line. Otherwise some of the frequency ranges can eliminate each other, when the stereo signal is played on a mono player (phase-cancellation).

KARAOKE-PRESETS: You can choose the karaoke function from the presets of the stereo-FX processor. This function removes most of the frequency ranges where vocals are typically found. Create your own karaoke-style CD and sing along with the song!

Digital audiometer (Master FX)
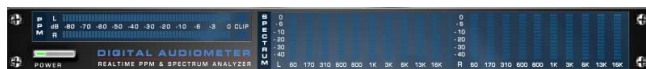
A digital audiometer, which supplies separate level control indicators for every channel of the ten frequency bands, is situated below the sound warper on the master FX-rack. This device is used for orientation purposes, such as selective equalizer editing.

Echo / Reverb (Master FX, FX menu)

Reverb
Reverb supplies a high-quality reverberation that can be defined with 'room size'; 'time' and 'color' controls and mixed into the original sound with 'mix'.

ROOM SIZE: This control button controls a room simulator that calculates the reverb effect dependant on the room size. If the control is turned completely to the left, it sounds as if the audio object has been recorded in a tiny room, turned completely to the right, one can listen to the object as if it had been recorded in a cathedral.

TIME: This setting determines the length of the 'reverb trail' (fading decay phase) of the sound.

COLOR: This controls the type of reverb (duller or brighter).

MIX: This control determines the mixing ratio between the unedited original sound ('dry' signal) and the reverb portion ('wet' signal).

Echo
The echo effect is further refined with 'delay' and 'feedback' amounts and calculated into the original sound by means of 'mix'.

DELAY: This sets the period of time between the individual echoes. The more the control is turned to the left, the faster the echoes will follow each other.

FEEDBACK: This adjusts the number of echoes. Turn the dial completely to the left, there is no echo at all; turn it completely to the right and there are seemingly endless repetitions.

Time Processor (FX menu)

This effect device changes the object's speed and/or pitch.

PITCH: This control changes the pitch independent of the object's speed ('pitch-shifting').

SPEED: This control changes the speed independent of the pitch ('time-stretching'). The object acts as if it were compressed or stretched on the track.

TONES/BPM: These fields are used to numerically enter the pitch or speed change. MAGIX soundpool files are al-

ready equipped with information regarding pitch and speed, which makes them particularly suitable for numeric entries. Other sound files' BPM can be automatically BPM-determined with the find function.

SETUP: This button opens a setup dialog, for selecting different procedures for pitch-shifting and time-stretching.
The beat marker procedure is particularly suitable for drum sounds with single, clear amplitudes. This procedure searches the files for existing beat markers or automatically sets beat markers before speed and pitch are recalculated. During recalculation, the intervals between the beat markers are taken into account first, which results in limiting sound distortions yet retaining the 'punch' of beats. The newer versions of MAGIX sound pools contain files equipped with beat markers and are particularly suited to the beat marker procedure.
In the setup dialog selects whether the new beat marker procedure is to be used for all files or only for files that are already equipped with beat markers. In addition, it is possible to select a simplified re-sampling procedure, where the pitch can only be changed based on the speed, similar to the 'pitch' controls of record players. This procedure takes the least amount of computing time.

Normalize/Reduce volume/Set volume

These functions, located in both the effects menu and the context menu, control the sound volume for individual objects, just like the object handles in the arranger. The mixer also controls
Overall volume, and the volume for each individual track. The "Normalize" function raises the volume of an object to its maximum without distortion.

Key: Shift + k (normalize)
Shift + l (reduce volume)

Controlling Effects with Curves

In addition to static object-based effects, it is also possible to use dynamic object effects controlled by freely definable curves. The Dynamic Effects dialog selects and edits the object curve effects and is opened from the the context menu and/or the FX menu.
Please read the "Video Effects" chapter for more details regarding the dynamic effects options.

Mixer

MAGIX Movie Edit Pro 2004 includes a real-time mixer with a master effects section that professionally mixes all the tracks within an arrangement. Open the mixer with the M key (also: "Window > Mixer" menu).

Faders & buttons

Each channel has its own volume or brightness fader, enabling the volume to be lowered quickly and accurately, and to add more bass or to fade out a video that is currently playing.

– This fader also acts on any linked MIDI files. -The stereo position for each track is defined with the Pan controls.

– The total volume can be re-adjusted with the master controls. This does not affect the MIDI files, so a balance may be achieved between MIDI and audio. If the MIDI objects are too quiet, simply increase the setting of the respective track controls and reduce the master control.

– Double-clicking on any of the controls resets it to its default passive setting (no boost or cut in level) that does not require processor output.

– Open the mixer with the M key (also: "Window > Mixer" menu).

– The master controls adjust the overall volume, without affecting MIDI files, so MIDI and audio files can be aligned. If the MIDI objects are too quiet, raise the position of the corresponding track control and reduce the master control.

– The Master effect rack controls the overall sound. Please refer to the 'Audio Effects' chapter for details on master effects.

DirectX audio Plug-Ins

The MAGIX Movie Edit Pro 2004 supports DirectX audio Plug-Ins. These are generally effect modules such as reverb, equalizer, etc. which are separately plug-ins available from a range of companies. With the standardized DirectX interface, it is possible to link all these Plug-Ins to the mixer. This greatly expands the spectrum of the possible audio effects and extends to the Plug-Ins used in the professional sector! The DirectX system must be installed on your PC prior to using the DirectX Plug-Ins – a manual installation is only required on rare occasions. Generally, DirectX is already available through the Windows installation. If your processor does not have the DirectX System installed on it, you can find a DirectX Installer on the MAGIX Movie Edit Pro 2004 CD-ROM.

Effect Plug-Ins in the Mixmaster

Clicking on one of the DirectX buttons in the Mixer opens a pop-up menu, for selecting the required Plug-In.
All of the audio data can be conducted through the plug-in as an Insert effect in the mixer master. A mastering tool such as an equalizer or a loudness maximizer plug-in would be a good idea here.

Effect Plug-Ins on the AUX paths

AUX 1 EFFECT PATH: A freely selectable section of every mixer channel can be routed to this effect path using the AUX 1 Send controller. The total of all the AUX 1 sections are conducted through this Plug-In and the results are mixed in by the master control.

AUX 2 EFFECT PATH: A freely selectable section of every mixer channel can be routed to this effect path by the AUX 2 Send controller. The total of all the AUX 2 sections are conducted through this Plug-In and the results are mixed in by the master control.

Internet Functions

MAGIX Movie Edit Pro 2004 offers Internet functions for
– Presenting your own clips on "MAGIX.TV"
– Sending movie arrangements directly by Email
– Downloading from any servers worldwide
– Creating your own website with integrated videos, images, songs and text.

Web Upload onto "MAGIX.TV"

You can upload your own videos onto the MAGIX homepage (www.magix.com) for the world to see and hear. All you need is an Internet connection – modem, ISDN or DSL. The upload works as follows:

MAGIX.TV

1. "Publish to Web"
After saving your video, select the "Publish to Web" option in the file menu. This will open a "publishing Wizard" that will lead you through the process. Note: You must agree to the licensing terms before you can continue.

2. Info
On the second page, enter your name and name for the video so that it can be found online. Then enter your Email address in case our editing team would like to contact you.

3. Download Optimization
On the next screen, select a target download speed for the video. . 56 kbit/second is preset. For slower modems, adjust this setting to 28 kbit, but note that the quality may suffer somewhat. The best quality is 128 kbit Dual Channel ISDN.T Anyone with a fast Internet connection will experience the video in the best quality possible. Activating all 3 speeds produces and uploads three versions optimized for each Internet connection speed.
Press the Complete button. The video will be compressed and uploaded onto the MAGIX server.
That was it! Now your web browser will open with MAGIX.TV.

4. Legal Check
Publishing copyright-protected material on the Internet (such as music from commercial CDs), without the specific written permission of the copyright holder(s) is expressly forbidden. For this reason, our editing team must check contributions that do not use audio material from
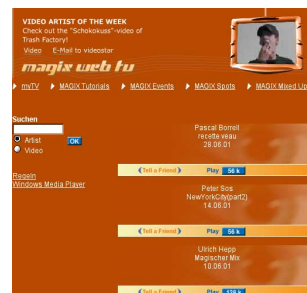
MAGIX Soundpool loops. If they contain protected material, we cannot publish them. Please note:

– If you only use material from the MAGIX Soundpool CDs, the video appears immediately in MAGIX.TV. Therefore, do not export files before uploading the arrangement! Exporting a file first produces a media file, which does not contain information about the material used.
– If other material is used, such as your own photographs, it is only checked to make sure that it is legal. It can therefore take a while before your video appears online.

5. MAGIX.TV
Check out videos from other MAGIX video artists on MAGIX.TV. MAGIX.TV is an online forum for personal entertainment, new discoveries and personal production. You can learn more about events, competitions, web charts, MAGIX.TV, web radio, web publishing area etc. at www.magix.com.

Save and send as e-mail

This option in the "File" menu generates a compressed file in the Windows Media format and opens the respective email program. The generated Windows Media file is automatically added as an attachment to a new message. Any type of arrangement can be compressed and sent without any intermediate steps.

Key: Shift + u

Loading multimedia files from the Internet

The Internet is vast resource for sounds of all type, effects, videos and images. Link to the Internet directly from the Media Pool using ftp (File Transfer Protocol). Sample multimedia files from all over the world, then load them into your arrangement, for further processing.
The entry "FTP Connection" is listed at the bottom of the directory list of the Media Pool. The FTP selection dialog box opens if you double-click the entry. You can enter the name or the IP number of the required server in the Internet. The default settings are on the MAGIX Entertainment server where you can constantly find new sounds and effects. We therefore suggest you click on this link from time to time, and take a look at what's new!
After linking to the FTP server, its root directory appears in the Media Pool. From this point, working with files found

on the Internet will be similar to browsing a CD: sounds are loaded for screening and are played back through a mouse-click. Drag & Drop integrates the sounds in your arrangement. Depending on the speed of the Internet access, loading may take a little longer than from a local CD-ROM. However, most of the sounds on the FTP server will be compressed sounds (e.g. in popular MP3 or MS Audio format). These sounds require only approx. 5-10% the transmission time of uncompressed waves with practically full sound quality. Typically, a 2-second loop can be 'downloaded' in 2-4 seconds.

Naturally, the FTP download function is not restricted to compressed sounds. All supported media types can be loaded, such as JPEG images or AVI files or MPEG videos. MAGIX Movie Edit Pro 2004 uses a special subdirectory as a cache for the Internet data. This directory can be set in the Internet Settings dialog box (Menu "File > Settings/Information"). All files are only loaded once and are available instantly.

To empty or reload Internet files, simply delete the Internet cache subdirectory! Note: A successful FTP connection is dependent upon Internet access. Your PC must connect with a modem or ISDN card through an Internet service provider. If your provider uses their own access software for connection, we recommend establishing the Internet connection first and then establishing the FTP connection with MAGIX Movie Edit Pro 2004. Connection is automatic through a correctly installed Windows FTP network.

Website Creation

Technical requirements

Creating your own web page (with your own music, videos and images) is easy with MAGIX Movie Edit Pro 2004 — even without extensive knowledge of computers. All you need is MAGIX Movie Edit Pro 2004 and an Internet provider.

The Internet provider must support the following:
– The usual amount of web space (usually around 10 MB – which in most cases will be enough!)
– *.WMA and *.WMV file types, as well as JAVA Applets must be supportable.
– If the provider integrates automatic ads or banners (common among free web space providers), it can affect the layout design. To help overcome this problem, one should choose a simple design from those provided in the Designpicker.

– Uploads are performed through FTP. Therefore, you'll require an FTP user name, FTP password and FTP address from the provider (e.g ftp://ftp.abcdefg.com. More details are available from your provider).

– You should not need any other program to upload your homepage. MAGIX Movie Edit Pro 2004 has an automatic upload function.

– How does web page updating work? The whole index of files that make up your homepage is uploaded to the provider's server via FTP. When a change is made to the homepage, (for example, when you have new music to integrate into the site), only the new files are updated. MAGIX Movie Edit Pro 2004 recognizes immediately new and old material on your homepage. This saves both time and money when the new material is uploaded.
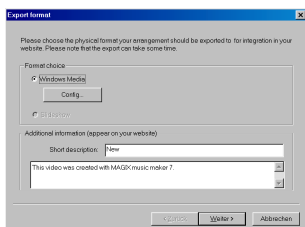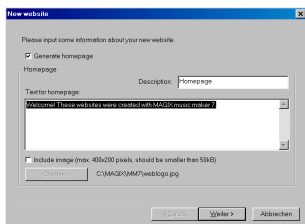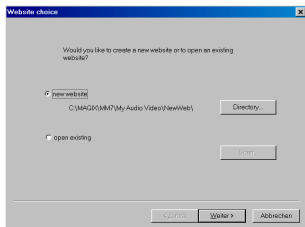
Creating a website

To create a new website, follow these simple steps:

1. Select "Internet > export to website" option from the file menu.

2. Select whether this is a new or existing web page in the first dialog.

3. If you clicked "New", a start page will be loaded in the "New Website" dialog – the actual "homepage". If you wish, you can integrate a greeting and a self-portrait in JPEG format (as long as the image data is no greater than 50 kB and the image itself is no larger than 400x200 pixels).

4. Next, select the export format. The Windows Media format, which is recognized by every windows system, is the default preset. Include a brief summary or longer text to accompany your arrangement and display on your web page.

5. Indicate in the next dialog, which page of your website you would like your arrangement to appear on. The arrangement will not be loaded up to the front page, but instead on a subsequent page you can name. ("My videos" is the default setting name).

6. Use the Designpicker in the final dialog to choose a from various web page templates. Now simply upload your site to the Internet, or edit it in the web page Editor.

Editing and administering an existing web page.

To export an arrangement to an existing web page, select the "Export to web page" option in the file menu. Choose the "existing web page" option and select the desired destination web page if you have more than one.

EDITING WEB PAGES: To edit individual website pages, launch the web page editor by clicking the "administer web pages" option in the file menu.

Web page editor
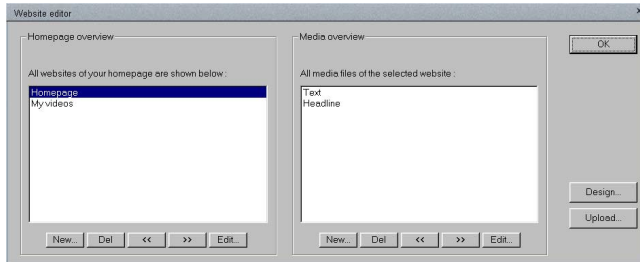
The web page editor has two columns: "Web page overview" and "media overview". The sub-pages are listed along with their contents. You can edit or erase integrated elements.

Web page overview
The complete "Web page" consists of a front page and some sub-pages that can be accessed from a navigation bar on the front page. By clicking "new", you can create new pages. You can choose "Front page", "Information", "Audio/ Video", "Slide show" and "Contact page". Each page can be embellished with headlines, text, Email addresses, songs or videos with the "media overview" option

Tip: To create a slide show with MAGIX Movie Edit Pro 2004, save your photos to the hard drive in JPEG format. Photos should not be greater than 50-70 KB. Then you can load them onto the first arranger track and load subtitles on the second track. On the other tracks you could lay down background music or narration. It can all be displayed as a slide show from your web page for almost all PCs connected to the Internet.

ERASE: Erases the web pages selected in the web page overview

<</>>: These buttons organize the web page hierarchy (tree).

EDIT: Choose the design of the navigation buttons.
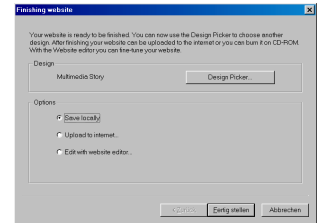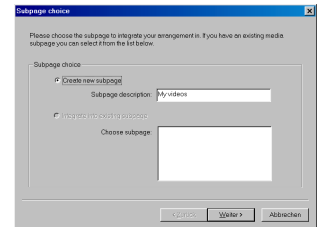
Media overview

List the contents of the selected web pages in the "web page overview" that can be modified. Each selected web page ("Front page", "Information", "Audio/Video", "Slide show" and "Contact page") allows new content to be added.

The other buttons in the "media overview" function in the same manner as the "web page overview". You can move content up or down on the page, edit or erase.

DESIGN/UPLOAD: After editing, you should view your work offline by clicking on the design button. When everything appears as you had planned, then you can upload it to the site. If the text or images have been shifted out of place use other text or images, or you choose a different design from the Designpicker.

DesignPicker

View look and design of your website. Choose preset design templates with different background or navigation motifs in the upper part of the Designpicker. Use the cursor to scroll down the list.

When you have seen a design that you like, select it and drag it into the lower section by drag & drop.

Your website will be displayed in the lower section, as it would on the Internet (for your system browser version).
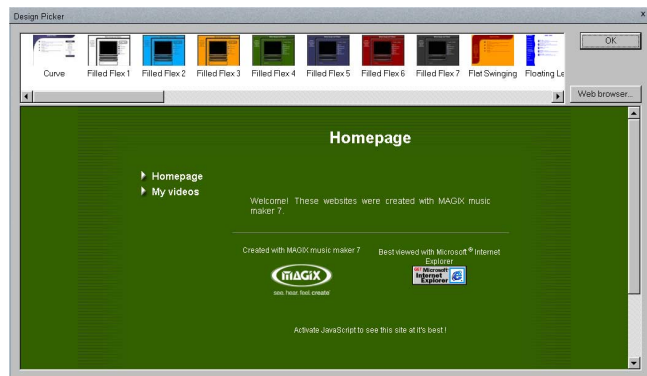
Make CD/DVD-Screen
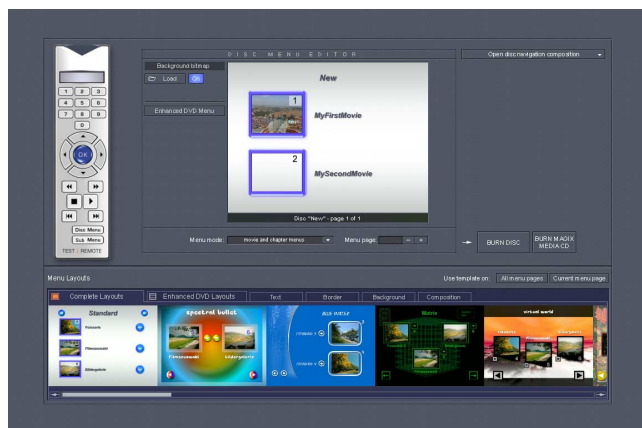
Functionality

Select this screen in order to burn your movie, together with the selection menu, onto CD or DVD.

Selection Menu

MAGIX Movie Edit Pro 2004 can generate a movie selection menu as seen on standard DVD videos. It is burned onto the disc and appears when you insert the disc into your DVD player. Now you can play movies or scenes with your remote control, just as you would with a purchased DVD.

Preview

In the middle of the screen you will see a preview of the Selection menu. This menu also appears when you insert the disk to be burned into the player. The numbers refer to the number keys of your remote control (whether real or virtual).

Menu modes
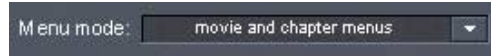
MODE 1: No menus. Movies are burned one after the other onto disc. The first movie is played automatically when the disc is inserted into the player. Use the skip buttons on the remote control to jump to the previous or next movie. Since no menu is burned onto the disc, no menu preview is shown.

MODE 2: Movie menu only (preset): After inserting the disc, a menu appears for choosing a movie on the disc by using the virtual remote control. The selected movie starts immediately. If you fail to select a movie, the first movie on the disc starts automatically.

MODE 3: Movie menus and Scene menus. In addition to the movie menus, there is a scene menu for each movie. Select a movie and switch to the applicable scene menu and select individual scenes with the remote control.

Navigation
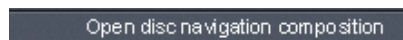
When you click on "Navigation" you will see the structure of the menu. The disc menu has a maximum of two levels.

MOVIE MENU: All movies are listed as primary entries. This menu level is the movie menu.

SCENE MENU: All scenes are listed as secondary entries to the right of the movies to which they belong. This menu level is the scene menu, and is only available in menu mode 3. If you deactivate the red "tick", the scene entry in the menu is also deactivated.

Menu entries and previews

A double click on the preview window or on a menu entry opens the editor used to change the name of a movie or chapter, or select a preview. You can also scroll through a movie or a movie chapter (scene) to find a suitable preview. Load your own bitmaps for your menu images by activating "Use other graphics".

OPERATIONS AT THE END OF THE FILM: Specify how the disc reacts at the end of the film. You can let the film playback come to an end, return to the disc or scene menu or loop the movie playback.

PLAYBACK IN INFINITE LOOP MODE: Any film may also be stored on CD as a loop. This means that the film is played back in an infinite loop until a different film is selected via remote control.

Layout

At the bottom of the screen is a row of menu layout templates. Use the scroll bar to view them all.
– Choose Layout, then double click the layout of your choice to select a complete template.
– Combine elements of different templates by selecting "Text" and double clicking the template containing the text you wish to use. Then select "Background" and double click the applicable template. The preview in the middle of the screen displays the result immediately. For example, you may wish to use the text format from one template, and the background from another.

Animated Selection Menus (only for DVD and Mini-DVD)

DVD menus can be enriched with animation. The background videos are played back in an infinite loop during on-screen menu display. Background sounds or images in various formats can also be integrated into the menu. Please note that the animation can only be used for DVDs and Mini-DVDs, but not for CD formats.

EXTENDED DVD MENU: Use this button to enable/disable the animated menus in the video monitor of the Make CD/DVD- screens and the extended DVD menu templates in the template list.

IMAGE/VIDEO/SOUND: These buttons in the preview monitor enable the loading and utilization of image, video and

125
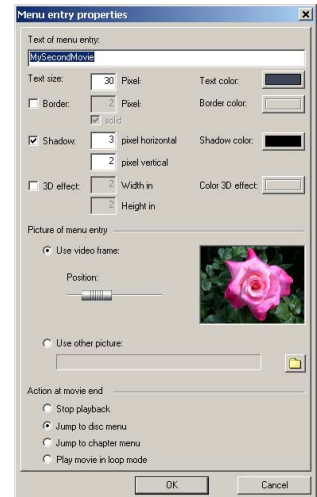
audio files as menu background animation. In the Disc Simulator, click "play" to start animation playback.

INTRO: This button in the preview monitor loads videos for use as DVD or Mini-DVD intro. The following formats are supported: AVI, MPG, MXV, VOB. The intro is played back as soon as the DVD is placed into the player, then the DVD menu appears.

EXTENDED DVD LAYOUTS: Animated DVD menus may also be found in the menu templates as menus with added sounds and/or films.

Remote control

The virtual remote control is an important tool for checking the disc function before it is burned. After inserting a CD or DVD with your disc project into the player, the remote controls the preview image on your computer monitor in the same way "real" remote control controls the picture on a TV monitor. The DVD menus may also be navigated using the cursor arrow keys on your keyboard. Enabled buttons are highlighted.

NUMBER KEYS: The number keys select the applicable entry in the menu.
PLAY: In the disc menu, the menu of the first film is played. In the movie menu, the playback starts with the first scene.

DISC MENU: Switches back to the first page of the disc menu – in effect, back to where you started.

SUB MENU: Switches to the scene menu (if available) of the film currently being played back.

Burn Disc

This button opens the burning dialog. In the burning dialog you can select your burner and the file format. Next, the project is rendered out as one file so that the actual disc authoring and burning process can begin.

Burning dialog
The large "Burn Disk" button opens the burning dialog. Burning follows 3 simple steps:

1. BURNER AND BURNING SPEED CONFIGURATION: If you have several burners installed, select a device from the appropriate selection menu.

2. SELECT FILE FORMAT: You can burn DVDs, Mini DVDs, Video CDs and Super Video CDs. If necessary, you can modify the bit rate or encoding quality by clicking the "Encoder" button. Default values conform to the selected file format.

Note: MAGIX Movie Edit Pro 2004 supports DVD -R, DVD+R, DVD +RW, DVD -RW, but not DVD-RAM! For more details regarding DVD formats, please read the chapter " Appendix: Video and data media".

3. START THE BURNING PROCESS/VIDEO ENCODING: Simulate a burn test if you are unclear about burning speed or the required hard-drive space. Simply click on "with prior simulation". The "Start" button will start the simulation and/or the burning process.
The disk project is encoded every time you burn or carry out a simulation (for VCDs with MPEG 1, for S-VCD, DVD and Mini-DVD with MPEG 2). You can choose a directory in the hard-drive to save the MPEG file. Please note that the MPEG file will not be erased after burning takes place.

Note: This process requires time! The coding process for long movies can take up to 8 hours.

Add project backup

This option can be used for burning archival mixed-mode CDs of your movie project and its data files. "Mixed mode" describes a CD that stores different standards simultaneously (a video CD section and a CD-ROM section). Creating a mixed-mode CD enables you to load the disc project from the completed disc for re-editing or modifications.

When the completed mixed-mode CD is opened, the encoded MPEG video is accessed instead of the raw material. This saves storage space on the CD, as the video files do not need to be stored twice on the disc. Image files used for films and menus, the text for the titles, as well as utilized audio files are saved as raw material, reducing the storage capacity of the disc by the corresponding amount of storage space.

Encoder settings

Use the "Encoder" button to open a selection dialog for setting the MPEG encoder properties (memory requirements, quality and duration of MPEG conversion).

Click the "Advanced" button to open the "Advanced Settings" dialog. Here you can fine-tune the LIGOS encoder settings.

Also read the comprehensive instructions in the help menu (F1 key)!

Memory

VCD (approx. 700 MB)	approx. 70 minutes
SVCD (approx. 700 MB)	approx. 30-40 minutes
DVD (approx. 4,7 GB)	approx. 2 hours
Mini DVD (approx. 700 MB)	approx. 20 minutes

It is particularly difficult to attribute reliable specifications when employing the MPEG 2 encoder (for SVCDs, DVDs and Mini DVDs – and in DVD file formatted CD-ROMs). When the "variable bit rate" of the MPEG 2 encoder is activated, variable encoding takes place that is dependent upon image movement. The required memory is dependent upon the type of footage. An action movie requires more memory than a single location theatre piece. If you can't fit your disk project onto a blank disc, you must divide the project into several parts.

A full-length feature film, for example can be burned onto

3 SVCDs, made up of 3 disk projects (start, middle, and end).

More information regarding MPEG compression and formatting can be found in the "Appendix: Video and data media" chapter.

Testing variable encoder configurations
If you want to know how much memory you require for different encoder configurations, you should carry out a few test runs before burning. Choose the "with prior simulation" option to avoid wasting discs.
Submit a short (say 5 minute) disk project for burning simulation, configured in various ways.
Check the MPEG 1 and MPEG 2 files you've created on the hard-drive after each simulation to see how large they are. You should now be able to calculate the memory your disk project requires, remembering to provide a small buffer zone for the selection menu!

Disc Spanning

Automatic
If the disc project requires more storage space than is available on a single CD or DVD, you will be asked, before the writing process begins, whether the disc project is to be split up onto several data carriers. Simply confirm this dialog by clicking "yes". The disc project will be automatically divided into separate disc projects stored to the data carriers in consecutive order.

Manual operation
1) Several films do not fit onto a single disc.
Return to the Video Editor and delete as many films from the disc project as necessary until the remaining films all fit. The other films can then be stored in the next step as part of a new disc project.

2) A film is too long and does not completely fit onto a disc.
Split up the film into two or more parts, which are then each stored separately on a new disc.
– Switch to the Video Editor, place the S marker on the position where you would like to split up the film and select the "Split object" option in the scissors menu.
– All sections behind the S marker are removed from the excessively long movie and are treated as a separate film. Both films can be accessed via the films flip menu. Store

both separately onto your hard disc ("Save movie" menu option, using the names "Part 1" and "Part 2").
– Remove one of the two films (e.g. "Part 2") from the disc project ("Remove film" menu option).
– Switch to the Make CD/DVD-Screen and write the first film ("Part 1") onto CD or DVD.
– Create a new disc project ("New" button), switch to the Video Editor screen and load the second film ("Part 2").
– Switch to the Make CD/DVD-Screen and write the second film ("Part 2") onto CD or DVD.

Burn Media CD

With the "Burn MAGIX Media CD " button you open the independent CD burning program "MAGIX CDR". Thus all picture and sound files of the slide show, plus the effects settings and the playing program "MAGIX Media Manager cdr", can be archived together on a CD ROM.

For more details regarding the CD-R burning dialog options and the "MX CD-R" burning module, please read the "MAGIX CD-R" chapter in the PDF manual

MAGIX Media Manager cdr ensures that the CD-ROM is playable on every Windows PC, independent of the installed software. It is also capable of starting automatically: After inserting the CD-ROM, MAGIX Media Manager cdr starts automatically and begins by playing the slide show. However, the option "Automatic notification with change" must be activated in the Windows system control for the CD-ROM drive. If it is deactivated, you can start your CD-ROM slide show by hand:
– insert the CD-ROM you have burned into the CD-ROM drive
– open Explorer and click on the letter representing the CD-ROM drive (usually D:\). Double-click "MediaManager.exe" to start MAGIX Media Manager cdr.
– Using the MAGIX Media Manager cdr Explorer, open the slide show play list files that end with *.PLR and then *Play.*

For more information regarding MAGIX Media Manager cdr, open the help file (F 1-key)

Menu File

New Movie

Menu option that creates a new, empty MAGIX Movie Edit Pro 2004 movie arrangement.

Key: *Ctrl + n*

Load Movie

A previously saved MAGIX Movie Edit Pro 2004 arrangement is loaded with this menu item. Please note that the object files for the arrangement must also be available! MAGIX Movie Edit Pro 2004 will look for the sounds and videos that were used first in the path where they were located when the arrangement was saved. If they are not found there, then MAGIX Movie Edit Pro 2004 Arrangement will look for the objects in the same directory as the arrangement itself.

Key: *Ctrl + O*

Save Movie

The current arrangement is saved under the existing name. If no name has been selected, then a file name dialog opens for defining the path and file name.

Key: *Ctrl + S*

Save Movie as

This opens a file name dialog for defining the path and the name of the arrangement that is to be saved.

Key: *Shift + S*

Load/ Save disc project→ Load disc project

Loads a previously saved disk project. Make sure that you have the movies that belong to the project available! All sounds and videos to be used are retrieved using the path given when the last "save" was made to the disc project.

Key: *Ctrl+ Shift + o*

Load/ Save disc project→ Save disc project

The current disk project is saved under its own name. If a name is not given, a dialog opens for you to enter a name and a file path.

Key: *Ctrl+ Shift + s*

Load/ Save disc project→ Save disc project as

The current disk project is saved under its own name. A dialog opens for you to enter a name and a file path.

Key: *Ctrl+ Shift + d*

Export Movie → Video as AVI

When you export as an AVI video file, you can set and configure the compression codec as well as the size and frame rate of the AVI- video to be created.

Key: *Alt + a*

Export Movie → Video as DV-AVI

Exports the arrangement in the DV-coded AVI format (PAL or NTSC).

Key: *Alt + b*

Export Movie → Video as MPEG Video

MAGIX Movie Edit Pro 2004 is equipped with the high performance Ligos GoMotion-encoder. In the MPEG export dialog you can fine-tune the options for the MPEG encoder.

Tip: Also when burning (S) Video CDs or DVDs, standardized MPEG 1 or 2 files are produced. Many DVD players however also process (S) VCDs with non-standardized (higher) bit rates. Try exporting your movie through the file menu as an MPEG, then burn your disc afterwards. When burning, MAGIX Movie Edit Pro 2004 notices the fact that the MPEG file is already present and uses it instead of creating a new, standardized, MPEG file.

However, for producing standardized MPEGs for CDs/DVDs, we recommend that you use the Make CD/ DVD screen. For more details, read the "MPEG compression" appendix on the help pages (F1 key)

Key: *Alt + c*

Export Movie → Video as MAGIX Video

MAGIX Videos are stored in MXV format, which requires less memory than normal AVIs but gives a similar quality.

Key: *Alt + d*

Export Movie → Video as QuickTime Movie

Exports the arrangement in QuickTime format.

Key: *Alt + e*

Export Film → Video uncompressed

You can assign the size and frame rate for uncompressed AVI video file exports.

Key: *Alt + u*

Export movie → video as sequence of single frames

This option exports the video as a sequence of single BMP files. The number of the bitmap files can be set in the export dialog under "frame rate".

Key: *Alt + v*

Export Movie → Windows Media Export

This is the Internet streaming format from Microsoft. It makes the continuous playback of audio or video files through the Internet possible. However, for this format you will need to use a suitable codec that prevents file rates from getting to high for an on-line playback.

Key: *Alt + f*

Export Movie → Real Media Export

This is a format specifically optimized for the Internet. It reaches a very high compression rate, and the sound quality is noticeably lower. However, this format is very useful if audio on-line has to be played through the Internet (Streaming Audio). After selecting the file name you can choose the bit range of the transferring speed (Modem, ISDN etc.). This should still play audio files without interruption.

AUDIO SETTINGS/VIDEO SETTINGS: Select the presets for the quality of the audio or video material.

CLIP INFORMATION: Here you can enter information regarding the author, name of the video, etc., displayed during playing on the Real player.

CLIP META INFORMATION: Enter keywords for search engines. If the Real video clip is loaded to a home page, search engines with the aid of these keywords can find it.

VIDEO PREPROCESSING: Here, the field '2-pass encoding' is of particular interest. This tool makes it possible to achieve a better quality by compressing audio and video separately or select different filters.

VIDEO SIZE: Set different video sizes between 160x120 and 720x576 pixels.

TARGET GROUPS: Select which Internet bandwidth to optimize the video for. (Which data line it can be played ('streamed') in real-time). The setting you select here may possibly restrict the other selection possibilities, as a file for a 28k-modem cannot be generated in high quality. Streaming videos requires a server application that must have been installed on the server from which the video is to be played ('streamed') in real-time. If this application does not exist, only a download is possible. 'Real server' is a server application which makes it possible to stream videos in Real video format.

Key: *Alt + g*

Export Movie → Audio as Wave

Audio material is exported as a standard Wave file. This is the standard format for further use on PCs running in a Windows environment. These files are not compressed and contain the full quality of your arrangement.

Key: *Alt + h*

Export Movie → Audio as Wave with Codec

This menu item allows you to export Wave files with any audio compressors such as ADPCM, MPEG and others. First you must select a file name; a list with the Codecs installed on your system will then appear. Select the desired Codec here, e.g. Microsoft® ADPCM. With some Codecs, a certain compression rate can then be selected. ADPCM reduced the required memory space of your Wave files by a factor of 4 while still retaining very good sound quality. Other Codecs such as MP3 can achieve compression factors of up to 12 times smaller with good sound quality.

Key: Alt + i

Export Movie → Single frame as BMP (JPEG)

Exports the image, which is at the current Start-marker and which is displayed on the video screen, as BMP or JPEG file.

Key: Alt + m (BMP)
*   Alt + n (JPEG)*

Internet

Calls up the various Internet functions of MAGIX Movie Edit Pro 2004. For more details, read the "Internet Functions" chapter.

Write files to CD-ROM

Stores all currently selected files onto a CD-ROM. In MPEG-1 format you can store approximately 74-80 minutes of video material and in MXV approximately 30 minutes.

Key: Shift + g

Capture audio/picture/video

For details regarding the options for both video and audio capturing dialogs, please read the "Video" and "Audio" chapters respectively.

Key: g

TWAIN Scanner/Camera → Select Source

The Twain interface connects MAGIX Movie Edit Pro 2004 with just about all current scanners and digital cameras. Follow this procedure if you are scanning for the first time using the Twain interface.
1. Install the Twain software on your PC.
2. Restart your computer.
3. Run MAGIX Movie Edit Pro 2004.
4. Click "File: > Twain scanner/camera > Select source," if your scanner is working with 32-bit software.
5. In the dialog box, click the device you wish to work with. From now on, this step is no longer necessary, as long as you keep using the same device.

TWAIN Scanner/Camera → Scanning

The scan window of the scan software displays. Specify the resolution and color depth. Once the scan is complete, the

Twain software closes automatically – MAGIX Movie Edit Pro 2004 awaits you with a fresh image file. However, the Twain window may also remain opened. You can then scan several images in succession.

Song Wizard

With the help of the Wizards, audio objects (Loops) of the can automatically be arranged as songs or song parts, without having to drag individual files from the Media Pool onto the selected track.
Please refer to chapter "audio" for details!

Key: w

Transfer back audio/video

This function gives you the option of playing the arrangement and saving it onto a digicam or an analog video recorder.
Digicams are usually connected to the FireWire interface and analog video recorders to the TV-out socket of graphics or video cards.
Analog export must be done in full-screen mode.
The first option of the video export dialog will play the arrangement in full-screen mode. This can cause interruptions if the processor cannot process all the information necessary for real-time calculation of video effects or cross fading.
Instead choose the second option from the dialog ("Render changes"), which will avoid interruptions.
Choose the third option for digital export. You will not encounter any problems because the data is transferred digitally. The "Adjustments/information" option of the file menu lets you select the resolution of the export video.

Key: Ctrl +h

Backup copy → Save film and media in directory

With this menu item, you can save a complete MAGIX Movie Edit Pro 2004 arrangement including all the samples that were used in a directory. This is especially useful if you want to pass on or archive such an arrangement or if the samples are located on several CDs and would need to keep changing CDs constantly during loading. All the effect files that you have used will also be saved in a directory together with the other samples.

A file requester opens, in which you can define the path and the name of the arrangement that is to be saved.

Key: *Shift + e*

Backup copy → Burn film and media onto CD / DVD

This option allows you to burn the arrangement together with all the associated files onto a CD-R or DVD. A burner must be connected to the system and a blank CD or DVD inserted in the drive.

Key: *Alt + Shift + r*

Backup copy → Recall disc project from CD / DVD

This option can be used to load a film that was stored in re-edit mode to (S) Video CD or DVD as project backup. For more info about the re-edit mode, please read the chapter "Make CD/ DVD screen".

Movie → Load backup movie

Use this option to load an automatically created film backup. These automatic backups have the MV_ (underscore) file extension. This option can be quite useful in emergencies, such as inadvertently saving the file during editing and needing to return to the previous version of the film.

Key: *Alt + o*

Movie properties

VOLUME: Indicate how much volume on every track should be lowered (in decibels). Lowering the volume is necessary to avoid over-addressing of the 16th Bit (0 dB). The level that the volume must be lowered can often be reduced if the material is not fully addressed. However, you may risk "clipping" and distortion at loud passages!

An information window with the following entries can be reached with this option:

NAME: This is where the name of the current arrangement appears.

PATH: This is where the path for the directory on the hard-drive is shown, in which the arrangement has been saved.
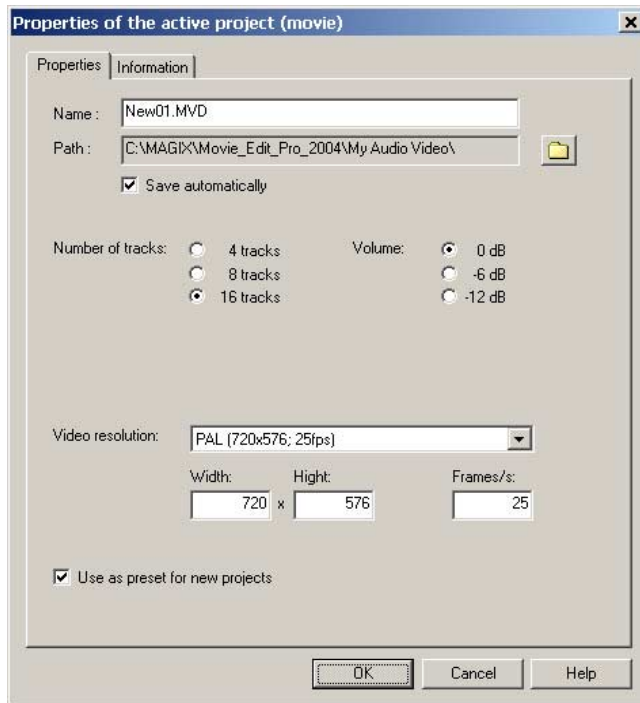
CREATED: Shows the time at which the arrangement was created.

LAST CHANGE: Shows the time of latest save.

NUMBER OF OBJECTS: Shows the number of all objects in the arrangement. Here, stereo audio objects count as 2 objects. This means that virtual objects are also counted!

FILES USED: Shows the names and paths of all multimedia files used in the arrangement.

Key: e

Playback parameters

This menu item opens a window in which you can set the following replay parameters.

SAMPLE RATE: The Sample rate defines the playback speed for wave audio objects. The sample rate you use depends on your sound card (some sound cards even allow changes in the sample rate during playback). This parameter is useful if you want to listen to your arrangement in slow motion to localize possible problem areas. If you divide the

sample rate by two, then the wave audio objects can be played back an octave lower (twelve half-tones).
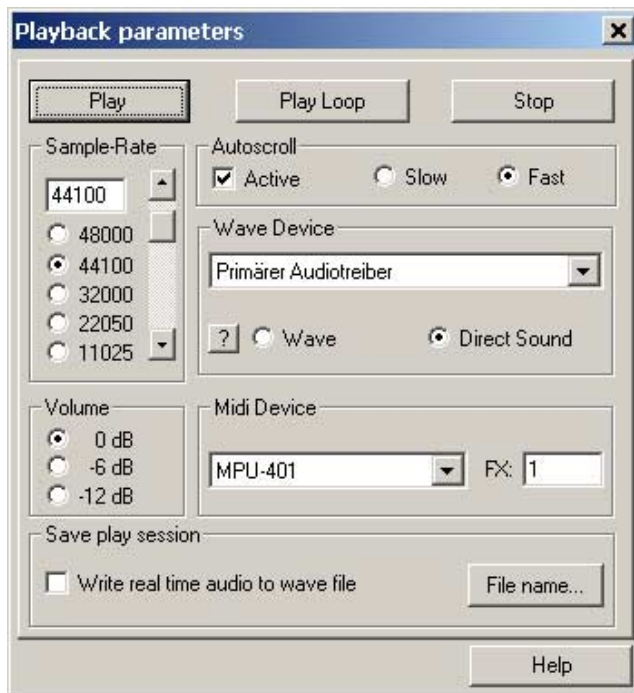
WAVE DEVICE: This option defines which sound card will be used to play back the Wave audio object. This is extremely important if you have several sound cards installed in your computer.

WAVE/DIRECT SOUND: THIS is where you can set whether the standard Windows drivers will be used for the sound card or if the DirectSound system, which should be installed in your computer anyway, is to be used. If this should not be the case, a DirectSound installation routine can be found on the MAGIX Movie Edit Pro 2004 program disk.

MIDI DEVICE: The MIDI-Device is used to define which sound card or MIDI interface will play back the MIDI objects.
Many sound cards have a built-in MIDI interface, which is accessed from a joystick connector on the back of the card. To use it you need a MIDI adapter cable. One end plugs into the joystick socket and the other terminates in MIDI plugs or sockets, which you connect to your MIDI equipment. There are also several dedicated MIDI interfaces

available. Many are on plug-in cards that are fitted and installed into the PC just like a sound card. There are also external MIDI interfaces that connect to the PC's printer port, serial, USB or Firewire ports.

AUTO SCROLL: What is shown on the screen automatically scrolls once the cursor reaches the right end of the screen when Auto scroll is activated. This is especially advantageous for the editing of longer arrangements.
Scrolling uses up processor time due to the recalculation of the screen representation. This can interfere or interrupt playback, depending on the capacity of your system (processor, graphic card, and screen resolution). If this should be the case, you should deactivate Auto scroll.

WRITE REAL-TIME AUDIO TO WAVE FILE: This option allows the entire arrangement to be mixed live and recorded simultaneously. During play, for example, mixer fades or effects can be controlled or the bars can be played - with the help of the keyboard shortcuts - in the arrangement in a different sequence – all activities are recorded and written to a separate wave file. After each play is stopped you are asked whether the piece just played should be saved as a WAV file, loaded into the arrangement or deleted.

Key: p

Ssettings

System
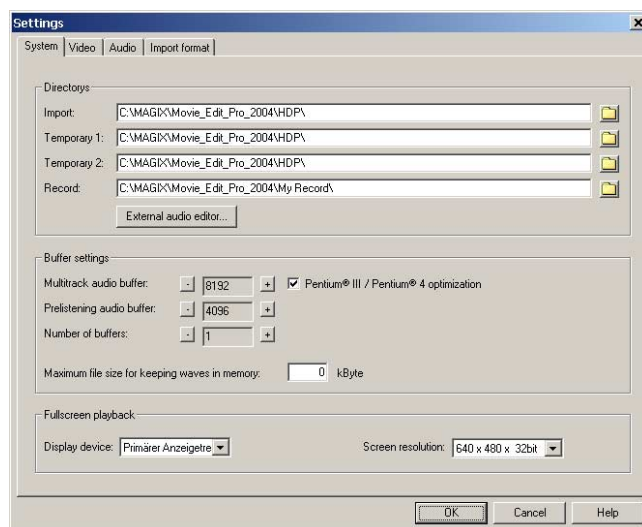
DIRECTORIES (IMPORT/TEMPORARY 1, 2/ARRANGEMENT):
The paths for the directories into which the MAGIX Movie
Edit Pro 2004 will create files during the importing or ex-
porting of Wave files, or where complete arrangements and
newly-created temporary files for MIX and effect files can
be placed here.

BUFFER SETTINGS: To facilitate easy playback of complex
arrangements, MAGIX Movie Edit Pro 2004 creates a data
buffer in the working memory into which the current data
areas are loaded in advance. The entire arrangement with
all the tracks and effect settings is not calculated at once,
but the calculation is performed on a step-by-step basis.

MULTI-TRACK AUDIO BUFFER/PREVIEW BUFFER: Define the
size of the buffer that will be used for playing back the
entire arrangement or for screening Wav files in the Me-
dia Pool. The buffer number refers to the number of buffer
updates per time unit (the step size of the advance calcula-
tion).
Note: For waiting and loading times that are too long, the
buffer number and size should be reduced; the buffer size
should be increased for intermittent or incorrect real-time
calculations of effects.
As perfect playback is generally more important than a fast
response time, the buffer size for intermittent operation
should be increased to 16384 or 32768. The possible num-
ber of buffer updates used is between 2 and 10.

USE RAM FOR WAVE FILES SMALLER THAN (KBYTE): If the
file is larger than this setting, then it will be written into
the temporary MAGIX Movie Edit Pro 2004 directories
on the hard-drive and will then be loaded from there into
RAM during replay. The temporary directories are also
defined in the "File > System settings" dialog box (see
above).

Audio/Video
All the Settings Options relating to videos, audio wave files
and audio CDs can be found in this sub-menu.
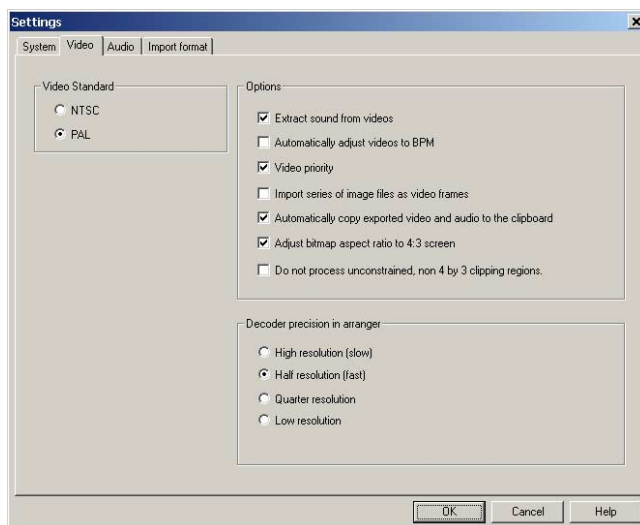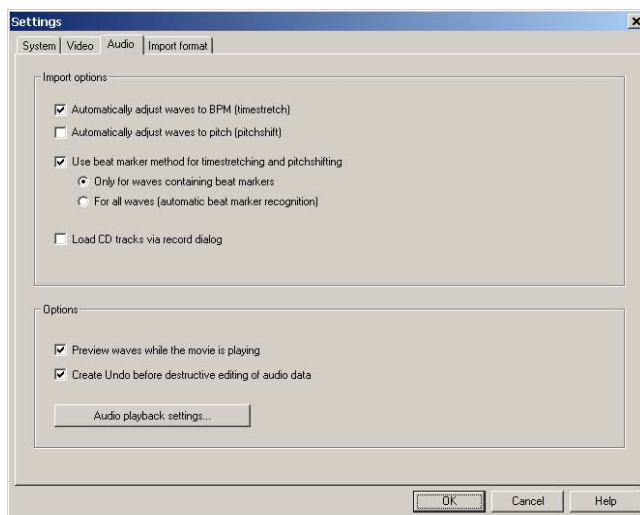
AUTOMATICALLY ADJUST WAVES TO BPM: Wave files can be adapted to the tempo of the arrangement in various ways. MAGIX Movie Edit Pro 2004 can use common 'Time-stretching' or Beat Marker/Time-stretching. This does not change the beats (the deflection of the amplitude in the waves) and only processes the spaces for time and key changes. This ensures that the beats do not have to suffer a loss of power even if drum samples are drawn out by using Time-stretching.

AUTOMATICALLY ADJUST WAVES TO PITCH: Pitch-shifting can be used to automatically change the pitch of waves. For

this purpose, the samples used must contain the corresponding information concerning the key / pitch, similar to the samples in the MAGIX soundpool CDs. The pitch in the arrangement will correspond with the pitch information in the initial samples in the arrangement.

ONLY FOR WAVES CONTAINING BEAT MARKERS: Patched Waves are normal Wave files to which additional information such as The key, tempo in BPM or beat markers have been added. MAGIX soundpool CDs contain such wave patches and have access to beat information. Such files are especially suitable for beat marker time stretching.

FOR ALL WAVES: Improved time stretching can also be applied to all Wave files. In this case, the beat markers are automatically searched and set. Beat marker time stretching however requires a sequence containing clear beats or especially drum or percussion recordings.

LOAD CD TRACKS VIA RECORD DIALOG: If this option is activated, then audio CDs can be recorded using the Record button in the movement controls. During Drag & Drop from the Media Pool, the Record window opens for starting recording. This option can be used if Drag & Drop does not function perfectly in the Media Pool or only the first bars of an audio track are to be used in an arrangement instead of a complete track.
When doing this, please note that the digital track data for the digital - analog converter in the CD-ROM must initially be converted into analog signals and that these must subsequently be converted into digital data by the analog-digital converters in the sound card. Depending on the quality of the converter used, this can lead to losses in quality.

EXTRACT SOUND FROM VIDEOS: If an AVI video contains both video and audio data, then you can extract the audio track from the AVI video with this function.
The audio track is then positioned on the first track of your arrangement as a Wave audio object. It can be edited or replaced at will there or can be joined together again with the picture track using the command File > Export arrangement. If the option "Calculate only altered frame" is selected, then the picture material remains unaltered and only the sound track will be replaced. (In the case of the complete recalculation, losses in picture quality due to decompression and re-compression can occur).

PREVIEW WAVES WHILE THE ARRANGEMENT IS PLAYING: With this option you can choose to play the arrangement and search for more sounds at the same time. Click on an audio file and the pre-listen function will be mixed with the audio tracks of the arrangement.

AUTOMATICALLY ADJUST VIDEOS TO BPM: If the BPM information is available, then this option can be used to automatically create a video in which the rhythm and picture sequence are synchronized.

During this, all the frames in the video are not played back, but frames are left out during playback, depending on the BPM setting. A video with a high BPM setting becomes noticeably faster: it "dances" to the rhythm.

The tempo can be adjusted in the movement controls prior to every new arrangement. Otherwise the arrangement will use the BPM tempo of the first sample that was loaded.

VIDEO PRIORITY: Normally, audio objects have priority during playback. In the event of an overload in the processor due to excessive effects, the video output can be shaky, while the sound plays on crackle-free.

If you do not want this, the priority of the video over the audio output can be set here. The video output is renewed following every audio buffer, but this can lead to interruptions in the sound. In return, you do achieve a better video screening quality.

PREVIEW WITH AUDIO AND PLAYBACK CONTROLS: The video preview, started by a simple left click on a file in the explorer, is displayed as usual on the video screen, this time including the available audio data and controllable from a play, pause and stop button.

AUTOMATICALLY COPY EXPORTED VIDEO AND AUDIO TO THE CLIPBOARD: All exported files will be copied to the Windows clipboard. You can paste them directly into other programs (Ctrl + V).

CD-ROM Configuration

This option opens a CD Manager from which tracks on audio CDs can be selected and loaded fully into the arrangement. In addition, the CD-ROM can be configured or selected from several drives.

If the Drag & Drop of audio tracks from the Media Pool causes problems, then this option can be selected. Here the tracks can be scanned in various ways, i.e. they can be

grabbed. Alternately, you have the option "Scanning CD tracks via recording dialog" from the "Audio/video settings" menu (see below), where the tracks can be played back from the CD drive and can then be re-recorded using the sound card.

The CD Manager allows the importing of audio data with most SCSI and ATAPI-CD-ROM drives and CD writers. If necessary, check with MAGIX Technical Support about which drives are suitable. The complete data import occurs at the digital level, without any losses in sound quality. HD-Wave projects can be created as WAV files and can therefore also be loaded in other audio programs without requiring conversion of the format.

Reading Audio CD tracks

To import audio CD tracks:

1. Select the required CD-ROM drive if you have more than one drive installed.
2. Click on the "Track list..." button.
3. Select the required title in the track list (with the key combination Shift or Alt and the cursor keys).
4. Click on "Copy selected track(s)."
5. Select a file name for the resulting WAV file or the HD Wave project and click on OK.
6. The audio material will now be copied from the CD drive to the hard-drive. A progress display provides information on the status of this step.
7. Close the track list and the drive list. One or more new objects containing the audio material from the CD will appear in your arrangement.

The Drive List dialog box
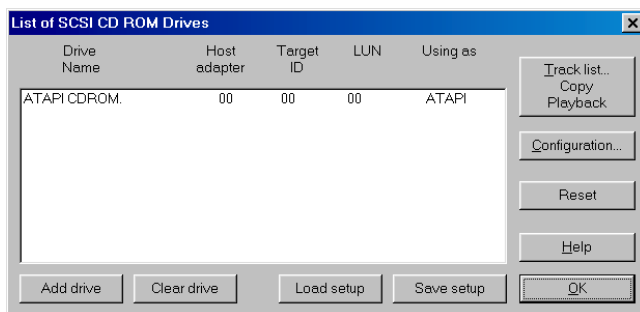
TRACK LIST: This button opens the Track List dialog box for copying on or more tracks.

CONFIGURATION: This button opens the Configuration dialog box, where various Special Settings, SCSI-IDs etc. can be set.

RESET: Resets the standard drive settings.

ADD. DRIVE: Creates a new drive entry into the list for which Special Settings are still necessary.

CLEAR DRIVE: Deletes the selected drive from the list.
Save Set-up saves the current drive list and all the configuration data in a *.cfg file.

LOAD SETUP: Loads the current Drive List and all the configuration data from a *.cfg file.

The Track List dialog box
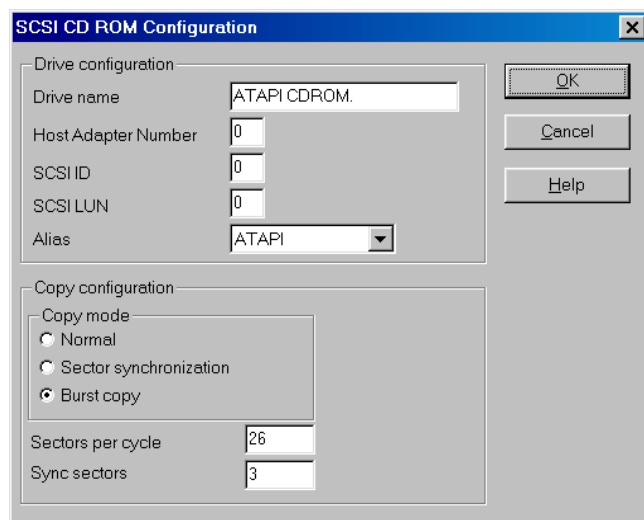
COPY SELECTED TRACK(S): This button starts the audio copying process. All the selected tracks are copied into a WAV file or a HD-Wave project. A new object will be created in the current VIP for every track.

PLAY: Start audio replay of the first selected track in the list (for test purposes).

STOP: Stops replay.

PAUSE: Pauses replay – can be restarted later with Resume.

RESUME: Resumes replay if replay was stopped previously with Pause.

SELECT ALL TRACKS: All audio tracks are selected, in order to copy the entire CD, for example. Track markers can also be set with Shift or Alt and the cursor keys. Using Ctrl and clicking on the mouse can mark several tracks.

DESELECT ALL TRACKS: All markers will be undone.

The Import Audio Dialog
The Import Project Dialog is displayed after selecting the Copy Selected Track(s) Option. Here you can determine the name and destination index for the audio file. Audio tracks (CD audio files) will be imported in the pre-setting as WAV files. However, depending on the installed Codec, they can be changed during the import phase to a compressed format such as an MP3. All you need to do is click on the Format Settings Button in the Import Project Dialog.

The CD-ROM Configuration dialog box
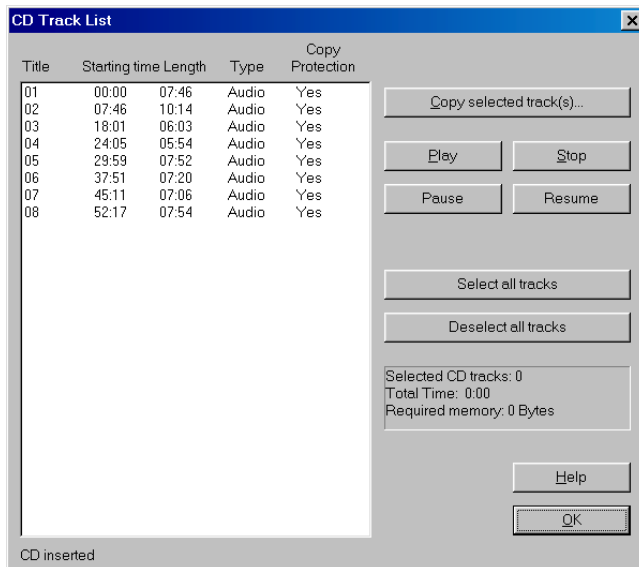
DRIVE NAME: The name of the drive can be entered here. This is useful if several entries are used for the same physical drive.

HOST ADAPTER NUMBER: The number of the SCSI-Host adapters (usually 0) is entered here.

SCSI ID: The SCSI-ID for your CD-ROM drive can be entered here. Pay attention to the correct ID number, you will not be questioned if an error is made here.

SCSI LUN: Sets the SCSI LUN parameters, normally 0.

ALIAS: The name of your CD drive manufacturer can be entered here.

COPY MODE NORMAL: Copies the audio data without any software correction.

COPY MODE SYNCHRONIZATION SECTOR: Copies the audio data with a special correction algorithm. This is especially useful as many CD drives have problems re-addressing a specific position accurately, which can lead to crackling.

BURST COPY: Optimizes the speed of the die copying process; no software correction will be used.

SECTORS PER CYCLE: Defines the number of audio sectors that are to be read from the audio CD in one read cycle. The larger the sector size the faster the copying process will be completed. However, many SCSI systems have problems with more than 27 sectors.

SYNC SECTORS: Sets the number of audio sectors that will be used for software correction. The larger the number, the better the correction will work, but it will also be slower.

Menu Edit

Undo/restore/duplicate objects/delete objects

These options are also available as buttons.
Please read the "Tools" chapter.

Undo

10 commands can be undone, including object and cursor manipulations. If you don't like the result of a change in your arrangement, the Undo function will take you back to the previous arrangement.

Key: Ctrl + z

Redo

Redo lets you reverse the last Undo command.

Key: Ctrl + y

Duplicate objects

This menu option lets you copy all selected objects. The copy appears next to the original and can be moved easily by holding the left mouse button (drag and drop).

Key: Ctrl + d

Delete objects

This menu option lets you delete all selected objects from the arrangement. To highlight or select more than one object, use the "Shift" key while you click with the mouse.

Key: Del

Select all objects

All objects in the arrangement will be selected.

Key: Ctrl + a

Cut Objects

You can cut a selected object at start marker position into two smaller objects. If no object is selected, all objects are cut at the starting marker position. Further options for cutting can be found in the time-line menu. Please read the "Time-line Mode" chapter!

Key: t

Save objects as takes

The selected objects are saved in the takes directory. For further information on processing takes, see the chapter on "Videos and Pictures".

Key: Ctrl + f

Edit Range → Cut

The area between the start and end markers is cut from the current arrangement and placed on the Clipboard. This section can then be re-inserted elsewhere.

Key: Shift + del

Edit Range → Copy

The area between the start and end markers in the current arrangement is copied to the Clipboard. It can then be re-inserted elsewhere.

Key: Ctrl + Ins

Edit Range → Delete

The area between the start and end markers is deleted from the current arrangement and is not placed on the Clipboard.

Key: Ctrl + Del

Edit Range → Insert

The contents of the Clipboard are added at the position of the start marker in the current arrangement.

Key: Shift + Ins

Edit Range → Extract

The area between the start and end markers is retained, all the material in front and behind it are then deleted. Use this option to extract only a section from an arrangement and to continue working on this piece.

Key: Ctrl + p

Build group / Ungroup

These options are also available as buttons.
Please read the "Tools and Mouse Modes" chapter.

Mix down audio

This option joins all audio objects in one audio file. The sound material will only occupy one track of the arranger and will hardly affect the RAM but will occupy approximately 10 MB (in stereo) of the hard-drive. This will give you more control over the arranger and more space for further objects.

MAGIX Movie Edit Pro 2004 automatically normalizes the audio file, i.e. the loudest part of the wave audio object is identical with the highest figure of the 16-bit resolution ceiling. This guarantees the same sound quality, even if you repeat the mix down procedure or you combine the mix down file with other wave audio objects again and again. The mix down function is very helpful if you want to go on using the mix down object. For the final AVI or WAV (or any other multi-media) file, which is designed for burning a CD or for use on other PCs, use the "Export arrangement" submenu options from the file menu instead of the mix down function.

Key: Shift + m

Set Marker → Marker 1/2/3

Sets a playing marker at the starting marker position that can be started directly with the "Go to marker" option. A chapter marker can also be set which is transferred to the selection menu when burning a CD or DVD. Please read the "CD/DVD Screen" chapter

Key: Ctrl + Alt + 1/2/3 (for each marker)

Set Marker → Chapter Marker

Sets a chapter marker in the same position as the start marker. Please read the "Make CD/ DVD screen" chapter for more details

Key: Shift + Enter

Set Marker → Automatic Chapter Marker

Automatically sets a chapter marker on the edges of all objects within the first track (in time-line mode) as well as at the beginning of all scenes in storyboard mode. This is the easiest method with which to generate chapters.

Set Marker → Delete All Chapter Markers

Deletes one or all chapter markers and removes all chapter entries in the disc menu.
Please read the "Make CD/ DVD screen" chapter for more details

Key: *Ctrl + Enter*

Go To Marker

Moves the start marker in the time-line to the respective play marker, allowing you to quickly switch from one point in a video to another.

Key: *Shift + 1/2/3 (for the respective play marker)*

Menu Effects

Object Properties

This function displays all the information about the currently selected objects, such as file name, position on the hard-drive, tempo, etc. The Object Editor also defines the foreground and background color of every object in the arrangement.

Key: Ctrl + e

Specify the global effect settings for a film, meaning the parameters that affect all scenes contained in the film.

Effect settings movie

Brightness/color area
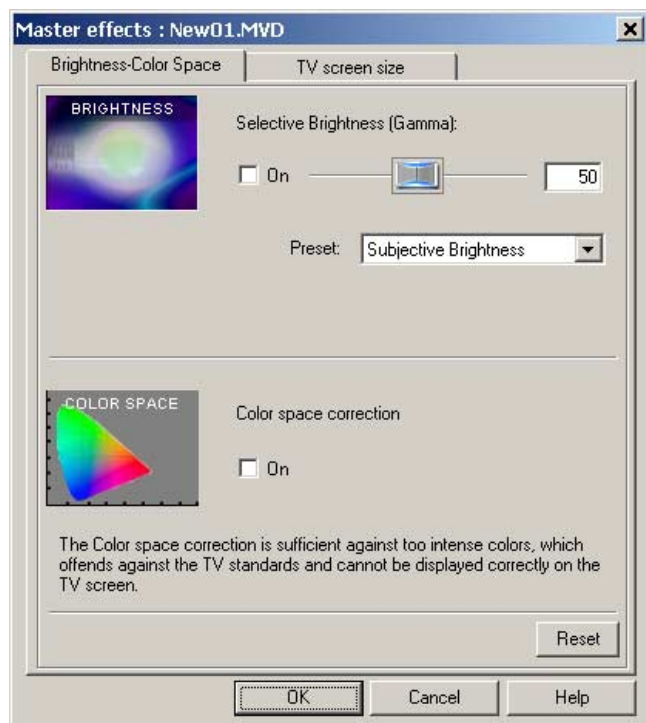
SELECTIVE BRIGHTNESS (GAMMA): "Gamma" determines the mean gray scale that can be calculated from the various color ranges. In the pre-sets menu you can select which color ranges are to be used. Use the slide control to adjust the brightness.

COLOR SPACE ADJUSTMENT: This option is used to handle colors that are too intensive, contravene the TV standards and cannot be properly displayed on a TV screen.

TV screen size
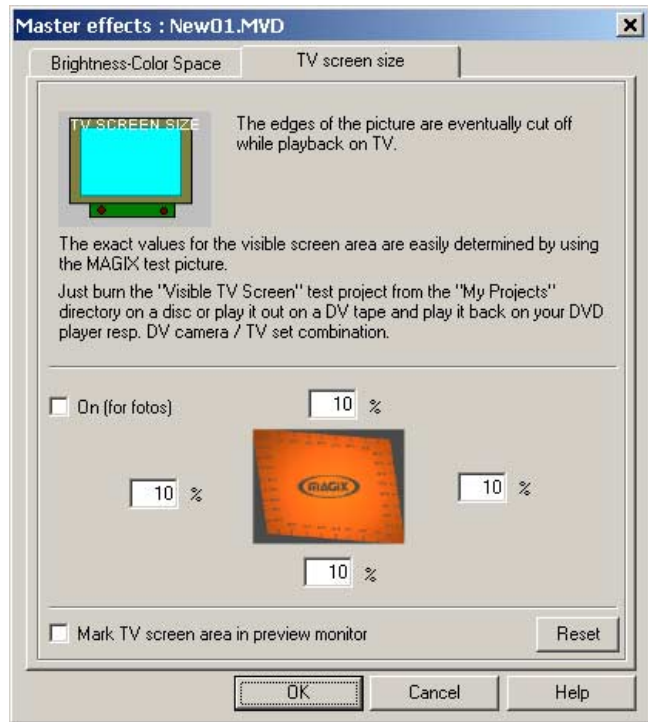
This option ensures that the image size is adapted to fit the real television picture (anti cropping). Without adjustment, the television might otherwise crop the image borders.
The four image margins can be proportionally adjusted by means of the four input fields. Here it is important to find the optimal balance between distortion, reduction, bar formation and image cropping:
– If the same value is entered for every margin, the image size is reduced proportionally. In this case no distortions will occur, but there will be bars along the edges.
– If different values are entered for the 4 fields, the image size is reduced unproportionally. This causes image distortion.

ON (FOR PHOTOS!): This option enables the input values for the four image borders to be applied to the respective photos in reduced form. The result can immediately be viewed on the preview monitor.

FADE IN TV DISPLAY AREA IN THE PREVIEW MONITOR: This option displays the image borders of the television as lines in the preview monitor. The four image borders of the TV display area can be set by means of the 4 input fields. Here, it is of course necessary to know the actual size of the TV picture. To determine it, proceed as follows:

Determining the visible TV frame size
To determine the picture properties of your television as well as optimal image size editor settings, you should perform a test run.
– Load the "Visible TV picture.mvm" film from the "my projects > visible TV picture" folder.
– Play back the film and read the instructions on the video screen.
– Copy the film to CD or DVD.
– Place the disc into your player and play back the film. Compare the TV picture to the picture displayed on your video screen by MAGIX Movie Edit Pro 2004.
– Determine the proportional value of the borders cropped by the television with the 4 measurement scales along the edges of the test picture.
– Enter the values in the "Full TV size" editor.

The image size is now optimized to your TV picture. Please note: Depending on device settings and disc carrier type, the cropping values may vary slightly.

Video object effects → Video Cleaning

Calls up the color control editor for processing video tracks. For further information, see chapter "Videos and Pictures".

Key: Shift + x

Video object effects → Video Effects

Calls up the video controller for selected videos or bitmaps. For further information, see chapter "Video effects".

Key: Shift + y

Video object effects → Scene recognition

Calls up the automatic scene recognition, which "cuts up" longer videos into scenes for storage in the Takes directory. For further information, see the chapter "Storyboard-Mode".

Key: *Shift + z*

Video object effects →Motion stabilizer

Opens the Motion stabilizer dialog with which you can correct shaky footage. Please read the "Videos and Images" chapter for more details

Video object effects →Object Effects Curves

Opens the Dynamic Effects Editor. Please read the "Video Effects" chapter for more details.

Video object effects →Section

Places video objects in a particular part of the screen. Please read the "Video Effects" chapter for more details.

Video object effects → Load/Save/Reset video objects

You can save the current effect combination of a video object separately and use it on other objects later on. Or turn off all current video effects, if you got confused.

Key: *Ctrl + Shift + a (load)*
           Ctrl + Shift + b (save)
           Shift + c (reset)

Video object effects → Edit bitmap externally

Graphic files (BMPs or JPEGs) from the arranger can be post-edited in an external graphics program. The selected image file is loaded automatically and, once editing has been completed, is used in the MAGIX Movie Edit Pro 2004 instead of the original material.

Key: *Alt + p*

Audio object effects

For information about the audio effects see the chapter "audio effects". For information about the "automatic track damping" function see chapter "menu File", "audio recording"!

Load/Save/Reset Audio effects

You can save the current effect combination of an audio object separately and use it on other objects later on. Or turn off all current video effects, if you got confused.

Key: *Ctrl + Shift + C (load)*
           Ctrl + Shift + D (save)

Shift + d (reset)

Audio object effects→ Volume Curve

The most important object effects curve, allowing the volume to be immediately accessible. Please read the "Video Effects" chapter for more details.

Title object effects→ Title Editor

Calls up the title Editor. Please read the "Videos and Images" chapter for more details.

Title object effects→ Load Title Effects/Save Title Effects

You can store the current preset effects combination for each title object separately and later apply them to other title objects if they have worked satisfactorily.

Effect Libraries → Audio effects/Video effects/ Slide effects/Title effects

See paragraph "Media Pool buttons" in chapter "Media Pool"!

Menu Window

Mixer

With this option you can display or conceal the real-time mixer.

The eight volume controls allow you to adjust the volume of each track.

In the case of AVI and bitmap objects, the volume controls are used in the same manner as in a video mixer to adjust the mixing ratios between the tracks and the video or bitmap objects.

With the two controls for the overall volume, you adjust the volume of the wave output signal. As they have no influence on the volume of MIDI objects, they can be used to adjust the volume ratio between wave and MIDI output signals.

You will find further information, especially with regard to the integration of effect plug-ins, in the chapter 'Mixer'.

Key: *m*

Cut Trimmer

Shows or hides the cutting trimmer window, allowing you to make fine adjustments to the position of the selected video or image objects and their handles – as well as the transition characteristics (Transition type, length). Please read the "Videos and Images" chapter for more details.

Key: *n*

Object Trimmer

Calls up the video trimmer, which will help you fine tune the position and the handles of a video object. For further information, see the chapter "Videos and Pictures".

Master audio effect rack

Here you can open or close the master effect rack. You can also use the 'master FX' button in the mixer window for that purpose.

Key: *b*

Arranger full size

The arranging view maximizes the number and/or size of visible tracks in the arranger. In addition, you can switch off the video screen to obtain even more space for arrang-

ing (see below). If the video screen is switched on in arranging view, it can be freely positioned on the screen.

Key: l

Dual-screen layout (with or without controls)

Allows a second screen to be used as a preview screen for MAGIX Movie Edit Pro 2004

Key: x - with controls
*   z - without controls*

Video monitor

With this option you open and close the video window.

Key: v

Media Pool

With this option you can conceal the Media Pool or make it visible again.

Key: f

Show film overview

With this option you can display an overview of the entire arrangement on the video screen. It is particularly suitable for long and complex arrangements to prevent you from losing track.

Key: Shift + a

Optimize view

The zoom level is set to 100% so that you can see every object and the entire arrangement apart from that; the Start- and End-markers are set to the beginning or end, so that it is possible to play the entire arrangement.

Key: Shift + b

Storyboard / Time-line mode

Switches between Storyboard and Time-line mode.

Key: Tab

Menu Help

Content

Got to the Help/Content menu to display the main help screen. From here you can jump to help on certain commands or step-by-step read through instructions.

Context help

Use this command to get help on any part of MAGIX Movie Edit Pro 2004.
By pressing the Context Help button in the tool bar the mouse indicator will become an arrow with a question mark. More detailed information on the subject will appear when you click on any menu or button in one of the two tool bars.

Using help

Use this command to access online-help.

Display tool tips

ToolTips are small information windows that open up automatically if the mouse pointer stops briefly on a button or some other area. They provide information about the button's function. These information boxes can be switched off or on with this option.

About MAGIX Movie Edit Pro 2004

Here you will find information regarding the copyright and the version number of MAGIX Movie Edit Pro 2004.

Online registration

Here you can register online. Advantages:
– Special pricing on select items
– New sounds for downloads
– Special offers
– Advance info on new products
– Demo software before the official release date
– User Forums
– Online Support

MAGIX.TV

Use this command to access the MAGIX.TV online area.

Settings/Information → System information

Information on the current date and time appear in this Information window, in addition to the number of files

that have just been opened, the total size of the memory in the system and the size of the memory used by the MAGIX Movie Edit Pro 2004. In short, a list of all available drives and their available memory capacity.

The memory area used by the MAGIX Movie Edit Pro 2004 should never be larger than the physical RAM in the computer, as otherwise the performance will drop drastically during replay as a result of virtual memory swapping!

Key: *Ctrl + i*

Keyboard Shortcuts

Play Functions

Start / stop	spacebar
Restart from Start marker	backwards
Start marker to start	home
End marker to end	end
1 frame back	cursor key left
1 frame forwards	cursor key right
5 frames backwards	Ctrl + cursor key left
5 frames forwards	Ctrl + cursor key right
Set play marker	Shift + 1/2/3
Go to play marker	1/2/3

Arranger view

Switch-over object presentation	Tab
Zoom in	Ctrl + cursor key up
Zoom out	Ctrl + cursor key down
Play arrangement full screen	q
General view of arrangement	Shift + a
Optimize view	Shift + b
Zoom 1s/5s/1 min/10 min/	Ctrl + 1/2/3/4
Zoom between S and E markers	Ctrl + 7
Total arrangement	Ctrl + 8
Scroll to previous object edge	Ctrl + 9
Scroll next object edge	Ctrl + 0
Scroll to Start marker	Ctrl + home
Scroll to End marker	Ctrl + end

Scene management in Media Pool ("Extras")

Set in point	i
Set out point	o
Go to in point	shift + i
Go to out point	shift + o
Play from in point	
to out point	Ctrl + k
Store take	Shift + t

Mouse modes

Intelligent mouse mode	Alt + 1
Mouse mode for single objects	Alt + 2
Curve mouse mode	Alt + 3
Object stretch mode	Alt + 4
Audio objects prelistening mode	Alt + 5
Scrub mode	Alt + 6
Context help mode	Alt + 7

Menu File

New arrangement	Ctrl + N
Load arrangement	Ctrl + O
Save arrangement	Ctrl + S
Save arrangement as	Ctrl + s
Capture audio / video	g
Record audio	r
Play out audio / video	h
Song Wizard	w
Export arrangement as AVI	Alt + a
Export arrangement as DV-AVI	Alt + b
Export arrangement as MPEG	Alt + c
Export arrangement as MAGIX Video	Alt + d
Export arrangement as QuickTime Movie	Alt + e
Export arrangement as Windows Media	Alt + f
Export audio as Real Media	Alt + g
Export audio as Wave	Alt + h
Single frame as BMP	Alt + m
Single frame as JPEG	Alt + n
Save and send as e-mail	Shift + o
Publish to web	Shift + v
Backup arrangement	Shift + e
Backup arrangement to CD-ROM	Shift + f
Write files to CD-ROM	Shift + g
Internet connection	Ctrl + w
Arrangement properties	e
Playback parameters	p
System settings	y
Audio/Video settings	a
Full-Screen Playback Options	Ctrl + b
CD-ROM configuration	Ctrl + r
Arrangement information	i
System information	Ctrl + i
Exit	Alt + F4

Menu Edit

Undo	Ctrl + z
Redo	Ctrl + y
Duplicate objects	Ctrl + d
Delete objects	Del
Select all objects	Ctrl + a
Cut objects	t
Save objects as takes	Ctrl + f
Cut range	Ctrl + Ins

Copy range	Ctrl + Ins
Delete range	Ctrl + Del
Paste range	Ctrl + Ins
Group	Ctrl + l
Ungroup	Ctrl + m
Mix down audio	Shift + m
Set Marker	Shift + 1/2/3
Goto Marker	1/2/3

Menu Effects

Video Cleaning	Shift + x
Video effects	Shift + y
Scene recognition	Shift + z
Load video effects	Ctrl + Shift + a
Save video effects	Ctrl + Shift + b
Reset video effects	Shift + b
Edit Bitmap externally	Alt + p
Normalize audio	Shift + k
Automatic track damping	Shift + l
Equalizer	Shift + h
Dynamic Processor	Shift + j
Echo/Reverb	Shift + n
Stereo processor	Shift + p
Time stretch/Resample	Shift + q
Denoiser	Shift + r
Dehisser	Shift + w
Load audio effects	Ctrl + Shift + c
Save audio effects	Ctrl + Shift + d
Reset audio effects	Shift + d
Object properties	Ctrl + e

Menu Window

Mixer	m
Trimmer	n
Master Audio FX Rack	b
Standard Layout	l
Video monitor	v
Media Pool	f
Show arrangement overview	Shift + a
Optimize arrangement view	Shift + b
Change object presentation	Tab

Help Contents   F1

MAGIX CD-R

This utility enables you to make backups of your projects and burn all the files used in the program to a CD-ROM. You can also launch "mxcdr.exe" as a standalone CD burning software suite for all data backup tasks (you will find the program file in the "mxcdr" subdirectory in your applications directory.

The program distinguishes between three operating modes: normal mode, backup mode and Audio CD.

The burn dialog
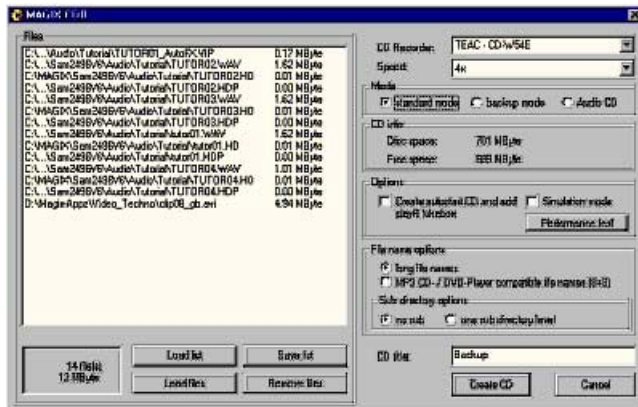
FILE: Lists the files to be burned. By launching up mxcdr from a MAGIX program, all files in the project appear here

CD-RECORDER: Select from the CD burners installed in your system. If this field is empty, your burner is not correctly installed or switched on properly (USB devices). To recognize the burner, start the " mxcdr" program again after switching on your USB burner.   Note: USB burners are not actively supported by this program. Minimum system requirements recommend using a SCSI or IDE burner.

SPEED: Select the burning speed from xi up to the maximum that your burner supports.

CD-INFORMATION: Information regarding the available capacity and the total capacity of the inserted blank CD. If the free space display shows negative values, you should change to the "Backup Mode".

Produces auto start CD: Produces auto start CD with MAGIX Media Manager. After inserting the CD into a PC, the CD playR Jukebox is started automatically and the CD's audio or video files are played. One can thus play such a CD (e.g. mp3) on any computer.

CD burning is simulated: i.e. the CD burner behaves in exactly the same manner as when really burning, but without actually writing data onto the blank CD. It can thus test whether burning is functioning correctly without destroying the blank CD should errors arise.

Executes a system test: This serves to optimize the CD burning routine's work.

Long file names: The use of long file names can lead to incompatibility when the CD is used on some MP3 CD / DVD players.
Use short file names: (8+3 characters) for using CDs on incompatible MP3-CD / DVD players

Directory options: The files are burnt either completely without original path (directory options: "none") or with their original directory (directory options "one directory level")
E.g..:   C:\audio\project1\music1.wav in the file list results in F:\music1.wav ("none"). Or,F:\project1\music1.wav ("one directory level") on the CD.
In order to illustrate more complex path specifications on the CD, please use the Backup mode.

Load list / Save; Load files/ Remove: The files are added to the list by the "Load files" button (only one or more files can be added — adding a complete directory as such is not possible). With the "Remove files" button, you remove them from the list.
With "Load list / Save list", lists can be secured for later use and then reloaded.

Name of CD-R: Here you can choose a name for the CD (max.12 characters), which will then be displayed in the Explorer and on some CD players.

Burning CD-R: Starts burning the disc or runs the, Burn simulation

cancel: Closes the mxcdr program

The Normal Mode

This is a mode for the use of the CD Backup tools as a stand-alone CD burning program, e.g. for daily data protection, for the production of an mp3 CD for mp3 CD players, for any PCs; or even to be executed as an Auto start CD with playR jukebox.

The files are added to the list by the "Load files" button (only one or more files can be added — adding a complete directory as such is not possible). With the "Remove files" button, you remove them from the list.

With "Load list / Save list", lists can be secured for later use and then reloaded.

If the file list contents exceed the capacity of the inserted blank CD, it is changed automatically to the "
Backup Mode" in order to enable burning on several CD-Rs.

As opposed to the Backup mode, the Normal mode has the following differences:

– Burning is only possible onto one CD (no spanning on multiple disks).
– The files are burned either completely without original path (directory options: "none") or with their original directory (directory options "one directory level")
– e.g..: C:\audio\project1\music1.wav in the file list results in F:\music1.wav   ("none"). Or,
   F:\project1\music1.wav   ("one directory level") on the CD.
   In order to illustrate more complex path specifications on the CD, please use the Backup mode.

Always save projects (samplitude, cleaning lab, audio studio VIPs or music & video maker arrangements) with the Backup mode so that they always land in the correct directories after being called back up.

– The CD can be executed as an auto start CD with the additional MAGIX Media Manager. After inserting such a CD, the playR Jukebox is started automatically and plays the audio/video files available on the CD. Such a CD (e.g. mp3) can thus be played on any computer.

The Backup Mode

The program is normally used in this mode if it is called up from a MAGIX application by the "Burn project backup onto CD" command. All files belonging to the current project (music maker, Movie Edit Pro 2004: arrangement;

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Samplitude, cleaning lab or audio studio: VIP) are specified in the " Files " list.

In the Backup mode, all files are stored with their complete path specifications so they automatically land in the correct directories after being restored. You may also

Protect projects whose added file size exceeds the capacity of the CD. The files are stored onto several CD-ROMs with optimal utilization of space. A file may be divided into two sections.

The " restore.exe " program is written onto the first backup CD, which executes the correct restoration of the backups. The CD is executed as an autostart CD, so that this program is started automatically when inserting the CD. (Auto play must be enabled in the System Control Panel, or simply browse the first CD to find the restore.exe application) Device Manager is activated for this CD ROM drive.

Always use the " restore.exe " program for backup restoration!

It ensures that all files are restored to their original positions, while also re-assembling the divided files (with a backup consisting of several CDs).

You may select whether you want to reinstate the old status, i.e. to restore all files to their original storage positions, or to indicate another directory. The path structure of the stored project is then displayed.

A playR jukebox cannot be added in the Backup mode.

Audio CD Mode

In this mode you can burn an audio CD from existing audio files (wav) quickly. Additionally, the file list may contain only CD-compatible audio files.

The list may t contain only standard CD-quality WAV files, which must be in a 16-bit format, stereo, and have a 44.1 kHz sample rate. You may also select whether the tracks play consecutively are separated by a standard two-second break or user-defined break.

MAGIX Media Manager

MAGIX Media Manager is a universal playback and display program compatible with most image, audio and video formats. Two versions of MAGIX Media Manager are available:

– "MAGIX Media Manager cdr," the compact display program for self-made CD-ROMs. MAGIX Media Manager cdr is also copied onto the CD-ROM and started automatically when the CD-ROM is placed into the drive, ensuring that the media data on the CD can be displayed on any PC, independent of the software installed. If the Widows auto start function is disabled, the MAGIX Media Manager cdr can be opened by double-clicking the "MediaManager.exe" file located on the CD-ROM.

– " MAGIX Media Manager silver," the more comprehensive, independent playback software for all media. It can be called up directly from the MAGIX program group.

All versions of MAGIX Media Manager play back a variety of video formats, e.g. AVI, MPG, WMV and MXV. Many impressive real-time video effects are available for AVI and MXV videos. Video display can take place in the video window or on the full screen—perfect for presentation of entire films.

Furthermore, MAGIX Media Manager can also be used as a Web radio receiver and photo display tool, with or without background music.

Additionally, MAGIX Media Manager can handle all audio formats, e.g. can play back audio CD titles, WAV, MP3, MPG and WMA files. Two titles can be played back simultaneously and cross-faded with the help of a DJ cross fader, even if both tracks are from the same audio CD. Various real-time effects and mixing tools spice up playback. Many eye-catching visualization algorithms are available for visual accompaniment, creating interesting graphics and video sequences directly from music—if desired as a full screen feature.

All MAGIX Media Manager functions are described in the online help, which can be called up using the F1 button on the main screen.

Appendix: Quick film course

MAGIX Movie Edit Pro 2004 is a virtual film production studio full of recording and editing technology. However, in addition to great technology, you also need some fundamental cinematic techniques. . This course provides an introduction, some tips and some production basics to get you started.

Idea

In the beginning is the big idea. It can be a position, a description, a concrete statement, a topic or a request. Either you discover it yourself or it is received from friends, a company or a sponsor.

Initially, you should ask yourself two questions:

1. Who will see the film?
2. What is the film about?

Synopsis and screenplay

The screenplay is essentially the film in described in print, or a manual with which the film idea is carried out. The screenplay can be developed either informally or written exactly – depending upon topic and seriousness. Amateur filmmakers usually prefer spontaneous filming without a screenplay. The effect of their films unfolds as they are shot.

Not every film requires a prepared screenplay. Nevertheless, it is helpful to seriously consider how the final product will look. For this purpose, a short synopsis of the planned scenes and settings can be extremely useful. A synopsis can be developed into a sophisticated screenplay quite quickly. Good screenplays are always in demand, and the best, most detailed, most successful screenplays always begin with the first rough draft.

Cinematic means

If you have the idea and an action draft (synopsis), the next task consists of translating fantasy into film language. That is, you must consider with which cinematic means your film will be made. The most important cinematic means are:

– Plot and filmic continuity
– Camera operation
– Settings
– Scenes and cuts
– Sound

– Title
– Lighting

Continuity

Always keep the interest of the viewer in mind. Wake them up, and carefully steer them to the conclusion. Initially, you can win the viewer's attention with a spectacular entrance. Thereafter, it should be held by logical and conclusive methodology.

The entire film, however, rests on more than an interesting scenario. Many small sequences within the film form a more convincing scenario. Always shoot complete actions, with a beginning and an end. Show the driver behind the steering wheel, but also entering the vehicle, its arrival, and the driver stepping out at the destination. Completed action facilitates understanding. Confusion frequently develops from a lack of continuity. Some examples: from:

– Illogical or temporally incorrect scenes (out of sequence): Spectators with umbrellas do not fit in with the sunny weather.
– Scenes that are too short (rule of thumb: scenes under 3 seconds are usually too short)
– Contradictory motives in sequential scenes
– Scene jumping: a person begins in the right of the picture and then in the left half screen, once with and then without eyeglasses etc.
– Too many different pans, which should not to be shown one after the other (unless in the same direction and employing the same speed).

Camera Operation

– Rule number 1: Keep the camera steady! Use a shoulder stand, a one-legged stand or (best) a light tripod with telescopic shots in excess of approx. 25mm focal length to avoid disturbing blurring.
– Change the perspective occasionally! Get used to shooting occasionally from a kneeling or prone or birds-eye view. Children and animals should always be shot at eye level, the facades of interesting buildings from below.
– Take lots of close-ups (faces, hands, flowers, fruits, posters, street signs, etc.)! Approach your subject with the camera instead of with the telephoto lens.
– Start with a long or medium-long shot, then a full to medium shot, then as many close-ups as possible. Use the "shot/counter shot" model! The bus stop example: Shoot from the outside (the bus drives forwards), then counter shoot from the inside (with the bus driver). The

house visitor example: Show only the visitor from the outside as he stands before the door ("shot"), and then the visitor from the inside, as he enters through the door and closes it ("counter shot").

– Consider cinematic solutions for time or location changes! Create transitions of location and use, or example close-ups, to bridge gaps in time.

– Do not use separate camera movement cuts together. Pans or zoom shots should be always separated from each other by shooting from different perspectives.

– Use facial close-ups from different angles during dialogs. Take up different camera positions! The camera angle should vary by at least 45 degrees.

– Change field sizes more frequently when shooting buildings.

– Use cuts as the actors move. The viewer is diverted by the movement and hardly notices the cut.

– Use harmonious cuts and avoid jumping to new scenes.

– The less movement shot from a single perspective, the shorter its length should be. Rapid movement shots can be longer.

Field sizes

Very long shot   *Long shot*   *Medium long shot*   *Full shot*

Medium shot   *Medium close-up*   *Close-up*   *Big close-up*

How much of a person or object we see on screen is determined largely by the field size adopted when shooting film. Central to the way the viewer perceives your film is the impression you give of the distance between camera and object. The viewer tends to refer back to his everyday experience and transfers it to the film. If the viewer sees a facial close-up, he or she knows that the face is close proximity,

if people are seen as small figures on the horizon, it is obvious that they are distant. We have divided shots between extreme proximity and extreme distance into eight categories:

Very long shot
This field size does not deal with details: Frequently used at the beginning or conclusion of an action sequence to mediate atmosphere, landscapes, sunsets, skylines and other "broad" motifs are typical. Westerns often use this technique, with dust clouds on the horizon, or heroes departing towards the sunset. This symbolic representation is frequently strengthened by music.

Long shot
The long shot gives the viewer an overview of what's happening and provides orientation. It is action-based.
A long shot of a house followed by a person in a room informs the viewer where the person is. This technique can be reversed with the same effect - from the close-up detail to the long shot. Both work as preparation for a jump in time or location.
Long shots contain more details, and should therefore last a little longer than other shots.

Medium long shot
The distance from the spectator is still quite significant in the medium log shot. It shows people from head to foot and allows the viewer to follow their actions entirely; body language can easily be seen, but not facial expressions.

Full shot / Medium shot
These two field sizes differ only slightly. The medium shot shows people from the knees up; In the case of the standing actor, the lower frame passes through the waist. Medium shots are frequently used for the tight presentation of two actors. There is space for hand gestures to be seen

Medium close-up
This is the classic TV moderator shot, from the chest up. Facial expression can clearly be discerned.

Close-up/Big close-up
Close-ups show a fairly small part of the scene, such as a character's face, in great detail so that it fills the screen. Close-ups show the head and shoulders. Big close-ups show the forehead to chin.

Close-ups focus attention on a person's feelings or reactions, and are sometimes used in interviews to show people in a state of emotional excitement, grief or joy. In interviews, the use of big close-ups may emphasize the interviewee's tension and suggest lying or guilt. Big close-ups are rarely used for important public figures. Note that in western cultures the space within about 60 cm is generally felt to be private space,

Scenes & Cuts

Multiple recordings of the same scene
Show your motif from as many angles as possible! Then you have greater choice to make an interesting picture sequence on the PC. Show both the driver and the car being driven. Show not only the speaker, but also the listener and their reactions, and then combine the different aspects of the scene.

Panning

Pans usually last around 2-4 seconds. There are two types of panning technique:
Following pan. The camera swivels (in the same base position) to follow a moving subject. A space is left in front of the subject: the pan 'leads' rather than 'trails'. A pan usually begins and ends with a few seconds of still picture to give greater impact. The speed of a pan across a subject creates a particular mood as well as establishing the viewer's relationship with the subject.
Surveying pan. The camera slowly searches the scene, and may build to a climax or anticlimax.

Zoom

When zooming in, the camera does not move; the lens is focused down from a long-shot to a close-up while the picture is still being shown. The subject is magnified, and attention is concentrated on details previously invisible as the shot tightens (contrast tracking). It may be used to surprise the viewer.
Zooming out reveals more of the scene (perhaps where a character is, or to whom he or she is speaking) as the shot widens. Zooming in rapidly brings not only the subject but also the background hurtling towards the viewer, which can be disconcerting. Zooming in and then out creates an ugly 'yo-yo' effect. Zooming should be used economically.

Transitions

Transitions lead one scene into another and may produce tension. Transitions can also transport meaning, such as the passage of time. Blending two scenes instead of using a "hard cut" can sometimes be effective, but overuse should be avoided. Be economical with this device.

Transitions can be divided into three types:

– Action-based, whereby the transition remains within the scene
– Neutral (such as a close-up of a nearby object), or
– External, which shows something entirely unrelated to the scene.

Cuts

Cuts are the simplest and most basic joining of two shots; the abrupt transition between one shot and another without any intervening device or effect; generally considered the most direct possible transition, either between scenes, or between angles within a scene; sometimes called an edit. Cuts can convey meaning, such as a change of location or of time. Poor cutting confuses viewers.

There are many types of cut. We have listed several cuts that are frequently used:

Motivated Cut: Cut made just at the point where what has occurred makes the viewer immediately want to see something that is not currently visible. A typical feature is the shot/reverse shot technique (cuts coinciding with changes of speaker).

Jump Cut: Abrupt switch from one scene to another which may be used deliberately to make a dramatic point, such as two autos approaching a junction from different directions.

Associative Cut: We see a man playing the lottery, and in the next scene, we see him buying an expensive auto. Get it?

Cross Cut: A cut from one line of action to another. Also applied as an adjective to sequences, which use such cuts. Instead of showing us the blood and pain of birth, we are shown a flower bud blooming.

Mise-en-scene: Also known as the "Contrast montage". Meaning is conveyed through the relationship of things visible within a single shot (rather than, as with montage, the relationship between shots). Space and time is preserved as much as possible, editing or fragmenting of scenes is

minimised. The way people stand and move in relation to each other is important. Long shots and long takes are typical.

FORMAL CUT: Several shots with aspects in common are shown together. A football and the planet earth, a red rose and a red dress, etc.

Sound

The careful organization of sound with original recordings, songs, mood music, commentary or background noise play an important role in film, helping to create a whole new layer of meaning.

Narration
Short, informative narration is often very helpful for the viewer. The voice should sound natural, so try to avoid reading of from a sheet.
Compelling use of narration should not to simply duplicate the information the viewer already sees, but should add something new – such as emotional content or background information.

Original sound recording
Sound should never be cut off completely from a video - without sound; film is usually sterile and less authentic. Commentary should be blended in such a fashion that the original sound recorded with the film can still be heard. However, unwanted background noises should be faded out (such as strong wind or airplanes).

Music
Never underestimate the effect of music in film. It is often crucial for invoking emotion, and adds the final touch to your film. The music selected should be "fit" with the film.

Captions

Captions, like commentary, add another layer of meaning to film. They should also be interesting and informative, and not divert the viewer from the action. Here a few tips for using text with film:
– Titles should be short so that the text on view can be read?
– Titles should be written in large, legible letters. Rule of thumb: Faded in text size should be readable twice. The following color combinations of background and text are legible: White/red, yellow/black, white/green. Caution -

white text on black background: Some systems bear no strong contrasts over 1:40 and cannot represent such text in detail.

– Titles should be faded in long enough to be read. For text with 10 letters, one should allow approx. 3 seconds. For every 5 letters that follow, allow an extra second.

One more tip: You don't always have to enter your text by hand in the text editor! Natural text that appears on street signs, billboards etc offer many interesting possibilities...

Lighting

One of the main differences between a professional film and an amateur video lies in the lighting. You can never spend enough time and money getting it right. However, good results can be achieved with some thoughtful improvisation.

Filming on set (interior)
Light sources
Interior filming can never have enough light. Professionals often illuminate their scenes with 10,000 Watts and more. An ambitious amateur usually fails to match this level simply because the already because the plug sockets do not carry such power.
Do not mix daylight with artificial light! Film a person once with the light from a window, and again from an artificial light source. The resulting difference is striking. Being able to reduce this effect by using a blue filter to stretch (blue foil or like). Often it is simpler to pull the curtains and just use artificial light.
Amateurs often use cheap halogen construction-site floodlights. Fluorescent tubes are more recommendable, since they have good luminous efficiency, and employ less power and generate less heat. In addition they produce very vague light that does not dazzle - faces illuminate well. Illumination can be increased using mirrors.

Floodlighting
Floodlighting s the difficult art of positioning sources of light suited to the camera. In principle, three types of light source are used: leading light, supporting light and backlight.

LEADING LIGHT: The leading light always represents the main source of light. One should position it in such a way that it does not pose questions for the spectator – such as,

"why does the light come from the left when the windows are on the right?"

Supporting light: Depending upon the angle of lighting, unnaturally hard shadows may appear on faces and objects surface. To balance the light to create realistic shadowing, the so-called fill-in light is used, usually positioned on the other side of the camera to the leading light

Backlight: Lights the object from behind, creating a romantic halo around figures. Be careful not to shine the backlight directly into the camera.

Shooting on location (exterior)
Because you must adapt to the given lighting conditions it's important to keep the time between the first and last shot of a scene as short as possible.
Strong sunlight shadows can also pose a problem. Since floodlights are less effective on sunny days, reflectors are used to increase illumination. In effect, these are large plates of crumpled aluminum foil. They require no electricity, perfect for low-budget filming

Suggestions

We are almost at the end of this short course, and have now come full circle: the initial idea. What works well for film? Here are a few suggestions:

Portraits
Everything can become the motif for a portrait: People, animals, plants, companies, associations, organizations, cities, villages, building, rivers, landscapes, lakes...

Personal portraits
The main aim is the move the everyday life of a person into the foreground. Show in sequence what this person does during a typical daily.
Or select a characteristic activity as a leitmotif. Does the person being portrayed have an interesting hobby, a failed occupation, or an unusual project?

Company portraits
There are several criteria you could use:
– From the view of an employee, showing their typical routine.
– The way a product is forged from raw material through the production process.

– A company cross-section, showing vignettes with scene transitions from each departments

Urban portraits

Town and city portraits are particularly popular, and can be constructed in a variety of ways:

– From the view of a resident or tourist. This person experiences the city from his or her own view. The advantage of this method is that you automatically have a main actor to grab the attention of the viewer.
– The daily routine: the city awakes, sunrise over the roofs, people on the way to the work, traffic, nightlife....
– Individual episodes, small stories from the city. This film shows the independent action of inhabitants in different parts of the city.

Landscape portraits

Landscape portraits too can be constructed in a number of ways:

– Episodes from the view of a wanderer experiencing the landscape. Again, you automatically have a main actor to grab the attention of the viewer.
– Boat travel: a boat navigates a river. A second boat would be useful for external perspectives of the boat.
– Seasonal change. In spring a cloud break pours into the forest. Rivulets collect and find their way into a summer landscape. Calm water flows by an autumn landscape and the lake lies frozen in winter.

Family films

Children

If one first succeeds in interesting them, children are the best actors because they often forget the presence of the camera. The most useful device is use of the close-up. One avoids scene-jumping with close-ups of the face, hands or even toys.

Family events

The gray routine is interrupted now and then by events, which can be worth filming:

-The new vehicle: Each new purchase provides fresh film material.
-Domestic animals: the dog being bathed, the cat being stroked, the aquarium being cleaned...
- Parties: Birthdays, Christmas – these are unique events that allow you to catch family members all together.

Travel film

Travel films

For travel films, it is difficult to write a script in advance: Surprises are unforeseeable and make both the journey and the film interesting. Make a note of what you filmed! Such a list helps prevent filming something twice. Decide beforehand whether the film will be constructed chronologically, thematically or dramaturgically.

– Chronological travel film. The travel film concentrates on the route and is driven by the sequence of the journey. At the beginning, show a map and describe the route.
– Thematic travel film. Certain objects or conditions during the journey are more important than the route.
– Dramaturgi travel film. With this variant you blend an invented story into the travel film.

Reporting

Reportage differs from documentation due to the operation of the camera. The problem with reporting: If an important instant is missed, it does not return. With the report one must remain "on the ball" and should deal more generously with the recorded material.

There are many motifs suitable for a report. You do not need a film script, but you do need a gift for observation. Reports work best when they are original, dynamic and up-to-date. A few suggestions:

– Driving. Make a trip with the camera! A companion could be the support actor.
– On the train station. Trains arrive and pass by. People step out, luggage is transported. People welcome each other or part ways. A queue forms at the ticket booth. Close in on individuals and faces and break through the anonymity of large travel hubs.
– Window shopping. The roads and shop windows of a city can deliver beautiful motifs for film. A polarization filter is helpful.

Wedding films

Some wedding film tips:

– Careful preparation is important.
– Film the church from the outside (long shot) to present the place of the action.
– Make close-ups of the waiting guests before the church.
– Film the couple on the way to church

– Film the couple from the front. You could start with a church window and pan to the couple. The whole church scene should not be too long.
– In the evening, the merriment acts as a good motif: Gags, verses, presentations or unexpected incidents. Don't forget to return your attentions to the couple and their guests.

Appendix: Video and Data media

Editing video on the PC

Digital video processing with the PC is comparable to audio processing. The analog medium that is video must first be digitized before it can be processed in the computer.

This functions quite similar to recording using a soundcard: The signal flow is measured in very short, regular intervals. The computer can then process the values resulting from these measurements. The accuracy of each individual measurement results in the resolution, the frequency of the measurements results in the frame rate. The more precisely and frequently the signal is measured, the higher the quality of the digitized video - but this also increases the demands upon the capture performance and the required storage space. The Windows standard format for video files is AVI (audio and video Interleaved).

The digitization of the video requires either the camera or the graphic card, a TV card (e.g. Miro PCTV) or a video card (e.g. Fast AV Master). However, video handling makes much higher demands upon the hardware if good image quality is required. In order to be able to reasonably process video files on today's PCs, files must be compressed - unlike digital audio, with which compression is used only for saving storage space.

MPEG Compression

MPEG means "Moving Picture Experts Group", and defines a working group that cooperates with the International Standards Organization (ISO) as well as the international Electro Technical Commission (ETC) in order to develop standards for video and audio coding.

Generally, the graphic data rate of the digital video standard is 167 megabits per second, which, when not compressed, requires a far higher storage capacity than a DVD can offer. A one-sided DVD 5 with 4.7 GB storage capacity is enough for 4 Minutes. For this reason, the available pictorial material must be effectively compressed — a function which is achieved with the MPEG procedure.

This procedure is based on the simple fact that up to 96 % of digital video data consists of repetition and can be compressed without visible degradation of the picture quality. Each MPEG compression is, however, a data reduction and as such is connected with information loss. If the video consists of very extensive details, or if the content changes very fast, the picture may blur (dependent on the strength

of the compression and the quality of the encoder).
Errors can also result from so-called compression artifacts, such as small color defects or images that are too dark. With average compression rates under 3 megabits per second, it is probable that you will notice the reduced quality. With rates around 6 megabits per second, the degradation in quality becomes almost invisible.

Specification (RedBook, WhiteBook...)

In order to coordinate and match CD file structure with CD drives, the different types of CD were standardized by the industry. The names for them resulted simply from the color of the books in which the standards were written. Besides the Red Book for audio CDs, there's the Yellow Book for CD-ROMs and the White Book for video CDs.

Video CD (VCD)

Video CDs are specific CD-ROMs on which videos in certain forms are stored. The compression takes place using the MPEG-1 codec. VCDs can be played on either a video CD player attached to a television, or directly on the CD-ROM drive on the computer. Most DVD players can play VCDs.

RESOLUTION: On a VCD, movies with a maximum resolution of 352 x 288 pixels (PAL) or 352 x 240 (NTSC) with 25 pictures per second can be played. The resolution of a VHS cassette offers 300 x 360 pixels, for instance. More important than the resolution is the use of a good MPEG-1 encoder. Since video images constantly change, the viewer cannot always perceive errors.

HARD-DRIVE CAPACITY: A VCD can save about 70 minutes of video. A typical motion picture must therefore be stored on two VCDs. In order to get as much video data on a normal CD as possible, one must forego correction information on VCD/SVCD formats within the individual sectors (sub-ranges) of a CD. You can therefore fit 720 MB of video data on a 650 MB blank CD. Due to improved burning and scanning technology, it is now possible to burn up to 985 MB video data on a 99min blank CD.

ENCODER SETTING: Normally the video CD data is played at a data rate of 1150 Kbits for video and 224 Kbits for audio. By an increase of the video bit-rate of up to 3000Kbits, you can get the same resolution and audio bit-rate with increased quality. Those with 1150Kbits of movement may

see artifacts, which disappear almost completely with approx. 2000Kbits — with the picture appearing a little less sharp.

This presupposes however that the player can also play such a bit rate. That many DVD players can handle an increased data rate is due to well-written player software.

Experiment with higher data rates: if you do not need the full run-time of the VCD, you can improve the quality of the video!

Super Video CD (SVCD)

The Super Video CD (SVCD) is a technological advancement of the video CD. SVCDs are also like VCD-specified CD-ROMs, which are played either with an S-Video CD player (which is connected to the television), or directly with the CD-ROM drive of the computer. Many DVD Players can also play SVCDs. Owing to MPEG-2 and the increase of the data transfer rate, you can hardly tell apart standard videos from videos in DVD quality.

RESOLUTION: With SVCDs, the better MPEG-2 encoder is used in a standardized resolution of 480 x 576 (PAL). The MPEG-2 format offers a maximum resolution of up to 720 x 576 points, and improved compression methods that, though at higher data rates, are characterized by excellent image definition and consistency.

HARD-DRIVE CAPACITY: An average 90-minute movie must be spread across 3 CDs. On one SVCD you can get about 30 minutes of good quality film.

ENCODER SETTING: Compared to the VCD with 1.3, the data transfer rate is doubled to 2.6 Mbit/s.

With the MPEG-2 format, the so-called variable bit rate (VBR) is introduced. In contrast to the constant bit rate (CBR) of the MPEG-1 encoders, this encoder has the possibility of using more bits for movement-intensive sections, as well as to save bits if picture content remains the same.

Digital Versatile Disc (DVD)

Quality

The exceptional color quality, image definition and contrast of the DVD are all well known.

With a resolution of 720 x 576 (PAL) and coded with MPEG-2, 25 pictures per second give very good results. The quantity of data is approx. 5 times as much as with VCD.

DVD size

DVDs look similar to CDs. The only visible difference is on double-sided DVDs that have no label. Otherwise both formats share the same dimensions.

– Diameter: 12 cm, like a normal CD (additionally there are still DVDs with only 8 cm diameters.)
– Thickness: 1.2 mm, likewise like a normal CD.

DVD media (overview)

The DVD does not differ outwardly from a conventional CD-ROM. Higher memory density (up to 17 gigabytes as opposed to 650-780 megabytes) results from the fact that information is stored more densely (double capacity) and that up to four layers can be specified. In order to be able to read the information, a special laser with modified wavelength is necessary. Therefore DVDs cannot be read with conventional CD-ROM drives.

Writable data carrier formats

The recordable DVD market is split for the time being into three types: DVD-RAM, DVD +RW. and DVD-RW.

DVD-R: Once-only writable medium. The DVD-R can be specified with the file structures of DVD Video, DVD Audio or DVD-ROM.

DVD+RW: With +RW drives, re-recordable DVDs should be created which can be read by almost any commercial DVD-ROM or DVD player. The companies involved are mainly Philips, Sony, HEWLETT PACKARD (as well as Ricoh, Yamaha and Mitsubishi).

DVD-RW: Writable and erasable DVD technology that is promoted by Pioneer and Sharp. This format was developed by the Pioneer company and should be compatible with existing DVD players.

DVD-RAM: Due to the small storage capacity and incompatibility with DVD players, setting on this standard is not recommended.

Note: MAGIX Movie Edit Pro 2004 supports DVD -R, DVD +RW, and DVD -RW. Look at www.magix.com for patches!

BLANK DISCS: Single-side recordable blanks with a capacity of 4.7 Gbyte and a run-time of approx. 2 hours serve as storage media for all DVD burning formats at present.

Copy Protection

MACROVISION (APS): The film industry could claim that even DVD-ROM drives and decoder or diagram cards with composite outputs or s-video outputs must support the analog copy protection (APS) of macrovision.Some older DVD Player do not possess APS.

With APS, a DVD player or the decoder card adds additional signals to a DVD's stored graphic data. The data are almost unchanged. These supplementary signals disturb the synchronization and the automatic capturing regulation of most video recorders, therefore preventing the capturing of the video. They are not noticeable on the television or the monitor however.

CONTENT SCRAMBLING SYSTEM (CSS): CSS prevents saving and duplication of DVD video tracks onto the harddrive.

The VOB streams of DVDs without CSS can otherwise (like other video files) be loaded with the Import Video button

Mini-DVD

The Mini-DVD is nothing but the DVD data format burned onto a CD-ROM. Thus MPEG-2 encoder and all other specifications of the DVD data format are used: only the data carriers are different. Because the CD-ROM can only save about a sixth of the quantity of data a DVD can hold, the capacity of a Mini-DVD is accordingly limited to approx. 20 minutes of film.

Mini-DVDs are particularly suitable for playing on the computer. With stand-alone devices, it must be tested on an individual basis as to whether the device can handle the DVD format on a CD-ROM.

Appendix: Problems and Solutions

Installation process is interrupted

If the installation process interrupts, but all paths have been specified correctly, it is usually an indication of either a defective installation disk or your hard-drive simply doesn´t have enough space left to install MAGIX Movie Edit Pro 2004. MAGIX Movie Edit Pro 2004 needs at least 100 MB or hard-drive space for proper installation.

No sound while playing

If you do not hear any sound, but the cursor still moves through the project, you will need to check the following possibilities:
– The wrong driver in the Play Parameter Window ("p"key) has been chosen
– No Windows driver has been installed for your sound card.
– The volume setting in your sound cards mixer program is set too low.
– Faulty connection of the speakers or the amplifier to the sound card

A good idea is to check audio playback apart from MAGIX Movie Edit Pro 2004. If there is any doubt about the proper sound card setup, use the Windows Media Player to test the sound card. Load a WAV file in the Media Player and play it. If you are still having problems, check that the driver for your sound card has been properly installed.

Can't open waveform device

MAGIX Movie Edit Pro 2004 informs you that the audio outputs of your sound card have been opened by another program, e.g. voice commander, media player, etc. Close these programs and try loading MAGIX Movie Edit Pro 2004 again.

Can't play this wave format

This message appears when you try to play a wave format that is not supported by your sound card.
Because MAGIX Movie Edit Pro 2004 requires a 16 bit sound card, the use of 8 bit cards causes this message.
Another reason for this message is that your card doesn´t support all sampling rates available in MAGIX Movie Edit Pro 2004. To check the capabilities of your sound card use

the standard sampling rates such as 44 kHz, 32 kHz, and 22 kHz.

Short interruptions during playback

After starting playback, especially when working with HD Projects and MMMs, you might encounter short dropouts. This usually means that your system (processor or disk) is too slow for the adjusted buffer size and sampling rate. Try the following steps:

– Raise the buffer value for RAM, HD or VIP in the dialog window by selecting Setup under the Edit menu. Higher buffer values will increase overall performance, but it will also slow down cursor movement and requires more RAM memory.
– Increase the buffer number. This also requires more memory.
– If it still doesn´t work, then you must reduce the sampling rate. Reduce it from 44.1 to 22 kHz. In most cases the audio quality is still sufficient.

Can't stop playback

If you can start playback by pressing the Spacebar but are unable to stop it your system might have become too busy with data processing. The only way to stop playback is by pressing the "ESC" key.

Media files are not in sync

Should you encounter delays while playing media files in sync with your digital audio you can adjust the playback by specifying a correction factor. Select FX under the menu Project, Media Link. (See the description in the Menu chapter of this manual).

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