PHOTO STORY ON DVD MX

English language manual

Copyright

Preface

With MAGIX PhotoStory on DVD MX you can teach your photos how to walk – or even better, how to dance! With this software your photos will become the star of an impressive multimedia show, and you're the director!

Enjoy your photos together with your family and friends on TV or on your PC. Play your pictures just like a feature film with great fades and effects as well as narration and subtitles. Add intros and outros or invent your own closing credits. In other words, turn your living room into a cinema!

Create attractive DVD menus that match the format of your slideshow: 4:3 or 16:9 for widescreen TVs or monitors. Burn your slideshow together with a high quality menu onto any current format: a playable DVD, CD-ROM, Video CD, Super Video CD, Mini DVD, JPEG disc, and Blu-ray disc AVCHD, WMVHD or multi-disc.

The printed manual is only a brief introduction to the software. You can find detailed documentation as a PDF in the start menu of MAGIX PhotoStory on DVD MX. The electronic manual can be opened using "F1" to provide a more detailed explanation of the options, dialog boxes, menus, and program interface. Program help and the PDF manual will even guide you through the format jungle of blank discs, DVDs, Video CDs, High Definition slideshows, etc.

A word on terminology: the terms "Slideshow" and "Photoshow" mean the same thing. We will use the term "slideshow" as it is also used in MAGIX PhotoStory on DVD MX.

Have fun with MAGIX PhotoStory on DVD MX!

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Support

Dear MAGIX customer,

Our aim is to provide fast, convenient, solution-focused support at all times. To this end, we offer a wide range of services:

- **Unlimited web support:**
  As a registered MAGIX customer, you have unlimited access to web support offered via the convenient MAGIX service portal on http://support.magix.net, including an intelligent help assistant, high-quality FAQs, patches and user reports that are constantly updated.
  The only requirement for use is product registration at www.magix.com
- **The online community, on-the-spot support and a platform for exchange:**
  MAGIX customers have free and unlimited access to the online community at www.magix.info, which includes approx. 120,000 members and offers the opportunity to ask members questions concerning MAGIX products as well as use the search function to search for specific topics or answers. In addition to questions & answers, the knowledge pool includes a glossary, video tutorials and a discussion forum. The multiple experts, found round-the-clock at www.magix.info guarantee quick answers, which sometimes come within minutes of a question being posted.
- **Email support for MAGIX products:**
  For every new MAGIX product you will receive, as of date purchase, 12 months of email based customer service.
  Premium email support:
  For priority support, or if you want the MAGIX support team to help with non-MAGIX related hardware problems you can purchase a Premium email support ticket. Log in at http://support.magix.net and click on "Purchase access code", the ticket is for a specific problem, and is valid until it is solved, it is not restricted to an email.

Please note: To be able to use the Premium email support and free product email support via the Internet, you have to register your MAGIX product using the serial number provided. This can be found on the CD case of your installation CD or on the inside of the DVD box.

- Additional telephone service:
  Besides the large number of free customer service offers, we also offer a fee-based telephone customer service.

Here you can find a summary of our technical support telephone numbers:
http://support.magix.net/

Mail (Europe): MAGIX Development Support, P.O. Box 20 09 14, 01194 Dresden, Germany

Mail (North America): MAGIX Customer Service, 1105 Terminal Way #302, Reno, NV 89502, USA

Please make sure you have the following information at hand:
- Program version
- Configuration details (operating system, processor, memory, hard drive, etc.), sound card configuration (type, driver)
- Information regarding other audio software installed

MAGIX Sales Department

You can reach the MAGIX Sales Department workdays for help with the following questions and problems:

- Orders
- Product consulting (pre-purchase)
- Upgrade requests
- Returns

Europe

Monday - Friday, 09:00-16:00 GMT

U.K.: 0203 3189218
Denmark: 45 699 18763
Sweden: 46 852 500713
Finland: 35 89 42419023
Norway: 47 210 35843

North America

9 am to 4 pm EST Mon-Fri
Phone: 1-305-722-5810

System requirements

- For Microsoft® Windows® XP I Vista® I 7

Minimum configuration:

- Intel® Pentium® or AMD® Athlon® processor 1.83 GHz or higher
- 512 MB RAM, 1 GB hard disk space for program files
- DVD drive, 16-bit sound card, Microsoft® compatible mouse
- Burn: CD-R/RW, DVD-R/RW, DVD+R/RW, DVD-RAM, or Blu-ray™ burner for HD quality. MPEG-2 codec can be used after free activation.
- Travel route animation (map material from OpenStreetMap®) and Online Services via Internet connection, at least ISDN and current web browser. MP3 sound transmission to Online Album requires Windows Media® Player version 10 or higher.

For 3D playback

- Red/cyan glasses (included) required for anaglyph 3D display.
- Polarized filter playback with a corresponding monitor
- A 120 Hz monitor or a projector as well as compatible shutter glasses and graphics card are required for shutter playback.

For editing HD video clips

- Quad processor 2.83 GHz and higher recommended
- 4 GB RAM, DirectX® 9.0c-compatible graphics card, 512 MB RAM or higher and Pixelshader 2.0, ATI X300, NVIDIA® GeForce® 6600

Serial Number

A serial number is included with each product. This serial number is required for the installation of the software and enables usage of additional bonus services.

What can a serial number do?

A serial number ensures that your copy of MAGIX PhotoStory on DVD MX is clearly assigned to you and only you, and it makes improved and more targeted customer service possible. Abuse of the software can be prevented with a serial number, since it ensures that the optimum price/performance ratio continues to be offered by MAGIX.

Where can the serial number be found?

The serial number can be found on the reverse side of your CD/DVD case. If your product, for example, is packed in a DVD box, then you'll find the serial number on the inside.

For versions that have been especially optimized for the Internet (download versions), directly following the transaction you'll receive a serial number by email to activate the software.

When will you need the serial number?

The serial number is required when you start or register MAGIX PhotoStory on DVD MX for the first time.

Note: We explicitly recommend registering your product, since only then are you entitled to get program updates and contact MAGIX Support. Entering the serial number is also required for activating codecs.

Before You Start

Package contents

Program disc: The MAGIX PhotoStory on DVD MX installation manager is included on this disc.

Manual: It is always useful to read the introductory chapters of this manual. The complete documentation can be found in the MAGIX PhotoStory on DVD MX directory as a PDF file. If you do not have a viewing program for PDF files, you can install the Foxit Reader program, included on the program disc.

Note on the deluxe version: This manual explains the functions and features of both MAGIX PhotoStory on DVD MX and the advanced version MAGIX PhotoStory on DVD MX deluxe together and in detail. When we refer to MAGIX PhotoStory on DVD MX, we mean both program versions. Additional features of the deluxe version are marked accordingly.

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More about MAGIX

MAGIX News Center

The MAGIX News Center features links to current online tutorials and tips & tricks on the software application examples. The "News" is indicated by color according to content:

- Green indicates practical tips & tricks for the software
- Yellow reports the availability of new patches and updates
- Red for special offers, contests and questionnaires

If no new messages are present, the button will appear gray. When the MAGIX News Center is clicked, all of the available information will be displayed. Click the messages to reach the corresponding website.

MAGIX Online Album

MAGIX Online Album is your personal multimedia album on the Internet. If you want to present slideshows or videos online, then MAGIX Online Album is the perfect service.

MAGIX Website Maker

MAGIX Website Maker helps you create a personal Internet showcase with a professional design in just a few mouse clicks – without prior knowledge, including your own chosen domain and email address. Publish slideshows and videos and accessorize your site with music and various effects – anything from a simple business card to a fireworks display of effects, professional or private – show your best side!

More about this topic can be found under MAGIX Website Maker.

Catooh – the Online Content Library

If your project is missing pictures, videos, DVD menus, sounds, or samples, then you should have a look at the huge selection available at Catooh. There you'll be able to buy media in excellent quality for low prices: DVD menus, Slideshow Maker styles, decorative elements, 3D power effects, 3D transition series, MAGIX Soundpools, songs, ringtones... Perfectly suited to all MAGIX photo, video, and music projects.

MAGIX Community

MAGIX Community is the place to exchange photos, videos, and music with friends and the world. As soon as you have registered for free, you can use all of its great features.

You can also read the FAQ (frequently asked questions) online http://rdir.magix.net/?page=EBCVJGJAFZHV.

Introduction

What is MAGIX PhotoStory on DVD MX?

The name says it all: MAGIX PhotoStory on DVD MX puts your photos and movies onto a CD or DVD as a slideshow that can then be viewed on your PC screen or TV – just like a movie.

The typical scenario: The hard disk is overflowing with photos from your digital camera and camera phone, more holiday, family or birthday pictures are scattered around in envelopes waiting for a scan. What to do with all those digital photos? MAGIX PhotoStory on DVD MX will tidy everything up, put it together, add fades, music or effects to create an exciting slideshow.

What's so special? A personal slideshow is created, perfectly arranged just like a feature film. Then you can burn it onto DVD, if desired together with other slideshows. What's so special? The CD or DVD can then be played on a DVD player and viewed on TV. There are also many further possibilities to export slideshows as movie files or present them directly online.

What's new in MAGIX PhotoStory on DVD MX?

MX: The shortcut "MX" in program names stands for Media-X-change, the transfer of media and data. All programs in the MAGIX MX Series enable data exchange between MX programs and are connected to Cloud services and social networks. The "Share" menu is the central hub for these exchanges.

Automatic camera import: As soon as a camera is connected to the PC MAGIX PhotoStory on DVD MX will display the contents and imports the images into the program with the press of a button.

New RAW formats: High quality images from various camera types can also be imported thanks to the improved RAW format support.

Improved performance: Take advantage of the speed optimizations made in almost every area of the program.

Media player export: MAGIX PhotoStory on DVD MX enables export from your own websites. The Export Wizard creates a personal HTML page with integrated media player which you must embed in your project later.

Improved sharpness effects The effect "Sharpen" is quicker and more precise in MAGIX PhotoStory on DVD MX In addition there is a blur effect which you can use to create complex slideshows with a hazy look about them.

Slideshows on memory cards: Using the "Encode in directory" function you can save future slideshows to memory cards. A particularly useful feature for network players for instance.

Connection to the MAGIX Android App: You can transfer saved albums from your phone to MAGIX PhotoStory on DVD MX if you use MAGIX Online Album with the MAGIX App on your Android phone.

What's new in the deluxe version?

Movie trailer: ready-made trailer projects for a range of styles (e.g. action, documentary, travel...) in which you can replace the integrated placeholders with your own photos. This way selected photos are bordered with music, intros and titles and are presented in a way that creates powerful trailers. Movie trailers can be directly selected when creating a new project or controlled in the Media Pool under "Media".

Face recognition: MAGIX PhotoStory on DVD MX recognizes faces in your photos and "protects" them from being cut, if you've included zooms in your slideshows.

Brand new and exclusive in the deluxe Version: Suitable DVD menus for any trailer, new transition effects, improved travel route animation

Properties

Import

- **Photo:** JPG, BMP, GIF, TIF, PSD, MPO (3D Stereo) and much more; imports from Kodak® Photo-CD (PCD); use animated web graphics as decorative elements (animated GIF import)

- **Video:** MOV, AVI, WMV 9, MPEG-1, MPEG-2, MPEG-4, high-resolution AVCHD videos incl. AC3 sound and much more.
- **Text:** You can easily enter longer texts such as credits with any text processing program and then save them in the universal .rtf text format. Loading such a text into MAGIX PhotoStory on DVD MX creates a text object.
- **Audio:** Imports camera sound, non-copy-protected CD tracks, MP3, OGG, WAV, etc.; sound recording

Hint: MPEG3, AVCHD and AC-4 codecs can be used after a fee-based activation.

Edit

MAGIX PhotoStory on DVD MX provides a large number of multimedia functions that help you really get the best out of your photos and make fascinating slideshows from them. For instance:

- **Three editing modes:** In Storyboard Mode all photos are listed in sequence. In "Timeline Mode" they are displayed in "realtime". In "Overview Mode" all photos are displayed in several rows with little preview icons to maintain an overview of all pictures.
- **Image optimization:** Typical defects (exposure, color, red eyes...) can be removed easily. Picture size and position can be corrected by increasing the size, rotating, clipping, leveling the horizon, etc. Each edit is non-destructive, i.e. the original photos remain unchanged.
- **Zooms & camera pans:** Zoom into the photo, then pan through the image.
- **3D effect templates** to reshape motifs and have them fly through the picture.
- **1-click animations** for transforming photos into videos (e.g. jumping, mosaic, kaleidoscope).
- **Decorative elements** and **superimposed videos** with cartoons, speech bubbles, costume accessories, frames...
- **Multimedia opening and closing credits** with video templates including sound, personal texts and motifs
- **Transitions:** Alongside the many variations for "simple transitions" (e.g. soft fades, black fades, page turn, wave), there are also complex transitions

like picture-in-picture fades or thematic 3D fade series (gallery, photo table, notice board).

- **Titles and title templates:** Add texts to your templates, e.g. by displaying text as subtitles, lower thirds or in speech bubbles.
- **Audio dubbing & Soundtrack:** You can add audio files and CD tracks to the original soundtrack of your photos and videos, record your own speaker comments or use the integrated MAGIX Soundtrack Maker to add your own music onto the soundtrack. Use one of the many professional audio editing effects to enhance the soundtrack further.
- **Slideshow Maker** automatically turns tiresome photo series into spectacular multimedia shows. For particularly fast results.
- **Special functions:** Panorama image montage, travel route animation, stabilize shaky videos, picture-in-picture collages and much more.

Burning

You can use the "Burn" interface to burn a disc from your photos and slideshows. Before you do that you can design a professional menu screen for selecting your slideshows and photos using a remote control.

You can burn all common and many more disc types:

- **DVD:** The slideshows are made into a classic movie DVD in excellent quality.
- **WMVHD <deluxe edition>:** This is a high-resolution disc format for playback on a PC.
- **Blu-ray Disc (deluxe version):** Also a high-resolution disc format for playback on a TV. Requires a suitable player (Blu-rayTM player) to be connected to a TV. You also need special Blu-ray discs and a Blu-ray burner in your PC.
- **AVCHD (deluxe version)**: Similar to Blu-ray Discs, although you can also use regular recordable DVDs for burning. You need an AVCHD compatible Blu-ray player for playback on a TV.
- **SVCH**: A slideshow CD in good quality that can be played on an SVCD-compatible DVD player. Suitable for slideshows that are up to 34 minutes long.
- **VCD:** A slideshow CD in adequate quality. Allows for approx. 65 minutes of showtime.

- **JPEG disc**: The photos are burned onto disc for playback on a TV. A Photodisc enabled DVD player is required.
- **Mini DVD:** DVD format on a CD disc. Only approx. 20 min. storage space.
- **MultiDisc (deluxe version):** Three disc types at once: DVD + WMVHD + all photo files (as a backup).
- **Backup:** Burns all discs that belong to the project onto a disc.

Output

The "Output" dialog has several options for what you can do with your slideshows.

- **Export as a movie file:** Classic file export as a movie file.
- **Export as 3D video:** You have to have a 3D video player installed on your PC to playback 3D video files (e.g. Stereoscopic Player).
- **Export to mobile device:** You can also export your slideshows directly to a connected mobile phone, digital picture frame, organizer, games console and any other external device.
- **Present in Online Album:** Present your movies, slideshows and photos to your friends or anyone else in the MAGIX Online Album.
- **Publish online:** You can share your slideshows directly online on any common photo portal such as YouTube®, Flickr or Facebook®, too.
- **Send by email:** Send your slideshows as an email attachment. A low-resolution video file is created and attached to a new message.
- **Archive project on hard drive or disc:** Tidy up after you've finished.

Also in the deluxe version

- **Movie trailer:** Ready-made trailer projects which can be used to make your own slideshows quickly: by replacing the built-in placeholders with your own photos.
- **Camera panning**, **effects**, individual **zooms**
- **Travel route animation** with online maps for the whole world
- **Image stabilizer, slow motion/fast motion** for video clips
- **HD quality:** Support for Blu-ray-Disc, WM-VHD, AVCHD
- **3D look** for every TV

- **Dubbing:** 500 songs & sounds, rhythmic image changes etc.
- **Disc authoring:** All disc types, new menu templates, cover & label printing
- **Internet:** Direct import, export as video player
- **Direct transfer** to mobile devices, camera import
- **Shaky image export** (3D without 3D glasses): When exporting (E. g. "File" > "Export" > "Video as AVI") simply select "Stereo3D" via the "Shaky image" option (requires stereoscopic footage)

Overview of the program screen

After starting MAGIX PhotoStory on DVD MX, you'll see the following:

1 **Menu bar** (view page 179)

2 **"Slideshow" interface** (view page 37) for creating and editing your slideshows.

3 **"Burn"** (view page 145) interface for burning slideshows to disc.

4. Use **"Output" dialog** (view page 173) for all other slideshow uses.

5. **Media Pool (view page 55)** for navigating through your computer's folders.

6. **Video monitor** (view page 38) with universal preview function so that you always see what the effects and settings do.

7. Video monitor **transport bar** (view page 38)

8. **Buttons** for quickly toggling between the three screens: Overview mode (view page 48), Timeline mode (view page 50), and Storyboard mode (view page 49).

9. **Arranger (Storyboard mode):** All the pictures of your slideshow are shown here including preview photos.

Quick start

Disc projects, slideshows, and photos

MAGIX PhotoStory on DVD MX allows you to work with disc projects, slideshows, and photos. In order to work quickly and intuitively, it is important to know the differences between these three hierarchically-ordered terms.

Project

A project includes everything that you want to put on your CD and DVD. This normally contains one or more slideshows and includes a menu structure/menu design which allows you to choose a slideshow later on the CD or DVD. Projects can be saved as "<Pojektdatei>" files on your hard drive and can be loaded later, e.g. to edit individual slideshows.

Slideshow

A slideshow is a multimedia presentation of photos which is played like a film. Enjoy it on a PC or TV, since it offers maximum multimedia entertainment value from your photos, videos, music, title texts, transition effects, and much more.

Any slideshow can be exported individually as a video. The "project" can be considered a type of drawer into which you can put multiple slideshows for burning to CD or DVD later.

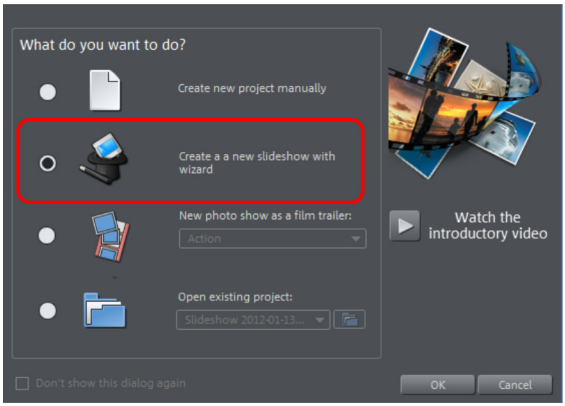
Photos

Photos are the main part of your slideshows. You can import photos and videos into your slideshow (the right video codec has to be installed on your system). Besides photos and videos, a slideshow also includes plenty of other elements: image titles, transitions, decorative elements, music, spoken commentary, and so on.

Summary: "Projects" include "Slideshows", "Slideshows" include "Photos". Slideshows of a project appear as menu entries, photos (as well as videos) appear as sub menu entries of these entries for navigation on the finished CD or DVD.

Create a slideshow with the Wizard

The Wizard helps you quickly and easily create great slideshows.



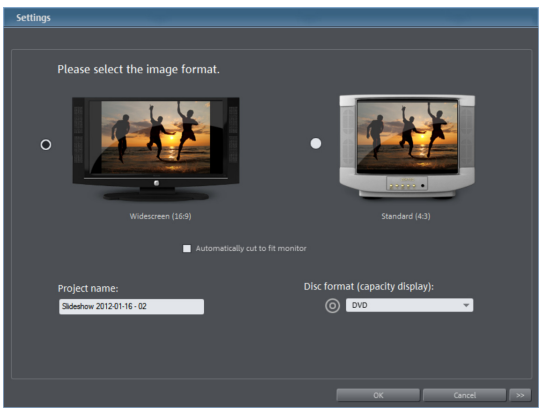
Start MAGIX PhotoStory on DVD MX and select "Create new slideshow with Wizard". Then confirm the selection with "OK".

The Wizard will now lead you through the steps required for creating a new slideshow.

Note: The Slideshow Wizard can be opened via "File (view page 180)" in the "Wizards" submenu.

Basic settings

Specify the ratio for the project. You can also determine how MAGIX PhotoStory on DVD MX should behave with photos that do not match the project's formatting.

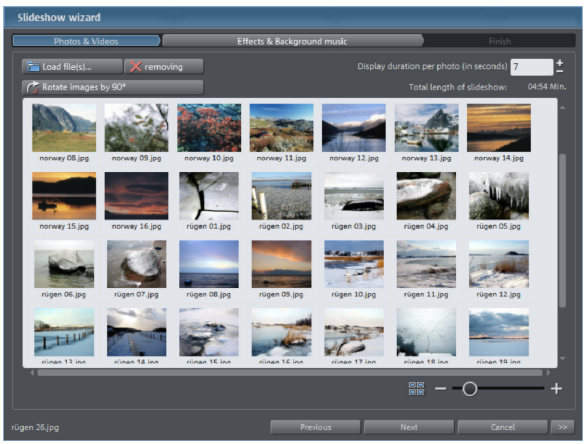


Cut to fit screen automatically: Images that do not correspond to the project's ratio are adjusted automatically. The zoom factor is set in such a way that there are no black bars to the left or right or top to bottom.

Project name:Give your disc project a name. This name will be used as a preset title for the disc you are going to burn. The slideshows will also be given this name.

Disc format (capacity display): Set the disc type you prefer here. MAGIX PhotoStory on DVD MX estimates how much space a disc project will occupy on a corresponding blank disc. This display can be found below the slideshow.

Load photos



Select photos via "Load files..." that should be added to the project.
"Delete" removes the selected photos from the list.
The sequence of photos can be specified via drag & drop.

Display time for each photo (seconds): By default, photos are displayed for the time entered here. Of course, you can later change the time each photo is displayed.

Total slideshow length: The approximate total length of the slideshow created is shown here. It adjusts if the display time per photo is changed.

Rotate image(s) 90°: Are your photos upside down or sideways? Use this feature to rotate it accordingly.

Note: If you load more than 100 photos, the wizard will suggest creating more than one slideshow. Then, the photos will sorted according to creation date using so-called EXIF files, if present. Otherwise, the file date will be used.

Specify effects

Select one of the styles that best suits the theme of your slideshow. If you don't want any effects, then select the entry marked "No effects".

In addition you can also refine your slideshow's style with various fades, effects, trailers, text and background music.

More information about effects settings can be found in "Slideshow Maker".

Finishing a new slideshow

By clicking on 

the Wizard creates the slideshow. You then have the option to watch your slideshow in the preview window before you accept it.

After clicking "Next" you will be given the option to continue editing the slideshow manually or to burn the slideshow to CD or DVD. To do so select "Edit slideshow manually" or "Add menu to slideshow and burn".

A click on "OK" closes the Wizards. Clicking "Back" allows you to make design changes to your slideshow again.

Designing slideshows

Sorting Photos

You should also sort the slideshows correctly. A good slideshow needs a good story that develops along the image sequence including a middle section and an end as well as a dramatic tension that forms the frame for these parts.

That's easy with a holiday photo slideshow. The tension is already there. It starts with pictures of the departure and then shows pictures of your arrival at the hotel and then the first adventures ...

A good vacation comes with a natural drama that results from the chronological order of the events. This is not necessarily the case for other slideshows; in this case you should consider the order in which you would like to present the photos. The problem with sorting also depends on the purpose for which you have created your slideshow.

Sorting the photos is easy:

- Drag each photo from the photo bar and drop it on the correct position.

You can't select several photos and sort them simultaneously in the Storyboard. You should switch to Overview mode.

In Overview mode you can use the whole screen to sort your photos.

- Click on the top switch in the bottom left corner to open Overview mode.

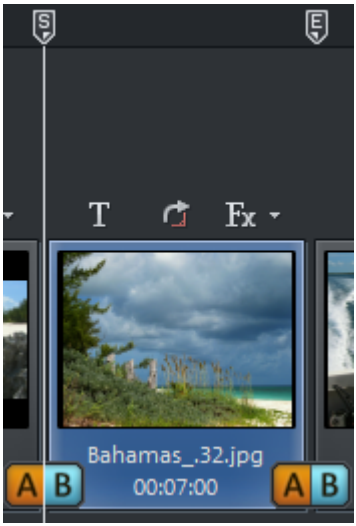
- You should maximize the overview to get the best possible overview.

- If not all photos fit into the list you can use the zoom to reduce the size of the display:

Overview mode is the ideal view mode to arrange all photos perfectly for a slideshow. You also may select multiple photos and move them at once.

Start and end markers

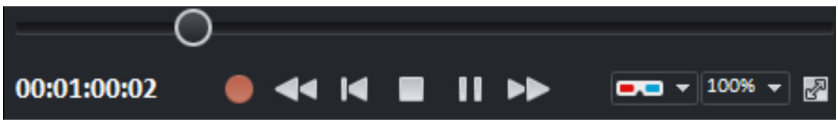
The section between the start (S) and end marker (E) above the storyboard or the first track of the timeline will be played back in your show each time.



The start and end markers can be moved in different ways by using the mouse. You can move them to any position with drag & drop or directly with a mouse click: Left clicking in the timeline moves the start marker, and right clicking moves the end marker.

The cursor is a red vertical line which moves from left to right during playback to show the current playback position.

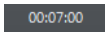
If you want to see play back your show, press the space bar or start the slideshow via the transport console below the preview window.



Editing slideshows

MAGIX PhotoStory on DVD MX provides many different editing functions. Let's start with Storyboard mode:

Each preview photo has several settings for duration, fades, effects, and text.



Set display time: By double-clicking on the time display below the preview image you can access the input dialog where you can manually enter the display digitally or by using the slide control.

Add title and text: Titles (subtitles, opening/closing credits, for example) easily can be added to every photo by clicking on this button.

Fades: The transition (fade) buttons are situated between the photos. You can now preview the available fades, try them out and see the result immediately in on the preview monitor.

Picture editing: Press the "FX" button on the photo box to access the effects and image processing tools which can be used separately on each photo, e.g. optimizing image quality.

Rotation: If a photo is on its side or upside down, then click on the symbol with the rotating arrow. The photo will rotate 90 degrees. You can check the effects directly on the Video Monitor.

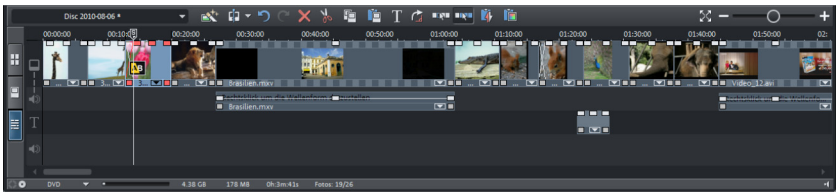
Tip: For editing complete photo folders (as preparation for import into MAGIX PhotoStory on DVD MX), we recommend MAGIX Photo Manager. This program is also installed automatically and can be used for quickly previewing and easily managing files in your database, besides image optimization.

For more complex single-image editing like photo panorama and photo filter effects, the deluxe version comes with a separate image processing program, MAGIX Photo & Graphic Designer 7. Users of the classic version can download the software at any time for free. To load a photo into MAGIX Photo & Graphic Designer 7, select the option "Edit photo" in the FX menu of the photo box. Read more on this in the MAGIX Photo & Graphic Designer 7 help

Dubbing: If you would like to add spoken commentary to your slideshow, then use the record function for audio recording. A click on the record button (red dot) indicated in the transport console opens the record dialog. You can also use audio CDs, records, or tapes. Audio CD tracks of non-copy-protected CDs and other audio files can be dragged onto the preview photo directly from the Media Pool.

Timeline mode: Timeline mode displays your photos "time-wise". The longer the object remains in the track, the longer the corresponding photo will be displayed during playback. Videos also can be used.

The easiest way to access the Timeline mode is via the Tab key (you can also click on the corresponding link at the left-hand border of the photo bar).



Four tracks are available here:

- The first track contains photos or videos of the current slideshow.
- The second track is the audio track for narration and sound effects.

Note: All audio material that you add to the second track directly below your photos and videos will be attached to the corresponding photo and video material. If a picture or video already has sound material attached to it (sound-in-picture support), it will be made visible in this track automatically.

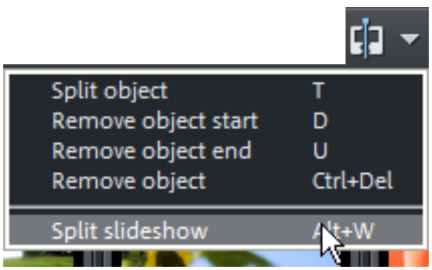
- You'll find the tracks on the third track. They can be created by pressing the Title Editor button in the toolbar and entered directly in Timeline mode.
- The fourth track is for background music. The audio material of this audio track can be moved within a project any way you like.

The objects on the tracks can be re-sized using their lower edge "object handles". Move the mouse over one of the lower corners of the object until the mouse pointer turns into a double arrow. You can now compress the object as much as you like until the desired length has been reached. An object can be faded in or out with similar handles at the top of the object. This also applies to text and audio objects in the timeline.

Divide slideshow

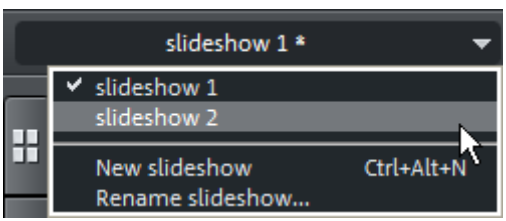
Sometimes you may want to split your slideshow into two separate slideshows. For instance, when you discover that you have loaded a certain number of images for a certain motif and would prefer to have this motif in its own slideshow.

- Move the photos you want to sort out to the end of the slideshow. Ideally, you should use overlay mode.
- Switch to Storyboard mode and place the start marker at the position where you would like to split the old slideshow.
- Select "Separate slideshow" in the Edit menu.



This creates a new slideshow where all materials of the old slideshow are moved to from the position of the start marker. All contents are moved too: title, soundtrack, fades, effect settings, object settings...

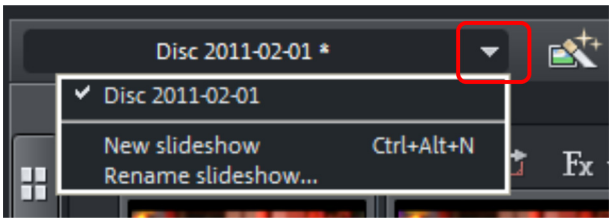
Finally, you should enter exemplary names for both slideshows. This can be done in the slideshow menu where you also can switch between the current project.



Creating CD/DVD menus

Create multiple slideshows

You can burn multiple independent slideshows together onto one disc. A new slideshow can be created in the same project via "File -> New -> Slideshow". You can switch between the individual slideshows via the arrow on the slideshow button in the arranger.



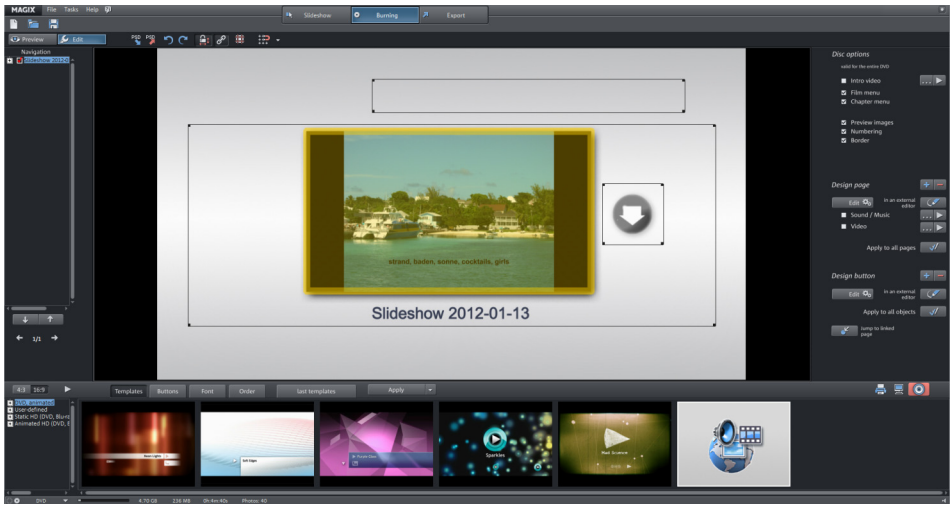
You can also embed slideshows from an existing project into your project. Select "File -> Open", find the desired project on the hard drive, and then click "Open". MAGIX PhotoStory on DVD MX will now ask you if you would like to close the current project or add a new project. Choose the latter to embed the slideshows into your project.

To remove a slideshow, switch to the corresponding slideshow described above and select "File -> Manage slideshow -> Remove slideshow".

Menu view and menu navigation

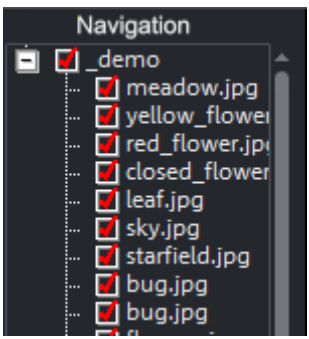
In the "Preview" view within the "Burn" screen, you can access only complete menu templates. In order to see the advanced menu tools for editing menus, switch into the "Edit" view.

MAGIX PhotoStory on DVD MX automatically adds graphical selection menus to your slideshows. The menu is also burned to disc and appears when inserted into your player. Just like with a purchased DVD, you can easily select your slideshows with the help of preview pictures, or access particular chapters within a slideshow.



At the center of the monitor you can see a preview of the selection menu. All slideshows appear in the uppermost entries, all photos appear as sub-entries. Use the dropdown menu to the top left to deactivate the menus entirely or only work on the slideshow entries.

Use the "Navigation" section in the "Edit" tab to access the structure of the selection menu.



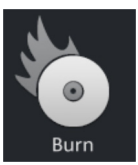
Here you can switch off all photos that should not be in the photo menu. Simply deactivate the corresponding box.

This way, the entry will be removed from the menu only; the related photo will not be removed from the slideshow. (More than 99 ticks cannot be made as the DVD player cannot list more than 99 entries.)

In the lower section of the screen you can find a whole row of pre-made menu layouts. Use the scroll bar to view each template. There are plenty to choose from:

- If you wish to fully apply a template, first click on "Templates" in the template bar and double-click on the template of your choice. The complete template will then be applied.
- You can also combine the various elements of the individual templates. For example, if you want to combine the text format of a template with the background of another one, then select "Font" first and double-click the template with the text of your choice. Then select "Buttons" and double-click the button you like. The preview in the middle shows you the results immediately.
- Double click the preview picture or a menu entry to change the film or chapter name and select a different preview picture.
- Back in the "Preview" view you can use the virtual remote control to test the behavior of finished discs to make sure that everything works as planned.

Additional disc types



You can access disc selection options by clicking the "Burn disc" button:

In the disc selection dialog, you have to click on the "More options" button to view all available disc types at a glance:

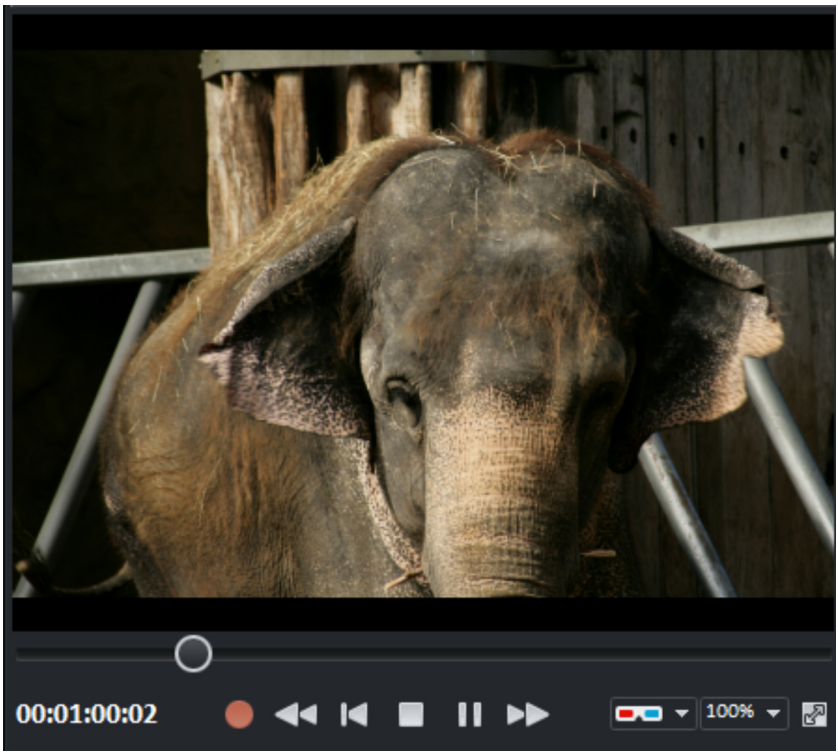
- The disc projects that you can play in the DVD player to enjoy on TV should be burned onto a DVD, (S)VCD, miniDVD, or JPEG disc.
- Disc projects meant for presentation on your PC should be burned as slideshows or high-definition slideshows (WMV HD).
- In the deluxe version, you can also burn disc projects for high-resolution PC monitors. The formats WMV HD or Blu-ray disc are provided for this purpose.
- In the deluxe version, there is the disc type that can do anything – Playback a slideshow on TV or PC as well as full project backup: the multidisc. The multidisc combines slideshows for playback on a DVD player and on the PC in the WMV HD format as well as the full project backup of all photo, video and music files

Ideally, hover the mouse over the buttons for a moment and then read important information on the corresponding disc type in the info window below in the dialog.

Edit Fotoshow

Video monitor and transport control

Select the slideshow window to load photos and edit your slideshow.



Use the video monitor to preview the current slideshow. With the button "Full screen" you can switch to full screen playback. Press the "Esc" key to return to normal playback. The transport console can be used to begin playback of the slideshow. It can be found below the video monitor.

Play/Pause: The "Play" button in the middle starts endless playback of the slideshow: The range between the start and end markers is played back as a loop ("infinite", recurring). Clicking on the play button a second time pauses playback.

Stop: The "Stop" button ends playback.

Back: This button moves the start marker to the previous picture. This is displayed in the video monitor. During playback you can use this button to rewind.

Forwards: This button moves the start marker to the next picture. This is displayed in the video monitor. During playback you can use this button to fast-forward.

Note: You can fast-forward or rewind using the cursor (arrow buttons) on your keyboard. Why not also try out the additional functionality of the CTRL or Shift buttons.

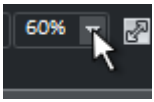
Back to start: With this button the start marker is quickly moved to the beginning of the slideshow.

Record: The "Slideshow" window provides a single frame capture (deluxe version only) feature or an audio recording feature. With single frame capture, you can take photos of still shots from analog video sources. With audio recording, new sound material can be inserted at the position of the start marker, for example, commentary.

Stereo3D (deluxe version only): This sets the mode for stereoscopic playback. More information is available in Stereo3D (view page 118).

Use the position slider to move quickly within the project. The current position of the playback marker is displayed numerically on the right.

Zoom in video monitor



The video monitor includes a zoom function for zooming into a certain position for editing, e. g. to select colors exactly.

Shortcuts:	zoom	Ctrl + Mouse wheel
	Reset zoom (100%)	Ctrl + double click
	Move section with the mouse	Ctrl

Note: The zoom function is not involved with section selection, but is only a view option and is not included during export or burning!

Media Pool

The Media Pool (view page 55) is a central and important element in MAGIX PhotoStory on DVD MX. It offers a series of functions like loading media objects, improving picture quality, design, etc.

Toolbar

Important editing and effect menu commands are available as buttons on the slideshow window. There are different buttons available for each mode.

Top Toolbar

This toolbar lies directly under the menu or the video monitor of the MAGIX PhotoStory on DVD MX.

New project

This menu item creates a new MAGIX PhotoStory on DVD MX project. You can also open this feature via the "New project" button above the video monitor.

Keyboard shortcut: Shift + N

Load project

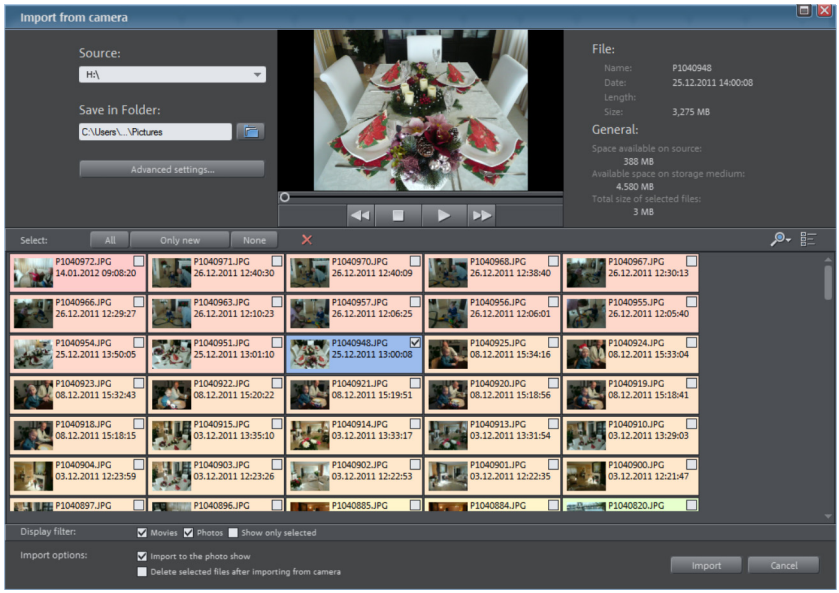
This menu item loads a previously saved MAGIX PhotoStory on DVD MX project. Please note that the related files must be accessible.

MAGIX PhotoStory on DVD MX searches for the used sounds, pictures and videos under the path to where you last saved the disc project.

Keyboard shortcut: Ctrl + O

Import files from camera

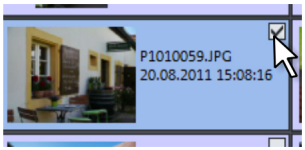
Here you can import all available data from your digital camera into MAGIX PhotoStory on DVD MX.



Source: Select the path for your digital camera's memory card.

Target: Enter where the imported files should be saved.

Select: Specify which files should be imported: "All" "New only" since the last import or "None". Delete the selected files using the "X" symbol.



Import individual images by ticking the box next to the image in the selection field. Subsequently the image will be displayed in the preview monitor.

View filter: You can choose to display either all "Movies" and "Photos" or "Display selected only".

Adjust the preview image size using the slider. This option is only available if "Large icons" is selected in the view menu.

Select whether you want to see "Large icons" or a list with "Details" on the files.

Import options: Specify whether the files should be imported into the slideshow directly ("Import to slideshow") and whether the files should be deleted from the camera after importing from the memory card ("Delete selected files after importing from camera")

If you have entered all settings, then click on "Import"

Save project

The current disc project is saved with the name displayed in the project window. If you have not yet specified a name for your project, a dialog will open wherein MAGIX PhotoStory on DVD MX asks you to do so.

Keyboard shortcut: Ctrl + Alt + S

Slideshow Maker

This is where to open Slideshow Maker.

Undo

You can undo the last steps you made. This means that you can easily try out critical operations. If the result does not meet your expectations, then you can simply "undo" it and return to the initial status.

Keyboard shortcut: Ctrl + Z

Restore

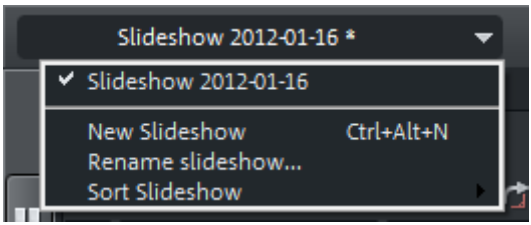
The "Redo" function undoes the previous "Undo" function.

Keyboard shortcut: Shift + Y

Lower toolbar

The following buttons are visible in all modes of the "Edit" surface directly under the video monitor.

Manage slideshows



Switch between all available slideshows, create a new one or rename the active slideshow.

Cut button and editing menu

The cut button and cut menu next to it can be found under the transport console.

Use the cut button to cut a selected object in two at the position of the start marker.

With a click on the small arrow beside the cut button, you can access the cut menu which contains further relevant commands.

Split object

This command cuts a scene at the point where the start marker is positioned. This way, two free-standing objects are created.

You can isolate a part of an object in order to delete it:

1. Place the start marker where you'd like to have it by left clicking in the timeline.
2. Select the video object by clicking on it and click on the cut button.
3. Place the start marker at the end of the part you wish to remove and click on the cut button again.
4. Select the middle object that was created and press the "DEL" key.

5. Pull the object at the back to the front; it should automatically snap into place. All subsequent objects will be moved along in unison so that no gaps appear.

You can also use this function to apply effects to a certain part of an object only.

Keyboard shortcut: T

Remove scene start

This command cuts a selected object at the point where the playback marker is positioned and removes the material before the playback marker.

Keyboard shortcut: D

Remove object end

This command cuts a selected object at the playback marker position and removes the material behind the playback marker.

Keyboard shortcut: U

Hint: If the commands "Split" and "Remove beginning/end" are applied without a selection, all objects at the position of the playback marker are cut.

Split slideshow

This command splits the slideshow at the point where the start marker is positioned, making two separate slideshows.

Note: You can use this function if you wish to include chapter menus and if your slideshow already contains over 99 photos. Otherwise, only every second or third photo (depending on the number of photos) in the chapter menu, as the number of menu entries is technically limited to 99.

Keyboard shortcut: Alt + W

Delete

This command deletes the selected photo (or selected object) in Timeline mode.

Keyboard shortcut: Del

Cut

This function deletes the selected photo (or the selected object in the Timeline mode) and copies it to the clipboard. You can then use the "Paste" command to copy it into any slideshow.

Keyboard shortcut: Ctrl + X

Copy

This command copies the selected scenes (or the selected object in Timeline mode) to the clipboard. From there you can paste it into any other slideshow using the "Paste" command.

Keyboard shortcut: Ctrl + C

Paste

This command inserts the clipboard material (photo or object) at the current position of the start marker.

Keyboard shortcut: Ctrl + V

Exchange object

Replaces the selected object with an object selected in the Media Pool. Length adjustment moves the objects following it correspondingly.

If photo objects are removed/exchanged, then the display duration will remain.

Background design

Select a color, a picture, or any video on your hard disk, which you would like to serve as the background for the photo displayed. This function is especially useful when photos have black bars around them, or if they are reduced in size.

Also in Timeline mode and Overview mode

The buttons listed here are also visible in the Timeline mode and Overview mode

Title editor

Opens the title editor (More information can be found in the section "Title editor" on page 112) for the selected photo or video object.

Shortcut: Ctrl + T

Rotate 90°

Rotates the image 90° clockwise/counterclockwise.

Shortcuts: Ctrl + Alt + F to the right

Ctrl + Alt + G to the left

Only in Timeline mode

The following buttons are found exclusively in Timeline mode.

Mouse mode for individual objects

This mouse mode for individual objects enables free positioning of individual objects.

Optimize grid view

The start and end markers are moved to the start or end so that all scenes are visible and the complete film can be played. Zoom is also set to 100% so that all objects are visible.

Keyboard shortcut: Shift + B

Connect objects in all tracks

In this mouse mode all objects located behind the one selected will be moved in unison.

Only in overview mode

Rotate 90° to the right

This button turns the selected photo 90° to the right.

Start and end markers

The range between the start and end markers is played just above the first track.

The start and end markers can be moved in different ways using the mouse. You can move them to any position with drag & drop or directly with a mouse click. A left mouse click in the timeline moves the start marker, and a right click moves the end marker.

The play marker is a red vertical line which moves from left to right during playback. It indicates the current play position.

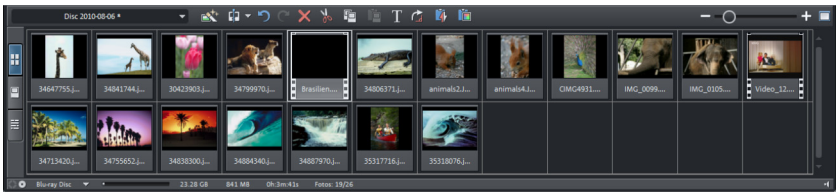
Note: The start marker can also be shifted using the arrow buttons on your computer keyboard. The "Forwards"/"Back" buttons on the transport console move the start marker to the next or previous picture, which can then be seen immediately in the Video Monitor.

Mute sound

Shuts off the entire audio playback temporarily. This only affects the preview, not the disc that is finally produced. This button is located below to the right in the program window.

Overview mode

"Overview mode" is a special slideshow viewing mode that helps clarity and maintenance of the photos.
All photos are listed one after the other (in multiple lines, like in a text program) and can be copied, cut, moved, deleted, and inserted.



There are no start, play, or end markers in Overview Mode. The photo that is to be played is fitted with a border and highlighted in blue allowing you to see where to find the photo that is currently playing.

This slider specifies how large the photos will appear in the storyboard. The smaller the photos, the more you'll be able to fit on screen.

Use this button to maximize the overview mode to fullscreen.

Storyboard Mode

Storyboard mode is used to view the layout of slideshows. All photos are displayed in linear sequence with preview images. It includes different buttons, text, effects, rotation, time settings and transitions.

Click "Text" to open the Title Editor. Enter text, e.g. for subtitles, lead or end credits.

Texts can be displayed in all kinds of fonts and colors. To make your credits scroll down the screen (just like it should be), you can select different movements, effects, and designs from the template menu.

Effects: In the Effects menu or by clicking on "FX" you can select the effects for editing sounds and images.

You can use the option "Edit photo" to open the photo in the separate image editing program MAGIX Photo & Graphic Designer 7. After editing the image is transferred directly to the MAGIX PhotoStory on DVD MX storyboard.

Hint: For more info on using MAGIX Photo & Graphic Designer 7 please read its help file which you can open by pressing the F1 key.

Rotate: If a photo is on its side or upside down, click on the Rotate button.

The photo will rotate 90 degrees. You can check the effects directly on the Video Monitor.

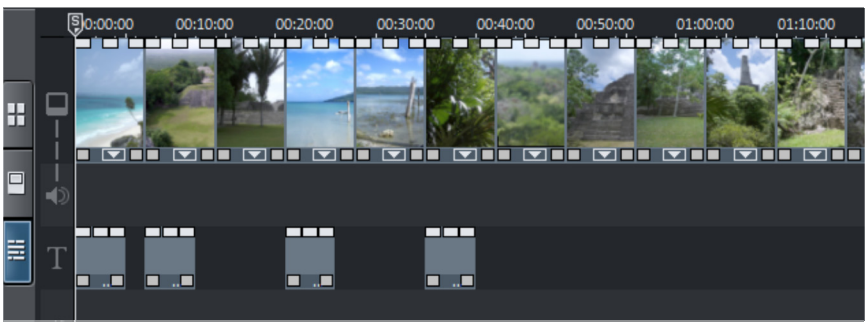
Playback: The range between the start and end markers in the upper half of the storyboard is the section which will be played back. Both markers can be moved with the mouse (or they can be placed with the left and right mouse buttons). Use the spacebar to start and stop playback most effectively. Of course you can also control the playback functions by using the transport control below the preview monitor.

Playback marker: The playback marker will show which photo is currently being played. A vertical line that runs from left to right over the scene. Dependent upon how long a photo is shown, the speed of the playback marker will vary.

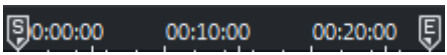
Transitions (Fades): You can also set up the transitions from one photo to the next by mouse-clicking on the symbol. A menu will open from which you can select different transitions (view page 87).

Timeline mode

In "Timeline mode" your photos are displayed in order: The longer the object remains in the track, the longer the corresponding photo will be displayed during the slideshow. Unlike Storyboard mode, the speed of the playback marker does not change on playback. You also have direct access to all media files currently being used in the slideshow.



Timeline



The progress of the slideshow in the movie is displayed horizontally above the tracks. To structure this progression, the actual timeline is visible at the very top above the first track. The unit of measurement of the timeline is milliseconds.

The range between the start and end markers in the timeline is played back as an endless loop.

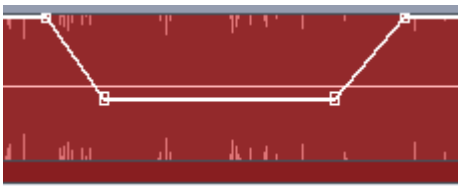
Tracks

There are in total 4 tracks for loading, arranging and editing media files via drag & drop or double-click from the Media Pool:

- The first track is for the photos, but videos can also be loaded.
- The next track is for the audio track of videos and for the frames. Additional audio recordings (so-called overdubs), for example, commentaries, are placed here.
- The third track contains the titles (which can be created using the button "Title editor") and style elements, which can also be added via the MovieShow Maker.
- The fourth track is for additional audio material. Additional audio recordings (view page 132) (so-called overdubs), for example, commentaries, are placed here.

Volume curves

Volume on tracks 2 and 4 can be automated. This is achieved using so-called volume curves.



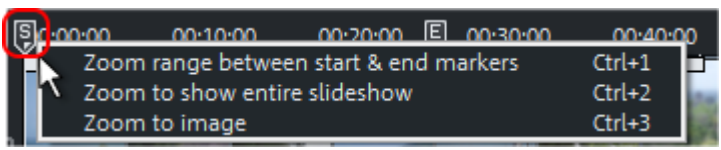
A typical volume gradient for damping background music during a spoken commentary.

- In context menu of tracks 2 or 4, select "Volume curves".
- Double click the curve to set an automation point.
- Two automation points are required for a simple volume curve (start and end points).
- Curve points can be easily moved via drag & drop, during which the mouse cursor turns into a cross.
- An additional double click on an automation point deletes it.

Hint: During audio recording, volume curves can be automatically created if the Volume damping ("Ducking") (view page 133) option is activated.

Zooming

Keyboard shortcut: The easiest way to zoom is by using the key combination Ctrl + Up arrow (for zooming in) and Ctrl + Down arrow (for zooming out).



Zoom menu: Right-clicking on the start marker opens the context menu where you can select the most important zoom levels.

Sliders: Use the slider ("fader") to adjust the visible clip on the horizontal time axis. Alternatively you can use the mousewheel to zoom in and out.

Grid

The snap grid ensures that the objects always "snap" to certain points so that they can be positioned precisely according to the beat. Two consecutive objects will seamlessly snap together, even if they are on different tracks. This prevents undesired gaps or overlapping objects.

Objects

Sound and picture tracks are displayed as separate objects and are edited independently of one another.
Sound material is displayed as a wave form. Where there's something to see, there's something to hear. Picture material appears with regular preview pictures as an object in the track.

All objects can be cut uniformly, edited with effects, and arranged any way you like. During playback, all objects on all tracks are mixed together automatically. When moving a photo, all related objects will be moved along with it (audio recordings, frames, and text objects, for example).

Object cutting and fades

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.
You can now stretch the object as much as you like.

At the top ends of every object you'll find two fade handles that can be adjusted to fade an object in or out.

Select objects

To edit or delete objects using the menus, you must first select them. To do so, simply click on the object you wish to select. The handles of selected objects change color to show that the accompanying object has been selected and can be edited using the menu functions or with effects.

Context menu

Right-clicking on an object opens the context menu with effects. It is equipped with the same effects as in the Storyboard mode and the Effects menu.

Duplicate objects

Small objects (for example, audio loops) can be duplicated very easily. First, the objects that need to be duplicated must be selected. Activate the copy command and then the Insert command ("Edit" menu or via the buttons in the Timeline mode).

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.

Mouse modes

With these mouse modes you can specify various working methods of MAGIX PhotoStory on DVD MX when moving objects.

Mouse mode for individual objects

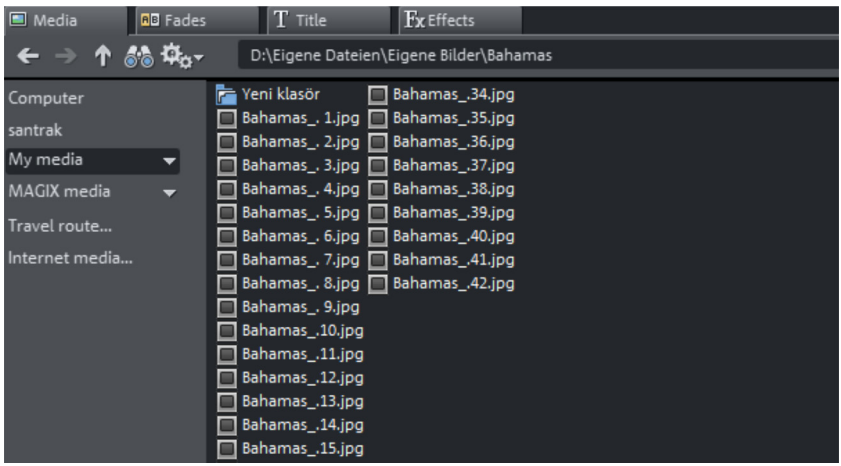
This mouse mode for individual objects enables free positioning of individual objects.

Connect objects in all tracks

In this mouse mode all objects located behind the one selected will be moved in unison.

Media Pool

The structure and workflow of the Media Pool is similar to that featured by Windows Explorer; however, the difference is that only the used files are displayed. This is used to access and load multimedia files of all kinds: video files, audio files, fades, effects, and also complete projects.



Load pictures, texts and audio files

To preview, click on a corresponding file in the Media Pool. The photo/video is played on the video monitor. If you want to use the photo for your slideshow, drag it to the Storyboard while holding down the mouse key or to a target track in Timeline Mode. You can also load the files with a simple double click. Video and graphics are always placed at the end; titles and audio files are placed at the position of the start marker

If you would like to load several files, hold down the Ctrl key while clicking on the entries you would like to use.

If you would like to load a sequence of files, hold the "Shift" key and click the first entry, then on the last. All entries in between are marked.

The files are moved automatically into the tracks that have been set up for them: Videos and photos in track one, sound in the second track, text objects (titles) in track three, additional sound files in track four.

If there are lots of files, those already selected are highlighted in the Explorer to help you keep an overview.

Preview

The preview function can be used for all files. If an audio or video file is selected in the file list, the transport console switches to preview mode. The transport functions of the transport console no longer apply to the objects in the Arranger but rather to the file selected in the Media Pool. You will be able to tell this by the flashing play button in the transport console. Use this button to start the preview. Graphics and text objects are displayed immediately in the video monitor.

Exchange object

Replaces the selected object with an object selected in the Media Pool. Length adjustment moves the objects following it correspondingly.

If photo objects are removed/exchanged, then the display duration will remain.

Sound in picture support

Some digital cameras have an audio recording function and save a WAV file with each photo. The PC identifies these cameras as separate drives. The audio file is automatically included in the database overview when you import the photo from the camera.

Media

Search

The Media Pool has an easy search function for finding files on the computer. It may be activated and turned off again with the shown button.

File name: Enter any part of the name of the file you are looking for in the "File name" field. The X symbol deletes the entry. A "?" may be used as a placeholder for a single character, and "*" for any number of characters.

File type: Here you can enter a file name extension. Multiple entries are separated using a semicolon. Below the entry field, various presets may be selected for often-used file name extensions.

Date: Here, you can set time period limits on your search. Choose an entry from the list.

Folder: If you don't want to search the entire computer, but only look on certain drives or in a single folder, you can define a certain search path.

Search depth: Here you have various options that determine whether additional locations should be searched.

- Search indexed locations and the selected folder
- Search indexed locations, the selected folder and personal files.
- Search indexed locations, the selected folder, personal files and the project file.

"Indexed locations" are folders, which are searched and cataloged in Windows via the index list. If the index list is activated, the files in the indicated folders will be indexed while the computer is idling, so that the user's search query may be completed faster.

Note: In Microsoft Windows XP, the indexing service is usually deactivated by default. The search functions in Windows Vista® may be installed with the current version of "Windows Search". They make it possible to easily add to the indexing service. Please refer to the installation instructions from Microsoft.

Deleting, copying, and moving files

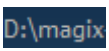
All files listed in the file list can be selected, deleted or moved/shifted (by holding down the mouse button and using drag & drop to move them) into other folders just like in Windows® Explorer. This way, all objects that come into question to be used in a slideshow can be compiled into a separate folder beforehand.

The selection of these functions can be executed via the context menu which can be opened by right-clicking the entry.

 All the context menu's functions can also be accessed via this button.

Navigation buttons

The navigation buttons let you navigate through your computer's drives and folders.

Forwards/back		These buttons access the previously viewed folders.
Up		This button accesses the next highest folder level.
Search		The search function allows you to find specific files quickly. You may specify your search according to file type, date, or certain folders.
Browse history list and path details		The path information for the current folder is displayed in the center above. Use the arrow button to open the menu to find the folders you previously visited.
Options		All functions of the context menu (switch views, rename, or delete files, etc.) can also be accessed via the options button.
Display options		Settings for how detailed the entries should be listed may be made here.

Computer

The link button "Computer" displays the drives in the Media Pool. All drives will be listed along with their drive letters and can be opened with a double click.

User directory

The second button featuring the user's name opens their personal folder in the Media Pool.

My media

The "My media" button lets you select "Projects", "My videos", "My music", "My images", and "Recordings".

Projects: Here you can change the folder, where your projects and slideshows will be saved by default.

My pictures: Switches to the "My documents\My pictures" folder. This folder is often used by digital cameras and scanners to store transferred images by default. The included MAGIX Photo Manager program also uses this folder (e.g. during image import).

My videos: Displays all usable files found in "My documents\My videos."

My music: Displays the contents of the "My Documents\My Music" folder. MAGIX Music Manager also suggests this folder for importing your music collection into the database.

Slideshow music

Slideshow music: This directory contains various songs that may be used by Slideshow Maker.

MAGIX media

The "MAGIX media" link enables selection of "Movie trailer", "Animations", "Manage" "Database", "Online Album", and "Downloads".

Movie trailer: Gives you access to all your movie templates (view page 91), which could serve as a framework for your slideshow.

Animations: You can access all automatically-generated animations here. Once you've installed MAGIX Photo & Graphic Designer or Xara Designer Pro you can double-click to edit the animations externally.

Manage...: This opens the database management program MAGIX Photo Manager. It creates and organizes the database, which can be easily accessed by MAGIX PhotoStory on DVD MX.

Database: Use this button to open the database view. Right clicking opens the database search. The database first has to be created using the supplied additional programs MAGIX Photo Manager or MAGIX Music Manager.

Online album: This buttons opens MAGIX Online Album. This provides a shortcut to uploading and deleting data. To do this, you must first register on MAGIX Online Album.

There are many ways to upload data:

1. While holding "Ctrl" down, select the data to be uploaded in the Media Pool, and select "Copy" in the context menu (opened by right clicking). Switch to the MAGIX Online Album screen, open the desired folder, and select "Paste" in the context menu.
2. In the Media Pool, click on "Online Album", and go to the desired directory. Open the Windows Explorer, select the desired data with "Ctrl" held down, and drag it into the Media Pool.

Both options will result in your desired data being uploaded to your MAGIX Online Album.

Hint: This function requires an Internet connection. To gain access, make sure you have your log in information (email address and password) ready.

Downloads: Use this button to access the media files that you downloaded with Catooh.

Travel route animation (deluxe version)

Using the travel route animation, you can quickly create maps with animated travel routes. You can also start travel route animation via the "Edit" menu > Wizards > Travel route animation".

Note: This function is available only in the deluxe version.

Program interface of the travel route animation

1. **Map:** Displays map material from openstreetmap.org.

2. **Selected locations:** All locations, searched using geonames.org or selected manually on the map, will be shown on the list and marked using pins.
3. **Map section + zoom:** The map may be moved by pressing the arrows. "Zoom" enables you to zoom into the current section (+) to view more details or to zoom out (-) for a better overview.
4. **Show lines:** If at least 2 locations are marked on the map, then this function will be available for linking the locations. The line color and thickness may be changed.
5. **Animation:** You can animate your travel route and save as video in WMV format.

6. **Save as image:** The current map section may be saved as an image in the format PNG, BMP, JPG, or TIFF.

Select locations on the map

There are several options for selecting locations on the map for creating a route.

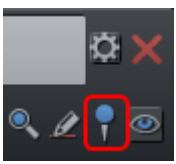
Note: The map section will adjust itself depending on how many locations you select and where they are. If you would like to view details about a location, simply zoom in using "+" on the number block or the mouse wheel.

Search and select locations:

1. Click on the "+" button below "Edit destinations" to add an entry. This new entry will appear blue below existing locations.

2. Assign a name to the new location and press Enter. The destination will be added to the map. An additional marker is set for beginning and end of a tour.

Note: If multiple locations are possible, a list with possible choices will open. You can determine the destination by picking one from the list with your mouse.



If important intermediate stages of the route should also have a marker, click on the marker symbol in the properties (cogwheel) of the destination.

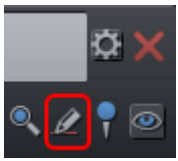
Set destinations manually:

1. Move the map boundary by clicking on the map and holding down the mouse key so as to make the desired destination visible.

2. Click on this button under "Edit destinations" to activate manual entering of locations, or use the keyboard shortcut "M".

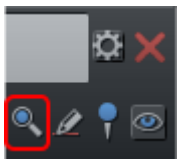
3. Click the target destination on the map. A new entry to the list will be made.

Rename destinations:



You can rename destinations by going to its properties (cogwheel symbol) without changing it.

Search destination anew:



If the destination is incorrect, you can search the location again in order to adjust the position of the marker.

Enter a new name in the entry field and click on the magnifying glass or press enter.

Import GPX file:

If you have created a route with a GPS device and saved it as a GPX file, you can import it and show the route on the map.

Note: Depending on the length of the route, it can take some time for the file to be imported and displayed.

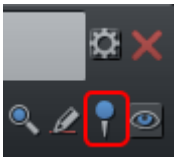
Adjust & delete locations

Change the sequence of destinations:

The order of destinations in the list corresponds to the sequence in which they were created. You can edit the order of the destinations by clicking on a location on the list and dragging it to a new place with the mouse key held down. The route on the map will be adjusted. You can see this especially well if you've activated the line (view page 65) in order to optimize the travel route display.

Adjust the position of the destination:

You can adjust the position of a destination by grabbing the marker on the map with your mouse and dragging it with the depressed mouse key to a new position on the map. The marker will be moved, the travel route adjusted and the new name of the destination will be automatically changed in the list.



Note: If the destination marker doesn't appear, you can activate it in the properties (cogwheel) by clicking on the marker symbol.

Hide destination:

Click on the eye icon below the properties (cogwheel) of a destination. The destination will remain in the list, but will be hidden on the map and will not appear in the route. Click on the eye again to display the location again.

Remove destination from the list:

To delete a destination from the list and the route, click on this button next to the destination.

Save and load routes

The entire list of marked locations may be saved to load it later - without having to search for and select all of the locations again.

Save as file:

- Click on this button under "Edit destinations" or use the keyboard shortcut "Ctrl + S".
- Enter the save location and name of the location list in the dialog that appears.
- Click "Save" to back up the list and quit the dialog.

Open list:

- To load a saved location list, click this button under "Edit destinations" or use the keyboard shortcut "Ctrl + O".
- Navigate to the save location and select the location list in the dialog that appears.
- Clicking on "Open" closes the dialog and opens the list with saved destinations.

Adjust map section

Use this button to move the map section upwards (north), to the right (east), downwards (south), or to the left (west).
The arrow keys on the keyboard may also be used to move.
Click on the point between the arrows to move the map window in order to center the selected destination.

Use this controller to zoom out of the map (-) or into it (+). The keys "+" and "-" on the keyboard or the mouse wheel may also be used to zoom in and out.

If you would like to show all marked locations and reveal as much of the map as possible, click this button and the map will be adjusted automatically.

If you would like to display only the route without the location markers, click here and the pins will be hidden. A repeat click will display them again.

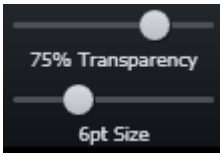
Show lines (connect locations)

For two or more marked locations, the function "Show lines" will appear. This function connects destinations on a map with a line in order to better visualize the route.

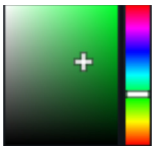
Click this symbol to show lines connecting selected locations. The functions responsible for line transparency, thickness, and color are to the right.

Tip: The order of destinations in the list corresponds to the sequence in which they were created. You can edit the order of the destinations by clicking on a location on the list and dragging it to a new place with the mouse key held down. The route on the map will be adjusted and the line will follow a different course.

Hide line: To hide the line, click on the "Lines" button again.



Transparency and line thickness: Use the controller to change the transparency (left controller) and the thickness of the lines (right controller).

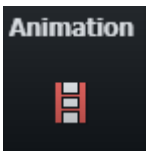


Line color: Set the desired line color using the color field and slider.

Tip: You can also create animations for the connecting line in the "Animation" (view page 66) section and save it as a video.

Animation

For two or more marked locations, the function "Animation" will appear.



This enables you to display your travel route in motion and even save it as a WMV format movie, e.g. to integrate it into vacation movies or to send it.

Scroll map: Activate "Scroll map" and the map will move from location to location when the animation is played back.

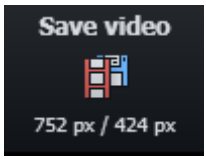
Animate line: The connecting line slowly connects all selected locations, from the first to the last. It is moving at the speed of an animated object.

Soft animation: The animation starts slower, speeds up, and then slows down before each location.

Animate object: You can select an object to follow the route of the trip, such as a car or an airplane.

Duration (seconds): You can adjust the duration of the animation however you like, depending on the length of the route. Enter seconds into the filed and test the results via the preview option to see if you like the animation.

Preview: Before you save an animation as a video, test it to see if it looks the way you want it to by clicking "Play".



Click on this button to save the animation as a video. Enter the save location and name of the video in the dialog that appears.

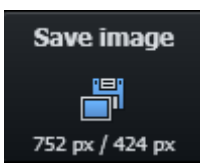
Note: This button indicates the height and width of the future image. These values are adjusted as soon as window sizes are adjusted or when the location list is shown (arrow next to "Destinations").

Close: To leave the animation area, click "Close".

Create a picture of a map

You can create a picture from a section of a map (including location markings), e.g. to print it.

Step 1: Zoom into the map until you have reached the desired level of detail.



Step 2: Click this button (shortcut "Ctrl + E") and enter the save location and the name of the image in the dialog that appears. You may also select the format for the picture.

Note: This button indicates the height and width of the future image. These values are adjusted as soon as window sizes are adjusted or when the location list is shown (arrow next to "Destinations").

Step 3: With one click on "Save", the image is saved and the dialog is closed.

If you want to, you can hide the list of locations to the left to show a larger section of the map.
Another click on this symbol will show the list again.

Keyboard shortcuts

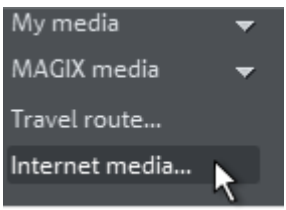
Manual selection of locations	"M"
Zoom into map	"+" on the number block
Zoom out of map	"-" on the number block
Save location list	"Ctrl + S"
Load location list	"Ctrl + O"
Save map section (with location markings) as image	"Ctrl + E"
Move map section north (upwards)	"Up arrow"
Move map section east (right)	"Right arrow"
Move map section south (downwards)	"Down arrow"
Move map section west (left)	"Left arrow"
Cancel video export	"Esc"

Integrated browser

The integrated browser offers many useful functions that help you collect material for using in your project. All kinds of media can be collected – images, videos, sound or text can be all integrated into the slideshow using the built-in browser with great results. The browser is also used for Catooh.

Note: To use the integrated browser, make sure you're connected to the Internet.

Open browser



The integrated browser opens in the Media Pool (view "Media (view page 56)") via "Internet media..."

Navigation in the browser

One page back: Switches to the previous page.

One page forward: Switches back to the page before the "One page back" button was pressed.

Stop: Stops loading the selected page.

Reload: The current page will be reloaded.

Home: Returns to the home page.

In the address header, next to the navigation buttons, you can simply enter an Internet address like http://www.magix.com. Press the enter button and the corresponding page will be loaded.

Loading Internet media

The buttons described here are used to collect and load media directly from the Internet into the current slideshow. The corresponding functions can be found in the context menu of the browser.

Make screenshot of the current website: Saves an image of the active website. Enter a file name and choose whether you want to keep the selected aspect ration.

Save selected text: The selected text will be saved. It can then be edited in the slideshow using the Title Editor.

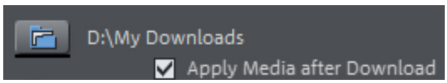
Download selected images: The selected images will be saved to your computer.

Start audio recording: A dialog for audio recording (view page 132) opens.

> **Hint:** For recording from the Internet it is important that the sound card is selected as the sound source.

Define the path for saving Internet media.

To define the path for saving Internet media, click on the folder symbol and navigate to the desired folder. Confirm your selection with OK.



Apply media after download: This option loads downloaded media directly into the current slideshow.

Fades

Here you can find all fades from MAGIX PhotoStory on DVD MX, sorted into various categories. One click on a category displays all of the fades that are contained.

To load a fade, drag it with a held-down mouse key onto the object, into which you would like to fade.

You can find additional information in the "Fades" (view page 87) section.

Title

This displays the title settings and the title editor. These presets are sorted into different categories and may be loaded by double-clicking or drag & drop. The 3D title templates are also located here.

The text featured by title objects may be changed directly in the program monitor by double-clicking.

Effects

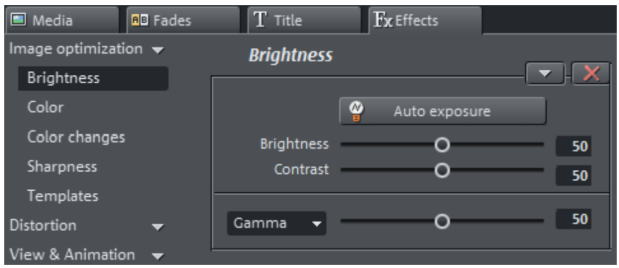
This provides access to the effects that are sorted into the various categories. Read more about this in the chapter "Effects".

Templates

Most effects categories contain many useful templates that can be added simply by double clicking them. A single click provides a preview.

Image optimization

Brightness

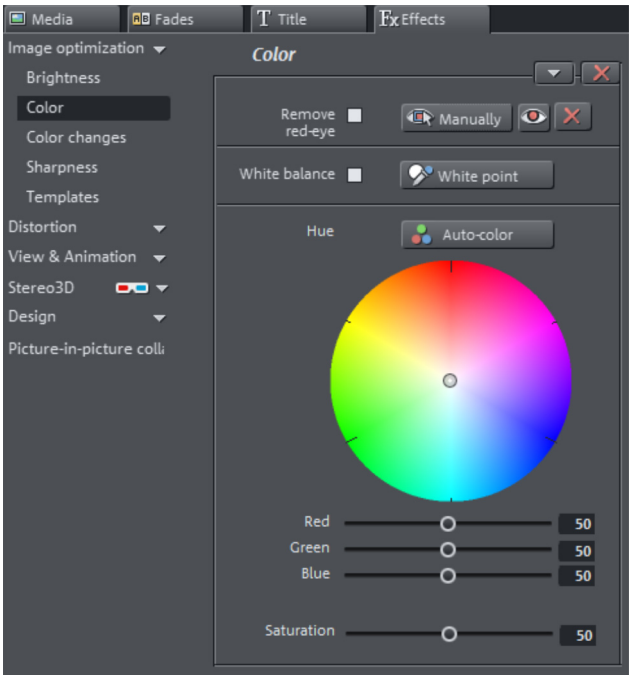


Auto brightness: This button automatically optimizes brightness and contrast with one click. For specific adjustments, use the slider in the dialog.

Brightness /contrast: Using the sliders, you can raise or lower brightness and contrast of the image.

Gamma: Set the middle grey value, which can be determined from various color areas. In the preset list, select various areas to edit only the dark, median, or brightest areas of the image.
Using the fader you can also set the power of the brightness/darkness adjustments.

Color



Red Eye Removal

Using this photo function, you can remove the unnatural redeye effect which results from using a flash. Click on the eye symbol and then select the red pupils in the preview monitor using the mouse.

Hint: We recommend using MAGIX Photo Manager for photo optimization. The program is installed automatically and can be used for quickly and easily optimizing your photos. It has a tool for correcting redeye and setting auto color and white balance to control discoloration in pictures.

For more complex editing like photo panorama and photo filter effects, a separate image processing program MAGIX Photo & Graphic Designer 7 is included. Users of the classic version can download the software at any time for free. To load a photo into MAGIX Photo & Graphic Designer 7, select the option "Edit" in the FX menu of the photo box. Read more on this in the MAGIX Photo & Graphic Designer 7 Help.

White balance

All light is not the same. Depending on whether it is sunlight or artificial light, this will have an effect on color variation. The human brain is able to compensate for this variation: A white sheet of paper will still look white under candlelight, although it is in fact much more yellow than by daylight.

In order to imitate this filtering done by the brain, a camera must also analyze and correct the light. White balance does the same thing to a picture that the brain does by setting the camera to the so-called "color temperature" of the surroundings.

If you do not possess a camera which performs this function automatically, you can apply the white balance function in MAGIX PhotoStory on DVD MX.

An incorrect white balance can lead to an unnatural blue or red hue.

Directions: To use the white balance, click on the button to the right of the label "White balance" and then select a point which represents white or a neutral gray to the "outside world". The color temperature is then corrected automatically.

Tip: Cool color effects can be achieved by setting a different color as the white benchmark. There is definitely room for experimentation!

Saturation

You can increase or reduce the color portions of images with the “saturation” fader. A newly developed algorithm is applied which makes color changes related to other parameters (for example contrast settings) in order to achieve the most natural coloration possible. With just a little bit of experimentation, you can achieve astounding results – anything from turning summer snapshots into autumnal scenes to funky pop art!

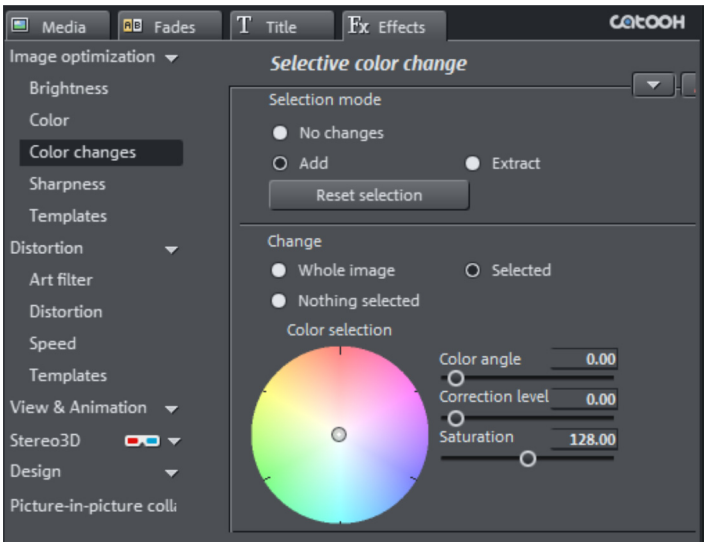
Color shade

Select a color for coloring the image from the color chart.

Red/Green/Blue

Using the "Red/Green/Blue" slider, you can change the color portion mix for each color.

Color changes



Secondary color correction allows individual colors in video and image objects to be adjusted. Choose "Selected" or "Not selected" in order to edit the desired ranges separately. The entire image may also be influenced ("Complete image").

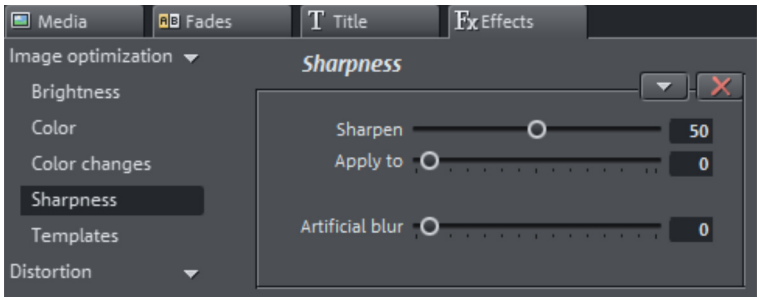
"Selected" corresponds with the mask created, and "Not selected" involves the rest of the picture. Here's how to create a mask:

- Activate "Add".
- Place the mouse over the preview monitor. The mouse pointer turns into a pipette tool.
- Click with the pipette tool on the color in the program monitor that you would like to assign to the mask. Unwanted colors can be removed from the selection again by selecting "Remove" and clicking the corresponding color again.

MAGIX PhotoStory on DVD MX displays the mask in black and white stripes to highlight the current selection.

- Adjust the color using the color selection slider until it is satisfactory.

Sharpness



Sharpen: The fader allows you to regulate the level of image sharpness or apply a soft filter.

Apply to: Allows you to set just how much the sharpness settings should be applied to surfaces or to edges. This enables you to effectively reduce ongoing image distortions (noise).

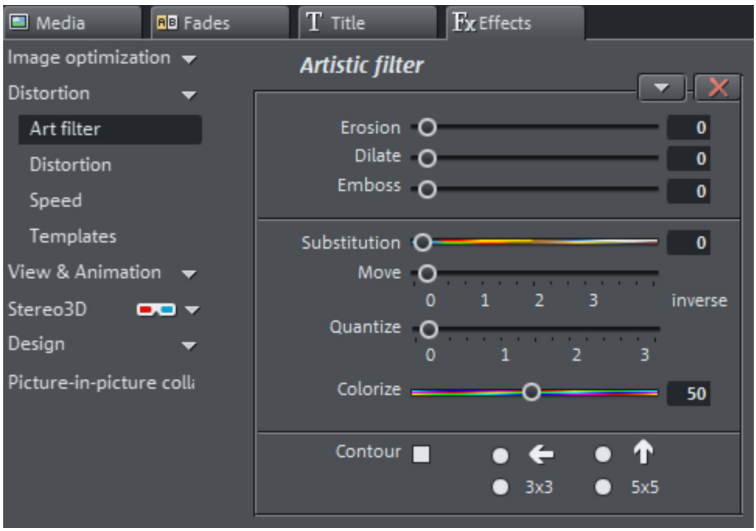
Artificial blur: Here you can apply various soft filters. The achieved effects are much stronger compared to simply sliding the controller under "Sharpen".

Tip: Artificial blur achieves good effects when used for transitions. Edit the front image so that it is out of focus and let the image that follows appear blurry before it is displayed again normally.

Distortion

A large palette of effects for transforming your image material is available.

Art filter



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

Dilate: This works like erosion, but uses light surfaces instead of dark ones to form the rectangle.

Emboss creates a relief of the image edges, in which case strong contrast differences are interpreted as edges.

Substitution: Using the rainbow scale red, green, and blue components are exchanged. Quickly create surreal landscapes or a green face!

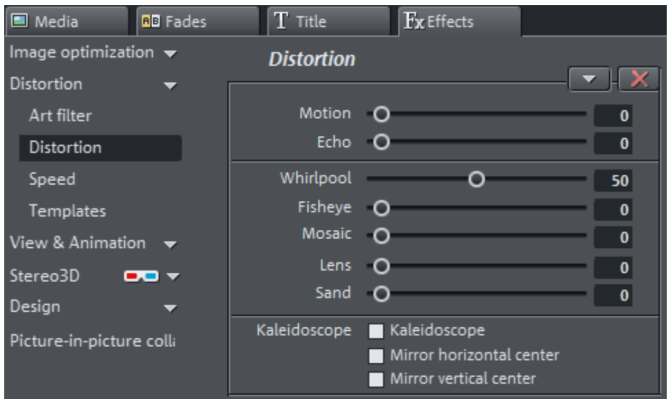
Move: The color values are inverted increasingly. Blue colors turn red, and green appears purple.

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

Colorize: Using this slider, color in the video with red, green, and blue colors (the basic TV colors).

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

Distortion



Motion: Moving parts of the image are enhanced and warped.

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

Whirlpool: The image is twisted into an "S" shape.

Fisheye: The perspective is distorted as if the image were viewed through a fisheye lens.

Mosaic: The video is depicted as a mosaic.

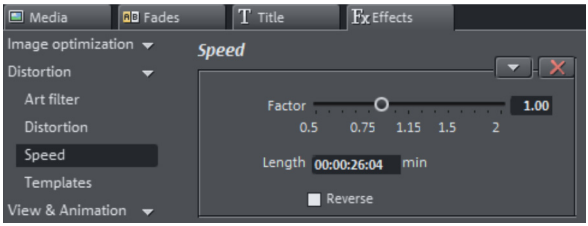
Lens: The image is dynamically distorted at the edges.

Sand: The image is depicted in a granulated manner.

Kaleidoscope: The left upper corner is mirrored horizontally and vertically.

Mirror horizontal/vertical center: The object is mirrored vertically or horizontally – it appears on its side or upside down.

Speed

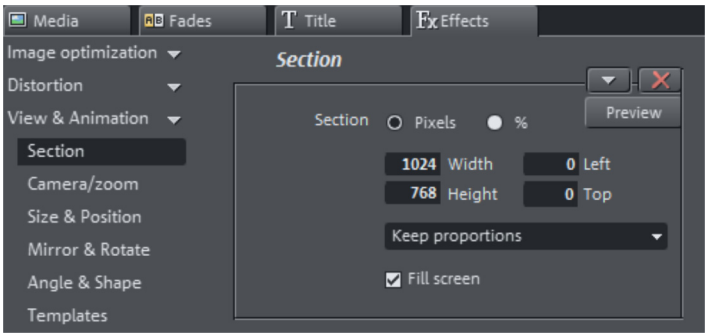


The playing speed can be adjusted with the slider control. The range between 0 and 1 plays the video slowly; values above 1 accelerate playback. If the playing speed is increased, the object length in the arranger is automatically shortened.

Reverse: This button reverses the playback direction (with the same tempo).

View & animation

Section



Cropped cutaways can be used to

- display just one section of the photo.
- to move the clip through the picture with the help of a movement effect – the result is a type of camera movement. Read more about this in the chapter "Movement".

In the program monitor, you can set a picture section to serve as the basis for the movement effect. Press the left mouse button and drag out the section you want to use.

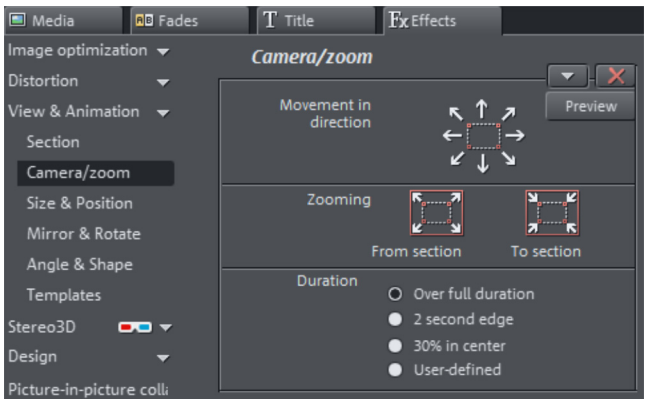
In this menu, you can select the format for the section.

The format of the original picture is used as the default.

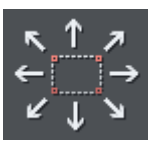
Fullscreen: If this check box is selected, the opened section will be zoomed to fullscreen. If this option is switched off, it won't be possible to add movement to the section.

Camera/zoom

With this effect, you can move a previously selected frame inside the image, creating an impression of camera movement or zoom.



Movement in direction



Determine the direction in which the selected section or image will move in the process during the time selected under "time period". In addition to horizontal and vertical movements, diagonal movements are also possible.

Preview: Displays a preview of the section at the playback marker location.

Direction & time

Zoom out: The selected picture section is displayed and then zoomed out to show the entire picture according to the value set in "Time". If no portion is previously set, a central portion of 50% of the picture is set.

Zoom in: The entire picture is displayed and then zoomed in to show only a smaller picture section according to the time set in "Timeframe". If no portion is previously set, a central portion of 50% of the picture is set.

Duration

The option selected here sets the position where the keyframes of each movement effect are set by default. You determine the positions where a movements begins and ends.

Note: Automatically placed keyframes may be edited retroactively, and the option will then be set to "Use custom settings". Read the section "Retroactively editing an effect's keyframes" in the chapter "Objects".

Reset: This option applies a static zoom to show the selected section of the picture only.

The size and the position of the image can be roughly entered in the program monitor by simply moving the image into it and dragging on the handles. The frame of the video monitor with handles can also be moved with the keyboard.

Keyboard shortcuts for moving the edges of the frame that are visible in the video monitor:

Nudge the screen 1 pixel:	Arrow keys
Nudge the screen 5 percent:	Shift + arrow keys

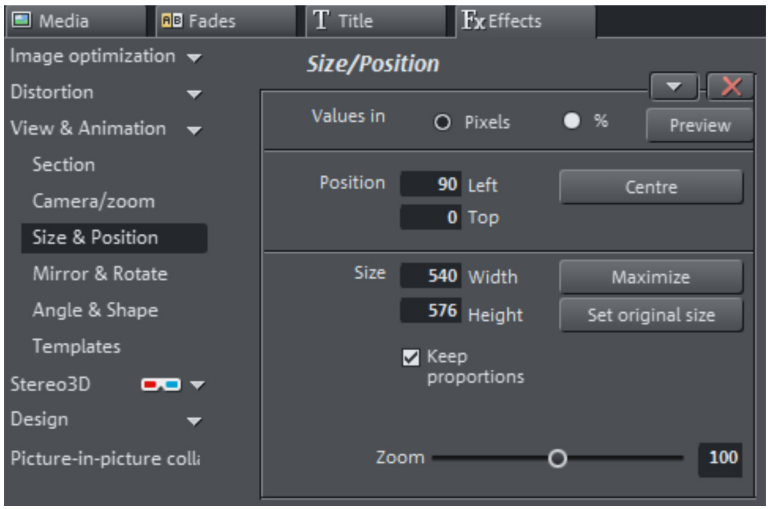
For animated movement effects, it often makes sense to zoom out of the video monitor and use the resulting workspace to, for example, let a minimized image or text object move through the picture.

Keyboard shortcuts for the preview picture:

Thumbnail zoom in/out:	Ctrl + mouse wheel
Move thumbnail:	Ctrl + left mouse button + drag

See the "Animation from outside of the image" section for more detail.

Size/Position



Values in: Set whether the values are applied in percent or pixels.

Position

Left: Enter the start position from the left image border.

Top: Enter the start position from the top image border.

Center: Based on the current image size, the image starting points (left and top) will be positioned so that they are centered.

Note: Negative values can, of course, also be entered. The image borders will then be outside of the visible area.

Size

Width: Enter the width of the image.

Height: Enter the height of the image here.

Maximize: The image will be maximized according to the movie's resolution.

Set original size: The image will be scaled to its original size.

Keep proportions: This option makes sure that the image will not be stretched or distorted. The proportions of width to height will remain the same.

Mirror & Rotate

 This button resets all of the current settings.

Note: If you animated the object using keyframes, resetting will affect the entire animation. Individual keyframes can be deleted during animation.

Rotate

 Rotates the image on the horizontal axis.

 Rotates the image on the vertical axis.

 Rotates the image around its center point.

Straighten horizon

The image can be rotated around the axis via the slider. The image is automatically zoomed to avoid black edges.

Show guidelines: Activating this check box displays a grid in the program monitor for orientation during horizontal straightening.

Mirror

 Mirrors the image on the vertical axis.

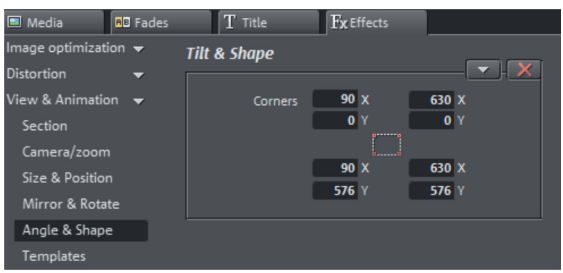
 Mirrors the image on the horizontal axis.

 Rotates the image 90° clockwise.

 Rotates the image 90° counterclockwise.

Angle & shape

This makes real 3D positioning of images possible, letting you distort the image in space and move it. Here you can enter the individual corner points numerically or move them in the program monitor using the mouse.



 This button resets all settings.

Stereo3D in the Media Pool

This accesses the program's Stereo 3D functionality. Please read the corresponding chapter "Stereo3D". (view page 118)

Design

Decoration

Under "Decoration" you will find plenty of choices for pepping up your slideshow. You will also find various categories of decorative objects which serve to orient you during selection.

All you need to do is click the corresponding element and you can start playback by pressing the space bar.

Filmstrips: With the start and end markers in the filmstrip you can specify at which point you wish the decoration to appear and when it should finish.

Double arrows: A category usually contains more elements than can be seen at first. Use the double arrows to switch to the previous and next pages of each category.

Style

Below this point you can find all the styles from Slideshow Maker, which can be used on individual photos. Select the corresponding style by either double-clicking it or by dragging it onto an image whilst holding down the left mouse button.

Background

MAGIX PhotoStory on DVD MX provides diverse backgrounds that can be used in many different ways. Simply drag & drop the desired background at the position you want.

Upright-format effects

Here you can select individual effects that are especially made for vertically formatted photos.

Hint: This option does not appear for photos in horizontal format.

Intros / Outros

These are beginning and end scenes for slideshows with various themes.

Picture-in-picture collages

These work similarly to normal picture-in-picture effects, but more objects are used. Depending on the collage, arrange the selected objects one after the other and drag the collage onto the first object.

Animate objects

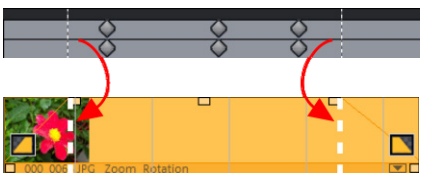
Different kinds of animations are provided in the Media Pool. In the "Effects" tab, "Image optimization", "Distortion", "View and animation" and "Stereo 3D" (only in deluxe) provide you with the effects that can animated using keyframes.

The following objects can be animated:

- Image objects (still images)
- Title objects
- MAGIX 3D Maker objects (3D title)
- Video objects

Preparing animations

- First, select the object in the arranger to animate.
- In the Media Pool, open the "Effects" tab, and then click on the effect you would like to animate. Most of the effects listed here can be animated, with the exception of the "Speed" effect.
- If necessary, set up the effect however you would like it for the start of the animation.
- A timeline is located at the bottom of the Media Pool where keyframes can be set, selected, moved, and deleted.



There are two lines in the timeline to help you orientate yourself while you retroactively edit movement. These lines will help you recognize the start or end of the transition.

Note: The figure corresponds to the display in "Timeline" mode.

Set keyframes

Click the timeline to set the playback marker at the locations where a keyframe should be added.

Note: You can also use the timeline in the arranger for exact positioning.

- The button places keyframes for all parameters required in the animation.

- Additional keyframes can be added simply by placing the playback marker at the next keyframe location and changing the effect accordingly.
- The positioned keyframes can also be retroactively moved via drag & drop.

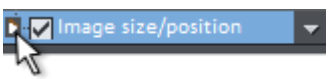
Copy keyframes

Select the keyframes to be copied by clicking them and then press the "Copy" button.

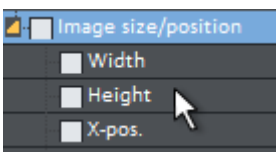
Next, set the playback marker at the location for insertion and the press the "Insert" button.

Display keyframes of individual parameters

Multiple keyframes are added simultaneously to effects if they include multiple parameters.



Click the small arrow beside the name of the animated effect to display all of its parameters.



Now all keyframes of the effects parameter can be individually moved, deleted, activated, and deactivated.

Note: Only those parameters are listed which are used for the animation. As soon as another parameter is required for editing the effect, it becomes visible to you here.

Retroactively editing an effect's keyframes

Previously set keyframes can be retroactively moved and their values can edited.

Keyframes can be moved via drag & drop. Simply click on the keyframe to be moved and drag it to the desired position.

To change an effects setting for an already positioned keyframe, click the keyframe and adjust the effect in the Media Pool.

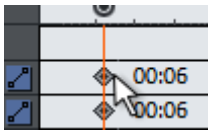
Soft movement

Normally, a hard, unnatural pan is the result of set keyframes.

This option makes sure that the progression of these movements is executed more softly and more naturally.

It lets you activate the entire parameter group as well as individual parameter curves.

Delete keyframe



Select the keyframe to be deleted by clicking it.

This button removes the selected keyframe.

Transitions (fades)

If you drag photos into the Arranger they are usually in sequence in Timeline/Storyboard mode. This is called a "hard" transition.

Transitions (fades) are a very important style tool for bringing the slideshow to life. With MAGIX PhotoStory on DVD MX there are many and diverse ways of fading between a slideshow and photos.

For the duration of a transition two scenes my be shown at once and mixed together in different ways. These are called "Transitions" or "Fades". You will find a multitude of different variations in the transitions folder in the Media Pool.

Advanced settings

There are special settings dialogs for all transitions of the first part of the menu and for the transitions in the sub-menus "3D morph" and "3D tile". These are opened with the "Settings..." button. Here you can make further adjustments depending on the type of transition. The dialogs are self-explanatory, the best way of getting to know them is by trial and error.

Transitions in Storyboard Mode

You can open the transitions menu by simply clicking on the transition symbol between two individual photos.

Here's where you'll find all of the transitions that MAGIX PhotoStory on DVD MX has to offer. Simply select a transition.

You can also choose the **length of the transition**. "**Apply to all**" applies the setting to your entire slideshow. Additionally, you can set random presets for each transition ("Random Transitions") or apply the selected preset to all.

3D fades

General

3D effects offer exciting and varied opportunities to create transitions between two videos. You can find 3D effects under "Fades" > "Spatial fades" in Media Pool.

Settings

The fade settings enable the behavior and appearance of the 3D fades to be influenced. Click the corresponding fade symbol for the object and choose "Settings" to do this.

You have the following options:

Anti-Aliasing: A bothersome jagged edge sometimes appears on the borders of 3D objects. Anti-aliasing reduces this effect, but also requires more computer power. The setting applies globally to all 3D fades, switching on anti-aliasing during 3D fades has the effect that all other 3D fades are also affected by this setting.

Mirror X / Y: You can change the movement trajectory of 3D objects inside the fade. The option "X-axis mirror" mirrors the movement of the object horizontally (along the X-axis). The option "Y-axis mirror" mirrors the movement of the object vertically (along the Y-axis).

3D series

The 3D series are an advanced development of the already known 3D fades (view page 89) and open up new thematic possibilities. The 3D effect and a practical sequence of transitions are put to the fore here. For instance, you can let photos pop up and disappear on a notice board or make it look as if the photos were hung on the walls of a gallery. The series stretch out over several photos or even entire slideshows.

In MAGIX PhotoStory on DVD MX there are several options to call up 3D series for photos:

1. In the Media Pool, click on Fade and open the 3D series. Select the desired 3D series and drag it onto the photo from which the series should start.
2. In the Fades menu the various 3D series between two photos are listed under the menu point "3D Series". Click on the desired 3D series to select it.

A dialog opens in which you can select how many of the subsequent fades should be replaced by the 3D series.

Stereo3D fades (deluxe version only)

The fades in the Media Pool feature the category "Stereo3D". This includes transitions that create slideshows with "real" 3D effects from regular 2D photos.

These transitions feature a selection of familiar transitions from MAGIX PhotoStory on DVD MX that have been prepared especially for real 3D. These are displayed stereoscopically in the respective 3D playback modes (view page 123).

Warning! These transitions may not be applied to 3D photos, since this makes them very unpleasant to look at and can cause serious headaches!

Simple crossfade in Timeline Mode

A simple transition can be created in the Arranger of the Timeline mode by dragging one object over another. A ***crossfade*** *is automatically created.*

Using this basic transition the brightness of both images will be added together, and then one will be faded in as the other is faded out simultaneously.

The duration of the crossfade is displayed in the Arranger by white crossing lines. You can adjust the **length of the crossfade** by dragging the upper object handle of the second object to the left or to the right.

To select a transition type click on the transition symbol displayed on each selected object, and then choose your favorite from the menu.

The transition icon will change depending on your selection.

Drag & drop onto a "hard" transition

Click on the "Fades" button in the Media Pool. The transitions folder will now appear in the file list. Like always, clicking on a transition once will bring up a preview.

Now just drag the desired transition and drop it onto the second of two photos you want to crossfade. Only when the mouse pointer with the transition preset is placed over a scene change will it turn into an object symbol. The object at the back will be shifted to the front to accommodate the transition.

The length of a transition is decided by you. If a transition is shortened, it means that the resulting effect is speeded up. There are two types of transitions: vfx transitions and alpha transitions. They can be found in the Media Pool and are displayed as blue/yellow icons with the letters A/B on them.

If you have selected this type of fade, then you can access it again by clicking on the fades button in the menu and then selecting **"Settings..."** at the very bottom, which, in turn, opens a dialog for fade effect settings. Thus, an object's fade symbol in the Media Pool can represent an entire group of different effects.

The alpha fades (iris, objects, random, etc.) are actually pre-produced black and white videos combined with the alpha keying effect.

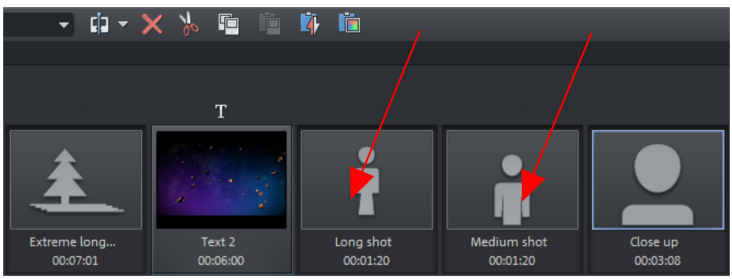
Movie templates

Use movie templates in order to tell a whole story using just a few mouse clicks.

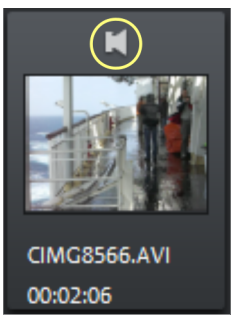
You can open movie menus either in the start dialog (view page 26) or in an already open program in Media Pool > MAGIX Media > Movie trailer. Double-clicking on a menu template will open it in Storyboard Mode.

Insert own material

You can add your own content everywhere you see a placeholder (indicated with an arrow in the illustration). Drag the desired video from the Media Pool in front of the placeholder, which it should replace. The placeholders' names indicated which type of material should be inserted here (e.g. "Group shot").



Audio tracks of inserted material



Menu templates contain audio material. For this reason, the audio track of the inserted audio material will be muted. You can, however, switch it on again by clicking on the speaker symbol in the preview image.

A speaker slide controller appears, which lets you control the volume of the original audio track of the inserted video clip.

Design your own titles

Click on the T symbol in the preview image in order to edit the title included with the movie template.

The Title editor (view page 114) will appear in the video monitor. You can enter your own text there.

Further use of movie templates

Burning (view page 145)and Export (view page 173) of filled-in menu templates takes place as with all other objects, whether with templates or without. In the "Burn" screen you will find menu templates that are specially adjusted to menu templates in the "Menu templates" categories.

Effects

Effects in menus

You can access the effects menu for fine tuning via the Effects (view page 199) menu (in Storyboard (view page 49) mode) or via the context menu.

The entries for "Image optimization", "Transform", "View & animation", and "Design" access the corresponding Effects in the Media Pool (view page 70). "Image optimization" provides additional entries for "TV image (view page 199)". The other effects are mentioned in the Effects menu **(view page 199)** .

Effects from the Media Pool

The effect files in the Media Pool "Effects" settings (view page 70) can be applied by clicking them or via drag & drop.

Simply click on one of the effects to view a short preview on the video monitor to see what an effect can do. If you want to use the effect, simply drag & drop it onto a photo or video.

To deactivate all effects of a photo, select "No effect" (you can also deactivate the effects via "Turn of effects" from the "Effects" menu).

Other effects can be set directly in the Media Pool; they have a direct effect on the selection.

Video stabilization

The video stabilizer reduces unsteady camera motion and helps to smooth recordings. This option can be accessed from the context menu of a video object or via the "Effects" menu.

Functionality

Video stabilization balances undesired picture movement. The motion stabilizer equalizes inadvertent movements in the image by moving the image in the opposite direction in accordance with the wrong movements.

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.

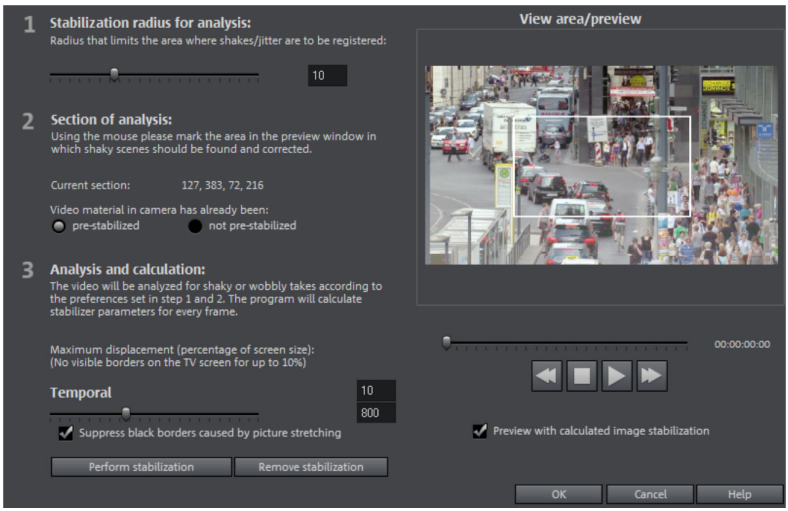
Application

Activate the motion stabilizer in the video object FX or context menus. You will see the current video object in the preview monitor.

First you have to check the movie material for shaky scenes. To do this click on the "Stabilize" button. 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. Use the fader to do this. 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.

Keyboard shortcut: Shift + K

Image stabilization dialog



Stabilizing radius: To prevent the image 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. 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 shaking occurs in one area more than in another, then you can move the analysis area (e.g. a foreground element at the edge is especially shaky). To do this, use the mouse to "capture" the shaky area. The smaller the area, the quicker the analysis will be calculated. Generally, changing this parameter will require re-analysis of the source footage.

Maximum movement: Correction moves the image accordingly to the shaking movements. This means that the edge of the image will be removed. This value determines how large the edge area is which may be cut away by the stabilization feature; the smaller the value, the less movement correction. Changes to this value are immediately applied.

Temporal smoothing: This value determines the speed of the movements considered shaky. This allows you to differentiate between a panning shot and a nervous hand-held shot. Changes to this value are immediately applied.

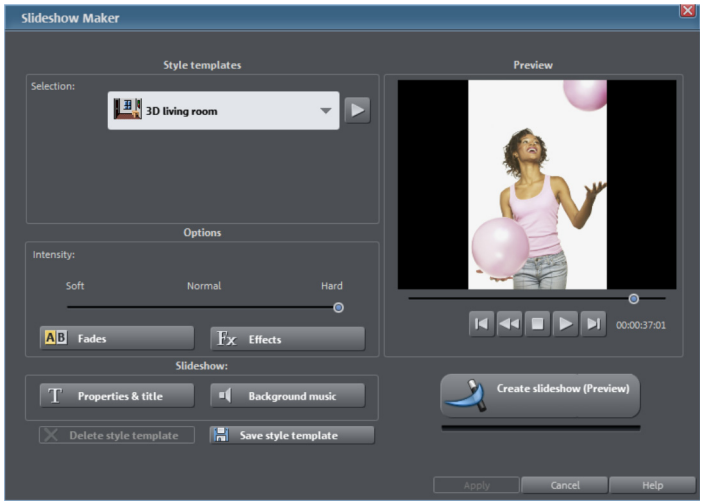
Cancel: Exits the dialog without accepting changes to settings.

Reset: Resets the current settings.

Slideshow Maker

Slideshow Maker is ideal for converting still images into moving pictures, adding background music, and effects.

Open Slideshow Maker via "File -> Wizards" of the button in the toolbar.



Style templates

Select a template that best matches your needs.

This button plays a sample slideshow with the selected style template.

The deluxe version also includes presets that use Stereo3D transitions (view page 90).

Save/delete style template

Homemade style templates appear in the list of included style templates.

If you like, these can be deleted again.

Intensity

Controls the portion of video and image objects that feature effects. With "Normal" you will see a balanced amount, whereas with "Weak" or "Strong", correspondingly fewer or more effects.

Transitions

The different sliders are used to set the portion of individual fade types.

3D / Other:

Fade duration: Set the length of the fades in seconds.

Random fades: The fades are set to random values.

Effects

The faders enable the respective effects types to be specified.

Random effects: The faders that control the amount of effects are set randomly.

Treat special image formats intelligently: Panoramas and portrait photos can be treated "intelligently". If this option is activated, then panoramas and portraits will be treated with special effects adjusted to the format. These effects can also be selected in the detail view.
If this option is selected, then these images will use the same effects as all other images.

Details activates effects or fades in the corresponding category. The arrow below the preview monitor plays a preview.

Properties & title

Slideshow length

Resulting slideshow length: This is an approximation of how long the slideshow will be after Slideshow Maker is applied.

Available music: This is the complete length of the music that is currently selected. "Background music" enables detailed settings for the pieces of music to be used.

Adjust slideshow length to music: An effort will be made to adjust the length of the slideshow objects to the background music. If the slideshow is too short, the music will be cut off. If the slideshow is too long, the music will be repeated.

Adjust music length to the slideshow: Photo objects receive a set length and the resulting slideshow is filled with music. The music at the end of the slideshow is simply faded out.

Including video objects

Process videos: If this option is set, then videos will be automatically processed with effects and transitions.

Length: Settings may be made here about whether the original length of the video should be maintained or if it should be shortened.

Opening and closing credits

Set the text for opening and closing credits here.

Text: Enter the corresponding text for opening and closing credits that should be added by Slideshow Maker.

File: A title template, a video, or an image file may also be used.

Note: Titles created using Slideshow Maker may also be edited at any time.

Group similar recordings

If this option is active, an attempt is made to detect associated events via their date information and to separate them from each other optically. Detection of individual events is based on the time span of these events to achieve a sensible separation.

Begin group with black fade:A black fade is added between the different events.

Start group with date/time over a black fade: A black fade is added between the different events.**A title is also faded in with a suitable duration, e.g. 1st/2nd/3rd day, provided the events take place over multiple days.**

Start group with date/time over image: A black fade is added between the different events. A title is also faded in with a suitable duration after the black fade, e.g. 1st/2nd/3rd day, provided the events take place over multiple days.

Background music

Use background music: Select whether you want to add music to your slideshow.

Resulting slideshow length: Displays the duration of the finished slideshow.

Available music: Shows the length of all available titles that could be used as background music.

Load file(s): Here you can load music tracks into the project. You can also use MP3 files.

Remove: Deletes the selected music track located to the left of the project window from the project.

Please note: the song is removed from the project, not from your hard drive!

Add random: Randomly loads music tracks from the "Slideshow music" folder into the slideshow.

Preview: By clicking on this button, you can listen to the music track selected in the project window.

Random order of background music when switching the style template: if you change your mind before you have finished the slideshow and decide you want to use a different style template, the music tracks are ordered randomly.

Tip: You can manually change the order of the music in the project window via drag&drop!

Volume ratio: If your slideshow includes videos, you can adjust their volume in relation to the background music using the sliders. If you want to hear more of the music, move the slider to the left. If, on the other hand, you want the video's audio to be more prominent, simply move the slider to the right.

Tip: Songs in the fourth track are listed and used for the background music, provided they are not removed.

Create slideshow

After all of the important settings have been made, click this button to produce the slideshow.

If the results do not match what you imagined, then click **"Cancel"** to discard the changes. Otherwise, you can change the settings again or select another style template and click **"Create slideshow"**.

Sound optimization

This option opens an editor for correcting audio material discrepancies.

Select the cleaning function you desire from the upper part of the dialog:

- The equalizer (on page 104) allows you to manipulate the frequency spectrum – perfect for cleaning up muffled dialog.
- The compressor is a dynamic volume control that lends the overall sound a deeper, richer quality.
- The stereo FX processor justifies the position of the sound in the stereo panorama.
- DeNoiser, DeClipper, and DeHisser are professional noise reduction tools that do exactly what their titles say they do.

Presets: You can try out the suitability of a number of presets in the preset menu.

Temporarily deactivate all effects: Switches all the effects off.

Apply to all: Applies the current settings of all effects to every photo in the selected slideshow.

Declipper

Should the input level of an audio recording be too high, overmodulation may result at the louder parts (the signal peaks). This digital distortion is also called "clipping": At the overmodulated area, the values that are too high are simply cut off, and typical, quite unpleasant-sounding crackling and distortion appear.

MAGIX PhotoStory on DVD MX contains a special function for dealing with digital clipping and analog distortions. Of course, this only works to a certain degree.

Using the fader you can set at what level the Declipper should register a signal as being overmodulated and, if required, correct it (Clip level). This is important, as different sound cards show different clipping methods. The more the fader is turned up, the lower the level recognized by the program as overmodulated. If the clip level is set too high, unwanted sound modification may occur.

Get clip level: The clip level is gaged automatically.

Noise Reduction: Denoiser and Dehisser

DeNoiser

The DeNoiser is especially useful for clearing long-lasting disruptive noise like mains humming, hissing, noises from sound charts, disturbance noise from ground circuits, interference from audio-equipment with high mic outputs (record players), impact noise, or the rumbling of records.

The DeNoiser requires a noise sample. Some typical sounds are at your disposal.

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".

Another possibility is to create a noise sample yourself. You need a short sample from the sound track in which only the background noise can be heard. Then switch to the DeNoiser dialog with the "Advanced" button.

Step 1: Select noise sample

First you have to select a noise sample of the noise you want to remove.

You have two options:

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 via 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 most probably resides.

Previous/play/next: These buttons allow you to play all of the passages found for easy comparison.

Save as: Once found, you can save noise samples on the hard drive which then appear as an entry in the "Typical background noises" drop-down menu to be used in other projects. There's no need to save it if you only want to use it once, and in this case switch to "Remove background noise".

If you only want to use the noise sample in the current project, then you don't have to save it. You can immediately switch to the "Remove category".

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. An incomplete deletion of the hissing produces artifacts and should be avoided. High settings produce dull results and useful signals which are similar to hissing (woodwinds, for example) are also filtered away. It's worth your time to find the best setting.

Reducer: Here you can set the balance between the original signal and the signal with depressed interference. 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. For buzzing it's best to apply complete removal.

Dehisser

The Dehisser eliminates regular "white" noise typically produced by analog tape recordings, microphone pre-amplifiers, A/D converters, or transformers.

Noise reduction can be regulated in decibels with the fader. It is often better to reduce interference signals by 3-6 dB rather than as much as possible in order to keep the sound "natural".

Noise level: You can choose between different noise levels. The level of the noise reduction function should be set as precisely as possible. Low settings result in incomplete deletion of the hissing. Incomplete deleting of hissing produces artifacts and should be avoided, since high settings will produce dull results and some useful signals (i.e. woodwinds) which are similar to hissing are also filtered away.

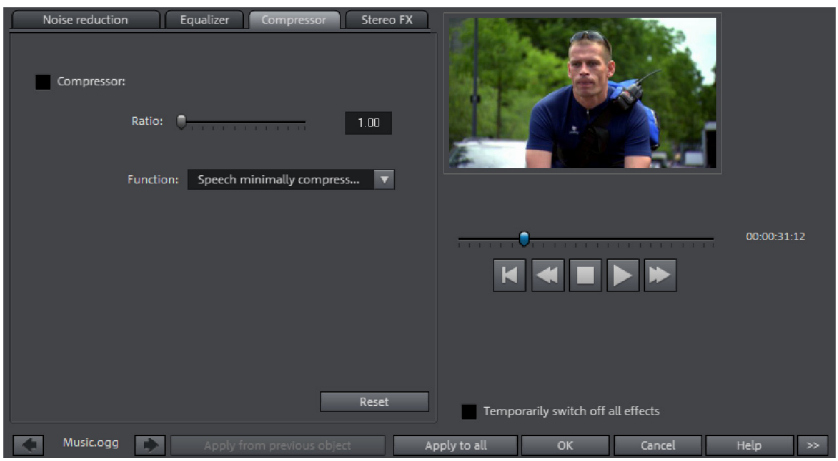
Equalizer

The 10-track equalizer divides the frequency spectrum into 10 areas (tracks) and supplies them with separate volume controls to allow you to achieve many impressive effects, from the simple rising of the bass to total sound transformation. If you raise the low frequencies too much throughout the whole level, it might cause distortions.

Fader: The volume of each of the 10 frequency bands can be set separately with the 10 volume controls.

Link frequency bands: The frequency fields can be bundled together flexibly in order to avoid artificial-sounding exaggeration in individual frequency fields.

Compressor



The compressor is an automated, dynamic volume controller. Loud passages become quieter and the total value is raised. This makes the volume more consistent and speech easier to understand. A compressor is mainly useful in case background noise or music interferes with speech and simply increasing the volume of the individual objects or tracks does not result in any significant improvement.

Level: Regulates the level of compression applied (the "ratio").

Function: Defines the compressor depending upon the sound material.

Stereo FX

The stereo FX processor provides adjustment of the alignment of the audio material in the stereo balance. If the stereo recordings sound weak and undifferentiated, an extension of the stereo base width can often provide better transparency.

Bandwidth control: Adjust the bandwidth between mono (on the extreme left), unchanged base width (center) and maximum bandwidth ("wide" on the extreme right).

Reducing the bandwidth can raise the overall 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 increase of 3 decibels.

Raising the bandwidth (values of 100) diminishes the mono compatibility.

Tempo and beat recognition

The Tempo and beat recognition in MAGIX PhotoStory on DVD MX Deluxe is required for musical cut adjustment and will be launched for this purpose. It analyzes the rhythm of a musical piece. The basis for this analysis is the rhythm speed, measured in BPM (Beats per Minute).

MAGIX PhotoStory on DVD MX then ensures that photos located at the beats detected are moved such that the images change in time with the rhythm.

Requirements

- The song must be longer than 15 seconds.
- The song must be “rhythmic” (danceable).
- The song must be in stereo format.

Preparation - Setting the start marker and object end

Before opening the Auto Remix Assistant, you should set the start marker at the position in the song object in the arranger where you want detection to start. If the song contains a long intro without beats, set the start marker after the intro. As a rule of thumb, the Auto Remix Assistant should always be "fed" dance music.

- The start marker should be set before a quarter note beat or, better still, briefly before a beat at the start of a bar.
- If the start marker lies before the song object, the object is examined from the beginning.
- If detection is not performed by the end of the song, the object can be shortened accordingly with the object handle at the end of the object.

Checking the automatic tempo recognition

The song has to meet the following three requirements to be successfully analyzed:

- It must be longer than 15 seconds.
- It must contain "rhythmic" (danceable) music.
- It must be in stereo format.

The analysis takes place in three steps:

Step 1: Checking the start marker
Step 2: Tempo recognition
Step 3: Specifying beat starts
Step 4: Application of BPM and beat recognition

Step 1: Start marker check

Before analysis can begin, you should set the start marker in the project at the position where rhythmic material begins. This means, it should be located after the intro. If the assistant can't find any rhythmic information, it will ask if the marker is located behind the intro. In the dialog, you can move it to the appropriate location.

If the beginning of the track has no rhythmic information, you will be asked if the start marker should be moved.

Step 2: Checking automatic tempo recognition

The Remix Agent will begin the audio file analysis and try to determine the tempo. The object will be played back while a metronome click will sound and numbered beat lines will appear in the waveform display.

Below the waveform display to the left is an indicator of the found tempo in BPM. A small transport control is available in the middle to make navigation easier. The slider enables position control. To control the metronome volume, an additional slider as well as a mute button is found to the right.

Automatic tempo recognition doesn't always work on the first try. If you don't hear the metronome clicking in time with the music, click the "No" button in the upper section of the dialog in order to access the manual tempo input dialog.

To correct metronome tempo and move metronome clicks if needed, use the tempo correction and "Tap tempo" buttons.

Tempo correction: The Remix Agent offers you a number of tempos. The tempo, which the Remix Agent considers most likely to be the case is already preset. If the calculated tempo is incorrect, select one that better fits from the list. When the object is played again, metronome clicks should be synchronized.

On/off beat correction: It can also be the case that the tempo is correct, but the beats are shifted. "On/off beat correction" provides a number of alternatives for moving the beats according to the complexity of the rhythm. Try out different alternatives until you can hear that the metronome clicks are synchronous to the beat.

Tap tempo: Alternatively to tempo selection under "Tempo correction" you can also click on the "Tap tempo" button or the **"T" key** to the beat of the music. Additional blue lines are displayed in the wave display. After at least four taps, the Remix Agent attempts to select the correct tempo from the list in "Tempo correction". The display next to the "Tap tempo" button displays the current status. Keep tapping until the red display showing "Unlocked" changes to the green "Locked" setting.

Use the **"0" key** to manually set the quarter beats while the music plays. Placed markers will be removed automatically in such a way that the set tempo will be maintained.

You can move the markers with the mouse. If you press the "Ctrl" key at the same time, all following markers will be moved.

If the metronome clicks now correspond with the music, you can continue to the next step.

Step 3: Determining the start of a bar:

First set the type of beat. 4/4 beat is the default preset. If needed, correct the start of the beat. The beat at the start of the beat should always match with the high-pitched metronome click or the red line in the waveform display.

Correction cat take place in just one step: If you can hear the start of the beat, click once with the mouse on the"**Tap one**" or press the **"T" key** on the keyboard.

Alternatively, select how many quarter notes the "One" is to be moved back.

Use the **"0" key** to manually tap the position of the beginnings of the bars during playback. This offers an efficient option to correct the beat start of longer ranges.

Continue to the last step if the starts of the bars are now correct.

Step 4: Apply

The last step applies the musical information into the audio material.

Video cuts will now be inserted into the video material on track 1 based on this information

Setting the manual and Onbeat/Offbeat

If the result is incorrect, you can help the Auto Remix Assistant with a few mouse clicks on the correction buttons.

There are two possibilities:

On the one hand, the "Tempo correction" list offers alternative BPM numbers which could also fit with the music. The adjustable BPM values are detected automatically – the total BPM can therefore deviate from song to song.

For more difficult audio material, we recommend using the "Tapping input" mode. Either the "T" key must be pressed or the "Tap tempo" button must be clicked with the mouse in time with the music. With repeated tapping of the tempo correction button, one should keep an eye on the color in the BPM display. In the "unlocked" condition (red), the tapping is not in time with the music. One should tap until the "locked" condition is displayed. After a short time, you will hear if the result is correct via the metronome.

Subsequently, offbeat correction takes place as required. If the detected quarter note beats lie around the length of an eighth note (transferred behind the real positions of the quarter note beats), one or more alternatives can be selected from the onbeat/offbeat correction list.

Determining the start of a measure

Next, the starting point of the measure is corrected. The beat at the start of the measure must always agree with the high tone of the metronome and/or the red line in the wave-shaped display.

Corrections can be made by tapping; If the start of the measure can be be heard, tap with the mouse or press the "T" key. Alternatively, you can also select how many quarter notes the "one" is to be pushed to back.

If the starting marker was set briefly before the first beat of a measure, this correction is not necessary.

Note: With all corrections, the metronome and visualization react to the lines in the wave-shaped display only after a short delay.

Applying BPM and beat detection

Close the Tempo and beat recognition by clicking "Apply". MAGIX PhotoStory on DVD MX will now move the photos at the detected beats so that they change in time with the music.

Slideshow effects

In the slideshow Effects menu (view page 199) you can recall the slideshow effects by clicking on "Slideshow effect settings". The dialog is almost identical to the Optimize photo (view page 71) dialog.

The slideshow effects apply to the entire slideshow and are intended to regulate the color saturation in the slideshow as a whole.

You can find special TV screen size (view page 111) options for cropping the screen edge, since the image usually exceeds the screen size for a normal TV set.

General use

Presets: Try out the presets from the preset menu.

Temporarily switch off all effects: With this option, you can temporarily deactivate all effects. This way, you can quickly compare the original with the edited version.

OK: The adjustments made to the settings will be applied.

Cancel: Closes the dialog, the settings will not be applied.

Help: Opens the program's help file.

Exposure

Brightness/contrast: Use the sliders to increase or reduce the brightness and the contrast of the picture.

Selective brightness (gamma): "Gamma" specifies the mean gray value that is provided by the various color ranges. "Selective brightness" is the most important function for image improvement. In the preset list, select the various envelope curves to edit only the dark, median, or brightest areas of the image. Using the fader, you can also set the level of brightening or darkening.

Adjust colour space: This option is effective for correcting extreme colors that violate TV standards and can no longer be displayed properly on-screen. The color saturation of the affected material is thereby reduced until the maximum permitted value is reached.

Color

Saturation: Use the saturation slider to increase or reduce the hue proportions in the image. A newly developed algorithm is now used, which carries out color changes in relation to other parameters (for example contrast settings), in order to get the most natural coloration possible. With some experimenting, you can achieve some amazing results – such as turning summer images into autumnal pictures, or creating funky pop art...

Hue: Use the palette to select a hue for coloring-in the picture.

Red/Green/Blue: Changes the color portion mix.

Image sharpness

You can reduce (soften) or increase (sharpen) the object's focus using this slider.

"Fine adjustment" allows you to set how sharp surfaces or edges should appear. Using it, you can effectively decrease persistent image deficits.

Anti-flickering filter intensity: The anti-flickering filter affects only still images. It is especially intended for zooms in images with many edges and transitions with high contrast (e.g. fences, bars, brick walls). High-frequency images such as these begin to flicker when they are reduced in size. This filter smoothes these edges somewhat.
You should set the intensity of the anti-flickering filter according to your preferences, because smoothing is always a compromise between good contrast and fluid image sequence during playback..

TV image size (Slideshow master effects)

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 adjusted in percent 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 disproportionately. This causes image distortion.

Use edges on: This option enables the input values for the four image borders to be applied to all photos, videos or titles in reduced form. The result can immediately be viewed on the preview monitor.

Tip: In order to limit individual objects to the visible range, please select the option "Edge cropping balancing" in the menu "Effects -> Image optimization -> TV image".

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 using 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:

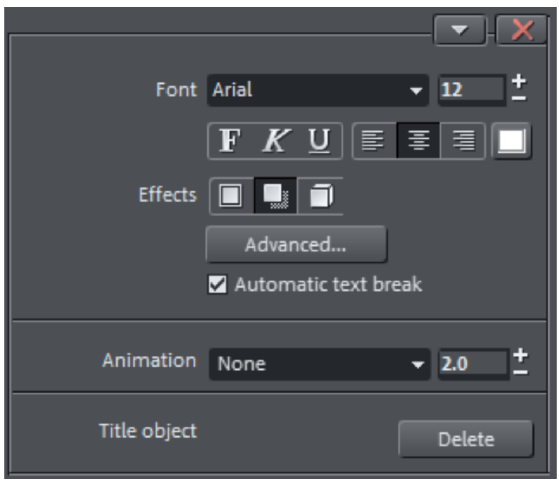
1. Load the **Visible TV picture.mvm** slideshow from the "My projects > visible TV picture" folder.
2. Play back the film and read the instructions on the video screen.
3. Copy the slideshow to CD or DVD.
4. Place the disc into your player and play back the film. Compare the TV picture to the picture displayed on your video screen by MAGIX PhotoStory on DVD MX.
5. Determine the proportional value of the borders cropped by the television with the 4 measurement scales along the edges of the test picture.
6. 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.

Title editor

Titles can be used for many applications: as a running text (ticker), subtitles, speech and thought bubbles, to display date and time, and much more.

Pressing the text button opens the Title Editor.



Enter text, e.g. for subtitles, lead or end credits in the video monitor. Texts can be displayed in all kinds of fonts and colors.

If you want to format individual words or letters, select them with the mouse and choose a different format or color. If no selection is made, the entire text will be formatted.

Creating titles using a template

The Media Pool includes the tab "Title" with folders filled with additional, thematically named title templates.

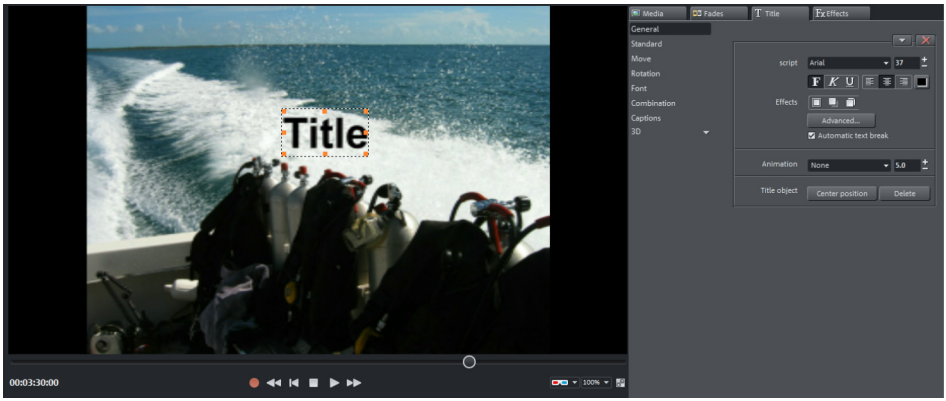
- Open one of these entries and select any title template. A simple mouse click provides a preview, and double clicking creates a title object using the template.

Note: Templates may be applied to an existing title object. Settings outside of the text will be lost!

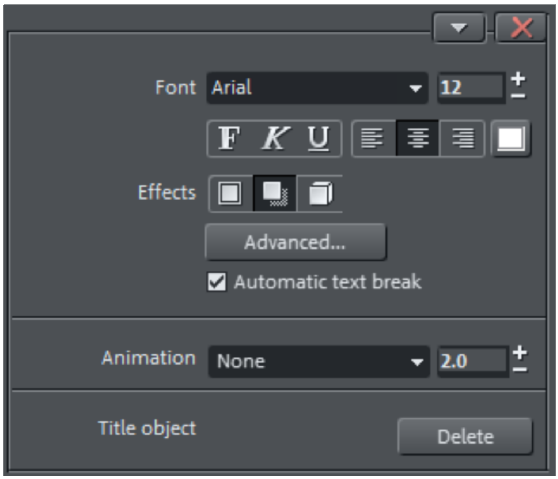
Creating titles without a template

- Try clicking the "General" entry under "Title" in the Media Pool.

- Click the title editor button. A standard title will be produced and displayed in a frame in the video monitor.



- Open the first title in the video monitor by double clicking it
- Next, simply enter the text via your keyboard.
- After the text has been entered, click the check mark in the preview monitor to confirm your entry.
- The size and position of the title may be adjusted directly in the video monitor.
- Format the title via the title editor in the Media Pool however you like.



Text may be displayed in all kinds of fonts and colors.

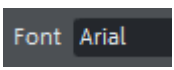
If you want to format individual words or letters, select them with the mouse and choose a different format or color.

If no selection is made, the entire text will be formatted.

Edit title

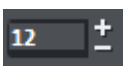
- Click again on the title in the video monitor window or the title object in "Timeline" mode.
- Now change the text however you like.
- Confirm your entry by clicking the check mark next to the positioning frame.

Script



Font: Select the font used to display the text.

Font style: Choose here whether all of the text or parts of it should be shown bold, in italics, or underlined.



Font size: Set the size of the text here.

Alignment: Select whether the text should be justified on the left, centered, or on the right within the positioning frame.

Color: Use this button to color the font.

Wrap text automatically: When activated a break will be inserted automatically after each line.

Important: The result will be seen once you have confirmed the entered text by ticking next to the selection box or by pressing the Enter key.

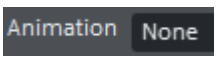
Effects

Font style: Choose here whether all of the text or parts of it should be shown bold, in italics, or underlined.

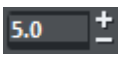
Outline/shadow/3D: This function allows you to add shadows, 3D effects, and an outline to the text. These settings can be adjusted in detail via "**Advanced**".

The 3D button converts the title object into a Xara 3D text object. Xara 3D text objects are described in more detail in the section "3D text (view page 118)".

Animation



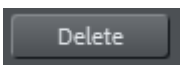
You can make your credits scroll down the screen, and many other text movements and effects and designs are also available



The display duration for the subject can be set here.

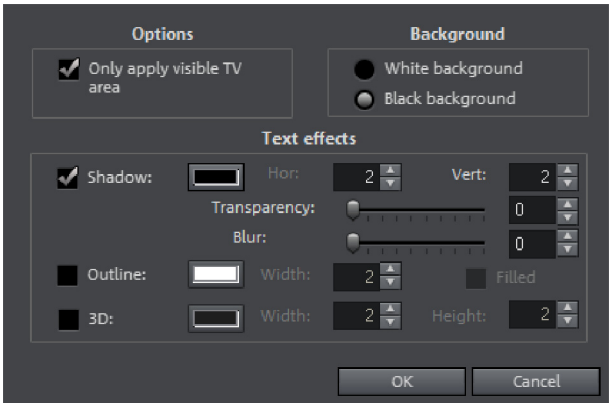
Templates for animated text are arranged in the other Media Pool categories; the icon and the description are there to help you find the correct settings.

Title object



Deletes the whole title object, i.e. text and settings.

Advanced settings



Only use visible TV area: The text will be zoomed so that it will always be within the TV's limits, which is specified in the Movie effect settings (view page 111).

Background: Specify here whether the text's background should appear black or white. This is only meaningful if no other video or image object is in the background.

Text effects: Here you can edit different text effects in detail. One color may be set for each effect.

Shadow: The position of the shadow may be set on the horizontal and vertical axes.

Transparency makes the background "shine through" more or less.

Soften: Makes the edge of the shadow harder or softer.

Outline: A border appears around the letters in the text.

Width: You can enter the width of the frame in points.

Color: Clicking on this button opens a color selection dialog, where you can set the frame color.

Filled in: The text will be filled with the color selected in the Title Editor. If the option is deactivated, only the frame will be visible, and the background will appear instead of the color fill.

3D: The text appears with a 3D-style outline. The width and thickness of the 3D contour (H) can be set in points.

3D text

Note: This function is available only in the deluxe version.

3D text can be created directly from the title editor.

- Click the title editor and then press the 3D Title button.

The title object will now be turned into a MAGIX 3D Maker object. If you have also installed MAGIX 3D Maker, the program will open when you want to edit the text. Presets are also located in the Media Pool under "Titles -> 3D". You can enter or edit text here.

Note: For more information about MAGIX 3D Maker, try its help file. You can open it by pressing "F1" from within the program.

Stereo3D (deluxe version)

MAGIX PhotoStory on DVD MX Deluxe also enables creation and editing of "genuine" 3D videos and photos. First, let's create an overview of this complex topic by familiarizing ourselves with the most important principles and the golden rules that are involved. Next, we'll look at the individual steps of the workflow in more detail.

Note concerning 3D content: Some people experience unpleasantness (e. g. headaches, straining, exhaustion of the eyes, or nausea) when viewing 3D videos. We recommend taking regular breaks for this reason. In case of problems, the user should immediately stop use and refer to a doctor or optometrist. Incorrect production of 3D-content may also produce these symptoms.

Warning for small children: The sight of small children (especially those younger than six years old) is still developing. We recommend referring to a doctor or optometrist prior to allowing your child to view 3D-videos.

3D basics

Human eyes perceive objects from 2 different angles and our brain "calculates" images from this information. This way we can tell the distance and position of an object. For this reason, 3D material should be shot according to this principle.

Viewing 3D

A regular screen or TV can show images only in 2 dimensions, and various technologies have been developed to enable perception of images in 3D. To this day, all technologies share the following: You need special glasses to deliver different information to the left and right eyes. We will examine these technologies in detail later.

The three golden rules

- **Stay within limits during recording:** To make a 3D recording (view page 120) with realistic depth information, certain limits must be respected. The most important rule is not to go below the point of minimum distance. Minimum point is the point in the picture, where the camera is the closest.

- **Frame closest point:** In order to place the 3D effect behind the imaginary frame, both image components must over lay each other exactly at the closest point. At the same time, the same objects must be visible at the edges of both partial images, for which, if needed, you can use the Cropping function in the Media Pool.

Note: The imaginary window is a type of a plane, behind which the 3D movie plays. You select the closest, frontmost point. Not keeping up with this rule can result in the object to "jump out" of the imaginary window, which when used too much, can cause headaches.

- **Maintain realistic eye angles:** Object with a 3D depth effect viewed as a red/cyan image (Anaglyph) without glasses will appear displaced. This displacement should, if possible, take up less than 1/30 of the entire image. Otherwise, it will appear that the eyes are looking in different directions.

Notice: Displacement may only occur along the horizontal axis. Displacements on the vertical axis and rotated portions must be adjusted.

Record 3D

The distance between eyes in humans is ca. 65 mm, which forms the so-called "stereo base width". But because our eyes are dynamic and we can even "cross" our eyes, it is possible to focus on objects that are closer.

Various techniques exist for 3D recording. Each method has its advantages and disadvantages:

- **3D cameras with two lenses**: The advantages are obvious; these cameras produce 3D material without excessive work involved. The disadvantage is that the stereo base width (lens distance) cannot be changed.
- **Two cameras on a special mount**: This involves a little more work. Two cameras are mounted on a special support to record material for the left and the right side of the 3D image simultaneously; microphone booms for stereo recordings may also be used for this purpose.
  The disadvantage in this case is that the shutter releases have to be pressed at exactly the same time if there are moving objects in the picture.

In case of video, both movies must be synchronized before being edited. Advantages: Stereo base width may be changed by adjusting the distance between the cameras; larger selection of camera models.

- **Two photos via the same camera**: This technique only allows still images. The camera is simply used to record two images from different perspectives, and these are used as the right and left images. For best results, use a tripod.
- **Consistently fast camera movement, e. g. along a street**: Only a single conventional camera is required in this case, but the range of applications is very limited. This is the most cost-effective method for creating 3D videos. Material is filmed at a speed of circa 6-to 15 km/h. During editing, the edited video object is duplicated and one of the videos is played back with a time lapse. The movement direction determines which is the right and left image. 3D photos may also be created using this method.

Warning, minimum distance!

The position of the object closest to the lens is designated as the minimum point. This minimum point may not exceed a specific minimum point; this is easy to calculate via the following formula:

Note: Lens focal point (e. g. 25 mm) x stereo base width (e. g. 65 mm) x 1.5* /1 mm= minimum point (2437.5 mm ~ 2.44 m)
*1.5 is a factor derived from the cut-off appearing when filming through a lens.
**1 mm is the so-called "deviation" or "spatial dimension". This only involves a rough value in this case.

Examples for 3D cameras:
Panasonic HDC-SDT750 (base width 12 mm): minimum point is approx. 1.5 m.
Fuji REAL 3D W3 (base width 75 mm): minimum point at approx. 3 m; for long-distance recordings as much as 8 m.

This so-called minimum point has an important role in other aspects of 3D editing.

Prepare 3D editing

3D videos are filmed and saved by different cameras, which means: depending on the camera model or recording method, the videos or images vary.

In one file

Many cameras, especially for photo recordings, create one single file containing the left and the right image next to one another.

- Drag these files from the Media Pool directly into your arrangement.
- Select the created objects.
- Select the "Side-by-Side (left images left/right)" entry in the Media Pool under "Effects > Stereo3D > Properties > Create stereo".

In multiple files

Some 3D cameras create a file for each the left and the right side. This working technique works also if you simply take 2 pictures with a regular photo camera.

- In the Media Pool, open the folder in which the desired file can be found.
- Sort the files in increasing order according to the date. This way, all files will lie in pairs one below the other.
- Now, select the files and drag them from the Media Pool directly into your arrangement.
- In the Media Pool select "Side-by-side (left image right/left) under "Effects > Stereo 3D > Properties > Create stereo" for material with halved width.

Note: If you have created side-by-side material yourself (e.g. placed two photos next to each other in an image file), proceed as described, but at the end select the "side-by-side (left image left/right)" for material with full width.

Note: To load MVC material into MAGIX PhotoStory on DVD MX, you must first activate this codec for a fee.

Set playback mode for 3D

There are various techniques for playback of 3D videos and images on the PC. Depending on the technology used, the corresponding playback mode may be activated in MAGIX PhotoStory on DVD MX.

Select the 3D mode in the lower right corner of the monitor you want to work with.

Here is a list of available techniques and the corresponding requirements:

3D mode	Equipment	Requirements
Polarizing filter display	Polarizing filter	• Polarizing filter glasses • Special monitor, typically referred to as a 3D monitor or similar

Note: You can choose between right or left image first, depending on which type of display produces better results on your monitor.

Side-by-side display	Shutter mode	• nVidia 3D Vision Kit • 120 Hz monitor/projector

Note: You can choose between right or left image first, depending on which type of display produces better results on your monitor.

Note: Both of these modes should be used only if the preview image is to be exported on to a separate monitor. Shutter mode also requires a 3D-capable graphics card.

Anaglyph display	Color anaglyphs	• Red/cyan glasses

Align videos and pictures for 3D

Anaglyph display is recommended for this, which may be set via the video monitor (view page 123). Only in this mode is precise geometric alignment of images is possible.

Note: In case you wish to edit 3D-video material, it is recommended to conduct scene recognition and split the video into individual scenes. This is necessary because the left and right side of each scene must be arranged individually.

The so-called minimum point is the point in the 3D picture that is closest to the lenses. This forms the "center" of the 3D image and must be defined as such in MAGIX PhotoStory on DVD MX.

For this task, go to "Media Pool -> Effects -> Stereo 3D" and access the entry "Aligning".

Move both images one over the other, so that the minimum point of both sides is at the same location on the screen.

You should first see whether automations for spatial adjustment and synchronization deliver desired results. Click on the button "Automatic".

If the result isn't what you're looking for, proceed as follows:

- Find the minimum point in the image.
- If the images are offset vertically, then these need to be balanced via the lower of the two slide controllers under "Spatial alignment".
- If the images have rotational differences, you have to adjust these with the knob.
- Try to position the minimum points of both sides precisely one above the other using the upper slider.
- To test the results, put on the cyan/red glasses. In case the image has an exaggerated spatial depth, try to position the left and right sides closer to each other using the controls under "Spatial alignment".

Turn camera movements into 3D videos

Camera movements may be transformed into 3D videos by being duplicated and converted via time displacement. To do so, you can simply record on the right or the left side while, for example, driving along a street.

The speed should be set between 6-15 km/h (approx. 4-10 mph) and depends on the frame rate, the focal point, and the distance of the objects being filmed (among other things). At increased speeds, it may occur that the spatial impression is too strong and the filmed material seems unnatural and unpleasant.

- If the video is in the arrangement, the stereo depth for the 2D object may be set in the Media Pool via "Effects -> Stereo 3D --> Properties".
- Depending on the direction of the recordings, you will have to move the control either to the right or the left.
- Check the results in the anaglyph display with red/cyan glasses
- Correct any unrealistic effects by adjusting the controller in the opposite direction.
- If the spatial depth is exaggerated, reduce the changed parameters.

Note: Not only camera movements, but also other 2D materials may be arranged spatially.

3D material may be edited with the same functions as 2D material.

Create titles for 3D videos

Xara3D title objects (view page 118) automatically have "real" 3D properties and for this reason may be used in the arrangement without any problems.

Export and burn 3D videos

There are no special requirements for export and burning. Only the desired 3D technique is specified.

Anaglyph: This technique is recommended for uncomplicated playback of finished videos or playback via conventional TV sets or projectors. Viewers must simply put on a pair of red/cyan glasses to be able to enjoy a 3D film.

Side-by-side: Create 3D movies for a 3D-capable playback device without having to compromise the quality. It doesn't matter initially whether your video is viewed in "Shutter" mode or via "Polarized filter".

- Depending on your playback device, you should set double resolution in order to produce full resolution for both the right and the left image.
- Not all playback devices are capable of double resolution. If this is the case for your device, 50 % pinched images will be displayed. The quality is nevertheless higher than output via the anaglyph technique.

Note: When exporting into Side-by-Side-formats, take care that the vertical resolution is the sum of both images, but the aspect ratio (such as 16:9) relates to the partial image.

Only left/right side: With these settings, you won't export in 3D, but just one side of your 3D -video.

Flicker image: This way you can view 3D material without 3D glasses. The material will be shown in an alternating order, creating an impression of flickering images.

On top of each other: This export option is similar to the "Side-by-Side" option. The images will be exported not next to each other, but one over the other.

- Depending on the playback device, you should set double resolution to get an image in full resolution for the top and bottom partial image.
- Not all playback devices are capable of double resolution. If this is the case for your device, 50 % pinched images will be displayed. The quality is nevertheless higher than output via the anaglyph technique.

Note: When exporting into the one-over-the-other-formats, make sure that the vertical resolution is the sum of both images, but that the aspect ration (e. g. 16:9) relates to the partial image!

Export files/upload movies to the Internet

The standard path for all file exports is via "File -> Export movie or File -> Internet". Depending on the export format and destination, the export dialog also allows the 3D technique to be used to be selected.

For direct selection as Windows Media Video 3D, click "Export" and select "3D film" from the dialog.

Burn

When burning a Blu-ray Disc or DVD, you must first open the encoder settings in the burn dialog and set the desired 3D technology. Next, you may proceed to burn the disc as usual.

Create panorama pictures

Create "genuine" panorama images from matching photos. You can also let your imagination run wild and put together anything you want to.

Note: Optimize your photos beforehand so that the transitions can't be detected in the finished panorama.

Select pictures for panorama

Load all necessary photos into the slideshow project as usual. The images that should make up the panorama should be selected one after the other while holding down the "Shift" button. Select the entry "Panorama photo" from the context menu "Effects (view page 199)> Video object effects".

Invert image sequence for panorama image

Sometimes photos are accidentally loaded in the wrong sequence or were created from left to right. If you forgot to sort your photos correctly beforehand, then simply click "Invert sequence".

Panorama settings

Don't use camera movements on panoramas: The panorama image will be displayed in your slideshow in its entirety. This option is less effective than a camera pan across the image yet well suited for capturing the sheer size of a landscape or city panorama.

Automatic camera movement from lefts to right / from right to left: The finished panorama will zoom in when viewing the finished slideshow. Additionally the camera position pans from one edge to another. On one hand this means that no whole panorama image will be displayed, on the hand you will be every detail.

Calculating the panorama image

If you click "Create", the panorama image will be processed. Depending on the resolution and number of original images included, this may take some time. The original photos are replaced in your slideshow with the panorama image you've created, but the original files on the hard drive will remain intact.

Hint: You can create a panorama image from a maximum of six images. Click on "More options" for more information on the upgrade.

Finished panorama (2 images)

Finished panorama from 2 images

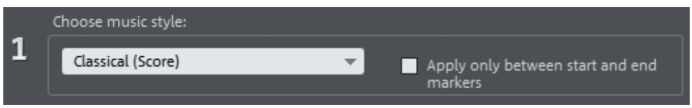
MAGIX Soundtrack Maker

The MAGIX Soundtrack Maker adds atmosphere. Music tracks corresponding to the specified mood are generated automatically. Even mood changes are possible.

You can open MAGIX Soundtrack Maker via "File -> Assistants" (view page 183).

Keyboard shortcut: Shift + M

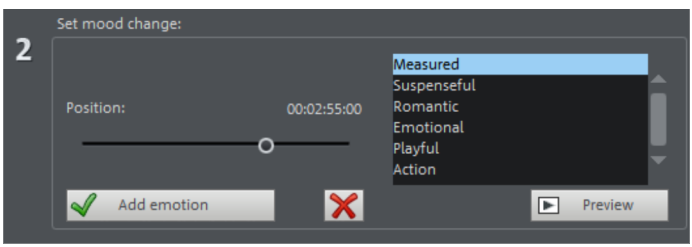
Choose music style



First choose a music style. Clicking on "Buy more styles" will open the MAGIX Online Content Library. Here you can buy more music styles for MAGIX Soundtrack Maker.

The option "Apply only between start and end marker" lets you limit the length of the background music you want to create. You can also set the start and end markers (view page 47)with the left and right mouse key if MAGIX Soundtrack Maker is open.

Set mood change



Select a mood from the list.

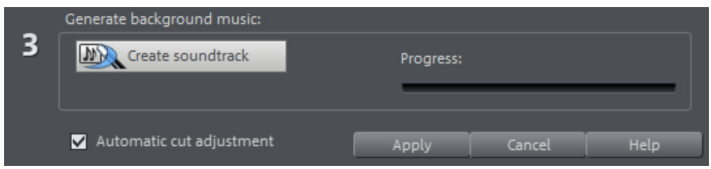
Preview: Here you can preview your selected emotion.

Position: With the position slider you can move to a certain position to set the emotions at a certain position. Instead, you can also move the start marker with the left mouse button. The preview will be displayed in the video monitor.

Add emotion: This button inserts the emotion at the current position. MAGIX Soundtrack Maker will then suggest a new position for the next emotion by repositioning the position slider. Of course you can also put it elsewhere and insert further moods.

Delete emotion: Deletes the current emotion.

Generate background music



One click on "Create soundtrack" creates a new soundtrack. "Progress" shows the current status.

Variations

If you don't like the background music that was created, then you can create variations. You can do this for the entire background music as well as for individual emotions.

- If you want to vary the entire background music, then simply click "Create variations".
- If you only want this to apply to a certain emotion, then you should first go to it with the position slider in the dialog (or the start marker on the main acreen). Then activate the option "Vary only selected emotions" and click on "Create variations".

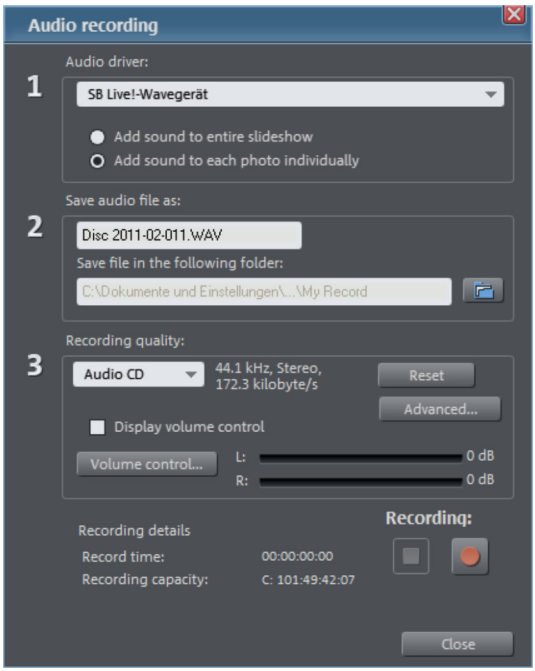
Record

Audio recording

Songs, noises, or instruments can be easily recorded in MAGIX PhotoStory on DVD MX using the recording function. In Storyboard mode the wave file is visible directly below the photo box.

For the recording to be correct it is necessary to connect and calibrate (view page 135) the corresponding sound sources correctly.

Recording dialog



Add sound to entire slideshow: Use this option to begin playback of your slideshow from the start marker while recording in order to be able to comment on each photo one after the other. The recording is cut simultaneously after every photo. This way you can move your photos after recording; the corresponding comment is moved automatically.

Add sound to selected photo: Use this option to play the selected photo and add text to it directly. If your audio recording lasts longer than the duration set for the photo, then the length of time for each photo is automatically extended.

Audio driver: Selects the sound card for the recording.

Save audio file as/ Save in folder: Here you can select the title of the audio file you wish to record. You can also select the folder where you wish to store the file.

Recording quality: Sets the sound quality of the recording. In the preset menu you can choose between medium wave radio ("AM tuner"), UKW ("FM Radio"), DAT (Digital Audio Tape) and CD quality.

Display Volume control: Using the peakmeter, you can monitor the level of the incoming signal. Please read more on this in the chapter "Adjusting levels" (view page 135)

Record: This button starts the actual recording.

Stop: Click this button to stop recordingHint: To remove noise that developed while recording, you should try out the effects in the Audio Cleaning (view page 101) dialog.

Advanced audio recording settings

Driver info

Shows the name of the chosen recording device.

General options

- **"Mono"** can be activated for recording in mono. This reduces the required memory space in half. This is useful for spoken commentary as the microphone only communicates a mono signal.
- **"Real-time sample rate adjustment"** automatically matches the sample rate of a new file to be recorded with the sample rate of the selected slideshow (set in the video recording).
- **Automatic damping of volume levels on other tracks ("Ducking"):** If you slideshow already has a well-modulated soundtrack, and you would like to add some spoken comments or other sound material, activate "Automatic damping of volume level on other tracks" in the record dialog.

This automatically lowers the volume of audio objects in the arranger during the recording session. This is achieved using an automatically configured volume curve: Before and after the recording other tracks will be faded in or out, resulting in a homogeneous total volume level. (Lowering of volume level during spoken comments is also called "Ducking".)

Track damping options

Intensity of damping: Here you can determine by how many dB (Decibels) the volume should be lowered. A signaled lowered by about 6 dB will be perceived by the human ear to be about half as loud.

Tip: Depending on the kind of music or original sound, different settings should be given a try. If the music is already soft, lowering by 6 dB will probably be enough; a hectic original audio track or loud rock music damping should be stronger.

Cross fade duration [sec]: Here you can enter, in seconds, how quickly the signal should be lowered or raised before and after the recording.

Hint: Volume damping can be edited later on in the track. You can read more about this topic in Volume curves.

Connecting the source for recording

First of all, the source of the audio material must be connected to the sound card input. Again, there are several possibilities which primarily depend on the type of equipment you have.

If you are recording from a microphone, then please connect the microphone to the microphone jack on your sound card (usually red).

If you want to record material from a stereo system, then you can use the line-out or AUX out jacks on the back of your amplifier or tape deck. This involves connecting them to the sound card input (usually red).

If your amplifier has no separate output (other than for the speakers), then you can use the connection intended for headphones for your recordings. In most cases, you will need a cable with two mini-stereo jacks.

This type of connection has the advantage of being able to set the headphone input signal level with a separate volume. As headphone connections generally are not the best, it is advised that you use the line outputs if possible.

When recording cassettes from a tape deck, you can connect the tape deck's line out directly to the sound card input.

When recording from vinyl records, you should not connect the record player's output directly with the sound card because the phono signal needs to be pre-amplified. A more suitable method would be to use the headphone connection or an external pre-amp.

Adjusting the Signal Level

Adjusting the signal level to the sound card is also recommended to get the best sound quality during digital recording.

Once a recording source is connected to the sound card, the "Record" button opens the recording dialog and starts the recording source.

You can now adjust the recording level with the help of the LED display in the recording dialog. For this, you must first check off "Show Levels".

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 sound card, you can only reduce the signal level in your sound card's software mixer interface. You can access the mixer directly from within the recording dialog via the "Recording Level" button.

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. The actual recording begins when you press the "Record" button. At the end of the the recording you will be asked if you want to use the recording. Upon confirmation, the newly-recorded material will be placed at the next free position of the start maker in the arrangement.

Single-frame capture

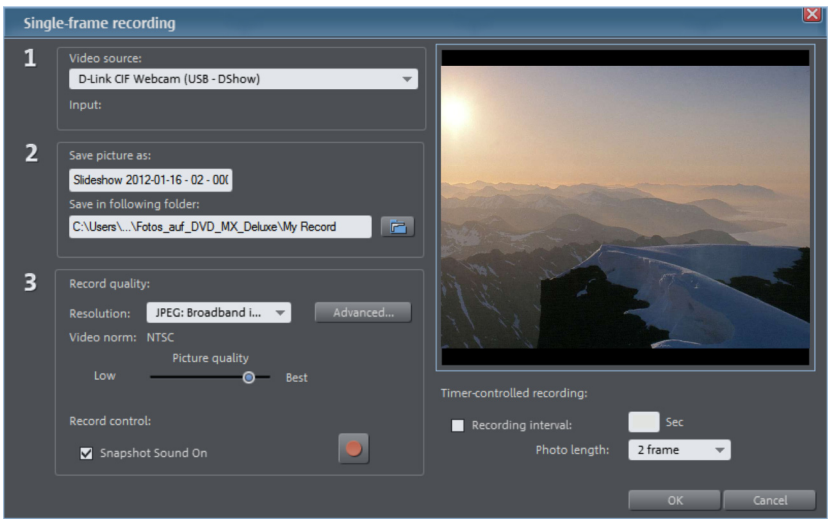
Single frame recording may be used to record snapshots from the connected video source. This requires a DirectShow compatible video recording or TV card or a corresponding USB device (e.g. a webcam).

Note: This function is only available in MAGIX PhotoStory on DVD MX Deluxe!

The time control function allows you to automatically take snapshots. Here are just a few examples of where it might used:

- Create photo stories from videos
- in animation films (stop-motion animation),
- for video surveillance,
- or in time-lapse photography.

The recorded images are added to the current slideshow.



Video source: You may set the video card used to take pictures here.

Save image as: Here you can enter the title of snapshots you are about to record. Snapshots are saved under this name and numbered consecutively. You can also select the folder where you wish to store your photos.

Resolution: The resolution for the recording is defined here. This corresponds with the resolution options offered on the camera. Use the slider to set the image quality. Using higher resolutions results in larger file sizes for each recording. "**Reset**" restores the picture quality to the preset value.

Advanced...: Opens the advanced video driver setting dialog (view page 137).

Camera noise during recording: This causes the program to play a clicking sound each time a snapshot is taken for monitoring purposes.

Recording: The red Record button triggers a snapshot or alternatively a series of recordings when using the time control function.

Time Control

Photo Length in Frames: Specifies how long the photos appear in the slideshow.

Interval: When this function is activated, a series of images is made once the recording has started. Snapshots are automatically saved and numbered consecutively at a pre-set time interval.

If you, for example, specify a two-second interval between shots and that each shot be added at a length of 5 frames to the slideshow, the end result is a time-lapse recording at 10 times the normal speed.

Advanced configurations in the video capturing dialog

Here you can adjust certain settings for the video recording driver.

These dialog boxes, so-called “property sheets,” come with the video card drivers. These driver-specific performance properties may deviate depending on the cards. We also have a very limited influence on the behavior of these drivers. If you encounter any difficulties, please contact the video card manufacturer for the latest driver updates.

Source: Sets the crossbar of the video card.

The crossbar determines which video and audio input signal will be recorded. The crossbars are connected in series to the video recording chip itself. In the output field, the video output (for the crossbars) is the input for the recording chip (video or audio decoder-in) of the video card. In the “Input” field, select the signal source that will be used by the video card to capture for this input. Many video cards have separate crossbars for audio and video. If you have a problem, try out the different configurations until the right sound matches the right image.

Composite-in = the normal video input (typically a cinch jack)
S-video = S-video input (mini-din jack)
SVHS-in = SVHS input (special cable)
Tuner-in = TV signal of the integrated tuner

Display

Video decoder: If the picture only appears in black & white or it flickers, the video standard may be set incorrectly. In mainland Europe, **PAL_B** is used.

VideoProcAmp: Fine-adjustment of colors, brightness, contrast etc. We recommend against changing any of the manufacturer’s settings.

Format: Please do not change anything here. The capturing format is set in the "Recording quality" option in the video recording dialog.

Station selection

This option is only available if a TV tuner is integrated into your video card.

General settings

You can access the project-independent MAGIX PhotoStory on DVD MX settings this way. These settings are also global.

Keyboard shortcut: P, Y

Playback

Audio playback

Driver selection: You can set up "DirectSound" here. DirectSound is a component of DirectX that is installed automatically on your PC during program installation (if necessary). If the DirectX system is no longer installed on your PC or no longer works properly, there is a DirectSound installation routine for reinstallation to be found in the "Addon" folder of the MAGIX PhotoStory on DVD MX program disc.

Output device: Use this option to specify which sound card plays the wave audio objects. This is especially important if you have multiple sound cards installed on your computer.

Audio buffer size: Here you can specify the buffer size that should be used for playback of the entire arrangement or for previewing audio files in the Media Pool.

Video playback

Output cache: This option activates a clipboard which enables smoother playback of transition effects. You should usually keep this option activated.

Arranger

Autoscroll during playback: The screen playback does not follow the playback cursor if it has reached the end of the screen.

Fast: If autoscroll is activated, the screen view automatically shifts when the playback cursor reaches the last quarter of the screen during playback.

Slow: If autoscroll is activated, the screen view automatically shifts when the playback cursor reaches the right edge of the screen during playback. This is particularly useful for longer disc projects

Warning: Scrolling requires constant recalculation of the screen view, which may lead to interrupted playback if the amount of system RAM is too low. If this happens, simply deactivate the autoscroll feature.

Image material playback

Resizing high-quality image material: Use this feature to improve the quality during resizing, particularly when downsizing to less than half of the original size (e.g. for picture-in-picture effects). This, on the other hand, requires more processing power.

Note: Switching off this option has no effect on quality during exporting/burning.

Load image material in background: Image material will be loaded in the background so that it can still be edited during the loading process.

Paths

Projects: The standard path for all projects (*.<Pojektdatei>)

Exports: The standard path for all file exports via the command "File" > "Export"

Audio import: The standard path for all imported (music) files.

Disc images: Specify the path for the folder where MAGIX PhotoStory on DVD MX saves the temporary files required for creating a disc.

Menu Editor: Determines the Menu Editor path, which can be started using the "Burn" interface.

Options

Here you can specify the most important options for the behavior and display of MAGIX PhotoStory on DVD MX.

Keyboard shortcut: P

Video standard

PAL is used in Europe; the US and Japan use NTSC. This setting should not be changed.

Preview

The resolution can be reduced for video decoding, but this only has an effect while preview editing. If playback becomes jerky, then we recommend entering a lower value. The quality of exported videos is not influenced by this.

Video options

High output quality for dynamic zoom and combination effects: If this option is set, a newly developed zoom algorithm will be used that provides results that are much more accurate. You should, however, only use this option if you own a PC that is capable of handling processor-heavy tasks. Otherwise the export (and invariably the creation of a disc) can take a lot longer.

Other

Reactivate warning dialogs: In its newly installed state, MAGIX PhotoStory on DVD MX displays a number of security queries at various parts of the program. Each of them can be switched off by clicking the small box at the bottom that says "Don't show this message again". To display these warning messages, select the this option.

Configure online services: Here you can configure the online services that you use. This function requires an Internet connection.

System

Fade photos automatically with effects: When loading photos, they will automatically fade from one into the other using a crossfade effect (view page 87).

Automatically create frametable during import Sometimes, rebuilding a frame table can get rid of problems in certain MPEG files.

For example, such problems can be present if the navigation (positioning of the playback marker, transport) is bumpy or doesn't function at all. Normally, when loading MPEG video, a frame table is not created in order to speed up the loading process. If you do create one anyway, MPEG files are normally noticeably faster and easier to edit.

Import CD tracks via record dialog: If this option is activated, you can record audio CDs via the record button in the transport console. When dragging & dropping from the File Managers the record window where recording starts will be opened. This option can be used if drag & drop via the File Manager is not working properly or if you want to record the first bars of an incomplete CD track in the arrangement. Here you should note that the digital track data from the digital analog converters of the CD-ROM drive have to be converted into analog signals and then into digital data by the analog-digital converters. Depending on the quality of the converter used, this can lead to losses in quality.

Automatic preview when changing transition: When this option is activated, a short preview of the transition effect will be quickly played between the two objects you selected.

Project setting "Cut to fit monitor automatically" affects videos: If this option is active, then videos will be cut to avoid black edges. The property "Cut to fit monitor automatically" must be activated for the project.

Automatic preview of export clips: If you export a slideshow as a video file, it will be played immediately after being created.

Preview images in the background: The update if the object display after move and zoom operations in the arranger is performed in the background in order to let you work smoothly.

Relocate memory for bitmaps to other process: Activating this option will improve handling of bitmaps as they will be processed differently.

Hide news: This option deactivates the MAGIX News Center (view page 16) in the main interface of MAGIX PhotoStory on DVD MX.

Facial recognition for zoom shots and automatic sections:MAGIX PhotoStory on DVD MX recognizes faces in your photos and adjust the photos so that faces aren't cut out when changing sections or zoom level.

Standard picture length

Here you can adjust the default display duration of the selected photo. This can be changed again at any time.

Display

Video mode: Set up the playback mode in the Arranger here. You have the choice of:

- **Compatibility mode:** This mode works on all systems. Activate this mode if there are problems with playback.
- **Standard mode:** This mode offers extreme speed boosts by letting the mixing, many effects and various transitions be calculated directly on the graphics card. Depending on the graphics card, performance can increase by 300%. The graphics card will not be used during export.

Warning! To use this mode the graphics card must posses at least 128 MB memory. You will need to install Direct 3D 9 or higher, and the graphics card driver must support "High Level Pixel Shader Language 2.0". MAGIX PhotoStory on DVD MX checks the corresponding properties when this mode is selected, and switches it off if necessary.

- **Alternative mode 1:** This mode performs hardware-based deinterlacing for output onto a PC screen or a projector, whereby the playback quality is significantly better than with interlaced analog video recordings.
- **Alternative mode 2:** This mode uses the hardware de-interlacing function of modern graphics cards together with DirectX 9. Make sure that you are using the most recent version of your graphics card driver, which must be compatible with DirectX 9 to function properly. This mode is only superior to "Overlay mixer" mode with a limited number of graphics card models.

Deinterlacing: In the DirectShow modes "Overlay Mixer" and "Video Mixing Renderer 9", you can activate hardware de-interlacing with your graphics card. For general information about de-interlacing and the options "Top/bottom field first", please read the corresponding article "De-interlacing (view page 238)" in the manual.

Image formation in the Vertical Blank Interval (VIB): Image formation takes place in the vertical blank intervals of the monitor signal (or the connected TV signal). This helps avoid image interruptions.

Warning: Because of waiting time required for the next VBI, this process adds significant computational time!

For digital displays like the TFT monitors you can deactivate the option. In the Overlay mode image formation occurs exclusively in VBI.

Use high resolution for fullscreen playback:

Note: This option is available only in the standard mode (hardware acceleration Direct3D).

If the option is activated, image resolution during preview will be increased. This demands more computer resources, but is not a problem for most graphics cards. You should deactivate this option only if you have problems with fullscreen playback.

Project- and slideshow-relevant settings

Settings for new projects

When creating a new disc project, you can specify multiple settings that will continue to apply to the related slideshows.

Project name: Give your disc project a name. This name will be used as a preset title for the disc you are going to burn. The slideshows will also be given this name.

Use 16:9 aspect ratio for current disc project: This option lets you edit the slideshow from the very beginning in 16:9 format. The video monitor's size adjusts to correspond to this.

Cut new images to fit screen automatically: Images that do not correspond to the slideshow's ratio are adjusted automatically. The zoom factor is set in such a way that there are no black bars to the left or right or top and bottom.

Slideshow settings

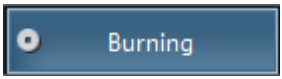
The dialog with the settings for the current slideshow are displayed here.

Select preview image automatically: MAGIX PhotoStory on DVD MX uses an automatically-selected preview image.

Use image file: With a mouse click on the folder button you can open a dialog for loading image files. In this dialog you can navigate to the folder where the image file is found and select it with a double click.

Use the preview image from slideshow: Select a frame from the current slideshow using the slider.

Burn discs



Switch to the "Burn" screen first by pressing the button displayed.

You can burn your slideshows (including a selection menu) onto CD, DVD, Blu-ray Disc, or upload them as "virtual DVDs" to MAGIX Online Album.

All slideshows loaded into the project are taken into account. If you want to remove some of the loaded slideshows, then switch to the "Edit" screen again and delete the unwanted slideshows from the project there. To do so, switch to the corresponding slideshow, open the "File" menu and select "Manage Slideshows -> Remove Slideshow".

Note: At a screen resolution of 1280 x 1024, the program display changes. This makes the program more manageable and easier to use. The work steps remain the same in spite of the different display.

Preview and editing

MAGIX PhotoStory on DVD MX provides two different modes for designing and previewing the disc menu.

The preview mode is mainly intended to behave like a DVD player or Blu-ray player for checking the disc menu under realistic conditions.
Only templates may only be used; more detailed editing of the disc menu is not possible at this time.

During editing, you may adjust many features of the disc menu. There are many templates available for this that may be changed flexibly once loaded.

Remote control

The virtual remote control is an important helper when it comes to checking how the disc will perform later.

When you later insert the CD or DVD with your disc project into your player, this remote control will control the preview picture just like a "real" remote control controls the picture on a monitor or TV. The DVD menu navigation can now be initiated with the arrow keys or the "OK" button. Activated buttons are highlighted.

The number keys select the corresponding entry on the menu page. All menu entries are marked with a corresponding number. Within a chapter menu, playback is started from the particular chapter. In the movie menu, the corresponding chapter menu (if available) is changed or slideshow playback is started.
Navigation keys: These help you move from one section to the next in the menu of the CD/DVD being burned. You can switch between individual entries and confirm the switch by pressing "OK". The remote control works just like the remote control for your home DVD player.
Skip/move forward/back: This allows you to skip to the next or previous scene while playing back your movie. In the menu, you can skip forward or back from one menu page to another.
Play: Starts the first entry in the menu. In case chapter menus are available (see menu modes), the chapter menu will be displayed first.

Pressing the Play button again starts playback.
Stop: Pressing stop halts playback.
Disc switches to the first page of the film menu.
Sub switches into the chapter menu (if available) of the currently selected slideshow.

Menu

MAGIX PhotoStory on DVD MX can add selection menus to your slideshows. The menu is also burned to disc and appears when inserted into your player. Just like with a purchased DVD or Blu-ray Disc™, you may easily select your movies with the help of preview pictures, or access particular chapters within a movie.

Menu templates

At the bottom of the screen, you'll see an array of preset menu templates. A tree structure is located on the left-hand side for you to choose the type of menu template.

- **Animated DVD:** These templates contain background and introductory videos as well as music. The DVD menu tools are displayed in various modes (selected buttons, for example). The templates can only be used for mini DVDs and DVDs. If you burn a VCD or SVCD, then still pictures and normal tools will be shown. Music can also be used.
- **Static (DVD, VCD, SVCD):** Here you will find templates suitable for use with DVDs, VCDs and SVCDs. They consist of normal background pictures and elements
- **Unique**: These templates adjust to your disc project; the photos you use are integrated directly into the menu. Every menu is unique and matches the project in its own way.

Note: For these menus the "slideshow and chapter menus" mode in the menu design must remain active.

- **DVD, WMV HD, miniHD-DVD:**These templates contain super-sharp, high-resolution background images that are particularly noticeable on HD TV devices.

Note: This function is only available in MAGIX PhotoStory on DVD MX Deluxe!

If you selected a specific type of menu template, you can use the horizontal scroll bar to view all the templates. There are lots of options when using the templates:

- If you wish to apply a template to all menu pages, click on "**Complete**" in the template bar and double click on the template of your choice. The complete template will then be applied.
- You can also combine the various elements of the individual templates. If, for example, you wish to combine the text format of a template with another background, select "Text" and double click on the template with the desired text. The preview in the middle shows you the results immediately.

You can load the template (or individual template elements) for the current menu (slideshow or photo) as well as for all menus.

Click on this button to load the current selection for the entire disc menu.

You will also need to select the corresponding format for the slideshow menus, according to the format used for your slideshow.

Starts the preview of the menu animation

Clicking on the small arrow next to the button opens a menu containing additional options for applying the current selection to the disc menu or current menu page.

Edit disc menu

The preview pictures and the menu title can be moved freely in the preview monitor. The menu may be edited very flexibly.

Activate the "Edit" button to do this.

Edit menu elements

Hold down the left mouse button and drag text boxes or graphical elements to the desired position. You can adjust the size by dragging out the corners and edges of the frame.

You can undo the last steps you made. This means that you can easily try out critical operations. If the result does not meet your expectations, then you can simply "undo" it and return to the initial status.

Keyboard shortcut: Ctrl + Z

This command cancels a previous "Undo" command.

Keyboard shortcut: Ctrl + Y

Set aspect ratio: To avoid distortion, use this button to set the aspect ratio for the menu elements.

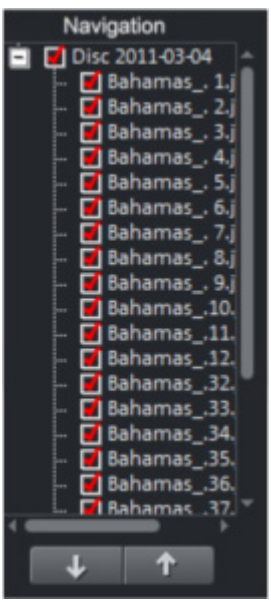
Group: Menu elements are moved or resized simultaneously as a group, including the description text and number.

Fade in TV display area in the preview monitor: This option displays the image borders of the television (view page 111) as lines in the preview monitor.

Grid: You can precisely align the frame positions with one another using the grid button. Using the small arrow next to the button you can open a dialog to fine tune the grid settings.

PSD Import / Export: Clicking on this button imports/exports a self-created menu template as PSD file (for further use in Xara Xtreme Pro, Photoshop...)

Navigation



- All movies are listed as first entries. The corresponding menu level is the **film menu**.
- All scenes are listed as second entries next to it to the right The corresponding menu level is the **chapter** menu.

Removing the red check deactivates the corresponding entry in the chapter menu. The scenes are still played, but you can no longer select them directly from the menu.

- If you click a film entry, then the film menu will open in the preview.
- If you click one of the chapters listed, then the chapter menu will open in the preview.

Disc options

Here you can activate or deactivate certain elements or even complete menus.

Intro video: Press this button to load videos to be used as introductions to your discs. The following formats are supported: "*.avi", "*.mpg", "*.mxv", "*.vob".

The intro is played immediately after the DVD has been inserted into the player. The DVD menu will then appear. A check mark "Do not skip" ensures that the intro video must be played completely each time the disc is inserted and that it may not be skipped with the remote control or otherwise.

Slideshow & photo menu

The disc menu essentially consists of two layers:

Film menu: The upper layer includes the film menu, which is only used if a project contains multiple slideshows.

Chapter menu: This is the lower layer of the disc menu, which takes the photos (in the first track of the timeline mode) into the slideshow as chapter entries.

Note: A chapter menu cannot contain more than 99 entries. If your slideshow contains more photos, you should either burn the slideshow without the chapter menu or split your slideshow into several parts.

Preview pictures: Shows/hides the preview pictures in the disc menu.

Numbering: The numbers beside the menu entries can be selected directly using the remote control, but they be disrupted from time to time. Use this option to show/hide them.

Frame: A frame borders the preview pictures. If this is unwanted, it may be removed easily using this option.

Note on SVCD compatibility

Some DVD players may have difficulty playing created SVCDs despite fault-free burning if the disc contains a project burned in "Chapter and film menus" mode and contains several slideshows and/or a large number of photos. These compatibility problems can be avoided by:

- Exclusive use of movie menus or no disc menu
- only adding a single slideshow to the disc, or
- turning off the PBC (Playback control) function, i. e. the menu navigation of the DVD player.

Design page

Background: Here you have three options for creating a static background image for the menu:

- You can set a certain color value for the background.
- Select any image file from the hard drive or one of the included backgrounds.
- You can select a frame from your project.

Edit current menu templates: Opens the PSD editor set under path settings (view page 140).

Apply to all pages: Applies changes to the current menu page to all other menu pages.

Only in the deluxe version: New menu pages may also be added or irrelevant pages may be removed.

Adds a new menu page.

Removes the selected menu page.

Animated selection menus

You can also add audiovisual animations to the disc menus. As required, background videos are played as endless loops while the menu is shown on the screen. You can also set up background music in various formats or any background picture for each menu.

Sound/music: You can load a music file for the menu background animation.

Video: Here you can load a video or graphic file for menu background animation. In addition to the options for the background graphic (see above), you can also use a sequence from a loaded slideshow or from a different video file.

Background video options:

- **Create animated menu buttons**: The preview images for the individual slideshows on the movie menu will be displayed as small videos. Set the starting point and length of the animation using the sequence option sliders.
- **Use the audio track of the video:** The audio track of the background video is used with the menu.
- **Play menu animation as an endless loop**: The background movie (audio and/or video) will be played back as a loop.
- **Length of the menu view is set by**: Audio/video or whichever medium is longer. Here you can determine the length of the background video. The other medium will be played as a loop.

Create a button design

MAGIX PhotoStory on DVD MX enables easy editing of all buttons together with their menu entries.

You can edit menu entries that you created using this button or with a double click on the menu. The dialog with the properties of the menu entries (view page 154) will open.

Edit in MAGIX Photo & Graphic Designer 7: You can open MAGIX Photo & Graphic Designer 7 for additional editing of elected menu elements.

Apply to all objects: Applies the properties of the selected button to all remaining buttons.

Only in the deluxe version: New menu entries may also be added or irrelevant pages may be removed.

Adds a new menu entry.

Removes the selected menu entry.

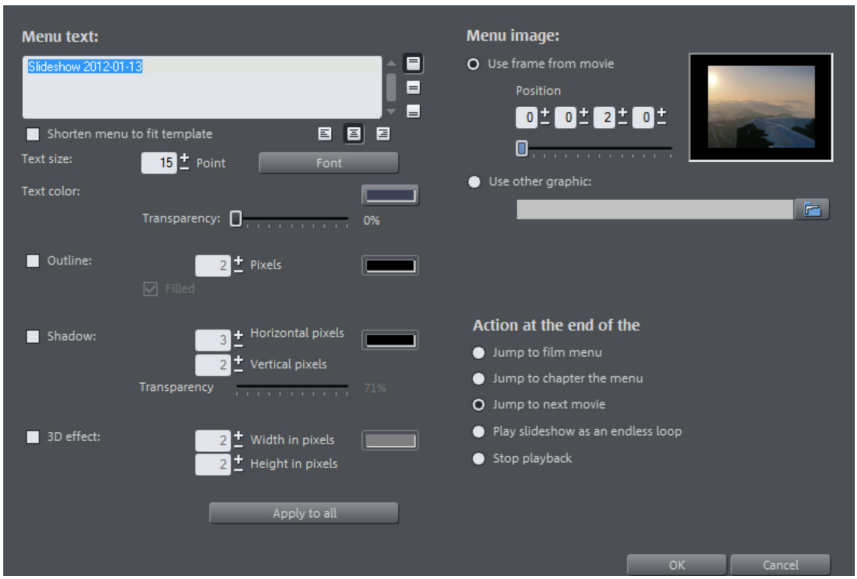
Tip: You can deactivate unused menu entries via the Navigation.

Jump to linked page

To test the targets of menu entries, select the desired menu entry and click the button.

Menu entry/menu page properties

Double clicking the preview picture or a menu entry opens an editor for you to adjust the preview picture or menu entry.



Menu text

In the text input field, you can enter any text to match the chosen menu entry.

Set the vertical direction of the text (upwards, centered or downward).

Set the horizontal direction of the text (left, centered or right).

Font size: Set the height of the text in pixels.

Font color: Define the foreground color of the text.

Font: Set which font and which style (bold, italic, etc.) should be used.

Shadow: Set the color and size of the shadow that will appear underneath the text.

3D effect: If you would like to make your text appear three-dimensional, you can set the width, height, and color of the 3D effect.

Apply to all: Except for the text, all settings are applied to all entries in the current menu.

Menu image

Use frame from movie: Use the fader to set which frame should be used in the video as a preview picture. The numerical input fields are sorted as follows: Hours:Minutes:Seconds:Frames.

Use different graphic: You can also load your own bitmap images to be used as menu pictures.

> **Hint:** It may be the case that there are no menu pictures in some menu templates, so changing the menu picture won't have any noticeable effect.

Actions at the end of the slideshow (Slideshow menu only)

Here, you can enter which action should be carried out once the slideshow has finished playing. You have the choice of:

Stop playback: This option depends on the DVD player being used. Most DVD players show the DVD player's own menu (or background picture) after playback.

Jump to movie menu/chapter menu: Jumps back to the previously shown menu.

> **Tip:** Should one of the two options not be available, please check which menu mode is set.

Jump to next film: The next slideshow will be played without having to do anything else.

Play slideshow as an endless loop: You can burn every slideshow onto a miniDVD or DVD as a loop as well. This means that the slideshow is played as a endless loop until the next menu entry is accessed using the remote control or playback is stopped. This way, you can transform your TV into an aquarium, a train journey, a fireplace or anything that you could watch over and over again.

Note: This option only works with DVDs or miniDVDs.

Edit your own menu entries

There is another view in this dialog to edit menu entries you have created. Menu links can be edited here. This makes it possible to link a menu entry with a certain action, menu page, or a certain position in the slideshow.

No link: The menu element cannot be selected and has no function other than to display menu text.

Link to page in current menu: Jumps to a a menu page in the current slideshow or chapter menu in the current slideshow.

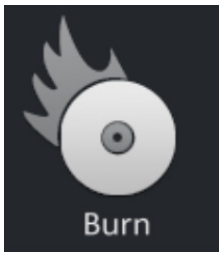
Link to another menu: Opens another slideshow or slideshow menu.

Link to chapter in a slideshow: If this option is selected, enter the slideshow and photo where playback should start.

Note: For DVDs, only chapters within the current slideshow may be jumped to.

Link to slideshow start: The entered slideshow will be played from the start.

Burning Wizard



Click "Burn" to open the screen where you create DVDs, Blu-ray Discs, or another video medium, including a menu.

Here you can select what kind of disc you would like to create. Under "Additional options" you will find other disc formats that are used more seldom.

Note: For each disc format there are different limitations. For example, with many formats animated menus are not possible or no menus and transitions at all are possible. You can find an overview of these limitations in the PDF manual or in "Help" under "Appendix: Digital videos and storage media".

Disk space

Disc type	Data carrier	Menu	Quality	Length (optimal quality)
DVD	DVD	Yes	***	98 min.
Blu-Ray Disc (view page 247)	Blu-Ray Disc	Yes	*****	110 min.
AVCHD (view page 248)	DVD/Blu-ray Disc	Yes	*****	30 min./DVD 160 min./Blu-ray Disc
Multi Disc (view page 250)	CD/DVD	Yes	****	45 min./DVD 7min/CD

*The set duration for some DVD players may be determined by this table. Depending on the original size (file size of the images) the number of images that fit on a blank CD or DVD differs.

For the MPEG-2 encoder it can be difficult to supply reliable information relating to the required memory space. If the "variable bit rate" of the MPEG-2 encoder is activated, encoding will occur according to the movements in the picture. The required memory depends on the film material; an action film would need more memory than a drama, for instance.

If you cannot save your disc project on a single disc, you will have to divide it up into different sections.

Further information on MPEG compression and formats can be found in the chapter "Annex: digital video and data storage" (view page 241).

Test series with variable encoder settings

If you would like to know how much memory space you require for various encoder settings, you should run some simulations before burning.

So you don't waste any blank CDs while testing, you should activate the "Simulate first" option.

Then create, for example, a short (ca. 5 min.) disc project and simulate burning in multiple cycles with various settings.

After every simulation you can access the created file on the hard disk to check how large the file has become.

From the results, you can extrapolate how much disc space your disc project will require. The memory requirements of a 5-minute disc project would have to be multiplied by 20 in order to estimate the space required for a 100-minute movie. You should also add buffer for the selection menu. (view page 147)

Separate project onto multiple discs

Automatically: If the disc project requires more memory than is available on the disc, a dialog will appear before burning asking whether the disc project should be automatically segmented for multiple discs. Confirm this by clicking "Yes". The disc project will then be automatically divided into individual disc projects and burned sequentially onto multiple discs. This is the easiest method as everything is automatic and all you have to do is insert a new blank CD when required.

Manual

Case 1: If several slideshows do not fit onto a single disc.
In this case, delete as many slideshows as is needed until the remaining slideshows fit onto the disc. You can create a new disc project and load and burn the other slideshows afterwards.

1. Return to the "Edit" screen.
2. All slideshows which shouldn't be burned at this time must be placed into a project of their own. Save them separately to your hard disk (“File > Manage slideshows > Export slideshow file, for example, as “Part 2” and “Part 3”).
3. Remove the desired slideshows (e.g. "Part2" and "Part3") from poject (menu "File > Manage slideshows > Remove from project").
4. Switch to the "Burn" interface and burn the first slideshow ("Part 1") to CD or DVD.
5. Create a new disc project (“New” button), switch to the “Edit” view and load it into the second slideshow (“Part 2”).
6. Switch to the "Burn" interface and burn the second slideshow to CD or DVD.
7. Repeat the last two steps for each separately saved slideshow.

Case 2: If a long slideshow doesn’t fit onto a disc.
In this case, the slideshow has to be split into two or more parts that will be burned separately onto disc.

1. Switch back to the "Edit" view and place the playback marker to the position at which you wish to divide the slideshow. In the "Edit" menu, select "Cut -> Separate slideshow".
2. All passages behind the playback marker will be removed from the overly long slideshow and made into a separate slideshow. Both slideshows can be accessed via the "Select slideshow for editing" menu in the Arranger. Save both of them separately to your hard disk (“Slideshow > Manage movies > Export slideshow file” menu option, for example, as “Part 1” and “Part 2”).
3. Remove one of the two slideshows (for example, "Part 2") from the disc project ("Manage slideshows -> Remove from project" menu option).
4. Switch to the "Burn" interface and burn the first slideshow ("Part 1") to CD or DVD.
5. Create a new disc project (“New” button), switch to the “Edit” view and load it into the second slideshow (“Part 2”).

6. Switch to the "Burn" interface and burn the second slideshow to CD or DVD.

Edit DVD menus with MAGIX Photo & Graphic Designer 7

Besides the option of editing the menu template directly in the preview, menu templates may also be exported as a Photoshop file (*.psd) and edited in MAGIX Photo & Graphic Designer 7. This provides complete control over the appearance of your menu including complex text effects and the design of highlights.

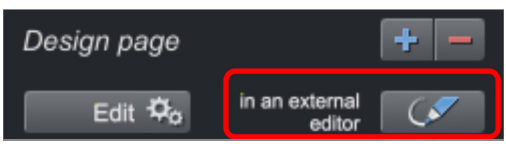
Export menu

The transfer of the menu templates to the graphics program takes place in one of two ways:

If a complex, longer edit is required or if you have created a menu without a template, then use the PSD import/export function in the menu editing functions.

Next, open the PSD file in the graphics program of your choice.

For smaller changes, you can also shorten this process: click the button "In external editor" in the "Disc options" on "Design page".



A temporary PSD file will be added and opened in the program that has been selected in the program settings as the menu editor. After editing has been completed and saved in this external program, the temporary PSD file will be imported again and the menu page will be updated immediately.

Menu text with external menu editing

Menu elements are transferred as a bitmap during PSD export as well as during import of the edited PSD. This also applies to the text displayed in the menu.

This text may also normally be changed in the "Menu entry properties" dialog. The menu text are adjusted if movies or chapters are added or removed.

The PSD contains these texts as a bitmap and cannot be changed. During importing, the bitmaps replace the original text entries. By the way, this is maintained, and the font will only be set to a size of 0 so that texts are not displayed in duplicate; the menu will therefore look identical after external editing.

It is important that no more movies or chapters are added to the menu. Otherwise the preview images, that have also changed along with the menu structure will no longer match the bitmap text, since the bitmap text will not match the changed references in the menu structure!

An example

A chapter with two entries is present. Entry 1 is named "travel preparations". Entry 2 is named "arrival". A chapter named "the trip" is going to be added between chapter 1 and chapter 2. The second chapter now becomes chapter 3 and moves to the next menu page.

Normal text behavior: The second entry (now with preview image for the newly inserted chapter) receives the new title "the trip". The next menu page features chapter 3 as the first entry with the name "the trip".

Text after external menu editing: The second entry will feature the title "arrival" (as a bitmap, as a component of the button), but the preview image will feature the new chapter "the trip"! The next menu page now features the preview image for chapter 3 (formerly chapter 2, "arrival"), this is now called "travel preparations"! The name is a component of the button as a bitmap for the first menu entry on the page, and this is "travel preparations" on the first menu page. Completely out of order!

If the number of menu entries displayed is increased, this results from copying the layer groups in the PSD (see below). Of course, the rendered text layers are also copied into the layer groups, which results in incorrect text again.

The best way to proceed is to edit the text entries at the very end, since changes normally will not follow at this point. If changes are required nevertheless, then proceed as follows:

1. Restore the "correct" chapters or movie names by resetting the font size in the dialog "Menu entry properties" to the default value. Two texts will be displayed; the incorrect bitmap and the correct one.
2. Export the menu template as a PSD.
3. Delete the incorrect bitmap object in the corresponding layer and re-import the PSD.

Of course, the menu text may also be added from the start via an external graphics editing program only (in order to take advantage of the additional options provided in this case). Delete the corresponding bitmap objects in the PSD immediately after export and replace these with your own text objects.

Structure of a PSD file

MAGIX PhotoStory on DVD MX produces a PSD file during export that contains a layer for each object of the menu entry. This uses a naming scheme that enables assignment of the objects in the file to their contents. Individual layers feature mathematical signs that indicate their function. This naming scheme is similar to that featured in Adobe Premiere and which is only expanded occasionally in MAGIX PhotoStory on DVD MX to describe additional mechanisms.)

This is how these mathematical characters are used:

Characters for layer groups

(+-) or (+)	Play button/start film
(++)	Chapter menu button
(+>)	Next page
(+<)	Previous page
(+^)	Root menu button (jump back from chapter menu)
(+*)	Menu title:
(^^)	Layer group is ignored

Characters fro individual layers

(-)	Layer contains text
(=1)	Layer contains a bitmap with a highlight of the menu element.
(%)	Preview image/thumbnail from the movie to be referenced Bitmap information will be ignored during import and only the size and position will be exported.

Edit externally

Step 2: Edit menu in MAGIX Photo & Graphic Designer 7: The created PSD file will now be loaded in the external applications.

Editing a menu for 3 to 5 movies

Once the PSD file has been loaded in MAGIX Photo & Graphic Designer 7, the pages & layers gallery will open. Each layer of the PSD file will be created with the contained objects via the corresponding Photo & Graphic Designer layers. The layer groups are represented by the names of the individual Photo & Graphic Designer layers, with PSD layer names separated by backslashes (\).

Find the layers of the group, which you would like to duplicate. In the example, this refers to the 4 layers on the movie button ad two layers of the chapter menu button. You will have to work a little to ensure visual assignment of the objects to the work area, since the program does not select the corresponding objects when a layer is selected, and conversely it doesn't select the layer when the work area with objects is selected. Open a layer in the pages & layers gallery and select the contained object. The selection is displayed in the work space.

Clicking "duplicate" copies the 6 layers individually with the corresponding objects in the pages & layers gallery. The created layers will always be placed at the top position, so it makes most sense to copy the existing layers from the lower level to the top. Otherwise, the correct order of the new layers may be restored using drag & drop.

Next, select all of the button's objects while holding the "Shift" key to move them to a new position. Normally, the frames and chapter menu objects behind the highlight layers also need to be selected and dragged. Multi-selection in the object gallery is not possible since the objects are in different layers, and the program will prevent you from selecting them together.

These steps must be repeated for each additional button.

Finally, the changes must be saved as a PSD file. Select "Export" in the "File" menu to do this ("Save as..." does not allow this).

Add new font to text

In MAGIX Photo & Graphic Designer 7, activate the text tool after loading the PSD file, and write the desired text next to the movie button.

Next, localize the existing text layer for the individual movie buttons (page & layer gallery, see above). Drag and drop the text object from the background into the desired layer and delete the previous text object ("Del" key or "Delete" in the pages & layers gallery). Since naming takes place in the surrounding layer and the objects in program themselves don't have names, you don't have to rename anything.

Repeat this process for every movie button and "Export" the result.

Adjust background and buttons

In this case, MAGIX Photo & Graphic Designer 7 features a workflow similar to creating new texts.

For example, when the menu template is open, drag and drop two graphics for navigation buttons into the existing PSD. Two new layers will appear in the menu template with two new graphics objects. Drag these into the layer with the bitmap graphics to be replaced. Renaming them is unnecessary, since the surrounding layers take care of this.

Localize, scale, and move as follows: Create graphics for your new menu, e.g. for "Prev" and "Next" buttons, by dragging them into the open PSD. This includes a total of 4 layers, two button graphics, and two highlights. The highlight layers must be renamed and scaled and placed on the screen using the mouse. Move the layers into the "(+>) next button" or "(+<) prev button" layer set using drag & drop.

Play back menu in MAGIX PhotoStory on DVD MX

After editing, a PSD file is created, which is imported into MAGIX PhotoStory on DVD MX again and must then be assigned to a menu page as a template.

If access takes place via "Edit externally" see above (view page 160), this is done automatically during saving and closing of the graphics program. Otherwise, use the button "Import PSD" to do this.

This imports and converts the PSD (saved to an automatically generated folder in the folder Content\DVD\Layouts, with TPL files and the generated bitmap files).

Create DVD menus without a template

It is recommended that an existing menu template is adjusted first with a graphics program. This exercise will help you learn about the functions and structure of a DVD menu as a PSD file to create menus without using any templates.

You can create PSD files without templates if the following is observed.

- MAGIX PhotoStory on DVD MX can only use bitmap layers from the menu PSD file. Text layers are read as a bitmap (graphic) so that MAGIX PhotoStory on DVD MX cannot make any changes to the text. Layer effects, etc. cannot be read by MAGIX PhotoStory on DVD MX. For this reason, all layers featuring additional features in the graphics program need to be reduced/combined to bitmap level.
- The correct naming of layers is very important! MAGIX PhotoStory on DVD MX assigns the layers and layer groups to the menu items via their names, which makes their correctness important. The characters added in front (view page 160) of the layer names should therefore be observed.

A correct menu PSD contains the following elements:

- background
- menu title
- x movie buttons with preview image, frame bitmap, text for menu, text for numbering, highlight
- one chapter menu button per movie button with bitmap and highlight
- 3 navigation buttons: in front, in the back, and the root menu

Background: The background utilizes all layers from the PSD file from the very back to the foremost "usable" layer groups. All of the layers up until this are combined via alpha layering. If the appearance of the background in the graphics and in MAGIX PhotoStory on DVD MX is different, then this step may also be made in the graphics program. In Photoshop, all associated layers would be combined with the background layer.

Menu titles: In the next step, the layers of the menu title are added and combined into a single layer group. This must feature a name that begins with "(+*)".

Besides the text layer, additional layers such as text background, shadows, etc. may be present. All layers are unified as a single layer via alpha layering.

Film buttons: Layers for film buttons are each combined as a layer group that features the prefix "(+-)" or "(+)" at the beginning of its name. The layers themselves have different functions that are kept together via this naming prefix.

Preview image: The name of the layer for the preview image begins with "(%)". In this case, MAGIX PhotoStory on DVD MX only reads the position and size of the layer and uses this range to generate the preview image. In case multiple preview images are present, their right corners will be combined during importing.

Text layer: This includes text layers beginning with "(-)". "(-) index text" serves as an identifier for the naming, all other text layers will bear the name of the button label.

Highlight layer: The highlight layer is the top of the layer groups. Its name begins with "(=1)". This should contain a highlight version (e.g. altered color) of the frame bitmap.

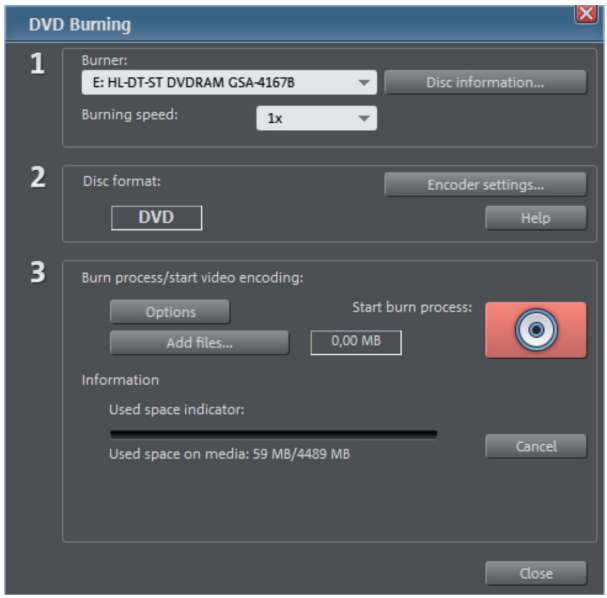
All other layers will be combined into a frame bitmap.

Chapter menu buttons: The last portion features the layer groups for the chapter menus and navigation buttons. These are named variously ("(++)" or "(+>)","(+>)", and "(+^)"), by they feature the same principle the structure. All highlight layers (beginning with "(=1)") become the highlight bitmap; all other layers become the buttons bitmap via alpha layering.

The sequence of the layer groups from the PSD file is basically not considered by MAGIX PhotoStory on DVD MX. Characterization in the program takes place in the order outlined here, even if the associated layer groups in are saved in a different order in the PSD file.

An exception is formed by movie and chapter menu buttons: arrangement in MAGIX PhotoStory on DVD MX takes place in the sequence featured by the PSD file. The first chapter menu button detected belongs to the detected movie button, the second to the second movie button, and so on.

Burn dialog for DVD player



Here you can select your burner, the type of disc, the encoder settings. For video CDs it is MPEG-1, for Mini DVDs, Super Video CDs and DVD, use MPEG-2. Mini-HD DVD and Blu-ray disc uses MPEG-2, and higher bitrates are employed in order to reach the higher HD resolutions.

Proceed as follows to burn a disc:

- **Set up burner and burn speed**: If multiple burners are installed, you may select which device you wish to use in this menu.
- **Encoder settings**: Use the "Encoder" button to access the selection dialog to specify settings for the MPEG encoder (memory requirements, quality, and duration of the MPEG conversion). "Advanced settings" accesses a dialog featuring additional options. You can adjust all the fine settings for the MPEG encoder here.
- **Burning disc/starting video encoding**: The button "**Burn disc**" starts the disc burning process. Every time you burn and every time a simulation is carried out, the disc project is encoded. Please note that the MPEG file is not deleted from the hard disk after the burn process has finished. Depending on the length of the project, encoding and burning may take some time. The time required can be seen in the dialog.

Creating an ISO image

The simplest way to create an ISO image is to select "Image recorder" under "Burner". When starting the "Burning process", you have to specify a name for the image file you wish to create.

Options

Simulate first: If you are not sure about the write speed or memory requirements of the selected disc, you can simulate the write process before burning.

Activate buffer underrun protection: Many burners support techniques that prevent the much-feared "buffer underrun". Use this option to activate this protective feature and burn your files at higher speeds without risking making a coaster out of your blank disc.

Completely format DVD/CD-RW media: This option reformats the RW media and deletes all existing file material.

Shut down computer after burning: Activate this option to automatically turn off the computer after encoding and burning has been completed. You could, for instance, start the encoding and burning process in the evening, and you don't have to wait for the process to finish to switch off your computer.

Burn standard video DVD onto same disc: You can use this option with a WMV HD disc to burn an additional normal DVD video. This ensures that your discs can also be played back on standalone DVD players. See Multi disc (view page 250).

Activate the burner's defect management option: If a certain section of the disc is defective, then this will be recognized by the burner and labeled as such. No content will be saved there as a result.

Check data after burning disc: The finished disc will be checked for any mistakes after burning.

CD/DVD title: This is the title of the DVD as it will appear on the PC. The disc project name is displayed here by default.

Encoder settings

Use the "Encoder settings..." button to access the selection dialog to specify the properties of the MPEG encoder (memory requirements, quality, and duration of the MPEG conversion)

Preset: Here you will find useful presets for the selected disc type. Here are some of the presets for a DVD:

Longplay DVD Video	DVD with extra-long playing time. The bit rate is reduced, which compromises image quality.
Longplay music DVD	DVD with extra-long playing time for music. The bit rate for the soundtrack remains at the highest quality level.
Standard DVD	Normal DVD
Widescreen DVD	Normal DVD in 16:9 format

Note: For all settings, you can choose between NTSC (USA and Japan) (Europe).

Bitrate: Bitrate determines the size on the disk that the finished video will take up. The greater the bit rate, the larger the file, and the shorter the maximum playing time of the movie that fits on a disc.

Adjust bit rate: The expected file size of the finished video is estimated, depending on the set bit rate. If the movie does not fit onto the disc, the bit rate is corrected accordingly.

Quality: Specifies the quality of the encoding process. The higher the quality, the better the finished video will look; however, encoding will take considerably longer.

Smart Rendering: With Smart Rendering you can significantly reduce the encoding effort for MPEG files. During the production of MPEG files, only those parts of the movie that were changed in the program are re-encoded. Please note: The MPEG files contained in the movie **must** have the same format, i.e. the bit rates (variable or constant), audio formats, image resolutions and video formats must match.

Anti-interlace filter: Activate this option only for playback on a TV screen, where it reduces horizontal flickering around fine details.

Calculate video effects on GPU: To accelerate exporting, you can let video effects be calculated on the graphics card. At this time this applies to brightness, gamma, contrast, color, saturation, image size, cropping and position effects as well as various fades and mixes. Please note that external effect plugins and elaborate artistic effects must be processed on the CPU and for this reason using this function will not yield any speed advantage.

Note: This function is specifically optimized for NVIDIA graphics cards. You can, however, experience acceleration with other types of graphics cards, too.

3D mode: If you have 3D material in your project which has been edited with Stereo3D, you can select here in which mode it should be burned to disc here. 3D is switched off by default.

To return to the standard settings, press the **Reset** button.

Via **"Advanced"** you can reach the "Advanced settings" dialog. Here you can make changes to all MPEG encoder settings. Read the \ "MPEG-1/2 encoder-settings" appendix (view page 214) and "MPEG-4 encoder settings" (view page 218) in the PDF manual or program help.

Burn WMV HD

WMV HD (Windows Media High Definition Disc) is a type of disc optimized for playback of slideshows on PC. The slideshow(s) are converted in a high-resolution format into the Windows Media 9 format and a menu is added, like with DVDs. You must have Windows Media Player 9 or higher installed on your PC.

Video encoding will be preset for HDTV resolution (1280 x 720, also known as "720p"). To select different resolutions, click on the button “Encoder settings” and in “Presets” choose the following:

- Standard PAL (720x576) or NTSC (720 x 480)
- Standard PC resolutions (1024 x 768 or 1280 x 1024)
- HDTV 720p (1280x720) or 1080i (1920x1080)

Burn JPEG disc

The **JPEG disc** is a special case. No video file is created to be burned, but rather every photo in the disc project is exported individually with effects and burned to CD or DVD. Many modern DVD players can play JPEG files directly.

If a project contains several slideshows, a subfolder will be created for each one, and the corresponding images will be placed into each one.
This means that there are no menus, no sound, no animated effects or transitions – although it does offer the best possible quality available for playback on TV.

Create webDVD

Here you can create an online presentation which can be uploaded to MAGIX Online Album and opened there. To do this, you must first register on MAGIX Online Album.

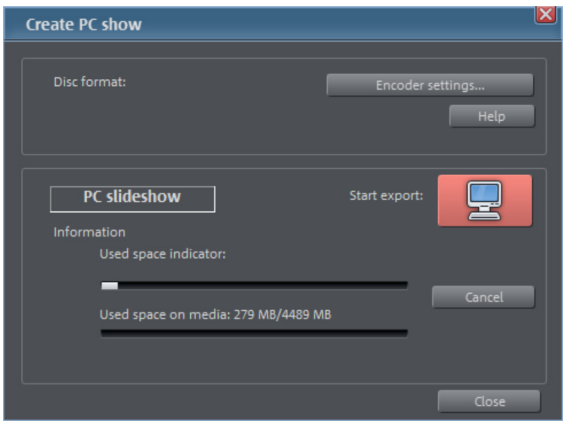
First you have to create and save the online presentation on your computer, after which it can be uploaded. Indicate a location to save the file. Usually the suggested folder needs no alteration.

Create PC show

Press this button to create a presentation optimized for your PC in the WMA format.

First, enter a path where the slideshow will be located and then click "OK".

Settings



Configure basic settings for the PC show.

Start export: The PC show is created and the mixdown carried out. In the timeline you are able to see how long this process will take. You can stop the encoding process by clicking "Cancel".

Encoder settings

Presets: Select a PC show in the desired resolution from the list. If you make changes to the presets the name will change to "User defined", you can save this template and give it its own name.

Use this button to delete/save your user-defined settings. Please note that you cannot delete settings that come with MAGIX PhotoStory on DVD MX.

Bit rate quality: The bit rate determines the memory requirements of the completed video. The greater the bit rate, the larger the file, and the shorter the maximum playing time of the PC show.

Adjust bit rate: The expected file size of the finished video is estimated, depending on the set bit rate. If the movie does not fit onto the disc, the bit rate is corrected accordingly.

Calculate effects on your GPU: To accelerate the export, video effects can be calculated on the graphics card. At this time this applies to brightness, gamma, contrast, color, saturation, image size, cropping and position effects as well as various fades and mixes. Please note that external effect plugins and elaborate artistic effects must be processed on the CPU and for this reason using this function will not yield any speed advantage.

Note: This function is specifically optimized for NVIDIA graphics cards. You can, however, experience acceleration with other types of graphics cards, too.

Info: This field displays all information regarding the PC show again in bundled form, i.e. file type, resolution, frames plus the CBR (constant bit rate) for video and audio.

To return to the standard settings, press the **Reset** button.

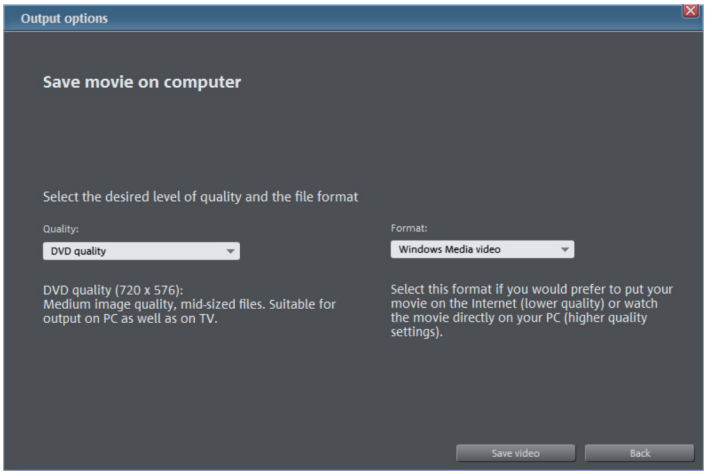
The "Advanced" button opens the "Advanced settings" dialog. Here you can adjust all the settings of the Windows Media encoder. Details about the "MPEG encoder settings (view page 214)" are available in the PDF manual and in the help file.

Export

The button "Export" opens the Export Wizard, which features the most important export settings for your slideshow. Note that you will only export the current slideshow. Other slideshows in the project and the disc menu are not included.

Output as video file

This option recalculates a slideshow including all objects, effects settings, fades, texts, and other features into a video file and saves it on your computer.

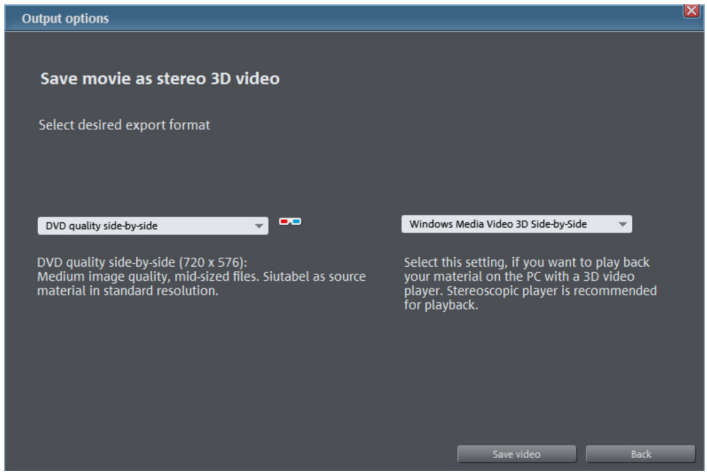


Select a certain quality (e.g. DVD quality) and a file format (e.g. MPEG -4). The dialog provides further information about the properties of your selection.

Note: Only the most familiar and most often used formats are listed as options. "File -> Export slideshow (view page 186)" features many additional file formats.

Export as 3D video (deluxe version only)

This option recalculates a slideshow including all objects, effects settings, fades, texts, and other features into a 3D video file and saves it on your computer.



- Firstly in the dialog you select a quality. It only makes sense to use HD quality if you have high resolution material in your project.
- Next you choose a 3D mode. Anaglyph videos are suitable for viewing on a standard television or monitor and can be viewed with red-cyan glasses. Side-by-Side videos deliver a considerably better 3D experience, it does however, require special monitors, TV sets and playback devices.
- Next, click "Save video".

Note: You will always export Windows Media Video 3D files using this dialog. You can use other file formats via "File -> Export movie".

See the "Stereo 3D" chapter (view page 118) for more information on 3D video.

Output for a mobile device

This window lets you transfer your finished video to external devices. In this case, MAGIX PhotoStory on DVD MX offers settings for a number of playback devices, including tablets, PCs, smartphones or camcorders.

- Select a device from the list.

The menu is divided into various device classes to make choosing your device easier. The last three selections are saved as favorites in the top part of the device list if you have more than one device or want to present your movies to your friends.

If your device is listed here, you don't have to worry about the format settings, as the necessary settings of the export dialog are automatically customized to the target device. Simply select your device and click "OK".

Tip (only for Android phones): Normally your device will be correctly recognized as "Mass storage device) by your computer. If this is not the case then change the connection detection settings of the device before connecting to your computer, so you can select the correct connection type (e.g. "Mass storage drive") For more details on these consult your device manual.

User-defined:

If your device does not appear in the list after the online update, you can set up the export settings manually. No need to worry though; you only have to do it once, since these settings can be saved as a preset.

Read the **instruction manual of your mobile device** to find out which file format is required for this. If your device supports multiple formats, then you can experiment with the formats to get the best results.

Specify the file format by opening the target device's menu and selecting "**User-defined** -> **Video** -> **...Format**". If you then click on "Export", you arrive at the Export dialog of the selected file format where you can set all the advanced settings.

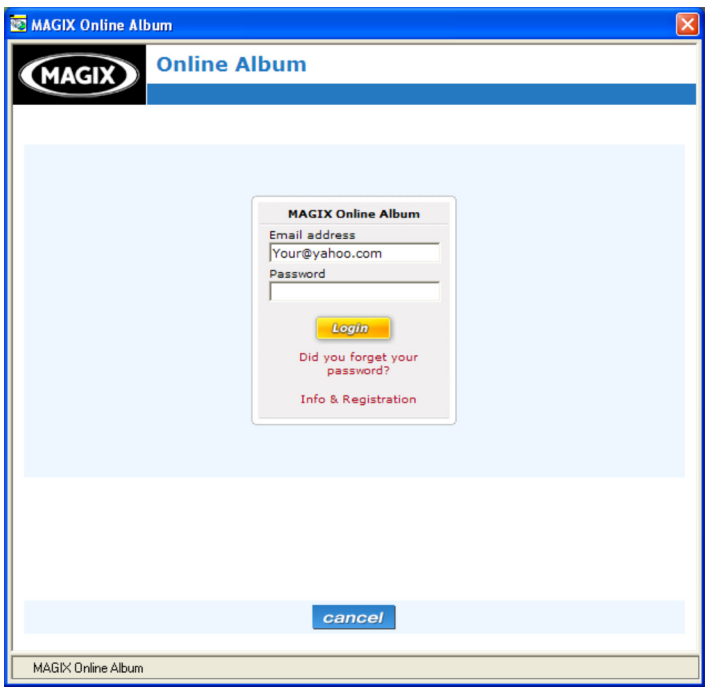
For details on these settings, please consult your device manual. Explanations for the file format's settings can be found in the **Overview of the device classes** chapter, for the special settings of the export dialogs see "Export movie" in the "File menu" chapter.

Tip: If the format settings for your device are not accessible, then you can try out a different device from the same manufacturer and, using it as a template, make adjustments accordingly.

If you find settings you like, we recommend saving these as a preset for further use.

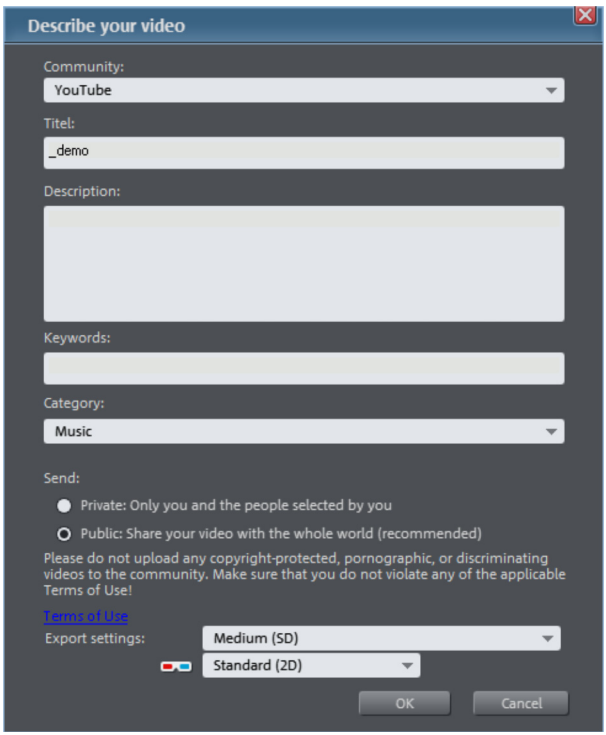
Present on MAGIX Online Album

This accesses the MAGIX Online Album login dialog directly. Next, present your photos together with videos and music in custom-designed online albums.



Publish online

This option uploads your movie directly to YouTube, flickr or Facebook (deluxe version only). YouTube® is likely the most famous portal for homemade clips.



Community: Here you can select the platform: YouTube, flickr or Facebook.

Title: Here you can enter the slideshow title.

Description: Here you can enter a short description of your slideshow to inform other members of the community.

Category: Pick a category for your slideshow.

Publish: Decide whether your slideshow should be "Private", meaning only for you and persons authorized by you, or freely accessible, meaning "Public".

Export settings: Set various quality settings.

Send by email

With this option a compressed file in Windows™ Media Format will be created. Your mail program is activated simultaneously and the created file of an opened message is added as an attachment. Thus, any arrangement can be compressed without intermediate steps and sent immediately.

Archive project onto hard disk

Saves the project file with all included slideshows, files and DVD menus to a folder.

Archive project onto disc

Saves the project file onto a disc with all included slideshows, files and DVD menus.

Export as Media Player

To be able to play back your film in an Internet browser or to embed it into web pages, you can export it as an HTML-enabled media player.

Select the desired quality and click on "Save video". In the target folder, an HTM and an MP4 file will be created for further use.

Order prints, gifts & photo books

Transfers photos from your slideshow directly to MAGIX Online Print Service, where you can order high quality photo books and exclusive photo gifts at reduced prices.

Menus

In this chapter you'll find the full menu list of your copy of MAGIX PhotoStory on DVD MX and the corresponding functions.

File Menu

New

Project

This menu item creates a new MAGIX PhotoStory on DVD MX project. You can also open this feature via the "New project" button above the video monitor.

Keyboard shortcut: Shift + N

Slideshow

This option creates a new slideshow. The default name for a new slideshow can be specified in the program settings.

Keyboard shortcut: Ctrl + Alt + N

Open

This menu item loads a previously saved MAGIX PhotoStory on DVD MX project. Please note that the related files must be accessible.

MAGIX PhotoStory on DVD MX searches for the used sounds, pictures and videos under the path to where you last saved the disc project.

Keyboard shortcut: Ctrl + O

Open automatically saved project...

This option loads an automatically created slideshow backup. This type of automatic backup gets the file extension MV_ (underscore). This command is only intended for use in emergencies, e.g. if you unintentionally saved your change and wish to return to the previous version of the project.

Keyboard shortcut: Alt + O

Manage slideshow

Remove from project

This option removes the current slideshow from the project.

Keyboard shortcut: Shift + F4

Rename

You can enter a name for the current slideshow here.

Attach

This function attaches an opened slideshow to another one. This attaches it to the end of the opened slideshow and automatically applies the original slideshow's settings.

Attach an opened slideshow: An already opened slideshow can be selected from the list and attached. This option is only available if your project contains multiple slideshows.

Attach the last edited slideshow: All of the slideshows that were last edited are listed. This option is only available if other slideshows have been previously edited.

Load and attach a slideshow: Click a folder and a dialog will open to select a slideshow. Navigate like in Windows Explorer to the folder that contains the desired slideshow. Double clicking on a slideshow file (*.mvm) opens it and attaches it to the current slideshow.

Import slideshow file

Use this option to load a slideshow into your project.

Please note that all related photos must be accessible. MAGIX PhotoStory on DVD MX searches for the used sounds, pictures, and videos from the path to where you last saved the slideshow.

Keyboard shortcut: Ctrl + O

Export slideshow file

A dialog opens where you can specify the path and name of the slideshow. The slideshow can then be imported again into other projects.

Note: The slideshow file (*.mvm) contains all information about the used media files, cuts, effects, and titles, but not the picture and sound material itself. This is found in the recorded or imported media files that remain unchanged during the entire MAGIX PhotoStory on DVD MX editing process. To save the full slideshow into a dedicated directory, for instance to continue editing on a different PC, please use the function "Copy movie and media into directory".

Wizards

This menu entry contains different aids for different tasks in MAGIX PhotoStory on DVD MX.

Slideshow wizard

This wizard makes creating great slideshows (view page 26) child's play. You will be led through the necessary steps automatically.

Divide slideshow

You can divide up your whole slideshow into several individual shows using this Wizard. This can be particularly useful if you want to add photos from vacation to one slideshow, and photos of the arrival and departure to another. This allows you to customize the material and makes navigating through the DVD menu easier.

There are three available options:

Group photos according to date: The photos are divided into sections according to when they were taken (e.g. days or weeks). A slideshow is made up of one or more sections depending on the minimum number of photos specified for a slideshow.

Create slideshow according to number of images: Enter the number photos a slideshow should contain.

Separate the photos onto the specified number of slideshows: Enter how many slideshows should be created. Note that there will only be a few images in a slideshow if there are lots of them.

Slideshow Maker

This is where to open Slideshow Maker.

Soundtrack Maker

This command opens the MAGIX Soundtrack Maker (view page 129).

Adjust music to section

If you have edited your background music with Tempo and beat recognition and a musical tempo was provided, then you can adjust the cuts to change automatically in time with the beat using this command. All hard cuts (edits without transitions) will be moved to occur on the musical quarter notes.

Keyboard shortcut: Ctrl + Shift + U

Search empty sections

With these Wizards you can spot gaps in your slideshows quickly.

Go to next empty range: Moves the view to the next range that doesn't contain image or film material.

Keyboard shortcut: Shift + 5

Go to previous empty range: Moves the view to the previous range that doesn't contain image or film material.

Keyboard shortcut: Shift + 4

Clean-up Wizard

The Clean-Up Wizard helps you delete projects from your hard drive, including all movies and the audio, video and picture files used in them. Use this function to free up disk space for future projects.

Caution: If the files you used in the slideshow have also been used in other slideshows (like trailers, opening music, etc.), then you should make backup copies of these files beforehand.

Keyboard shortcut: Shift + I

There are two available options:

Delete certain files: Choose this option if you would like to select certain files for deletion. You can select the desired files in the "File selection" dialog. In the next step, the Clean-up Wizard automatically look for other files which belong to your selection. Using this method, you can delete an entire slideshow with all of its accompanying media, help, project, and backup files. Before they are deleted, you receive relevant information in a dialog and a confirmation request.

Find and deleted unnecessary files: Choose this option if you want to find unnecessary files or free up some space on your hard drive. The Clean-Up Wizard then automatically looks for extraneous files created during use of MAGIX PhotoStory on DVD MX. Before they are deleted, you receive relevant information in a dialog and a confirmation request.

Export

Opens the Output options (view page 173).

Save

The current disc project is saved with the name displayed in the project window. If you have not yet specified a name for your project, a dialog will open wherein MAGIX PhotoStory on DVD MX asks you to do so.

Keyboard shortcut: Ctrl + Alt + S

Save as...

A dialog opens where you can specify the path and name of the video, under which it is to be saved.

Keyboard shortcut: Shift + S

Import from camera

Opens the import dialog (view page 41) for digital cameras, so you can insert images into MAGIX PhotoStory on DVD MX directly from your memory card.

Import from computer

A dialog for importing media files opens. Choose between "Search" and "Automatic import".

Search: A dialog for selecting media files opens. The selected files will be imported into the current slideshow after "Open" is clicked.

Note: Media files can be dragged and dropped into the slideshow from the Media Pool much more conveniently.

Import automatically: To copy photos from a digital camera to the computer, the accompanying MAGIX Photo Manager program will open. As soon as the program is ready, connect the digital camera with the computer. The imported photos can be conveniently dragged from the Media pool into the slideshow. Please also read the MAGIX Photo Manager help file by pressing "F1" from within the program.

Note: Files from your digital camera are easier to import if you use the camera import tool.

Database

Switches to the Media Pool (view page 59) database view.

Scan image

Scan photo externally...

Opens MAGIX Photo & Graphic Designer 7 for scanning photos. This function is required if there are problems when scanning with MAGIX PhotoStory on DVD MX.

Keyboard shortcut: Alt + Shift + A

Twain scanner

Select source

The TWAIN interface connects MAGIX PhotoStory on DVD MX with nearly all modern scanners or digital cameras. To scan, please proceed as follows:

1. Install the TWAIN software for your device.
2. Restart you PC.
3. Start MAGIX PhotoStory on DVD MX.
4. Click on "File > Twain Scanner/Camera > Select source" if the scanner works with 32 bit software.

5. Select your device from the dialog. This step is only required once and only has to be repeated if you want to change the device.

Scan with

The scan window of your scan software will appear. Specify the resolution and color depth in this window.

When the scan is complete, the TWAIN software should close automatically and MAGIX PhotoStory on DVD MX should now contain the newly created image file. It's possible that the TWAIN window remains open. You can then scan multiple pictures one after the other.

Recording

Select between Audio recording (view page 132) and Single image recording.

Travel route animation

Opens the dialog to create travel route animations. (view page 60)

Export

This provides all export formats supported by MAGIX PhotoStory on DVD MX that aren't covered by burning. Refer to "Exporting" for more information.

Video as AVI

When exporting to AVI video you can set and configure the size and frame rate of the AVI video and the compression codec for audio (audio compression) and video (Codec). Please also observe the general information on AVI video formats (view page 243) in the PDF manual.

Keyboard shortcut: Alt + B

Video as MPEG video

MPEG is short for "Motion Picture Experts Group" and is a very powerful compression format for audio and video files.

MAGIX PhotoStory on DVD MX is equipped with the high performance Ligos GoMotion encoder. In the MPEG export dialog you can fine tune the options for the MPEG encoder. MPEG files are created when you burn a CD/DVD. Usually standardized MPEG-1/-2 is used for creating (S)VCDs or DVDs. However, many DVD players can also process (S)VCDs with non-standard bit rates, so there is room for experimenting here.

Simply export your movie to MPEG via the File menu. When burning the disc the program recognizes that the file is already available and uses this instead.

Details on the MPEG encoder settings can be found in the MPEG Encoder help!

Shortcut	MPEG-2 (DVD)	Alt + H
	MPEG-2 (miniDVD)	Alt + I
	MPEG-2(Super Video CD)	Alt + J
	MPEG-1 (Video CD)	Alt + K

Video as MAGIX video

Exports the project in MAGIX video format.

This format is used for video recording by MAGIX PhotoStory on DVD MX video software and is optimized for digitally editing high quality video material.

Keyboard shortcut: Alt + D

Video as Quicktime Movie

Exports the project in QuickTime Movie format. This format enables streaming playback of audio or video files via the Internet.

Note: The Apple QuickTime Library must be installed for QuickTime files (*.mov).

Keyboard shortcut: Alt+E

Video as MotionJPEG AVI

Opens the export dialog for AVI video in Motion JPEG format. This format is supported by digital picture frames, for example.

Windows Media Export

Exports the arrangement in Window Media format. This audio/video format is optimized for the Internet.

You can also use it to archive your movies in high-quality when compared to MPEG-sized files. Windows Media is an alternative if you would like to view your movies primarily on your PC. Pocket PC and Smartphone movies are also created with the Windows Media Format.

Depending on your requirements you can choose between different profiles. If the Windows Media Encoder 9 is installed (which can be downloaded free of charge from Microsoft) you can edit the profiles or add your own.

Two pass: The video is compressed in 2 stages in order to export highly-compressed videos for the Internet optimally.

Slideshow: Lets you create slideshows with audio soundtracks. The created files are very small despite their high image quality, since only still images (no transitions or movement effects) are displayed.

In the dialog you can add the author name, copyright details, and a description.

Keyboard shortcut: Alt + F

Advanced settings

Here you'll find more on the advanced settings in the Windows Media Video Export section. You can enter precise details for the format you wish to create. Profiles from the system or from another file can also be imported.

Video as MPEG-4 video

MPEG-4 is the most advanced video format available at the moment. Unlike others, it can provide high-quality pictures at the same file size.

Behind MPEG-4, you'll find a highly complex "academic" standard that operates and is supported variably according to make. Discussing the differences and parameters in detail goes beyond the scope of this manual. For this reason, indications, along with the operational manual of your device, are given that should help create executable MPEG-4 files. For more experimental users, the complete setup options of the MPEG-4 codec can be found behind the "Advanced settings..." buttons.

Video/Audio: The MPEG-4 format and the advanced AVC format are also available but have, as of yet, only been used in a few devices.
MPEG-4 video can be combined with AAC or AMR sound, the latter mostly in conjunction with mobile phones.

The combination of AVC/AAC is more seldom applicable (Apple iPod Video). AVC featuring AMR will almost never occur.

Multiplexer: Here you can find teh so-called container formats and special options for Apple iPod and Sony PSP. MPEG-4 is usually used as an **output format**, mobile phones mostly use 3GP.

Video as animated GIF

The video will be exported as an animated GIF file (also called "AniGIF"). This file format is also supported by a lot of older mobiles.

Single frame as BMP file

Exports the image located at the playback marker and displayed in the video monitor as a bitmap (*.BMP) file.

Keyboard shortcut: Alt + M

Single frame as JPG

Exports the image located at the playback marker and displayed in the video monitor as a JPEG (*.JPG) file.

Keyboard shortcut: Alt + N

Export as Media Player

To be able to play back your film in an Internet browser or to embed it into web pages, you can export it as an HTML-enabled media player.

Select the desired quality and click on "Save video". In the target folder, an HTM and an MP4 file will be created for further use.

Video

Generates a media player with multimedia slideshow as a video file including all applied effects and background music.

Select the desired quality and click on "Save video". In target folder, an HTM and an MP4 file will be created for further use.

Media:

Generates a media player with all photos, videos and music individually without effects.

Select the desired quality and click on "Save video". In target folder, an HTM and an MP4 file will be created for further use.

Internet

This is a list of menu entries regarding all of the services that are available directly from within MAGIX PhotoStory on DVD MX.

Catooh – the Online Content Library

If your project is missing pictures, videos, DVD menus, sounds, or samples, then you should have a look at the huge selection available at Catooh. There you'll be able to buy media in excellent quality for low prices: DVD menus, Slideshow Maker styles, decorative elements, 3D power effects, 3D transition series, MAGIX Soundpools, songs, ringtones... Perfectly suited to all MAGIX photo, video, and music projects.

Import media from web...

Opens the MAGIX PhotoStory on DVD MX Media Browser (view page 68)

MAGIX Screenshare

This function makes it possible for you to offer assistance to other users directly via the Internet, or to get help from others. To do this, you have to register MAGIX PhotoStory on DVD MX first.

Hint: To inform the screensharing guests of exactly what is being shown, it is also a good idea to telephone or chat simultaneously.

Register as host for a screen transfer

1. If you want to start a screenshare instance yourself, then you have to register as a host first. To do this, open the menu "Share" and then select "Screen transfer as host...".
2. In the dialog you can enter a name for the screen session. Your user account name is used here by default.
3. Now click on "Start session". A small window will now open in the bottom right corner which displays the status of your screen session. A number will also be displayed (session ID) which serves as a password for your guests.
4. Start the screenshare instance.

Register as guest of a screen session

1. You have to register as a guest to view a screensharing instance. To do this, open the menu "Share" and then select "Screen transfer as guest...".
2. Enter the password you received from your host (8-digit session ID).
3. Now click on "Start session". A window will open displaying a smaller version of your host's screen.

MAGIX Online Album

Impress your friends and family in minutes with your own photos and videos as your own your personal photo & video website: http://first_name.last_name.magix.net.

MAGIX Online Album lets you put your favorite photos online directly from within MAGIX products like MAGIX PhotoStory on DVD MX, or mobile phones with built-in cameras, and then send a link to them to your friends via email. All photos are immediately available from anywhere in the world on a professionally-designed photo website, in well-organized photo galleries, as full-screen slideshows, or in the form of a personal photo e-card.

- Personalized album website in many designs,
- unique Internet address (URL),
- upload your pictures directly from a camera phone, send the link, and share the picture with other camera phone users,
- full-screen online slideshows with fade effects and music,
- send individual designer e-cards with your own photos,
- Share your photos with friends, including address management and password protection for private albums.

MAGIX Online Album is available in three versions, of which the smallest (the FREE album with 500 MB webspace for your photos) is entirely free.

The larger versions (CLASSIC or PREMIUM) are available for a monthly charge, but also come with many handy features, such as a faster website, 2 GB or 5 GB storage space, more website designs or access by mobile phone/PDA. More information about prices and features is available at http://www.magix-photos.com http://www.magix-photos.com.

Upload images from slideshow

1. Select still image and place the start marker at the position of the image which you want to upload from your slideshow.
2. Then, select "Share -> MAGIX Online Album -> **Load image from slideshows**" in the menu.

In order to upload photos to your **MAGIX Online Album**, simply log in using your email address. Naturally, access is protected via your personal password. If you still don't have a password, click on "**Register now**".

Using your **MAGIX Online Media Manager**, you can quickly manage your photo website, upload photos and music, create new albums, add designs and text, and much more.

Using "**Upload movie as video**" you can present your slideshow with fades, music, and all other effects as a playable video in the Internet.

1. Design your slideshow.
2. Save your movies, and then under "MAGIX Online Album" select "Share -> Upload slideshow as video".

Now you just have to follow the instructions on the screen to finish the upload process.

Upload slideshow as audio: With this option, you can present only the audio of your slideshow in your online album.

1. Design your slideshow.
2. Save your movies, and then under "MAGIX Online Album" select "Share -> Upload audio from slideshow".

Now you just have to follow the instructions on the screen to finish the upload process.

The following options are also available:

Send e-cards and photo emails

Send your photos as unique ecards with great designs or as a photo email to your friends and family.

Order photo prints and gifts

Order paper prints or great photo gifts from MAGIX Online Album and have them delivered directly to your home, or pick them up from a photo lab in your area. Delivery time is usually just 2 - 3 days. More about MAGIX Online Print Service

You can also read the FAQ (frequently asked questions) on the Internet. http://rdir.magix.net/?page=SLGASOGBT63Z

Send slideshow as email (deluxe version)

With this option selected in the File menu a compressed file in Windows™ Media Format will be created. Your email program will be simultaneously activated and the file created will be added as an attachment of a new message. Any slideshow can be compressed without intermediate steps and sent as an email immediately.

Keyboard shortcut: Shift + U

Youtube/Flickr/Facebook

This is the direct connection used to upload your slideshows as videos from MAGIX PhotoStory on DVD MX to Youtube, Flickr or Facebook.

Upload current slideshow as video

Loads current slideshow to the selected platform or community Enter the data for video into the fields provided, so that the search function for this portal can also find this video.

MAGIX PhotoStory on DVD MX partially uses the H.264 format for this, which is a component of the MPEG-4 codec. Because Flash directly supports this format and most communities and portals use it already, the slideshow doesn't have to be rendered again on each server. This avoids loss of quality.

When HD material is uploaded, a resolution of 720p is used for the HD format.

Upload all selected media in Media Pool

Uploads the media selected in the Media Pool to the corresponding portal or the selective community.

Transfer to external device

Most devices require certain format settings (file format, resolution, bit rate, picture repeat rate, etc.) to be able to play a video.

The menu is divided into various device classes (mobile phones, organizers and PDAs, games consoles, and video players) to make choosing your device easier. The last three selections are saved as favorites in the top part of the device list if you have more than one device or want to present your movies to your friends.

If your device is listed here, you won't have to worry about the format settings, because the necessary settings of the Export dialog are automatically customized to the target device. Simply select your device and click "OK".

Export slideshow

This command opens the dialog for exporting finished video or its soundtrack to analog or digital VCR/camcorder or various mobile devices such as smartphones and tablets.

Please read the chapter "Output audio/video (view page 176)".

Keyboard shortcut: H

Burn to CD or DVD

Opens the Burn dialog (view page 145) to burn the current slideshow.

Backup copy

Files must be saved to be able to be easily retrieved in case of a hard drive crash or some other error.

Copy project and media into folder...

The project and all of the files it contains are saved together in one folder. Use this function to transfer an entire project to another computer.

Keyboard shortcut: Shift + Q

Copy slideshow and media into folder...

The slideshow and all necessary files can be saved in any folder.

Keyboard shortcut: Shift + R

Burn project and media

Use this option to burn the project with all relevant slideshows and their files to CD or DVD.

Even larger projects can be burned straight to disc. The project, if necessary, will be split up and burned automatically to multiple discs. A restore program which is burned to the first disc of this type of backup, guarantees easy re-recording of the backup.

Burn slideshow and media to CD/DVD

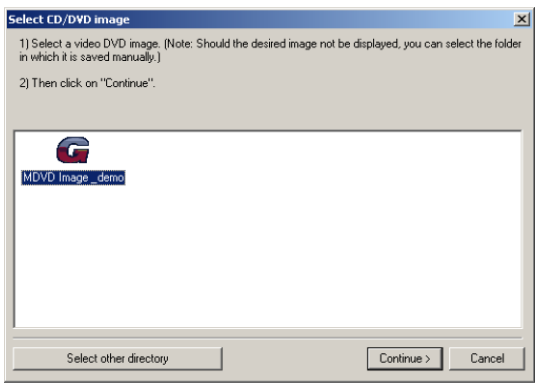
Use this option to burn the slideshow and all relevant files to CD or DVD.

Even larger slideshows can be burned straight to disc. If necessary, the slideshow will be split up and burned automatically to multiple discs. A restore program which is burned to the first disc of this type of backup guarantees easy re-recording of the backup.

Keyboard shortcut: Alt + Shift + R

Burn project (image) again

All necessary files, menus, and encoded video files needed to burn a CD/DVD will be temporarily stored on your hard drive. After your disc is burned, these are **not** automatically deleted. Use "Burn disc project (image) again" enables you to burn as many discs as you would like without having to encode the files again.



In the dialog, choose the image you want. All necessary files are then transferred to the MAGIX Speed burnR.

Tip: For more information on using MAGIX Speed burnR, read the help file of the program.

Additional programs

This menu item provides direct access to the tools and programs included.

Settings

Slideshow...

Opens the settings for the current slideshow.

Project...

Project name:Give your disc project a name. This name will be used as a preset title for the disc you are going to burn. The slideshows will also be given this name.

Use 16:9 aspect ratio for current disc project: This option lets you edit the slideshow from the very beginning in 16:9 format. The video monitor's size changes to correspond to this.

Cut new images to fit screen automatically: Images that do not correspond to the slideshow's ratio are adjusted automatically. The zoom factor is set in such a way that there are no black bars to the left or right or top to bottom.

Program...

This menu item opens the program settings (view page 138).

Keyboard shortcut: Y

Slideshow effect settings

This menu item accesses the slideshow's effects settings (view page 71). The settings made here apply to the entire slideshow.

Keyboard shortcut: M

Reset Program Settings to Default...

Use this function to reset all program settings (view page 138) you made in MAGIX PhotoStory on DVD MX to their original settings.

Exit

Closes MAGIX PhotoStory on DVD MX.

Keyboard shortcut: Alt + F4

Edit Menu

Undo

You can undo the last steps you made. This means that you can easily try out critical operations. If the result does not meet your expectations, then you can simply "undo" it and return to the initial status.

Keyboard shortcut: Ctrl + Z

Redo

This command cancels a previous "Undo" command.

Keyboard shortcut: Ctrl + Y

Cut

This function deletes the selected photo (or the selected object in the Timeline mode) and copies it to the clipboard. You can then use the "Paste" command to copy it into any slideshow.

Keyboard shortcut: Ctrl + X

Copy

This command copies the selected scenes (or the selected object in Timeline mode) to the clipboard. From there you can paste it into any other slideshow using the "Paste" command.

Keyboard shortcut: Ctrl + C

Insert
This command inserts the clipboard material (photo or object) at the current position of the start marker.

Keyboard shortcut: Ctrl + V

Delete

Delete
This command cancels the selected photo (or the selected object in Timeline mode).

Keyboard shortcut: Del

Exchange

Replaces the selected object with an object selected in the Media Pool. Length adjustment moves the objects following it correspondingly.

If photo objects are removed/exchanged, then the display duration will remain.

Split object

This command cuts a scene at the point where the start marker is positioned. This way, two free-standing objects are created.

You can isolate a part of an object in order to delete it:

1. Place the start marker where you'd like to have it by left clicking in the timeline.
2. Select the video object by clicking on it and click on the cut button.
3. Place the start marker at the end of the part you wish to remove and click on the cut button again.
4. Select the middle object that was created and press the "DEL" key.
5. Pull the object at the back to the front; it should automatically snap into place. All subsequent objects will be moved along in unison so that no gaps appear.

You can also use this function to apply effects to a certain part of an object only.

Keyboard shortcut: T

Select all objects

All objects in the arrangement will be selected.

Keyboard Shortcut: Ctrl + A

Menu effects

Image optimization

This places the image material in the right light, sharpens shaky recordings, and corrects tint, all conveniently from the Media Pool (view page 55).

TV picture

This submenu item performs various adjustments for the TV picture. Besides interlace and anti-flickering filters, you will find the option to adjust the image to the real proportions of the TV picture. A special algorithm ensures an optimal ratio between image size and image borders (anti-cropping).

Interpolation for interlace material

Choose this option to remove interlace artifacts from your video image. If, for instance, you extract freeze frames from a video, ridge structures appear in sequences which feature movement.

Anti-flicker filter

Choose this option for still pictures with detailed structures and high contrast. This filter reduces line flickering during TV playback.

Border cropping adjustment:

Select this option if the edges are cropped during playback on your television. Values stored in "Slideshow effects settings (view page 111)" will be applied.

Distortion

Image material can be transformed in various artistic ways; a broad palette of effects is available to you for this in the Media Pool.

View & animation

These effects allow properties like section, image size, position, and rotation of image and video objects to be specified in the Media Pool.

Stereo3D

This accesses the program's Stereo 3D functionality. Please read the corresponding chapter "Stereo 3D". (view page 118)

Note: This function is available only in the deluxe version.

Design

Add different decorations, speech bubbles, and animations to photos directly in the Media Pool to add life to your slideshow.

Rotate 90°

Rotates the image 90° clockwise/counterclockwise.

Shortcuts: Ctrl + Alt + F to the right

Ctrl + Alt + G to the left

Automatically cut to fit monitor

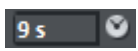
This option enables photos to be adjusted to suit the current format. In this case, the picture is zoomed in to such an extent that the upper and lower parts of the photo are hidden and the annoying black bars to the sides disappear. The consequence of course is that portions of the image will be missing.

Keyboard shortcut: Shift + A

Display duration...

Enter the display duration for the current photo here in [Minutes]:[Seconds]:[Frames].

Tip: The display duration for photos may also be set in the Media Pool. To do so, click on the desired photo and select the "Effects" tab in the Media Pool.



Apply to area between the start and end markers: Applies the settings to all photos located between the start and end markers.

Apply to all: The settings are applied to every photo in the current slideshow. The settings will not be applied to photos in additional slideshows in the project.

Edit image (external)...

The command "Edit image (external)" enables photos to be edited with the MAGIX Photo & Graphic Designer 7 graphics program. The command appears in the context menu for every image. The context menu opens by clicking the small FX button at the top edge of the photo box.A dialog window of the MAGIX Photo & Graphic Designer 7 wizard appears. This is a clever little helper that recommends several typical photo tasks from which you can simply select the specific task, mark with a cross, and then send your picture to MAGIX Photo & Graphic Designer 7. MAGIX Photo & Graphic Designer 7 opens and loads the selected picture.In MAGIX Photo & Graphic Designer 7 you are supplied with the necessary instructions for editing your photos. Have fun experimenting!

After editing has been completed, the modified picture will be used instead of the original material.

Retouch redeye, select clippings, apply creative distortions ("flowing color"), enhance Internet photos, and much more. The integrated **MAGIX Photo & Graphic Designer 7** makes it possible. Even unsuccessful recordings can be fit for presentation in the blink of an eye. Read more on this in the MAGIX Photo & Graphic Designer 7 help.

Create panorama image...

With only a single click you can create a panorama (view page 127) in MAGIX PhotoStory on DVD MX. You can do this fully automatic or manually; try experimenting with it.

Show/Hide

Hides or shows the selected object.

Fades

Here you can find all fades from MAGIX PhotoStory on DVD MX, sorted into various categories. One click on a category displays all of the fades that are contained.

To load a fade, drag it with a held-down mouse key onto the object, into which you would like to fade.

You can find additional information in the "Fades" (view page 87) section.

Picture-in-picture collages

These work similarly to normal picture-in-picture effects, but more objects are used. Depending on the collage, arrange the selected objects one after the other and drag the collage onto the first object.

Background design

Select a color, a picture, or any video on your hard disk, which you would like to serve as the background for the photo displayed. This function is especially useful when photos have black bars around them, or if they are reduced in size.

Reset background

Resets the background for the currently selected object.

Video stabilization

Opens the video stabilizer dialog to help you correct shaky footage. Read more on this topic in "Video stabilization".

Keyboard shortcut: Shift + K

Title Editor

 *Title Editor*

Keyboard shortcut: Ctrl + T

Save as title template...

If you have designed special titles, these can be saved as a template. Titles will be saved in the titles folder in MAGIX PhotoStory on DVD MX to make them easier to find in the Media Pool (under "Titles).

Keyboard shortcut: Ctrl + Shift + E

Convert to 3D title...

The title object will now be turned into a MAGIX 3D Maker object. If you have also installed MAGIX 3D Maker, the program will open for you to work on the text.

Fade in date as title

MAGIX PhotoStory on DVD MX can add a time or date ("timecode") to the picture material. To add a timecode, right click the image and choose the "Fade in date as title" option from the context menu.

If a photo file is involved (i.e. a photo created with a digital camera that contains EXIF data), then the date the picture was taken will be added. If a different kind of file is involved, the creation date will be used as the timecode. Next, the title editor opens for you to customize the entry.

Sound optimization

The "Audio cleaning (More information can be found in the section "Sound optimization" on page 101)" dialog will open to help you remove noise.

Keyboard shortcut: Shift + W

Adjust music to section

If you have edited your background music with Tempo and beat recognition and a musical tempo was provided, then you can adjust the cuts to change automatically in time with the beat using this command. All hard cuts (edits without transitions) will be moved to occur on the musical quarter notes.

Keyboard shortcut: Ctrl + Shift + U

Audio editing (external)

Transfers the highlighted audio object to MAGIX Music Editor for further editing.

Effects settings

Apply to all objects: Copies the current effects settings to all objects in the Arranger. Use the dialog to specify which settings should be copied.

Apply to all following objects: Copies the current effects settings to all of the following objects in the Arranger. Use the dialog to specify which settings should be copied.

Copy: Copies the current settings to a new object. Use the dialog to select which settings should be copied.

Keyboard shortcut: Alt + Shift + K

Insert: Inserts the current settings on a new object. Use the dialog to select which settings should be copied.

Keyboard shortcut: Alt + Shift + U

Reset: This "effect" is actually no effect. In fact it disables all applied effects.

Keyboard shortcut: Alt + Shift + C

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.

More information is available under Object properties.

Keyboard shortcut: Ctrl + E

"Share" menu

Here you will find many options for for quickly and easily publishing your data from the program on the web. Additionally, data transfer into other programs for specialized editing, if you have such programs installed, is enabled.

Tasks menu

In this menu you will find direct solution and short video explanations on how to perform tasks in different topics. Not only will you find step-by-step instructions for sound and pictures here, but you also find quick access to many of functions.

If you click on an entry with a camera symbol, then you will open a short tutorial video which displays a solution. Entries without camera symbols offer a solution to the problem immediately.

Help Menu

Help

This command is available for almost every feature of the program, and it opens the "Help" file for the corresponding topic. Use this command to get help on any of MAGIX PhotoStory on DVD MX's functions.

Keyboard shortcut: F1

Content

Use the command "Content" in the "Help" menu to open the start page of the help file. You can read through the help file step-by-step and jump to specific sections via the tree structure on the right hand side.

magix.info

Do you have questions, need help, or are looking for expert tips and tutorial videos on your MAGIX product? At magix.info you will find answers and solutions as well as workshops and a comprehensive user forum for software and multimedia queries.

You can access magix.info online at www.magix.info

Start introductory video

The introductory video shows you how all the most important features work. Specific topics are explained in detail in additional tutorial videos.

Keyboard shortcut: Ctrl + F1

To play the introductory video you may have to insert the program CD.

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 function of the button. These information boxes can be switched on or off with this option.

Keyboard shortcut: Ctrl + Shift + F1

MAGIX Screenshare

This function makes it possible for you to offer assistance to other users directly via the Internet, or to get help from others. To do this, you have to register MAGIX PhotoStory on DVD MX first.

Hint: To inform the screensharing guests of exactly what is being shown, it is also a good idea to telephone or chat simultaneously.

Register as host for a screen transfer

1. If you want to start a screenshare instance yourself, then you have to register as a host first. To do this, open the menu "Share" and then select "Screen transfer as host...".
2. In the dialog you can enter a name for the screen session. Your user account name is used here by default.
3. Now click on "Start session". A small window will now open in the bottom right corner which displays the status of your screen session. A number will also be displayed (session ID) which serves as a password for your guests.
4. Start the screenshare instance.

Register as guest of a screen session

1. You have to register as a guest to view a screensharing instance. To do this, open the menu "Share" and then select "Screen transfer as guest...".
2. Enter the password you received from your host (8-digit session ID).
3. Now click on "Start session". A window will open displaying a smaller version of your host's screen.

Register online

This option opens the MAGIX homepage for online registration where you can register yourself as a MAGIX user.

Registration grants you access to the MAGIX support website http://support.magix.net (see support) where various program updates and help programs can be downloaded.

With the registration form supplied (start menu under "MAGIX PhotoStory on DVD MX -> Service and support -> Register") you can register via post or fax. Simply print it out, fill it in, and send it off!

Keyboard shortcut: F12

Update online

This option connects directly to the MAGIX online update page where you can get the latest version of your program.

Keyboard shortcut: Ctrl + Shift + F12

Product information...

Opens the MAGIX PhotoStory on DVD MX website.

About MAGIX PhotoStory on DVD MX

Displays copyright info and version number of MAGIX PhotoStory on DVD MX.

Activate additional functions

You can activate encoders/decoders for various file formats as required.

Why does it have to be "activated"?

To import (decode) or export (encode) certain video and audio formats, you will require a specific codec. MAGIX PhotoStory on DVD MX will ask you if you want to activate the codec as soon as you need it. The integration of decoders and encoders from third parties into programs usually costs money. These codecs are integrated via additional, voluntary activation in MAGIX programs which, according to usage and degree of prevalence, can be free or fee-based for special high-quality codecs. This way, MAGIX can continue to offer you good value for your money.

Free activation (MPEG 2 codec)

To be able to use the MPEG-2 codec, you will have to first activate it for free.

Activation can be done online via telephone or via post/fax. The quickest and easiest way to order an activation code is via the Internet.

Order activation code online

Click on "Order online..." (Field 1). Your Internet browser will open. Once you have registered, the activation code will be sent to the email address you supplied upon registration.

If your computer has no Internet access, you have the following options for activation:

Order activation code in MAGIX Service Center

Use this option to conduct activation from a different computer which has Internet access.

Order activation code via telephone

The telephone number and necessary details you will need to call to receive activation by telephone are displayed here.

Order activation code via post/fax

After clicking on "Order via post/fax" (field 2), your user code will appear. This automatically assigns your personal activation code to your PC. Click on "Continue to order form" to transfer your user code automatically to the post/fax form. Now send the completed form as a print out to the address/fax no. mentioned. Your activation code will be sent to you in just a few days via post or fax. It can also be sent by mail if an email address is state d.

Enter activation code

After receiving your personal activation code, you can use the activation dialog for the corresponding file format to start exporting for the respective format. if you receive the activation code via email, then copy it into the input field in the dialog and click "Activate...".

Fee-based activation (MPEG-4)

The MPEG-4 codec requires a fee-based activation. This can be done online, via telephone, or via post/fax. The quickest and easiest way to order an activation code is via the Internet. Ordering the activation code takes just a few minutes via email. Ordering your activation code via post/fax requires a few days for processing.

Order activation code online

Click on "Order online..." (Field 1). The web browser will open for you to register MAGIX PhotoStory on DVD MX first (if you have not already done so). You will then be forwarded to a website where you can request the corresponding activation.

If your computer has no Internet access, then you have the following options for activation:

Order activation code in MAGIX Service Center

Use this option to conduct activation from a different computer which has Internet access.

Order activation code via post/fax

After clicking on "Order via post/fax" (field 2) your user code will appear. This automatically assigns your personal activation code to your PC. Click on "Continue to order form" to transfer your user code automatically to the post/fax form. Now send the completed form as a printout to the address/fax no. mentioned.

Once payment has been processed successfully, your activation code will be sent to you in the post/via fax in just a few days. Optionally, it can also be sent by email if an email address is stated.

Enter activation code
After receiving your personal activation code use the export or burn function to reopen the activation dialog for the corresponding file format. Type or copy the activation code into the input field in the dialog and click on **"Activate..."**.

Activation problems

Problem: The entered code is incorrect (telephone activation)

Make sure your entry is correct; in most cases a typo is to blame.
If the code is entered correctly, dial the number of our Call Center. Our support staff will help you personally.

The MAGIX website won't open

Check your Internet connection; you may have to use manual dial-up.

The form for ordering via post/fax won't open

- Check that an adequate text editing program is installed and activated (for example, MS Word).

I still haven't received an email with the activation code

- Check that your inbox isn't full.
- Have a look in your spam folder.

You can always send questions via email to our support whenever you like. Please have the following information at hand so that we can assist you as quickly and as specifically as possible.

- Complete product name
- Exact version number (to be found in the about box in the "About" menu item of the "Help" menu)
- Encoder/Decoder name

- Your user code (accessible via the "Activate via post/fax" dialog)

Problem: I have installed MAGIX PhotoStory on DVD MX on a new computer, installed a new hard drive in my old computer (sound card, memory...), or installed it multiple times on the same computer. My activation code is no longer accepted!

If the program cannot be activated again after it has been activated multiple times, please contact the MAGIX customer service (view page 8).

Problems and solutions

File will not load

- If files cannot be loaded, this means that the format is either no supported by MAGIX PhotoStory on DVD MX and the corresponding codec must first be activated. Read the sections "Import and export formats" and "Activate additional functions".
- In case of AVI files, it is possible that the necessary codec in not installed. For this, read the section "General tips for AVI videos" (view page 243) in the "Digital video and data carriers" supplement of the PDF manual or help (F1 key).

Tip: To find out which codecs are used in the movie file, different help programs are available. An example for this is "GSpot" or "AVIcodec".

Choppy or uneven playback

If playback isn't smooth, don't worry: the final result will be exported without any glitches. Don't forget that MAGIX PhotoStory on DVD MX calculates all effects in real-time. This lets you see for yourself what sort of influence each of the effects has on your slideshow.

Some effects make even today's advanced computers work hard for their money. A steady, continuous video stream is simply not possible on your PC. The final product free from previous choppiness is only available after rendering it to DVD or exporting it. For that very reason, you should first arrange the slideshow in its raw version without effects. The preview generally delivers a steady picture, allowing you to work quickly and quietly.

Activation problems

Problem: The entered code is incorrect (telephone activation)

Make sure your entry is correct; in most cases a typo is to blame.
If the code is entered correctly, dial the number of our Call Center. Our support staff will help you personally.

The MAGIX website won't open

Check your Internet connection; you may have to use manual dial-up.

The form for ordering via post/fax won't open

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You can always send questions via email to our support whenever you like. Please have the following information at hand so that we can assist you as quickly and as specifically as possible.

- Complete product name
- Exact version number (to be found in the about box in the "About" menu item of the "Help" menu)
- Encoder/Decoder name
- Your user code (accessible via the "Activate via post/fax" dialog)

Problem: I have installed MAGIX PhotoStory on DVD MX on a new computer, installed a new hard drive in my old computer (sound card, memory...), or installed it multiple times on the same computer. My activation code is no longer accepted!

If the program cannot be activated again after it has been activated multiple times, please contact the MAGIX customer service (view page 8).

Encoder

Appendix: MPEG Encoder Settings

General settings

MPEG type: Set the output type of the created MPEG file. You can adjust the encoder settings freely (to export your video in the corresponding format, for instance) for further use in other programs or on your own website.

If you open the encoder from a burn dialog, or intend to use the exported material for VCDs, SVCDs or DVDs, then select the corresponding option. This will adjust the settings of the encoder according to the standards required for the corresponding discs to be played in a compatible player.

Video format: Automatically specifies the video format, aspect ratio, and frame rate (see video settings (view page 215)). You can choose between PAL or NTSC.

Interlace mode: The movie is encoded interlaced (i.e. in two half-screens, so-called fields). This is essential for later playback on TV screens. If you want to view the exported movie on your PC only and like a "cinemascope" view, you can also encode by frame (progressively). Some video projectors also support playback of progressively encoded image material. See Interlace (view page 238).

Bit rate: The bit rate determines the memory requirement by the completed video. The amount of data available can be used differently for different display modes. 20 MB can be 4 seconds of DVD video, or 5 minutes of Internet streaming at the thumbnail size. The quality of an MPEG video is measured by the width of the created data stream, i.e. the bit rate. This is the amount of transmitted data per time unit and is indicated in kBit/s or bit per second.

Quality: Determines the quality of the encoding process, or the quality of the movement (view page 235) to be more precise. The higher the quality, the better the finished video will look, but encoding will take considerably longer. The preset value "10" is a good compromise between speed and quality.

Smart Rendering: Smart Rendering can considerably reduce the encoding/processing strain of MPEG files. The production of MPEG files re-encodes only those parts of the movie that were changed in the program (e.g. by video cleaning or effects). Please note: The MPEG files contained in the movie **must** have the same format, i.e. the bit rates (variable or constant), audio formats, image resolutions, and video formats must match.

Quick, GOP-precise copying: This special Smart Rendering mode enables MPEG material to be transferred without having to encode it for the target medium, thereby greatly increasing the encoding speed. The video material cannot appear to have been altered in any way; only hard cuts (without fades) are permitted. These won't be executed precisely to the frame, but will rather take place at the next GOP borders. For this reason, cuts should be set somewhat more generously.

To burn DVDs in original 5.1 Surround Sound (Dolby Digital Audio) without having to re-encode, this option has to be activated.

Allows you to rip the necessary settings from an existing MPEG file. This can be useful if you want to merge MPEG files together without re-rendering via Smart Rendering.

Video settings

Frame rate: PAL requires 25 frames/sec, NTSC 29.97 frames/sec. Please note: encoding NTSC material as PAL or vice versa may be possible; however, it will result in jittery images.

Aspect ratio: Lets you set the image side or pixel ratio. With MPEG 2 the image format is displayed as image ratio; correspondingly there is 1:1 (square screen, not recommended), 4:3 (regular video) an 2.21:1 (cinemascope). This applies irrespectively of the selected video format.

With MPEG 1 the pixel format is specified instead. There is 1:1, CIR601 (corresponds to regular video) for 625 lines = PAL and 525 lines = NTSC and the same in 16:9. When selecting the output format Video CD the pixel format is automatically adjusted to the selected video format. Use with caution, even if you only want to export MPEG 1.

The option **Auto** is set as default. Here you can adjust the Movie settings accordingly.

Resolution: Width and height of the video corresponds with the settings in the export dialog.

GOP structure: Here you can change the settings of the GOP (view page 237) sequence, i.e. the number of P frames per I frame within a GOP. Please note that the total length of the GOP must not exceed 15 frames, which corresponds to the default setting (1 I frame + 4 P frames + 5*2 B frames = 15 frames).

However, you can reduce the length of the GOP sequence (while compromising the image quality at the same bit rate). This speeds up the encoding process considerably as the motion estimation while encoding P and B frames requires high CPU performance. The speed of decoding, i.e. playback, is also increased.

If I frame is set to 1, each frame is an I frame. If the value is set larger, the setting describes the total length of the GOP.

Auto GOP: Closed GOPs do not contain relations to frames from subsequent GOPs. MPEGs where all GOPs are closed, make MPEG editing easier as the I frames only can be edited alone if the GOP is closed. Auto GOP closes GOPs at scene changes, whereby two different and complex procedures ("fast" and "VSCD") are used.

Bit rate mode

In "constant bit rate" mode a bit rate that constantly remains the same is used. This option should be used for Video CDs, as it is only required here. With a constant bit rate the full power of MPEG compression can not be used properly as bandwidth for non-moving scenes is lost.

"Variable bit rate" mode attempts to adjust the available storage space to the requirements of the video you want to encode. The actual bit rate fluctuates around a mean value. During calm sections of the video it may drop to a minimum value, if there are movements in the scene it may rise to the maximum value. There are two different regulation processes (mode 1 and mode 128).

Advanced video settings

MPEG profile and level: The MPEG-2 standard defines so-called "profiles" and "levels". For creating SVCDs and DVDs you can use "Main profile and Main level".

The high profile adds additional properties to the data stream like the option to display an image at a reduced resolution for restricted transmission quality (SNR-scalable profile), or locally scaled, for instance an HDTV data stream on a standard TV set. The 4:2:2 profile is used if the image data is to be encoded for alternative chroma scanning. However, these profiles are supported by very few encoders, and mainly only for professional use.

These levels define the restrictions to the image resolution and the maximum data rate. Low level can only reach a reduced resolution (352x2888 = CIF); high level, or High 1440, enables encoding in HDTV format.

Estimate movement: These parameters are controlled via the quality controller (see General Settings).

Other

Noise sensitivity: This factor defines how sensitive the encoder will react to noise in the source material. If the source material only contains a little noise (digital recordings, computer animations, or material already de-noised by video cleaning), then you don't have to change the default value 4, or you can even reduce to increase the quality further. However, if you want to encode noisy material, then too low of a factor will considerably increase the encoding time at the cost of quality. For an unedited analog video you can increase the factor to 8-14.

Noise reduction (click on noise sensitivity): A noise filter is used with adjustable settings from 1-31.

Advanced parameters

Additional expert settings are available in the tree to the right of the window. These should only be changed by experienced users. They have been optimized for general applications to such an extent that changes are only necessary in exceptional cases.

Audio settings

Audio type: You can use MPEG Layer 1, 2 or PCM (WAV) audio. Select "No audio" in the export dialog.

Sample rate: You can set a sample rate of 32, 44.1 or 48 kHz for the audio track. VCDs and SVCDs require 44.1 kHz, DVDs require 48 kHz.

To reduce the size of audio data it is recommended to lower the bit rate instead of the sample rate.

Mode: You can use Mono, Stereo, Joint Stereo or Dual Channel.

Bit rate: Here you can set the bitrate of the audio signal. The higher the bit rate, the better the playback quality. VCD requires 224 kBit/s, and for SVCDs and DVDs select a value between 384 kBit/s and 448 kBit/s.

MPEG-4 encoder settings

Behind MPEG-4, you'll find a highly complex "academic" standard that operates and is supported variably according to make.

***Tip**: First, check if there is a suitable preset in the export dialog for your purposes. Before changes are made in "Advanced settings", the effects and interplay of the different parameters should be familiar.*

The "**Advanced settings**" are divided into "Video", "Audio", and "Multiplexer".

Under "**Video**", there is a choice between "MPEG-4 (view page 219)" (H.263) and "AVC/H.264 (view page 224)". Depending on the purpose of application of the material to be exported, both of these encoder settings can be selected for compressing the video material. It is important in this case to know how the material will be played back.

Under "Audio", there is a choice between "AMR (view page 231)" and "AC (view page 232)". The AMR format is more suitable for mobile devices that don't necessarily require high playback quality. ACC is more flexible, on the other hand, but it is supported by fewer mobile devices.

For material that is not exactly specific, encoder qualities recommend AVC image and AAC sound, since these encoders are equally suitable for all source material.

The option "Export as website" also creates an HTML page in an integrated Flash player that can play back the video created. Read the topic "Embed Flash videos into your own web site".

MPEG-4

The MPEG-4 (H.263) codec is especially useful for video material with little or only slower movements.

Generic

MPEG-4 preset

Different presets located within the encoder.

(A)SP@L0-L5: (Advanced) Simple Profile in Level 0-5

(Q)CIF (Common Intermediate Format): CIF is a video format produced as soon as 1990 with the video compression format H.261. At that time, the format was used for video telephone conferences.
The "Q" in QCIF stands for "Quarter", and since resolution is halved in terms of height and width compared to CIF, the entire size is only a quarter of CIF.
QCIF was popular with mobile telephone manufacturers, since the resolution of 176 x 144 pixels was sensible for the first affordable SmartPhones (144 x 176).

(Half)D1: D1 corresponds with MPEG-2 DVD. HalfD1 has exactly half of the entire number of pixels, meaning that the pixel number of the height and weight is 2/3 of D1.

720p: Video stream with a resolution of 1280 x 720p (progressive).

Apple iPod: Apple iPod-compatible stream.

Sony PSP: Sony PSP-compatibler stream.

Profile/Level

So that profile and level are conformant with the other settings, pay attention to the minimum and maximum values in the following tables.

Note! In case the settings are not included in this information, problems playing back the encoded videos can lead to problems.

Table 1: The levels of the MPEG-4 simple profile (SP)

Level	Typical visual session size	Max. number of objects	Maximum number objects per type	Max. unique quant. tables	Max. VMV buffer size (MB)
L0	QCIF	1	1 x simple	1	198
L1	QCIF	4	4 x simple	1	198
L2	CIF	4	4 x simple	1	792
L3	CIF	4	4 x simple	1	792

Continuation of table 1

Level	Max. VCV buffer size (MB)	VCV decoder rate (MB/s)	Max. total VBV buffer size (units of 16384 bits)	Max. VOL VBV buffer size (units of 16384 bits)	Max. video packet length (bits)	Max. bitrate (kbit/s)
L0	99	1485	10	10	2048	64
L1	99	1485	10	10	2048	64
L2	396	5940	40	40	4096	128
L3	396	11880	40	40	8192	384

Table 2: The levels of the MPEG-4 advanced simple profile (ASP)

Level	Typical visual session size	Max. number of objects	Max. number per type	Max. unique quant. tables	Max. VMV buffer size (MB)	Max. VCV buffer size (MB)	VCV decoder rate (MB/s)
L0	176x144	1	1x AS or simple	1	297	99	2970
L1	176x144	4	4x AS or simple	1	297	99	2970
L2	352x288	4	4x AS or simple	1	1188	396	5940
L3	352x288	4	4x AS or simple	1	1188	396	11880
L4	352x576	4	4x AS or simple	1	2376	792	23760
L5	720x576	4	4x AS or simple	1	4860	1620	48600

Continuation of table 2

Level	Max. percentage of intra MBs with AC prediction in VCV buffer	Max total VBV buffer size (units of 16384 bits)	Max. VOL VBV buffer size (units of 16384 bits)	Max. video packet length (bits)	Max. bitrate (kbit/s)
L0	100	10	10	2048	128
L1	100	10	10	2048	128
L2	100	40	40	4096	384
L3	100	40	40	4096	768
L4	50	80	80	8192	3000
L5	25	112	112	16384	8000

Picture type

"Picture type" specifies which parts of a frame should be used as the basis for the encoding:

- **Frame**: A frame is a single image from a video sequence, also called a full image.
- **Field**: A half-image, two of which combine to produce a frame. Read more about this explanation regarding "Interlace (view page 238)".

Field order

Note: This parameter is only available if the setting "Field" is selected for "Picture type".

In case of interlaced streams, the half-image sequence is set. Read more about this explanation regarding "Interlace (view page 238)".

Pulldown

Note: This parameter is only available if the setting "Frame" or "MBAFF" (only for AVC/H.264)" is selected for "Picture type".

In normal cases, an image playback rate of 24 (or 23.976) frames per second is use; the NTSC system however requires 30 (or 29.97) frames/s, and there is a special algorithm for converting the video's frame rate. For compilations or test purposes, switch this option to "No". In normal cases, the setting can be set to "Auto".

Slice count

A frame can be divided into multiple slices for encoding. Specify the maximum number of slices are permitted. If set to "0", then the number will be determined automatically.

Bit rate control

The bit rate indicates how much data per second is saved in the video (playback speed). This makes the bit rate the deciding parameter for the video to be encoded.

Mode

- **Constant bit rate**: The constant bit rate should only be used if the device used to play the video supports constant bit rates.

- **Variable bit rate**: The bit rate varies. For faster movements in the video, the bit rate increases, and for still images or slow pans, a lower bit rate is sufficient for creating the video in constant quality.
- **Constant quality**: Similar to the "Variable bit rate" mode, the bit rate varies according to the video material. The quality depends on the selected profile and can be changed.
- **Constant quantizer**: In this mode, a fixed colour quantization is used for the macro blocks. Under Advanced settings, a value between 1 and 32 can be set independent of the respective frame (I-Frame (view page 237), P-Frame, or B-Frame (view page 239)). The higher the value, the stronger the quantization: small values produce qualitatively high-quality images and the data rate increases, and larger values produce a reduction in data, but the quality suffers.

Bit rate (Bits/s)

- In "**Constant bit rate**" mode: Exactly those values entered are applied to be able to calculate the size of the video precisely.
- In "**Variable bit rate**" mode: The values entered here are applied to the video as an average as a guideline. The size of the video to be exported can only be approximated.

Max. rate

This is the maximum bit rate that should be present in the video stream, i.e. maximum number of bits that may be transferred to the decoder.

Note: This option is only available in "Variable bit rate" mode.

VBV buf. size

VBV is the abbreviation for "**V**ideo rate **b**uffer verifier **d**efinition" and the size of the buffer (storage area) that is applied to the encoding.

The larger the buffer is, the better the results will be, but the processing will also take much longer. The smaller the buffer is, the more parallel processing can take place at the same time in RAM.

Pixel aspect ratio

Specifies the page ratio of the individual image points (pixels).

Meaning: Different television norms and the standard pixel ratio. Select a setting and the results are displayed as "X" and "Y".

X/Y: The actual pixel ratio. If under "Meaning" the setting "Custom" is selected, then a custom ratio can be set.

GOP structure

Max key interval

Determines the maximum GOP (view page 237) length. High values mean improved compression. Lower values create stronger security protection and enable improved access to individual frames for processing the video.

B-frames count

The number of B-Frames (view page 239). Several applications, e.g. video conferences, require a setting of "0" for this, i.e. no B-Frames, in order to enable the shortest possible reaction times for transfer.

Scene change detection

If this option is activated the scenes will be detected during encoding, thus allowing you to insert an I frame (view page 237) after a scene change.

Input info

Information about the incoming video stream is displayed here during live recordings.

Statistics

Information about the encoder activity is displayed here during live recordings.

MPEG-4 H.264

The MPEG-4 H.264/AVC codec is suitable for all types of material; however, it requires relatively higher CPU power for later decoding.

In the advanced encoder settings of the AVC encoder the "Generic" options in "Main Settings" are mainly interesting.

The AVC preset and video format can be adjusted here. For instance, if DVD quality is desired you should select "DVD". The video format should be selected specific to the country so that the material can be played on the devices most commonly available in these countries. For instance, you should select PAL for Germany, SECAM for France and NTSC for the US.

MVC: Multiview Video Coding (MVC) is an addition for stereoscopic applications. Activate it in order to export MVC files.

2-pass: The video to be exported will be encoded twice. The first run-through serves to calculate the streaming rate for each section (for video this is per frame). The second run-through is when the actual video is created with the streaming rates that were calculated in the first run-through. The result is improved image quality, but with nearly doubled encoding times.

Smart Render: Smart Rendering significantly reduces encoding times for AVCHD files. When creating AVCHD files, only those portions of the movie are encoded anew which were changed in the program (e. g. with video cleaning or effects). The AVCHD files in the movie **must** have the same format, meaning bit rate (variable or constant), image resolution and format must match.

Note: If your graphics card also supports conversion on the card - hardware acceleration, you will find the option to activate OpenCL, Quick Sync or CUDA, depending on what is supported by your graphics card, under "Export settings > Advanced"..
Ask your graphics card manufacturer whether your graphics card supports hardware acceleration and make sure that all the necessary drivers are installed.

Generic

AVC preset

This is where the actual video stream that will be exported is selected.

- **Baseline**: According to ISO/ICE 11172-1/2 standard
- **CIF**: Corresponds with MPEG-1 VideoCD
- **Main**: Corresponds with ISO/ICE 13818-1/2 standard
- **SVCD**: Corresponds with MPEG-2 Super VideoCD
- **D1**: Corresponds with MPEG-2 DVD
- **High**: HIGH profile 1920x1080i
- **DVD**: DVD video
- **HD DVD**: HD DVD video
- **Blu-ray**: Blu-ray Disc

- **Blu-ray HD**: Blu-ray Disc in high definition
- **Sony PSP**: Sony PSP-compatible format
- **HD 1280 x 720p**: High profile with a resolution 1280x720p (progressive)
- **HD 1440 x 1080i**: High profile with a resolution of 1440 x 1080i (interlaced)
- **Apple iPod**: Apple iPod-compatible stream.

Video format

Specifies where the video to be exported should be. The encoder optimizes video material for the selected mode of playback.

- **Auto**: The format from the MAGIX PhotoStory on DVD MX project.

PAL: **P**hase **A**lternating **L**ine, or **PAL**, is a process for color transmission for analog TV that is primarily used in Europe, but also in Australia, South America, and many African and Asian countries.

- The image repetition rate for PAL is 25 Hz.

NTSC: NTSC stands for "**N**ational **T**elevision **S**ystems **C**ommittee". This is a US institution that defined the first color carrier system for TV which is now used in most of America and some East Asian countries.

- The image repetition rate for NTSC is 29.97 Hz.
- **SECAM**: SECAM is a TV norm in France and eastern Europe for transferring analog color video signal.
- **MAC**: The MAC process (**M**ultiplexed **A**nalogue **C**omponents) involves TV norms developed for satellite TV. They have also been developed for an HDTV standard (HD-MAC).
- **Unspecified**: This setting does not make any special optimization.

Tip: The best results are achieved with the setting "Auto", since this automatically uses the project settings as a basis by MAGIX PhotoStory on DVD MX.

Profiles

Defines which profile is applied in the AVC/H.264 stream.

- **Baseline profile**: The basis of applications with limited computing performance, especially for video conferences or videos on mobile telephones.
- **Main profile**: This profile was originally intended for the broadcast industry and for backup purposes. The process has however retreated somewhat from use, since "High Profile" has been developed for these purposes.
- **High profile**: This profile is used for broadcast and backup applications, and it is also used sometimes in the HDTV industry (**H**igh **D**efinition **T**ele**v**ision). For example, this profile for HD-DVD and Blu-ray Discs.

Level

H.264 defines different levels. The higher the level, the larger the video's bit rate. In this table, you can see the maximum permitted values for the respective level in relation to the selected profile.

Level	Max. macro blocks per seconds	Max. image size in macro blocks	Max. video bit rate (VCL) for baseline and main profile	Max. video bit rate (VCL) for high profile	Examples (Resolution / image rate in Hz)
1	1485	99	64	80	128 x 96/30.9
1.1	3000	396	192	240	176 x 144/30.3
1.2	6000	396	384	480	320 x 240/10
1.3	11880	396	768	960	320 x 240/36
2	11880	396	2 Mbit/s	2.5 Mbit/s	320 x 240/36
2.1	19800	792	4 Mbit/s	5 Mbit/s	352 x 480/30
2.2	20250	1620	4 Mbit/s	5 Mbit/s	352 x 576/25.6
3	40500	1620	10 Mbit/s	12.5 Mbit/s	720 x 480/30
3.1	108000	3600	14 Mbit/s	17.5 Mbit/s	1280 x 720/30
3.2	216000	5120	20 Mbit/s	25 Mbit/s	1280 x 1024/42.2
4	245760	8192	20 Mbit/s	25 Mbit/s	1920 x 1080/30.1 2048 x 1024/30
4.1	245760	8192	50 Mbit/s	62.5 Mbit/s	1920 x 1080/30.1 2048 x 1024/30

4.2	522240	8704	50 Mbit/s	62.5 Mbit/s	1920 x 1080/64 2048 x 1024/60
5	589824	22080	135 Mbit/s	168.75 Mbit/s	1920*1080/72.3 2048 x 1080/67.8 2560 x 1920/30.7
5.1	983040	36864	240 Mbit/s	300 Mbit/s	1920 x 1080/120.5 4096 x 2048/30

The setting "Level auto" specifies the encoder levels automatically, among other things for the resolution of the video format specified under "AVC preset" and the set profile bit rate. If a level is manually set in this case, then other parameter values may not exceed the permitted maximum values.

Picture type

"Picture type" specifies which parts of a frame should be used as the basis for the encoding:

- **Frame**: A frame is a single image from a video sequence, also called a full image.
- **Field**: A half-image, two of which combine to produce a frame. Read more about this explanation regarding "Interlace (view page 238)".
- **MBAFF (macro block adaptive frame field)**: A macro block consists of 16 x 16 pixels. The encoder creates a "frame field" on this basis for encoding.

Field order

Note: This parameter is only available if the setting "Field" is selected for "Picture type".

In case of interlaced streams, the half-image sequence is set. Read more about this explanation regarding "Interlace (view page 238)".

Pulldown

Note: This parameter is only available if the setting "Frame" or "MBAFF" (only for AVC/H.264)" is selected for "Picture type".

In normal cases, an image playback rate of 24 (or 23.976) frames per second is use; the NTSC system however requires 30 (or 29.97) frames/s, and there is a special algorithm for converting the video's frame rate. For compilations or test purposes, switch this option to "No". In normal cases, the setting can be set to "Auto".

Slice count

A frame can be divided into multiple slices for encoding. Specify the maximum number of slices are permitted. If set to "0", then the number will be determined automatically.

Bit rate control

The bit rate indicates how much data per second is saved in the video (playback speed). This makes the bit rate the deciding parameter for the video to be encoded.

Mode

- Constant bit rate: The constant bit rate should only be used if the device used to play the video supports constant bit rates.
- Constant quantizer:
- Variable bit rate: The bit rate varies. For faster movements in the video, the bit rate increases, and for still images or slow pans, a lower bit rate is sufficient for creating the video in constant quality.

Pass

- Single pass: The encoder process takes place without prior analysis. This requires the least amount of time, however quality suffers.
- Multi-pass analysis: The first encoding is carried out at the same time as the analysis for the second encoding is calculated.
- Multi-pass encode: The first encoding is carried out at the same time as the analysis for the second encoding is calculated and updated. This produces the best results, but the process requires the most time.

Bit rate (Bits/s)

- In "**Constant bit rate**" mode: Exactly those values entered are applied to be able to calculate the size of the video precisely.
- In "**Variable bit rate**" mode: The values entered here are applied to the video as an average as a guideline. The size of the video to be exported can only be approximated.

HSS rate

This is the maximum bit rate that should be present in the video stream, i.e. maximum number of bits that may be transferred to the decoder.

Note: This option is only available in "Variable bit rate" mode.

CPB size

This sets the size of the "coded picture buffer“ in bits. This is the buffer where the encoding is carried out. The larger the buffer is, the better the results will be, but the processing will also take much longer.

Aspect ratio

In the film industry, this is an indication of the ratio between width and height of a rectangle, monitor, or screen.

There are 3 different sizes available:

- **Picture Aspect Ratio** (also **D**isplay **A**spect **R**atio, **DAR**)**:** This indicates the desired aspect ratio of the video to be exported. Here are some examples of typical aspect ratios: at home **4:3**, **16:9** (typical for TV sets) or **16:10** (widescreen-flatscreens, widescreen notebooks), **3:2** for 35mm films and photos. In cinemas you mostly find **1.85:1**.
- **Pixel Aspect Ratio (PAR, pixel aspect ratio**: Indicates the aspect ratio of individual pixels. The majority of computer monitors have quadratic pixels (PAR=**1:1**), for analog television monitors (PAL at 4:3) **128:117**.
- **Sample Aspect Ratio (SAR, also Storage Aspect Ratio)**: Aspect ratio of the saved resolution (number of pixels), e.g. 720:576 at PAL. It also calculates picture aspect ratio and pixel aspect ratio: **SAR = DAR / PAR**.

Note: In the standard case, the "Aspect ratio" remains set the way it is. You should only change the settings if the resulting video is exported distorted or stretched or if you need to correct the video because it is in the wrong aspect ratio.

GOP structure

Max GOP length

Determines the maximum GOP (view page 237) length. High values mean improved compression. Lower values create stronger security protection and enable improved access to individual frames for processing the video.

Max b-frames count

The maximum number of b-frames (view page 239). Several cases of application, e.g. video conferences require "no b-frames" in order to achieve the shortest possible reaction times during transfer.

Scene change detection

If this option is activated the scenes will be detected during encoding, thus allowing you to insert an I frame (view page 237) after a scene change.

Input info

Information about the incoming video stream is displayed here during live recordings.

Statistics

Information about the encoder activity is displayed here during live recordings.

AMR

AMR involves a parametric codec with different data rates between 4.75 and 12.2 kbit/s. The 12.2-kbit/s setting roughly corresponds with the GSM-EFR codec in terms of algorithm and audio quality.

This audio format is used by mobile telephones for transferring the conversation and is optimized for encoding conversation (voices). Low bit rates provide compensation for mobile phones in case of transfer errors, i.e. bad reception. Depending on the signal strength, the compression increases or decreases to enable the best possible quality for a conversation. The AMR sound, on the other hand, encodes a fixed sample rate of 8,000 Hz compared to AAC sound.

The advanced AMR audio menu includes the following settings options:

The bit rate can be set between 4.75 and 12.2kbit/s. The higher the bit rate, the greater the file size and the higher level of audio quality. The standard settings provide a bit rate of 7.4 kbit/s. The highest bit rate for this format is more suited for transferring conversations.

AAC

The AAC audio was developed by MPEG, the Moving Picture Experts Group (Dolby, Fraunhofer Institut für Integrierte Schaltungen in Erlangen, AT&T, Nokia, Sony) as an audio data compression process, that was specified as a further development of MPEG-2 Multichannel in the MPEG-2 standard.

It's also a further development of MPEG-2 audio. This format is equally suitable for encoding general audio information and not especially optimized for certain types of audio material. As with video material, the audio format should be considered for playback later.

AAC audio can be encoded with a sample rate of 8,000, 16,000, 24,000, 32,000 or 48,000 Hz and in mono and stereo sound, respectively. By default, the sound is set to 48,000 Hz stereo. The higher the sample rate is, the larger the resulting file and higher the audio quality.

The advanced AAC audio menu includes the following settings options:

- The **bit rate** can be set between 6 and 512 kbit/s. 160 kbits/s is active by default. The higher the value is, the larger the resulting file and higher the audio quality. After a certain limit, additional improvements to audio quality will not be perceived. Bit rates under 64 kb/s are not recommended.
- As an **MPEG version**, set MPEG-4 or the older, proven MPEG-2 format.
- For the **File Header Type**, choose either RAW or ADTS. The "Header" indicates an explanatory head for the beginning of the file segment, which in fact takes up extra space, but is required for decoding under circumstances.
    - **RAW** indicates material which does not include a file header in audio format. The audio material is therefore transferred directly without any special additional information (raw).

This requires that decoding routines are able to process the material without the explanatory file header. Especially in case "exotic" sample rates are set, this can lead to problems during RAW encoding.

- **ADTS** indicates a file header type which contains information for encoded audio material. In case of doubt, select this file header type, since fewer problems can be expected in this case.

Object type: This provides selection between "Main" and "Low complexity".

- **Low complexity**: Data is present in a form that hinders different decoding algorithms (noise replacement), but enables others (temporal adjustment noise formation).
- **Main**: This sets other focuses in the encoding, and other decoder algorithms can be used.

Note: For example, Apple iPod requires "low complexity encoding". However, you don't need to worry if you select the right preset for Apple iPod in the export dialog.

Multiplexer

The multiplexer is a component of the encoder which combines audio and video streams.

Output format

MPEG-4 file: This is an MPEG standard (ISO/IEC-14496) with the original goal of supporting devices with less computing performance. Currently, MPEG-4 has reached a wide bandwidth of application, from HD video to support for mobile telephones.

JPEG2000 file: DCI (**D**igital **C**inema **I**nitiative) has been replaced by the JPEG2000 format for encoding movies. The current distribution and presentation of films has been taken over by digital projectors that play back **high-resolution Mj2 streams** in outstanding image and sound quality.

3GPP file: A standard supported by plenty GSM and UMTS mobile telephones. 3GPP is very similar to the MPEG-4 standard, but also supports formats that are not permitted by MPEG-4.

ISMA compatible

The "**I**nternet **S**treaming **M**edia **A**lliance" combines video codec standards (e.g. MPEG) and continuous transfer within computer networks (e.g. RTP **R**eal-time **T**ransport **P**rotocol) to ensure that videos available online can be correctly transferred and played back.

Note: This option can only be activated, if under "Format“ the entry "MPEG-4 file" has been selected.

For Sony PSP

Switch on this option if the video should be played back with the Sony PSP.

Note: This option can only be activated, if under "Format“ the entry "MPEG-4 file" has been selected.

For iPod

Switch on this option, if the video should be played back with the Apple iPod.

Note: This option can only be activated, if under "Format“ the entry "MPEG-4 file" has been selected.

Live mode (get times from samples)

This option is only important for live transfers and is therefore not required in MAGIX PhotoStory on DVD MX.

MPEG glossary

Motion estimation

Motion estimation is a further element for reducing data used in MPEG encoding.

Motion estimation also occurs in the B and P frames. The image difference that still exist after prediction (view page 240) are examined. Complex algorithms are used to search for an original occurrence of the macro block in the reference frame of each macro block of the P or B frame (these are units of 2x2 blocks specially combined for this purpose), which have been moved either by movement or by camera pan. They can then be left out in the P and B frame. Only the information by how far and to where the macro block has been moved is saved instead. This vector is called the motion detector.

In the General encoder settings (view page 214), you can specify the quality of the final MPEG video. This factor also influences the time required for encoding. The longer it takes, the better the quality.

Bit rate

MPEG is a format used for storage and transferring. With older formats (e.g. AVI) you could predict that 20 seconds of movie would result in 20 MB of data. The file size is this a direct measurement of quality.

This is different for MPEG: The amount of data available can be used differently for different display modes. 20 MB can be 4 seconds of DVD Video or 5 minutes Internet streaming in thumbnail format. The quality of an MPEG video is measured by the width of the created data stream, the bit rate. This is the amount of the transmitted data per time unit; it is stated in kBit/s or bit per second.

Bits, not bytes are used, since the data word width has to address the transmission restrictions.

The file size can be calculated from the average bit rate, if its length is known:

F = (BRV + BRA) * t

F=File size	BRV= Video bit rate	BRA= Audio bit rate	t=Length in s

Block

For almost all image file editing techniques the image is subdivided into 8 x 8 pixel blocks (image points). This should be noted if you would like to used user-defined image resolutions (width/height), and they should always be a multiple of 8.

Chroma format

The color value of each image point consists of the color values for the primary colors red, green, and blue (RGB), and for traditional and technical reasons it is transformed into one brightness value (Y = 0.299*R = 0.587*G + 0.114*B) and two color difference values (U = R - Y, V = G -Y).

The Y value alone produces the black and white picture. These signal components allow brightness and color information to be handled separately. The first data reduction occurs when single rows comprising a picture are read. Because the human eye has a lower color resolution than a brightness resolution, the color components are recorded only for every other point of a row (4:2:2) for each four pixels grouped (4:1:0), i.e. color signal under-reading.

4:2:2 This corresponds to the established TV standard. One piece of color information is transmitted per row for two pixels which corresponds to a 2/3 compression of the output data.

4:1:0 This is the color coding used for DVDs and most other consumer video applications. For each 4 pixels grouped together on two rows, one unit of color information is saved. This corresponds to a output data compression of 1/2.

Field

A half-image, i.e. two halves which combine to produce a frame (see de-interlacing (view page 238)).

Frame

A frame is a single image from a video sequence which also called a full image. PAL video, for example, contains 25 frames per second, NTSC 29.97 frames.

Video recordings, with the exception of computer animations and still frames, don't contain full images. Instead, they have double numbers of half-images (fields) which are transmitted in an interlaced state. However, we still refer to frames, since many predecessors of MPEG compression are based on such frames. Video editing literature usually refers to frames.

GOP

Group **o**f **P**ictures: The sequence of I frames and the P and B frames that belong to them.

e.g. I B B P B B P B B I ...

(This GOP has a length of 9, with 2 P frames and 2 B frames)

I frames contain the entire image information of a frame, while P and B have part of the information. So-called prediction (view page 240) and movement approximation are methods used for reduction.

The combination P B B is called a subgroup.

I frames must appear in regular intervals in the data stream for image and sound to be synchronized. Between the I frames only a limited count of P and B frames is allowed. This explains a few things: Since P and B frames contain only differential information, these differences will be larger with time, since more and more changes takes place from frame to frame. A large count does not make much sense, since GOP has a maximum length of 15 (4P, 2B) in PAL and 18 (5P, 2B) in NTSC. (More than 2 B frames between P frames is not allowed).

In a **closed GOP**, B frames of the last subgroup may contain only backward predictions or references to the preceding P frame, but no references to the following I frame, since it belongs to the next GOP.

I frames

Intra-frames: In these pictures, the entire image information of a frame is saved and only information from this frame is used ("intra-frame encoded"). In contrast to the I frame, P and B frames save only the differences between the current frame, and preceding and/or following frame are also found in MPEG video (P frame = "predicted frame", B frame = "bidirectional frame", see Prediction (view page 240)).

Interlace

For historical reasons, pictures in a movie are always recorded and transmitted in the form of two fields; first the lines with even numbers and then those with odd numbers. These fields are alternatively displayed with double the frame rate. The (lazy) eye of the viewer or the processing of the TV tube puts the two frames together to form one.

The output image First field Second field

You normally don't have to worry about field processing. The video material goes through the entire processing chain as fields and is exported again as fields or burned onto DVD or shown on TV when played back on a DVD as a full picture. Only in certain rare conditions is it necessary to go deeper into this process. Two problems can occur:

1. Interlace artifacts

To be displayed on a computer monitor (during recording, in your TV/VCR, and in the arranger during editing), the two fields must be combined to form a full screen.

These two fields are not the same, since two fields are created during the recording between which a 1/50 of a second gap is evident. Moving objects can therefore produce artifacts on vertical edges.

Typical interlacing errors

You can use so-called de-interlacing to avoid this type of artifact. De-interlacing places a picture in between the two fields (interpolated). If you want to create stationary pictures from movies, then you should definitely use a de-interlace filter.

In the system settings ("File" menu -> Program settings) you can set the preview monitor display to use hardware de-interlacing during video recordings for the video recorder and for display in the arranger.

2. Incorrect field rate

If you move around the series of fields in a movie data stream, then you will see strong jitter and flicker effects. Picture objects move in a backward movement – two steps forwards, one back – since a delayed field is shown before the previous one. This can happen in the processing chain if you export video material improperly with the wrong field order and then import it into different material. We use MXV or MPEG "Top field first" format for all analog recordings ("odd" in other programs).

DV-AVI on the other hand is saved with “Bottom Field First”.

You can correct the field series for each video object in its object settings. See: "Menu -> Effects -> Object properties"

P frames and B frames

P frames save only the difference between the current picture and the preceding I frame. The "P" comes from the term "prediction" which describes this process.

B frames save the differences between the current picture and the I or P frame preceding and following. This includes the information that was the same before and remained the same after the current frame. Both directions are analyzed (indicates the "B" in the name, i.e. "bidirectional-predicted"). You can read more under prediction (view page 240).

Prediction

Prediction is a method of data reduction used by the MPEG format. The image elements already known from the previous or following frames are removed from the data stream.

How does it work?

The encoder has a precisely defined GOP, for example IBBPBBPBB. This sequence is transmitted together with the encoder, which always knows exactly which kind of frame comes next. I, P, and B frames are differentiated.

Hint: When we talk about pictures, we mean frames of the video output, and I, P an dB frames are the frames of the encoded video. Just as in movement approximation, blocks (8x8 pixels) are united into macroblocks (16x16 pixels) during prediction.

The first frame is always the I frame. It is completely encoded from the first picture. Afterwards, the 4th picture is analyzed for the creation of the first P frame. (As already said, the encoder, and later the decoder, will know that two B frames belong between them.) This image will also be completely encoded, and afterwards all macroblocks that haven't changed in comparison to the I frame will be deleted. They will be replaced by corresponding references for the decoder that tell it "you already know what should be shown here, and you can get it from the last I frame".

Now, the 2nd will be completely encoded, and all macroblocks identical to the first I frame **and** the following P frame will be removed. References to previous frames are called **backward predictions**, and references to following frames are called **forward predictions**. The third picture will be edited in exactly the same fashion.

The fourth picture we have already explained, and now we need the next P frame, or picture number 7. Pictures 5 and 6 are B frames again, which are compared to P frames to both sides of them (picture 4 and 7); these are followed by the last two B frames. These have a special place, since in closed GOPs, they may contain only backward predictions, and no references to the next I frame, because it belongs to the next GOP.

Something else: Since the decoder is no prophet, the P frames are always transmitted before the B frames! The GOP explained above will be encoded and transmitted in the order it is written.

Original GOP	$I_0\ B_{01}\ B_{02}\ P_{01}\ B_{11}\ B_{12}\ P_{02}\ B_{21}\ B_{22}\ I_1$	
Data stream	$I_0\ P_{01}\ B_{01}\ B_{02}\ P_{02}\ B_{11}\ B_{12}\ B_{21}\ B_{22}\ I_1$ ...	for closed GOPs
	$I_0\ P_{01}\ B_{01}\ B_{02}\ P_{02}\ B_{11}\ B_{12}\ I_1\ B_{21}\ B_{22}\ P_{11}$...	For open GOPs

Due to this nested structure, it is easy to see that during direct editing of MPEG material, complicated computations have to take place! These are made easier using a **frame table**. A frame table contains a list, where the information of every frame in the data stream is found, identifying the type of frame it is.

Using Movement prediction (view page 235) P and B frames are likewise reduced.

Quantization scaling

The single pictures in MPEG are saved using a compression method comparable to JPEG with bitmaps and associated with quality loss. For this single images are divided into 8 x 8 blocks (view page 236).

Each one of these blocks is then transformed into an 8 x 8 matrix (a table with rows and columns) using a **DCT** (discreet cosinus transformation) mathematical method. Each of these values is produced using all 64 individual pixels of the block, but the values in the matrix are ordered in such a way that the image information is ordered according to its importance.

This matrix will then be multiplied by another matrix, i.e. the **quantization matrix**. Exactly how and why this matrix must be created is the biggest secret of encoder programmers, since this determines the quality of the whole encoding process. What is known is that the result should contain as many zeros as possible! These zeros correspond to the "unimportant" image elements mentioned and will not be transmitted in the data stream.

Depending on the encoder parameters regarding the target bit rate, fewer or more values of the matrix will be declared unimportant by dividing the quantization matrix by the **quantization scaling factor**. Since only whole numbers are used, a division can produce a zero is the remainder is discarded.

This factor is also a direct measure of the sought image quality of the MPEG data stream, since the "Q" in "Q" factor stands for quantization and quality.

Annex: Digital Video and Data Storage

Video Editing 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 by the computer.

Digital video processing functions quite similar to recording via a sound card. The signal flow is measured in very short, regular intervals, and the values resulting from it can then be processed by the computer. The accuracy of each individual measurement results in the resolution, and the frequency of the measurements results in the frame rate. The more precise and frequent the signal is measured, the higher the quality of the digitized video, but also the higher demands on the capture performance and the required storage space. The Windows standard format for video files is AVI (audio and video Interleaved).

Digitizing video adopts either the camera or the graphics 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, they must be compressed. Digital audio, on the other hand only uses compression for saving storage space.

HDTV

This acronym stands for "**H**igh **D**efinition **T**ele**v**ision.

High definition television is a general term applied to a series of television norms that differentiate themselves from normal television by increased resolution and an altered aspect ratio (16:9). This type of digital television offers cinema-like image quality and impressive sound quality. With doubled horizontal and vertical resolution the image quality of HDTV is approximately four times as sharp as previous standards (PAL, NTSC, SESAM).

At this time MAGIX PhotoStory on DVD MX supports two resolution standards:

- 720p (1280x720 pixel)
- 1080i (1920x1080 pixel)

MPEG Compression

MPEG means "Moving Picture Experts Group" and defines a workgroup which cooperates with the International Standards Organization (ISO) as well as the international Electro Technical Commission (ETC) 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 pictorial quality.

Each MPEG compression is, however, a data reduction and as such connected with information loss. If the video consists of very extensive details, or if the content changes very fast, then 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.

At average compression rates under 3 megabits per second it is probable that you will notice reduced quality. At rates around 6 megabit per second the degradation in quality becomes almost invisible.

General notes on AVI videos

The AVI format (**A**udio **V**ideo **I**nterleaved) isn't actually a proper video format! Rather, it is a so-called "container", where the conventions for transferring audio and video files to the program are only loosely defined.

The codec (**co**der/**dec**oder) actually defines what storage format is used. A codec compresses audio/video data into its own unique format which can only be read by the codec itself and is decoded when the film is played.

In concrete terms, a computer-generated AVI file **can only** be loaded by and played on a different computer if the same codec is installed on it.

Many codecs (e.g. Intel Indeo® video) have now become standard components of the Windows™ installation. Others like the popular DivX codec are not standard. If you are generating an AVI file for future play on another computer using one of these codecs, you should first install this codec on the other PC. The best method available is to copy the codec installer to your export directory and burn it every time you create a video disc (slideshow disc) for play on computers.

You may encounter some problems when using older video editing cards with codecs which only function with the card's hardware. Such AVIs can **only** be used on the computer which was used to create them. Try to avoid using this kind of codec.

Capacity and quality of different disc formats

In MAGIX PhotoStory on DVD MX, a number of different disc formats are available.

This chapter will explain which formats can be best employed in different cases, the differences in quality, and how much space each format requires.

The following table summarizes the relationship between space requirements and quality. For further information please read the chapters on the individual disc formats.

Disc format	Quality	Approx. length	Purpose
VCD	*	Approx. 70 minutes/CD	Slideshow for TVy
SVCD	**	approx. 30-40 minutes/CD	Slideshow for TV
DVD	***	approx. 2 hours/DVD	Slideshow for TV

miniDVD (view page 250)	***	approx. 20 minutes/CD	Slideshow for TV
JPEG DISC (view page 250)	****	Depends on original images and DVD player*	Slideshow on TV without sound, effects, or transitions
Slideshow Disc	****	Dependent on the original pictures and music length	Slideshow on PC with some effects, or as a backup
WMV HD	****	Depends from resulting material, prediction is difficult, approx. 3 hours/ DVD, approx. 30 min./ CD	Slideshow on PC/TV with specialized players that support Windows Media 9 format
MultiDisc (view page 250)	***/****	approx. 1 hour/ DVD	Slideshow on TV and PC, highest quality on PC

* The display duration for some DVD players may be set in this menu. The number of photos that can be burned onto a CD or DVD depends on the sizes of the picture files.

Note: For all disc types with menus, you can use the menu templates from the "TV ShowTime DVD" section. Each picture of a slideshow is then displayed in full screen on its own menu page without having to play the slideshow.

Digital Versatile Disc (DVD)

Quality

Featuring a resolution of 720 x 576 (PAL) and encoded with MPEG-2, 25 frames per second provides very good results.

Writable data storage formats

The recordable DVD market is currently split into three types: "DVD-RAM", "DVD+RW", and "DVD-RW".

DVD-R/+R: This medium may only be written to once. The DVD-R may be specified with file structures for DVD video, DVD audio, or DVD-ROM.

DVD +RW: +RW drives allow re-writable DVDs to be created which may 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: This is a write/erase DVD technology promoted by Pioneer and Sharp. This format was developed by the Pioneer company and should be compatible with existing DVD players.

DVD-RAM: DVD-RAM technology is based on either Phase Change, MOs, or hard disks, etc. and is now almost 100% incompatible with all available players.

Due to the small storage capacity and incompatibility with DVD players, setting on this standard is not recommended.

Note: MAGIX PhotoStory on DVD MX supports DVD±R and DVD±RW, but not DVD-RAM.

Blank discs: Single-sided recordable blank discs featuring a capacity of 4.7 GB and a duration of approx. 2 hours.

Copy Protection

Macrovision (APS): The movie industry claims that even DVD-ROM drives and decoders or diagram cards with composite outputs or s-video outputs must support the Macrovision analog copy protection (APS). Only some older DVD players do not possess APS.

APS adds additional signals to a DVD's stored graphical data. The data is almost unchanged. These supplementary signals disturb the synchronization and the automatic recording regulation of most video recorders to prevent recording 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 to hard disk. The VOB streams of DVDs without CSS can otherwise (like other video files) be loaded via the Import Video button

There are further types of copy protection besides APS and CSS which ensure that retail DVDs cannot be copied without distortion

WMV HD

WMVHD (Windows Media High Definition Disc) is a disc type for optimum slideshow playback on your PC. The slideshow(s) are converted in a high-resolution format into the Windows Media 9 format and a menu is added, like with DVDs. The minimum requirement for playback is Windows Media Player 9 (or higher). The slideshows are encoded, by default, in HDTV resolution (1280 x 720, also known as "720p").

However, a powerful PC with Windows Media Player 9 installed is required for playback.

The values "720p" or "1080i" describe the vertical resolution in pixels. The total resolution of the "PC slideshow 720p" is 1280 x 720 pixels, the "PC slideshow 1080i" has 1920 x 1080 pixels.

Unfortunately, there are currently now DVD players for sale that can handle this format as the jump in quality from DVD to WMV HD is greater than from VHS cassettes to DVD.

However, players that support this format may be available in the near future, although we cannot guarantee that discs created with MAGIX PhotoStory on DVD MX can be played in these players. TV sets that can handle such high resolutions are already available from retailers.

Blu-ray Disc

Since early 2008, Blu-ray Discs are viewed as successors to DVDs and offer especially high storage capacity of up to 27 GB in a single layer (double-layer up to 54 GB) with very few write errors.

The term Blu-ray Disc comes from the blue color of the laser. Because a color cannot be registered as a trademark, the letter "e" was removed from the word "blue".

The high storage capacity of the Blu-ray Disc suits high definition videos and slideshows in high quality perfectly, since these are characterized by large file sizes (depending on material approximately 40 MB/sec) and very high memory use. The MPEG-2 codec is used to create video.

Companies that were involved in developing Blu-ray technology have united themselves into the Blu-ray Disc Association (BDA).

Blu-ray Discs come in three varieties:

- Only readable **BD ROM** (comparable to DVD video),
- rewritable **BD-RE** (comparable to DVD±RW or DVD-RAM),
- and as a disc that can be written to only once **BD-R** (comparable to DVD±R).

AVCHD disc

Use this format to create a high-resolution video. You can burn Blu-ray (BD-R/RE) blanks as well as conventional DVD±R/RWs. In contrast to Blu-ray Discs (view page 247), MPEG-4/AVC codec (view page 218) is applied as the video format, which requires less memory at a comparable image quality.

Compatibility

AVCHD disc on Blu-ray blank: Since this is a BD-conformant format, the disc created can be played back in any conventional Blu-ray player. Playback problems can almost always be traced to incompatibilities between Blu-ray blanks and Blu-ray players. In this case, consult the instructions for your Blu-ray player or ask the manufacturer which blanks are compatible with the device.

AVCHD disc on DVD blank: The DVDs created with AVCHD video are not supported by all Blu-ray players. The behavior of the devices is quite different. Normal DVD players cannot replay AVCHD discs, since the AVC format is not supported.

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 can be played using either a Super Video CD player (connected to the television), or directly with the CD-ROM drive of a computer. Many DVD players can also play SVCDs. MPEG-2 and the increase of the data transfer rate makes it hard to tell videos from videos in DVD quality apart.

Resolution: SVCDs use the better MPEG-2 encoder 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 characterized by excellent image definition and homogeneity.

Hard disk capacity: An average 90-minute movie must be spread across 3 CDs. On one SVCD you can get about 30 minutes of good-quality movie.

Encoder setting: Compared to the VCD with 1.3, the data transfer rate is doubled to 2.6 Mbit/s.

MPEG-2 format introduces the so-called variable bit rate (VBR). In contrast to the constant bit rate (CBR) of the MPEG-1 encoders, this encoder has the option of using more bits for movement-intensive sections, as well as saving bits if picture content remains the same.

Video CD (VCD)

Video CDs are specific CD-ROMs for storing videos in certain forms. Compression takes place using the MPEG-1 codec. VCDs can be played on either a video CD player attached to a television or directly via the computer's CD-ROM drive. Most DVD players can play VCDs.

Resolution: VCDs can play movies with a maximum resolution of 352 x 288 pixels (PAL) or 352 x 240 (NTSC) at 25 pictures per second. The resolution of a VHS cassette offers for instance 300 x 360 pixels. More important than the resolution is the use of a good MPEG-1 encoder. Since video images constantly change, errors cannot always be perceived by the viewer.

Hard disk capacity: A VCD can store 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 settings: Normally the video CD data is played at a data rate of 1150 kBits video and 224 kBits audio. By increasing the video bit rate to 3000kBits you can get the same resolution and an better-quality audio bit rate. Movement artifacts disappear almost completely at approx. 2000 kBits with the picture appearing a little less sharp. This pre-supposes, however, that the player can also play back such a bit rate. The fact 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 running time of the VCD, then you can experiment with space to improve the quality of the video!

JPEG disc

This type of disc is intended for use in case your photos have been optimized and you want to display them on a DVD player at the highest quality.

Each picture will be exported individually with the corresponding photo cleaning effects and burned onto a CD or DVD in a format which is recognized and played by most DVD players.

This format does not support menus, dynamic effects, transitions, or sound. The display length of each picture is not burned onto the disc either and will be determined by the DVD player. There are DVD players which allow the display duration for each picture to be set. Please refer to the manufacturer's instructions for your DVD player.

This format is usually known as "Photo CD" or "JPEG CD".

miniDVD

The miniDVD is nothing more than the DVD data format burned onto a CD-ROM. Thus the MPEG-2 encoder and all other specifications of the DVD data format are used, and 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 miniDVD is accordingly limited to approx. 20 minutes of movie.

MiniDVDs are particularly suitable for playing on the computer. For stand-alone devices they must be tested on an individual basis as to whether the device can handle the DVD format on a CD-ROM.

Multi disc

A multidisc is a combination of different disc formats on one DVD. It consists of 3 parts and offers the following advantages:

- Maximum quality when played on a PC with WMV HD (Windows Media High Definition Disc) (view page 170)
- Fully compatible with DVD players due to a DVD part (Digital Versatile Disc) (view page 245)
- Greatest possible safety as a data backup of the project is added (burn option (view page 168)).

Backup disc

Use this option to compile all slideshows in the current disc project, including all connected media and burn them to disc.

Even larger projects can be burned straight to disc. The project, if necessary, will be split up and burned automatically to multiple discs. A restore program which is burned to the first disc of such a backup, guarantees easy re-recording of the backup.

If you still have questions

Task assistant

The task assistant is your information center. It helps you complete your tasks and provides support at every step. Not only will you find clear videos with step-by-step instructions, but you'll also find quick access to a lot of functions.

The task assistant chapters can be found in the "Tasks" menu (view page 205).

Tips for program help

The "Help" file features hints on how to use the program and additional information. Many important terms are indicated in the text in italics and an explanation to them is reached by clicking on them.

Context help: Press the "F1" key at any point in the opened program and the help file will open with the matching topic (context help).

Search function: Use the search function to find out information about specific words. Enter either the individual word or use logical operators (OR, AND, NEAR) to refine your search if you have several search words.

- "**OR**" (between two words): All topics which contain both words or one of the words will be listed.
- "**AND**" (between two words): Only those topics will be listed which contain both words.
- "**NEAR**" (between two words): Only those topics will be listed which contain both words. A maximum of six other words may be added between the search terms.
- "**NOT**" (before a word): Topics which contain this word will **not** be listed.

Print: Use the help program's print function to make a printout of individual topics or entire sections. The print button is located at the top of the help window in the toolbar.

We hope you have fun using MAGIX PhotoStory on DVD MX and enjoy hours of entertainment with your slideshows! Your MAGIX Team.

Glossary

A

audioid

audioid is a process used to determine the title and artist name base on musical properties. An Internet connection is required to access the audioid database.

AVI

The AVI format (**Audio Video Interleaved**) isn't actually a proper video format! Rather, it is a so-called "container" for which the conventions for transferring audio and video files to the program are only loosely defined. More in this topic can be found in General notes on AVI videos. (view page 243)

B

Browser

A browser (also known as web browser, or Internet browser) is a computer program that displays websites. The best-known browsers are Internet Explorer, Firefox, Safari, and Opera.

Button

Refers to an element of the graphic user interface of a program. The button initiates an action in the program via left mouse click.

C

Cache

Simply stated, this is a temporary folder where frequently accessed files are saved so that they can be quickly launched while you are working.

CC

CC stands for "Connectivity Co-ordination" and describes how the change of a domain name from one provider to another occurs (domain transfer).

CDA

Short for "audio CD" produced in accordance with the so-called "Red Book" standard. It contains audio files (music) and can be played in CD-ROM drives as well as in regular CD players in stereos.

Clip level

Signifies the volume level at which the recorded signal is overmodulated, or "clipped".

Clipboard

The clipboard is used to temporarily store objects during execution of commands like "copy" and "cut".

Context menu

Context menu can be reached by right clicking on a selected object. It offers functions which are available and can be expected in the given context.

Copyright

Protection of intellectual and creative property against unauthorized copying.

CPU

Central processing unit: The name for the main processor of the computer (CPU). Modern computers have even two or more processors, or one processor with several cores.

D

Dialog

A dialog opens in a new window and lets the user interact with the program. This means that the dialog can present information to the user and/or expects to receive input from the user.

A dialog can contain various user elements which can be manipulated by a simple mouse click. Keyboard entries are also possible.

Disc project

A project includes everything that you want to put on your CD and DVD. This normally contains one or more slideshows and includes a menu structure/menu design which allows you to choose a slidehsow later on the CD or DVD.

Disc types

The disc types determines the format and medium (CD, DVD, Blu-ray disc, etc.) to which the current project will be burned.

DNS

The abbreviation DNS stands for Domain Name Service and refers to a provider of Internet services that registers domain names for customers.

Domain

A domain is the website's Internet address. It consists of the name of the Internet protocol (usually http://), the computer or network name (such as www), the second-level domain (such as magix), and the top level domain (like .com, .net).

Altogether we have: protocol://networkname.second-level-domain.top-level-domain (such as "http://www.magix.com").

Domains are allocated by a country's so-called NIC (Network Information Center). In Germany the DENIC is responsible for the release of domains.

Domain transfer

See CC. If you already have a domain, you can move it from your previous provider to another provider.

Drag & drop

Enables files and objects to be moved freely between various applications (or within an application) by dragging the object and letting it drop using the mouse cursor.

F

Fader

Used for visual input of values. Similar to volume control on a mixing board, you can control various parameters by sliding the fader. A very common example for this is the zoom slider that lets you see a picture in more detail.

Field

A half-image, two of which combine to produce a frame (see interlace).

Flip menu

Drop down menus create menus consisting of lists of selectable choices. They look very similar to text input fields, but have a button with a downward-pointing symbol on the right-hand side.

Frame

A frame is a single image from a video sequence which also called a full image.

A PAL video contains 25 frames per second; NTSC contains 29.97 frames.

H

Handles

Handles are the five little rectangles at the edges of selected objects. All curve points can be moved by holding down the left mouse button.

Length handles: Bottom right and bottom left. You can use them to change the length of an object.

Fade handles: Top right and top left. These can be used to softly fade an object in or out.

Volume/Brightness handle: Above-center. You can use it to adjust the volume or the brightness.

Hard disk

Storage medium with the largest storage capacity where the operating system(s), programs, and files are saved. A hard disk can be built into the computer, but there are also external hard disks which can be used with different computers via a USB connection (portable drives or external hard disk).

Hardware

The all-encompassing name for all internal components of a computer. For example hard disk, graphics card, mainboard, etc. External peripheral devices are also considered hardware, i.e. printer, scanner, monitor, etc. The synchronization of single hardware components is coordinated by the software.

HDD

Storage medium with the largest storage capacity where the operating system(s), programs, and files are saved. A hard disk can be built into the computer, but there are also external hard disks which can be used with different computers via a USB connection (portable drives or external hard disk).

HDTV

This acronym stands for "**H**igh **D**efinition **T**ele**v**ision.

HTTP

Stands for Hyper Text Transfer Protocol and is used for transferring websites onto the Internet (from web server to the browser). For this reason, the abbreviation **http://** always comes before the Internet address. This is automatically inserted and does not have to be entered when entering the Internet address.

Hyperlink

Hyperlinks (or in short "links") are references to other websites/online documents (or other computer networks). They build the base of the World Wide Web (WWW) as it is only via these hyperlinks that networking or interlinking between the billions of website out there is actually possible.

I

ID3 tags

ID3 tags contain title information that can be added to a music title. This includes the title, artist, album, as well as the genre, year of release, and other criteria that can help searching through a database. The database is created using this information.

Info: Title information will only be saved for MP3s in the so-called ID3 tags (Identify an MP3), but other formats offer similar possibilities, like "Vorbis comment" for the OGG Vorbis format, for example.

Image

An image is a representation of a CD, DVD, hard drive, or another storage medium that is saved as a file.

The difference from a copy or backup is that an image contains information about the structure of the original storage medium, and not just individual files. This enables 01:01 copies of complete storage media to be created.

Caution! Copyright laws forbid copying of commercial CDs/DVDs, and for this reason, this process can be prohibited by copy protection.

IMAP

Stands for Internet Message Access Protocol and is an advanced process of receiving emails.

Interlace

Describes the creation of a full image from 2 half-images (fields).

In this process, even and odd lines are alternately assigned to one of the two fields.

The human eye perceives both of the projected half-images as a single full image, so that despite the slow image repetition rate (25 Hz for PAL, 29.97 for NTSC) a subjectively fluid image is seen.

Intro

"Intro" means the introduction or opening credits of a movie.

J

jpx

A format developed by MAGIX which is used for photo editing. It enables free experimentation with effects without altering the original file. The effects settings are also displayed when the photos are opened using a different MAGIX program.

M

Menu

Menus contain practically all function of a program. They can be opened using a simple mouse click on the corresponding menu. Keyboard shortcuts, if available, are also found at the end of menu entries.

The graphical surface of a CD/DVD will also be represented as a menu.

Menu bar

Almost every program has a menu bar. It can normally be found underneath the title line of the program. A simple mouse click opens a corresponding menu.

MIDI

MIDI files do not contain the actual sounds like audio files, but only the note control information which can be interpreted during playback by the synthesizer chip on the sound card or an external synthesizer.

Motherboard

This is the centerpiece of hardware components of a computer. All other hardware components like CPU, RAM, hard disk, additional drives, graphics cards, as well as other cards for specialized uses are connected to the motherboard.

MOV

MOV is a video and audio format developed by Apple, which has since become widely used with Windows. QuickTime supports lots of compression technology, which make it possible to optimize audio and video and even graphics for the Internet and multimedia/video applications. Conventional (hardware) DVD players are not able to play this format.

MP3

MP3 (actually MPEG-1 layer 3) is currently the most important standard for compressing audio files.

MPEG

MPEG is short for "Moving Picture Experts Group" and refers to a committee concerned with the standardization of video and audio data compression as well as container formats.

MS audio

A process developed by Microsoft for compressing audio files with properties similar to those of MP3.

MXV

This is the MAGIX video format for quicker processing with MAGIX products. It offers very low loss of quality, but it cannot be played via conventional DVD players.

N

Noise Sample

Sample of a noise that is to be removed

NTSC (USA, Japan)

NTSC stands for "**N**ational **T**elevision **S**ystems **C**ommittee". This is a US institution that defined the first color carrier system for TV which is now used in most of America and some East Asian countries.

The image repetition rate for NTSC is 29.97 Hz.

Numeric keypad

Also known as the numpad, or the number block.

O

OGG VORBIS

This is a new, royalty-free format with similar properties to MP3.

P

PAL (Europe)

Phase **A**lternating **L**ine, or **PAL**, is a process for color transmission for analog TV that is primarily used in Europe, but also in Australia, South America, and many African and Asian countries.

The image repetition rate for PAL is 25 Hz.

Play marker

The play marker is a red vertical line which moves from left to right during playback. It indicates the current play position.

Playlist

Arrange your songs in playlists from various sources in different formats and in whatever way you like, sometimes updated daily.

Important: Playlists are only links to songs on your hard drive or in your CD drive.

When you add a song to your playlist whose real source is a CD in your computer's drive, the song will no longer be playable when the CD is removed from the drive.

Similarly, when you move a folder on your hard drive, the playlist will no longer be able to play the song, since the link is no longer valid.

For the latter, however, there is a simple solution: If you know where the song has been saved, then you can redefine the path.

A corresponding dialog window is provided for this purpose. You can reset the path by navigating through the Explorer folders. The playlist is now correct once again.

Plug-in

Plug-ins are additional programs that expand the functionality of the main program. They are inserted into the main program.

Podcast

Think of a podcast as something like a radio station on the Internet. Regular Internet radio stations "transmit" in real time, which means that you can simply listen to the program that's playing and edit it. Podcasting is different. The programs are preproduced and loaded to an Internet server for downloading. As a listener you can subscribe to the podcast and the files will be downloaded at a specified time for you to listen to them whenever you like, for example on the go via your portable player.

Podcasting

Podcast is the name for a relatively new Internet transfer form. It is made up of "pod" from "iPod", the name of a popular portable MP3 player, and the term "casting" for broadcasting content to a wide group of listeners/viewers.

A podcast is therefore something like an online radio station. "Broadcasting" web radio stations means you can only listen to and record the currently broadcast radio station. Podcasting is different. You as the listener can subscribe to the podcast and the files will be downloaded at a specific time and you can listen to them whenever you like, for example, on the move with your portable player. The shows are pre-produced and placed on an Internet server for download.

POP3

Stands for Post Office Protocol (version 3) and is used in standard email programs for receiving email (for example, Outlook Express). POP3 enables email to be collected by the provider's email server and loaded into your email program.

Project

A project includes everything that you want to put on your CD and DVD. This normally contains one or more slideshows and includes a menu structure/menu design which allows you to choose a slidehsow later on the CD or DVD.

Provider

A provider or ISP (Internet Service Provider) offers Internet services like webhosting or domains (DNS). In relation to the MAGIX Website Service, MAGIX is the provider.

R

RAM (Random Access Memory)

This is a hardware component of a computer. RAM is needed to temporarily save files. This type of storage is erased when the computer is shut down or reset. The larger this storage is, the faster you can work with programs to change and save files.

Ratio:

The aspect ratio is the ratio between the height and width of a rectangle. In practice these are photos, screens or projection screens. This method can also be used to describe the aspect ratio of pixels.

Here are some examples of typical aspect ratios: at home 4:3, 16:9 (typical for TV sets), or 16:10 (widescreen flat screens, widescreen notebooks), 3:2 for 35 mm films and photos. In cinemas you mostly find 1.85:1

Red Book

Specific standards have been established for the different CD types in order to unify their data structure and to make them compatible with the different CD drives. Their names refer to the color of the books where these standards were written.

The term "Red Book" is common language for the Compact Disc Audio Standard. The requirements listed here have to be observed for industrial CP production. Audio CD players only read CDs created according to the Red Book format. It is therefore necessary to first convert PC files into this format before writing them onto an audio disc compatible with any audio CD player.

Restore

Restoration of files originating from a backup will be called "Restoring".

RM

RealMedia includes all of the media formats from software developer RealNetworks. RealMedia especially refers to the "RealVideo" video format and the "RealAudio" sound format. The quality of RealVideo files is comparably good at high compression rates, but does have some loss of quality. These formats cannot be played back by (hardware) DVD players.

S

Screenshot

A screenshot is an image composed of all visible screen elements (messages, open dialogs, etc.) at a certain time. By pressing the "Print screen" key on the keyboard, this image is saved into the clipboard. Next, open a program which can edit images and select "Insert" (shortcut "Ctrl+V") in a new document to add the screenshot for editing and saving.

Note: Press "Alt + Print screen" on the keyboard to capture the active window only.

Slider

Used for visual input of values. Similar to volume control on a mixing board, you can control various parameters by sliding the fader. A very common example for this is the zoom slider that lets you see a picture in more detail.

Slideshow

An arrangement of various objects (photos, text, sound, etc.) is called a slide show. Slideshows can be saved separately as "MVM" files.

SMTP

Stands for Simple Mail Transfer Protocol and enables the exchange of emails across computer networks.

Software

The name for all non-physical functional components of a computer. This primarily includes computer programs and files that are meant to be used by computer programs.

Submenu

Besides normal entries, a menu can contain submenus that offer additional functions. This makes menus more comprehensive.

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 can be played using either a Super Video CD player (connected to the television), or directly with the CD-ROM drive of a computer. Many DVD players can also play SVCDs. MPEG-2 and the increase of the data transfer rate makes it hard to tell videos from videos in DVD quality apart.

Resolution: SVCDs use the better MPEG-2 encoder 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 characterized by excellent image definition and homogeneity.

Hard disk capacity: An average 90-minute movie must be spread across 3 CDs. On one SVCD you can get about 30 minutes of good-quality movie.

Encoder setting: Compared to the VCD with 1.3, the data transfer rate is doubled to 2.6 Mbit/s.

MPEG-2 format introduces the so-called variable bit rate (VBR). In contrast to the constant bit rate (CBR) of the MPEG-1 encoders, this encoder has the option of using more bits for movement-intensive sections, as well as saving bits if picture content remains the same.

T

Toolbar

Here you will find small buttons that provide a function when clicked. For example, you can cut out a selected object by clicking on the scissors.

Top-level domain

Top-level domains (TLD) are always those separated by a dot at the end of an Internet address (for example, "http://www.magix.com" < here, .com is the top-level domain). Among these are also country top-level domains, such as .co.uk, .us, .de as well as so-called generic top-level domains like .net, .org, .biz, and so on.

Traffic

Traffic (data transmission) occurs within your MAGIX Website Service as soon as data is transferred across the Internet: for example, when uploading or downloading files to your website or when someone else opens your website.

U

Universal Plug & Play; UPnP

Universal Plug 'n' Play (UPnP) is a network protocol which enables data exchange between different devices (PCs, hi-fi systems, video cameras, PDAs, and webservers). UPnP allows various devices to participate in network-wide communication, i.e. the initialization of functions and other device functions. Long-winded configuring or installing of drivers is not required as the devices can handle their own functions and data sources by themselves. Find out more at www.upnp.org.

Hint: To work with UPnP you have to activate it first. This can be found under "Options" ("Y" -> UPnP).

URL

URL stands for Uniform Resource Locator and describes where a source can be found online (for example, a website). The address or the path to the storage location of a file on your computer is known as a URL. Often the term URL is used as a term for the domain. The URL for the MAGIX website is: http://www.magix.co.uk

V

VST and DirectX plug-ins

Plug-ins are additional programs that expand the functionality of the main program. They are inserted into the main program.

Two standards exist for audio editing: VST (Steinberg) and DirectX (Microsoft). VST has asserted itself stronger in the current market.

W

WAV

Wave (*.WAV) is a standard uncompressed audio format.

Webhosting

This means that an Internet Service Provider makes domains and webspace available to its customers. With the MAGIX Website Service, MAGIX provides webhosting to its customers.

Webmail

Webmail enables the customer to view and receive the contents of their email inbox without having to install email software on their computer. Customers of the MAGIX Website Service can use MAGIX Webmail for this.

Webmaster

A webmaster is responsible for the administration and maintenance of a website. Often, the webmaster is also the owner of the website as well as the domain that belongs to it. Once you have registered a domain in the MAGIX Website Service, an email account will automatically be set up, for example: "mailto:webmaster@domainname.co.uk".

Webserver

Webserver refers to the computer on which your host saves your website's pages and which makes your pages accessible on the Internet 24-hours a day.

WMA

A process developed by Microsoft for compressing audio files with properties similar to those of MP3.

WMV

Windows Media Video (WMV) is a trademark video codec from Microsoft. If you have Windows installed on your PC, then playing WMV files shouldn't be a problem. Only a few (hardware) DVD players are able to play this format. Read more about this in your DVD player's manual.

This video format is very good for web videos as it allows relatively high compression rates.

World Wide Web (WWW)

WWW stands for "World Wide Web" and is the most used service of the Internet. On the WWW, web browsers (for example, Internet Explorer) are used to display information via websites. The process is colloquially called "Surfing the Internet".

Z

Zip

ZIP is a file format for archiving your files. The original file is reduced and then restored to its original size after it is unpacked without losing any quality.

Keyboard shortcuts

Tip: In Windows, keyboard settings are changed using the Alt + Shift key combination. Those who often use keyboard shortcuts can accidentally change their keyboard settings, so that they keys don't correspond to the pictured symbols. To prevent this, you can remove the check mark found by going to "Control panel" > "Regional and language options" > "Languages" tab > "Details" > "Keyboard" > "Change keyboard combination" under "Change input layout".

Media Pool

Delete file	Del
Copy file	Ctrl + Ins
Insert file	Shift + Ins
Rename file	Alt + R
New folder	Ctrl+P
Options	P
Help	F1

Select files:

Select multiple sequential images:	Shift-click on the first and last file you wish to select
Select multiple individual pictures:	Ctrl-click on the images
Select all images of the opened folder:	Ctrl + A

Slideshow

Load/Save project

New project	Alt + Ctrl + N
Load project	Ctrl + Alt + O
Save project	Ctrl + Alt + S
Save project as...	Alt + Shift + S
Delete project	Alt + Shift + O
New slideshow	Ctrl + N
Load slideshow	Ctrl + O
Load restoration slideshow	Alt + O
Save slideshow	Ctrl + S
Save slideshow as...	Shift + S
Close slideshow	Shift + O
Delete slideshow	Shift + I
Burn backup copy to disc	Alt + Shift + R

Recording

Audio recording	R

Tools

Select all (not in Storyboard mode)	Ctrl + A
Cut	Ctrl + X
Copy	Ctrl + C
Insert	Ctrl + V
Undo	Ctrl + Z
Restore	Ctrl + Y
Delete	Del
Photo overview	O
Slideshow Maker	W
Optimize photo	Shift + X
Audio cleaning	Shift + W

Cut

Split object	T
Remove object beginning	Ctrl + T
Remove object end	Shift + T

Split slideshow	Alt + T

Effects

Edit photo	Shift + Y
Zoom 2	Ctrl + Alt + 1
Zoom 3	Ctrl + Alt + 2
Free zoom selection	Ctrl + Alt + 3
Fix image proportions	Ctrl + Alt + 4
Reset cropping	Ctrl + Alt + 5
Pan left -> right	Ctrl + Shift + A
Pan right -> left	Ctrl + Shift + B
Pan top -> bottom	Ctrl + Alt + V
Pan bottom -> top	Ctrl + Shift + D
Zoom out	Ctrl + Shift + E
Zoom in	Ctrl + Shift + F
Reset movement	Ctrl + Shift + G
Rotate left	Ctrl + Alt + F
Rotate right	Ctrl + Alt + G
Rotate 180 degrees	Ctrl + Alt + H
Transition (length)	Alt + I
Apply transition to all	Alt + A
Random transition	Alt + Z
Mirror horizontally	Ctrl + Alt + A
Mirror vertically	Ctrl + Alt + B
Horizontal symmetry	Ctrl + Alt + C
Vertical symmetry	Ctrl + Alt + D
Kaleidoscope	Ctrl + Alt + E
Color shift 1/2/3	Shift + 1/2/3
Title Editor	Alt + Shift + T
Reset video effects	Ctrl + C
Object properties	Ctrl + E

Arrangement display

Switch Storyboard/Timeline mode	Tab
Optimize grid view	Shift + B
Zoom 1 frame	Ctrl + 1
Zoom 5 frames	Ctrl + 2
Zoom 1 sec	Ctrl + 3
Zoom 10 sec	Ctrl + 4
Zoom 1 min	Ctrl + 5
Zoom 10 min	Ctrl + 6
Zoom range from start to end marker	Ctrl + 7
Zoom the entire slideshow	Ctrl + 8

Playback and marker placement

Start/Stop playback	Space bar, ↑
Stop at position (stop playback, move start marker to current position)	Escape, ↓, 0 on the number pad
Move start marker to the beginning	Home
Move end marker to the end	end
Slow wind left	Left
Slow wind right	Right
Fast wind left	Ctrl + Left
Fast wind right	Ctrl + Right
Full screen playback	Alt + Enter

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