MUSIC MAKER MX
PREMIUM

MAGIX

English language manual

Copyright

Preface

MAGIX Music Maker MX Premium offers an easy start and the option to dive deeper into the world of music production. A giant, high-quality sound archive, an especially intuitive approach to creating original music, plus many useful functions result in an unbeatable complete package for making your own songs.

The handling is especially easy and consistent. The included sound files can be combined with the software synthesizers easily. MP3 songs can be used with audio CD tracks, your own music recordings and even videos, photos or graphics. Even VST and DirectX plug-ins or MIDI files can be added easily.

This turns your computer into a universal production studio for music and all other kinds of multimedia files. The music building blocks supplied in CD quality can be combined very easily as they are all categorized according to tempo and harmony. And for those of you who want to start making songs effortlessly and straight away, the integrated "Song Maker" will take care of almost everything for you.

The print manual explains all of the basic functions of the program. In addition, you get a PDF manual which describes each function in detail. If you prefer to discover the many possibilities of the program by yourself, you can also use the PDF manual simply as a reference. An alphabetical index is included at the very end.

Have fun with MAGIX Music Maker MX Premium.

Your MAGIX team.

Table of Contents

Support

Dear MAGIX customer,

Our aim is to provide convenient, fast and 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 on 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 on 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 for USD 12.99 | CAD 13.99 | GBP 9.99 | AUD 18.99 | ZAR 120.00 | EUR 12.99 | SEK 119.00 | NOK 99.00 | DKK 99.00. 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: 699 18149
Sweden: 0852500858
Finland: 09 31581630
Norway: 0210 30665

North America

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

Uninstalling the program

If you would like to uninstall MAGIX Music Maker MX Premium, you can do so via the control panel under "Software". Or go to "Programs > MAGIX > MAGIX Music Maker MX Premium > Service and Support > Uninstall MAGIX Music Maker MX Premium".

Before You Start

Package Contents

DVD

On this DVD you will find the installation manager for MAGIX Music Maker MX Premium, as well as the multimedia library with sound and video files in various genres.

The Terms and Conditions for usage of MAGIX sound and video files when releasing your work to the public can be found in the "MAGIX Creation Logo.pdf" file in the installation folder.

Manual

The printed manual only contains the basic functions of both program versions MAGIX Music Maker MX Premium and MAGIX Music Maker MX Premium. Additional features of the Premium version are marked accordingly.

The PDF manual contains comprehensive documentation. It is copied to your hard drive during program installations and describes all program functions in detail. You can open it from the program group in the start menu.

System Requirements

For Microsoft® Windows® 7 | XP® | Vista

Minimum configuration:

- PC with 2 GHz processor
- 1 GB RAM (2 GB recommended)
- Free hard disk space: 6 GB
- Minimum screen resolution 1024 x 768 pixels
- Sound card
- DVD drive

Optional:

- Burn CDs/DVDs with a CD/DVD±R(W) burner
- MP3 export with Windows Media® Player 10 or higher

Installation

Step 1: Insert the program disc into the drive. The installation program starts up automatically in Windows. If the disc doesn't run automatically,

- open the Windows Explorer and click the letter of the CD/DVD drive.
- Now double-click on "Start.exe" to start the installer.

Step 2: To begin the installation of MAGIX Music Maker MX Premium, click on "MAGIX Music Maker MX Premium". The MAGIX Music Maker MX Premium installation program will appear.

Simply follow the instructions on screen to complete the installation process and then click on "Continue". All files are copied onto the hard drive.

Step 3: Once the installation is complete, confirm the message by pressing "Finish". You will then be able to start the program at any time from the Windows "Start" menu.

If you would like to uninstall MAGIX Music Maker MX Premium, you can do so via the control panel under "Software". Or go to "Programs > MAGIX > MAGIX Music Maker MX Premium > Service and Support > Uninstall MAGIX Music Maker MX Premium".

Serial Number

A serial number is included with each product, and although it is not required for the installation of the software, it does enable access to additional bonus services. Please store this number in a safe place.

What can a serial number do?

A serial number ensures that your copy of MAGIX Music Maker MX Premium 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), you'll receive your serial number for activating the software directly after purchasing the product via email.

When will you need the serial number?

The serial number is required when you start or register MAGIX Music Maker MX Premium 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.

More about MAGIX

MAGIX Online World

MAGIX Online World from MAGIX offers you a range of new services for your photos, videos, and music that are accessible directly from the "Online" menu in MAGIX Music Maker MX Premium:

MAGIX Online Album

MAGIX Online Album (view page 282) 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. (view page 284)

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.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

Soundpool DVD Collection

MAGIX Music Maker MX Premium includes thousands of sound and video building blocks. Other media can be ordered later. MAGIX Sound Essentials includes professionally produced loops and samples in impressive quality – the ideal enhancement for the most varying of music styles, including:

- Ambient
- Big Beat
- Easy listening
- Dance / Electro
- Disco / House
- Soundtrack
- Hip hop
- Rock/Pop
- Techno / trance
- Special effects

In the upper menu bar under "Tasks" > "Discover more", you can order the MAGIX Sound Essentials directly.

Tip: At www.magix.com you'll always find the latest soundpool offers.

Introduction

What is MAGIX Music Maker MX Premium?

MAGIX Music Maker MX Premium is the new generation of multimedia software. From your private collection of love songs to entirely homemade video clips – everything's possible! You can upload your own songs and music videos directly to Internet services such as Facebook, YouTube and Soundcloud.

Lots of professionally produced sound and video samples come supplied. In the Arranger, samples and videos can simply be dragged onto the track, looped, enhanced with effects, and modified for export.

Additionally there are various synthesizer plug-ins for creating your own sounds. Audio CDs and MP3s can be integrated, remixed, or used as sound material. Even DirectX or VST plug-ins as well as MIDI files for remote control of the sound card or external synthesizers can be integrated into the arrangement perfectly. All multimedia formats can be combined with one another in any way on all tracks.

If you need even more sounds and samples, Catooh offers a rich selection of audio, video, images and professionally created sound effects, which can add even more variety to your project. MAGIX Music Maker MX Premium has a direct connection to the Internet for publishing straight to your personal MAGIX Online Album. Your own work can also be published directly from within the program to the MAGIX Community.

What's new in MAGIX Music Maker MX Premium?

New Sound Library

MAGIX Music Maker MX Premium is the original for loop-based music production on PCs. No other software offers as much experience. In the new version the sound library that comes included has been completely revised with lots of new audio and MIDI loops.

New menu structure

It's even easier to find the export options for YouTube and Soundcloud using the "Prepare" menu. You can additionally "pass on" your project directly for further work in other MAGIX programs.

An additional 2,000 sounds can be found in the online archive

In addition to the included sound loops, an additional 2,000 loops can be downloaded for free from the Internet. The total number of freely available sound building blocks is thereby increased to more than 3,500 loops (5,500 in the Premium version).

To download sounds, click on the "Catooh" button after installing the software and follow the instructions.

Lead Synth

The Lead Synth is a new "analog" top-class synthesizer. Of course, it is digital, but it sounds like it's analog. Just like famous analog modular synthesizers, e.g. by Moog. It can be accessed in the Media Pool via the "Synthesizers" button.

Drum Engine

New sound synthesis for perfect drum sounds. It can also be accessed in the Media Pool via the "Synthesizers" button.

Loop Designer

With the new Loop Designer, new loops can be created from existing material and then used as supplement to the included sound loops, as self-defined building blocks for your arrangements. It can also be accessed in the Media Pool via the "Synthesizers" button.

Upload to Facebook

In addition to Soundcloud and YouTube, you can also go to Facebook to present your own songs on the Internet. It can be reached via the "File > Export > Common export options" menu.

VST Support

Now it is possible to use external VST instruments and effects in all MAGIX Music Maker MX Premium versions. A wide range of DirectX and VST plug-ins are offered in retail stores or directly on the Internet, greatly expanding the possibilities of MAGIX Music Maker MX Premium.

VST instruments and effects are external programs, which must first be installed before being used in MAGIX Music Maker MX Premium. You can then find them in the mixer plug-in slots and in the track boxes at the start of every track. VST effects are applied to an entire track. VST instruments are controlled by MIDI objects.

Additional new features in the Premium version

- **Larger sound archive:** Over 3,500 new sounds and MIDI loops from all genres can be accessed via the "Soundpools" button in the Media Pool.
- **Century Guitars:** Clean, authentic guitar melodies and accompaniments. Especially in combination with Vandal SE, the virtual guitar and bass amplifier from the "Effects" menu, varied guitar sounds can be readily created. They are found by pressing the "Synth" button in the Media Pool.
- **Electric Bass** creates the bass line in the song. Whether curious bass sequences or subtle accompaniments, this bass convinces users with its sound and easy operation. They are found by pressing the "Synth" button in the Media Pool.

The Features

64-track Arranger (Premium: 96)

MAGIX Music Maker MX Premium provides 64 tracks (96 in the Premium version) for multimedia arrangements – enough space to create multiple polyphonic pieces, but most importantly, so that you don't lose track of your project at any point.

Multimedia Library

The included multimedia library supplies audio and video building blocks ("samples") for combining on the Arranger tracks, furthermore, loads of melodies, effect templates, and graphical animations come supplied for inclusion in new songs & video clips. In short: just about anything can be combined with anything else. The sky's the limit to your creativity.

BeatBox 2

BeatBox 2, the new groove synthesizer, lets you make great beats with ease. It can be accessed in the Media Pool via the "Synthesizers" button. Easy mode must be switched off to access it.

Audio Effects

MAGIX Music Maker MX Premium provides lots of different audio effects. A short overview:

- You can correct tempo and pitch in real time using **Resampling**, **Timestretching** or **Pitchshifting**.
- The **Audio Effect Rack** supplies **Reverb**, **Echo**, **Equalizer**, **Compressor**, **Time Processor**, **Distortion**, **Filter** - all classic effects which can be used to produce almost any sound. The reverb effect, for example, provides professional, realistic reverb algorithms to add depth and spaciousness to your material.
- The **Gater** enables rhythmic splitting of surface sounds
- **Vandal SE** is a guitar amplifier from MAGIX. You can adjust all the typical settings on its realistic user interface.
- **essentialFX:** important bread-and-butter effects that are embedded like VST plug-ins.
- The **Vintage Effects Suite** covers "good old" guitar effects that were activated using a foot pedal in Jimi Hendrix's era: more warmth and fullness with **Chorus**, jet-like special effects with the **Flanger** or ping-pong effects with **Delay**. The **Filter** enables tempo-synchronous frequency filtering.

In general, there are three ways of implementing filters:

- **Object effects:** Effects for selected objects. These effects can be found in "Effects > Audio > Audio effects" or in the context menu (right mouse click).
- **Track effects:** Effects for complete tracks. These effects can be found in the track box or in the mixer channels.
- **Master effects:** Effects for the overall sound. These effects can be found in the mastering area of the mixer (or in the "Effects" menu).

Note: In the track box, you will only find pre-configured track effects, while the mixer channels contain editable effect devices.

Media database

Find your recordings, sounds, pictures, and videos quicker and faster with the MAGIX media database. An existing MAGIX database from the MAGIX Photo Manager or MAGIX Media Manager is integrated in the Media Pool and can be updated directly from MAGIX Music Maker MX Premium. Use the simple search function to find suitable pictures or MP3 files for your arrangement.

Import

You have the following options for using your own material:

- **Audio files** in a wide range of formats. You can also use MIDI, video and bitmaps. The files can be dragged to a track from the Media Pool with a held-down mouse key (drag & drop). You can find a list of supported formats below (view page 25).
- **Audio CDs** can be imported directly in the program. Simply place the CD into the drive and press "CD/DVD" and all the tracks are ready to be dragged & dropped into the Arranger. Whether for remixes or as sound material for your own compositions - your personal CD collection has a whole new meaning.
- Use the **recording function** to record vocals, noises, or instruments and integrate them into the arrangement.

Software Synthesizers

MAGIX Music Maker MX Premium includes the following synthesizers:

- **Robota** is a complete drum computer with four independent instruments which can be played live. Several faders enable all kinds of sound experimentation.
- **Vita** is a sampler with more than one hundred realistic instrument sounds from Yellow Tools, specialists in samples.

- **LiViD**, our "little virtual drummer", provides realistic acoustic drum tracks. Just a few instructions are enough for "LiviD" to play a complete drum track with introduction, chorus, bridge, fill-ins, etc.
- **BeatBox 2**, the new groove synthesizer, lets you make great beats with ease.
- **Atmos** for nature sounds or atmospheres like rain, thunder, or wind.
- New arrivals are **Loop Designer**, **Lead Synth** and **Drum Engine** (see above).

The synthesizers may be accessed in the Media Pool via the "Synthesizers" button. Easy mode must be switched off to access it.

High-end 32-bit floating point

All sound changes are executed using 32-bit floating point calculation for especially differentiated and high-quality sounds. This technology is also used in professional studios. This way, an audio picture with especially high dynamics can be created. Digital overmodulation and clipping become virtually impossible.

Own recordings

Use this recording function from MAGIX Music Maker MX Premium to record vocals, noises, or instruments and integrate them into the arrangement.

Audio & MIDI

The MIDI format remains crucial in music production. Using MIDI files, you can control external devices such as synthesizers and samplers and internal software audio generators such as VST plug-ins from your computer.

With MAGIX Music Maker MX Premium you can arrange, load, record, edit, and play MIDI data just as easily as audio data. For MIDI recordings and editing you can use the specialized MIDI Editor with Piano Roll, Drum Editor, Velocity/Controller Editor and Event List.

Recording can be started directly from the Arranger by setting the recording mode in the track box to "MIDI record" or "Audio record".

Mixer

MAGIX Music Maker MX Premium contains a professional real-time mixer with an Effect Rack and two Insert Effects per channel and for the Master, as well as additional Mastering Effects. You can group a number of faders of a specific type (for example, volume or panorama) and use them all together by holding down the Ctrl key. The quickest way to open and close the mixer is by using the M key.

Harmony Agent

The Harmony Agent provides harmony recognition automatically and determines the key and chord of any music title. See the guitar tablature of your favorite song in real time for the arrangement!

Formats and Interfaces

Import: WAV, MP3, OGG Vorbis, WMA, QuickTime, MIDI, CD-A (without copy protection), BMP, JPG, AVI, MXV, WMV

Export: WAV, MP3, OGG Vorbis, WMA, QuickTime, MIDI, BMP, JPG, AVI, MXV, WMV, CD-A (Premium version)

Song Maker

The Song Maker lets you create new arrangements quickly and easily and complement existing arrangements by automating the complicated steps such as sample selection and combination. The Song Maker takes over arranging whole sections such as intro and refrain. Therefore, you do not have to do everything yourself – you can omit the arranging and process your selection from the suggestions.

Easy mode

The new Easy mode makes creating radio-ready hits possible even for beginners – no time is required for breaking in, and no previous knowledge is necessary! Extended functions for advanced users, which are confusing to beginners, are hidden. Easy mode can be switched on and off via the buttons to the top left.

InfoBox

Thanks to the new info box, all important functions can be easily understood as they are applied. Just hold the mouse over a button that you would like to learn about and read the info text in the preview monitor.

Live Sessions

While the virtual instruments and sounds are played on the available tracks, a new track can be recorded simultaneously in realtime. What's more, you can also add realtime effects.

SoundVision

SoundVision is a new way of visualizing music which shows audio material at a glance in the form of a musical galaxy. Similar sounds are clustered close together; different sounds are organized further apart. SoundVision can be activated in the Media Pool via the corresponding button. Easy mode must be switched off to access it.

Internet upload to many platforms

When the song is finished, it should be heard not just by your friends, but preferably the whole world. This is achieved, naturally, with the help of the web. Under "File > Export > Community upload" you will find the most impotant communities, where you can upload your songs.

Additional features of the Premium version

Additional Audio Effects

- **Elastic Audio** for total control over vocals. Voice samples or melodies you sing yourself can be "tuned" to match automatically. With the "Harmonizer" in the Elastic Audio Editor, you can add a suitable second vocal or a whole choir to a specified melody.
- **Vocoder:** Produces distorted vocals from synthesized sounds.
- **Mastering Suite:** A special effect rack for "Mastering". In this process, the mixed-down music track is "polished" using parametric equalizer, multimax, limiter and stereo enhancers. All this can be found in the mixer (M key).
- **Am-Track SE:** This analog vintage compressor produces an especially warm, pumping sound. Launch it via the effects menu for selected audio objects or via the plug-in slot in the mixer.

Additional Styles & Samples

More content: The Premium version comes with more styles and ca. 2,000 additional samples.

Additional Instruments

- **Revolta 2:** An analog, especially variable and "professional" sounding, 12-tone synthesizer. With sound matrix, noise generator and nine effect types.
- **BeatBox 2 plus:** The ultimate groove tool with even more drum kits, automations and an even more flexible effects section.
- New features: **Century Guitars** & **Electric Bass**.

Video recording

In addition to audio recording, MAGIX Music Maker MX Premium provides a recording function for video from analog video sources for your own video clips.

DirectX and VST plug-ins

MAGIX Music Maker MX Premium enables the direct use of DirectX and VST plug-ins, a large variety of which is available in retail stores or directly online. Such plug-ins (audio effects or synthesizers from third party manufacturers) can significantly increase the functionality of MAGIX Music Maker MX Premium.

MAGIX Mastering Suite 2.0

Impressive studio sound just like you hear on store-bought CDs! MAGIX Mastering Suite is a special effects rack for use with the mixer master channel. The included effects help you with so-called "mastering"; put the final touch on

your completed and mixed music piece using parametric equalizers, MultiMax, limiter, and stereo enhancers.

Real 5.1 Surround Sound

MAGIX Music Maker MX Premium deluxe provides real 5.1 Surround Sound. 5.1 Surround is the preferred home cinema sound format, which is also supported in the Premium version when importing, editing, and exporting. With the 5.1 Surround Editor you can move your sound around the room.

MAGIX Music Editor

Detailed audio editing in real time and specialist for CD burning, sound restoration, sampling and audio editing.

Revolta 2

Revolta 2 is a powerful-sounding, varied 12-voice analog synthesizer with highly advanced functions, sound matrix, noise generator, and a complete effects section featuring nine effect types.

This synthesizer can create any electronic music you can imagine. The sound presets were created by sound designers for Access Virus and Rob Papens Albino, which makes Revolta 2 the number 1 choice for beginners and professionals alike.

Also in the Premium version

- **Additional tracks:** The Premium version offers 96 tracks (instead of 64) - more space for even more complex arrangements.
- **Timecode sync:** For creating songs in teams on multiple PCs. Simply connect two notebooks to each other via MIDI and jam together.
- **MIDI step recording:** Provided for composers unsure of their keyboard playing skills who want to play perfect melodies. The MIDI editor can be opened by double-clicking on a MIDI object.
- **ReWire:** For embedding of other music programs. Programs such as Propellerhead Reason or Ableton Live can be controlled in MAGIX Music Maker MX Premium like a software synthesizer using MIDI objects.
- **Video recoding:** In addition to audio recording, MAGIX Music Maker MX Premium provides a recording function for video from analog video sources – for your own video clips. It can be found in the "File" menu under "Import > Video recording".
- **Curve automation:** Effect and volume progressions can be controlled using freely drawable curves – for individual objects as well as for complete tracks. In addition, you can fade in or out an echo at a specific position in the song by drawing in a curve peak at the corresponding position.

- **MAGIX Music Editor:** Detailed audio editing in real time and specialist for CD burning, sound restoration, sampling and audio editing.
- **MAGIX Xtreme Print Center** for quickly creating CD covers, inlays and labels.

Overview of the Program Interface

❶	**Menu bar**	This bar provides the most important editing commands.
❷	**Toolbar** (view page 324)	This contains the buttons for quick editing as well as the different mouse modes.
❸	**Easy Mode** (view page 42)	This turns the clearly laid-out beginner mode on or off.
❹	**Track boxes** (view page 43)	Complete tracks can be turned on or off (muted) or played separately (solo). Use the FX buttons to apply track effects.
❺	**Arranger** (view page 41)	You can freely position any multimedia material on all of the Arranger's tracks.
❻	**Zoom functions** (view page 44)	Here you can enlarge or reduce the view. The horizontal scrollbar can be stretched and compressed for zooming.
❼	**Media Pool** (view page 51)	All files listed here can be added to the Arranger via drag & drop.

8 **Monitor** (view page 61)   Previews of graphics or video files that are selected in the Media Pool are displayed here. All visual material for the arrangement is also shown here on playback. Alternatively, a peak meter, the arrangement overview, or the Info Box can be shown.

Quick start

This chapter explains the basic functions of MAGIX Music Maker MX Premium with a step-by-step introduction. A systematic description of the program functions can be found in the PDF manual.

Tip: Open the tutorial video and the "Quick start" tutorial by clicking on the "Help" menu. A good introduction to the program is also available via the interactive tutorial that may be opened via the welcome dialog.

Play Demo Project

The large area with the horizontal tracks is the Arranger. Here you can make all changes to the positions and editing of multimedia objects.

In the lower section of the program interface you can find the Media Pool. You can switch between the different areas. In **Soundpools** you will find the included loops that you can load into the arrangement by drag & drop while holding the mouse key or by double-clicking. The **File Manager** works similarly to Windows® Explorer with some additional features. Here, professionally produced sounds can be downloaded from the Catooh and integrated directly.

In the **File Manager** you can find some demo songs in the "My projects" folder. Double-click on a demo and find the individual tracks of the song in the Arranger: In MAGIX Music Maker MX Premium, you can create a complete song by compiling objects. Click on the vertical scroll bar on the right-hand side of the screen and drag it down (hold down the left mouse button) in order to be able to see each track.

To play the demo, click on the Play button with the mouse or press the space bar on your keyboard. A vertical red line (the playback marker) runs across the screen and music will play from the speakers.

Note: If you do not hear anything, check if the correct sound card is active for playback in the Setup window (P key). Of course, the output of the sound card has to be connected to the speakers.

Song Maker

To quickly create a first arrangement, you should let the Song Maker run by itself and sit back and listen. Open a new, empty arrangement by clicking on "File" and selecting "New arrangement". This opens a new arrangement with 32 empty tracks. The Song Maker automatically creates musical arrangements from the included music files.

- Activate the Song Maker with the button in the upper section of the program interface.

- Select a music style.

- Select the instruments that you want to hear. If, for example, you only want a rhythm section with drums and bass, deactivate the other instruments.

- Select the song part or parts that you want to create.

- Now click on "Create Song". Song Maker automatically compiles an arrangement. The following is merely a suggestion.
- Listen to the suggestion by pressing the "Play" button. If you're not happy with the result, you can have another arrangement created by clicking "Cancel" and once more on the "Create new arrangement" button.
- Once you're happy with Song Maker's suggestion, click on "Create Song". The building blocks are only now added to the Arranger.
- To play the arrangement click on the space bar or on the "Play" button. The arrangement is then played back in a loop as long as the space bar is held or the Play button is pressed.

Your first musical arrangement is complete! Song Maker can also be used to add more individual samples or whole song parts or to lay down a bass or drum sound. This can then be expanded into a more complex multimedia arrangement or refined using your own video and audio files.

Preview and Load Audio Files

In the next step, load sound files into the Arranger for positioning and editing.

Create another new, empty arrangement. To do so, click on "File" and select the "New arrangement" option.

- Now click on **"Soundpools"** (1) in the Media Pool.
- Various **"Styles"** (2) are shown on the left-hand side of the Media Pool. Click on one of the styles to open a sub-folder.

- Now, select which instrument you would like to use under **instruments** (3).
- Some instruments are categorized according to pitch. Right-click (4) on any entry here to have the sound play automatically.

Other files in the Media Pool can also be previewed this way. Use the arrow keys of your keyboard to select the various pitches. Other instruments, like drums, are not categorized according to pitch.

- To load a file into the Arranger, simply press the Enter key.
- You can also drag the file from a table onto a track in the Arranger. Once you let go of the mouse button, the file will appear as an audio object at that position.

If you own an older version of MAGIX Music Maker MX Premium, a Soundpool Collection or have purchased soundpools from other sources, you can add these to your Media Pool via **Add styles...** (5).

Position Audio Objects

Each object can be moved in any way in the Arranger with the mouse, horizontally on a track as well as vertically between tracks.

Add new instruments to your first song in the Arranger. For example, take a drum sample and drag it underneath the object in a lower track which was added beforehand.

This way, any number of files can be dragged from any folder into the Arranger and placed on top of one another, on multiple tracks, or behind one another.

Play the arrangement in the meantime. Take note of the two markers at the top of the bar ruler – they represent the start and end points of the range to be played. If you wish to change the playback range, the start and end markers can be dragged (while holding down the mouse button) to any position on the bar ruler.
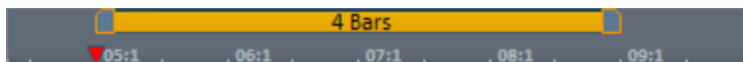
Tip: You can also move the playback marker independently of the left start marker by clicking on the lower section of the bar ruler.

You do not need to interrupt playback to load new samples into the Arranger. MAGIX Music Maker MX Premium has a "Smart Preview" function: You can simultaneously preview new samples in the Media Pool – they always run synchronous to the song in the Arranger. This function considerably simplifies the search for suitable samples for a song you wish to create.

Add Synthesizers

Synthesizers are small additional programs, which can synthesize certain sounds automatically. MAGIX Music Maker MX Premium distinguishes between **Object synthesizers** and **Track synthesizers**. Object synthesizers create own objects in a track and can be moved and arranged just like any object. Track synthesizers may also be trimmed or combined with loops or object synthesizers . But it is impossible to drag MIDI objects or other track synthesizers into the same track. For this reason, there is a maximum of one track synthesizer per track.

- To open the folder with the software synthesizers from MAGIX Music Maker MX Premium, you have to switch to the "File manager" from the Media Pool and then to the "Synthesizers" folder.
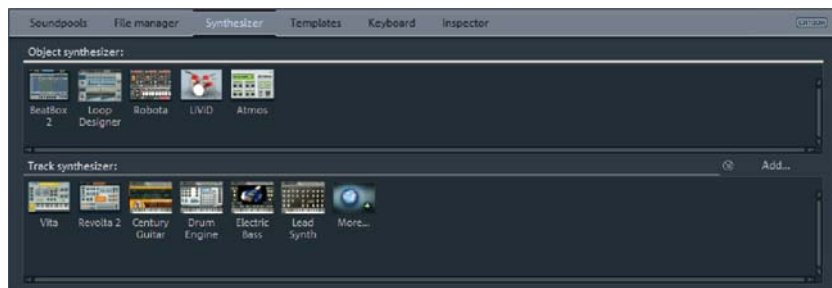
- Drag the desired synthesizer into an arrangement track with a held-down mouse key.
- The control console opens to program the synthesizer. Make changes to your settings.
- Every synthesizer has a playback function, with which you can hear how your changes affect the synthesizer.

Experiment with the various synthesizers in MAGIX Music Maker MX Premium and take advantage of each of their individual strengths.

Edit Objects

To get an impression of the object-based work method of MAGIX Music Maker MX Premium, you should become more familiar with the "Objects" on the tracks of the Arranger.

All objects can be shortened or looped by moving the mouse to one of the lower corners of the object until it turns into a stretch symbol. You can now stretch or compress the object length as much as you like. This way you can create rhythm tracks from short drum samples simply by stretching them.
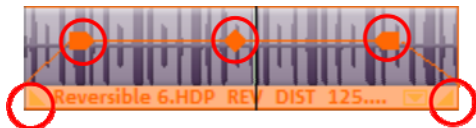
At the top corners of every object there are two fade handles that can be adjusted to fade an object in or out.

The handle at the top center can be used to adjust the volume of audio objects and the brightness of video objects.

All objects can be split into multiple objects. To do so, select "Split objects" from the "Edit" menu. The selected object will be split at the position where the playback marker is.

This can be done even faster using the special splitting mouse mode, found in the mouse mode button in the tool bar, or by pressing Ctrl + 6.

Right-clicking on an object opens the context menu with the options available for that specific object in the Timeline mode.

Add Videos or Images

Perhaps you would like to make a video clip? To do so, open a folder with video or photo files in the Media Pool under **File Manager** and select the ones you want to use in your project.

You can activate a video monitor using the middle button located to the right below the Arranger.

On the video monitor a preview of the selected video file can be shown.
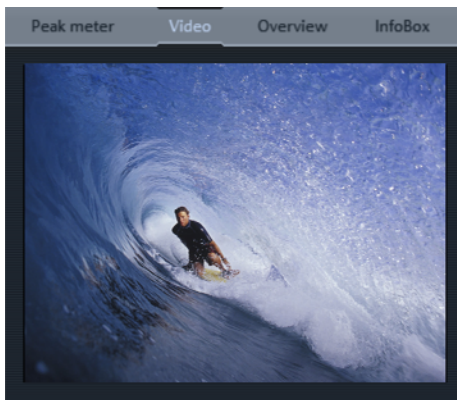
Once you have found the video material you want, use the mouse button to drag it onto any track (like previously with the audio files). You can add as many video and photo files as you like to your music.

You can adjust the length of the individual image objects with the help of Object handles (view page 37).

Effects

You should take time to experiment with the effects. In the context menu you can select the effects for the objects. Here, effect modules are opened with which each effect can be set up to meet your exact requirements.

Effects can also be dragged onto objects by holding the left mouse button or double-clicking. Simply open the "Templates" folder in the Media Pool and try each of the effects listed one after the other with a mouse click. Like with all other entries in the Media Pool, effects in this folder always have a preview as well. If you like an effect and wish to apply it to an object in the Arranger, simply click on it, drag it onto the object, and release the mouse button.

Tip: Use the Object Inspector in the Media Pool in order to display all important Object effects.

Export Arrangement

When your arrangement is ready, you would normally want to do something with it "out in the real world". For example, show it to friends. To do so, you must first export your work from MAGIX Music Maker MX Premium.

You can find the most important functions in "File > Export > Common export functions".

- **Export as MP3:** You can transfer your arrangement in MP3 format to a portable player.
- **Burn onto CD or DVD:** The classic way to present music. You can burn single songs or complete albums directly to CDs.

Tip: In the Premium version, you can use the integrated CD mastering and burn program to do this. Click on "File" and select the "Export arrangement -> Burn audio CD-R(W)" option to export your arrangement. The arrangement will be loaded into the CD mastering program MAGIX Music Editor and can be burned straight to disc from there.

- **Upload to the MAGIX Online Album:** When the song is finished, it should be heard not just by your friends, but preferably the whole world. The easiest way to do this is with a MAGIX Online Album of your own.
- **Publish on Facebook (YouTube/SoundCloud):** With these options you can publish directly on the popular online platforms.
- **Export in various formats:** In the "File > Export" menu you will also find all supported export formats for creating an audio or video file (for music videos) from your arrangement.

Note: The export calculations don't affect playback performance. Even if playback on your computer begins to stutter because too much RAM is being used for videos and effects, the export file will still be calculated correctly. We recommend placing already finished passages of complex arrangements via the export or mixdown function into a single file to free up some processing power (and tracks). This kind of file can be reloaded into the arrangement and edited further with the other parts.

Burn audio CD

To burn an audio CD, first export your arrangement as a WAV file:

• Click "File" and select the "Export arrangement -> Audio as wave..." option.

The WAV file created can be burned as an audio CD with the included burn program MAGIX Speed burnR.

Tip: You can use an integrated CD mastering tool in the Premium version and a burn program to do this. Click on "File" and select the option "Export arrangement -> Burn audio CD-R(W)" to export your arrangement. The arrangement will be loaded into the CD mastering program MAGIX Music Editor and can be burned straight to disc from there.

Arranger

Normal mode/Easy mode

MAGIX Music Maker MX Premium can be operated in two different views, and these can be activated by clicking on the button in the top right. If the MAGIX Music Maker MX Premium interface confuses you at first, then switch the program to "Easy" mode!
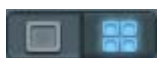
 Easy mode active

 Normal mode active

In the beginner mode, the program presents a clearly laid-out version which only displays the most important buttons and switches. Functional elements for advanced users are hidden.

This documentation describes MAGIX Music Maker MX Premium in normal mode. If you can't find one of the functions while reading, make sure that you don't have "Easy" mode turned on.

Tracks

The arranger offers tracks for positioning and editing multimedia material. Additional tracks can be added by selecting the "Add track" option in "Edit" menu. In total, 96 tracks can be used for an arrangement.
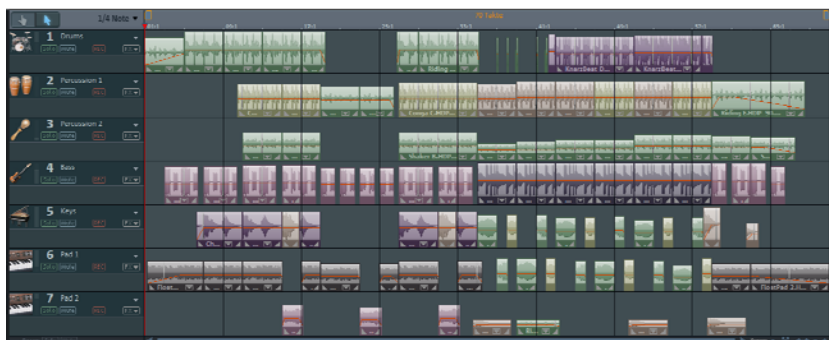
Fundamentally, all object types can be placed on all tracks. You can also combine videos with MIDI and audio objects one track.

If the tracks in the arranger are not long enough, you can increase the length by pressing the minus button (-) to the right. The size of the arrangement adapts itself automatically when objects exceed the space for them on the right-hand side or when new objects are loaded.

Mute a single audio track by clicking on the "Mute" button or play individual tracks separately ("Solo") to emphasize a particular scene.

Trackboxes and Instrument icons
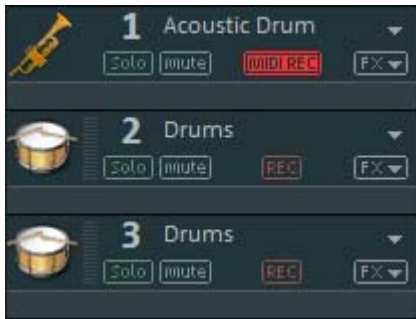
Each track box contains an instrument icon box. If you drag a MAGIX Soundpool sample onto an empty track, a suitable icon is automatically displayed. You can also exchange the icon by clicking on it an select another one.

At the start of each track there is a track box where you can switch each track to "mute" or "solo". In the lower half of the arranger below the track boxes are two buttons, "Reset" and "Solo/Mute", which you can use to reset all track solo/mute settings.

The **peak meter** can be seen beside the icons. This allows you to control the volume of the track and to see if the track produces any audio sound at all.

Beside the track number to the top, you'll find the **track name field**. You can rename the track by double clicking this field.

The small arrow beside the name of the track opens a menu with which you can load a software instrument (VSTi plug-in) into the track. This will then be used by all MIDI objects of the track. Here you also have access to the individual sounds of the VST instruments VITA and REVOLTA which come supplied.

With REC you can activate the track for an audio or MIDI recording.

`AUDIO REC` A simple click puts the track into "Audio recording" mode. Furthermore, monitoring is now activated, i.e you can hear the input signal of your sound card on playback (learn more in the "Mixer" chapter, "Recording/Live Monitoring" (view page 252))
If you start recording now ("R"), the audio recording dialog will open. The recorded audio material is added to this track. If there is already an object on the same position of the track, the next empty track will be used.

`MIDI REC` Clicking this button again puts the track into "MIDI recording" mode. If a software instrument is loaded, you can play it with a hooked-up MIDI keyboard (monitoring). If you start recording now, a new MIDI object will be created in the track and the MIDI editor will open. From there you will be able to start the MIDI recording (view page 105).

`FX ▼` Here you can open the "Track effects" menu where you will find presets for track effects (view page 176) sorted according to the instrument type.
With the "Move track up/down" commands you can sort your tracks.

Zooming
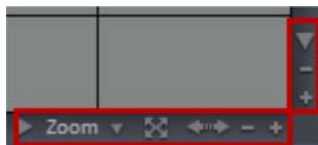
The vertical zoom function sets the number of visible tracks. For a lot of tracks, enlarging the view (zooming) is sensible for editing a single track or object.

Use the horizontal zoom functions to set up the visible section of the arrangement on the timeline.

Move/Zoom with the scroll bar

If you move the mouse to the edge of the scroll bar, the cursor will turn into a double-arrow symbol which can be used to select and compress/stretch the scroll bar. This way, you can zoom in and out quickly. Dragging the middle of the scroll bar moves the visible section.

You can tell which part of the entire arrangement is being played by the size and position of the scroll bar. If the whole arrangement is displayed, then the scroll bar will fill out the bar. Complete view may be set by doublke clicking the scroll bar.

A track may not be diminished without any limit, and the number of maximum displayable tracks is also limited, meaning not all tracks may be able to be viewed at once.

Zoom buttons

Zoom ▼   **Zoom menu:** Certain zoom levels may be selected by right clicking the horizontal scroll bar or by clicking the zoom menu. You can also jump to certain positions in the arrangement here.

⊠   **Enlarge objects:** Vertical and horizontal zoom stages are enlarged so that all of the selected objects are displayed at maximum size. If the function is switched off, the regular zoom stage will be restored.

◄▪▪►   **Optimize view** (view page 311)

▬ ▪   **Zoom buttons:** Buttons for zooming in and out

Move/Zoom with the mouse wheel

The visible section can be moved, reduced, and increased in size by using the scroll bars. These functions can also be executed without having to click anywhere by using the mouse to move the scroll bars or zoom buttons or by using the mouse wheel.

Grid

Timestretching in the arrangement is displayed by the vertical progress of the tracks. To structure this progression, a timeline displaying time units has been positioned at the top of the first track.

Two consecutive objects will seamlessly snap together even if they are on different tracks. This avoids undesired gaps or overlaps.

The bar grid makes sure that the objects and the start, end & play markers only snap into place at specific positions so that they can be positioned precisely according to the beat.
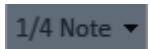
1/4 Note ▼,   The grid width can be set using the button to the top left.

If, for example, "1/2 beat" has been set, then the objects and markers snap into position at all half beat positions when moved. This way there won't be any gaps between the objects and precisely beat-matched cuts are possible. The selection ranges from full beats to 1/16 grid sizes. Triplet values are also possible.

The "Frame" setting allows fine positioning using the time code. The time display in the timeline and transport control automatically changes from bars:beats:ticks to hours:minutes:seconds:frames.

"Objects" deactivates the beat grid and the grid will now only affect the object edges. You can also deactivate the grind entirely by selecting "No grid" or by pressing "F4".

"Select beat type" switches the timeline to irregular bars like ¾ beat.

Playback area, Start and end markers

In the upper area of the timeline, there are two markers between which playback area is displayed, and this area can be played back as a loop (endless).
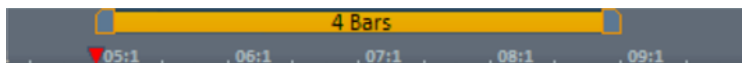
The length of the playback area is shown in blue. The number before the point indicates the number of bars, the number following it indicates the number of fragments corresponding to the selected grid, e.g. 3.3 on a 1/16 grid = 3 bars and 3/16. A tilde (~) in the display means that the playback area doesn't have the exact raster length and the loop is therefore "non-circular". Double clicking on the playback area sets it to cover the whole arrangement; double clicking again sets it between the start of the arrangement and the last object.

This area also determines which positions are copied or inserted into the clipboard's memory by the the edit menu commands "Edit range" or the keyboard shortcuts "Ctrl + Alt + C" for "copy", "Ctrl + Alt + V" for "paste" or "Ctrl + Alt + X" for "cut".

The right end marker is always moved together with the start marker so that the length of the looped playback area remains constant as the start marker is moved. So always move the start marker first and then the end marker.

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

It's even easier with the keyboard: The cursor keys move the playback area forward or backward by a whole playback area's length. Press "Ctrl" as well to move the playback area by a quarter of its length. "Shift" + cursor keys halves or doubles the playback area's length.

"**Ctrl + Shift" +cursor keys** enables you to lengthen or shorten the playback area by a bar. Use this function as well to quickly move the playback area onto a smooth bar length.

When you move the playback area while a playback is running, the old area is always played to the end and smoothly changed into the new one after. In this way you can remix your tracks in real-time with the keyboard!

Note: If the starting marker does not move to the right with a left click or via the keyboard, it is because the end marker would then have to be shifted beyond the end of the arrangement. In this case, move the start marker via drag & drop or position the end marker!

Moving the playback marker

The playback marker can be moved independent of the start marker. To do this, click on the lower part of the timeline. If you hold "Ctrl", the playback marker and start marker are moved simultaneously.

Once the playback marker reaches the end marker, playback is continued at the position of the start marker. If the playback marker was positioned outside of the playback range, the arrangement is played to the end. The selected play area is then played as a loop.

Transport bar (playback functions)

The transport bar's functions enable you to control the playback behavior of the arrangement using the mouse.

Tip: The space bar on your computer's keyboard may be used to start and stop playback much more easily. You will find an overview of all keyboard shortcuts at the end of this manual.

Back to start: This button quickly moves the start marker to the beginning of the arrangement. Clicking "Back to start" displays both the start marker and play range at the beginning of the arrangement.

Rewind: This function rewinds the arrangement back to the start. This means that the play marker in the timeline is reset.

Stop: Stop ends playback. The playback marker is reset to its initial position.

Play/pause: This button starts continuous playback of the arrangement; if the playback marker reaches the end marker, the range between the start and end marker will be played back as a loop. Clicking 'Play' again stops it at the current position of the playback marker ('Pause').

Fast-forward: Use this function to move along the arrangement much faster. The start marker moves forward along the timeline.

Record: Depending on whether a track in the track box (view page 43) is activated for MIDI or audio recording, this will start either audio (view page 79) or MIDI recording (view page 105).

This deactivates loop playback. The playback stops when the end marker is reached.

Time display
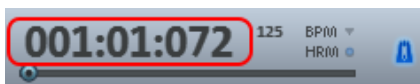
The time display is beside the transport controller.

The current playback position is displayed here. The unit can be switched between beats, hours:minutes:seconds, or frames by right clicking on the time format. Switching to remaining time display (distance to project end) is possible.

Display harmonies
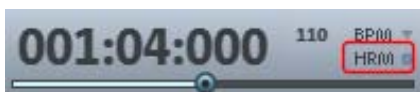
If this symbol is activated, harmony symbols will be displayed during playback. Harmonies can be detected with the Harmony Agent (view page 95).

Metronome

If this icon is active, then a metronome (click) will play during playback and recording. This provides helps you orient yourself with the arrangement tempo while you make your own recordings.

Volume regulation
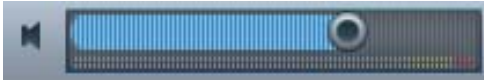
The volume control is to the left of the transport controller. Use it to quickly control the overall volume of your arrangement. To regulate the volume of individual tracks, use the mixer (view page 248).

Tempo

The song's tempo is displayed here in BPM (Beats Per Minute). The arrangement tempo is set automatically by the first sample used in the arrangement. One click on the small arrow shows the tempo fader. You can use this to smoothly change the master tempo during playback. The objects in the arrangement are adapted using timestretching.

By clicking "Tap", you can open the **tap tempo dialog** to "tap" in the tempo. Simply click the "Tap" button at the desired tempo or press the "T" key; the tempo is measured and displayed in the dialog. Pressing "OK" accepts the tempo.

Track position slider

The position slider quickly moves the play cursor within the visible range.

Arranger, Video Monitor, and Media Pool

If the video screen is re-opened and the Media Pool is closed, the video screen can be freely repositioned.

The "View" menu allows a standard setting to be switched on. If the option "Standard layout" is deactivated, the entire screen can be filled by the arranger in order to simplify positioning and editing objects.

In case of very large arrangements, the video monitor can be used as an overview display ("Menu -> Video monitor -> Arrangement overview (view page 313)").

Arranger buttons

The arranger buttons for quickly opening and closing all the most important windows can be found underneath the last track in the arranger.

Mixer

This button opens the real-time mixer.

You can modify the tracks relating to volume and the position in the stereo panorama here, and this is also where both master effects and plug-ins can be integrated.

Video

Opens/Closes the video monitor in "Peak meter" mode.

Live Mode

This option opens the Live Performer (view page 165).

Please refer to the "Arranging objects" chapter, section "Live Performer" (view page 165)!

Media Pool

MAGIX Music Maker MX Premium's Media Pool lets you access, preview, and load all supported media types, online and offline, e.g. with included sound and video loops, audio CDs, MP3 songs, synthesizers, or effects.

All media types are loaded into an arrangement from local drives or directly from the Internet via double-click or drag & drop.

The upper edge of the Media Pool contains seven buttons which operate the Media pool in different ways:

- The setting Soundpools offers a database view of all Soundpools.
- The **File manager** is very similar to Windows Explorer. It controls and loads media files of all types located on the hard drive.
- The **Keyboard** enables software synthesizers to be played and recorded directly via the on-screen keyboard.
- The object Inspector offers quick access to properties of objects, e.g. audio effects for audio objects. For MIDI objects (view page 98), a smaller version of the MIDI Editor is shown, which allows you to edit the selected object.
- The **Synthesizer** setting displays a list of the available synthesizers (view page 124).
- **Templates** (view page 58) provides effects presets for all kinds of audio, video, and titling effects.
- **Catooh** connects you directly to Catooh (view page 285).

Preview function

There is a preview function for all files: By simply clicking an audio object, the pre-listening function starts via the sound card. Video, graphics and text objects are shown on the video screen.

As the arrangement plays on, you can experiment with sounds from the Media Pool (see Smart Preview (view page 76)).

Note: Even while previewing, audio files are adapted to the current tempo using timestretching (you can deactivate this in the "Audio/Video options" menu).

Positioning the Media Pool

The Media Pool appears when on start up in the lower third of the screen. It can be turned off or loaded into a stand-alone screen. Also the View-Menu offers various options, for example a "arranger full view" which allows you to view multiple tracks at the same time

Using the small button at the top edge of the Media Pool, you can tun the Media Pool display on or off.

Soundpool settings

This setting can be used to access Soundpool media. Access to the supplied Soundpools is via a new, more clearly laid out database overview that enables the display of loops, multiple styles and instrument categories, e.g. all bass loops of every installed style or every loop of a style.

If you did not install the Soundpools on your hard drive during installation, then insert the MAGIX Music Maker MX Premium installation DVD into the DVD drive. The contents of the Soundpools will now be imported into the database. Other Soundpool media are automatically recognized and added to the database.

Note: Under program settings -> General (view page 288), you will find different options for maintaining and displaying the Soundpool database.

Soundpools already present on the hard disk can be imported via "Add styles" into the database.

A Soundpool consists of one or more **Styles**. Styles are sound libraries that belong together and cover a certain musical style. The sounds (sample or MIDI loops) of one style all have a certain tempo. You can mix loops from different styles, and the tempos will be adjusted accordingly. Within a style, loops are ordered according to instruments, and one instrument folder contains different sounds. Each sound can have a different pitch (except for drums and effects sounds).
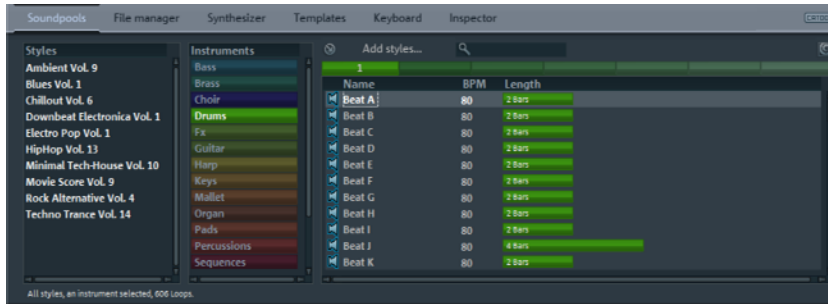
The Soundpool display consists of several columns: First, all styles available in the database are shown. The second column lists the instruments. The third column, "Name", contains the list of the sounds found. These are displayed according to the length of the beats (1,2, or 4 beats).

 Sample loop

 MIDI loop

The different pitches are displayed above that (if available). An entry field for full text search is located under the match list.

The list of samples found is created based on the entry selection in the first two columns. With "Ctrl + click" you can reduce or expand selection. No selection ("Ctrl + click" on a single selected element) shows all entries from this category.

If you select an instrument, e.g. "Drums" and "Percussion" and no style, then all drums and percussion samples in the whole database will be displayed.

 In the search field, you can search the list of the sounds found for a certain sound file name.

 Sound Vision view: This button displays all Soundpools as galaxies.

SoundVision
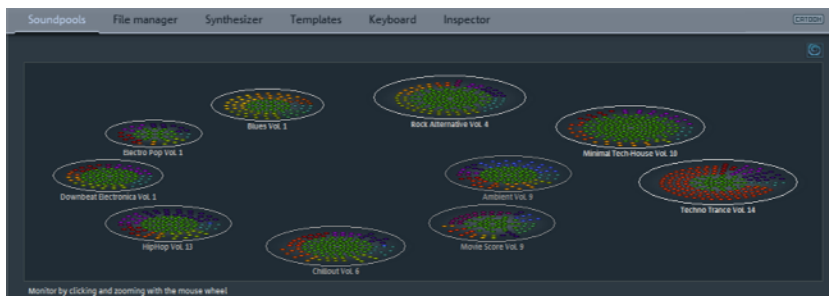
This alternative display of the Soundpool library shows all available sounds graphically. No matter how large the Soundpool collection is, you can view the entire library using this 2-dimensional display. This "galaxy" can now be accessed via the mouse to collect all of the sounds you want.

The large clusters of "stars" are the styles, and these are arranged from inside to outside with increasing tempo. Eventually they form a center - the styles furthest out have the highest tempo.

Within a style are the individual instruments (e.g. keys, pads, sequence) formed in a circle, and the drums are in the middle. Every instrument group has a certain color assigned to it which is the same in every style. The individual sounds are points encircled by the individual pitches, if available.

You navigate throughout the Sound Vision view by moving the selection displayed with the mouse; the mouse wheel enlarges or diminishes the view. The points (which symbolize the sound loops) can be manipulated exactly as in the Media Pool list view, i.e. select by double clicking and load by double clicking or via drag & drop.

File manager settings

MAGIX Music Maker MX Premium's file manager works very similarly to Windows Explorer. It can be used to access and load media files of all kinds, e.g. videos, bitmaps, MP3 audio files, audio CD tracks, RTF text files for titles.

The Media Pool consists of a file list to the right (the actual "Media Pool"), in which all loadable media types (and, if required, further subfolders) are listed, and the navigation area on the left-hand side.

In the file list, all supported multimedia files and subdirectories of the currently chosen directory are displayed. All entries can be loaded into the arranger tracks by double clicking or via drag & drop.

In the navigation area, you can find different buttons for directly accessing preset subfolders.

You can right click in the file list to define further buttons ("links"). Switch to the folder which you would like to create a link to and select the option "Link to folder" from the context menu.

Navigation buttons

Forwards/Back		The "Back" button always returns you to the folder where you were previously.
Up		The "Up" button takes you up to the next highest folder level.
Drive menu		You can access all available drives via the "Drive" menu button.
Path information	G:\Dokumente und Einst	The current folder's path is displayed in the top center.
Browse history list		Use the arrow button to open the menu to find the folders you previously visited.
View		These buttons switch the file view list between icons, lists, or details.
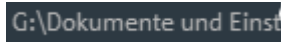
Various file list view modes

The **file list** displays all supported multimedia files and subfolders of the currently selected folder. Three different views (list, detail, large symbols) can be set by right clicking on the options or Media Pool's context menu.
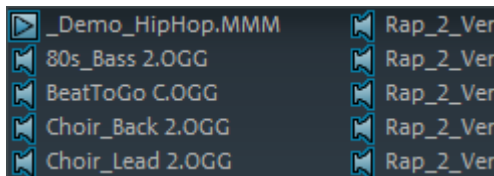
List: Only file names are listed. This view mode displays the most files simultaneously.

Details: The details section displays the type, size, and date of modification for every media file beside the name. The list can be sorted by clicking on any of these details.

Large symbols: These can be quite useful, since they show a preview frame for each movie and picture file. This allows you to sort through the material quicker. The disadvantage is that it takes longer for the file list to be displayed.

Deleting, copying, and moving files

All files listed in the media window can be selected, deleted, or moved into other folders via drag & drop, just like via Windows Explorer. This way, all objects desired for placement in an arrangement can be collected in a separate folder beforehand.

Additional functions can be accessed via the context menu, i.e. by right clicking an entry.

CD/DVD

Clicking this button once reads the CD that is currently in the CD-ROM drive. In the case of data CDs, all directory and file formats supported by MAGIX Music Maker MX Premium are displayed in the file manager. In the case of audio CDs, all tracks appear in the file list.

My Projects

This button opens the "My Projects" folder. This is a subfolder of "My Projects" that is named after the program (i.e. MAGIX Music Maker MX Premium, only featuring "_" instead of empty spaces). This is created automatically when the program is installed. All new recordings and arrangements are saved here automatically as a preset, and finished arrangements are exported here. You may change the save location as you see fit via Program settings > Folders .

My Files: This displays the contents of the "My Files" folder. This is normally the save location of videos, pictures, music, etc. (in the corresponding subfolders).

My MP3s

This provides quick access to your own MP3 collection. When this button is pressed for the first time, you can select the folder where your MP3 files are saved. You may also change this path later via "Program settings", the "Folder" tab (Y key or "File" menu > "Settings" > "Program settings").

Database

 This button displays the media files on your computer in a well-structured database view.

This means the files are no longer displayed according to where they are stored in the different folders but are grouped according to general characteristics. The top "folder level" is the difference in audio, video or image files; subfolders would be, for instance, the date for photos or the artist for MP3 files.

In order to present media data on your PC in a database view, you first have to add them to the MAGIX database. To do this, click on the database button to the right and select the option **Start media manager for photos and music**.

This opens the corresponding MAGIX program and the database scan function of the program.

MAGIX Music Maker MX Premium comes with the free photo and music management programs MAGIX Photo Manager and MAGIX Music Manager. If you have the corresponding free versions, MAGIX MP3 Maker or MAGIX Digital Photo Maker, they will be used instead.

By right clicking on "Database" and clicking on "Database search", you can open a special search dialog in which you can carry out a targeted search for media.

Search the database

Quick search: Simply enter a keyword and highlight the data type (photo, audio, video). All available Database columns are searched for the keyword.

Expert search: Here you can restrict your search by stating search criteria in the following way:

	Database column	Condition	Comparison item
e.g.	dimensions	greater than	800

You can search up to three database columns that are connected via "and" or "or" simultaneously.

"**AND**" means only those files will be listed that match all criteria.

"**OR**" means only those files will be listed that match at least one of the criteria.

Synthesizer

This button opens the folder containing your synthesizers. Read more on this in the Software synthesizers (view page 124) chapter.

Template settings

This opens the folders for installed effects presets. Saved audio and video effects presets as well as title templates also land in these folders, so that over time a complete library of your own presets will develop.
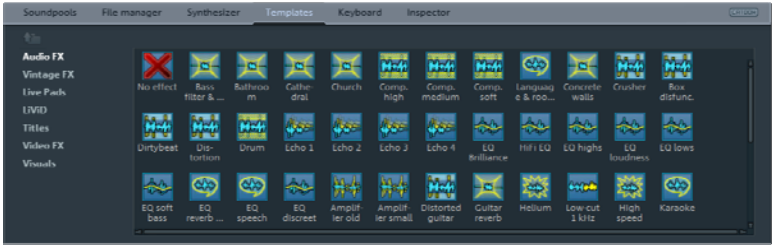
The buttons to the left open the folders for audio effects ("Audio FX"), presets for the Vintage Effects Suite ("Vintage FX"), presets for the Live Performer (view page 165) ("Live Pads"), the LiViD drums synthesizer, title templates ("Titles"), video effects ("Video FX", "Video Mix FX"), and automatic animations ("Visuals").

You can also add effects via drag & drop. Simply drag these onto the corresponding object using the mouse.

The context menu for audio objects enables you to to set audio effects in the effects rack (view page 173) precisely!

Keyboard settings

The keyboard enables software synthesizers (view page 155) to be played and recorded directly via the on-screen keyboard.

If a track synthesizer is not present, then a new track will be added and a new synthesizer plug-in will be added when the view is switched to "Keyboard" (Vita with Sound Acoustic Bar Piano).

The keyboard always controls the synthesizer in the track for which MIDI recording has been activated.

You can click the keyboard with the mouse to play the instrument. The closer to the bottom edge you click on the "virtual keys", the louder the sound will play. Of course, you can't seriously play music by clicking with the mouse (this function is more suitable for testing out sounds quickly). That's why you can also play the keyboard with the keys on your computer's own keyboard.

Note: This works only after you first click once on the keyboard using your mouse. Otherwise, pressing the computer keys will function as key shortcuts (view page 324) for the different features in Music Maker. If the computer keys control the program's keyboard, then the piano keys feature the corresponding characters on your keyboard.
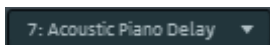
 A sound program for the synthesizer may be selected from this list.
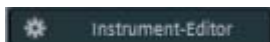
 This button opens the editor window for the synthesizer for fine tuning the sound.

Object Inspector settings

The Object Inspector offers quick access to properties of objects, e.g. audio effects for audio objects. For MIDI objects (view page 98), a smaller version of the MIDI Editor is shown, which allows you to edit the selected object.

Audio objects

If an audio object is selected the object inspector will open featuring the audio object view
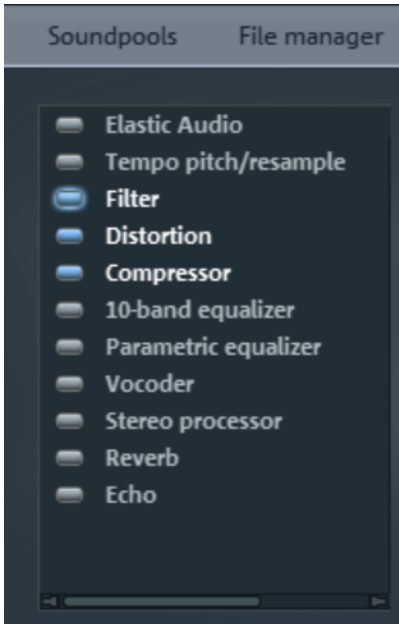
This displays the available object effects (view page 175) in a clearly laid out list.
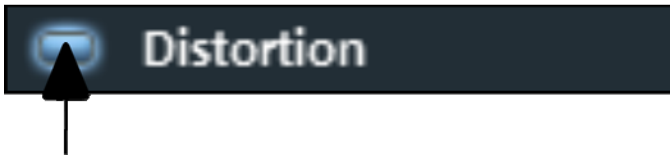
This button switches effects on and off.

The settings dialog for an effect is opened via this button.

MIDI objects

If a MIDI object is selected, then the Object Inspector shows a smaller version of the MIDI Editor. The MIDI Editor in the Object Inspector operates in the same way as the "bigger" version in its own window, but the menu and several playback and recording settings are not available.
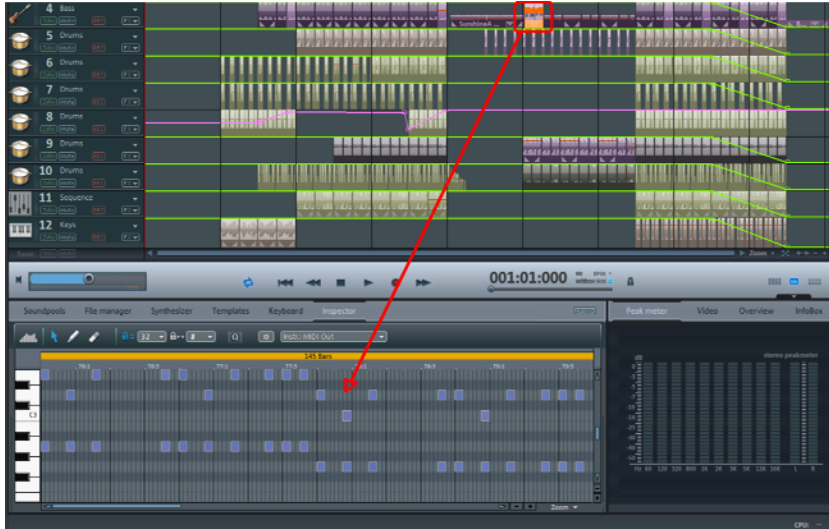
For more information, please read the section MIDI Editor in the chapter "MIDI objects"!

Setting Catooh

You can preview multimedia files from the Online Content Library Catooh, load them into the arrangement, and edit them further .

Please read the chapter entitled Catooh (view page 285)!

Videoscreen
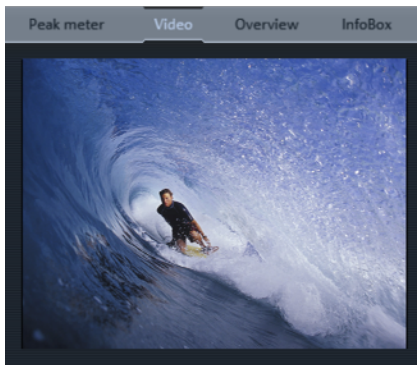
The video monitor can be positioned anywhere on the screen. The size is variable. To set the size, right click on the video monitor and select the desired size from the context menu or adjust it yourself ("user-defined"). Please note that larger video screens require more CPU power.

To detach the video monitor from the arranger and Media Pool, deactivate the default layout in the "Window" menu. You can then position the screen anywhere you like.

The video monitor can be increased to full size by double clicking on it or pressing "Alt + Enter". Press "Esc" to leave maximized screen mode.

You can also include a large time display in the video monitor. "Display play time" shows the current play marker position in the video monitor. You can choose the screen & background colors and transparency.

The video monitor is transformed into an analyzer which displays the sound as a graphic.

"Overview" mode enables you to view the whole arrangement and access the object you are looking for in a split second - you can zoom in directly to the video monitor or move around the clip displayed in the arranger.

Audio peakmeter
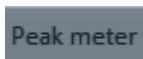
The video monitor is transformed into an analyzer which displays the sound as a graphic.

Shortcut: Shift+F4

Overview

Overview In the Overview mode, you can view the whole arrangement and you are also able to access any object you want in a split second; zoom in directly to the video monitor or move around the clip displayed in the arranger.

Shortcut: Shift + F2

Infobox

InfoBox The InfoBox mode shows help text in the preview monitor if you hold the mouse pointer over a button on the screen.

Shortcut: Shift +F1

Mouse modes

MAGIX Music Maker MX Premium offers special mouse modes for arranging and editing objects.

A small arrow next to the mouse pointer symbol allows different modes to be set.

Automation

This mouse mode is used for drawing the volume and effect curves (view page 242).

When active, a new curve can be drawn on an object or track using the left mouse button.

Activate the corresponding effects curve in the "Effects" menu in the track box to enable track automation.

For the object, use the "Automation of this object" command form the "Effects > Automation" menu (Key: Ctrl + H) and select the corresponding curve in the dialog. Clicking on an object without an activated effects curve activates the volume object curve for this object.

Note: In this mode, the object curves will always be edited, even if a track curve is also displayed. If you would like to edit the track curve at this position, then you will need to temporarily move the object somewhere else.

Individual automation points on a curve may also be created in the normal "Move" mouse mode (see above) by double clicking the corresponding curve.

For more information about automation curves, please read the chapter Automation curves (view page 242)!

Shortkey: Ctrl + 4, number key 4

Move to track

This mouse mode behaves basically like the mouse mode for individual objects, but moving objects

results in all other objects behind the object moving in sync on the track. This is practical if space is needed at the start of a track, since all objects can be moved together without moving them underneath each other.

Shortcut: Ctrl + 2, number key 2

Move all

This mouse mode behaves in principal just like the "Single object mouse mode",

but during moving, all objects on all tracks will be moved together from the mouse position.

Shortcut: Ctrl + 3, number key 3

Move selection

This is the preset mouse mode in which most changes are made.

Left clicking selects an object. When the "Shift" or "Control" keys are pressed, multiple objects can be selected.

Hold down the mouse button to move selected objects.

In this mode the objects can be faded in or out or their lengths can be changed using any of the five handles. Please refer to the "Arranging objects" (view page 67) chapter. Right clicking on an object opens the context menu with the most important effects and settings available for that specific object.

If an effect curve is active in the deluxe version, the curve handles can be selected and moved. Double clicking on the curve creates new handles.

Shortcut: Ctrl + 1, number key 1

Draw

In this mode you can insert further similar objects behind an already loaded object.

Starting from the first object, the following objects are always inserted synchronously so that you can also think of this mode as the insertion of a "Mute" automation from a continuous loop. You can read more about this in the section "Drawing in loops (view page 72)" in the chapter "Arranging objects".

Shortcut: Ctrl + 5, number key 5

Split

You can split objects quickly with this mouse mode in order to remove unwanted parts or attach various effects to parts

of objects.

Shortcut: Ctrl + 6, number key 6

Stretch

This special mode is for customizing the length of objects.

Objects can be on the lower handles stretched or compressed. Audio material is therefore lengthened via timestretching without changing the pitch itself The middle object handles allow the object's pitch to be changed using pitchshifting in the range of -7... +7.

Shortcut: Ctrl + 7, number key 7

Preview audio

This mode allows you to preview audio objects (as long as the mouse button is held down)

for the entire duration and independent of the start and end markers in the timeline. Other object types are protected against unwanted moving.

Shortcut: Ctrl 8, number key 8

Scrubbing

By holding down the mouse button, the arrangement can be previewed at the point where the cursor is positioned.

The playback marker follows the mouse movements. This mode is especially suited to searching for specific parts of an arrangement.

Shortcut: Ctrl + 9, number key 9

Replace

This mouse mode simplifies searching for suitable samples: Left mouse click on a MAGIX

Soundpool object to switch the object automatically with another from the same instrument category. Shift + left mouse click keeps the object but changes the pitch. Ideal for quick experimentation!

Shortcut: Ctrl + 0, number key 0

Context help

This mouse mode allows you to open the corresponding "Help" section by clicking on any area of the MAGIX Music Maker MX Premium screen.

Shortcut: Alt + F1

Arranging Objects

In MAGIX Music Maker MX Premium you can jointly and uniformly load, arrange, edit, and export different multimedia file formats. This chapter describes the basic way of working with multimedia objects. This includes audio objects, video objects, graphics, midi objects, and synth objects. Later chapters will describe the particulars of the respective formats.

All object editing is virtual, non-destructive, and is calculated in real time during play. The multimedia material is thus not destroyed (non-destructive editing) and any change can be cancelled with the multi-stage undo function ("Ctrl + Z"). You can experiment to your heart's content without having to fear that you will change or damage the original material.

Loading and saving arrangements

"Arrangement" refers to the objects found in the arranger (Audio, Video, MIDI, songs, graphics, synthesizers) along with all its positions, fades, length, volume, brightness settings and effects.

Arrangements can be saved via the menu **"File"**as an MMM file and loaded again.

When loading arrangements you must ensure that all the used objects are available in their respective folders. Often is it advisable to **"Save Arrangement and Used Media"** from the menu "File" > "Backup". Then the entire arrangement with all objects and effects are saved to a configurable folder on the hard disk and can be easily downloaded from there.

Multimedia files and objects

All multimedia files supported by MAGIX Music Maker MX Premium can be previewed or listened to in the File Manager by clicking and dragging into the arranger via drag & drop. The files are displayed as objects in the tracks after the mouse is released.

Using the "Tab" button, you can switch between two object display views.

In alternative display modes, the objects are not represented frame by frame, but simplified. This is useful for quicker representations of video objects: RAM is saved and the overall performance improved. Audio objects will be shown using one or two (for stereo) waveform representations.

Right clicking on an object opens the context menu with the most important editing options available for that specific object.

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. When the "Shift" key is pressed, multiple objects are selected. Object modifications like cutting, moving, effects assignment and so on, apply to all selected objects together.

The handles of selected objects light up to show that the accompanying object has been selected and can be edited using the menu functions.

Several objects can be selected quickly by clicking on the first object in the first track with the mouse and dragging out a square for selection. All objects entirely or partially within the square will be selected (rubberband selection).

Mute objects

Each object can be muted individually. To do so, select the objects you wish to mute and press "F6" (or use the corresponding command from the context menu).

Build or split object groups

Several objects can be combined to make up a group, to avoid the objects being unintentionally moved out of relation to each other.

Once they are combined, clicking on one object of a group will select the entire group.

To group or separate groups, use the buttons in the toolbar or the corresponding commands in the "edit" menu.

Split objects

Any object can be split up. Every one of these object parts becomes an independent object in itself. To cut an object, select the object, move the start marker to the edit point, and select the "**Split object**" command from the "**Edit**" menu or press the "**T**" key. It's even easier with the "Split objects (view page 66)" mouse mode.

To rejoin the separate objects afterwards, select each of the objects and choose "**Group**". This command joins all of the selected objects into a single object group.

Exact object positioning

It is often necessary to position objects very exactly in order to maintain the beat or avoid creating clicking during transitions or small pauses between objects.

In MAGIX Music Maker MX Premium every object is snapped to the edges of other objects, resulting in cleaner transitions. In addition, objects are placed on defined positions on the grid of the arranger track. You can read more about the grid in the arranger chapter "Grid (view page 45)".

Duplicate objects

Objects can be duplicated very easily in order to create larger arrangements. First, the objects that need to be duplicated must be selected.

Then select the command "Edit menu -> Duplicate objects"

A copy of the object appears right beside the original which can be moved to any position with the mouse.

It's even faster if you click on the object that has to be copied and hold down "Ctrl" at the same time. An object is then created which can be dragged to the desired position. Furthermore, object copies require virtually no additional memory!

Another way to duplicate is by using the copy/edit commands from the "Edit" menu.

Object handles

With the help of the object handles, fine positioning, volume and brightness settings, fading in and fading out as well as loops can be carried out directly in the arranger.

All editing is carried out in real time and is already calculated during playing. The multimedia material is not destroyed in the process (non-destructive editing); any change can be cancelled with the multi-stage undo function ("Ctrl + Z").

Object fades

Use the handles on the top left and right to fade an object in or out. By fading objects in and out onto different tracks, it is possible to produce crossfades between different objects. The length of the crossfading can be directly regulated with the handles.

Shortening or looping objects

Objects are "cut" virtually by "compressing" them with the mouse. "Pulling" them to the right will stretch them, which results in the object being played as a loop until the play cursor reaches the end of the object representation. In this way it is possible to very quickly create an entire drum track from one single drum loop or to create a long video from a short video sequence.

Guide the mouse to one of the bottom corners of the object until the mouse pointer turns into a stretch symbol. Now you can stretch or compress the object until it has reached the desired length.

Normally an object is always looped over the full length of the underlying data material (audio or video file). To set a clip from a file as a loop, shorten the object at the front and the back with the handles and choose the command "Edit menu -> Insert user-defined loop". This function is very useful for setting your own recording as a loop, as the silence at the beginning of a recording can be cut away.

Adjusting volume/brightness

With the volume/brightness handle in the top center of the object, you can change the volume of audio and MIDI objects or adjust the brightness of video and bitmap objects.

If several objects are played in parallel, it is possible to individually adjust the volume or brightness ratios between objects in this manner.

The volume and brightness ratios between tracks are adjusted in the mixer.

"Draw in" loops

Audio loops can be drawn into the arranger tracks with the mouse.

For this you have to set the mouse mode to "Draw objects" by clicking on the corresponding icon in the mouse modes menu. Now an audio sample has to be loaded which will serve as a template and which will then be drawn into the following area of the track as a loop in the track.

This works as follows:

1. Load any loop from the Media Pool into the arranger.

2. Click on an area further back on the same track and hold down the mouse button to draw in the loop.

Starting from the first object, the drawn-in loop area is always synchronous with the beat. This means that the drawn-in loop is not played from the beginning, but rather starts from the position where the original loop would be if you had continued to this position. Or, to put it differently, a running loop can be found on the track and you can draw in at which position you can hear it ("Mute automation").

The synchronous start of the object in this mode has another consequence: If an object is moved, then only object borders are moved, but the underlying loop, however, always remains intact.

Takes

Every object can be saves as a "take". Takes save all editing done on an object like object length, fade settings, and all object effects. MIDI takes save the instrument controlled by them (MIDI output or VST instrument).

Takes are saved as "TAK" (*.tak) files and take up virtually no space on the hard disk. So you can cut a sample, add various effects to it, and save it as various takes in order to use these together with all their editing in other MAGIX Music Maker MX Premium arrangements.

The original sample will not be changed, only object and effect settings will be saved.

You can also save Synth objects (view page 155) as takes to create your own preset libraries for the synthesizer.

MAGIX Music Maker MX Premium supplies many takes on content CDs.

Takes can be identified by their symbol in the Media Pool.

Warning! On loading the takes, the audio or video file, for which the take was added, must be in the original folder.

Object properties

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

In the "Tempo/Pitch" tab, information on the patched/determined tempo and pitch of the audio object is shown. Furthermore, there is an overview of how the various timestretching/pitchshifting operations affect the entire audio object. The tempo/pitch adjustment when loading the sample, the effect of the master tempo fader, and the time processor as object effect tracks are offset against one another, but they may not mesh properly. For this reason, there are two buttons which can be used to double/halve the object speed. Try using these buttons if the tempo of some loops is incorrectly interpreted as twice or half the speed.

Mixdown audio

If the arranger becomes too full to manage, the system is out of RAM, or you just want to "summarize" your production, use the mix down function to convert the entire audio arrangement into a single audio and/or video file.

To do so, choose the "Mixdown" function from the "Edit" menu. You can choose a name and a destination for storing the mix down object. The default directory is "My Projects". If only audio objects are in the tracks, a wave file will be created. If audio and video objects are combined, you can choose whether an audio or a video file will be created.

The objects of the arranger or the area will be replaced by the new object.

MAGIX Music Maker MX Premium automatically normalizes the audio file, i.e. the loudest part of the wave audio object is identical with the highest figure of the 16-bit resolution ceiling. This guarantees the same sound quality, even if you repeat the mix down procedure or you combine the mix down file with other wave audio objects again and again.

Tip: The mix down function is very helpful if you want to go on working with the mix-down object. To create the finished end version of the song or video it is recommended to select the "Export arrangement" function in the "File" menu instead of the "Mixdown" function.

Shortcut: Ctrl + Shift + G

Mouse gestures

Sometimes, specific menu commands that are located deep in the MAGIX Music Maker MX Premium's menu structure may be needed multiple times in sequence, e.g. if you want to edit effects for multiple objects.

Mouse gestures help you access these menu commands quickly without having to dig them out of the menu structure every time.

Every object in Music Maker features a context menu that may be opened by right clicking.
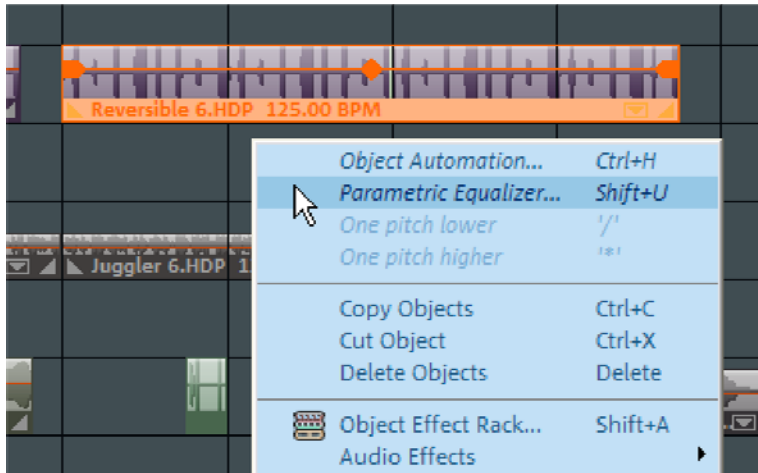
The upper section of this context menu always features the most recently used commands for this object type. These four commands may also be opened having to open the main menu.

To do this, **right click** on the object **and drag** the object quickly to the right, to the left, or upwards in order to access one of the four commands (the object will not be moved as long as you use the right mouse button!)
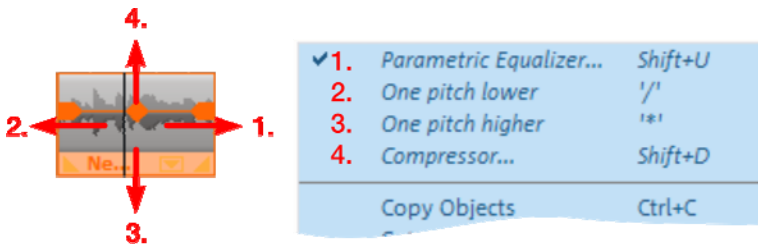
The commands display in the menu here are only examples. All commands that are available in a context menu's submenus may be accessed via Mouse gestures

Audio Objects

Audio formats

MAGIX Music Maker MX Premium loads and edits audio files in the formats Wave (.wav), OGG Vorbis (.ogg), Windows Media Audio (.wma), MPEG (.mpg), MP3 (.mp3) and CDA (audio CD tracks). The stereo or mono data of a file are displayed as an object in the arranger of the MAGIX Music Maker MX Premium. The material will be displayed as a waveform, optically representing the sound to make editing easier.

Along with wave files, MP3 files, OGG Vorbis (.ogg), and ringtones can also be exported.

In addition, the Premium version can load and export the Surround formats (after activating the encoder (view page 319)) MP3 Surround, Surround WMA and wave (6-channel interleaved).

Load and process audio files

All importable audio files can be accessed via the File Manager and previewed (audio) by clicking the file name. Tracks from audio CDs can also be integrated by dragging & dropping them into the arrangement.

Editing, fine positioning, volume adjustment, fading in and out, is all processed using the "Object" tab directly in the arranger.

Please see the chapter "Arranging objects"

Smart Preview for the incorporated samples

The incorporated samples can be listened to while the arrangement is playing. They always run synchronized to the current song that is playing.

You can load samples while putting together a song in real time and search for appropriate new "building blocks" simultaneously.

You can add the loop to the arrangement by simply clicking with the mouse or pressing "Enter" or remove it by pressing "Del". The subsequent loop can also be selected quickly by pressing a key (arrow down) or you can switch to the next instrument ("1"..."0") or the next bar ("Num +"), or by clicking on the button.

Audio recording

Your own sounds like vocals, speech, noises, or instruments can be easily recorded in MAGIX Music Maker MX Premium using the audio recording function.

REC Click the **REC** button in the track box to specify the track for the recording.
The display in the track box will change **AUDIO REC**

Assuming you have everything connected properly (see below), the input signal will be played back featuring all track effects (if there are any) (live monitoring (view page 252)).

Live monitoring requires the use of ASIO drivers (view page 290).

● Click the red button on the transport bar to start the actual recording.

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.

Audio recording dialog

Audio Recording   ×

1 Please choose Audio Driver:
       ASIO 2.0 - Maya44 MKII (1+ 2)   ▼
       ☐ Normalize after Recording

2 Save Audio File as:
       _Demo_Chillout_Vol_061.WAV
       Save in the Following Folder:
       C:\Users\...\Music_Maker_MX_Premium\My Record   📁

3 Quality:
       CD Audio   ▼   44.1 kHz, Stereo,   Reset
                        172.3 kBps
       ☑ Playback while Recording   Advanced...
       ☐ Display Volume Control
       [Volume Mix...]   L: ▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯
                            R: ▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯▯

       Recording Information   Record:
       Recording Time: 00:00:02:15   ■   ●
       Recording Capacity: C: 25:06:58:17

                                              [Close]

Normalize after recording: This option raises your material to the correct volume level after recording is completed. In order to achieve good audio results, you should try to record the source as loud as possible without overmodulating it. The Peak Meter display helps in the recording dialog.

Audio driver: This selects the sound card for recording.

Save audio file as/save in the following folder: This 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. The preset menu allows you to choose between AM tuner, FM Radio, DAT (Digital Audio Tape), and CD quality.

Display volume control (monitor): The peak meter allows you to monitor the level of the incoming signal. Please read more on this in the section 'Adjusting levels (view page 78)'.

Record: This button begins recording. The next free track will be used for recording the audio material.

Stop: Click this button to stop recording

Play during recording: If this option is active, then the arrangement will play back during recording. This allows you to add recordings to the existing arrangement.

Advanced: Use this button to open a window containing a selection of three special functions.

Advanced options

- "Mono" creates a mono recording and requires half of the hard drive space required for stereo.
- "Real-time sample rate adjustment" automatically matches the sample rate of a new file to be recorded with the sample rate of the selected movie sound track.
- "Ducking" (reducing the sound volume): To add narration or other sound material to a video that already has sound volume levels set, activate the option "Automatic reduction of sound volume of remaining audio tracks". This automatically reduces the volume of audio objects in the arranger during the recording session ("ducking"). A volume curve controls the whole process, produces the fading in and out of effects automatically and guarantees consistent overall volume.

Import audio CD

The steps are similar to transferring Wave files into an arrangement:

- Insert an audio CD into the CD/DVD drive of the PC
- Go to your CD/DVD drive in the Media Pool. The individual CD titles appear in the file list.
- A simple mouse-click starts the playback of the CD title for sampling purposes
- Drag & Drop the CD title into a track of the current arrangement, and it will be digitally scanned and copied to the hard-drive. The files will be saved in the import folder (may be specified under File > Settings > Program > Folder).

The audio object appears in the track and can be played back or edited immediately.

CD Manager

This option opens the CD manager to select tracks from audio CDs and partially or fully import them into the arrangement. You can also select and configure the used drive if you have more than one drive.

The CD manager lets you import audio data using most CD and DVD drives. You may have to contact your technical support to find out which drive is suitable. The data is imported digitally, thus eliminating loss in sound quality. Audio tracks are imported into the arrangement as Wave files. The files are saved in the import folder ("File -> Properties > Program settings -> System -> Path settings").

To import audio tracks via the CD manager you should proceed as follows:

1. Insert an audio CD into the drive and select "Import audio CD track(s)" from the "File" menu. A dialog with a list of the CD tracks will open. If you have more than one drive, you may have to first select the drive containing the CD. You can do this in CD drive options.
2. Select the desired tracks (multiple selection by "Ctrl" + mouse-click).
3. Click on "Copy selected track(s)...".
4. The "Import project" dialog will now appear. Here you can enter the file name and select the target directory.
5. The audio material is then copied from the drive onto the hard disk. A progress bar is displayed.
6. Once copying is complete, the dialog will be closed and the tracks are inserted into the arrangement as individual objects.

The track list dialog
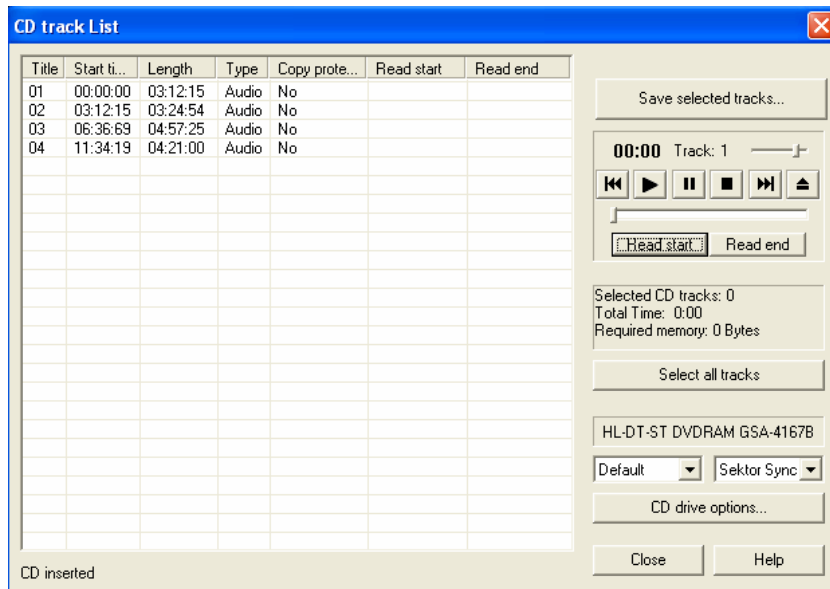
On the left-hand side in the list you can choose which track(s)/title(s) you wish to import from the CD. Several subsequent tracks can also be selected by holding "Shift" and left-clicking; "Ctrl" + clicking selects several tracks; "**Copy**

selected track(s)" starts the audio copying process. A new object is created for every track in the arrangement and the corresponding track marker is created.

Transport control: This lets you start and stop playback just like on a real CD player and skip forward and backward in the playlist.

Use the small faders to control the preview volume. With the faders at the bottom you can go to a specific position in a track. To import just one section of a CD track, choose "**Start selection**" at the beginning of the section and "**End selection**" at the end.

Below the transport control details on the total length and the memory capacity of the selected track/section are displayed.

Select all tracks: All tracks are selected, for instance, to copy the entire CD.

In the right selection box you can select the read speed, and in the left one you can select the export mode (see Configuring the CD-ROM).

CD drive options: Here you can change the settings and select the drive for grabbing the CD if you have installed several CD drives (see also CD-ROM drive dialog).

"Import project" dialog: The "Import project" dialog appears after you have selected the option "Copy selected tracks". Here you can specify name and target address of the audio files. The audio files are subsequently numbered (name -> name_1.wav, name_1.wav).

Copy-protected audio CDs
According to the copyright act, it is forbidden to copy a CD with copy protection. However, an owner of a CD may create a backup copy for himself. The problem is, however, that you cannot create a copy from copy-protected CDs because they cannot be read using a conventional PC drive. In order to create a backup of such a copy-protected CD, you have to play it on an audio CD player and record it as a regular analog recording via the sound card.

Drive list dialog

Tracklist: This button opens the track list dialog for copying one or multiple tracks.

Configuration: This button opens the configuration dialog where you can make various special settings, SCSI IDs, etc.

Reset: Restores the default settings of the drive.

Add drive: Creates a new drive entry in the list, which you may wish to adjust.

Delete drive: Deletes a selected drive from the list.

Save setup: Saves the current drive list and all configuration data in a *.cfg file.

Load setup: Loads the current drive list and all configuration data from a *.cfg file.

The CD-ROM configuration dialog

Drive name: Lets you edit the name of the drive in the list. This is useful if you create more than one entry accessing the same physical drive.

Host adapter number: Lets you specify the number of your SCSI adapter - normally "0".

SCSI-ID: Lets you set the ID of your CD-ROM drive. Be sure to set the correct ID; there is no error checking!

SCSI-LUN: Select the SCSI-LUN parameter, normally "0".

Alias: Lets you select the manufacturer type of your CD-ROM drive.

Normal copy mode: Copies the audio data without any software correction.

Sector synchronization copy mode: Copies the audio data using a correction algorithm. This is especially useful, since many CD drives have problems finding an exact position again and gaps can occur.

Burst copy mode: Optimizes the speed of the copy process; no software corrections made.

Sectors per cycle: Defines the number of audio sectors that should be read from the audio CD in a read cycle. The higher the number of sectors, the faster the copying process. Many SCSI systems have problems with more than 27 sectors.

Sync sectors: Sets the number of audio sectors that will be used for software correction. A higher number results in a better synchronization but also in a slower copying process.

Recording Audio CDs

In some cases the CD can be copied during recording. The CD track is simply played on the CD/DVD-ROM drive and recorded by the sound card. 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.

Before beginning this, the "Load tracks via record dialog" option under "File -> Properties -> Program settings -> Audio" has to be activated. The audio output of the CD-R drive must also be connected with the input of the sound card. This is already the case with most multimedia PCs (if not, then it can be accomplished with a small cable inside the computer).

When "Load CD tracks via record dialog" is active, song parts can also be added to the arrangement without having to load the entire track.

Change the playback tempo or pitch

If you want to combine audio material you have recorded yourself from different sources, samples from Soundpools, or songs from CD with each other, then you will often need to adjust the tempo or pitch of audio objects to match each other. There's an automatic function which automatically adjusts the tempo of audio objects when they are loaded to the arrangement's tempo, plus advanced tools like the Remix Agent and the Loop Finder (view page 306).

Automatic tempo adjustment when loading

In general, MAGIX Music Maker MX Premium automatically adjusts audio files to the arrangement tempo. In normal cases, you won't need to worry about the different tempo of audio files and Soundpool samples, since these are automatically matched. But since automatic processes can fail too, the following process explains when you may need to "manually" adjust things.

In the new arrangement (empty), the tempo will be determined by the first samples loaded into it. All additional audio files will then be automatically adjusted to this tempo. If you are planning a remix which is composed of different samples with different tempo, then try to add the most important sample first. This minimizes sound distortions compared to the other samples via timestretching.

In order to be able to correctly adjust an audio object to the tempo, its output tempo must first be detected. If the sound is a Soundpool sample, then the tempo saved therein ("patched") will be used, and the tempo adjustment will always work.

For all other (short) samples, an attempt will be made to automatically provide the tempo. If the sample is not cut exactly, i.e. it does not contain an exact number of beats or is incorrectly interpreted by the automatic detection process, then this may not work. The sample will then be incorrectly stretched or an incorrect arrangement tempo will be set.

In this case, use the Loop Finder to specify the tempo semi-automatically (more about this under the chapter "Menu effects -> Audio -> Loop Finder (view page 306)"). This allows the sample to be cut to an even loop and the arrangement will adjust to the detected tempo or vice versa.

The Remix Agent launches optionally for longer samples (>15 seconds), e.g. entire songs from CD or MP3s. This also gives you the option of either adjusting the sample to match the arrangement or the arrangement to the sample.

MIDI objects for controlling synth objects always have the correct tempo because they are always aligned with the arrangement tempo.

In the dialog "Program settings (view page 289) -> Import" ("Y" key), you can deactivate the automatic tempo adjustment or limit it to patched samples.

Change tempo or pitch of individual objects manually

"Resampling", "timestretching", and "pitchshifting" provide high-quality effects for you to change the pitch and tempo of selected audio objects dependent on or independent from each other. You can access these tools via the "Effects" menu or the object FX effects tracks.

These functions can be used for all audio files, i.e. for the included samples as well as your own recordings, CD tracks, CD tracks, or sounds from the Internet.

The playback tempo can be quickly changed via "Timestrech" mouse mode, i.e. by compressing/stretching the audio object's lower handles, in which case the tempo will change but the pitch will not be influenced (compare with chapter "Mouse mode"). The middle handles can also be used to change the pitch.

Detailed access can be accessed via the time processor effect (see chapter "Audio effects -> Timestretch/Resample"). This allows you to specify different timestretch algorithms for the corresponding object, since the best results often depend on the respective audio material and the different algorithms.

The tempo setting on the transport controller allow the arrangement's tempo to be changed retroactively. This affects all objects contained in the arrangement, and in some circumstances this can lead to an increased demand on the system and dropping out during playback. If this occurs, use Apply function in the effects rack (view page 180) or the Combine audio (view page 298) function.

Remix agent - Tempo and beat assignment
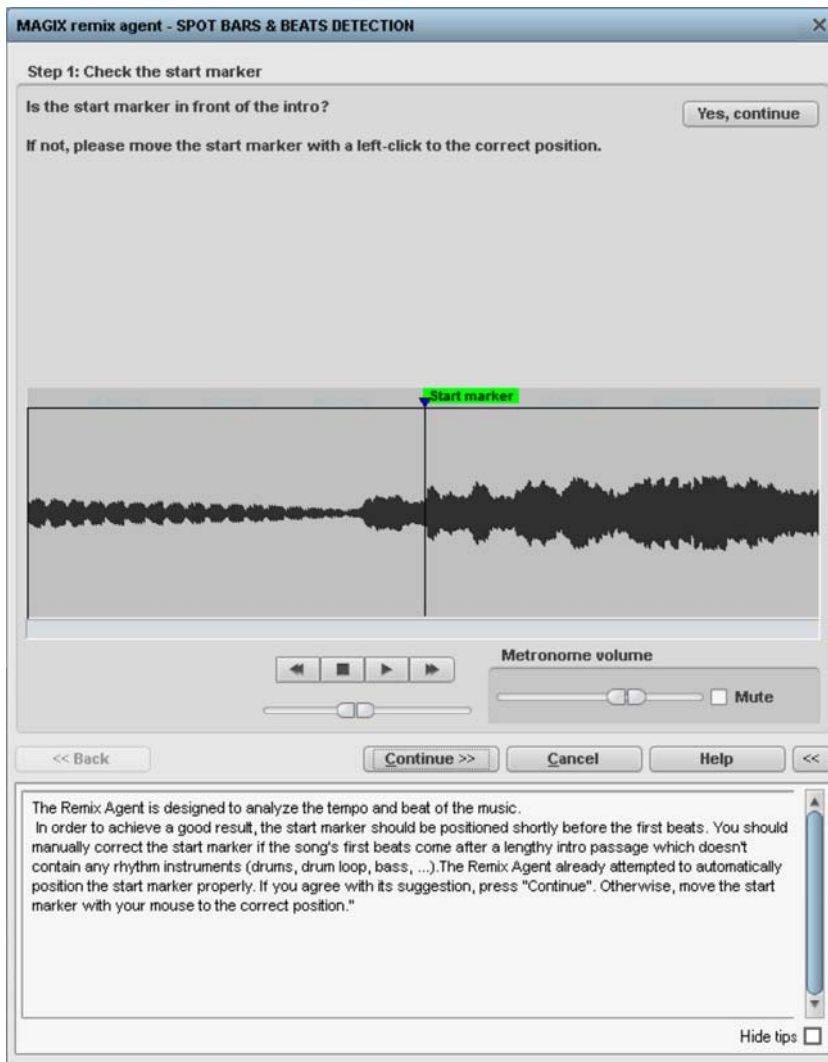
The Remix Agent is a powerful tool that determines the tempo (measured in beats per minute, or BPM) as well as the timing of the beats for a song's quarter notes. This is important if an audio CD title is imported into MAGIX Music Maker MX Premium, and you want to mix in sounds like drum loops, effects, or synthesizer voices.

When to use the Auto Remix Assistant:

- When the tempo of the arrangement must be adapted to the tempo of the song.
- When the tempo of the song must be adapted to the tempo of an existing arrangement.
- When the song is to be cut up precisely to create a remix object which can then be rearranged as desired.

Requirements for using the Remix Agent

- Songs must be longer than 15 seconds
- Songs must be "rhythmic" (i.e. they can be danced to)
- Songs must be in stereo format

Note: For analysis, it is presumed that the song is recorded in 4/4 time. If one of the above requirements is not fulfilled, the Loop Finder can be used.

If songs longer than 15 seconds are dragged into the arrangement, the Remix Agent is started automatically. When loading short samples (< 15 sec) the tempo is specified automatically and some loops are similarly automatically customized to the tempo of the arrangement. This also applies to previewing in the Media Pool (Smart Preview).

This method can be deactivated individually in the audio/video options ("A" key). You can find out more in the "File -> Properties -> Program settings" section.

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.

Automatic Tempo Recognition

When the Auto Remix Assistant is launched, the selected song object is analyzed and played back. A metronome begins to click according to the result and lines visualize the positions of the quarter notes found in the wave-shaped display.

The following cases are differentiated:

- Position of the start of a measure (the one): red line.
- Position of the other quarter notes (the two, three, and four): green lines.
- Reliably recognized positions: thick lines.
- Unreliably recognized positions: thin lines.
- When tapped, blue lines appear.

If the tact and tempo information is already present, points are indicated above the display at the appropriate positions. The metronome volume can be regulated below and to the left of the wave-shaped display. To the right, the BPM value is indicated. If a valid BPM value was found, it is displayed in green.

If the metronome clicks in time with the music, the measure start is correct. If not, you can correct the tempo manually.

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.

Using BPM and beat detection

Now you may select one of the actions to be adapted to the arrangement song (or vice versa) or cut up the songs at the ends of a measure.

Save only Tempo & Beat information

Only wave file data is stored. This makes sense if some manual post-correction is required for determining beat/tempo.

When the data is stored, tempo & beat regulation can be released for future tempo adjustments or to create object remixes.

Tempo adjustment

Setting the object tempo to the arrangement tempo

This fits the object length to the existing arrangement. Three different procedures are possible: timestretching, resampling, or audio quantization.

- Timestretching keeps the pitch of the song constant, but sometimes the sound quality can suffer.
- Resampling changes the pitch (similar to changing the speed of a record player), and retains the sound quality of the song as much as is possible.

- During audio quantization, the audio file takes the tempo adjustments into consideration as if the first remix object (see below) were created and combined immediately into a new audio file. If the recognition is uncertain, extreme tempo fluctuation may result. It is particularly important to set the starting marker so that the tempo is recognized definitely. The advantage of audio quantization is that small tempo fluctuations in the music balance out. The start of the measure always agrees with the start of the arrangement measure and never plays out of time.

Setting the arrangement tempo to the object tempo

The arrangement adopts the detected BPM value. If you would like to use the cut-up song as the basis for a new composition (e.g. for remixes), then this option should be active.

Creating remix objects

The song is cut by beat into individual objects. Some applications may include:

- To produce loops from complete songs which can then be used with other material. Most importantly, not all remix objects are suitable as loops. Ideally, less complex material should be used, e.g. drums from an intro.
- To remix songs, thus changing the sequence of the objects, cutting or doubling beats or to enrich the song with other loops or synth objects.
- To mix two songs: If percussion and tempo fit perfectly, can you blend the songs without "side effects"?

This option can be activated later from the "Object" menu, provided that the tempo data is stored.

The "Audio quantization" option: Audio quantization fits new objects exactly in time with the arrangement.

With homemade music, tempo fluctuations are common, and therefore different measure lengths may result. Nevertheless, so that the objects fit into the rigid timing pattern of the VIPs, the time processor is activated automatically and object timestretching is used to correct the different lengths.

Setting resampling for small corrections: If the necessary corrections are very small, better quality resampling can be used instead of timestretching. Afterwards, you should not change the master tempo any longer, since definite pitch changes may arise.

Remix objects in "Loop" mode: New objects are set in "Loop" mode. When extending the object with the right object mouse handle, the original length of the object is played again and again.

Setting the arrangement tempo to the object tempo: (see above)

Note: Time correction assigned to objects can be subsequently cancelled if the time processor is called up and edited ("Timestretch/Resample object", or double click on the object to open the FX racks associated with the time processor).

Cancel: The dialog is closed.

Problems and Remedies regarding the Auto Remix Assistant

Problem: The playback stutters, the metronome is suspended, the computer is overloaded... (on older computers.)

Remedy: We recommend changing to wave drivers ("P" key, "Playback parameter" dialog) instead of DirectSound.

Problem: The metronome does not work and there are no lines on the the wave-shaped display.

Probable cause: The material does not contain beats or the song contains a passage without beats.

Remedy: The song should be limited in such a way that only rhythmic passages are contained.

Possible 2nd reason: Inaccurate tapping or a false BPM value has been entered.

Remedy: Try the tempo correction buttons or tap until the "locked" condition is attained.

Problem: The metronome sounds inaccurately or is jerky, the lines in the wave-shaped display are irregular and thinly drawn.

Remix Maker
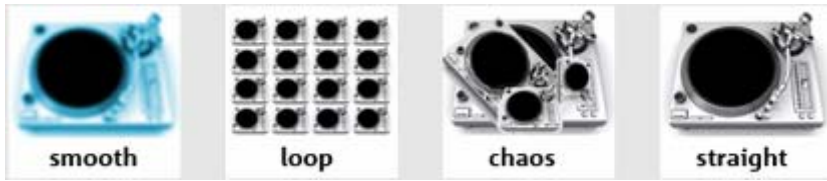
The Remix Maker is connected directly to the Remix Agent.

Use it to automatically generate remixes. The loop objects sliced by the Remix Agent are regrouped according to defined criteria. Simply choose one of the four "virtual DJs", each of which represents a different remix style, and set the remix length and structure.

Opening the Remix Maker

1. New song

- Load the new song you want to remix. This should contain clearly defined rhythms.
- When the song is loaded, the Remix Agent pops up to give you the option of dividing the song into its structural segments (see "Remix Agent" above).
- Select the option "Open Remix Maker" from the Remix Agent dialog box.
- Once the Remix Agent has sliced your song, the Remix Maker is started automatically.

2. Existing, edited song (in the arranger)

- Load a song arrangement that is made up of loop objects.
- Select one of the loop objects.
- Select "Remix Maker" from the shortcut menu (right mouse click).

3. Long, unedited audio object (in the arranger)

- Load an arrangement containing a long, unedited audio object.
- Select "Remix Maker" from the shortcut menu (right mouse click).
- You are then given the option of generating remix objects.

Presets

Choose one of four virtual DJs with different remix characteristics. We recommend you try them all out and see which results you like best!

Remix length

Very short: around 20 seconds

Short: half the length of the original song

Normal: regular length of the original song

Double: twice the length of the original song

Shuffle mode

This determines the selection and order of the objects.

Do not change: The order of the objects are not changed.

Change slightly: A "pattern" (sequence of objects) is either repeated or the next pattern inserted.

Distant: Objects that are far apart in the original song are placed close to each other.

Random: The objects are ordered randomly.

Fill mode

A "fill" or "fill-in" is created when the loop object sliced by the Remix Agent again to produce very short objects that are looped or played in rapid succession. Fills are used to liven up the regular beat.

None: No fills are included.

Use slightly: A few simple fills are included.

Strong accentuation: Many complex fills are included.

Use randomly: Different kinds of fills are used in a random order.

Loop Finder

The Loop Finder has been developed to find the BPM in short rhythmic passages, to integrate short loops in an existing arrangement, or to yield drum loops from short rhythmic passages. Otherwise, the BPM Finder helps in this regard.

More information under "Effects" menu.

Harmony Agent
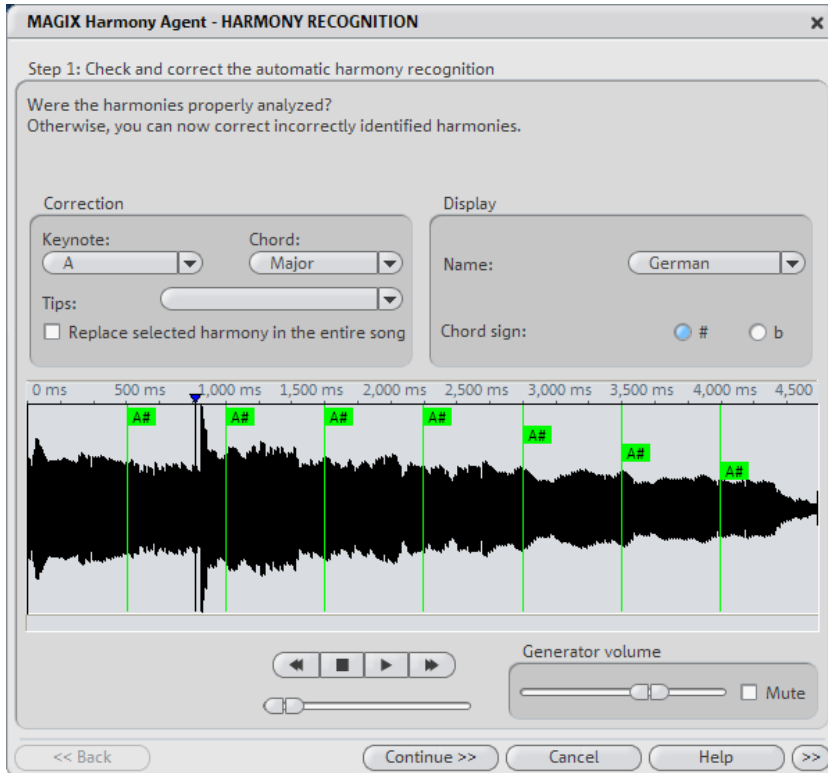
The Harmony Agent is designed to analyze harmonies.

The music track is analyzed first when you open the Harmony Agent. The Harmony Agent tries to automatically identify the harmonies for each beat of the music. Thus the right beat information is an important prerequisite for a properly-functioning Harmony Agent.

During subsequent playback, the detected harmony is played by an internal generator for verification purposes. You can adjust the volume with "Volume Generator". "Mute" deactivates the generator.

The transport control controls playback of the music track. The position slider below lets you quickly move to a certain passage.

Check and correct the automatic harmony recognition

After the analysis, you can manually correct harmonies which were not correctly identified. Note that major chords are written with capital letters and minor chords with lower-case letters.

Left click on the respective harmony symbol in the wave display. Hold the key if you want to mark several subsequent harmonies. If you right-click on selected harmony symbols, a menu containing alternatives will be displayed. The initially recognized harmony is marked with an *.

If there are no alternatives, you can select the correct "**Keytone**" or "**Chord**" from the "**Correction**" section of the menus. Use the option "**Replace selected harmony in the entire song**" if you are sure that the incorrectly recognized harmony is not included in the entire song. A mix-up between major and minor is typical in this case.

Once you are sure that all harmonies are set correctly, click on "**Continue**".

Use harmony recognition

Here you can use the information from the Harmony Agent. There are different possibilities to output harmonies.

- You can create picture objects in the arrangement that display harmonies graphically in the video monitor and in sync with the music.
- You can save the information in the audio file. This also ensures that the harmonies are available later. For instance, if you want to display the harmony information in the timeline ("Edit -> Display Object Marker -> Harmony Marker").
- You can choose between different displays of the harmony symbols. You can use German, English or Roman symbols to name the tones. Furthermore, you can set the "preceding symbol" to force single harmony interpretation. With #, all notes are shown as "sharps" (C#, D#, F#), with B they are displayed as flats.

Text to speech

In this dialog reached in the Effects > Audio dialog, you can get speech from typed text. You can choose from a range of different types of voices. You can change the speed and volume of the spoken passages. Once you've settled on a suitable voice a WAV file will be created. This can of course be used in the arranger like any other audio object.

Load text: Here you can load any text file (formats: *.txt or *.rtf).

Save text: Your entered text can be saved.

Test: After entering your text, you can preview the result.

Voice: You can choose from various voice types.

Speed: Playback speed can be regulated with this controller.

Volume: Output volume is regulated with this control.

Format: Here you can determine the quality of the created wave file (.wav).

File: Path selection for the wave file to be created.

MAGIX Music Editor

During installation of MAGIX Music Maker MX Premium Producer Edition, the audio recording and audio editing program "MAGIX Music Editor" will also be installed.

MAGIX Music Editor offers a recording function, many additional effects, various ways to eliminate noise and professional editing options for audio material of any type.

To edit an object in MAGIX Music Editor, right-click on the object and select the option "Edit externally" in the context menu (or you can select the object with a left mouse click and select the same option in the "Effects" menu).

See the "Help" file for more details concerning MAGIX Music Editor!

MIDI Objects

Arrange MIDI objects

MIDI objects may be moved, the volume may be modified (middle handle), or fades (in/out) may be added (top right and left handles) in the same way as audio, video, or synthesizer objects. Use the lower handles to "stretch out" individual MIDI loops so that they easily fit onto a whole track.

Pay attention to the following:

- Volume changes in MIDI objects (central handle or fades in/out) are controlled by adjusting the velocity level (MIDI velocity). Many synthesizers do not change the volume, but rather the sound in relation to the velocity level. In this case, use the effects curve automation (view page 242) function.
- MIDI objects always control a single synthesizer per track. If you move a MIDI object onto another track, then a different synthesizer will be controlled and the sound of the arrangement changes accordingly.

Transpose MIDI

This function in the the context-menu is used to change the pitch of a MIDI object. Simply enter the number of half tone steps by which the playback is to be transposed up or down! The transposition is shown in the MIDI Object in the arranger with "+n" and "-n" (n is the number of halftones).

Load MIDI files

Proceed as follows to integrate MIDI files into an arrangement:

1. Open a directory containing MIDI files using the Media Pool.
2. Click a MIDI file and it will be played back immediately; this makes it easy to load audio files without guessing.
3. Now drag the desired file into the arrangement and that's it!
4. An MIDI object will appear in which the MIDI notes are shown by dots; the high notes are dots in the upper section, and the lower notes are the dots further down in the lower section. You can even see the velocity of the notes: the louder the note is played, the darker it appears on the screen.

MAGIX Music Maker MX Premium uses the external MIDI device (view page 101) to preview a MIDI file in the Media Pool without using software instruments. If you can't hear the MIDI file, then there may be different reasons

for this:

- Check the MIDI output device in the "Program settings" window via the "Audio/MIDI" tab (P key or "File > Settings > Program settings"). "Microsoft CD Wavetable SW synth", a standard software synthesizer included in Windows® as an OS component, should be set as the default. If sound cards with their own synthesizer are used or in case MIDI hardware synthesizers are connected, set the sound card's MIDI driver or a MIDI interface!
- The sound car synthesizer's volume is set via the the sound card mixer. Double click the small loudspeaker icon in the tray and find the controller for the SW synthesizer.
- Several sound cards cannot use the SW synth simultaneously with ASIO drivers.

The "Microsoft GS Wavetable SW-Synth" is treated as an external MIDI device, which means that even while it produces sounds in the computer, it is still not a component of MAGIX Music Maker MX Premium. If you want to export a sound from the arrangement, then you will have to record it beforehand (see Converting MIDI objects to audio files (view page 101)). The sound quality of the device is rather modest compared to "proper" software synthesizers like MAGIX Vita or Revolta.

It's easier if you assign different software synthesizers to the MIDI object after you load it. MIDI files of complete songs, for example like you might find on the Internet, often contain multiple tracks that control different instruments. MAGIX Music Maker MX Premium is able to use one software synthesizer per track. For this reason, duplicate your MIDI one beneath the other as often as there are different instruments involved and set the corresponding Channel filters (view page 107) in the MIDI objects ("Options" menu in the MIDI Editor) so that each object only plays the notes for a single channel. Next, assign software instruments for the individual channels via the Track (view page 43) menu.

Connect external equipment

USB-MIDI keyboards

Over the last few years, controls for software synthesizers have produced a new class of devices: USB-MIDI keyboards. These devices usually do not contain separate sound generators, but rather consist of just a keyboard, different controls, and a MIDI interface that is connected via USB cable to the computer.

These keyboards usually do not need special drivers - they only need to be connected. Make sure that the device is switched on and is able to be detected prior to starting MAGIX Music Maker MX Premium, since the available

MIDI ports are only able to be discovered during program launch!

Under some circumstances, you may have to select the MIDI input device via the Program settings ("Audio" tab) (view page 290). This is usually called "USB audio device"

Note: Some older devices do not function in some cases in Windows XP. Even though the device has been detected, the corresponding MIDI drivers do not appear in the list. In this case, please contact MAGIX customer support!

MIDI cabling

MIDI inputs/outputs: If your computer has an internal or external MIDI port, or has a MIDI-capable sound card installed, connect your MIDI keyboard's "MIDI out" to the computer's "MIDI in" (on the interface, sound card, and so on).

If your MIDI keyboard can generate its own sounds, connect the computer's "MIDI out" to the keyboard's "MIDI in". If your computer (or the MIDI device) offers more than one MIDI output, connect any other sound synthesizers to these. If the computer only has one MIDI output, you need to connect the second sound synthesizer's "MIDI in" to the keyboard's "MIDI thru" port. A third device can be connected to the second's "MIDI thru", and so on. The "MIDI thru" port always delivers a copy of the signals coming into the device's "MIDI in". It is preferable, however, to use a direct connection from a computer's "MIDI out" to a device, rather than chaining too many devices one after the other. Timing problems may occur in the chain if a lot of MIDI commands are sent in a short space of time. This is due to the slight delays introduced by each "MIDI in" to "MIDI thru" transaction. If your computer also features several MIDI inputs, they can be used for the connection of MIDI expanders.

MIDI local off: If your keyboard features an internal sound source, it is important that you stop the keyboard from generating sounds directly from its own keyboard. If you buy a new keyboard that is to be used without a sequencer and connect it straight to an amplifier, you would expect the device to make a sound when you press its keys. In other words, the keyboard is internally connected to the sound synthesizer. This behavior, however, is not what you want to happen when using your keyboard with MAGIX Music Maker MX Premium. In this scenario, the keyboard is used as the computer's input device, and MAGIX Music Maker MX Premium is sending (i.e. playing) MIDI information to any connected sound synthesizer, be they the keyboard's own sound generator, a sound card, or any other connected sound module.

If you wanted to control and record another sound module using your keyboard as the input device, its own sounds would play alongside those of

the other sound synthesizer, which is why the keyboard must be separated from its own internal synthesizer. This function is known as "Local OFF", and is set directly on your keyboard. Refer to your keyboard's manual for information on how to do this. Don't worry about "breaking" the link between the keyboard and its internal sound generator – MAGIX Music Maker MX Premium will act as the "missing link" in this scenario.

External synthesizers

Naturally, MIDI objects can also be played back over a MIDI interface onto external synthesizers, sound modules, etc. "Pure" MIDI output takes place (i.e. without using software synthesizer plug-ins) assuming that the MIDI output device has been properly set (see previous sections); in this way, any MIDI object may be sent to an external synthesizer.

Note: If a MIDI object is on a track which features a software synthesizer, then this will be controlled first. To play the object on an external sound synthesizer via MIDI output, select "no VSTi" from the list of software synthesizer.

Convert MIDI objects into audio files

If you use VST instruments, you won't have to convert these MIDI objects into audio data before exporting your entire arrangement, since the sound is created on your computer and can be processed there. If you wish to do this nevertheless (e.g. to provide some relief to your PC), then use the function 'Combine audio (view page 73)'

All MIDI objects that control external synthesizers via a MIDI interface (view page 101) will have to be converted into audio objects if you want them to be exported as well. They only contain control information for sound generation.

In order to do this, the output of the MIDI synthesizer (e.g., the sound card) must be connected to the input of the sound card. The MIDI data can then be played and recorded simultaneously via the record function. This produces an audio file that can be edited and exported together with the multimedia files as usual.

Playing and recording MIDI synthesizer

MAGIX Music Maker MX Premium allows you to play and record software synthesizers or external MIDI devices from the arranger. The MIDI Editor does not need to be opened for this, which was previously the case in the former version.

Presuming that the MIDI input and output devices are set correctly (see above), then you should be able to play any synthesizer that is loaded via the MIDI keyboard.

`MIDI REC`   MIDI recording mode must be activated in the corresponding track by clicking "Rec" twice in the track box. Now, all of the notes that you play via the keyboard will be played back through the synthesizer.

If a software instrument is loaded via the track box or opened via the MIDI Editor, then MIDI recording mode is activated automatically.

Tip: You can also play a synthesizer live without an external MIDI keyboard. The Media Pool features an On-screen keyboard that may also be operated via the computer keyboard.

In order to record a new MIDI object, simply click the red "Record" button in the transport bar

MIDI Editor

The MIDI Editor makes it possible for you to edit MIDI objects. The MIDI Editor provides different sub-editors, views, areas, and aids to do this.

Double clicking a MIDI object opens the MIDI Piano Roll Editor for advanced recording/editing of MIDI objects.

Tip: The Media Pool features a smaller version of the MIDI Editor. Select the MIDI object you would like to edit and then click the Settings Object Inspector button. This MIDI Editor may be operated identically to the "bigger" version that features its own window; of course, the menu and different play and recording settings will not be available.
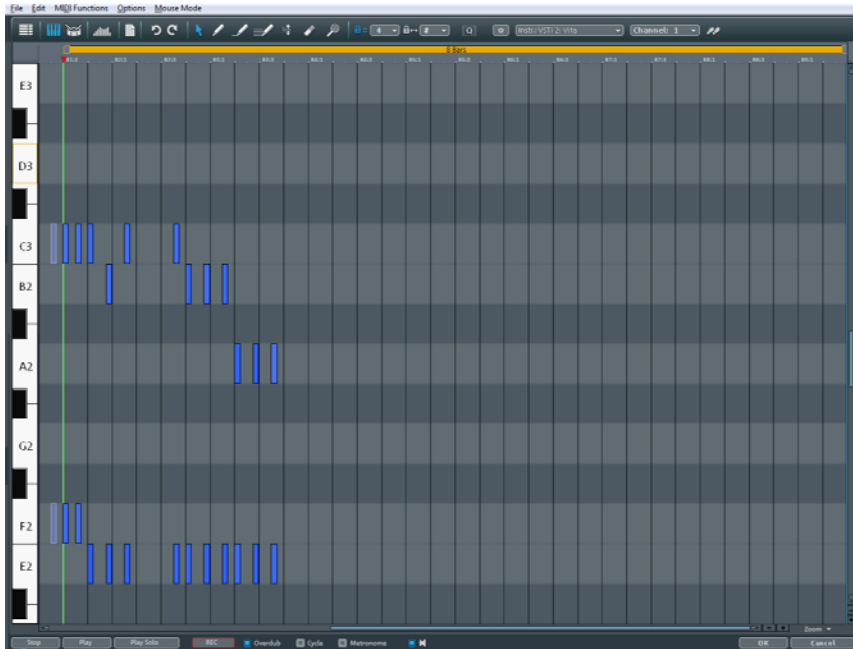
In the center you'll find the Piano Roll Editor in which the notes are displayed as bars and from which they can be edited using the mouse. There are various buttons located just above the Piano Roll.

Clicking on this button opens the Event list (view page 113). In this list you can view all MIDI data of a MIDI object, including those that cannot be edited in the piano roll or controller editor. You can use the Event List to remove unwanted commands included with imported MIDI files.

Use this button to switch to Drum Editor (view page 119) mode.

You can use this to leave the Drum Editor and return to the Piano Roll section.

Clicking on this button opens the Controller Editor (view page 111) in the bottom area. This allows you to edit features such as the note velocity, pitchwheel, and controller data.

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Deletes all MIDI data from the object. Now you can begin from the start again...

Of course, "Undo/Redo" is also available for all changes you make in the MIDI Editor.

Along the top edge, you will also find the buttons for selecting the editing tools (view page 108), for quantization (More information can be found in the section "Quantization settings" on page 114), and for the output (view page 104) used by the MIDI object (MIDI out or VST instrument).

Select sounds

The sound of virtual instruments (VST plug-ins), is produced by the synthesizer chip of the sound card or by external MIDI synthesizers. Each MIDI object can produce as many sounds as the corresponding synthesizer offers. The sounds themselves can be specified in the instrument – regardless whether its a virtual VST Instrument or a hardware device.

If there is no VST instrument loaded, the MIDI object uses the MIDI output for the external synthesizer or for the Microsoft™ Windows® supplied synthesizer. The MIDI output can be adjusted in the "Program settings" window in the "Audio/MIDI" tab (P key or via "File" menu > Settings > Program settings"
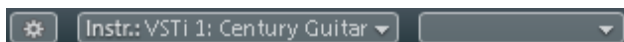
Select the desired VST instrument from the menu. You can test the same MIDI object with various VST synthesizers. You can set the sound of VST instruments in the VST instrument editor (view page 157). You can open the instrument editor with a right-click on the VSTi name or a left mouse click on the cogwheel symbol.

You can set up the MIDI output channel under **MIDI channel**. This is important for VST instruments which can receive MIDI notes on multiple channels and play several different sounds simultaneously (multi-timbral).

Play/ PlaySolo

Play solo only plays the MIDI object for which the MIDI editor is opened (corresponding with the filter settings of the options menu).

Play all plays the entire arrangement.

Playing instruments with the keyboard

Open the MIDI editor to be able to play software instruments directly via the computer keyboard. The assignment of the notes to the computer keyboard is displayed in the following graphic.
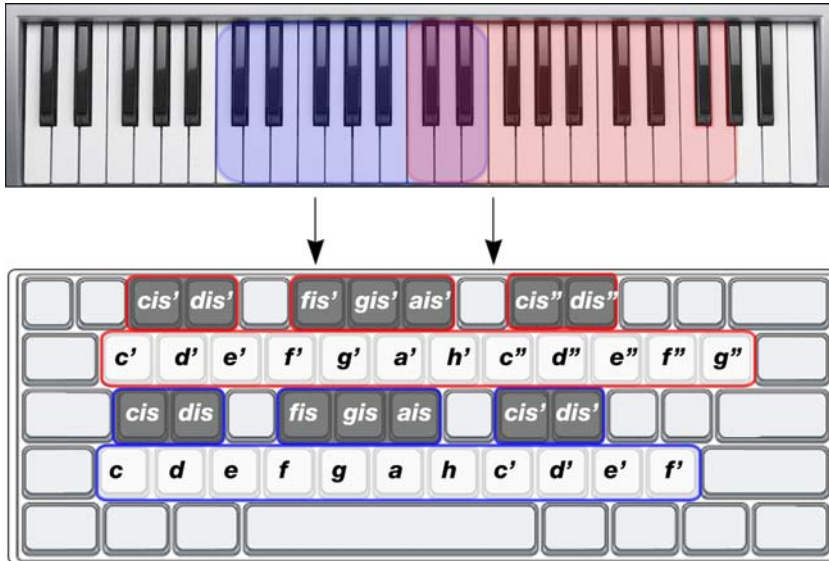
"Page up" and "Page down" move the octave up or down.

MIDI Record options

You may also begin MIDI recording directly in the MIDI Editor. To do so, simply click the red "REC" button. Compared to the simple "Record" featured directly in the "Arranger", this version features several additional options for you to select

Overdub: Normally, existing notes are deleted with each new recording. "Overdub" simply adds new MIDI notes to the existing MIDI recording. "Overdub" allows you to create a completely new MIDI song step-by-step (or take-for-take).

Cycle: This plays the MIDI object in a loop during recording. This enables you to let the object play through a few times before you get started recording your own melody.

Metronome: In order to play back the proper tempo, you can activate the MIDI metronome to provide the beats. This is only for orientation while you play and is not recorded.

Play arrangement during recording: If this option is active, then the arrangement will play during recording.

Step recording via keyboard or controller keyboard

In the MIDI editor, so-called "Step recording" may also be executed via the computer keyboard or a MIDI fingerboard. Activate the corresponding button first.

The play cursor shows the scope of the current octave for the following entries. Next, enter MIDI notes step-by-step via the keyboard. Note length and step length may be specified via the length quantization values. The most important keyboard shortcut for entering MIDI notes using step recording:

Tab	One step forwards (set pause)
Shift + Tab	One step backwards
Ctrl + arrow up/arrow down	Octave entry up/down
CDEFGAH	Note entry in current octave
Shift	Enter chords

Different notes may be entered without the cursor jumping by holding down the "Shift" key. This enables chords to be played.

Of course, notes may also be entered in "Step recording" mode via the controller's keyboard.

Notation display, movement, zoom

MIDI data can be edited in three main areas in the MIDI editor.

- Piano roll (view page 109)
- Velocity editor (view page 111)
- Lists editor (view page 113)

Here various tools are available, e.g. pencil or eraser.

Fundamentally, changes, e.g. moving or deleting notes, always refer to all selected MIDI events (red) with just a few exceptions. Changes to the selection in a range always apply to every other range as well. For example, you can select a group of notes in the piano roll and then change the velocity of these note groups which modifies all selected notes simultaneously.

Note display in the piano roll and the controller editor (with velocity curves)

All of the **unselected notes** are highlighted in blue. The intensity of the color indicates the velocity of the note; the darker/stronger the color, the higher the velocity.

Selected notes are highlighted in red. Again, higher velocity notes are brighter than lower velocity ones.

Note: You can also customize the velocity color range for selected notes. To do this, open the graphics file "vel_sel_map.bmp" from the bitmap directory and modify the color spectrum accordingly.

Current event: This is displayed in bright red and with a red outline. The properties of the currently selected event are displayed in the edit fields above the piano roll. An event is "current" when it is selected with the mouse.

Event display filters

To get a better overview of a MIDI object's events, you can filter specific events for the display.

A MIDI object can contain events in up to 16 channels and up to 16 MIDI tracks (original track from the imported standard MIDI file). For example, it's possible to control a multi-output VST instrument using a single object on several MIDI channels. Notes in the corresponding MIDI editor can be edited simultaneously or only in one selected channel within this object.

There are comfortable viewing options available for this:

- A channel filter ("Options" menu) enables all or only selected channels to be displayed. Notes in the remaining channels are grayed out and cannot be manipulated by the selection tool.

Example: The MIDI object includes notes in the MIDI channels 1, 2, and 5. You can now make all notes in channels 2 and 5 accessible for the selection and editing tools via the selection of the MIDI channels in the channel filter by selecting the two channels from the menu. All unselected, filtered notes in channel 1 are displayed in gray in the piano editor and the list editor.

Events in the filtered channels can be completely hidden using the "Hide filtered MIDI data" in the "Options" menu.

- A track filter (also "Options" menu) enables data to be filtered according to an imported MIDI file in the same way.
- The list editor (view page 113) provides additional display filters that only function within the list. The display filters are activated by the playback filter settings (mute settings), but the filters can be set independently of one another.

Muted events display

Events that lie ahead of the object start point or behind the object end point (the start and end points are displayed as blue lines in the editor) are also paler than the un-muted events within the object's boundaries. If display transparency is activated, the outside events are grayed out.

Events above or below the currently visible selection

There are two small red indicators above and below the vertical scroll bar on the right border of the MIDI editor window. These light up correspondingly if there are other notes outside of the currently displayed screen selection.

Piano Roll - Edit events

There are various editing options for notes within the Piano Roll, as well as mouse modes. In all modes (except Delete) the same functions also apply to notes when editing them, so that these modes only differ in behavior when you click on empty areas.

Editing tools

	Selection (Ctrl + 1)	Lasso: Press and hold down the mouse button to draw out a rectangular selection frame. Clicking on a free range highlights an existing selection.
	Draw (Ctrl + 2)	A note can be drawn with a left-click. The beginning and length are set according to the current quantization settings (above).

	Drum (draw) (Ctrl + 3)	Draws a series of notes. The note length and distances are calculated from the current quantization settings. When holding Alt: The pitch of the first note is also maintained for all notes drawn subsequently. Moving the mouse backwards (to the left) while depressing the mouse button removes drawn notes.
	Pattern (draw) (Ctrl + 4)	This mode allows you to draw entire Drum Patterns (or melody patterns). If you want to create a new pattern, you have to select it first in "Selection Mode" and press the keys Ctrl+N simultaneously (or go to menu "Edit" in the "MIDI/Drum Editor > Create pattern from selection"). If you have created a pattern, you can start drawing at any position. Draw the pattern at the position of the deepest note of the pattern. This makes an original pitch sound, but you can, of course, draw in a different pitch. If <Alt> is pressed when drawing, the pitch of the first note will be applied to all notes drawn that follow it. Moving the mouse back (to the left) while holding down the mouse button removes the notes which were just drawn.
	Velocity Mode (Ctrl5)	This mode allows you to mark events and change the velocity values of all selected events in relation to each other. Absolute values are entered when you hold the Shift key, i.e. all changed events receive the same velocity value.
	De&lete (Ctrl + 6)	Clicking on the selected note deletes all selected notes. Dragging the mouse deletes all notes underneath the eraser. The Delete mode can be activated anytime by clicking with the right mouse button. For instance, you can use the pen to insert new notes when left-clicking and remove already inserted notes with a right-click, without having to change tools.
	Magnifying glass (Ctrl + 7)	Left mouse button: Zoom in Right Mouse Button: Zoom out Left mouse button + drag: Zooms in on the range.

Selecting MIDI events

(Piano roll, velocity editor, list editor,)

Select event	Left click event
Add/delete event from selection	Ctrl + left click event
Select current event and unselect all other events	Double click event

Change or set current event within multiple selection — Left click selected event

Select events from the same line or area — Click while pressing the "Shift" key

Selects all notes of the same pitch — Double click the desired key on the keyboard ruler to the left

Selects all notes — Ctrl + A (if a pitch is selected on the keyboard ruler, only notes with this pitch are selected)

Selects the next or previous note — Arrow keys

As you can see from this list, a simple click is all it takes to choose a specific event for editing – even from selections containing several events such as a pattern.
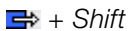
Edit notes with the mouse

If you move the mouse over a note, the mouse cursor will change and, depending on the part of the note, the following options will be available:
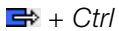
Change note start time (Grab note bar at the beginning, note end remains the same)

Change note length (Grab note length at end)

+ Shift   Set fixed note length for multi-selection: Hold "Shift" and drag the current reference note longer/shorter – all notes will have the same length

+ Ctrl   Scale note length for multi-selection: Hold "Ctrl" and drag current reference note longer – all notes will be lengthened by the same factor

Move note freely, pitch and start time change

If in "Move" mode "Alt" is also pressed, the note will only be moved horizontally, retain pitch (in free move mode, hold "Alt")

If "Shift" is pressed while in "Free draw" mode, only the pitch can be changed, the position will remain the same.

"Ranges for limited moving": If you activate this setting in the "Options" menu, clicking and dragging in the start portion of the note only results in a change to the position, while clicking on the end portion changes the pitch.

Moving and zooming

The vertical and horizontal view or zoom are adjusted with the scroll bars just like in the project window.

Mouse wheel: Scroll horizontally
Shift + mouse wheel: Zoom vertically
Shift + Ctrl + mouse wheel: Scroll vertically
Ctrl + mouse wheel: Zoom horizontally

Controller editor - Selecting and editing events

The controller editor is located below the piano roll and can be hidden.

It is opened either with a click on the button below the keyboard or via "Alt + V".

The velocity values of existing events are displayed as colored bars in the controller editor, whereby darker and higher bars symbolize larger values. The bars are located directly below the notes.

The values of all other controllers will appear in controller editor as ramps. Here, too the height of the ramps and their color intensity represent the last defined value of each event. The length of the represented ramps reached to the next varying event. Selected event ramps are also represented in red.

Controller Editor Hints

- In polyphonic events, the bars are layered on top of each other, which can make it difficult to single out specific notes. To edit only notes with a certain pitch (such as all C1 notes in the controller editor), click the corresponding key in the keyboard ruler. The key and the background color of the selected pitch are highlighted, and only the notes with this pitch are displayed in the controller editor.
- Notes with different pitches (such as all C1, D1 and A1 notes) can be displayed simultaneously by pressing "Ctrl" while clicking them (or "Shift" for areas between notes). This is basically a velocity editor view option. Multiple notes can be selected with a double-click.
- Another aspect of working with the controller editor's layered controller bars is that the bar of the currently selected note (mouse selection/editing) is always on top. To change this, click on the note you want to edit in the piano roll, or click directly on the layered bars and switch between the notes with the arrow keys. You can then change the controller value by clicking on the top third of the red (current) part of the top bar.

- After drawing controller values with the pen tool, click on an unselected area and drag the mouse to change several velocity values in sequence. Move the mouse in a curve to create velocity curves. Existing (multiple) selections are ignored. This is a great method for creating crescendos or decrescendos.

Tools

The Controller Editor has its own tools for editing curves and values.

Controller selection: A click on the menu area of the button opens a selection menu in which the MIDI controller for editing can be selected.

Selection: This is a combi tool used for value changes as well as freehand and line drawing.

Click in the upper range of a controller bar to modify the controller value immediately by dragging. Clicking in the lower two thirds of the bar selects the corresponding note which is then highlighted in red in the editors.

Select multiple controller bars by clicking and dragging a range in the Controller Editor; individual values can be selected by single-clicking within the bar. Selected controller events will be highlighted red.

Combi tool editing options:

- **Click on the bar end + drag:** The controller value can now be adjusted by dragging vertically. If you hold the "Shift" key down while dragging, all of the selected events will be set to the same value. If you also hold down "Ctrl", then the values of multiple selected controllers will be changed relative to one another.
- **Alt + Drag:** This activates freehand drawing; the mouse pointer becomes a pencil. By dragging in the corresponding controller area, you can draw in any number of controller curves.
- **Shift + Drag:** This activates line drawing and the mouse pointer becomes a cross hairs. By dragging horizontally, you can draw in linear value curves (ramps).

Freehand drawing: Draws new controller value curves or individual values by single-clicking without dragging.

By dragging backwards, you can delete your curve during drawing. Shift + Drag with the cross hairs to draw a line.

Draw lines: Use the line function to insert a transition between two different controller values.

Hint: If you edit velocity with the draw tools, no new notes are generated; only existing velocity values are modified.

Quantize controller events

MIDI controller events can be quantized and thinned out; select the "MIDI functions" menu and the "Quantize/Thin out controller" command to do this. Quantization occurs according to the quantization settings (view page 114).

List Editor

The MIDI editor contains an integrated list display of all events with additional view and edit options. This list editor is opened either by clicking on the button above the keyboard or using the shortcut "Alt + L".

When the list editor is open and ready to receive input, it will have a narrow red border. This makes it clear that certain functions, for example, select next/previous event (cursor keys) or the "Select all" (Ctrl + A) command, only refer to the list.

In the list editor, not only note events but also the MIDI controller and Sysex messages are displayed. These controllers and messages can be displayed or even filtered out during playback ("Mute").

"Note on" and "Note Off" events belong to each note, which are then selected as pairs and edited ("Note off" events can be displayed and hidden with a tick in the check box below the editor).

To edit specific events only, the list editor provides a view filter for each column. These are small check boxes below the columns of the list editor.

Select a representative event. For example, this could be a note with a certain pitch. Then click on a display filter for a specific column to only display events of this type with the selected pitch. All other events will now be faded out.

Display filters can be combined with one another. This way, when working with the "Select all" command (Ctrl + A), you can select and edit all control change events of type 10 (volume) on MIDI channel 6.

Quantize

Small irregularities when playing to record can be smoothened with the quantization function. In contrast to this, mechanical sounding sequences can be made a little more groovy by applying the **Swing** function.

Clicking on the **Quantize** button shifts all selected notes to a customizable quantization grid.

All notes are quantized without previous selection.

1/4, 1/8, 1/16, and 1/32 notes and corresponding triplets can be selected as starting points (grid) and lengths.

The **Quantize** button always performs standard quantization (the note's start point and length are preset). MIDI functions (view page 116) -> Advanced quantization provides other quantization modes (e.g. length only or Soft Q).

The quantization options enable the type and scope of the quantization to be set more precisely.

Quantization grid ("Snap")

If snap is activated, the notes "snap" to the quantization values when they are created or edited.

The quantization values are also considered. For instance, the notes snap to the corresponding positions within the quantization window.

The snap positions are displayed within the piano roll as a matrix. A swing quantization is displayed by the different intervals of the vertical partitions in the piano roll. The grid can be hidden with the "Show quantization grid" command in the options menu ("Alt + G").

You can deactivate the snap function while creating or editing notes by holding down "Alt" as you draw them.

Move relatively on grid ("Options" menu): If this option is active, then notes keep their original intervals relative to the grid and not to the note start when they are moved; the distance moved snaps to the quantization value. Use this option if you want to move unquantized notes a certain distance without disturbing the timing.

Keyboard shortcut: Shift + G

Quantization settings

The quantization settings can be found in the menu "MIDI functions -> Extended quantization" in the MIDI editor. The dialog with the settings is not "modal", i.e. you can open it as required and test certain passages with different settings.
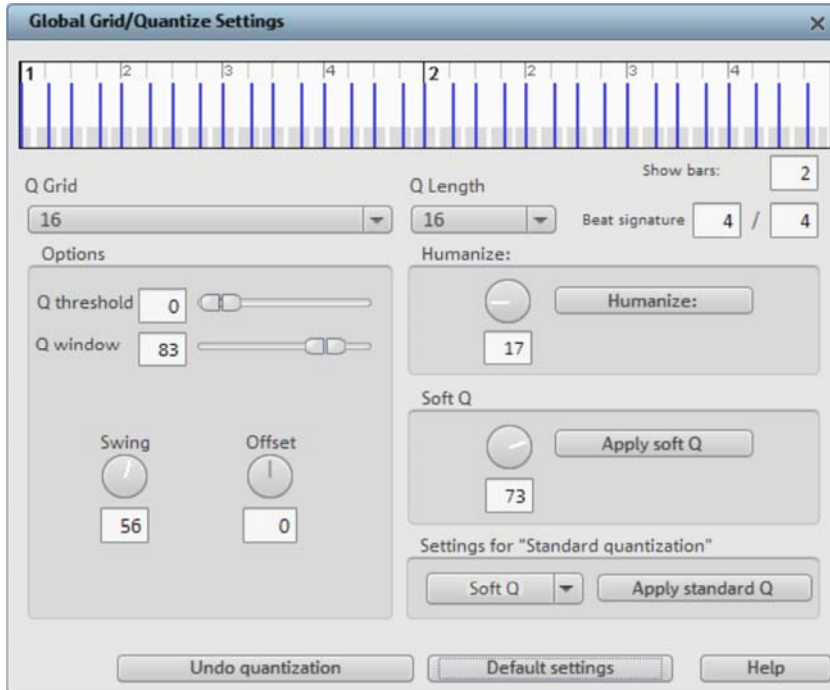
The selected quantization settings may be visualized in the top of the dialog. The blue lines indicate the target positions for the quantized notes, i.e. the snap points. The gray area around this show the quantization window i.e. the target positions that are affected by the quantization.

Q-grid/length: The quantization grid and length at which target points within the beat on which the note start points or lengths move (see above).

Q threshold/ Q window: This parameter may be used to slightly vary quantization by excluding notes from quantization that are very close to the next quantization value. "Q window" refers to the interval to the left and right of a grid point; events will be quantized within this range. Quantization does not take place outside of this window. This means that events with distance less than the "threshold" or more then the "window" from the grid point will not be quantized. The affected target range will be indicated in gray in the dialog graphic.

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Swing: Starts swinging, groovy playback (for example, triplet). Specifies the division for uneven grid points.

- 50 ... "50-50" division: The odd eighths are exactly half way between the even eighth notes ("even" playing method)
- 67... triplet playing method, 3-2 division

Offset: The value range in this parameter stretches from -100 to +100. By changing the offset values, you move the whole quantization grid. Negative values move the quantization to the left, i.e. forward in time; positive values move to the right i.e. further in time. The maximum of 100 corresponds with an offset of half the grid width.

Presentation of blue grid points in the dialog and the grid in the MIDI editor directly reflects changes to these values.

Humanize: The "Humanize" parameter creates another variation option, i.e. notes are able to be assigned according to the randomization principle up to a specific interval to positions around the exact quantization value. The setting occurs in % of a 16th note. The value specified therefore determines the possible interval between the quantized notes and the exact quantization value.

Soft Q: This value sets the strength or "Soft Q" value of the quantization.

- "100" moves the event precisely to the quantize grid point,
- "50" shifts the event to the middle between the current position and the quantization grid point,
- "0" means no movement -> Quantization off

The command "Soft Q" command considers the current level value in the quantization options. The simple quantization command always occurs at 100%. In this manner, you can always select between approximation (soft) and a harder quantization without having to adjust the quantization options every time.

Standard quantization settings: Select from a list of quantization actions (see MIDI functions) that are listed by clicking the "Quantization" button.

Reset quantization: All notes are rest to there original positions.

Standard settings: Restores the default values.

MIDI functions

The "MIDI functions" menu contains advanced quantization (More information can be found in the section "Quantization settings" on page 114) and editing functions for MIDI notes.

The commands in the "MIDI functions" menu always affect the selected notes. If no notes have been selected, all functions are applied to all notes.

Legato: Notes may be sustained until the next note, i.e. legato.

Quantize notes (default): A default quantization is applied to all of the selected notes. If no notes are selected, then all notes will be quantized. The default action may be specified in the Quantization settings (view page 114) dialog. "Quantize notes (start and length)" is the default. This function can be accessed via the "Quantization" button in the MIDI editor.

Advanced quantization

This submenu contains additional quantization commands.

Start Q: Selected notes will be quantized corresponding to the set grid quantization value. Note lengths remain unaffected.

Start and length Q: Selected notes will be quantized corresponding to the set grid and length quantization values. Hard quantization always occurs at 100%.

Soft Q: This command considers the current level values in the quantization options. The simple quantization command always occurs at 100%. In this manner, you can always select between approximation (soft) and a harder quantization without having to adjust the quantization options every time.

Length Q: Selected notes will be quantized according to the set length quantization value. The start time remains unaffected.

Quantize notes to grid: The end of selected notes will be quantized according to the set grid quantization value. The start time remains unaffected, but the note lengths will change.

Reverse quantization: With this command, you can reverse all completed quantization steps. This functions even after the arrangement has been saved.

Quantization settings: Opens the selection dialog for the Quantization settings (view page 114).

Quantize controller events: Allows you to quantize controller events (view page 113) to reduce their number.

Mute notes (Mute): Mutes and unmutes notes or selected note groups with a click.

Remove overlaps (polyphonic): Notes may be shortened so that there no longer are any overlaps. Chords (simultaneously played notes) are recognized and not corrected, i. e. chords are not split up.

Remove overlaps (monophonic): Notes may be shortened so that there no longer are any overlaps. Forces monophonic voice leading.

Convert sustain pedal to note lengths: This function converts sustain pedal controller events (controller 64) into note lengths. All notes which were started after a "Pedal pressed" event (CC64 > 64) will be extended to the "Release pedal" event (CC64 < 64), and the pedal events removed.

MIDI editor techniques

You can cut-and-paste MIDI notes within the editor and between MIDI objects. The notes are always inserted at the play cursor's position.

Duplicate: The selected notes are copied and inserted after the next grid point if the quantization grid is active (menu "Options -> Quantization grid on"), or immediately after the selection if the grid is inactive.

Create pattern from selection ("Ctrl + P"): The length of the pattern is quantized if the grid is active. The pattern can be "painted" into the MIDI object using the mouse mode "Pattern painting".

To directly select notes with a specific pitch, double click on an empty area in the piano roll editor or in the keyboard ruler.

MIDI Editor shortcuts

|	
Playback/Stop	Space
Stop at position	'0' (Number block)
Delete all selected events	Ctrl + Del
Delete selected MIDI notes	Del
Select all non display-filtered notes (piano roll) or events (list)	Ctrl + A
Mute notes	Ctrl + M
Create pattern from selection	Ctrl+W
MIDI recordings	Ctrl+R
Undo (Undo)	Ctrl + Z

Restore (Redo)	Ctrl + Y
Cut	Ctrl+X
Copy	Ctrl+C
Insert	Ctrl+V
duplicating	Ctrl+D
Imported standard MIDI file	Ctrl+I
Exported standard MIDI file	Ctrl + E
Fade in/Out Event Editor	Ctrl+L
Fade Velocity In/Out	Ctrl + T
Show Quantization grid	Ctrl+K
Mode selection	Ctrl + 1
Drawing mode	Ctrl + 2
Drum (Draw Mode)	Ctrl + 3
Pattern (Drawing) Mode	Ctrl + 4
Change velocity	Ctrl + 5
Delete Mode	Ctrl + 6
Zoom Tool	Ctrl + 7
Quantize	Ctrl + Q
Quantization options	Alt + Q
Select previous Note/Event	Up/Left arrow
Select next Note/Event	Tight/Down arrow
Play selected notes	Ctrl+N
End all notes	Ctrl+P
Grid on/off	Ctrl+G
Auto-scrolling during playback	Ctrl+F
Vertical zoom in	Ctrl + Up arrow
Vertical zoom out	Ctrl + Down arrow
Horizontal zoom in	Ctrl + Left arrow
Horizontal zoom out	Ctrl + Right arrow
Horizontal scrolling	Mouse wheel
Vertical scrolling	Shift + Mouse wheel
Zooming	Ctrl + Mouse wheel

Drum Editor

After opening the MIDI Editor (double-click on the MIDI object), switch to the corresponding field

in the Drum Editor by clicking. Instead of the piano keys to the left, you now see a list of drum instruments.
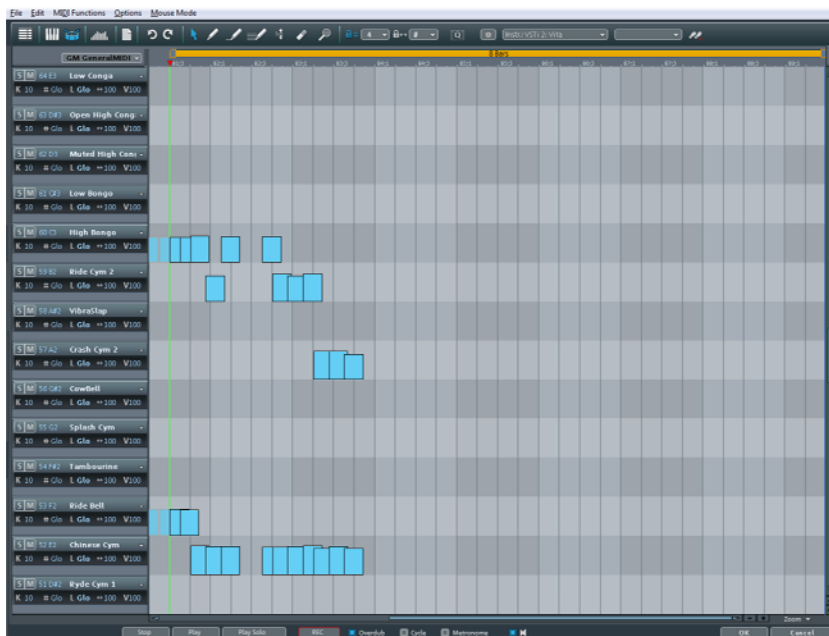
Note: If a drum map is active in the Arranger track (recognizable by the word "map" in t he MIDI area of the Track Editor), the Drum Editor is loaded automatically when the MIDI Editor is loaded.

Drum Editor track box: In the individual track boxes of the Drum Editor you can individually adjust MIDI channel, grid, quantization length, display width in cell mode and velocity scaling for each drum instrument in %.

Velocity scaling: The velocity value of each note is multiplied by the V value/100 and adjusted to the MIDI velocity between 1 and 127. Scaling is audible, however, it is not visualized further. Scaling is audible, but is not visualized further.

Cell Editing Mode: When the Drum Editor opens, Cell Mode activates by default. In addition, you can individually set the display width for each track box in the Drum Editor.

Switch to Drum Editor Mode and back.

After opening the MIDI editor (double click the MIDI object), switch to "Drum editor" mode by pressing the drum editor button.

Instead of the piano keys to the left, you now see a list of drum instruments.

When you switch from "Drum editor" mode back to the normal piano roll, you will be asked if you wish to apply mapping or not. If you add mapping, all mapping settings (which makes a note sound different to how it is displayed) will be applied to the MIDI object. If notes, for example, are routed through channel 10 (GM drum channel) via mapping, the notes will be replaced by corresponding "real" note events on channel 10.

Cell mode

"Cell" mode serves to improve the overview as it limits the display to only the most important information, note starting points, and velocity.

Each time position of a bar is displayed as a row of cells in on/off states. The note length is not displayed, but rather a unified display width is used. This way, it all looks similar to the step sequencer of a drum computer (see Robota (view page 151)).

The set quantization grid can be read from the width of cells. "Swing" and "Offset" settings of the quantization options are also made clearer thanks to cells of various widths and by repositioning.

The height of cells displays the velocity of the note. When drawing new drum notes the velocity can be specified via the vertical drawing position within the cells. In connection with the "Drum draw" mode, increasingly loud drum rolls can be drawn in easily.

By clicking on the upper edge of a cell and dragging it vertically with the mouse, the velocity can be adjusted directly without having to use the controller editor. In "Velocity" mouse mode ("Ctrl + 5") it's even easier; all you need to do is click anywhere on the cell.

Drum Editor trackbox

In the drum editor, each individual note has its own trackbox, and individual settings can be specified for each instrument. When zoomed out, each trackbox can be increased in size with a simple mouse click.
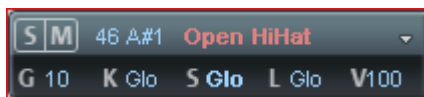
S/M: Each individual instrument can be played solo (**S**) or muted (**M**).

Note number: The output note from the instrument can be set here. This can be different to the note currently displayed in the MIDI object so that individual drum instruments can be substituted. To put the display of notes back into the usual order (deep notes at the bottom, highs at the top), click on "Map" at the top and use the "Sort drum map" command.

Instrument name: Double clicking on this field lets you rename your drum instrument.

Quantization options/colors: Use this menu to assign any one of the eight different colors to the cells of a drum instrument. The dialog for the instrument's quantization options is also opened here.

The dialog is the same as for global quantization options (view page 114), but the settings only apply to the individual quantization options if an individual grid value is set for the note as well.

K Output channel
Quantization grid, "Glo" refers to the global value (More information can be found in the section "Quantization settings" on page 114)
L Note length, # corresponds to the grid value, "Glo" to the global value
   Length of the notation, # corresponds to the grid value (i. e. the entire cell width), "Glo" refers to the global value of the note length
V Velocity scaling: The velocity value of each note is multiplied by the value set here in %.

Scaling is audible, but is not visualized further. The purpose of this setting is the customization of the volume ratio between the individual drum instruments. Software instruments usually provide their own mixers.

Drum Maps

Drum maps specify individual instruments, e.g. bass, drum, hi hat, snare, etc. An individual output note, MIDI channel, and velocity scaling can be set for each of these instruments.

GM GeneralMIDI ▾   The drum map can be set in the drum editor by clicking the "Map" field.

To split the drum names a "General MIDI" map is used by default. It may be the case that your synthesizer (regardless if real or virtual) uses a different mapping setup.

This means that when you play the drum event, the sound you wish to hear may not be heard (for example, instead of a bass drum, you get a high tom). In this case you will have to re-sort your mapping setup. The settings for individual instruments can be specified in the trackbox. For more extensive changes we recommend using the drum map editor. There you can save your drum map as a file.

A project may contain various different drum maps. All drum maps saved in the project can be selected via the menu. If you require a drum map from a *.map file, you will have to load it into the drum map editor first so that if can be shown in the menu. You can edit the individual drum maps in the drum map editor.

Drum Map Editor

The drum map editor can be used to create and edit drum maps.

The "Drum maps" list on the left-hand side displays all drum maps which are available to the project. The drum map **GM General MIDI** is always available to start off with.

New: Creates a new, empty drum map.

Copy: Creates a copy of the existing map. This way you can quickly create variations of a drum map with various note allocations which can then be toggled via the drum editor.

Load/Save: Use this to save a drum map (*.map file). This way you can use a drum map you created for a synthesizer in other projects as well. All loaded maps will be displayed in the "Map" menu of the drum editor.

Delete: Removes the selected drum map from the project.

Use the **name** field to rename the selected drum map. The settings (mapping) of the individual notes for each drum map will be displayed below this in tabular format.

Pitch: This is the incoming MIDI note.

Instrument: Displays the name of the drum instrument, e.g. "Bassdrum 1".

Grid: If desired, you can set up a grid for the starting point of the drum events.

Length: In this field you can set the grid for the note length.

Output note: This is the note value to which the drum instrument (the incoming MIDI note in the "Pitch" field) should be routed or mapped.

Channel: You can set up an individual channel for each instrument here.

Quantization options: This opens the dialog for the each instrument's quantization options (view page 114).

Instrument, grid, length... apply to all: This applies the corresponding setting of the selected instrument to all other instruments.
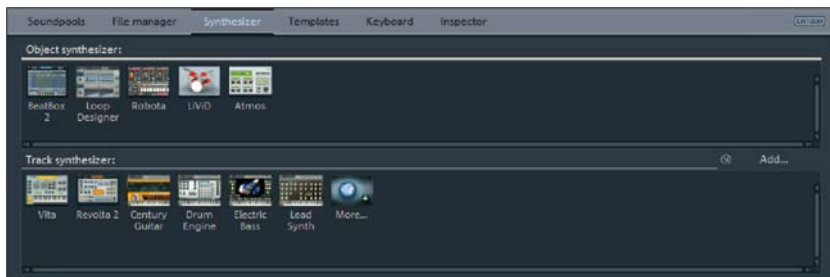
Synthesizer objects

MAGIX Music Maker MX Premium delivers many software synthesizers and synthesizer plug-ins (VST instruments) for creating your own sound material. The synthesizers are represented either by internal synth objects that can be arranged together with other objects on the tracks, or as in the case of VST plug-in instruments, by MIDI objects.

Here's an overview:

Synthesizer	Type	Use scenario
Atmos	Synth object	Background noise
BeatBox 2 plus	Synth object	Nature and electronic beats
Loop Designer (view page 140)	Synth object	Breakbeats, bass lines
Livid	Synth object	acoustic drums (complete song parts)
Robota	Synth object	electronic drums
Revolta 2	VSTplug-in	Synthesizer leads, pads, sequence figures
Vita	VSTplug-in	Nature instruments, guitar, bass, acoustic drums, piano, strings, horns
VST plug-ins	VSTplug-in	depends on plug-ins installed

Opening the synthesizers

The software synthesizers can be loaded just like any other objects in MAGIX Music Maker MX Premium via the Media Pool. To do this, open the Media Pool's **synthesizer** setting.

You will find icons for all available software synthesizers in the Media Pool. The upper section contains all synth objects; the lower section displays the synthesizer plug-ins.

Note for users of older Music Maker versions:

This version of MAGIX Music Maker has replaced older technically outmoded synthesizers with newer, significantly improved solutions. Other synths were replaced by newer, non downward-compatible versions.

Arrangements created using older versions of MAGIX Music Maker may not function properly MAGIX Music Maker MX Premium for this reason. MAGIX provides the removed synthesizers as an extra download.

To download... http://rdir.magix.net/?page=DEPBU7N8R5E2

Synth objects

MAGIX Music Maker MX Premium contains many internal synthesizers for creating your own drum patterns, break beats, bass lines, or ambient noise. The synthesizers are represented either by internal synth objects that can be arranged together with other objects on the tracks.

Every software synthesizer can be loaded into the arrangement via drag & drop. A synth object appears in the appropriate track and the synthesizer interface opens, and synth objects can be programmed via this interface. You should also read the sections about the individual synthesizers.

You can start or stop the playback with the space bar. If the synth object has a play button of its own (e.g. BeatBox), the plug-in can start it solo without playing the other arrangement tracks.

If the synth objects melodies or rhythms are programmed, you can close the the control console and arrange the synth object in the track. Synth objects are handled like normal objects and can be edited with all available effects (view page 173), drawn longer or made shorter using handles, or have their volume adjusted.

The interface of any synth object can be opened for further editing by double clicking it. In addition, any number of synth-objects from the same software synthesizer be dragged onto the track and programmed separately. You can also split up synth objects.

Automation of Vita Solo instruments.

In MAGIX Music Maker MX Premium it is possible to automatize Vita Solo instruments. This allows you to change a specific value during playback using an automation curve automatically. Below we describe how to work using an automation curve.

1. Right-click on an effect knob. A context menu opens, where you can first select a MIDI controller number for editing using "midi ctrl #".
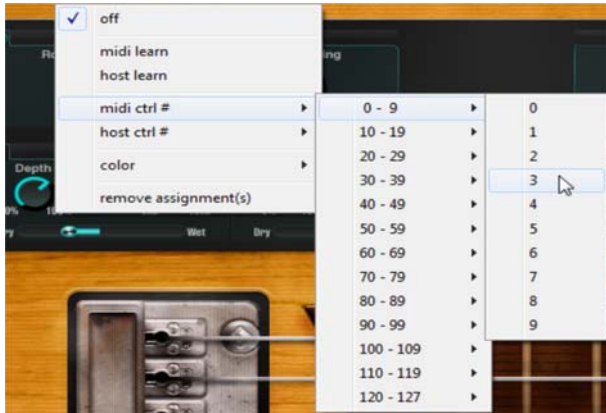
2. Open the MIDI Editor (Y key) and switch into the "Velocity/Controller Editor".

3. Below the piano bar you can now select the pre-selected controller number in the MIDI controller selection field.

4. You can now draw the desired automation curve.

Additional information can be found in the Controller Editor - Select and edit events (view page 111).

Tip: If you are using an external controller, you can also use it to control and automatize values. TO do so, select "Learn MIDI" in the Vita Solo Instruments context menu. Also read the Using external equipment (view page 99) chapter.

BeatBox 2 plus

BeatBox 2 is a 16-voice drum computer with hybrid sound synthesis and a step sequencer. The proven handling concepts of the "old" BeatBox like matrix programming with auto copy have been expanded with comfortable editing of velocities and significantly improved sound synthesis, including a multi-effects section (one effect per drum instrument).

A drum sound is created in BeatBox 2 using a sample (analogously to the old BeatBox) which is combined with a synthetic sound that can be created using up to three different synthesis models (hybrid sound synthesis). BeatBox 2 plus enables detailed editing and automation of all sound parameters.

There are two styles of interface in BeatBox 2. While closed, you can listen to included sounds or those you've made in BeatBox 2 without using too much window space.
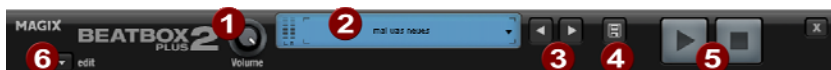
Only the most important control elements are displayed when the program window is minimized.

① Volume controller: Controls the volume.

② Peakmeter and preset name: The peakmeter lets you visually control BeatBox 2. Click on the triangle beside the preset name to open the preset list.

② Next/Previous preset

④ Save preset: The preset includes the drum kit in use, the pattern, and any possible automations (view page 133).

⑤ Play/Stop: The playback controller in BeatBox 2 starts BeatBox without playing the arrangement, too.

⑥ Edit button: The edit button opens BeatBox 2 for you to program your own beats and sounds.

Maximized BeatBox 2 plus window

1 **Drum kit:** This section loads drum kits (collections of different drum instruments) and the individual drum instruments.

2 **Selected drum instrument:** The settings in the synthesis section (6) and velocity/automation (5) always affect the selected drum instrument.

2 **Pattern editor:** Programs the beat sequence. In the top part, different patterns (sequences) can be loaded and saved as well as different settings for the view and function of the pattern editor. The matrix is where the beat is programmed: One line corresponds to a drum instrument, and a column matches a specific time position within 1-4 beats. If a cell is clicked on, then the respective drum instrument will be triggered at this position.

4 **Velocity/Control:** This section has two modes: **Velocity** and **Automation**. The setting **Velocity** displays the velocity levels for the selected instrument's beats as a column. The **Automation** set up allows automation to be set for sound parameters in the synthesis section (6).

5 **Synthesis:** The selected sound parameters and effects settings for the selected drum instrument can be edited here.

In the following, the sections of BeatBox 2 will be discussed individually:

Drum kit

This section loads drum kits (collections of different drum instruments) and the individual drum instruments. You can also try out an already programmed pattern with different kits or exchange individual drum instruments.

① **Select drum kit:** Use the <> buttons to switch through the different drum kits. A drum kit is a collection of percussion instruments with matching sounds, e.g. rock kit or electronic drums à la TR 808. By changing the drum kit, you can add an entirely different sound to the rhythm you have already created.

② **Save drum kit:** Use this button to save the current collection of drum instruments as a kit.

② **Drum kit list:** Click on the arrow right of the name to open a complete list of available drum kits.

④ **Select drum kit:** The arrow buttons function analogously to those of the drum kit. The sequence of drum instruments in the kit can be resorted via drag & drop.

⑤ **Mute/Solo:** The "solo" button switches a drum instrument solo, i.e. all other instruments which are not "solo" will be muted. The "mute" button mutes a drum instrument.

New drum or effect sounds can by added to the current drum kit by **drag & drop** from Windows Explorer. Drag a wave file to a drum instrument to create a new drum sound based on this sample. BeatBox 2 copies the sample into the sample folder to make sure that the instrument or kit created can be used again later. You can drag a complete folder with wave files to the drum kit to create a kit based on those samples.

Context menu

Right clicking a drum instrument always opens a context menu:

- **Copy/Paste:** Copy an instrument from a track and paste it to another one.
- **Empty instrument:** An empty instrument is added. No sound is played, it has no name, and is used to clean up an unused track.
- **Default instrument:** The standard instrument is added. It has the standard parameter for all synthesis shapes and serves as the starting point for your own sounds.

- **Reset automation:** BeatBox 2's own presets contain automations. These are dynamic sound parameters like filter curves or pitch changes. This command allows you to completely remove these for the selected instruments.

Pattern editor buttons

① **Pattern:** Use the <> buttons to switch through the different patterns. The arrow to the right opens a list of all available patterns, and the save button stores the current pattern.

② **Clear track/all:** All events for the selected instrument (**track**) or all events for the pattern (**all**) are removed by clicking this button.

② **Bar selection:** The bar you wish to edit can be selected via the corresponding number button. Use the "**Follow**" button to select follow mode, i.e. the step display follows the steps of the currently played beat. **All** shows all bars of the pattern.

④ "**1>2-4**" **Auto copy:** If more than one bar is set as the pattern length, "Auto copy" mode makes sure that the drum notes set in the first bar are automatically placed into the next bars. This also makes it easy to create a continuous beat, even with a loop length of four bars. Notes set in the bars further back are not affected by the "Auto draw" function, which, for example, makes faint variations detectable only in the fourth bar.

⑤ **Bars:** The maximum length of a drum pattern is four beats. The length can be selected via the small scroll bar.

⑥ **Shuffle:** This controller changes BeatBox 2's timing. If the fader is turned to the right, the eighth of a rhythm is played more and more like a triplet. If that sounds a bit too abstract – simply try it out, ideally with a pure 1/16 hi hat figure; you'll soon see what the shuffle fader is capable of.

⑦ **Grid:** Here you can set the time resolution of the BeatBox. You can choose from 1/8 notes (only for very simple rhythms), 1/16 (default), 1/32 (for more refined constructions).

Pattern editor - matrix
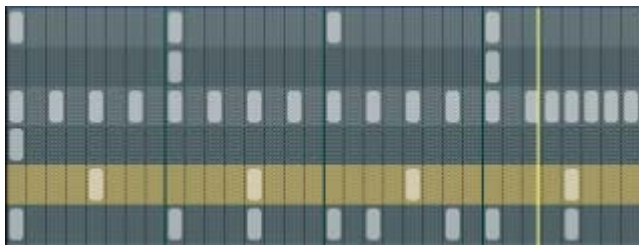
This is the heart of BeatBox. A click on any position in the drum matrix creates or deletes drum notes (events). Clicking and dragging draws in a series of notes. Together with the velocity editing options (view page 134) (velocity), you can easily create drum rolls.

If "Shift" is held when you click on notes in the range, a rectangle can be drawn out which selects the notes contained within this rectangle (lasso selection). Selected notes can be copied by dragging them to a new position. If "Ctrl" is also held down, then existing notes will remain at the target position. Delete all selected notes by right clicking.

Two special commands are available for selection:

Shift + double click   Select everything in the bar clicked on.
Shift + Ctrl + double click   Select all

A simple mouse click cancels the selection. The selection is automatically canceled after copying. If you want to keep your selection, hold down "Ctrl" while copying.

Keyboard shortcuts

Many functions in BeatBox 2 can be controlled with the keyboard, for example a beat can be triggered with the "Enter" key live in a running pattern. Here's a complete list of the keyboard commands:

General   **Key command**
Open/Close editor   e

Pattern editor - options
"1>2-4" Auto copy   a
Follow   f
Display bar 1... 4   1... 4
Show all bars   0
Grid finer/rougher   +/-

Selected drum instrument

Previous/Next	Cursor up/down
Preview	p
Live input	Enter
Mute on/off	m
Solo on/off	sec

Velocity

The velocity mode serves for editing the velocity/automation of the individual drum notes for the selected drum instrument.

1. **Reset:** Sets all velocity levels to 100%

2. **Mode switcher:** Switches the section between velocity control and Automation (view page 133).

2. **Random:** The random parameter adds random variations to the set velocities. This helps make your beats sound more natural.

4. **Amount:** No function in velocity mode.

5. **Velocity level:** Every set note for the selected instrument is displayed as a column and can be edited. Multiple columns can be edited at once; see Editing velocity values and automations (view page 134).

Automation

Every parameter for a drum sound, including effects, can be automated, i.e. can change during a pattern. For example, you can make your snare drums more lively by adding higher voices to loud hits or by setting accents on individual hits with reverb effects.

The synthesizer section below enables the selection of a parameter for automation via the small blue LEDs above a parameter controller.

More about the parameter controllers in the Synthesizer (view page 135) section.

① Reset: Sets all automation values for the selected parameter. 0.

② Mode switcher: Switches the section between velocity control (view page 133) and automation switched. This happens automatically during selection of parameters.

② Random: The random parameter adds random variations to the set automation. This helps make your beats sound more natural because each programmed hit will sound slightly different. The level of the random parameter is also influenced by the amount controller (see below), i.e. if the amount is at "0", then the randomness will have no effect.

④ Amount: The amount parameter regulates the complete influence of the automation values and of the random factor on the selected parameter. An amount of "0" does not have any effect at all on the automation; maximum level has the greatest effect. The effects of the amount controller on the automation values is made visible by a slightly lighter line in the value columns.

⑤ Automation values: The selected parameters can be drawn in as a column with the mouse. Automation values can also be drawn between the set notes; the sound of the drum instrument changes during playback.

Automation values are added to the original value of the parameters.

Editing velocities and automation values

Hold down "Shift" and select any number of columns for velocity or automation with the mouse. Two special commands are available for selection:

Shift + double click   Select everything in the bar clicked on.
Shift + Ctrl + double click   Select all

The "Copy" button copies the selection to the clipboard. If you select this or that track in another editor, then you can paste the notes there now from the

clipboard. If the target selection is larger than the contents of the clipboard, then it will be inserted again. This lets you quickly add a short section throughout the complete length of the pattern.
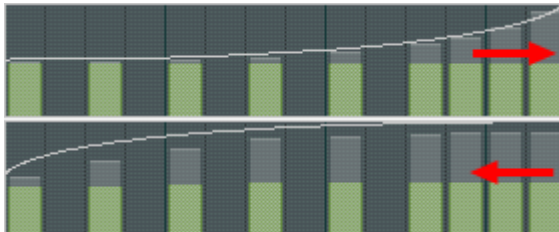
The three handles allow the velocity or automation values to be edited together.
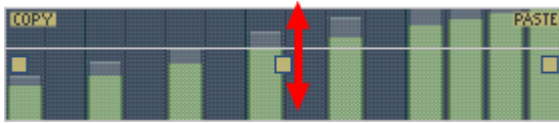
The middle handle increases or lowers the values together.
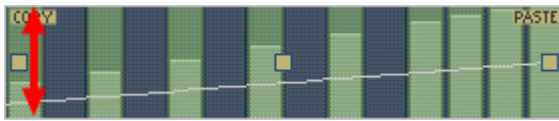
An object can be faded in or out with the handles to the left and right upper corners of the object.

If you move the handles horizontally you can change the curve shape of the transition.

A single click in the automation section cancels the selection again.

Note: A selection of velocity values matches the selection of corresponding notes in the matrix editor.

Synthesizer

In the lower section of BeatBox, you can set the sound for the selected drum instrument.

The synthesis in BeatBox 2 consists of a combination of a simple drum sampler and a synthesizer. There are three different synthesis models possible for the synthesizer: "Phase Distortion Synth" (FM synthesis), "Filtered Noise",

and "Physical Modeling". The mixed signal of both components is then
processed by a multi-mode filter. An envelope curve ("envelope generator")
time-dependently controls modulations of in all components.The details of the
synthesis models can be read in the section Synthesis models (view page 139).

1 Preview drum istrument

2 Save drum instrument

2 **Select sample:** A click on the arrow selects samples from the categories
like kick, snare, etc.

4 **Select synthesis mode:** Switches between the three synthesis models.

5 **Mix:** Mix relationship between drum sampler and synthesizer.

6 **Parameter controllers:** All six sound parameters for a drum sound can be
directly set and automated via the parameter controller. The parameters
in question depend on the drum sound currently loaded. By clicking the
name of a sound parameter, a menu opens for you to add parameter
controllers to each drum sound's synthesis parameters.

7 **Automation:** This selects the controller's parameter for the automation
(view page 133).

Effects section

Each of BeatBox 2's drum instruments includes an effects unit which is fed in
after the actual sound synthesis and editing. Each of these effects units
includes a series of high-quality algorithms to add "audio polish" or to place
the sound in a production-typical context.

1 FX on/off

2 **Parameter controller:** An effects module includes four adjustable parameters. The fourth, "Mix", is always available and the remainder possess a function dependent upon the selected algorithm.

2 **Automation:** This selects the controller's parameter for the automation (view page 133).

4 **Effects algorithm:** Click the arrow to select an effects algorithm.

The available effects algorithms per unit are described in the following.

Mono delay (tempo sync / millisec.)

Simple, monophonic delay effect

Parameters

- **Time:** Delay time controlled by musical measure (sync) or free running
- **Feedback:** Repetition
- **Damping:** High damping of the repetition

Stereo delay (tempo sync / millisec.)

Stereophonic repetition, adjustable separately per side

Parameters

- **Left / Right:** Delay times, synced or free running
- **Feedback:** In contrast to mono delay, no repetition takes place in the middle position of the **feedback** controller. When turned to the left the type of delay is that of the so-called "ping-pong" variety, i.e. the signal is alternately sent so that is jumps from one channel to the other. When turned to the right the delay effect is "dual mono", in which case left and right sides act as two independent time-delay units.

Chorus

Produces a typical "floating/shimmering sound" by modulated detuning of a signal to "thicken up" its sound or spread it across the stereo field. Detuning is achieved by a short delay, the length of which can be varied by the modulation. This produces the so-called "Doppler" effect.

Parameters

- **Time:** Delay time in milliseconds. This can be understood as the "base" modulation which is stretched or compressed by the modulator.
- **Rate:** Modulation speed

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- **Depth:** Modulation amplitude. Low values modulate only a little, higher values lead to a clear vibrato.

Flanger

Algorithmically similar to chorus, but different in that the delay time is significantly lower and delay works with repetitions (feedback). A flanger sounds more "cutting" and up-front than a chorus.

Parameters

- **Rate:** Modulation speed
- **Feedback:** Delay feedback
- **Depth:** Modulation amplitude

Phaser

A modulation effect just like chorus & flanger, but in this case no detuning takes placed. Filter components periodically alter the signal's "phase response" (principle of the "phase shifter"). Characteristic notches are produced in the frequency spectrum response to create so-called "comb filter effects". The phaser effect is suitable for pads and "psychedelic" sounds.

Parameters

- **Rate:** Modulation speed
- **Feedback:** Feedback of filter steps
- **Depth:** Modulation amplitude

Room reverb / Hall reverb

In the case of reverb there are two realistic simulations of natural reverberation. Sounds receive "atmosphere" and thereby appear lively and "authentic". Room reverb simulates a small space with high echo density. Hall reverb mimics the typical reverb of large concert halls.

Since natural spaces never sound "static" because air molecules are constantly moving and due to the complexity of reflection processes, both algorithms include a modulation parameter which varies the delay time of individual echoes and thereby affects the liveliness of the reverb impression depending on strength.

Parameters

- **Decay:** Reverberation length
- **Damp:** Damping of highs, simulates absorbtion via air, wall materials, and objects
- **Mod:** Modulation strength.

Lo-fi

This algorithm gives the sound a little bit of "grit", or a certain measure of signal destruction depending on its setting. An ideal partner for creative sound design. The simulation of early digital synthesizes or samplers is equally possible since their AD/DA converters were anything but "true" in the character of their sound. The sample rate from the output of the lo-fi effect can be continuously reduced and a generous measure of "aliasing" distortion can be produced alongside the unavoidable loss of highs which results from "down sampling". Bit resolution is clearly changeable, too.

Parameters

- **Rate:** Sample rate
- **Crush:** Number of bits
- **Low-pass:** Low-pass filter at the output to smooth out induced noise

Distortion

This overdrive effect works similarly to common guitarist effect pedals. Everything is possible, from light, bluesy signal saturation to hard "metal shred boards". Here a dual-band EQ works on the in and output signals and therefore provides a rich palette of sounds.

Parameters

- **Drive:** Controls the internal level and thereby the overdrive
- **Low:** Bass portion.
- **High:** High portion.

Analog filter 12/24db

Vintage compressor

Synthesis models

The sound synthesis in BeatBox 2 consists of a simple sampler and a synthesizer which includes three different synthesis modules.

Sampler

The sampler plays short sound recordings ("samples") in different pitches. The sampler is intended for creating all kinds of drum sounds; the sounds are static and unnatural if the pitch is not altered. This is why the sampler is combined with on of the three synthesis models.

Filtered noise

White noise is filtered by two band-pass filters with separately setup frequencies and resonance. This algorithm is suitable for creating synthetic snares and high hat sounds.

Phase distortion synth

Two oscillators with regulated phase distortion and thoroughly variable frequency modulate each other (FM/cross-modulation/ring-modulation). Depending on the setting, this algorithm can be used to create kick, tom, or metallic percussion sounds; higher values for frequency and modulation level produce noisier sounds for high hats or shaker sounds. Since the oscillator frequency can be set exactly according to the musical pitch, this model can be used to produce mass lines or melodies.

Physical modeling

This is a simple physical model of an "abstract" percussion instrument. A fed-back network of delays is caused to oscillate by an impulse of filtered white noise (exciter). Depending on the setting of the exciter, the size of the model (surface), and the damping, a wide spectrum of natural sounding percussion instruments like cymbals, claves, gongs, or triangles can be created.

Multimode filter/Envelope generator

Following the samplers and synthesizers, an inverse filter (multi-mode filter) is added to add the last bit of polish to the drum sound. The envelope generator controls all time-dependent processes in the synthesizer and sampler.

Loop Designer

The loop designer unites both stellar design elements of drum'n'bass style in a "device": turned-up beats and rumbling bass lines. With the Loop Designer you can create authentic drum'n'bass sounds without any specialized knowledge.

Tip: Drum'n'bass tracks usually have between 160 and 180 BPMs. The Drum&Bass Machine can also be used for other music styles. e.g. for BigBeat (120 BPM) or TripHop (80-90 BPM).

Loop Designer: overview

The top half of the synthesizer controls the rhythm section, the lower half - the bass section. You can mute both sections using the M symbol on the left border. This way you can, for example, turn off the bass section in order to take only the drum section into the arrangement. Only the drum section will then be added to the mixdown file when mixing down the arrangement. Next to this are the volume controls, which control the volume of both sections.

You can preview and stop your drum'n'bass creations using the "play" and "stop" buttons.

Additional buttons:

        Loads a saved pattern with all settings.

Saves a pattern.

Undo for all settings made in all sections.

Makes random settings changes in both sections. You can change settings later as you wish.

Drum section (top half).

Here complex, authentic-sounding Jungle-Breakbeats can be put together easily. In professional recording studios Jungle-breakbeats are made by chopping up arbitrary drum loops and putting them back together in a different order. These laborious work steps are significantly simplified by Loop Designer.

The new sequence is determined in the top row, the so-called "step" row. The grey cells represent the individual sections ("counts") into which the loop is separated.

Pick a different note or playback by left-clicking a grey cell. Various notes will be represented with a light bar which "grows" toward the top with each mouse click. This way, each time you click on the grey cell, the bar expands by one step.

1 of 4: Play Drum Loop starting from the first note.

2 of 4: Play Drum Loop starting from the second note.

3 of 4: Play Drum Loop starting from the third note.

Full bar: Play Drum Loop starting from the fourth note.

Reverse icon: Play backwards from this position

Stop icon: Stop playback

The right mouse key deletes settings of a step bar and the Drum Loop is played in its original order.

Pressing the double-arrow button generates a random step sequence. You can change this rhythm as you like.

Clicking into the blue field in the left part of the drum section opens a pop-up menu where you can pick the sound of the Drum Loop. When you select another drum loop it will load and be played in the way you programmed it.

Tip: You can also send a loop from Soundpool or a wave file to Loop Designer. To do so, select the desired loop or file and drag it into the field while holding down the mouse key ("drag & drop").

In the field under the "steps" row the sound of the loops is defined. The intensity of the settings is determined with a control similar to a peakmeter. The higher the bar, the stronger the influence on the loop is. With the help of the left mouse key, values can be smoothly adjusted. "Volume" controls the loudness (full = loud, empty = quiet), "filter" the filter strength (full = clear, empty = muffled). In the "Flam" row you have the option to make the note repeat itself twice in quick succession. This is how to program rolls and fill ins.

Using the top arrow buttons at the right edge you can load pre-defined pattern settings. The originally set loop will not be changed. The two lower arrow buttons offer presets in the form of standard curves for "volume" and "filter".

The "Filter type" controller selects the type of the filter sound: "BP" stands for "bandpass", "LP" for "low pass" and "HP" for "high pass".

Bass section (lower pane)

The bass section produces suitable bass lines.

- The first row of the "Notes" row, determines the order of the sounds i.e. the series of notes. Select a cell with the left mouse click, where the lowermost represents the lowest note and the topmost - the highest. A right mouse click deletes a cell.

- In the "Octave" row you can specify the octave of the bass. The slide control positions represent the various octave values. If the controller is down, a deep sound is produced, if it is in the top position, you will get a high tone. If the controller is in the middle, the pitch will be balanced.

Just like in the drum section, here you will also find arrow buttons on the right side for opening pre-defined patterns and and a double-arrow button for setting arrows. The filter can be set analogously to the drum section. The arrow button next to the filter area select presets in the form of standard curves.

You can determine the bass sound in the blue selection field at the left side. You can drag loops and WAV sounds into the field using drag & drop just like in the drum section.

Additionally, there are two slide controllers for sound changes to the right:

The "Vibrato" slider makes the bass tone's pitch change. When the control is to the far right, the sound vibrates more, if it's to the far left pitch isn't changed at all.

The slider "Decay" determines how long should it take to for the sound to subside. Set to the far right the sound is very fast (about 1 / 4 of a second), on the far left the sound lasts longer.

LiViD - Little Virtual Drummer

MAGIX LiViD helps you to turn your ideas into songs. Enter a few basic details and LiViD will play a full drum track, complete with intro, verses, choruses, fills, bridges etc.; the entire song structure is laid out for your convenience. Brilliant stereo drum samples recorded by professional studio musicians and a freely adjustable "Humanize" function will create an authentic drum feel with perfect sound quality.

LiViD features four styles (pop, rock, funk, latin), each of which is subdivided into four further substyles, as well as six song sections for each substyle (intro, verse, bridge, chorus, outro, fill-in).

Scramble: A random sequence of four one-bar patterns is generated internally for each style/substyle/song section. "Scramble" generates a new pattern order.

Shuffle: Shifts the second and fourth 16th note of a beat back by a freely definable amount (100% = triplet rhythm).

Humanize: Randomly shifts all events backwards or forwards, or leaves them unaffected. Note: these shifts are very subtle and not always immediately perceptible!

Snare: Sets the snare stick style to "normal", "side stick" (stick hits the rim while resting on the skin) or "rim shot" (sticks hits the rim and skin simultaneously). Exception: the snare's quietest velocity level (the "ghost notes") is always "normal".

Hi-hat: Sets the hi-hat sound to "soft" (fully closed) or to "hard" (half-open). Exception: completely opened hi-hat (pop, type1, verse).

Ride: Sets the ride cymbal sound to "ride" (cymbal is hit on the rim) or "ride bell" (cymbal is hit on the bell at the center).

Robota

The Robota is a four-part drum computer with virtual analog and sample-based sound production. Virtual analog sound production means that the sounds are synthesized in real-time, i.e. produced with a synthesizer to recreate the typical analog sounds of classical drum computers, such as the Roland Tr-808 and Tr-909, or more recent devices such as the Korg Electribe or the Jomox x-cousin. Sample sound production uses drum sound recordings (or even other recordings) as the basis for sound production.

After selecting the elementary sound production technique, the sounds of each of the 4 parts (or instruments) can be edited using modulators.

The step sequencer programmed with incident lighting helps Robota to play. 4 beats in sixteenths (or 2 beats in thirty-seconds) are processed as a loop. At each beat position, the playing positions can be set by clicking a button. In "Event" mode, the instruments are distributed within the beat pattern. In "Snapshot" mode you can adjust additional instrument sound settings.

Sound synthesis

The four instruments of the Robota are built identically. Each instrument can create all kinds of drum sounds – from hissing hi-hats to phat bass drums.

During elementary sound production, you can choose between an oscillator with selectable wave shapes (sine, triangle or saw tooth) or a sample. In addition, you can add a noise generator can be added. The oscillator has a pitch envelope (pitch env.) and a volume envelope (attack/decay). It can also be frequency and ring-modulated. The depth of the modulation can be controlled via an envelope parameter (Fm/rng dcy). There's also a "Lo-fi" section consisting of distortion (Rectify), bit rate reduction (Crush) and sampling rate reduction (down sample).

Temporal control via an envelope (lofi dcy) will get the best out of the lo-fi effects. A multi-mode filter (low-pass/band-pass filter/high-pass) with 12/24 dB steep-side. A comb filter can be inserted. The filter frequency can be likewise modulated via an envelope. For extra pressure, an adjustable compressor (compressor, comp resp) is included, as well as tube amplifier simulation (tube).

Parameter (1): To simplify matters, not all parameters can be changed on a sound - only those that are meaningful for the selected drum sound may be changed (snare, kick, high etc.). There are four selected variable parameters coordinated exactly with the selected preset sound.
Oscillator waveform (2): The fundamental waveform of the Oscillators is selected here. You can choose from sinus/triangle/sawtooth/sample. If you have selected "Smpl" you can use the rotary knob to select a sample, i.e. a previously recorded drum sound. These samples are saved in the folder /synth/robota/samples/. If select custom samples, they will appear in the selection list.
(3): For each part you can regulate: Filter Cutoff, Resonance, Tube, Volume and Panorama (view page 148).

With **select** choose the instrument for editing in the step sequencer.

"**M**" mutes the instrument, "**S**" makes it solo

The **loudspeaker** button allows you to hear a preview.

Master Section
Volume regulates the total volume of the Robota. **Distortion** adds an adjustable tube distortion to make the sound "dirtier" and more powerful. The peak meter helps control the output level – when it enters the red area, reduce the total volume.

Schematic illustration of the Robota synthesis
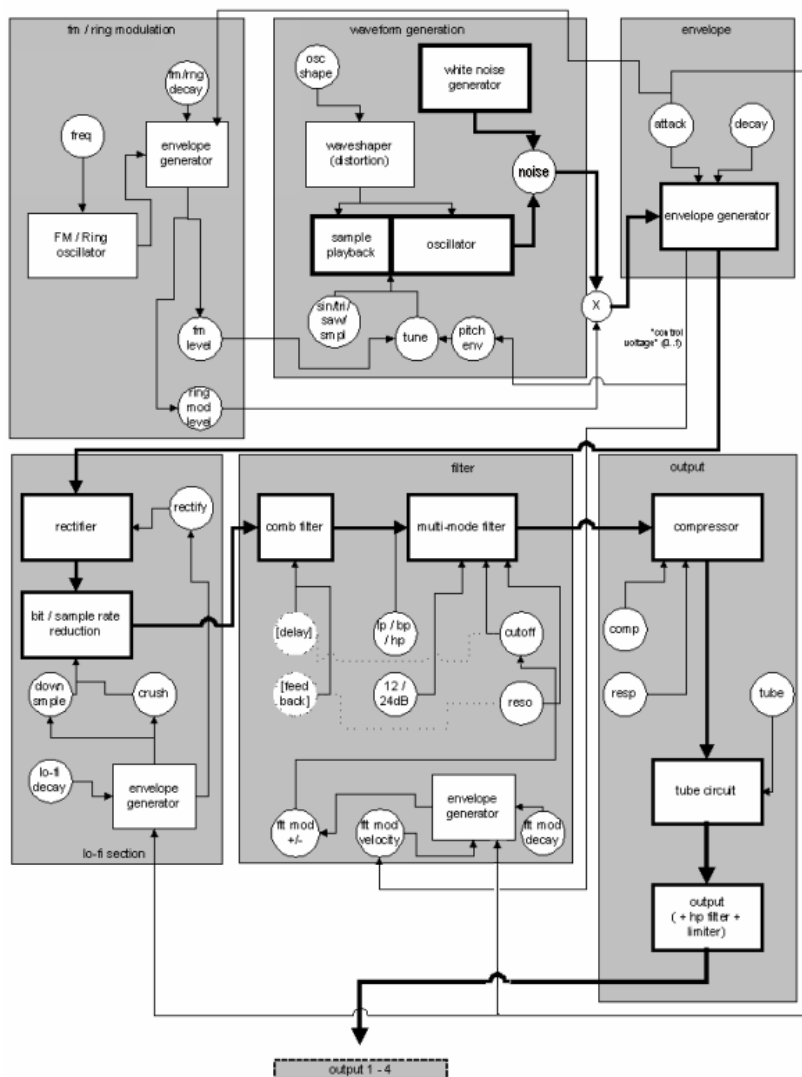
Here is a detailed circuit diagram of a Robota voice with a description of all control parameters.

Pitch envelope (pitch env)
Controls the pitch envelope level.

Tune
Tunes the instrument.

Oscillator shape (osc shape)
The shaper adds additional frequency shares to the basic sound of the oscillator by artificially reshaping the wave shape. A sine wave (shape = 0) can be reshaped up to a square curve (shape = max).

Oscillator waveform
The fundamental waveform of the oscillators is selected here. You can choose from sine/triangle/sawtooth/sample. If "Sample" is selected, you can use the controller to select a sample, i.e. a previously recorded drum sound. These samples are saved in the folder /Synth/robota/samples/. If you select custom samples, they will appear in the selection list. If you are playing your own samples, they will appear in the selection list.

Noise
Adjust the ratio between the oscillator sound and the noise generator.

Attack
Adjusts the attack time. The greater the set value, the softer the attack of the sound. The attack rate is also applied to the lo-fi and filter envelope curves.

Decay
Adjusts the decay curve. The greater the value, the slower the instrument will decay.

FM/Ring modulation frequency (Fm/rng frq)
The fundamental frequency of the frequency or ring modulation.

FM level (fm lvl)
At a low frequency FM first adds vibration to the sound, at high frequencies and low levels it creates bell-like sounds, as the level increases metal sounds, and finally noise.

Ring modulation level (rng lvl)
Ring modulation creates typical auxiliary frequencies.

FM/Ring modulation decay (Fm/rng dcy)
Time constant of FM/ring modulation by-product. Only the beginning of the drum sound is affected by the modulation.

Rectify
Distorts the audio signal.

Crush
Bit rate reduction. Digital artifacts become audible with higher settings.

Down sample (dwnsmple)
Sample rate reduction. Ideal for creating the "old school sound" of older digital drum machines. As it is increased, the result becomes darker.

Lo-fi decay (lofi dcy)
Time constant of the by-product of the three lo-fi effects which makes the sound "dirty". Only the beginning of the drum sound of the lo-fi effects is affected if the decay is low. For instance, this makes the kick of a kick drum sound more interesting.

Filter modes (flt mode)
Filter mode: High cut – sound portions above the cut-off frequency are filtered out. Band pass (BP) – Sound portions above and below the cut-off frequency are filtered out. Low cut - All sound portions below the cut-off frequency are filtered out. This mode is set as a preset and can not be changed.

Filter frequency (flt freq)
The cut-off frequency of the filter.

Filter resonance (flt reso)
Filter resonance which increases the sound portions at the cut-off frequency of the filter. If the resonance is high, the filter itself can also be used as an oscillator.

Filter modulation -/+ (flt mod -+)

Regulates how much and in which direction the filter envelope curve moves the filter frequency in which direction.

Filter-Modulation decay (flt mod dcy)
Decay time of the filter curve. Smaller values with high resonance create a "zapping" sound of the filter, greater values create the typical sweep sound.

Filter modulation velocity (flt mod vel)
Specifies how much the filter modulation depth depends on the velocity. If this value is increased, louder beats will generate higher filter curves than quieter ones.

24 dB
The filter can operate with a slope of 12 dB or 24 dB. This mode is set as a preset and cannot be changed.

Comb filter (comb filt on)

You can activate a comb filter, a feedback delay that creates resonance-like sounds comparable to a plucked string. The delay time and feedback levels are permanently linked fo the filter parameters (frequency and resonance). This comb filter is set as a preset and can not be changed.

Compressor

Controls the compressor strength. This lets you increase the "power" of the drum sound.

Compressor response (comp resp)

Controls the compressor time. The lower the value, the faster the compressor follows the volume.

Tube

Controls the level of the tube amp simulation. It "saturates" the output signal of the voice and adds warmth to the sound if the settings are moderate. Increasing the settings makes the sound "dirtier".

Volume/Pan

Controls the volume and panorama position of the drum instruments.

Sequencer

Incident lighting is used to control the drum patterns just like in all classical drum computers and groove boxes. The step sequencer consists of 16 individual step buttons with LEDs corresponding to the appropriate partitioning of a beat:

16ths or 32nds (a half beat is in each case displayed). A button lights up to indicate the releasing of the instrument at this point in the beat (= step).

A left click turns on the step, a further left click deletes the step again.
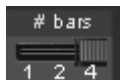
 A pattern can be a maximum of 4 beats long. The length can be modified using the fader on the button bar.

The beat to be edited can be selected with the applicable "edit" button. The "Follow" button specifies whether the step of a beat is in time.

"**1 > 2-4**" **auto draw:** If more than 1 beat is activated as the loop length, the "Auto draw" mode ensures that the drum note set in the first beat is set automatically for the following beats. This makes it very simple to produce a continuous beat from a loop length of 4 beats. Notes set in the rear beats are not affected by auto draw.

How to program a drum pattern:

• Select the pattern length with the fader.

• Select "Event" mode.

• If you edit during playback, turn off "**Follow**". Select the beat with the "**Edit**" buttons.

• Use "**Select**" to choose an instrument to edit.
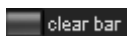
• Use the "**Clear bar**" button to delete all steps in the selected instrument.

• Turn on the appropriate **step** buttons, and use the "**Velocity**" controller to adjust the beat velocity.

• Repeat the procedure with the other instruments

Snapshots

In addition, you can automate programming of the editable sound parameter of a drum sound via so-called "snapshots". You can thereby save the sound parameters of a drum instrument on the step buttons of the sequencers.

Automating the drum instrument with snapshots.:

• Set the edit mode to "Snap".

- If you edit during playback, turn off "Follow". Select the beat with the "Edit" buttons.
- Select an instrument and edit the sound. You can control the sound of an instrument even when playback has stopped by using the loudspeaker button.
- Save the sound as a snapshot to one of the step buttons.
- Change the sound of an instrument and save the settings to other step button

Warning: The parameters are not changed abruptly but are faded internally instead, in order to avoid crackling. If two snapshots with extreme parameter differences are too close together, the drum sounds will sound differently when the pattern is played.

- Using the arrow keys, you can jump between the individual snapshots during stopped playback.

- Press "**on**" to activate snapshot automation.

Groove Control
The secret behind "groove" beats lies in delay. That is, individual beats are either anticipated or delayed according to patterns. For example house beats use the "shuffle" whereby straight 1/16s are delayed at certain times.

In the Robota there are **groove velocity** and **groove swing** presets. Groove velocity presets contain for each step of a beat a certain offset to increase or reduce the original beat velocity. Groove swing presets contain for each step a time alignment that is either anticipated or delayed. The result is a livelier-sounding sequence. The strength of the effect can be adjusted with the % regulator.

Setups, drum kits, presets, and patterns

A single instrument sound is saved as a preset.

Presets containing all four instruments are saved as drum kits.

All note information plus the snapshots are saved as a pattern.

Together (drum kit + pattern) they are know as a setup.

Load/Save

Presets, drum kits, patterns and setups can be selected with the continuous rotary regulators next to the display area. For storing, click on the ⊞ "Save" button. Then specify a new name in the input field. To store, press "Enter".

Note: A drum kit stores only the names of the presets, not the actual parameters. If you want to store your own drum sounds that were created by changing existing presets, you must first store them as new presets and then as a new drum kit! The same applies to the setups, which contain only the pattern and drum kit names.

If necessary, always store in this order: preset -> drum kit -> pattern -> setup. This applies only when creating your own "templates". If you store your arrangement normally, the complete current status (synthesizer + sequencer) of the Robota is always stored and correctly loaded later with the arrangement.

Atmos

Atmos is a synthesizer which can be used to easily create realistic nature sounds in no time. From thunder and lightning to animal sounds and traffic noise, Atmos helps you design natural-sounding atmospheric noises for your projects.

- In the upper border window, select the top category "Scenario". You can select a desired nature sounds category (for example, "Thunder and Lightning").
- In the middle of the window, a collection of control elements appears for designing the desired "Ambience". Each element has its own description (e.g. "Thunder") and two faders, i.e. "Volume" and "Intensity". The "volume" control adjusts the loudness portion of the element. The "Intensity" fader controls the behavior of the sound, depending on controller element. For example, with "Thunder", you can set how often thunder and lightning should sound; with "Rain", the strength of the rain can be regulated (if moved to the far left, light rain can be heard, while if moved to the far right, a downpour with loud splashing noises is audible).
- At the bottom right border you will find a master volume fader with which the master volume of the synthesizer can be set. Furthermore, the "Randomize" setting is also located here. This way you can change the settings of the control elements by yourself.

Synthesizer plug-ins

MAGIX Music Maker MX Premium includes Vita and the Revolta, two VST plug-in-based software synthesizers (see below). Compared with other synthesizers that are addressed via synth objects, these feature several differences:

- Generally, VST instrument plug-ins (VSTi) do not feature sequencers of their own and are controlled via MIDI objects.
- VST instruments are always loaded onto a certain track, and all MIDI objects on this track control this VST instrument. The MIDI objects cannot be moved between tracks freely like synth objects.
- Effects may be only applied on the track level.

Nevertheless, these are much more easier to manipulate in MAGIX Music Maker MX Premium due to MIDI control, and sequences may also be recorded (view page 105) using MIDI keyboard.

What are VST and DirectX plug-ins?

A plug-in is an independent program section which can be added to another program, to broaden its range of functions. Various standards were developed for including plug-ins. "VST" and "DirectX" have become the most widely used.

"VST" stands for "Virtual Studio Technology". VST plug-ins offer an elegant way of copying and making virtual devices that are normally used in recording studios.

"DirectX" is a Microsoft standard for plug-ins similar to VST plug-ins.

The advantages:

- Purchasing expensive synthesizers or effect devices is no longer necessary.
- An expensive sound card is no longer necessary for high-quality recordings from external devices.
- VST instruments and VST/DirectX effects provided by lots of third party providers are better value or are even made available as freeware.

The disadvantages: Each of these plug-ins uses up processor power. The more a plug-in is used, the faster your computer should be. The required processing power is, of course, also dependent on the size, state, and complexity of the plug-in.

Using VST instruments

VST instruments are loaded via the Media Pool. These appear in the area below the "Synthesizer" setting (synthesizer track).

If you have just freshly installed MAGIX Music Maker MX Premium, then you will not see any additional synthesizers here at first (other than those that were included). You will have to enter the folder first in which Music Maker should look for VST instruments. VST plug-ins may be installed in any folder on your hard drive.

Click "**Add**" (on the right edge of the Media Pool) and find the VST folder. If you use other programs with VST plug-ins or if you have already created a folder for your VST plug-ins, you can enter the folder here. You can add another extra folder at any time in case you you have installed additional plug-ins in another folder; plug-ins that have already been "identified" will always be located regardless of the path set. Pressing **OK** causes Music Maker to scan the folder for usable plug-ins that are available in the Media Pool.

Vita and Revolta 2 (Premium version only) feature their own icon in the Media Pool; all other VST instruments use a standard icon. To use VST instruments, drag the VSTi Synth into a free track in the arranger.
A preset MIDI object will appear in the track and the MIDI Editor will open.

You can open Vita and Revolta 2 (Premium version only) directly by selecting one of their preset sounds in the instrument menu of the track box. At the very bottom in the menu, a sub-menu is provided for software instruments that lists the other VST instruments.

To use the MIDI objects and the MIDI Editor, please read the chapter MIDI Objects (view page 98).

VST Plug-in Editor

The VST Plug-in Editor can be opened by right-clicking on the instrument's name in the MIDI Editor, via the corresponding plug-in slot in the Mixer, or via the "VST Instruments Editor" entry in the instrument list.

The Instrument Editor has two views, the so-called "GUI" of the plug-in (Graphical User Interface) and the parameter view. This is either automatically activated when the VST plug-in does not have its own GUI or can be used if the GUI of the plug-in is too unclear or takes up too much space on the screen. The parameter view displays the eight parameters of the plug-in as sliders. In the File menu you can change between these views (plug-in dialog/plug-in parameter).

Load/save patch/bank: The instrument settings can be saved and loaded in the patch formats typical for VST plug-ins (*.fxp) and bank formats (*.fxb).

Random parameters: This function can be an important source of inspiration. However, before using it please save the current preset you've just created as this feature does not ask before it is applied.

Menu program: Here you can select the presets integrated into the plug-in or loaded via the File menu.

Revolta 2

Revolta 2 is a further development of Revolta. It is polyphonic and playable with up to 12 tones, including an additional noise generator, a step sequencer, and an extra-flexible modulations matrix. An effects section with 9 different effects and presets (created by a professional designer) make it a full-fledged synthesizer for all kinds of lead, sequence, and pad sounds.

REVOLTA 2 has a whole array of presets. The sounds have been created by professional sound engineers and demonstrate the huge potential of this instrument from the word start. First off, however, we would like to encourage you to try out the various control functions and to experiment as much as you like. The sky's the limit to your creativity.

Revolta 2 interface

Note: The following is only a short description of the Revolta 2 interface.

For a comprehensive documentation of this complex synthesizer please click the help button on the Revolta 2 interface!

The Revolta 2 interface can be displayed in two sizes. In "Rack" mode only the elements necessary for preset loading are visible:

By clicking the edit button you can open the complete interface.

1. Main parameter: Sets the volume, panorama position, pitch characteristics ("Transpose"), and play modes ("Poly", "Mono", "Legato"). "Glide" regulates the portamento time.

2. Oscillator section: Two oscillators are available with smoothly adjustable curve forms and a noise generator. Both oscillators can be tuned to each other and used to modulate frequencies.

3. Amp: This is the volume envelope. Here you can influence the temporal progression of a track's volume. **A**(ttack) stands for the volume increase at the start, **D**(ecay) for the length of time the decrease in volume takes on a section set with **S**(ustain) at the maximum volume. **R**(elease) is the length of time it takes for the sound to ring out. **"Vel"** specifies how much the envelope curve depends on the velocity.

4. Filter: Here you can switch on different filters to influence the sound. "Filter type" selects a filter type. "Cut-off" regulates the filter frequency, "Resonance" controls the strength of the amplification of the filter frequency. VEL" indicates how much the velocity influences filter frequency, and "Key" changes the filter frequency depending on the note pitch ("Key tracking"). The filter envelope (ADSR slider) influences the filter frequency depending on the time. "Env mod" controls the strength of the filter envelope curve, and with "drive" the filter can be overmodulated.

5. FX1/FX2: Here you can mix in 2 different effects out of a total of 9 available effects.

6. LFO1/LFO2/Step sequencer: Two LFOS and the step sequencer can be used to modulate single parameters of Revolta 2.

7. Options and modulations matrix: The two buttons open the Revolta options page for general and preset-specific settings and modulation matrix. In the modulation matrix modulation sources are connected with modulation targets. Simple modulations like the oscillator (the pitch will be modulated via an LFO) can be set quicker directly on the interface. Much more complex modulations are possible in the matrix because the matrix offers more modulation sources (e.g. MIDI controller, oscillators) and the modulation source can influence more targets.

8. Value display: The value display shows the exact value of the parameter which was just modified. In addition, you can find out the load of the twelve voices.

9. Preset section: Here you can select Revolta presets. Every sound can be listened to, and an A-B comparison between two sounds is also possible (for example, an edited and an unedited sound).

MAGIX Vita

MAGIX Vita Synthesizer specializes on realistic playback of "real" instruments for which it uses sampling technology. This means that short samples of real instruments in different pitches, playing techniques and volumes are used, combined, and played again at the correct pitch.

The Vita interface

1. Layer selection/Peak meter: The Vita sounds, also known as layers, can be selected here using the arrows. Right clicking on the display opens the layer menu.

2. Main parameter: Sets the volume, panorama position, pitch characteristics ("transpose") and the fundamental frequency ("master tune").

3. Amp: This is the volume envelope. Here you can influence the temporal progression of a track's volume. **A**(ttack) stands for the volume increase at the start, **D**(ecay) for the length of time the decrease in volume takes on a section set with **S**(ustain) at the maximum volume. **R**(elease) is the length of time it takes for the sound to ring out.
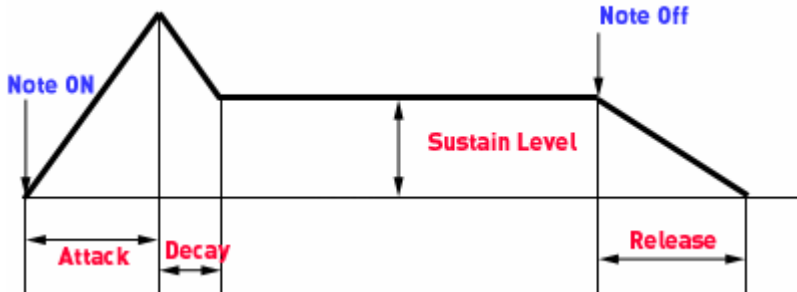
4. Filter: Switches on a filter which influences the sound. "Filter type" allows you to select a filter type. "Cut-off" regulates the filter frequency, "Resonance" controls the strength of the amplification of the filter frequency. "Velocity" specifies how strongly beat should influence the filter frequency, and the volume can be balanced using the "Gain" controller. The filter envelope (ADSR slider) influences the filter frequency depending on the time.

5. Delay: Switches on an echo effect, "Time" controls the delay time, "Level" controls the strength of the echo sound.

6. Reverb: Switches on a reverb effect, "Time" controls the delay time, "Level" controls the strength of the echo sound.

7. Value display: The value display shows the exact value of the parameter which was just modified.

8. Dynamic range: Usually, the relationship between the created volume and MIDI velocity is proportional. Since some MIDI keyboards produce a velocity which is too hard for loud sounds or the other way around, this behavior can be balanced out with the "MIDI input curve". The dynamics of the sound can be influenced with "dynamic" and "dynamic curve", i.e. the relationship between the quietest and loudest sounds.

9. Voices: Here you can control the amount of voices played simultaneously. If notes are no longer played during fast passages, you can increase the amount of voices here (performance will not be as good).

10. Keyboard: Here you can preview the Vita sounds. This only works during playback or recording.

# Additional Vita Solo synthesizers

Additional software included in MAGIX Music Maker MX Premium such as the Drum Engine and Lead Synth are sampler, whose sounds are prerecorded. The advantage to the virtual synthesizers such as Robota is that the sounds don't have to be recalculated each time, which frees up a lot of computation capacity. They are "simply" called up, instead of being created anew. The disadvantage, however, is that the finished sounds don't sound as "professional" as those produced with virtual "sound magic".

The basic controls are identical for all synthesizers.
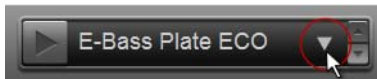
One click on the arrow symbol opens a fold-out menu where you can determine the general sound of the instrument. If "ECO" appears in the description, this refers to especially performance-improving settings which may not sound so "smooth". In addition, you can also save your settings and add them to a favorites list for later use.

You can control the overall loudness of the instrument.

You can turn the instrument keyboard on or off with this controller.

Because these samplers are enhanced for each instrument by tuned effects, the rest of controls function analogously to the already familiar synthesizers such as Vita. If you would like to know which result certain effects have, you will find explanations in the Essential FX (view page 208), Vintage Effects (view page 212), Reverb (view page 183) and Distorsion & Filter (view page 187) chapters.

Additional information is also available in the Synthesizer plug-ins (view page 155) chapter.

Drum Engine/Lead Synth

Synthesizer Drum Engine and Lead Synth programs are sampler, whose sounds are pre-recorded. The advantage to "real" virtual analog synthesizers such as Robota and Beatbox2 is that they offer more computing capacity, since the sounds don't have to be constantly calculated in the background. Instead, they are "simply" called up instead of being created anew. This doesn't mean, however, that they sound less "official" than the virtual sound generators; the source material (the samples) are real recordings of analog synthesizers and drums in top quality.

Drum Engine/Lead Synth

The **Century Guitar** and **Electric Bass** synthesize realistic guitar and bass sounds.

They are special: In a bass octave (on the keyboard (C0-H0), there are special notes, which let you control the playing style (articulation). An alternative sample set is loaded, which lets the bass sound even more realistic using various playing styles such as note bending and flageolet.

Articulation is switched on and continues until normal articulation is switched on again through the corresponding note (C0).
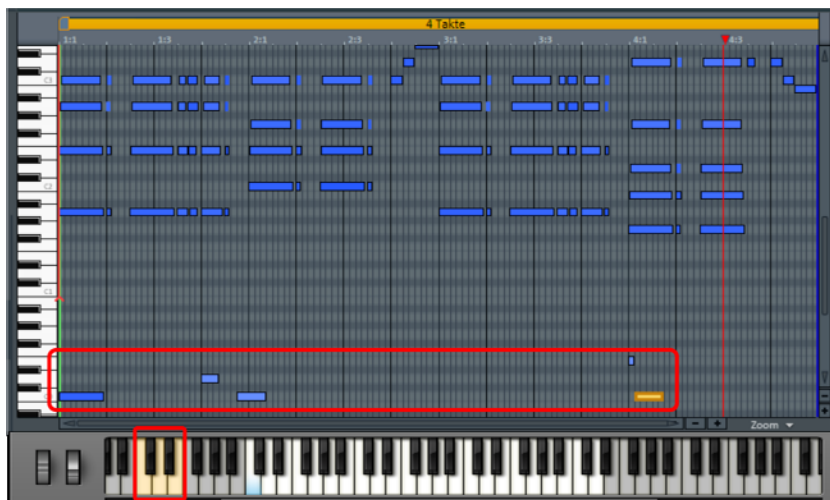
On the keyboard at the bottom of the synthesizer interface are the buttons to switch articulation, displayed in different colors. In the MIDI Editor appearing above, you can watch a practical application of articulation. The notes on 1:4 and 4:1 will be played back with varying articulation. Before the next "right" note, normal articulation will be switched on again through C0.

Live Performer

The Live Performer (open via the "Window" menu) helps you create and remix your arrangement. Many sections in the arrangement can be defined precisely according to the beat and played by pressing a key on the computer keyboard or MIDI keyboard. With the Live Pads (view page 169), sound loops or MIDI takes are positioned on the arranger tracks during playback. This way, MAGIX Music Maker MX Premium can be transformed into a musical instrument that can be played directly and intuitively.

Define ranges

To play your arrangement with Live Performer, you must frame individual area in the arrangement and define them as a range in Live Performer.

Open Live Performer, define a playback range (view page 46) and then press the corresponding key on the keyboard (a-k or y) or click on the corresponding button.

Repeat the process with all desired playback ranges.
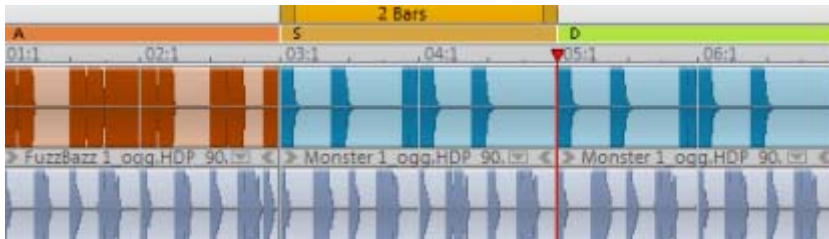
The playback ranges will be displayed directly below the timeline.

The ranges can be renamed for better orientation. To do so, please right click on a range button or the range marker along the timeline and select "Rename". To delete an assignment, right click and select "Delete".

To reassign buttons already assigned to other ranges, right click on a button and select "Assign to current range".

Play with Live Performer

If this symbol is active, the Live Performer is in playback mode.

If you click the appropriate key on the keyboard or click a button, the assigned range will be played back.

If you activate a different range, playback will switch to the other range. The time point of the switch can be determined using the quantization buttons.

Immediate switch. Warning, this can throw the arrangement out of rhythm!

Switch after one beat (1/4 bar). Interesting rhythmic displacements can result.

Switch after one bar.

Switch after two bars.

Switch after four bars.

Switch at the end of the range. The range will be played out to its end, irrespective of its length.

If the range just played back is shorter as the quantization length, for example if "switch after 4 bars" is selected for a 2-bar range, the switch will always be made at the end of the range.

Stop button: The "Stop" button discontinues playback. As opposed to the normal stop using the transport control of the space bar, the playback will not be stopped immediately, but the quantization settings will be taken into account. If "Switch after one bar" is selected, the current bar of the range will be played to the end and then the playback will be stopped.
Stop is then also a "range" and can be also programmed in Sequencer (view page 167), for example for temporary undefined breaks.

You can also switch between ranges using MIDI command. For this, see MIDI assignments Live Performer (view page 172).

Sequencer

By clicking on this symbol you switch the Live Performer into the Sequencer mode.

Sequencer programming

Above the range buttons the text line will appear for function control (Sequencer). Enter ranges in the order in which they should be played back. Corresponding letters will be inserted in the Sequencer. This text line can be handled as any other text line: Letters will be added at the position of the cursor (small, blinking vertical stroke), the arrows move the cursor, and with Del or Back keys entries can be deleted.

Warning: In playback mode a range will be played as a loop until a different range is selected, and one letter corresponds exactly to a one-time playback of the range. If, for example, range D with a length of 2 bars should be played for 8 bars, DDDD should be entered.

Playback sequence

This starts the sequence. The range play back always begins at the cursor position (the Sequencer cursor).

A progress bar in the Sequencer shows the position in the progression where the sequence control is found at the moment. Currently playing or played ranges are displayed in gray, and the cursor always moves in front of the next playing range. When the end of the programmed sequence is reached, this will be repeated from the start.

You can also enter the sequence during playback. The ranges are then entered at the end of the sequence.

You can also program the stop button (.). When playback reaches **stop** it will be stopped. A repeated sequencer playback start occurs from the cursor position, or behind the stop. You can thus program a progression, which stops after each played range (cue list for theater or a radio play).

Transform sequence in arrangement

Using this button the programmed or recorded Live Performer sequence transformed into an arrangement.

A new project is created, which corresponds exactly to the sequence. This means that the defined ranges of the output project will be copied one after the other according to the succession and length defined in the sequencer.

Your current arrangement will be erased, but the Live Performer ranges will be applied to the new arrangement. This means that you can continue using the Live Performer unchanged, or you can close it and further edit the finished arrangement.

Load and save Live Performer ranges

With the load and save buttons next to the Sequencer you can save and later load recorded or programmed Live Performer sequences.

A user scenario: Assumed, that you have various performer ranges in one arrangement and created a sequence. Before putting the piece together by creating a new arrangement with the "Transform sequence into arrangement" button, first save the raw material – the arrangement and the sequence.

If you would like to change a certain sample or transition later in your "put together" song, you don't have to do it on each spot the sample is used. Simply load your arrangement, change the respective places, load the sequence and create your song anew. In this fashion you can quickly create variations on a piece.

Live Performer recording

Use this button to start the Live Performer recording.

This will record all range switches in your time line made through the Live Performer. As opposed to programmed sequences, ranges can be played back only partially, the recording corresponding fully to your performance.

The precise length of such "partial" ranges can not be changed later in the sequencer. You can remove them from the sequencer, but you cannot enter them and can only create them with a Live Performer recording.

If, for instance, the button for playing the sequence is activated when the Live Performer is active, the Live Performer will automatically switch to Sequencer Mode and the recording will be stopped.

Live Pads
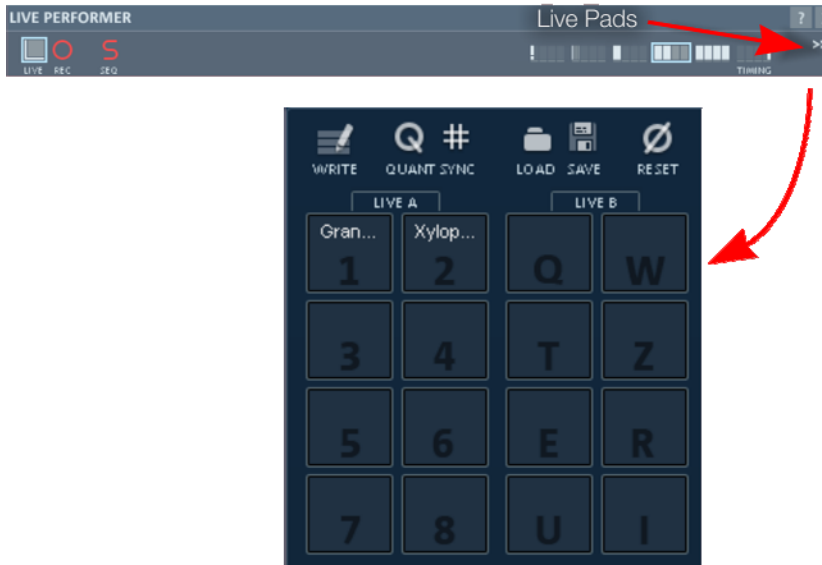
Clicking on the >> button opens Live Pads

Live Pads are a component of the Live Performer. While individual sections of a previously created arrangement can be rearranged in realtime in the Performer, using Live Pads you can create your arrangement live. During playback you can place the samples using the computer keyboard or a MIDI keyboard inside the arrangement. This way, MAGIX Music Maker MX Premium can be transformed into a musical instrument that can be played directly and intuitively.

Load loops

You can distribute any samples or MIDI takes on two virtual play consoles (tables) that each have 8 storage slots. The Live Pads can be filled with audio samples (wav, mp3 or ogg files) or takes (.tak). To do so, place a file from the Media Pool using drag & drop onto a Live Pad. With the "Live A" or "Live B" buttons in the Media Pool you can load several files to one table.

You can also take an object directly from the arrangement and place it onto one of the Live Pads. The object will disappear from the arrangement.
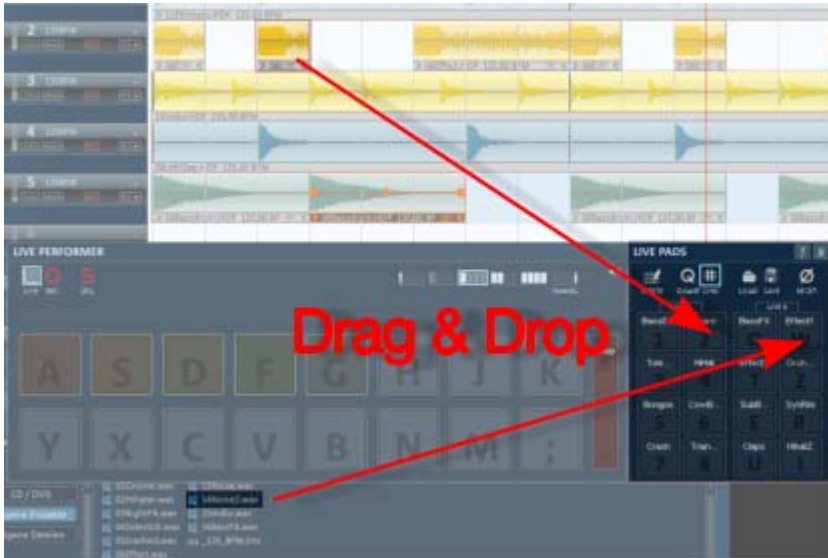
Load Live Pads with takes

Sometimes it is of advantage to load Live Pads with Take files (view page 72):

- About VSTi software instrument control: Live Pads can also play back MIDI loops, but for this a VST instrument must be assigned to the MIDI object (or track, in which this MIDI object is located). This assignment can be saves together with the MIDI object as a take. The loops in the included styles that use the Vita or Revolta 2 synthesizers have also been created in this fashion. For this reason they can be used with Live Pads right away.
- Also the internal software synthesizer (beatbox, drum&base machine...) can be used with the Live Pads.
- You can add object effects to audio samples. Because during a Live Pad recording objects can end up on different tracks, using track effects can be hard.

Takes are created by saving objects as takes (.tak file) (Edit menu command or right click on object > "Save objects as takes", shortcut Ctrl + F).

Play Live Pads

Loops can be played back by clicking on the corresponding Live Pads using the computer or MIDI keyboard.

	Keyboard shortcuts	**MIDI keyboard**
Table A (left)	**1..8** (using letter keys)	**F3 - C4** (Note number 65-72)
Table B (right)	**qwertzui**	C#4 - G#4 (Note number 73-80)

The MIDI driver can be selected via Program settings > Audio > MIDI input.

As soon as a Live Pad is selected, playback begins.

During playback the corresponding object will appear, and then disappear again when the Pad is released (during a recording it will remain visible).

Synch Mode

By default, loops are played in **Sync Mode**, as if they were all started at the arrangement start and switched with the pads to "audible"(Mute Automation). This means that all loops always play in synch. Use this mode to create a basic structure for your arrangement.

If the sync mode is turned off, loops will always be played back from the start, as soon as they "pop up". Use this mode if you would like to add soli or effect sounds or take apart beats to make break beats.

Record Live Pads.

By pressing the "Write" button you activate the recording of Live Pads.

During recording objects will be created in the arrangement if the corresponding Live Pad is activated.

The recording takes place in overdub mode, and once created objects will not be overwritten.

Here recording quantization is set. This means, that the start of an object can be inserted in the arrangement according to the selected bear grid during recording.

Additional Live Pads buttons

The complete assignment of the Live Pads can be saved with this button as a "Live Set" (.lms file) to be used later. The current Live Pad assignment will be saved together with the arrangement.
With this button you can load your own or ready-made Live Sets.

Reset: Sets the options back to working settings and deletes all samples.

MIDI assignment Live Performer
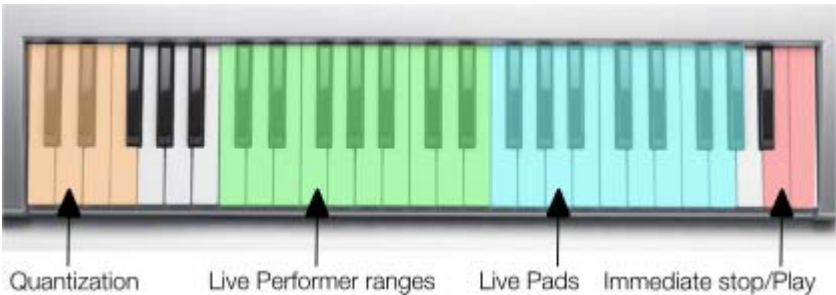
Range	Function	Note	Note number
Live Performer quantization	Now	**C1**	**36**
	Beat	**C#1**	**37**
	Bar	**D1**	**38**
	2 bars	**D#1**	**39**
	4 bars	**E1**	**40**
	To end	**F1**	**41**
Live Performer ranges	asdfghj	**C2-G2**	**48-55**
	yxcvbnm,	**G#2-D#3**	**56-63**
	Stop	**E3**	**64**
Live Pads	1-8	**F3 - C4**	**65-72**
	qwertzui	**C#4 - G#4**	**73-80**
Playback control	Immediate stop	**H4**	**83**
	Play back Continue	**C5**	**84**

Arranging with Live Performer

With the Live Performer and the Live Pads you can create and remix your arrangement in MAGIX Music Maker MX Premium.

1. Open the Live Performer and open the Live Pads
2. Fill the Live Pads with samples and takes, which you would like to use in the arrangement. You can, of course, load more samples during arranging.
3. Define a range with the length of a song part (for example, 4 bars) in the arrangement and define a Live Performer range with one of the range keys. The range will be played back (empty at first).
4. Then, play the Live Pads, until you are sure what should musically "happen" in this song part. Then start the Live Pad recording and record the Live Pads for this range.
5. Click into the arrangement, and using the arrow keys you can now move the current range by the length of a whole range, and double it or cut it in half with Shift and arrow keys. In this way you can define additional ranges as song parts for the Live Performer and fill them with objects via the Live Pads.
6. Now you can switch your song parts with the Live Performer keys.
7. After you have you've figured out all your song parts, switch the Live Performer into the sequence mode and program your song. Or start recording of the Live Performer and play your song.
8. Finally, you can change the Live Performer sequence into a proper arrangement using the "Transform into arrangement" button.

Record audio output

You can record the complete audio output of MAGIX Music Maker MX Premium directly into a WAV file. The option "Write real-time audio in WAV file" can be found for this in he "Playback parameter" dialog (Menu "File > Settings> Playback parameters" or button "p").

If this option is activated, with the next start the complete playback of the arrangement will be recorded live. With the next stop you can save your recording and load it for immediate editing in the arrangement. Use different names to save your single sessions, ensuring that no recording will be mistakenly erased.

Audio effects

MAGIX Music Maker MX Premium offers you a multitude of infinitely variable and intuitively adjustable audio effects.

Effects

The effects in MAGIX Music Maker MX Premium allow the sound spectrum of all of the audio objects and synthesizers to be thoroughly manipulated. Since most effects operate in real time, the effects offer ideal room for experimenting with creative sound design.

Real-time effects

Real-time effects are calculated the first time the object is played back. The audio file (original material) itself remains unaffected. The effect is recalculated in real time each time it is played back. The object always retains its original status when real-time effects are applied.

To change a real-time effect, open the effects rack or the effect's settings dialog and drag the respective control elements; the changes will be audible immediately.

The lower edge of an audio object in the arranger lists all currently active object effects with abbreviations.
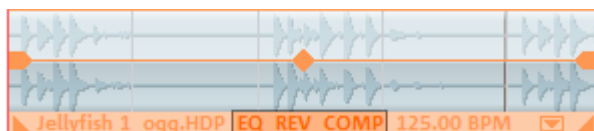
Effect devices controls

Effects are controlled in the conventional way by the use of slider controls, turning knobs, or buttons or alternatively using the graphic sensor fields.
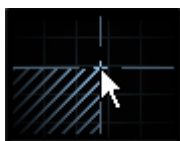
Sensor fields: Sensor fields may be influenced intuitively with mouse movements; the graphics and the respective effect setting change in relation to each other.

Power switch: Every effect device in the rack may be switched on or off separately. This button allows you to directly compare the neutral, unedited sound of the audio object with the effect setting you have chosen.

Reset: Every effect has a reset button that restores the effect device's initial default. In this state, the effect is not calculated into the sound, and the effect is not rendered.

Preset selection list: Each effect device features a selection of presets that are selected via the drop-down menu.

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

Note: The graphics displayed are only samples and these differ according to the effects devices.

Non real-time effects

A few audio effects are not calculated in real time; instead, after the settings dialog is closed, copies of the audio material are added for calculating the effect. This way, no additional calculations will be required during playback.

To change these effects, use the undo function.

The following effects don't work in real time: Freely-drawn filters, gater, reverse, invert phase.

Using audio effects

Audio effects can be added at different positions in the arrangement, at object level, in a complete track, or in the master (i.e. everything you can hear).

Audio object effects

Object effects do not affect the entire arranger track, but rather individual objects. The advantage to this is that effects which are only required at a specific point in the arrangement only use up processing power at that particular point.

There are several ways to apply audio effects to individual audio objects:

1. **Drag & drop:** In the Media Pool setting "templates", the following folders are visible "Audio FX", "Vintage FX". These contain presets for the most important effects. These presets have a preview function and can be dragged & dropped on an audio object in the arranger.
2. **Right clicking** on an audio object or via the "Effects -> Audio" menu opens individual audio effects via a menu command.
3. **Double clicking** on an audio object opens the audio effects rack (view page 178). The most important effects are compiled into one dialog and some special functions are still available, as is the option of saving all of the effects settings.

Track effects

Besides the object audio effects, a separate track effects rack with equalizer, reverb/echo, compressor as well as the Vintage Effects Suite plug-ins can be used.

There is also a separate 4-channel parametric equalizer (view page 204) that may be opened via the small EQ button beside the panorama controller.

The plug-ins are loaded via the plug-in slot.

You can open the track audio effects rack with the FX button.

A bright blue track effects button signifies that effects are active in the track.

The track effects can also be applied without having to open the mixer.

The arranger's trackbox (view page 43) also features the track FX menu. In it, you will find presets for track effects (view page 176) sorted according to the instrument type.

Track effects always apply to all audio objects of a track. In comparison to applying an effect to each object individually, this saves storage space. The effect itself works the same way as object effects.

Master effects

Master effects influence the mixed sum of all audio tracks. For this purpose a Master Audio Effects Rack and further plug-ins are installed in the Mixer window. Also included: the special MAGIX Mastering Suite (view page 203) for perfect sound.

Effects curves

Many effects may be manipulated using the effect curves for a more dynamic application of the effect. This means that certain effect settings can be changed during playback. The effect curves are available as object curves and track curves. Object curves are always object-related, i.e. they only apply to one object and are moved or copied together with the object. The track curves are saved on the track and influence all objects of the track.

To edit the effects curves you can use the "Control effects via curves (view page 242)" dialog.

Using plug-in effects

For introductory information about plug-ins, please read the section Synthesizer Plug-ins (view page 155) in the "Synthesizers" chapter!

At different positions in MAGIX Music Maker MX Premium, you can also utilize effects from third-party developers in the VST or DirectX format. Several of the included effects (EssentialFX, Vintage FX Suite, Vandal SE) are also applied as plug-ins.

Track effects

Track effects can be selected and specified in the Mixer. They refer to all objects in the corresponding track.

Tip: An effect set in the Mixer uses up processing power at every playback position in the arrangement. Consider whether or not it would be enough simply to use an effect as an object effect.

Two slots for track effects are located in the channel strip of the mixer for the corresponding track as well as in the FX tracks (view page 252).

If you click on the small triangle here, MAGIX Music Maker MX Premium compiles a list of available effects. Now you can select any effect from the list.

The list consists of multiple subfolders: Direct X plug-ins, VST plug-ins, and the MAGIX plug-ins folder for the included plug-ins Vintage Effects Suite (view page 212), Essential FX Suite, and Vandal SE.

Select "No effect" to remove a plug-in from the slot. Left clicking temporarily disables the plug-in. Active plug-ins are displayed in light blue. Right clicking on the slot opens the settings dialog of the plug-in.

Object effects
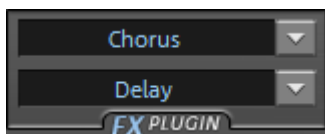
The audio effects rack for objects features a module which enables two plug-in effects to be used. This functions just like the mixer's plug-in slots:

1. Click on the box
2. Wait a second until the list of available effects is displayed
3. Select an effect and set it up

The effect relates (in contrast to track effects) to the selected object and only needs computing power when the object is played. The audio effects rack may be opened by double clicking an audio object.

Master Effects

In the master channel you can find two slots for selecting a master effect. Often, for example, compressors are used in the master so as to give the whole signal a more booming and louder sound.Effects selection here is the same as by the track effects:

1. Click on the box
2. Wait until the list of available effects is compiled
3. Select effect and configure

Object and master effects rack

The audio effects rack for objects can be opened by double clicking the audio object. The audio effects rack for the individual tracks or for the entire sound ("master effect") can be opened via the FX buttons in the mixer window ("M" key).

Besides the most important effects devices like the 10-band equalizer, compressor, timestretch/resample (objects only), reverb/echo, sound warper, and amp simulation, the following functions are available:

Object Volume
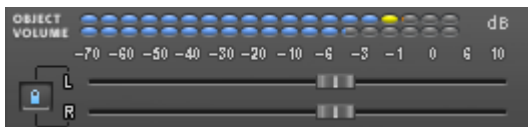
Here you can set the master level for the selected object. With some effect combinations undesired distortion may appear as many effects increase frequency ranges. In this case, you can reduce the master volume.

 The faders for each stereo channel are usually moved together.

If you deactivate the left button, the object can be made into stereo panorama by separate volume controlling for left and right.

Load/Save

The current settings for each applied effects device in the rack can be saved as an effect preset, e.g. so that it can be used for other objects. Only the rack effects that were used will be saved and loaded during this process. This means that effects presets can also be combined.

This function is not yet available for the track effects rack.

Effects plug-ins

 If external plug-ins are installed on your computer, then you can activate them via the button to the bottom right. These buttons also open the effects in the Vintage Effects Suite (view page 212).

For more information about plug-ins, please read the chapter Using VST/DirectX effects (view page 177)

Apply (destructive editing)

With "**Apply**" the current setting of an effect or of an entire effect rack can be "calculated into" the audio object.

This has the advantage that no more processing power will be required for the effect. The object will be replaced by a new audio file which contains the sound of the object with the effect. This will then only be played – processor-heavy "realtime" effect calculation is no longer required.

The disadvantage: Changing the effect settings is not a simple any more. You can undo these "destructive" changes straight after using the Undo function in the Edit menu (like every editing operation in MAGIX Music Maker MX Premium). After saving the project this is no longer possible.

In the master effects rack there are no Apply buttons. Instead, the function can be found in the Edit menu (Audio Mixdown (view page 298))

Play object/Play arrangement

To the bottom right of the Audio FX Rack you will find two playback buttons which either play the selected object or the entire range. This lets you preview all effect settings in realtime.

Equalizer

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

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

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

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

Sketchable filter

This allows you to draw the craziest effects simply with your mouse. The left side of the graphic represents low tones, the right side high tones. You can switch on real-time playback by clicking on the "Test" button.

From now, all changes of the red line can be heard immediately. A "slope" in in the left graphic causes a strong increase of the bass, a "slope" in the right side strongly increases the highs. An interesting effect is to delete a filter curve over an entire area, i.e. setting all the values in the display to low values). This practically cancels the sound.

From now on, you will be able to hear all changes in the red line. A "hill" in the left part of the graphic results in a strong increase in the bass, a "hill" on the right side considerably increases the treble.

Great effects are frequently achieved if a filter curve is initially deleted over the entire area (if everything in the display is set to low values). This removes almost all the sound.

Now, only individual frequency ranges can be made audible in the upper section of the display with a few clicks of the mouse. This rapidly turns a normal drum loop into Science Fiction noises!

The filter curve can quickly be reset to its original condition with the Reset button.

The option "Prevent clipping" attempts to automatically prevent an over-addressing of the audio material.

The "volume" control controls the volume of the material.

Filter-Sweeps/Morphing

The creation of so-called "Filter-Sweeps" or "Morphing" is also possible:

1. Activate the "Start curve" button on the far right.
2. A red filter curve for the beginning of the audio material can now be drawn, e.g. a 'hill' in the left half of the display (increase bass).
3. Activate the "End Curve" button.
4. A blue curve for the end of the audio material can now be drawn, e.g. a 'hill' in the lower part of the display (increase treble).
5. Real-time replay can be started with "Test" – A soft filter sweep bursts out from the red to the blue curve. Really cool morphing sounds can be created in this way!

Compressor
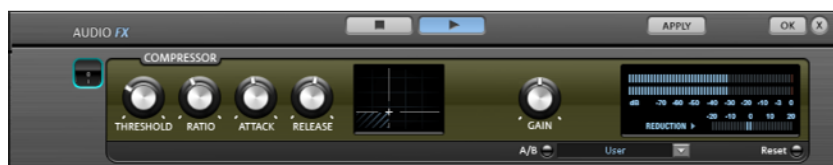
The compressor is an automated dynamic volume control. It limits overall dynamics, maintains the volume of loud passages so they stay loud, and increases the volume of low passages. A compressor can be put to good use for e. g bass recordings and vocals, but also as a master effect in the mixer for subsequent editing of the overall sound.

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

Ratio: This parameter controls the compression level.

Threshold: This sets the volume threshold below and above which compression is applied.

Attack: Sets the algorithm's reaction time to increasing sound levels. Short attack times can create an undesirable "pumping" sound, as the volume is quickly reduced or increased correspondingly.

Release: Sets the algorithm's reaction time to falling sound levels.

Gain: The gain controller amplifies the compressed signal.

Invert phase

This function moves the object to the rear loudspeakers of a dolby surround system.

Quite an impressive effect for the audio tracks of video productions.

Reverb
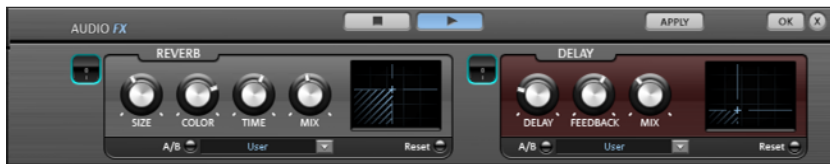
The reverb effect device offers newly developed and very realistic reverb algorithms to add more room depth to your recording.

Reverb is probably the most important but also the most difficult effect to generate.

Fundamentals

Our everyday experience shows that not every room matches every instrument. Thus we have designed "virtual" rooms. However, it still remains important to find the correct parameters. Here are some examples of parameters that are decisive for the sound impression in real and virtual rooms:

- **Size of room:** The larger a room, the longer the sound travels between walls or objects. Our brain "calculates" the size from the time difference. The size impression is mainly determined from so-called first reflections and the discreet echo. We don't notice a (diffused) reverb.
- The **reverberation time** is mainly influenced by the composition of the walls, ceilings and floors. This reverb time is highly frequency-dependent. For instance, the highs and mids are dampened more in rooms with curtains, carpets, furniture and some corners than in an empty and tiled room.
- **The density of the reflection:** The sequence of the first reflection is particularly important. A room with many individually recognizable echoes feels alive, especially if they are quite far apart.
- **The Diffusion:** Simple reverb machines do not take into account that reflections become more and more complex as they develop. They blur the first echoes at the beginning, which sounds artificial and "two-dimensional" for many signals. Our reverb effect works like a real room instead where individual echoes can still be heard at the beginning of the reverb but then reflect

amongst each other more and more until they disappear in the signal sustain as a so-called "diffused hiss".

The 24 presets include many rooms that were designed for certain instruments and applications and whose internal parameters have been optimized for these applications. However, you can influence most of the characteristics of the room using the provided sliders.

In addition to the rooms we have modeled two device types in the reverb effect that allow you to create an artificial reverb for a longer time: Plate Reverb and Spring Reverb.

Plate Reverb: A plate reverb consists of a large metal plate (often 0.5 to 1m² thick or more), that is put into motion by a magnet and coil system (similar to a loudspeaker). On the reverb plate so-called "taps" are positioned at different locations. These are pick-ups comparable to those on a guitar. Reverb plates have a very dense sound (high diffusion); no direct echo can be heard. They are therefore ideal for percussive metal. With vocals a plate reverb generates a smooth "wellness effect".

Spring Reverb: You probably remember Spring Reverb from guitar and keyboard amps, particularly older ones. At the bottom of these amps a unit consisting of two to four spirals is mounted on a vibration-free carriage. As with the reverb plate it uses systems for transforming the electric signal into a mechanical one. There are different designs and sizes of spring reverb; however, they all have the same quite peculiar sound: the typical "bloing" sound when the springs are moved, similar to splashing. When the reverb dies away the basic pitch of the spring(s) can usually be heard quite clearly. Furthermore, the frequency range is considerably limited due to the losses in the spirals and in the used pick-up/transmitter. Despite this, the sound is special and some of the latest music styles (e.g. dub & reggae) would hardly be possible without spring reverb.

Parameters

The reverb effect has the following parameters:

Size: defines the size of the room (or the system for the plate and spring). With some low "size" settings you can also reduce the distance between the individual reflections. This allows resonance to develop (accentuated frequency ranges), which can sound oppressive if the reverb sustain is too long. The proper size for each instrument can be gauged by taking into account the interplay between the room and the resonance.

Time: reverberation time. With this controller you can define how far the echo will be absorbed, i.e. the time for the reverb to die away. Turning this knob to the left minimizes the time. You will then only hear the first reflection. Turning the knob to the right minimizes the absorption and thus results in a long sustained reverberation.

Color: within certain limits you can influence the sound characteristic of the effect. The effect of this controller depends on the used preset. In rooms "Color" controls the dampening of the highs in the reverb (from dark to bright) as well as pre-filtering of the signal. The controllers for plate and spring presets also determine the dampening of the basses.

Mix: this controller sets the mix ratio between the original and the edited signal. For rooms you can therefore quite easily move a signal further into the room by increasing the effect share. The last four presets are intended for use in an AUX channel of the mixer and are set to 100%.

Presets

The presets are primarily sorted by instruments; however, you can (and should) choose which preset you want to use for which instrument. The rooms in particular have completely different characteristics which are noticeable for some and more subtle for others. Generally we recommend reverb with many individually audible reflections and slight diffusions for dense arrangements. On the other hand you can use Plate Reverb for minimally arranged songs in order to create a dense atmosphere.

However, you should avoid adding reverb to too many instruments. Sometimes some extra mixing is sufficient to move an instrument slightly away from the total sound. It is often recommendable to adjust the sustain to the song tempo, i.e. the faster the track, the shorter the reverb. Otherwise the sound easily sounds washed-out and indifferent.

Here is a list of the presets and their characteristics:

Drums and percussion
Drums: Studio A: small room, high diffusion, e.g. for percussion instruments
Drums: Studio B: slightly larger & more lively than A, medium diffusion, distinct first reflections, signals seem closer than A
Drums: Medium-sized room: medium-sized room, moderate reverb, medium diffusion, relatively few first reflections
Drums: empty hall: medium-sized empty hall, medium diffusion
Drums: Snare reverb plate A: plate reverb, high diffusion, relatively bright sound character, typical hissing of a reverb plate.

Drums: Snare reverb plate B: reverb plate, high diffusion, slight dampening of highs & basses, sound moves more to mids with time, stereo panorama narrower than for A

Vocals

Voice: main hall A: standard hall, e.g. for monitoring/recording, medium-sized room, medium diffusion, minimum sustain time
Voice: main hall B: like A, but as a small hall (longer delay times than A), distinct reflection pattern, longer reverb time
Voice: early reflections: medium-sized room, low reverberation share, very distinct early reflection pattern, e.g. for spreading vocals
Voice: warmer room: small, intimate room, dark character
Voice: studio reverb plate A: reverb plate with medium diffusion, slight dark adjustment, comprehensive sound characteristics
Voice: studio reverb plate B: Like A, but more diffusion and bright to medium sound adjustment, slight vintage character
Voice: large hall: large hall, medium diffusion, relatively long reverb time
Voice: cathedral: delayed attack, slight diffusion, complex echo pattern, some hard reflections, dark voice adjustment, long reverb sustain

Guitar

Guitar: Spring reverb mono A: spring reverb simulation, typical oscillating sound of the springs, limited frequency range
Guitar: Spring reverb mono B: Like A, slightly broader frequency range, greater diffusion
Guitar: Spring hall stereo A: similar to spring hall mono A, but one spring/transmission system per channel (L/R)As a result of the mechanical interlinking of the systems, the reverberations meet at the middle of the stereo field
Guitar: Spring reverb stereo B: Like stereo A, slightly broader frequency range, greater diffusion

Keys (Piano, Synthesizer)

Keys: Stage reverb: Larger room with stage, high amount of complex first reflections, slightly delayed attack, medium reverberation
Keys: piano reverb: concert hall, long reverberation, medium diffusion, minimum dark adjustment

Aux (to be used as a send effect in a mixer FX track)

Aux: Room: Standard room for the aux path, mix 100%, medium-sized, medium diffusion, some distinct first reflections, low reverberation
Aux: Hall: Medium-sized hall (100% wet), medium diffusion, short reverberation
Aux: Reverb plate: Reverb plate (100% wet), high diffusion, light bright adjustment
Aux: Spring reverb: Reverb spring (100% wet), stereo, high diffusion, slightly medium sound characteristics

Delay (echo)

The echo effect is defined more closely with 'delay' and 'feedback' and calculated into the original sound by means of 'mix'.

Delay: Here the period of time between the individual echo's can be determined; the more you turn the control to the left, the faster the echo's will follow each other.

Feedback: Here the number of echo's can be adjusted. Turned completely to the left, there is no echo at all; turned completely to the right there are virtually endless repetitions.

Sound Warper

Distortion

This is a distorter, which over-modulates the audio object.

Gain: With these controls you adjust the degree of distortion. 'Gain' designates the prestage to an amplifier.

Cut off: Here you adjust the frequency ranges that are to be distorted.

Volume: Here you can adjust the volume of the distorter. The higher you set the 'gain' control, the louder the distortion when compared to the overall volume.

Filter

Similar to an equalizer, the filter controls the volume of certain frequency ranges. It is however also possible to completely suppress frequencies so that very impressive distortions are possible.

Frequency: Here you set the frequency that is to be filtered.

Level: Here the filtering intensity is adjusted.

Resonance: Here you set the range (band width) around the frequency which is to be boosted together with the frequency.

Volume: Here the filter volume can be adjusted separately.

Elastic Audio Easy

General information on the Elastic Audio editor

Elastic Audio is a specialized editor for changing the pitch of audio material. Resampling and pitchshifting algorithms can be automated, and a basic frequency recognition enables the user to change around considerably the pitches of monophonic audio material.

Pitch-shifting algorithms are able to change a melody in the pitch without influencing the tempo. MAGIX Music Maker MX Premium provides various pitchshifting algorithms that can be used based on existing material.

Elastic Audio has the following capabilities

- Recognition of the basic frequency in monophonic audio material.
- Automatic and manual correction of the basic frequency process in monophonic audio material.
- Manual correction of the pitch of notes from monophonic audio material.
- Changing melodies in monophonic audio material.
- Harmonizer for creating additional voices

Note on timestretching: Timestretching cannot be automated, but can continue to be used statically when using Elastic Audio.

Edit window
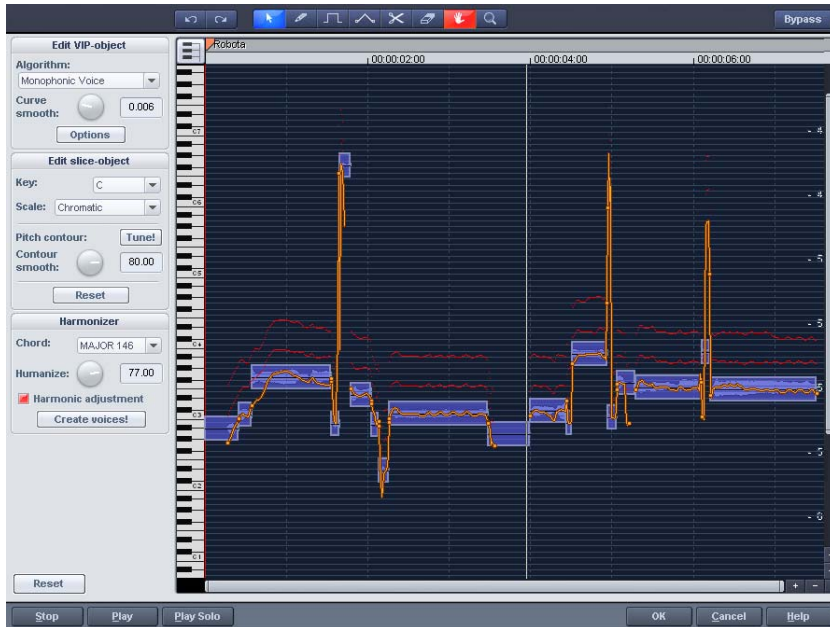
The pitch characteristic is shown in the editing window. To customize the pitch correspondingly, the original pitch of the audio material must, of course, be known. Fundamental to the functionality is therefore a preliminary pitch analysis of the material. This is basically only for tonal, monophonic material like solo vocals, solo instruments, and speech.

The analysis function starts automatically when the editor is opened. The analysis requires more time with longer objects. After the analysis is complete, the objects are split up into individual "slices" according to the recognized pitches. The medium pitches of a slice determine its position in the graphic, independent of the set progression of the pitch curve inside the slice. On the borders of the slice objects, two handles are created on the pitch curve. These handles can be moved in order to produce an increasing or decreasing pitch characteristic, but still keep the small changes in the basic frequency (vibrato).

The "Tune" function for automatic pitch correction can be found beside the "Draw pitch" function.

Axes labelling and legends

Y axis: Pitches in notes. The notes can be deselected on the keyboard. They won't be used in the automatic pitch correction or in quantized drawing. The corresponding guidelines for scales can be used by selecting the basic tone and scales in the box "Edit slice object".

Orange line: New pitch characteristic (editable)

Grey line: Original pitch characteristic (result of the analysis)

Red line: Harmonizer voices.

Fundamentals of the Elastic Audio editor

Opening the Elastic Audio editor

Select the object that should be edited in the editor. The Elastic Audio editor for a selected object is opened via "Menu effects -> Audio".

Interaction between Elastic Audio editor and objects

Temporal corrections to notes are not run in the editor itself, but rather by splitting and moving the objects in the VIP.
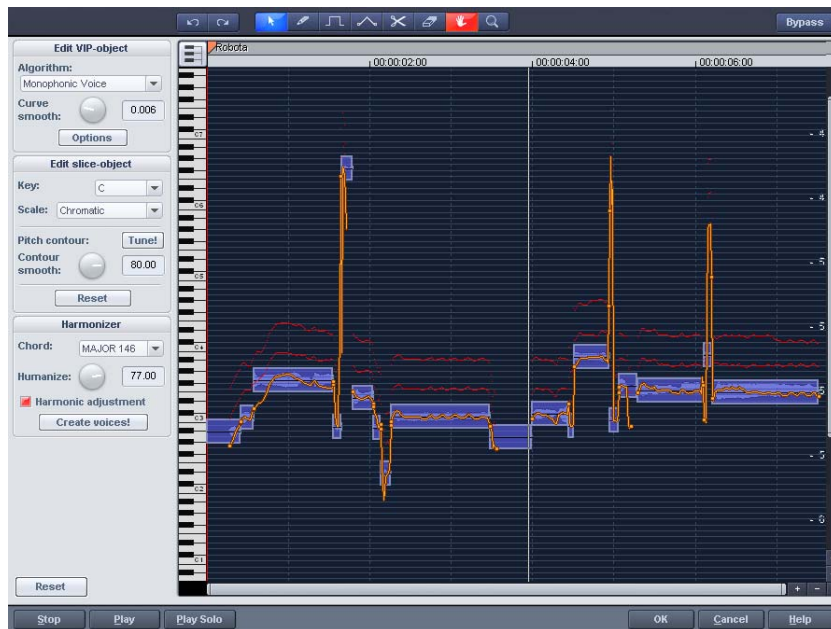
Description of all control elements

Edit PROJECT OBJECT box

These options and parameters always effect the whole object loaded into the editor, and therefore all of the slices.

Algorithm: You can choose between the modes: monophonic voice (preset), standard, smooth, and beat marker slicing.

For more information on the algorithms, read the corresponding paragraph on the time processor!

Curve smoothing: This parameter brings about the smoothing of the given pitch curve using a time constant (in ms). When smoothing to a large extent, jumpy pitch-shifts change from a "kick" to a glissando.

Formant control: Selecting the "Monophonic voice" algorithm may result in so-called formants. Formants are sound components typical for the character of instruments or the human voice. With instruments they mainly result from the geometry of the resonance body. Human formants are created by the anatomy of the vocal tract.

With most algorithms the formants are also influenced by changing the pitch. Using the monophonic voice algorithm you can change the position of the formants independent of the pitch. Acoustically, this corresponds with stretching or compressing the above mentioned geometry, and this can lead to interesting effects...

HARMONIZER box

Chord: Here you can set the chord that makes up the parallel voices of the harmonizer, and a distinction is made between major and minor. The settings of the keyboard are taken into account, unless the option "Lead voice" has been activated.

Humanize: At a low setting this causes high quantization of the parallel voices and makes the effect sound very artificial. If you select a very high humanize value, the pitches of the individual voices will vary and the cue will be shifted so that you get the impression of an amateur ensemble.

Create voices: This button generates voices.

Harmonic adjustment: Parallel voices are usually generated by taking the keyboard and humanize settings into account. However, if this option is deactivated, then the voices are always kept exactly parallel to the orange curve.
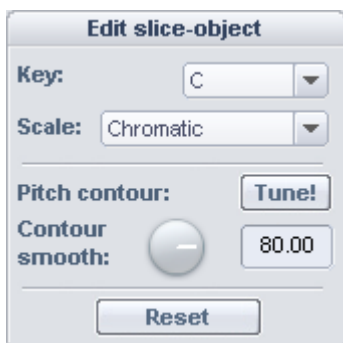
Edit SLICE OBJECT box

Options for automatic pitch correction

Basic tone: Basic tone of the scale. In the chromatic scale this setting is still not taken into account.

Scale: Type of scale. Major/minor or modes

Pitch characteristic tune!: This button quantizes ("levels out") the pitch characteristic of selected slices.

With **quantization smoothing** you can determine the "Strength" of quantization, and lower values are quantized the most. Consequently, small pitch fluctuations always occur in natural sound sources, e.g. vibrato, disappear ("Cher effect").

Reset: Resetting the selected slices. The orange curve is superimposed over the grey curve, and the slice is reset to the original medium pitch.

Playback control
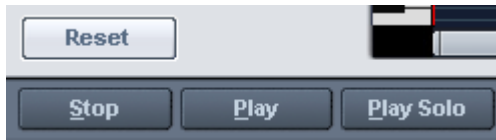
Reset: Recalculates and resets the pitch curves of the loaded material.

Stop/Play: Stops/Starts the playback of the arrangement.

Play solo: Only the object loaded into the editor is played.

Bypass: Switches the effect on or off.

Tools in the Elastic Audio easy editor

You can use various tools to edit slices and the pitch curve. The two tools can be freely assigned to each mouse button. The tool assigned to the left mouse button is displayed in blue and the right mouse button in red. Click with the corresponding mouse button on the desired console button. An exception is the zoom tool with which can be assigned to both mouse keys.

Selection tool (arrow)
You can now move the slice objects up and down.

This modifies the pitch of slice objects as a whole, and slice objects and curve handles can also be selected. Multiple selection is possible with "Ctrl" or "Shift".

Freehand draw function
You can freely draw the pitch curve using the draw tool.

If you press "Shift" as well, a straight line will be drawn between the start position on drawing and the current mouse position. When "Ctrl" is pressed, the slice objects are combined when drawing.

Drawing with quantization

This is the tool used for quantized drawing.

Quantized means that the line is horizontally free but the curve snaps onto the grid of the tones of the selected scale under "Tune".

Drawing a straight line using "Shift" and compiling slice objects with "Ctrl" is also possible in quantized draw mode.

Rubber-band tool

Use the rubber band tool to bend the pitch curves between two neighboring handles.

Here the middle of the curve is moved while the curve handles remain the same. In combination with moving the curve handles at the slice object edges, you can also move the pitch characteristic and attain micro-tone structures (vibrato).

Cut tool

This can be used to split audio material manually into slice objects (according to the notes).

If automatic recognition is not sufficient, then slice objects can be connected to one another using "Ctrl" + the drawing pens.

Eraser

Use the eraser to reset the output value of the orange curve.

The pitch characteristic then corresponds to the original again and the curve corresponds to the recognized curve.

Magnifying glass zoom tool

Zoom tool: Left mouse button **"Zoom"** zooms in and the right mouse button zooms out.

Left-clicking and dragging can stretch out a range which can then be zoomed entirely.

Navigation tool

With the navigation tool, the visible clip can be moved vertically and horizontally.

Applications of the Elastic Audio easy editor

Pitch correction (intonation correction) with monophonic audio material

Getting started (for all subsequent editing)
- Load objects into the Elastic Audio easy editor.
- Set the desired selection state. All slices are selected directly after the analysis.
- Select suitable algorithms – you should test here to see if "monophonic voice" (see above) is the suitable algorithm.
- Now the pitch can be edited with the mouse tools by editing the orange curve or the pitch of the slice objects.

Manual correction of the whole pitch of a pitch slice
- Select the slice with the selection tool (arrow).
- Move vertically with the mouse.

Automatic correction of the pitch characteristic
- Select the slice objects with the selection tool (arrow).
- Select the scale in the Edit slice objects group and, if required, deselect the tones which are not to be quantized in the keyboard by clicking on them.
- Press the "Tone pitch characteristics" button
- With the parameter "Quantization smoothing" you can reduce the "strength" of the quantization.

In principle, this editing process more or less levels off pitch characteristics inside a slice.

Correction of the increase or decrease in the pitch.
- Select the slice objects with the selection tool (arrow).
- Click and drag the pitch curve by moving the two handles at each end of the slice objects or on the orange lines.

Free redefinition of the pitch / Creation of frequency modulations like warblers and vibrato.
- Select the slices with the Selection tool (arrow).
- Select the drawing tool (quantized or not).
- Draw in the pitch modulations.

Creating "Plastic voices" (Removing vibrato by strong quantization of the micro pitch characteristic)
- Set the parameter Quantization smoothing to 0.
- Press the "Tone pitch characteristics" button
- If required, switch off format correction when using the "Monophonic voice" algorithm.

Creating "Robot voices" – quantizing to a pitch

- Select the slice(s) with the selection tool (arrow).
- Select the draw tool for quantized drawing.
- With artifacts: Increase the "Quantization smoothing" parameter.

Creation of parallel voices

- Set desired chord.
- If necessary, change the "Humanize" parameter and press "Create voices" to generate the voices again.

Pitch-sliced-objects and VIP objects

The basic frequency analysis reduces the pitch slices to pieces which ideally correspond to one note in the music's melody or one syllable in speech. For speech the pitches correspond to the level of the vowels.

After the analysis, all of the slices are shown selected (blue).

The subdivision into slices can be corrected manually. The slices are cut apart with the scissors tool, and then merged together with the rubber band gripper tool ("Ctrl" held down).

The blue line represents the mid-range pitch for each object and results approximately from the average value of the pitches in the slice.

In selected pitch-sliced objects the functions found in the "Editing sliced-object" group can be applied, i.e. the correction of the pitch sequence and the mid-range pitch.

The option to reset the corrections for selected slices is also available.

Selecting sliced objects

Sliced objects can be selected and deselected. "Ctrl + A" selects all slices; clicking on the "empty space" deselects them.

Fundamental frequency analysis correction

General options

The fundamental frequency analysis and the related fundamental frequency-dependent pitch-slice-analysis may fail or cause errors for the following reasons:

- Reverbed material,
- Runtime stereophonics,

- False analysis,
- Voiceless vocals (sibilants...),
- Noisy sounds.

In the last two cases, analysis cannot return a result as the fundamental frequency is not available.

MAGIX Elastic Audio provides the user with the opportunity to achieve good results using many manual options, whereby the fundamental frequency analysis does not or cannot deliver any results.

Error in the fundamental frequency analysis

Symptoms:
Sound: The pitch varies strongly for a short period and does not correspond to the set value or characteristic.

When using the **monophonic voice** algorithm, additional strongly distorted noises arise. The algorithm, which depends on the fundamental frequency recognition itself, fails.

Graphics in the editor: The curve exhibits a short strong jump and behaves in a very jerky manner.

Solutions:
- With the help of the eraser you can try superimposing the original curve at these points.
- If you set high values for the **curve smoothing** parameter, then short "hiccups" can be reduced in severity or prevented completely.

Correction of slice borders

So that the automatic or manual correction of the mid pitches of slices provides correct results, the slice borders have to match well with the note borders.

The slice borders can be manually changed by connecting two slices to one another with the pen and using the cutting tool to cut through at the correct position.

Ctrl + or
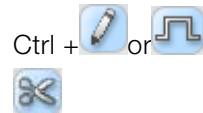
Keyboard commands and mouse-wheel assignments

Navigation using the mouse wheel

Horizontal scrolling: mouse wheel
Vertical scrolling: Alt + mouse wheel
Vertical zooming: Shift+ mouse wheel
Zoom horizontal: Ctrl + mouse wheel
Zoom hor. + vert.   Ctrl + Shift + mouse wheel

Ctrl + space bar   Play solo/Stop
Space bar   Play/Stop
Ctrl + A   Select all
A   Update view
Ctrl + Z   Undo
Ctrl + 1-8   Select tool for left-hand mouse button
Ctrl + Shift + 1-8   Select tool for right-hand mouse button
Shift + Alt +P   Show/hide pitch curve
Ctrl + Cursor up   Enlarge waveform
Ctrl + Cursor   Enlarge waveform
Cursor left   Play cursor to the left
Cursor right   Play cursor to the right
Home   Jump to object start
End   Jump to object end
Ctrl + Cursor   Zoom in
Ctrl + Cursor   Zoom out
Shift + R   Alter scaling mood (Frequency for chamber
Ctrl + NUMPAD 4,5,6   note a).
Alt + NUMPAD 4,5,6   Saves zoom snapshots 1,2,3
NUMPAD 4,5,6   Loads zoom snapshots 1,2,3
                          without any vertical zoom
                          Zoom snapshots 1,2,3 with vertical zoom

Vocoder

The vocoder principle: Carrier material (e.g. a surface sound or a synth chord) is affected by a modulator (e.g. language or singing) so that one gets the impression that it is speaking or singing. Rhythmic surface sounds can also be developed if modulated with a drum loop.

This is done via the transmission of the frequency characteristics of the modulator (speech) on the carrier (chord).

Carrier input

Here you have to select the desired carrier sample. Some special carrier samples that have been loaded automatically from the "Vocoder" directory are listed.

Use the "Carrier sample" check box to load any number of samples of the current project or predefined carrier sample.

Here you can play the carrier on its own for test purposes.

Noise: This controller lets you add noise to the carrier sample. This makes sense if the carrier material can not be modulated sufficiently or is irregular. It's good for "filling" drum loops which have too many pauses between the beats.

Material containing all frequencies in equal amounts are particularly suitable, such as strings, orchestra chords, broad synthesizer pads, hissing, or wind noise.

Filter

Dynam: Influences the dynamics of the modulator signal to reduce the modulation depth of the vocoder.

This prevents two often undesired side effects of modulation. On the one hand, the volume change of the modulator signal is added to the output signal in a slightly more moderate form which may improve the power of the vocoder voice. On the other, the low-level share of the modulator signal is ignored in order to prevent modulation of the carrier by breathing or noise.

Smooth: Affects the speed at which the vocoder adjusts to the modulator spectrum. The greater the value, the "lazier" the vocoder follows the modulator and the "smoother" the sound changes in the carrier sound.

Filter graphic

Any frequency characteristic can be drawn in to optimize the results of the vocoder. For example, simple disturbing bass frequencies can be eliminated as the curve is corrected downwards to the left. Similarly, weak highs can be strengthened as the curve is raised to the right.

Mixer

In the mixer you can also mix parts of the carrier and modulator signal to the vocoder output signal ("Out").

If the output signal of a track is used as a carrier in the vocoder, this track will be muted first, and then you can make it audible again in the vocoder mixer.

Presets

You can select predefined vocoder settings in the"Preset" list window. The presets all contain vocoder settings, except the selected carrier signal. "Reset" restores the vocoder default settings.

Gater

This special effect "chops" a sample in a freely selectable number of pieces (2 - 16). You must first enter the number of steps that are to be distributed over the sample length. The volume for every individual step can then be set with the sliding regulator (faders) so that both hard breaks as well as soft amplitude changes can be created.

The Gater function can also affect filters so that interesting sounding distortions can be created, especially for the techno sector!

This function is highly suitable for creating a groovy sample for a drum loop from a sound surface without its own rhythm!

By the way, more than 16 steps can be entered for the "Fader number", to obtain an even finer division of the samples. The regulator settings are then repeated. Step 17 therefore has the same value as Step 1.

The real-time screening function allows you to musically check every fader modification.

Generally, two combinable operating modes are available:

Volume or filter progressions

The objective of this function is to change the volume or the sound character of the audio material in 16 or more steps with the aid of the 16 faders. The default setting of every fader corresponds with one sixteenth of the audio material – i.e. a sixteenth note in a 1 bar loop or an eighth note for a two bar loop, etc.

This leads to interesting rhythmic results, e.g. by lowering the volume of individual faders or through stepped volume increases. Various progressions can also be quickly created with the help of the random function. The real-time screening function permits constant acoustic control while this is being done!

Gater progressions make it very simple to create rhythmic sounds from a simple strings or synthesizer section or to emphasize or tone down certain beats in a drum loop.

Reordering

The playback sequence of the 16 steps can be changed with the colored key fields located below the faders. This makes it possible to repeat a beat from the first sixteenth in the fourth sixteenth. To do this, the number under Fader No. 1 must be the figure 1. The fact that item 4 will now play back the material in item 1 is shown in color.

Does this sound complicated?

If so, simply try the Random function. It instantly pronumerous variations. If you have the Real-time screening function running, you can then quickly decide for yourself, which groove you like better!

You can use the Re-order function to derive totally different variations from a drum loop quickly and impressively.

Backwards

When Backwards is applied the sound file will be played in reverse. This way you can create very interesting effects, not to mention the "hidden messages" in many songs...

Timestretch and pitchshift

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

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

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

Tones/BPM: These fields are used to numerically enter the pitch or speed change. Only MAGIX Soundpool files are suitable for numerical entries as the contain information on pitch and speed.

Setup: This button opens a setup dialog where you can select various pitchshifting and timestretching procedures.

- **Standard:** Timestretching and pitchshifting in standard quality. This method is suitable for audio material without a pronounced beat. Beat markers are evaluated to improve audio quality.
- **Smoothed:** Timestretching and pitchshifting for audio material without pulsing elements. The method is suitable for polyphonic orchestral instruments, pauses, speech, and singing. Beat markers are not evaluated.
  Here a considerably more complex algorithm is used which requires more processing time. The material can now also be used on very large factors (0.2...50) without bringing about strong artifacts. The material is "smoothed", which makes the sound softer and emits it at an adjusted phase level. This smoothing is hardly audible, for example, with speech, singing or solo instrumentation. Problems in the shape of distortions may arise with more complex spectra (sound mixes from various instruments or finished mixes).

- **Beat marker slicing:** Beat-synchronous timestretching and pitchshifting via splitting and temporal repositioning. Exactly set beat markers are required at the beats or transients. The markers can be generated in real time (automatically) or read from the WAV file if available (patched). In the Premium version's included MAGIX Music Editor, a patching tool is provided for users to set the markers themselves. The algorithm is suitable for rhythmic material that can be divided into individual beats or notes. This requires a low audio level before each beat or note.
- **Beat marker stretching:** Beat-synchronous timestretching and pitchshifting in standard quality. The material is stretched between beat markers positions so that the beats or attacks at the beat marker positions are not impaired by stretching. The markers can be generated in real time (automatically) or read from the source file if available (patched). This method is suitable for rhythmic material that can not be divided into individual beats or notes because the beats or notes overlap each other.
- **Beat marker stretching (smoothed):** Beat-synchronized timestretching and pitchshifting in high audio quality even with extreme time extension. Beat markers are used at the beats or transients. The markers can be generated in real time (automatically) or read from the WAV file if available (patched). This method is suitable for rhythmic material that can not be divided into individual beats or notes because the beats or notes overlap each other. This method requires a lot of processing time which is why it should be used sparingly on less powerful systems.
- **Universal HQ:** Universal methods for timestretching and pitchshifting in very high audio quality. Suitable for all types of audio material. Beat markers are evaluated to improve audio quality. This method requires so much processing time, that a realtime application is recommended only in exceptional situations. Using the apply function is recommended instead.
- **Monophonic voice:** Timestretching and pitchshifting for vocal solos, speech, or solo instruments. The material must not contain background noise, and excessive reverb may also be detrimental to the use of this method. With suitable material the audio quality is very high. In addition, the formants remain when pitchshifting.
- **Resampling:** Pitch shift and tempo cannot be changed individually. This method requires considerably little CPU time.

MAGIX Mastering Suite

MAGIX Mastering Suite is a special effect rack for use with the mixer master channel. Its effects serve the so-called "Mastering" with which the finished mixed music file is given its last one-over.

The **On/Off switches** can switch the effects on and off individually. Each effect has a range of presets that can all be picked from a list along the lower border of the effect.
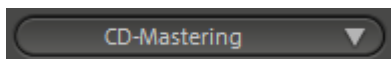
The settings of all effects can also be saved together as one **preset** so that you can use your ideal mastering setting again for other arrangements.

Each effect can be reset by pressing the **"Reset"** button. You can press the "Bypass" button to temporarily deactivate the effects.

Parametric Equalizer

The parametric equalizer consists of four filter bands for adjusting the overall sound of the music track. Each band is a filter with a typical "bell shape". Within a certain frequency range and around an adjustable middle frequency, you can increase or reduce the signal level gain. The width of this frequency range is called bandwidth. The bandwidth is defined by the Q value. The higher the Q value, the narrower and steeper the filter curve.

You can influence the basic sound of the mix by increasing and decreasing the broadband to give it more "depth" (lower center = 200-600 Hz) or more "air" (highs = 10Khz). You can also decrease the narrow bandwidth (high Q value) in the frequency response, e.g. to remove disruptive frequencies.
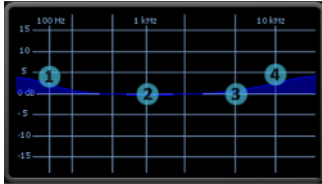
Graphic: The resulting frequency path of the equalizer is displayed in the graphic. The frequency is spread out horizontally, the increase or decrease of the respective frequency, vertically.

The blue bullets 1-4 symbolize the four wave bands. You can move them around with the mouse until you find your desired frequency response.

Peak meter: The peak meter gives you control over the output level of the equalizer. The adjacent master gain controller can be used to balance the level with the EQ.

Edit: The "Edit" button opens the fine tuning for the four bands:

Parameter selection: With the buttons on the right you can select the parameter that can be adjusted with four faders of each band. Furthermore, there are number keys to enter every parameter of the bands.

Gain dB: These controllers allow you to raise or lower the filter. Setting the controller to 0 deactivates the filter and doesn't use CPU power.

Freq. Hz: The center frequency of the individual filters can be set between 10 Hz and 24 kHz with the frequency controllers. Freely choosing the frequency enables multiple filters to be set to the same frequency in order to have a greater effect.

Q (bandwidth): Set the bandwidth of the individual filters between 10 Hz and 10 kHz.

There is still a peculiarity among bands 1 and 4; The filter curve for these bands can be changed from a normal "peaking" EQ filter ( ) to "shelving" ( ) (this is the basic setting) and high (band 1) or high-cut (band 4) . When using the "shelving" filter, a soft increase or decrease in all frequencies happens above or below the filter frequency, and the Q parameter does not have a function here. With a low-cut or high-cut filter, all frequencies below (low-cut) or above (high-cut) the set frequency are filtered out.

Multimax

MultiMax is a compressor with three independent frequency bands. The dynamics are edited separately for each band.

The advantage of a multi-band compressor versus a "normal" compressor is that the "pumping" tendency and other unwanted side effects are dramatically reduced while editing the dynamics. For instance, this prevents a bass peak from "reducing" the entire signal.

Multi-band technology also lets you specifically edit individual frequency ranges.

Link: When this function is activated and one fader is adjusted, all faders are changed at the same ratio. However, the way the dynamics are edited is not affected.

HiQ: If the "HiQ" ("high quality") setting is activated, an even more precise algorithm is used, however this requires more processing power. We recommend switching this setting on before exporting the project.

Setting the frequency bands: The settings of the frequency bands are changed directly via the graphic. Simply click on the separating lines to move them.

Bass/mid/high: These controllers define the level of compression for each frequency band.

Presets: Multimax provides access to presets for special applications, for example:

Cassette NR-B decoder: MAGIX Music Maker MX Premium simulates decoding of Dolby B + C noise suppression if a Dolby player is not available. Cassettes recorded with Dolby B or C sound more muffled if played back without corresponding Dolby.

Leveler: This setting automatically sets the entire material to an identical volume level. The volume control knob is no longer required. Use this function to equalize greater volume differences within a song. To equalize volume variations between different songs, the function "Normalize loudness" is also provided in the "Effects" menu.

De-Esser: These special presets help to remove overstressed hissing sounds from speech recordings.

Vitalizer

The Vitalizer enables the justification of the audio material in the stereo panorama to be adjusted. If the stereo recordings sound unfocused and undifferentiated, an extension of the stereo base-width can often provide better transparency.

Use the maximize function to move the echo and improve the stereo picture, for example, into the foreground.

Volume controller: Adjusts the volume of every single channel to adjust the complete panorama. The reduction of left and right levels is displayed under the control buttons.

Pan-direction: Use this controller to move the sound source from the middle into stereo panorama. The signals at the outer edges of the sound picture remain unchanged.

Multiband: This option switches from "Stereo FX" to "Multiband" mode. Stereo editing only applies to the middle frequency, the bass and highs remain unchanged.

Bandwidth/maximize sensor field: Adjusts the base width between mono (extreme left), unchanged base width (normal stereo), and maximum base width (wide, extreme right). Raising the bandwidth (values over 100) diminishes the mono compatibility. This means that recordings edited this way sound hollow when listened to in mono.

Maximize strengthens the spatial component of the recording, which also increases the stereo transparency without influencing the mono compatibility.

Stereo meter (correlation gauge): This provides a graphical display of the phase relation of the audio signal. You can use it to review the orientation of the signal in the stereo balance and the effect of the stereo enhancer. To maintain mono-compatibility, the "cloud" shown should always be higher than it is wide.

Limiter

The Limiter prevents clipping by automatically lowering any volume levels that are too high. Quiet parts remain unaffected. Unlike the Compressor, this feature attempts to preserve the basic sound as much as possible.

Digital Audio Meter
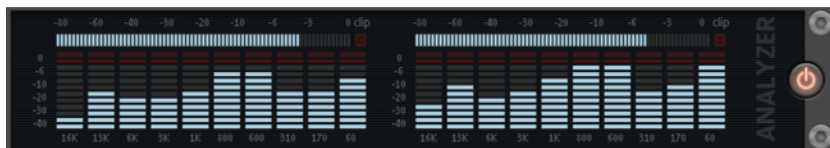
On the lower border of the MAGIX Mastering Suite there is a digital audio meter which provides separate control method displays for 10 wave bands on each channel. This device is used for orientation purposes, e.g. selective equalizer editing.

Essential FX

MAGIX Essential FX is a collection of "bread and butter effects" for the most important applications. They are embedded as VST plug-ins (MAGIX plug-ins directory) and may be used in the object or in the track. For object application, see "FX plug-ins (view page 179)" in the "Audio effects" chapter or "Track effects (view page 176)" in the "Mixer" chapter.

These are simple but solid tools with clear feature sets for daily application. They include fewer controllers and require less resources.

Chorus/Flanger

This plug-in offers a simple way to make signals sound more interesting, "spacier", thicker, etc. by modulating or delaying the pitch. The classical domain of application is for guitars, Hammond organs, electric pianos, or synths.

Chorus and flanger are two closely related effects, which is why we have included them in a single plug-in. They normally differentiate in terms of delay time, type of modulation, and degree of internal feedback.

Chorus flanger Parameters

- **Mode:**

- **Mono chorus:** In this mode, the signal is fed through a delay unit and the pitch is modulated. Original and delay copy are mixed into a monophonic output signal.

- **Stereo chorus:** Compared to mono chorus, two copies of the original are created, modulated against each other, and then fed accordingly to the set mix ratio to the left and right output channel.

- **Mono flanger & stereo flanger:** Similar to the other modes. In this case, lower delay periods and a slightly changed modulation are processed.

- **Rate:** This specifies the speed of the modulation. Lower rates provide slight hovering effects, and high speeds produce a wobbling, typically distorted "underwater" sound.
- **Depth:** This parameter specifies the depth of the modulation, i.e. the maximum deviation of the modulation and the resulting pitch bending.
- **Feedback:** This parameter defines the portion of the delay that is sent back to the input. Feedback causes the effects of modulation to be more drastic and cutting.

Nullification of the feedback is set at the middle of the fader. Set to the right, the feedback is fed to the input equi-phasal; to the left, the feedback occurs. Both variants may sound very different depending on the signal, since they prefer different frequency ranges for dissonance.

- **Mix:** Regulates the mix ratio of the original signal and the delayed portion.

Phaser

The phaser is often mistaken for a flanger due to its typically sharper and cutting effect. In any case, the pitch is not modulated. Instead, the modulation process burrows multiple notches into the frequency response, somewhat like a comb filter. Just like an airplane taking off, the phaser functions with a similar jet effect. It is suitable for enduring signals like synth surfaces or for producing sound designs like atmosphere or distortion effects.

Phaser Parameters

- **Mode:** The selection includes a number of filter stages. At 4 stages/8 stages, a more plastic effect is achieved, and more complex patterns are reached at 16 stages. Please note that the more stages are involved, the more computing time will be needed.

- **Rate:** Speed of filter modulation. The essential effect is the same for both chorus and flanger.
- **Depth:** Similar to chorus/flanger, whereby it's the filter notches that are addressed, and not the pitch modulation.
- **Feedback:** The feedback portion produces a more drastic effect in this case. Similarly to the chorus/flanger, co-phasal or opposite-phase feedback is possible.
- **Mix:** Regulates the mix ratio of the original signal and the delayed portion.

Stereo Delay

The stereo delay is a simple too for typical bread and butter delay effects. The "analog algorithm" qualifies as a special feature that produces the sound of echo devices from the old days.

Stereo Delay Parameters

- **Mode:** This selects between the essential algorithms.
- **Digital:** Normal, transparent delay
- **Analog:** Simulation of a bucket brigade delay (BBD). These devices, which originate from the pre-digital era, used analog building blocks for storage. The signal was held for a short time in a relatively simple circuit and then moved on to the next. This "bucket brigade" principle created a longer signal delay. But since each element of the chain led to a loss of the signal and would increase the system noise with longer delays, the devices would use a compander: At the input, the signal's dynamics are compressed, and then they are expanded again at the output end. The simulation in the eFX delay mimics the loss and compander behavior to produce these typical audio characteristics, especially at longer delay periods and higher repetition rates (feedback).
- **Delay L/Delay R:** Specify the delay period for the left and right channels here.
- **Tempo sync:** If this button is active, the plug-in is directed at the host/sequencer tempo. In this mode, changes are made to the delay period via the L/R delay using the musical snap grid (e.g. 1/4 note).

- **Damping:** This specifies the cut-off frequency at which the highs are dampened during the delay. This useful for making the delays reverberate more naturally or for creating special effects (reggae/dub-style effects).
- **Feedback:** This parameter regulates the internal amplitude of the delayed signal that is fed back to the input. In "Digital" mode, this process is completely transparent; in "Analog", on the other hand, higher values, a very loud input signal, or the sum of these will make the use of dynamics compression audible. In both modes, the nullification of the feedback parameter is in the center of the fader. To the right, the plug-in works in "Dual delay" mode (both sides work independently), and to the left, "Ping pong" mode will be activated (the delayed signal alternates between the left and right sides).
- **Mix:** Regulates the mix ratio of the original signal and the delayed portion.

Vintage Effects Suite

If you're a guitar, bass or keyboard player, you'll probably recognize the look of our new "vintage effects" suite. They are accurate digital models of analog "standard effects" used by live musicians. Although we have adopted the appearance of stomp boxes and have given these effect a typical analog sound they are ideal for studio use.

All effects of the Vintage Effects Suite are subject to a soft rule behavior – internally, parameters are softly faded from the old to the new value. This is particularly noticeable when presets change and is of a particular benefit when playing in live mode.

In the following we will present the effects of this suite and explain how and where to use them.

Analog Delay

This delay offers creative playing along with common delay effects. "Analog" in this case means, for instance, that you can change the delay times while playing without the risk of typical, scratching artefacts developing. Instead, the times are softly faded out, similar to the old tape echo machines that used the tape speed to change the delay and where the system also had a certain sluggishness.

"analog" in terms of this delay also means that typical tape echo sounds can be mimicked, e.g. tape speed fluctuations and reduced highs during playback ("feedback"). The feedback has a two-band filter that can be used to create dark, high, or mid repetitions depending on the settings.

These properties can be useful, for example to create "wild" dub/reggae-style delays that move towards the center of the sound with each repetition and even grind slightly. In this case, "analog" means that you cannot digitally overdrive the delay. Even in a 'looped' repetition, the signal cannot be distorted indefinitely, but it is compressed by an increasingly slight degree and distorted similar to a tape.

Analog delay parameter

Analog delay has the following parameters:

Delay type

Delay type (l + r): Left and right delay times can be controlled separately (see below). You can choose a note value for the control pots to snap to. Even and syncopated note values from 1/2 to 1/32 are available. Note that the delay times are always in relation to the project's current tempo.

Link button (lock symbol): Press this button to control the "delay type" pots for both channels simultaneously.

Mix: Adjusts the ration between the original signal and the echo.

Modulation

Speed: The tape warble speed. Low values result in very light fluctuations, high values result in drastic warbling.

Depth: The warble intensity. When this control is turned all the way to the left, there is no pitch modulation. For a subtle "analog" feel, we recommend a setting between the 9 and 11 o'clock position.

Filter

"Low"   This control progressively reduces the bass frequency as it is turned to the right, making the signal sound "thinner".

"High"   Once turned all the way to the right, the control only attenuates the treble very lightly; turned completely to the left, the delay repetitions become progressively less treble.

Feedback

Width: This controls the stereo width of the delay repetitions. When you turn "Width" to the right, an additional effect is produced: the panning of the delays increases. This is commonly referred to as a "ping-pong" delay.

Drive: When this control is turned all the way to the left, the delayed signal is repeated only once. Turned all the way to the right, the feedback is seemingly endless and the repetitions continue for a long time.

The actual strength of the effect is dependent on the material, since the feedback loop (as explained earlier) is addressed via compression and uses a "tape saturation" effect. If you send a "loud" signal to the delay, then the feedback will sound longer than at a lower level as compression "brings it up" to a certain level. If you are used to "purely digital" delays, then this might take some getting used to, but it will probably sound "livelier".

Flanger

The "Flange" effect is similar to that of the chorus, but does have a different technical and historical background. It came about by chance: Someone (various sources say John Lennon) slowed down one of two running interconnected tape machines in a studio with his hand. The result: The rather

brief delay of the second signal compared to the first resulted in cancellations within the frequency spectrum, leading to a so-called comb filter effect (the sum of both signals creates "peaks" and "lows" in the spectrum that look familiar to the teeth of a comb).

Flanging is basically a chorus effect, but it has a lower delay time (less than 10 ms). "Release" or signal doubling is not highlighted here; the result is a much more creative frequency response deformation.

A "complete" flange effect will definitely require feedback: The flange portion is returned to the input to increase the effect. People often talk about the "jet effect", since it resembles a jet on take-off.

Flanger parameters

Speed: Modulation speed.

Depth: The overall amount of modulation.

Feedback: The volume of the internal feedback loop.

Mode:

Normal: Flanging.

Dual: Two parts, panned left and right.

Quad: Four parts, alternately panned left and right.

Quad pan: Like "Quad", but the "Depth" control also sets the intensity of the signal's pan movements between left and right.

Filter

"Filter" is a "modulation" effect like chorus and flanger. However, it controls the frequency response of a modulation source as well as the pitch. There are various filter types and modulation sizes available for this.

Possible areas of application are synthesizer sounds (filter sweeps on pads) or creative distortions of drumloops (e.g. for variations, fills, etc). With guitars you can create typical 'wah' effects: either by tempo modulation or in a special mode, modulation via the envelope curve. The decisive factor is the current signal strength above the frequency set for the filter.

Filter parameters

Speed: The modulation speed is set by note values ranging from 1/1 to 1/16 (even or dotted). Similar to analog delay, the tempo information is automatically provided by the arrangement.

A peculiarity of the final position of the controller:
Tempo synchronization stops and modulation is controlled via the signal level.

Freq: This is the base frequency for modulating the filter, and generally takes place above this frequency, i.e. the modulation increases the filter frequency.

Depth: This control determines the modulation depth, i.e. the amount by which the speed control (or envelope mode, as described above) increases the base frequency. For extreme effects, turn "Freq" all the way to the left and "Depth" all the way to the right.

Filter modes

Low-pass		A filter with a slope of 24 dB/octave and a small amount of resonance. The treble frequencies above the base frequency (cut-off frequency) are filtered steeply. This is great for filter sweeps on synth pads and drum loops.
Band-pass		Only the frequencies around the base frequency are passed through the filter (24 dB slope with resonance). Use this mode to create wah-wah effects for guitars.
Band elimination („Notch-Filter")		Two parallel filters (–36 dB) with linked base frequencies create two 'notches' in the frequency spectrum. This allows you to create interesting sounds (e.g. guitar chords), and it sounds similar to a phaser.
High-pass		This mode achieves the opposite effect to the low-pass filter. Frequencies below the base frequency are filtered steeply. If you 'thin out' sections of your track (for example, a drum track) with a tempo-based modulation, this can sound very effective when contrasted with the full-range frequency spectrum (for example, if the filter is turned off for the next object).

Chorus

The chorus pedal creates characteristic "floating" sounds which one typically recognizes from guitar or synth pads. You can add acoustic "depth" to an instrument to add more power to the sound or to create the illusion that it exists multiple times.

The chorus sound is created by using the so-called Doppler effect. You probably have noticed this phenomenon daily life: The sound of an approaching ambulance sounds higher than when it is moving away. This effect is a result of the speed of the sound which first increases and then decreases, thus also changing the sound pitch. If there were a second siren at your location, an oscillation would develop between both sounds (just like when two instruments are out of tune).

Chorus also splits the signal in at least two: direct sound and effects part. The double effect is created by a short signal delay of the effect.

This delay is within the range of 10-30 ms (as in this one), this means that it is short enough to be perceived as an "echo". The times would also be similarly short if you were to double a guitar track for instance. A short delay in the mix already sounds "doubled" but is not authentic. This is where the above-mentioned "out-of-tune" effect comes in: The pitch of the effect signal is

slightly modulated by gently "drifting" forward and backward in the delay curve. The result is a floating effect where the speed is influenced by drifting

Chorus parameters

You can enter the following parameters to control the floating effect:

Speed: Modulation speed. Low speeds create an even, continuous development. High speeds produce vibrato-like qualities, but can also result in an "underwater" effect.

Depth: Modulation depth. This determines how strongly the speed affects the pitch modulation.

Mix: This sets the balance between the direct signal and the effects signal.

Mode: You can choose between **four operating modes** of the chorus effect:

"Normal" is a combination of the direct signal and the detuned delay signal.

"Normal, low-pass" is designed for bass-heavy signals like bass guitar. The bottom end of the signal stays clear and well-defined, the effect is only audible for the mid and treble frequencies.

"Dual" makes the source sound more lively than a single "part". The sound is spread over the stereo panorama, which makes this mode seem "wider". The character of the sound becomes livelier than with a single voice only, and it is also distributed over the stereo panorama, making the mode sound "broader".

"Quad, low-pass" is ideal for creating sounds such as deep synth pads with tight bass frequencies.

Tip: Similar to the stomp boxes our vintage effects are modeled on, there is a "footswitch" below the pedal's logo that can be clicked to turn the effect on or off for A/B comparisons. All the effects of the Vintage Effects Suite have been designed like this.

Distortion

The distortion pedal is a "high gain" distorter for crunch and lead guitar sounds. If you like typically "British" amp sounds and want to quickly record a guitar track with little effort, this pedal is for you.

An entire valve pre-amp circuit has been modeled, including the typical EQ curve. The amplification is "valve-typical", i.e. it doesn't start quickly but is harmonic and soft. Even at full power the pedal still reacts softly to a guitar and its settings (e.g. pick-up choice and tone controller). For instance, you can influence the distortion even more by using the volume knob on the guitar.

There are only three parameters on this effect; however, these interact with each other and can thus generate quite a variable sound:

- **Low:** The "bass" controller. This allows you to set the share of basses, even after the distortion. The type of prefiltering is important for guitar amps in particular, and is characteristic for the basic sound. You should set the bass controller depending on the basic sound of the guitar and the sound you are aiming for ("powerful" or "cut").
- **High:** Mainly controls the share of highs before and after the distortion. If you are not using an external guitar speaker as a monitor, we recommend setting the controller to the middle position or even moving it slightly to the right. This

way the "sharp" highs disappear, which all guitar amps generate without the suitable loudspeaker. At the same time the mids stand out more, which gives the sound more "kick". On the other hand you can further emphasize the highs if you want the sound to be more neutral.

- **Drive:** The level of distortion. This controls the amplification used to operate the "virtual valve circuit" (max. 60 dB). As the level increases, the valve goes into overdrive and generates typical distortions. For a slightly distorted sound ("crunch"), it's sufficient to set the controller to 10-11 hours at maximum; the modeled circuit also provides the usual "weight" for power rock chords, and more. The further you turn this controller to the right, the more the mids of the signal move to the fore so that the "high-gain" lead sound is better heard.

You can also use the distortion effect in combination with the amp simulation!

BitMachine

Audio material can always be edited into high quality with MAGIX Music Maker MX Premium. Nevertheless, there are some situations, for example, a more imperfect lo-fi sound would perfectly suit a drum loop or a synthesizer sound.

Remember, for example, the first hardware samplers from the 80s that usually only ran at 8 or 12-bit rates and at low sample rates. With the BitMachine, changing the sound with such an "antique" device is no problem.

You can use the BitMachine to bring back to life the times when minimalist and scratchy soundchips in home computers were commonplace.

The BitMachine opens up a gateway to "acoustic time travel" where you can encounter bit and sample rate reduction and downstream filters based on analog models.

Furthermore, the effect has a modulation section with which you can control individual parameters using an oscillator (LFO) or the input signal.

We have designed a range of "typical" presets to demonstrate the time travel abilities of the BitMachine. These can be opened at the top right of the interface

The following section describes the details of BitMachine:

"Reduction" section

Bits

This dial controls the resolution of the audio material. Turning the dial to the left results in 16-bit quantization (CD quality). The further it is turned to the right, the lesser the signal dynamic becomes. In extreme cases (1-bit), there are only "on" or "off" states.

At the intermediate levels, you'll notice an increase in the background noise and a decrease in the dynamics. For example, 8-bit quantization will exhibit dynamics of only 48 dB. Quieter points in the material sound noisy and very quiet points sound "capped". This effect is amplified the more you turn the dial to the left until it starts crackling or "groaning".

Sample rate

The audio material is "down-calculated" with this dial, i.e. the internal sample rate is reduced. A new separation ratio between old and new rates is created. In relation to this ratio, a sample from the data stream will be "dropped" at the various points.

Note: The two smaller dials from this section are explained under **Modulation**.

"Filter" section

The filter in the BitMachine is a digital model of one of the most well-known filters in music electronics, i.e. the "Chamberlin 2-pole" filter used in old Oberheim synthesizers. These types of filters sound exceptionally musical. They can also be used quite creatively in the BitMachine, but should not be used exclusively to smooth out existing artifacts.

The filter works in the so-called "high-pass" mode, i.e. it lets through deep frequency (or medium) material according to setting, and dampens highs and medium areas.

Freq:

You can specify the cut-off frequency of the filter using "Freq". Filtering starts above this frequency.

Reso:

The signal in the area around the cut-off frequency can be strongly elevated to just below self-oscillation. Sharp, cutting sounds are possible at this level, and the effect becomes even clearer when you vary the cut-off frequency.

Drive:

Both of the individual filters of the connections mentioned above have the ability to overmodulate themselves internally. With the "Drive" dial, you can regulate the amount of overmodulation. The more you turn this dial up, the more the signal is overmodulated. In this case, the parameters of the internal workings of the filter interact with one another. Increasing drive weakens the resonance, but, at the same time, the signal gets more volume, more bass and becomes acoustically fuller.

Note: The two smaller dials from this section are explained under "Modulation".

"Modulation" section

You can automate your effects via the settings in the modulation section.

Here, you'll find the so-called low frequency oscillator (LFO), which resonates with adjustable speed. You can influence the speed and type of resonance.

To influence the resonance, use the two small dials in both the reduction and filter areas. These four dials display modulation targets.

Example: You've left the dial for the sample rate at its default setting. Change the small dial beneath from its middle position to either side. The modulation for the dial value is added to the sample rate: The LFO now controls these parameters proportionately and the sample rate reduction resonates at this modulation.

You can use this technique on other dials as well. You just have to make sure that the main dial isn't turned up to full, because then the modulation wouldn't have any effect. The modulation is always added to the set value.

Example: Turn the small dial beneath the "bits" dial fully to the left (Value: -50) and the one beside it (beneath "sample rate") to the right (+50). You've now assigned a modulation to both parameters with the LFO. They are not changed uniformly, but rather opposite to one another: A negative setting is nothing more than an inversion of the modulation, so you're effectively turning down the control signal.

Waveforms of the modulation section

We've already explained this example with the help of sine oscillation. The LFO can be in:

- Sine form
- Square wave (0 or 1, no intermediate level)
- Random value (an internal randomizer will be queried at the set speed)

Oscillator speed

The LFO speed is specified with the "speed" dial. If the "sync" button is active, then the LFO adapts to the song speed, and the dial locks musical values into place (e.g. ¼ note). Rhythmic paths of the sound distortion are therefore enabled. You can also switch off this synchronization and set the speed manually (in Hz).

Modulation with the "Envelope follower"

In the modulation section you'll find a fourth button, the audio input signal. If this mode is active, then the signal itself can be called upon to extract "modulation tension"; a so-called "envelope follower" continuously scans the volume of the input signal.

Note: The BitMachine doesn't recognize the type of audio signal automatically. For this reason, you should set the input sensitivity roughly with the "gain" dial. To do this, use the control LED: With accurate detection of the signal dynamics, assigning the four small dials to modulation lows is easier and you can use the full control range.

In envelope mode, the "speed" dial is used to control the response speed of the envelope (the display now switches to milliseconds). Lower times result in a faster response, higher times make the envelope rise (and fall) slower. You should experiment with the signal according to its complexity. The presets provided can only point you in a rough direction.

Vandal SE

Virtual Guitar & Bass Amplification

VANDAL is a complete simulation suite for guitarists and bassists. The plug-in is capable of simulating the entire signal chain, from input to stomp boxes, amplifiers, microphone loudspeaker boxes and post-processing studio effects, all in top quality.

Quick start via preset selection

Would you like to know about everything that's possible with Vandal SE? Play yourself or use some of the presets. These are available via the list in the upper edge of the interface.

A preset includes all settings for the main elements of Vandal SE: Stomps, amp settings, cabinet simulation, and studio effects.
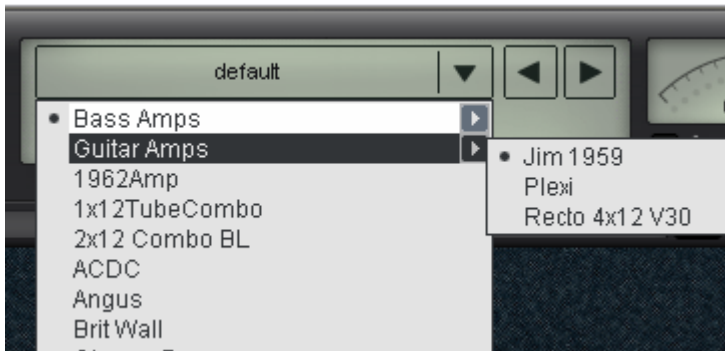
tuner

The best amp or the best simulation is useless if the guitar is out of tune. VANDAL offers its own chromatic tuning device for this. Use it just like any analog device: it automatically displays the note played (with octave position) and visualized the deviation in the display (in cents).

The following describes the important components of VANDAL. The stations are described according to their position in the signal chain.

Input

The station that you will most likely want to activate first is the input controller. Just like with a genuine guitar or bass setup, it's important to ensure the highest possible input level, in order to work optimally. This is even more important for distorted sounds and natural high-gain playing styles. Use metering for this, too.
As required, activate the noise gate and adjust it so that it lightly suppresses the input signal during pauses in playing. VANDAL does not cut the input on classic gates too hard, but rather regulates them finely via the signal energy beginning at the highs (where noise is most audible).

Stomp boxes

The real world has produced a series of effect devices popular with guitarists and bassists in the "stomp box" format. We've also included a rich palette of these devices. Vandal SE includes four "stomp slots" that can be equipped with effects from the list. The signal flow within this chain runs from left to right. Since all of the controls are self-explanatory, we won't describe them here.

Vandal - Amplifier

Vandal SE basically offers 2 different amplifiers: Guitar Amp and Bass Amp. The amplifier type depends on the selected preset.

During development, a large selection of famous amplifier brands and models were not included. To guarantee that you are nevertheless able to get a number of different sound characteristics out of your Vandal SE amp, the amplifiers are set up variably. Internally, circuit designs work absolutely the same as the real devices. In several ways, however, Vandal SE goes in its own direction in terms of the sound it offers.

Guitar amp

The Vandal SE guitar amp offers three different pre-amp modes and two switchable end stage models. These basic configurations differ according to the selected preset.

The guitar amp is set up with three channels. These may be set up with the pre and post gain controllers per channel (**Clean**, **Crunch**, and **Lead**) for the desired mix ratio. Don't worry about switching things around: The amplifier will remember the gain settings when channels are changed. These are the gain presets for the different playing styles within a song.

Voicing: We have provided Vandal SE pre-amps with something that we call Curve EQ. For example, if you take a simple EQ pedal and shape the signal a little before the amp, then this may change the sound quite drastically. Curve EQ does something similar: It's located (in some cases multiply) at strategically important points between individual amplifier stages and filters the signal, before it is distorted by the next stage. Move the curve in both directions and navigate through the spectrum using the "Freq" controller. This will give the amp a completely different character...

Equalization: The actual sound control (the "tone stack") functions rather conventionally: Vandal SE offers low, mid & high settings. Everything functions like the passive sound regulation network in genuine amps, so that the controllers influence each other to produce numerous variations.

Reverb: Surf and twang simply need on-board spring reverb. We relied on well-known reverb springs for modeling. Everything sounds natural with complete authenticity.

Bass amp

After roughly setting the **Gain controller**, the bass signal will first be treated with the **Contour** circuit. This filtering stage works similarly to the "Loudness" function by cutting the (lower) mids and lifting the deep bass and highs. It's sort of like an "instant slap".

Next, the signal passes through the compressor stage **(Comp)**. This is a simple but extremely musical, visual design: The bass triggers a light source that is coupled with a photo resistor which dampens the signal. This may already be familiar to you from the most famous studio compressor for bassists, i.e. Urei LA2A, which functions according to the same principle.

After any possible compression, **Drive** provides the option to take the bass sound to the next level. Saturating the signal takes place depending on the frequency: In spite of a possibly high level of distortion, the basses remain relatively clean and contoured.

The equalization stage offers 4 frequency ranges, whereby the two mid bands are variable. The final master volume controller specifies the volume of the final stage. As with the guitar amp, the end tubes are also engaged in this case as much as remains sensible.

Rack effects (FX1/FX2)

There are effects that don't always work well before the amp, e.g. reverb or delay, especially when they are distorted. Normally, these effects are better placed at the end of the signal chain.

For final processing and enriching, we offer two separate studio-quality effects units just like real 19" rack devices.

Many algorithms create a stereo signal. Take care that the sequencer track operates the duct in "stereo" mode.

Effects units may be selectively operated one behind the other (serial) or parallel. Switching may be changed via the mode switch.

The following algorithms & effects are available:

- **Mono delay** (msec & tempo sync): Possibly a simple delay with free selection of delay time or synched to the sequencer tempo with a musical raster. In case of high feedback values, a reduction of the damping frequency is required to provide naturalness to echoes.
- **Stereo delay** (msec & tempo sync): Like mono delay; features two models. Repetitions may take place on separate channels (feedback controller to the right: dual delay) or in ping-pong mode (controller to the left), whereby the signal alternates between the sides.
- **Chorus:** Produces a typical "floating/shimmering sound" by modulated detuning of a signal to "thicken up" its sound or spread it across the stereo field. Detuning is achieved by a short delay, the length of which can be varied by the modulation. This produces the so-called "Doppler" effect and broadens the signal.
- **Flanger:** Algorithmically similar to chorus, but different in that the delay time is significantly lower and delay works with repetitions (feedback). A flanger sounds more "cutting" and up-front than a chorus.
- **Phaser:** A modulation effect just like chorus & flanger, but in this case no detuning takes place. Filter components periodically alter the signal's "phase response" (principle of the "phase shifter"). Characteristic notches are produced in the frequency spectrum response (comb filter effects).
- **Room reverb/hall reverb:** Reverb offers realistic simulation of realistic reverberation. **Room** creates the impression of a small to mid-sized recording room, while **Hall** produces the sound impression of a concert hall. A particular is that both effects algorithms provide a **modulation** parameter, which may remove possible resonance at low dosages and can produce a soft chorus effect at higher values.
- **LoFi:** This algorithm gives the sound a little bit of "grit", or a certain measure of signal destruction depending on its setting. Turn down the internal sample rate as much as you like to steal a few bits from the sound's resolution. This is definitely unconventional...
- **Vintage compressor:** Ideal for thickening up the signal a little. The algorithm emulates an older popular circuit design that is similar to studio legends like the Urei 1176 or simple compressor pedals. A so-called "FET building block" controls the volume via the input level simply, effectively, and quite musically, as well as the set compression ratio and the attack and release.
- **3-band EQ:** This sound controller works like a conventional mixer with controller for bass, highs, and two controllers for the (variable) mids. This adds the final polish to your sound.

Video and Bitmap Objects

Video and bitmap formats

MAGIX Music Maker MX Premium can load and export videos in the following formats: AVI, Windows Media (*.wmv, *.asf), MAGIX Video (*.mxv) and Quicktime Movie (*.mov).

Graphics can be loaded and exported in BMP and JPEG formats. Also RTF text files can be loaded and used as subtitles.

On the content media you will find the included image and video files. You can also use your own files or even record your own videos.

To get the best results with video effects, you should save the video and bitmap files used in True Color (24-bit color).

Adjusting the video screen

The video screen can be positioned freely on the screen as well as adjusted in size. To position it, you must first switch off the standard layout view in the windows menu before you can move the video screen. To adjust its size, click on the video screen with the right mouse key and select the desired size from the object menu or define it yourself ('user defined'). Please note that larger screens require a greater computing performance!

Loading and editing videos and bitmaps

Video and image objects can be loaded and edited just like other objects. In order for you not having to decide which file is to be loaded, you can use the preview function on the video monitor. Simply click on a video or graphics file in the Media Pool: The corresponding video or graphic is displayed or played in the video monitor.

- Via the context menu (right mouse-click into the list) you can choose between different views ("List", "Details", "Large symbols"). In the "Large Symbols" view the videos are displayed with a preview frame – very useful to preview the available images.

- If you want to use the video for your arrangement, drag the video or bitmap file onto a track in the arranger while holding the mouse key. During playback in the arranger, the entire video and image material on all tracks, including all effects, is played back in real-time.
- Video and image objects can be edited in the same manner as other objects: You can touch and move them with the mouse, fade them in or out with the handles at the top corners, or change their brightness with the middle handle, etc. Please also read the chapter "Arranging objects (view page 67)".

Simplify object presentation

With the TAB key you can switch between two object presentations. The objects in the alternative presentation are not displayed frame by frame in the arranger, but in simplified form. This saves working memory and improves overall play performance. Scrolling and zooming in the arranger as wee as various object manipulations are far quicker in TAB mode. The video display in the video monitor is not influenced by the simplified object display.

Visualizer objects

You can load so-called visualizer objects into MAGIX Music Maker MX Premium (*.vis files). The principle: The sound creates graphic changes to the visualizer objects. The graphics and structures move according to the beat of the music.

You can load visualizer objects in the same manner as other objects. The "Audio & Video Effects" selection button is located on top of the Media Pool.

The submenu "Visuals" now contains many algorithms for different automatic animations. Just try them out by dragging an audio object into the arranger and playing it. If you click on the different visualizers with the mouse, you will see in the video monitor how the computer animations mover according to the beat of the music…

Visualizer objects can be used just like video and image objects: You can drag them from the Media Pool into the arranger and arrange them as you like.

Video scrubbing

The scrub mouse mode is particularly useful for quickly finding certain positions within a video. To do this, activate the scrubb mode in the mouse mode bar and drag the mouse pointer over a video object while holding down the mouse key. The video is played back according to the speed and position of the mouse, including all effects.

Extract sound from videos

Video with sound material appears in the arranger on two tracks as two objects (an audio object and a video object). The two objects automatically form a group.

To edit the video and audio material separately from one another, the objects can be separated with the Ungroup (view page 297) function in the "Edit" menu or button in the arranger. Now you can replace the audio or the video track, or process each file separately. Rejoin/regroup the tracks with the "Export arrangement" function.

Video effects

All video effects work in real time. In principle, almost any combination of effects may be assigned to any video or image object: For example, mix mode stanzas with a false color effect and a double playback velocity.

By overlaying of multiple videos or bitmaps, MAGIX Music Maker MX Premium proceeds from the bottom up. The background video object must be placed in the upper track. It will be overlaid by and mixed with objects lying below.

Example, if you want to put a dancer on a landscape, place the landscape on track 1, the dancer on track 2 and activate the Blue Screen effect for the dancer.

Video effects are stored in the "Video FX" directory. Open the directory by clicking "Templates" in the Media Pool. All video effects have a preview function and can be dragged & dropped on a video object into the Arranger.

Title Editor

Text objects and title templates

MAGIX Music Maker MX Premium includes a function which simplifies insertion and editing of titles. Titles are shown as text in music videos, usually animated, for example to display the artist and song names.

The basis of these titles is the titles templates settings in the "Templates", and these may be reached via the "Titles" button. To integrate a title template into your project, proceed as follows:

- Select a file. As usual, a simple click generates a preview in the video window. This way, you can see how certain title settings will look and the effect they will have in advance.
- Once you've found the right title for your purposes, drag & drop it onto a track in the arranger. It will now be displayed there as a title object. Several title templates (e.g. YouTube templates) contain additional image objects, these titles require two tracks.
- The title editor (see above) opens automatically. You can open it again later by double clicking (or by right clicking in the context menu below "Title Editor").

Title Editor
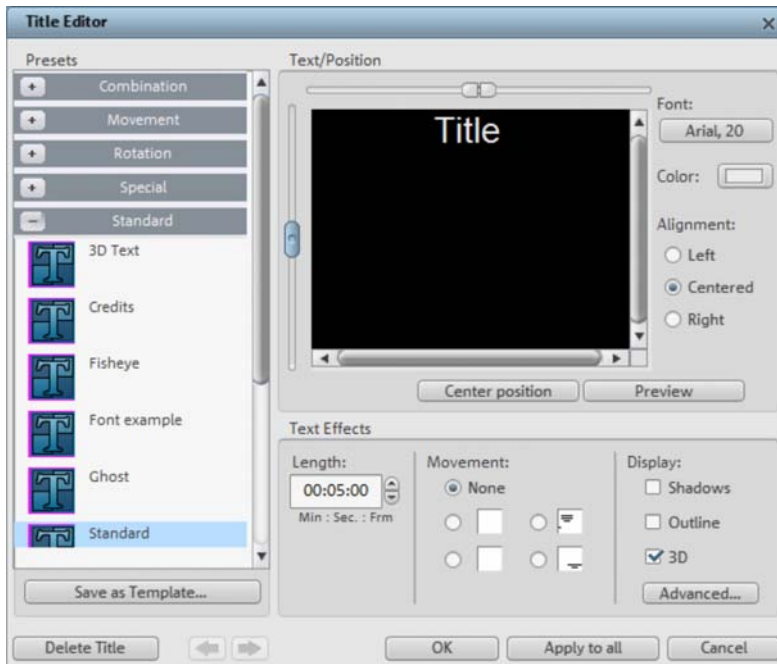
Enter text, e.g. for subtitles, lead, or end credits. These can be displayed in all kinds of fonts and colors.

Menu presets: This menu contains the title templates from the Media Pool title directory. This way, you can try out different movements, effects, and designs. The presets are arranged in various subfolders; the icon and the description will help you find the template you want.

Save as template: You can save the complete settings and a title template. Next, drag & drop them easily from the Media Pool.

Text/position: Type the text for your video subtitles into the Title Editor. Use the scroll bar to the left and above the text window to organize your text in the video monitor. You can freely position the writing vertically and horizontally. If you have selected moving text, this position determines the starting position. Please note that adding movement to text places the starting position of the title outside of the video window. You can, however, always change the starting position.

Font type: Enter the desired font type, size, color, or type.

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

Alignment: Specifies whether the title should be aligned left, right, or to the center.

Center position: Clicking on "Center position" puts the title back in the middle.

Preview: This button starts the title preview in the video monitor together with the movie or scene. If you have selected a movement for the title, it will also be animated in the video preview window. You can interrupt the preview anytime by pressing "Stop".

Text effects: This function allows you to add motion, shadows, 3D effects, and a border. The effects settings can be adjusted in detail via the "**Advanced**" button.

Length: Sets the duration of how long you would like to display the title.

Once everything is set correctly, then close the title editor by pressing "OK".

Video capturings

MAGIX Music Maker MX Premium can be used with all USB cams, graphic cards, video cards, or video cards that are compatible with DirectShow

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

To record from analog sources:

- Start MAGIX Music Maker MX Premium.
- Click on "Record Video" and select "Record video".
- In the Video Record-Dialog, select the correct videotape and audio card driver in case you have several installed on your PC. A video preview window is displayed immediately.
- Name the capturing appropriately so as to be able to find it later.
- You can now select the desired video quality with the fader. The default setting is the highest quality that your PC system is capable of.
- Now start the capturing by pressing the "Record" button – end it by pressing "Stop". Be aware of the "Drop Frames" notice. If, for example, more than 10 dropped frames per minute occur, the quality of your video will be compromised, and your computer may be overburdened.
- End the video capturing dialog with "OK" You can now view your capturing in the film bar in the lower third of your screen.
- To check the capturing, start the playback by pressing the space bar.

Video recording dialog
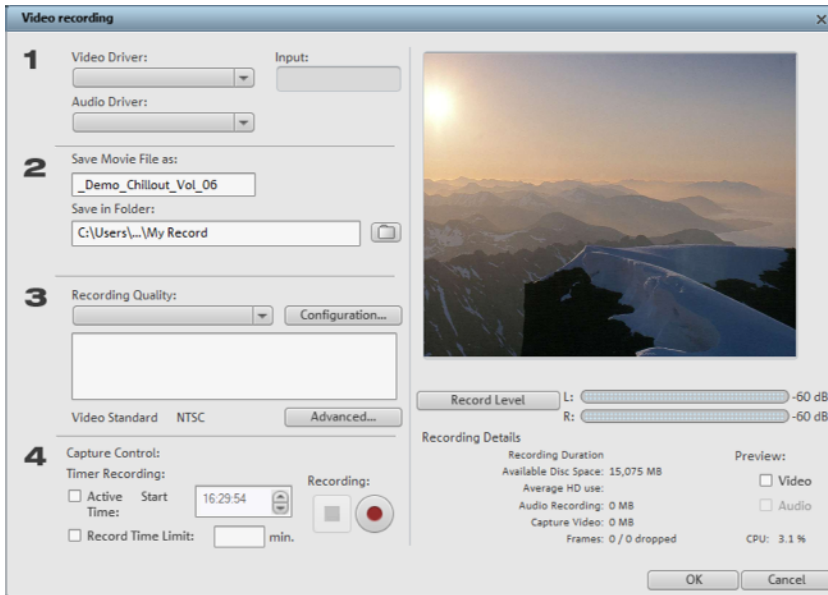
Video/Audio driver: Here you can set up the video card or sound card for recording. In practically every case the driver software supplied with the hardware must be installed.

Save movie file as/Save in folder: Here you can enter the title of the movie you want to record. You can also select the folder where you want to save your video file. This can be changed via "File menu > Properties > Program settings > System > Path settings".

Record quality: You can choose between various predefined recording qualities in the list box according to your computer's processing power and how you wish to use the picture material. They are listed in order of picture quality. Using "**Configuration**" you can fine-tune the quality for the selected preset.

Advanced… – Opens the video driver setting dialog (view page 239).

Record control: Here you'll find the red record and stop buttons. These start and stop recording.

Preview: On some graphics adapters you can reduce the system lead by deactivating the video preview. If you hear an "echo", deactivate the audio preview.

Recording information: Here statistical details on the recording time, the available disk space, the number of recorded "frames" (individual pictures), and "Dropped frames". Dropped frames are frames that have been left out because the computer processor is too slow for the selected image format and cannot accept all incoming frames.

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.

Input: 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

Imagesetting

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.

Video Compression

Compressed video data is typically saved in AVI files. AVI stands for 'Audio and Video Interleaved', i.e. mixed picture and sound. Depending on the compression rate, high data rates will be required – a good video starts at about 2 MB per second, equivalent to compression of about 1:10 as opposed to uncompressed video with 20 MB per second data flow rate. High quality video systems only work with a compression of 3 or 2 – i.e. creating up to 10 MB per second data for video flow. Even uncompressed video can be used. MAGIX Music Maker MX Premium can also process such high-resolution video data completely. Within MAGIX Music Maker MX Premium, video data is processed in uncompressed format – all effects, mixes etc are carried out in the highest quality. It is possible that replay of a project with several videos or realtime effects may 'jump' more than is the case with smaller videos. This does not harm the end result though – video export is calculated frame by frame.

Choppy or uneven playback

Don't panic if the picture on your screen is choppy or uneven. The finished product will look perfect and play smoothly. Don't forget that MAGIX Music Maker MX Premium calculates all effects in real time. This lets you see for yourself what sort of influence each of the effects will have on your video footage. Some effects make even today's high-performance PCs work quite hard, and often, 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 reason, you should first edit the movie in its raw version without effects. The preview generally delivers a steady picture, allowing you to work quickly and quietly. Towards the end, you can add effects to your movies to give them a special touch of Hollywood!

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.

Create a video project for the Internet

Internet video formats such as RealVideo, Windows Media, and Quicktime Movie can be found in the "File > Export arrangement" menu. When selecting one of these options, the current arrangement will be converted into the target format.

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

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

- **Lower data rate:** Internet formats, especially RealVideo, are optimized for the lower data rates used by today's Internet access devices. A dialog appears on export, for setting the playback data rate (i.e. dial-up modem, or high-speed access). If you use Windows Media or Quicktime videos for the Internet, choose a suitable codec and use a small pixel resolution to set up the necessary data rate.

Video export via TV-out

Video and graphics cards with a TV out socket can also export videos directly to external video recorders. The arrangement must be played in full screen mode when saved with external equipment.

Note: With many graphic cards, the tv output can only be activated when a television or video recorder is connected before turning on the computer!

Switch the video monitor to full screen mode with Alt+Enter and start the playback by pressing the space bar.

You can play the video directly from the arrangement. However, it can sometimes lead to errors if the processor becomes overloaded as a result of processing the audio and video effects in real-time.

If direct playback doesn't work without causing errors, export the arrangement to the AVI video and load it into a new arrangement which will then play without any problems.

Occasionally, it is enough to just mix the soundtracks of the arrangement into one. To do this, use the menu command "Edit" > "Audio mixdown".

Automation curves

In addition to object-based effects and the mixer effects for entire tracks/for the entire sound, there is also the option of controlling audio and video effects via freely drawn curves.

There are track curves and object curves. The track curves are saved on the track and influence all objects of the track. The object curves "hang" off the object and can be moved with them. Changes to the object length are adjusted correspondingly.
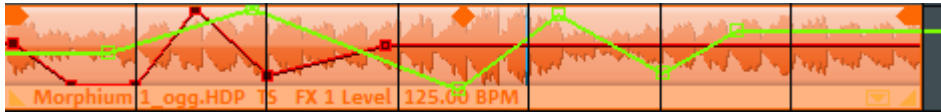
Object featuring FX Level 1 object curve on a track with an active volume curve

Automation curves change a specific value, e.g. the volume value for a track, which is "automated" during playback. This enables you to make your arrangements more exciting, e.g. the volume of several tracks shortly before the refrain may be reduced slightly in order to make the refrain itself more powerful once it appears.

Effects that may be automated

The following effects can be controlled via effect curves:

Audio objects
- **Volume** and **Panorama** are identical to the functions in the mixer, in which case a volume curve is added to the mixer setting and a panorama curve replaces the mixer setting entirely. 0% in the Panorama corresponds with all the way to the left, while 100% is all the way to the right.
- **Softening and sharpening filters** as well as **distortions** are additional effects that are only available for effect curves and that are independent of the filter or distortion effect in the effects rack. This controls the filter's input frequency or the degree of distortion.
- **Effects level 1 and 2** control the effect level sent from the object or track to the two effects tracks (view page 252).

Video, image, and title objects

- **X,Y position:** An X curve value of 50% corresponds to the normal position; at 0%, the video is moved to the left by its own complete width, and at 100% it is moved to the right (it becomes invisible in both cases). Analogous to this, a Y value less than 50% moves the video downwards, and a value more than 50% moves it upwards.
- **Height/Width/Zoom:** 50% corresponds with the original size; 100% corresponds to double size. 0% causes the object to disappear.
- **Rotation**: 50% corresponds to the original orientation, 180° corresponds to the maximum clockwise rotation, and 0% 180° rotates the object counter-clockwise.

Video effects are only available as object effects.

Track automation

 You may also show an automation curve for editing the arrangement in the track's "Effects" menu. In this case, only one automation curve will be displayed; all automation curves are able to affect the track simultaneously.
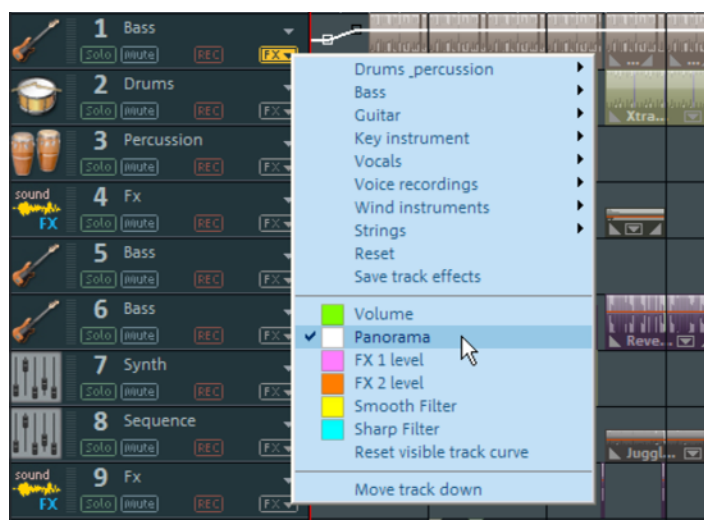
Editing the track curves in the arrangement

In the arranger, only one track curve may be edited per track at a time. The curves can either be edited with the individual handles or by freely drawing the effects curve.

New handle points can be added by double clicking on the curve; existing ones can be deleted by double clicking. All handles can be moved with the mouse in a horizontal and vertical direction.

In Automation (view page 64) mouse mode, the left mouse button may be used to draw a new curve on the track.

Object automation

Object curve effects are selected and edited in the "Dynamic Effects Editor" dialog. Use the "Object automation" command in the "Effects > Automation" menu (Keyboard shortcut: Ctrl + H) to open this feature.
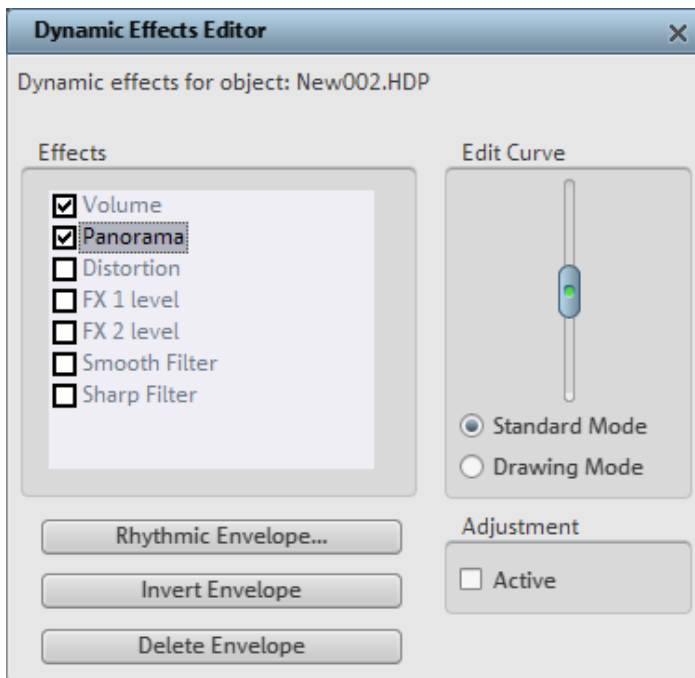
Effects provides a list of all available effects for the selected object. The box before the name allows you to activate the respective curve. To keep things clearly laid out, only one curve at time can be shown for an object. Clicking on the name allows you to select which of the active effects should be shown as a curve in the arrangement.

> Tip: You can select or activate another object and its automation curves without having to close the editor in the meantime.
>
> The volume and panorama curves of an object may also be hidden/shown via "Effects -> Automation".

Delete envelope: Deletes the current effect curve.

Invert envelope: Mirrors the current curve on the 50% horizontal axis, i.e. 0 becomes 100%. For a panorama curve, this would result in the playback side changing.

Rhythmic envelope: This options creates a rhythmic curve either via the generator or (for audio objects) via volume analysis of the object.

Rhythmic envelope

The curve generator will create a beat-based automation curve that pulses according to eighth, quarter, half, or full notes. Enter a minimum and maximum value or define delay values as options for writing the beat-based envelope curve calculation.

The selection dialog allows you to define the shape of the automation curve in more detail:
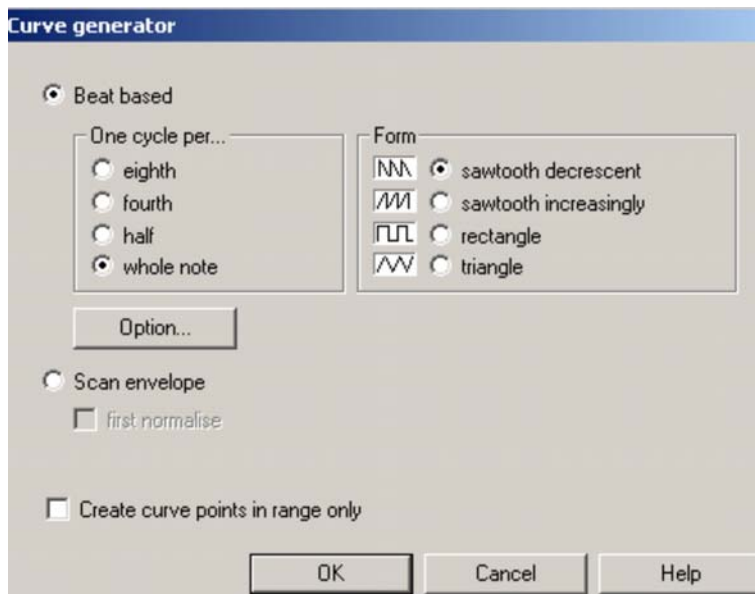
Beat based: This option causes the automation curve to follow the beat of the arrangement.

There are 4 basic patterns available for beat-based automation curves, i.e. 2 sawtooth shapes, rectangle, and triangle. These shapes are regularly run in time with the beat and control the intensity of the activated effect. On the left side of the dialog, you can adjust whether the basic pattern of the automation curve should run once per eighth, quarter, half, or whole note.
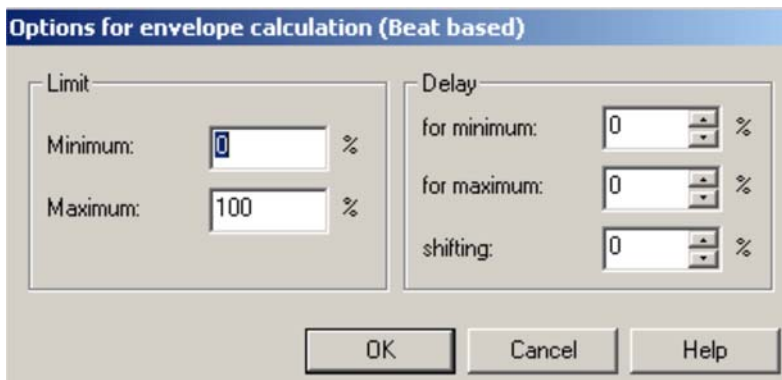
Options: This opens an additional dialog to control the style and intensity of the influence of the beat on the automation curve (see below).

Scan envelope curve: Allows the volume process to be displayed as an automation curve as an alternative to a beat-based automation curve.

Normalize first: This function normalizes the level of the audio object before the object is scanned to create an automation curve.

Curve generator - options for beat-based calculation

Limitation: Determine the minimum and maximum value of the envelope via **Delay Minimum/Maximum** the basic forms can be altered further.

Shifting moves the entire curve. This lets you create interesting off-beat effects.

Editing curves

Standard mode: If the arrangement is not playing, you may create an effects curve point at the position of the start marker and move it vertically. An effects curve may be edited by setting the start marker at different positions and setting the curve value for this point with the slider.

Draw mode: Move the slider in the dialog (when playback is stopped) and a curve will be drawn in the track between the start and end marker accordingly. The duration of the curve drawn corresponds with the object's duration. Automation (view page 66) mouse mode is also activated so that the curve may also be drawn in with the mouse. This also works during playback.

Adjust active: Specifies object curve behavior if the length is changed retroactively. If "Adjust active" is on, then the object curves will be compressed and stretched with the objects, i.e. the curve points are moved correspondingly. For example, if a movement curve is set so that an object is moved across the entire screen, then this is also done in case the length is changed (only slower or faster).

Mixer

MAGIX Music Maker MX Premium includes a real-time mixer with a master effects section that professionally mixes all the tracks within an arrangement. The Mixer can be opened by pressing the "M" key or via the toolbar in the main window (also: "View" menu > "Mixer").

The Mixer displays eight tracks simultaneously by default. With the «/» buttons beside the scroll bars at the bottom, the Mixer can be increased or reduced in size. You can view further tracks using the scroll bar.

The limiter, which prevents overmodulation, can then be connected.

Fader

Every channel has its own volume or brightness fader. As a result, the volume can be lowered quickly and accurately, to add more bass or to fade out a video that is just playing. This fader also acts on any linked MIDI files.

The stereo position for each track can be defined with the Pan controls.

The "Solo" button switches a track to solo mode, i.e. all other tracks are muted. Mute: The mute button mutes the active track.

Double clicking on each of the controls resets it to the passive basic setting, in which no processor output is needed.

Control groups

The volume, panorama, and FX send faders of the various tracks can be compiled into control groups. To do this, first click on a fader and then, while holding down "Ctrl", click on all other faders that you wish to include in your group. If you select "Shift", all faders in between the first one selected and the next one will be grouped.

Now you can set the volume of multiple tracks together without having to change the volume ratios of the tracks. For example, you can set the volume of an individual instrument of a drumset (kick, snare, HighHat) in such a way that they can harmonize with one another. Now, if you group together the volume faders of the tracks, you can set the master volume of the drumset.

To ungroup a fader from a control group, click the instrument and press "Ctrl" again. There may only be one control group active at a time, creating a new group automatically deactivates an existing group.

Track effects

Besides the object audio effects, a separate track effects rack with equalizer, reverb/echo, compressor as well as the Vintage Effects Suite plug-ins can be used.

There is also a separate 4-channel parametric equalizer (view page 204) that may be opened via the small EQ button beside the panorama controller.

The plug-ins are loaded via the plug-in slot.

You can open the track audio effects rack with the FX button.

A bright blue track effects button signifies that effects are active in the track.

The track effects can also be applied without having to open the mixer.

FX▼ The arranger's trackbox (view page 43) also features the track FX menu. In it, you will find presets for track effects (view page 176) sorted according to the instrument type.

Track effects always apply to all audio objects of a track. In comparison to applying an effect to each object individually, this saves storage space. The effect itself works the same way as object effects.

For more information on using and controlling the individual effects, please read the chapter Audio effects (view page 173).

VST and DirectX audio plugins

MAGIX Music Maker MX Premium supports VST and DirectX audio plug-ins. Most of these are effects modules such as reverbs, equalizers and so on, but there are also many software synthesizer modules as well as other types of controller modules. Thanks to their standardized formats, these plug-ins can also be used in the mixer section of MAGIX Music Maker MX Premium.

Before DirectX plug-ins can be used, the DirectX system needs to be installed on your computer. Manual installation is rarely required as most Windows installations include DirectX. If, however, your computer does not have DirectX or just an older version, you can use the up-to-date DirectX installer provided on the MAGIX Music Maker MX Premium installation CD.

Naturally, the DirectX plug-ins themselves also need to be installed before they can be used! Installation procedures may vary from plug-in to plug-in.

Two so-called slots for track effects are located in the channel strip of the mixer for the corresponding track as well as in the FX tracks.

Clicking on the small triangle will let you select an effect from the list. Select "No effect" to remove a plugin from the slot. A left-click temporarily disables the plug-in. Active plug-ins are displayed in light blue. Right-clicking on the slot opens the settings dialog of the plug-in.

FX tracks
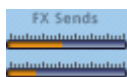
Two FX send controllers (FX1 and FX2) are located below the plugin slots.

You can determine the volume at which you want the signal to be routed to the two available FX tracks.

An FX track is a complete, additional mixer track which provides a complete track FX rack and two plugin slots for use as a send effect.

A send effect differs from a normal effect found in the track (Insert) insofar as it can edit the signals from multiple tracks or objects simultaneously.

The FX are usually hidden in the Mixer. They will be displayed as soon as one of the FX send controllers is used.

In the first FX track the hall function is activated as standard as it is the most important application of the send effects.

The volume controllers serve to regulate the volume of the FX track and corresponds to the old AUX return controller. The mute button is used to switch the FX function on and off. The solo button enables you to single out FX individual tracks. The peak meter of the tracks, which send to the FX track, are displayed in grey.

Live monitoring

Click the speaker button in a mixer channel to activate "low latency" monitoring.

Instead of the objects, the channel now plays the audio signal arriving at the sound card's input – through all the channel's effects and without latency! This also applies to the AUX and master effects.

You can now add effects to your vocal or instrumental performance while recording them, and you can 'jam' along to a complete arrangement in real-time. (Please note that this only works during recording and playback, not while the arrangement is stopped.)

This monitoring method requires an ASIO driver to be installed. ASIO drivers are usually supplied with professional sound cards. For all cards without a

proprietary driver, MAGIX has included a MAGIX Low Latency driver. This provides an ASIO driver for any sound card (or on-board sound chip) that can use WDM drivers. For further information, please refer to the chapter "Menu File – Settings/Information – Playback parameters…"

The MultiMax effect has a high-latency design, which is why it is deactivated during live monitoring.

Master track

The FX button and the plug-in slots function exactly like in the tracks. The FX button will open the Master **Audio Effect Rack**. With the **Reset** button you can reset all Mixer settings including the FX tracks.

MAGIX Mastering Suite: the MAGIX Mastering Suite (view page 203) is opened here.

5.1 Surround: This button switches the Mixer to Surround Mode (view page 257).

Both faders control the total volume.

Link buttons: If you deactivate this, you will be able to control the volume of the right and left channels individually.

5.1 Surround

MAGIX Music Maker MX Premium supports playback in real 5.1 Surround.

Requirements

You will require a sound card or a sound chip which is integrated into the computer's motherboard with six individual outputs to playback the individual channels:

- front left (**L**) / right (**R**)
- centre (**C**) / subwoofer (**LFE**)
- back left (**Ls**) / right (**Rs)**

Surround playback is possible with all audio driver models (see Playback settings), (Wave, DirectSound, ASIO).

DirectSound is supported by most of the standard sound cards.

Wave drivers are similarly supported by many standard sound cards; however, individual sound cards (for example, Soundblaster) require access to DirectSound.

Note: 24-bit surround playback is often not possible, therefore please select 16-bit output.

For surround output with **ASIO** drivers, you will require a 6-channel-capable ASIO driver (e.g. MAGIX Low Latency). Older multi-channel audio cards that activate their stereo output couples via multiple separate drivers are not suitable.

Output of the six output signals is achieved in all driver models in the output channels in the same (standardized) order:

Channels 1/2: L-R
Channels 3/4: C-LFE
Channels 5/6: Ls-Rs

When using WAV or ASIO drivers, the loudspeaker settings normally have to be changed to 5.1 playback in the control panel.

In order to do this you have to start the Control Panel for "Sounds and audio devices" and select "Loudspeaker settings", "Advanced", "5.1 surround loudspeakers".

On most systems the program does this automatically while using DirectSound.

Import and export of surround audio files

Import

Interleaved 6-channel Wave files and MP3 Surround files can be imported. On loading, these can be transformed automatically into 3 stereo Wave files and the corresponding track settings can be activated (First track L/R, second track C/LFE, third track Ls/Rs).

Export

Surround exports can occur in any one of the following formats:

- Interleaved 6-channel Wave files
- MP3 Surround files
- Windows Media files (Windows Media Audio or as a surround soundtrack of a Windows Media Video).

The files created are fully compatible with the normal file formats, this means that they can also be played on computers incapable of playing surround (in normal stereo).

The export can be implemented with the same menu commands (for example, Menu File -> Export arrangement -> Audio as Wave) like the normal stereo export. You will then be asked if the export should be in stereo or surround format.

The Mixer in surround mode

To activate Surround playback, open the mixer ("M" key) and click on the "5.1 Surround" button in the master.

In the master, 6 peak meters for the individual channels are shown. The normal panorama button turns into a representative display of the Surround editor (see below (view page 257)) which can be opened by clicking on the display.

The Surround editor is also available to the FX tracks (see "Mixer"). For example, you can send the original track to the front loudspeaker **L/R**, the FX track however will remain at the rear loudspeakers **Ls/Rs**.

The master volume is applied to all channels, here the left controller influences channels L and Ls, the right controller; channels R and Rs and the middle value of both controller; the channels C and LFE.

The master plug-ins are only applied to the front channels!

In the master FX rack of the MAGIX Mastering Suite, the full effect palette is not available in 5.1 Surround mode, but rather only the compressor and the parametric equalizer (view page 204) (from the Mastering Suite). The settings of these effects have the same effect on all six channels.

5.1 Surround Editor
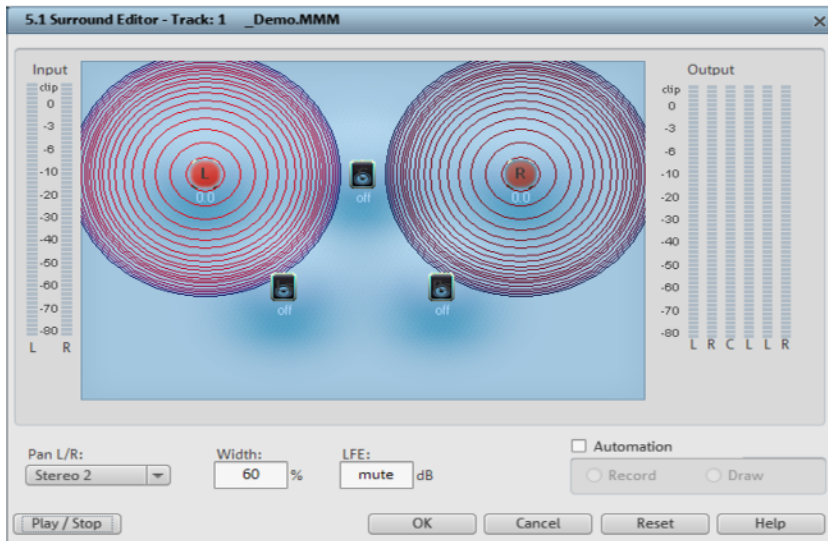
In the 5.1 Surround Editor of the mixer track you can arrange the audio signal of a track (displayed as two red sound sources) in the "imaginary" room. The signal is dispersed to the 5 (blue) loudspeakers which represent the individual surround channels.

There are 6 channels

L: front left

R: front right

C: Center

Ls: back left/left surround

Rs: back right/right surround

LFE Subbass (Low Frequency Effect) channel

Dispersing the signal to the 5 loudspeakers occurs after the so-called sound source emits a sound field of a certain level (displayed as red circles). The further away a loudspeaker's source is, the lesser its share of the corresponding loudspeaker channel. The position of the loudspeaker can be moved with the mouse.

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The subbass share (**LFE**) is set directly from the corresponding value table. It can also be changed with the mouse.

There are various modes in which you can use the source signal:

Mono: The (stereo) source signal is seen as mono material, the left and right channels are mixed together and arranged together. The original stereo information is lost here.

Stereo 1: Similar to mono mode insofar as the left and right channels are moved together, however, only a portion of the left source is audible in the loudspeakers L and Ls and only a portion of the right source in the right channels R and Rs. The stereo information remains as intact as possible.

Stereo 2: The left and right channels can be arranged independently of one another, when moving the left source, the distance between the left and right sources remains unchanged. You can move an individual source by holding down the Alt key.

Center/LFE: Only the left channel is arranged. In return, the LFE share is drawn solely from the right channel. This mode is only of importance to the Import of surround material (view page 255).

"**Width**" determines the level of the sound field of an individual source.

Automation

Panning of the sound source on the loudspeaker can be automated to simulate movements in the room.

For this to happen "Automation" must be activated. There are two methods to create automations: record and draw.

To record (when automation is on), the sound source is moved between the loudspeakers during playback. When recording the automation, the "Record" checkbox lights up red.

An alternative to drawing out complex movements is the draw function. When drawing in active mode, all panner movements are transmitted to the time interval between the start and end marker (when the mouse button is held).

"Reset" deletes surround automation from the track.

There is no automation of the parameters for width and LFE, of the distance between the left and right source in "Stereo 2" mode, or of the loudspeaker positions.

Integrating other programs - Synchronizing and ReWire

MAGIX Music Maker MX Premium enables other programs or external MIDI hardware (e.g. Grooveboxes, hardware sequencers) to be remote controlled via MIDI synchronization or to be controlled by these devices. Synchronization means that both components involved always use exactly the same tempo and operate at the same time position.

ReWire technology makes it possible to play ReWire-capable programs like Propellerheads Reason or Ableton Live in MAGIX Music Maker MX Premium just like a software synthesizer via MIDI objects.

Synchronization

Sometimes MAGIX Music Maker MX Premium is not enough on its own. A friend has a Groovebox and wants to jam...

If two software or hardware sequencers (devices like Grooveboxes or keyboards) are intended to play music together, then it's important to synchronize them.

Why is this necessary
You would have to be pretty skilled to be able to play both programs or devices at the same time - there would most likely be problems with time delays, and as soon as one side pauses or skips forward, chaos is fairly likely the result.

Even when playback is started simultaneously (synchronously), the sequencers can get out of beat over time, since even if tempo is programmed on both sides, this will never truly match 100%. Software sequencers determine the tempo based on time which is derived from the sample rate on the sound card. Theoretically, this has a fixed, predefined value, e.g. 44,100 Hz, but in practice, this value can deviate so that the real tempo is slightly faster or slower than what is displayed.

Therefore, synchronization means that one side constantly receives information about the current time position from the other, and that the position and tempo is corrected correspondingly to result in a match. This includes provision of all transport functions like start stop, or jump to a specific time position.

The side which sends the synchronization information is called the **Master**, and the side which receives the information is called the **Slave**.

For synchronization, a normal MIDI connection is required, i.e. depending on the operational mode, you connect a MIDI output (MIDI OUT) on the computer with the MIDI input (MIDI IN) on the other computer/device for master synchronization or other way around (MIDI input on the computer with the output on the other machine for slave sync).

Activate synchronization in the dialog "Arrangement settings" ("E") under the "Synchronization" tab.

Synchronization settings
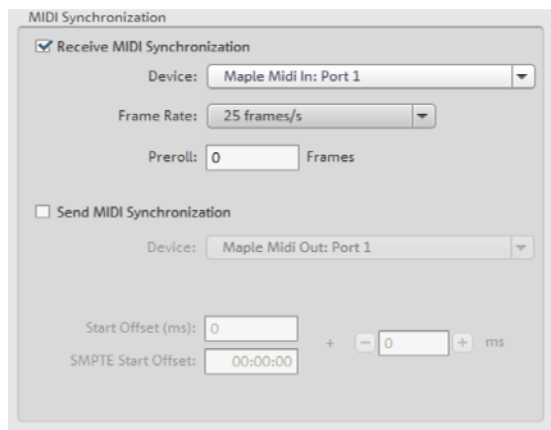
Receive synchronization (slave): Slave sync on. MAGIX Music Maker MX Premium follows the tempo and transport control of the external device/program.

Device: Here you have to select the MIDI input driver via which MAGIX Music Maker MX Premium should receive the MIDI timecode.

Framerate: The master and slave framerates must match. Synchronization with video programs/video hardware matches the framerate of a specific video format, e.g. 24 for cinema, 25 for PAL video audio synchronization, 29.97 drop/no-drop or 30 for NTSC video.

Preroll frames: Here you can enter a frame number that MAGIX Music Maker MX Premium will ignore before synchronization starts. This will ensure that analog devices first require a certain time to reach the correct speed. In order to prevent synchronization of MAGIX Music Maker MX Premium to an invalid time, this can be skipped by means of preroll frames.

Send synchronization (master): Master sync on. The external device/program follows the tempo and transport control in MAGIX Music Maker MX Premium.

Start offset (ms/SMPTE): Specify an offset in milliseconds or SMPTE frames (minutes:seconds:frames) to be deducted from the incoming timecode before the time is used for synchronization. An offset of 60:00:00 (1 hour) will synchronize a tape with an SMPTE code that starts at 1 hour; MAGIX Music Maker MX Premium however still starts at the tape beginning at "0". Vice versa, sending a timecode snaps this value to the current position.

Correction factor: Normally, this value should be at "1" if you don't change it. In seldom cases, synchronization of MIDI and audio can run apart for longer arrangements. You can accelerate the speed of the MIDI playback in this case by slightly increasing this factor (e.g. to 1.000001).

ReWire

If this option is activated, ReWire-compatible client applications (like, for example, Propellerheads Reason) can be integrated into MAGIX Music Maker MX Premium as synthesizers.

Activate the ReWire function in the arrangement properties ("E") under the "Synchronization" tab.

Afterwards, installed ReWire applications can be loaded as instruments into a track. All ReWire client applications appear as individual sections in the selection menu for software instruments in the track box and in the MIDI editor and are loaded as software instruments (VSTi).

Several client applications can be opened automatically by right clicking on their name in the selection menu, just as you can open the plug-ins window for VST instruments by right clicking. ReWire clients which support the direct opening of the client application via the host application (MAGIX Music Maker MX Premium) need to be started manually. You can do this by starting your client application as you would normally. It then automatically recognizes the host and starts in a special client mode. The client application should always be launched after MAGIX Music Maker MX Premium and should be closed before exiting.

The ReWire application can be controlled via MIDI, just like a software instrument. The client application runs, starts, and stops synchronously with the time position in MAGIX Music Maker MX Premium so that you can also use the sequencer in the client application.

The "classic" MIDI channel of MIDI notes and events is not important; it is replaced by the ReWire MIDI bus system. MAGIX Music Maker MX Premium only sends to the ReWire MIDI bus and only supports the ReWire master output-side, not the ReWire audio bus system.

Reprocess arrangement

Export assistant

The export icon on the toolbar (view page 324) opens the export wizard.

This bundles different options for exporting your arrangement in different formats, for burning onto CD, or publishing on the Internet with different platforms.

Export Arrangement   ✕

Please select the desired export option

Export as MP3
Your song on your MP3 player, on your mobile phone and in your MP3 collection.

Burn onto CD or DVD
Archive your song as a backup copy or burn to disc for your CD player (an additional program conducts).

Upload to the MAGIX Online Album
Online access to your songs - from anywhere in the world. (MAGIX Online Album required.)

Publish on Facebook
Your song on Facebook   as a music video clip (Facebook   user account required.)

Publish on YouTube
Your song as a music video on YouTube   . (YouTube user account necessary.)

Send as an Email
Let your friends and family know about your new song. (Requires Microsoft   Outlook   or Microsoft   Outlook Express as standard email software.)

Share with SoundCloud
Your tune on SoundCloud : for easy sharing on Facebook, Twitter etc. (user account required).

Close

Export as MP3: This selection exports the arrangement in the popular MP3 format for use on the Internet or on mobile playback devices (Mp3 players, mobile phones, etc.). For details about the export dialog, please see the chapter concerning the file menu, particularly the "Export (view page 273)" section.

Burn to CD/DVD: This selection exports the arrangement in the best-possible quality and opens an additional program for burning an audio CD. The option is also available to backup the entire arrangement with all involved files onto CD or DVD. See Burn audio CD (view page 271).

Upload to MAGIX Online Album: Uploads the arrangement to MAGIX Online Album. This platform enables friends and acquaintances to experience your work. The MAGIX Online Album online player may also be embedded into any other websites. More information about MAGIX Online Album is available in "Online (view page 282)"

Publish on Facebook: You can send the arrangement directly to your Facebook profile. It will then appear as a post on your wall.

Publish on YouTube: This selection uploads the arrangement as a music video to YouTube. To use video in MAGIX Music Maker MX Premium read the chapter video and image objects (view page 232). More info about YouTube™ export is available in "Export to YouTube (view page 269)" in this chapter.

Send via email: Converts the arrangement into Windows Media and adds it as an attachment to an email. An email program (e.g. Outlook Express) must be installed and setup.

Publish on Soundcloud: The arrangement will be uploaded to Soundcloud. Additional info on innovative music environment can be found in the Upload audio to Soundcloud (view page 270) chapter.

Note: If you only use browser-based email, then this function will not be available. However, you could invite others to listen to your uploaded music via email to your MAGIX Online Album or Youtube™. To do so, you will have to use the functions of the respective website (for MAGIX, this is MAGIX Online Media Manager).

Export as E-Mail attachment

The option "Send arrangement as email" in the "File" > "Export" menu creates a file in the Windows Media format. Your mail program is activated simultaneously and the created file is added as an attachment of an opened message. Thus, any arrangement can be compressed without intermediate steps and sent as an email immediately.

Export as ringtone

With MAGIX Music Maker MX Premium you can produce your own individual ringtone melodies. Once completed, export the arrangement using the "Audio as ringtone" option in the File menu.

In the export dialog you can select various formats for which useful tips and tricks are also available.

Some advice on creating ring tones

Audio material: When designing your ring tone please take into account that the loudspeakers of your mobile phone can only poorly reproduce bass tones. High tones are also heard more easily in a loud environment. If your ring tone includes MIDI Objects, you should activate VST Instruments on the respective tracks in the arrangement, so that MIDI information included in your ring tone becomes audible.

Some manufacturers offer VST effects which simulate the loudspeaker of your mobile phone on the PC.

Length: Typical ring tones have a length of about five to sixty seconds. MAGIX Music Maker MX Premium lets you create longer ring tones; however, you should note that large ring tone files require sufficient memory in your mobile phone.

File format: First, select a format suitable for your mobile phone from the Export dialog. If several formats are possible, please note that the resulting audio quality will vary. In general, the quality increases in tandem with the size of the file. If your mobile does not support stereo audio playback, you can activate the "mono" export option which reduces the required memory space by about half. The size of the file that will be generated using your current settings is displayed in the Export dialog.

Transferring the ringtone to your mobile phone: Depending on the type of mobile phone and the items included in delivery there are several possibilities to transfer your ringtone from the PC to the phone:

1. Wireless via infrared (IrDA) or BlueTooth link
2. Using a data cable and, if applicable, the transfer software supplied by the manufacturer
3. By WAP or MMS

Transfer with Bluetooth

Note: The procedure described here refers to Windows XP with Service Pack 2!
Dialogs may be different depending on the Bluetooth driver and operating system version, or their order may vary (e.g. for password allocation) when transferring to your mobile phone. However, the process is usually similar if other drivers are used. Read more on this in the help files or the corresponding chapters of your operating system's manual and Bluetooth adapter.

- Should you own a Bluetooth device, you can export the movie straight to your device. For this to happen, your device and your PC must both have Bluetooth interfaces. If you system has a Bluetooth device, you can activate the **Transfer via Bluetooth** option
- After converting the movie into the desired format, the Bluetooth file **transfer assistant** opens.
- The first time you try to transfer files to your device via Bluetooth, you have to specify your device as the receiver in the dialog by clicking on the **Browse...** button and selecting your device. The name of your device in the Bluetooth network is specified in the Bluetooth settings of the device. Check your device manual for this. Select your device and confirm your choice by pressing "OK".
- Now enter a password of your choice, which you will later have to confirm on your device and click on the "Continue" button in the assistant. Since connections between multiple Bluetooth devices can be set up simultaneously in a room, the password serves to identify certain connections as well as to safeguard your data.

The order can also be the other way around depending on the Bluetooth device driver, and the device will then request a password which must be confirmed on your computer. It's important that you use the same password in each case.

- You may be asked once again to enter the file name and path of the movie. In this case we recommend, when exporting the file, using a folder that you will be able to find again quickly (for example, "...My Files/My Videos").

- Click on "Browse...".Now, in the assistant, click on the "Continue" button. In the assistant, click on the "Continue" button.
- Next, you may have to activate the reception of files on the device and re-enter the password. Afterwards, the transfer of the videos will begin automatically.
- Once the transfer has been completed successfully, "1 new message" will display on your device. Read more on how to save and play videos in the corresponding device manual.

Note: We only recommend activating data reception via Bluetooth on your device once this function is actually required, for example, for transferring files. Once you have completed the uploading process you should deactivate Bluetooth again, as permanently activated Bluetooth reception can constitute a security risk!

Transfer with Infrared

For devices with infrared interfaces, the transmission of movies works similarly to using the Bluetooth transfer method. To do this, your PC and your device have to have infrared interfaces. Many notebooks are already fitted with such IrDA interfaces.

- Before starting the export, an infrared connection must already be established between the computer and the device. Activate the infrared interface on your device and establish the connection to your computer. You can check if a connection has been established via a corresponding symbol in the task bar. More information on this can be found in the Windows help under the keyword "Wireless connection".

Note: Some devices deactivate the infrared interface when no data is exchanged after a certain amount of time. In this case, you can search for the exported movie in the Media Pool again, reactivate the infrared interface of your device, open the context menu of the file, and then send the video to your device again by clicking "Transfer".

- Open the "Export" dialog via the export button, and under "Play after export", select the option "Export with infrared". Confirm with "OK". A window will now be displayed which informs you of the current status of the transmission.
- Once the transfer has been completed successfully, "1 new message" will display on your device. Read more on how to save and play videos in the corresponding device manual.

Community upload

The menu entries featured under "File" > "Export" >"Community upload" or via the Export assistant allow you to upload the finished song to different web communities.

Export to Facebook

You can export your arrangement from MAGIX Music Maker MX Premium directly to Facebook.

The command opens a dialog where the arrangement name (displayed according to the settings in MAGIX Music Maker MX Premium), a description and search words (tags) can be entered. After confirming this data with "OK", the arrangement will be exported and uploaded to Facebook. For connecting and transmitting the video file, you must login with your Facebook username and password. If you aren't registered on Facebook, first open your browser and create a Facebook account .

After a successful upload, your browser will open to show you your video's info page so you can check the entered data once again. If everything is as you want it, you can leave the page and the new video will now appear in the list of your own videos.

Export to YouTube

You can upload your arrangement to YouTube directly from within MAGIX Music Maker MX Premium.

You can find this function in the menu "File -> Export -> Youtube".

The command opens a dialog where you can set the name of the arrangement for YouTube (default is the same as in MAGIX Music Maker MX Premium), description, keywords (so-called "tags"), and the category for the video. After submitting this data by pressing "OK", the arrangement is exported and uploaded to YouTube. This is why you have to enter your YouTube account access data (username, etc.) to connect to YouTube. If you don't have an account open your browser and go to YouTube to sign up for an account first.

If uploading was successful, your browser will open the info page for the video you just uploaded to YouTube to double check your description and tags. If everything looks correct, just leave this page and the new video is already listed under your videos. YouTube takes some time to process the video for online presentation, but after this period you and every web user around the world will be able to watch it.

Title templates for YouTube

If your arrangement does not contain a proper video, then you can still upload it to YouTube with an attractive still image.

In the Media Pool, under the setting "Templates" you will find the subfolder "YouTube" under the "Title". This contains spezial title templates for use with YouTube videos. These templates feature neutral designs or match the style of the Soundpool (hip hop, rock etc.), and contain standard text for artists, title, album, and comments. These titles also appear throughout the entire length of the arrangement.
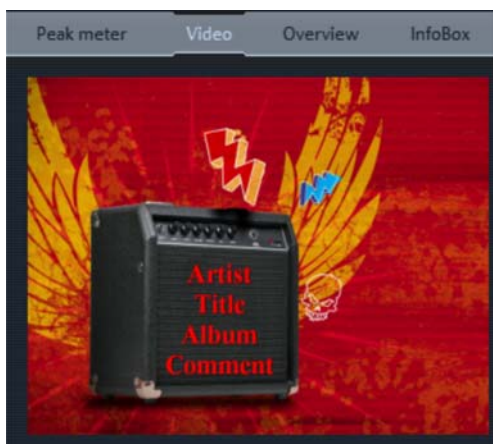
Upload song to Soundcloud

Soundcloud is a community that is especially designed for musicians. The free version provides 120 minutes of storage space for your songs. Every song may be embedded as a player widget into external websites; the widget even allows comments along the timeline of the song and an optional download of the original song.

For more information about the possibilities provided by the Soundcloud community and the different premium accounts see www.soundcloud.com http://www.soundcloud.com.

Additional editing

You can send your arrangement directly into other MAGIX programs for further editing. In the "Mixdown" menu you can find the applications available in Music Maker.

MAGIX Music Maker MX Premium lets you use your arrangement

- as background music in slideshows and videos
- to be added to an existing music collection, for example in MAGIX MP3 deluxe 17
- to be edited with an external editor such as MAGIX Audio Cleaning Lab 17 deluxe

Note: to use this function, the corresponding MAGIX program must be installed. If this is not the case, not all options may be available. You can find out which programs are necessary for each option in the Edit Manu (view page 314) chapter.

Burn audio CD

To burn an Audio CD, export your arrangement as a wave file: Click on "File" and select the "Export arrangement" option > "Audio as Wave/ADPCM". The WAV file created can be burned as an Audio CD with any burn program.

In the Premium version, the burner program <goyaburn> as well as the <Music Editor> are at your disposal. You can load your arrangement into the MAGIX Music Editor with the help of the option from the menu command: "File" > "Export arrangement" > Burn arrangement on audio CD-R(W), and burn an audio CD using this CD mastering tool. Or you can open <goyaburn>, for example, with the help of the context menu in the Media Pool. An MP3 data CD can also be created with <goyaburn>.

File Menu

New arrangement

A new MAGIX Music Maker MX Premium arrangement is created with this menu item, with 16 tracks. More tracks can be added via the menu "Edit".

Shortcut: Ctrl + N

Load arrangement

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

Shortcut: Ctrl + O

Save arrangement

The current arrangement is saved under the existing name. If no name has been selected, then a File requester opens, where the path and name can be defined.

Shortcut: Ctrl + S

Save arrangement as...

A dialog opens where the path and name of the arrangement can be specified.

Shortcut: Ctrl+Shift+S

Import

Import audio CD tracks

You can simply import one or more CD tracks like a regular file from the Media Pool via drag & drop. If this convenient method fails for some reason, then this menu command may be accessed via the CD manager to insert tracks from audio CDs directly into the arrangement. More on this can be found in the section "Importing Audio CDs (view page 80)" in the "Audio objects" chapter.

Shortcut: C

Audio recording

See Audio recording (view page 77).

Shortcut: R

Video recording

See Video recording (view page 237).

Shortcut: G

Export

Common export options

You will find a quick selection of the most common export options here.

Please read more on this in the section Export wizard (view page 264).

Shortcut: X

Burn audio to CD-R(W)

With this option the arrangement will be exported as a WAV file and loaded into an additional program called MAGIX Music Editor. From there it can be burned straight to disc.

Shortcut: Shift + C

Audio export dialog
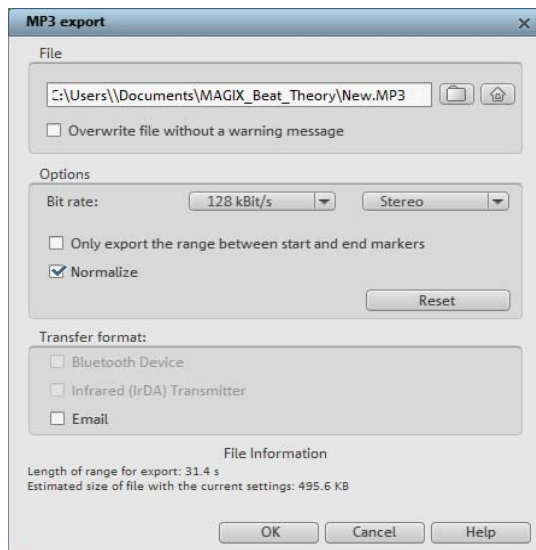
File

In **File** you can enter the file name for you exported file.

Use the folder symbol to select the folder into which you want to export it. The dialog will remember the export path for future exports.

Use the "home" symbol to restore the original preset path.

With "**Overwrite file automatically**" you can perform multiple exports from the same file.

Options

Only export the area between the start and end markers: Set the option if you wish to export only one of the clippings from the arrangement.

Bit rate: The "Bit rate" selection specifies the level of compression: The higher the bit rate, the higher the quality of the exported audio file. On the other hand, the bit rate determines the final file size: The smaller the bit rate, the smaller the files.

Mono/Stereo/5.1 Surround: Most mobile devices have only one loudspeaker. To save on memory, you can export in mono as well. In 5.1 Surround Mode (see Mixer in Surround Mode (view page 256)) you can also export in MP3surround.

Advanced: Here you can open the advanced settings dialog for the corresponding audio format (see below).

Normalize: This function should always be activated. It guarantees that the music is not too loud/overmodulated or too quiet.

Transfer format:

Here you can state whether you want to send he exported arrangement to mobile devices via Bluetooth, infrared or email. Read more in the Reprocess arrangement (view page 263)chapter.

Audio as WAV/ADPCM

The audio material is exported as a standard wave file. This is the conventional format for further use on Windows PCs. These files are not compressed and retain their full sound quality.

Compression (IMA ADPCM): This option compresses the WAV file in to the ADPCM format. This format is needed for playing WAV files on mobile phones. A lot of mobile phones also need a lowered sample rate. (usually 16000 Hz).

Note: You can also export single tracks. TO do so, simply "mute" those tracks that you don't want. Then, only the active tracks will be exported with this function.

Shortcut: Shift + W

Audio as MP3

MAGIX Music Maker MX Premium supplies an optional MP3 encoder for especially fast, top-quality conversions into the popular MP3 audio format.

Hint: The MP3 encoder cannot be used as a codec for audio tracks from AVI audio files.

Transfer format

Here you can specify how you wish to send the audio file to the mobile device. Read more on this under Transferring files (view page 266).

Options

In the "Options" section you can set the format and the compression of the audio file.

Bit rate: The "Bit rate" selection specifies the level of compression: The higher the bit rate, the higher the quality of the exported audio file. On the other hand, the bit rate determines the final file size: The smaller the bit rate, the smaller the files.

Mono/Stereo/5.1 Surround: Most mobile devices have only one loudspeaker. To save memory, you can also export in mono. In 5.1 Surround mode (see Mixer in Surround mode (view page 256)) you can also export in MP3 Surround.

Note: Before you can use the MP3 encoder for MP3 Surround, you will have to activate it first. Activation is fee-based! For more information, read the Activate additional functions (view page 319) chapter.

Normalize: This function should always be activated. It guarantees that the music is not too loud/overmodulated or too quiet.

Shortcut: Shift + M

Audio as Ogg Vorbis

"OGG Vorbis" is a license-free open source audio codec with very good sound characteristics for comparably small files – similar to the MP3 file format.

In the settings under "Advanced" you can still choose from three various encoder modes and bit rate. Set quality. Constant bit rate enables streaming and maximum compatibility; with variable bit rate a better audio quality with the same size files can be achieved.

Shortcut: Shift + O

Audio as Windows Media

Exports the arrangement in Windows Media Audio format. Please read more on the advanced settings in the Windows Media Video Export (view page 280) section.

Shortcut: Shift + E

Audio as AIFF

The audio material is exported as an AIFF file. This is the most commonly used audio format for Apple™ computers.

Shortcut: Shift + I

Audio as FLAC

FLAC is the abbreviation for "Free Lossless Audio Codec". This is a freely savable format that can be used to compress your audio data to 50% of their original size. Unlike lossy compression methods like MP3 or OGG, the full sound quality is kept intact with FLAC.

Shortcut: Shift + F

Video export dialog
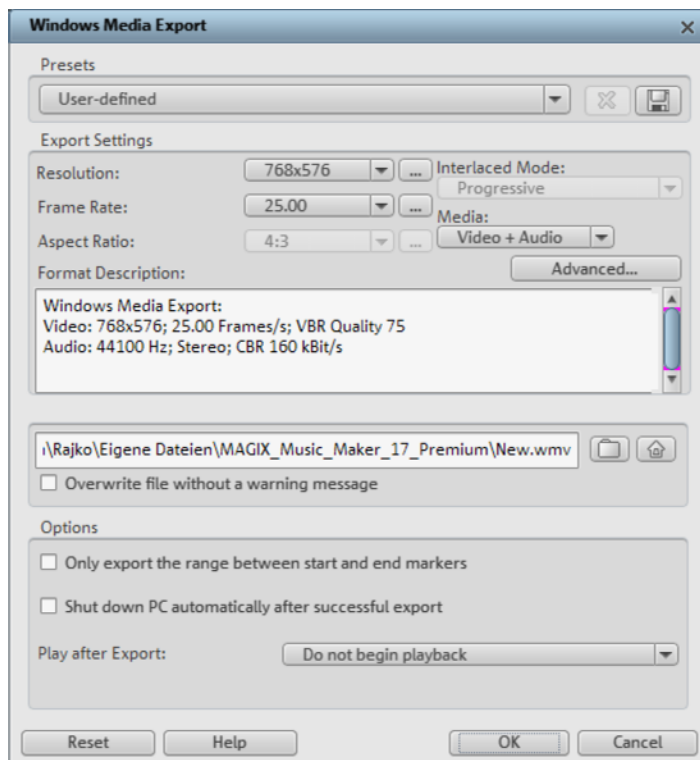
You can export your arranagement into various video formats. The options on offer can vary according to the selected format.

Presets: Under "Presets", you'll find the typical settings for the selected format for the most important applications.

You can save your personal settings by pressing the **"Save"** button and remove them by pressing the **"Delete"** button.

Export settings: You can set up the general export parameters like resolution, page proportions and frame rate in the dialogs. Select the most-used values from the list field, to set your own values click on the "**...**" button. The "**Advanced**" button opens the specific settings dialog for selected video format (see below).

In **File** you can enter the file name for you exported file.

Use the folder symbol to select the folder into which you want to export it. The dialog will remember the export path for future exports.

Use the "home" symbol to restore the original preset path.

With "**Overwrite file automatically**" you can perform multiple exports from the same file.

Options

Shut down PC automatically after successful export: Use this option to have the computer switch off automatically after lengthy export processes.

Only export the area between the start and end markers: Set the option if you wish to export only one of the clippings from the arrangement.

Play after export: Here you can state whether you want to send he exported arrangement to mobile devices via Bluetooth, infrared or email. Read more in the Reprocess arrangement (view page 263)chapter.

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 240, view page 278) in the PDF manual.

Shortcut: Shift + A

General info on AVI videos

The AVI format (**A**udio **V**ideo **I**nterleaved) isn't actually a proper video format! It's rather a so-called container where very general conventions can be specified like audio and video data and sent to a program. The exact memory format of the files is specified via the codec (**coder/dec**oder). A codec compresses audio/video files into its own private format with which only the codec can work and decodes the files on playback again.

This means that an AVI file created on your computer can **only** be loaded/played on computer B if this computer has the same codec installed.

Many codecs (for example, Intel Indeo® video) have now become standard components of the Windows installation, others, such as the popular DivX codec are not. If you create an AVI file with such a codec and you wish to use it other computers, install the corresponding codec on them as well.

On older video editing cards certain codecs that function only with the hardware of the corresponding cards can be problematic. This type of AVI can **only** be used on the computer on which they were created. Avoid using this type of codec when possible.

Video as MAGIX video

Exports the project in MAGIX video format.

This format is used for video recording by MAGIX Music Maker MX Premium video software and is optimized for digitally editing high quality video material.

Shortcut: Shift + X

Video as Quicktime Movie

Exports the movie in Quicktime Movie format. This format enables streaming playback of audio or video files via the Internet.

Like with Real Media Export, you can make corresponding settings for video size, frame rate and codecs for Quicktime export. However, the export dialog doesn't offer the option of saving comments for the video.

Tip: For Quicktime files (*.mov), the Quicktime library must be installed.

Shortcut: Shift +Q

Video as Windows Media

Exports the arrangement in Windows Media format. This is a universal audio/video format from Microsoft. The setting options in the "**Advanced**"dialog are correspondingly complex.

Manual configuration

Audio/Video codec: Various codecs are available, corresponding to the various Windows Media versions (7, 8 or 9). Should compatibility problems arise on playback, try an older codec with a lower version number.

Bitrate mode: Constant and variable bitrates are possible; most devices and streaming applications demand constant bitrate. For VBR two pass modes the movie is compressed in two passes in order to optimally use the bandwidth for highly-compressed movies for the Internet.

Bitrate/quality/audio format: The bitrate determines display and audio quality. The higher this is, the better your videos will look and the larger the files and the required encoding time will be. For variable bit rates, the bit rate is adapted dynamically to the requirements of the corresponding picture or sound material. Either the quality value can be set between 1-100 or, for two-pass encoding, an average or maximum bit rate. For audio, the bit rate is set additionally by the audio format.

Import from system profile (export type): For the most used methods (other than playback on mobile devices,for which you should use the supplied presets), like Internet streaming, etc., Microsoft provides diverse system profiles to choose from. If you have the Windows Media Encoder 9 installed, which is available from Microsoft as a free download, you can edit the profiles or create your own. These can be loaded by pressing the "**Import from profile file**" button.

Go to **Clip info** to insert title, author name, copyright details, and a description.

Shortcut: Shift + V

Single picture as BMP

Exports the picture located at the current start marker and displayed in the video monitor as a bitmap (.BMP) file.

Shortcut: Shift + B

Single picture as JPG

Exports the image located at the current start marker and displayed on the video monitor as a jpeg file.

Shortcut: Shift + J

Backup

Load backup arrangement

Using this command you can load a backup arrangement. Backup arrangements are created automatically by MAGIX Music Maker MX Premium and can be used when, for instance, a program crashes in order to recover the last status of files. This type of automatic backup gets the file extension MM_ (underscore). This command is also useful if you unintentionally saved your change and wish to return to the previous version.

Save arrangement and used media

With this menu point, you can put a complete MAGIX Music Maker MX Premium arrangement, including all used multimedia files into one folder. This is especially useful when you wish to reuse or archive such an arrangement later on or when the files can be found on multiple CDs so that on loading you continually have to change CDs. Furthermore, the effect files used are saved in one folder with the other files.

A dialog opens where you can specify the path and name of the arrangement.

Shortcut: Ctrl + Alt + S

Save arrangement and used media (audio as OGG Vorbis)

You can create a backup copy as an OGG file, whereby all audio files used will be compressed into OGG format. This way you can compactly archive your song or put it on the web as a remix kit.

Shortcut: Ctrl + Shift + C

Burn arrangement and used media onto CD/DVD-R(W)

Use this option to burn the arrangement as well as all the relevant files to CD or DVD.

Even larger arrangements can be burned straight to disc. The arrangement, if necessary, will then 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.

Shortcut: Ctrl + B

Burn manually selected files to CD/DVD-R (W)

Opens MAGIX Speed burnR to burn videos or other files onto CD/DVD. File selection is done via drag & drop from <goyaburn>'s Explorer.

Shortcut: Ctrl + Alt + B

Internet

MAGIX Online Album

In the MAGIX Online Album, you can post your favorite photos online and then send the link to your friends. 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 photo 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 custom designed e-cards with your own photos.
- Share your photos with friends, including Internet management and password access to private albums.

Your photos online

MAGIX Online Album is available in three versions, of which the smallest (the FREE album with 500MB 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, 2,000 MB or 5,000 MB storage space, more website designs or access by mobile phone/PDA.

More information about prices and included services is available at
www.magix-photos.com.

Just three easy steps: Within minutes your first pictures will appear on the
Internet:

1. Select photos

Choose your favorite photos directly from the program and optimize them in
just a few clicks. Put completed photo albums together and integrate music of
your choice.

Do it all offline on your PC - saves you money! Then select "Services" from the
program's menu bar "MAGIX Online Print Service -> Send selected".

2. Upload photos

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 access, click on **Register now!** to activate your own
album in just a few minutes. Then off you go!

3. Done! Your own personal photo website is finished

and your best photo memories are on the net. As a photo gallery or fully
automatic slideshow (fullscreen).

Now, invite all your friends with just one click or show your photos on the road
using your WAP-compatible camera phone.

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. All **online** without even having to download any
extra software! Worldwide, easy, and quick in just a few clicks. At
http://www.magix-photos.com

The following options are also available:

Send e-cards and photo emails

Send your photos as unique e-cards with great designs, or as a photo email to
your friends and acquaintances.

Order photo prints and gifts

Order paper prints or great photo gifts from your 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.

Upload current arrangement as MP3...

Converts your arrangement's audio track into an MP3 file and uploads it to your personal MAGIX Online Album.

Download media

This command loads files from MAGIX Online Album to your PC.

Open my online album...

This command opens your own MAGIX Online website. You must login and enter the page's Internet address (URL) to continue.

MAGIX Website Maker

Not only is Internet surfing easy! Thanks to MAGIX Website Maker creating websites also becomes child's play!

This service offers:

- Your desired domain (www.desiredname.com) and a subdomain (http://your-name.magix.net/website).
- 250 MB memory space with 5 email accounts, 1 GB each.
- Website Maker with website templates, intros. Also animations, text effects, form and design objects, picture and graphic templates, and buttons. And everything without any ad banners!
- Photo (*.jpeg), video (*.wmv) & music (*.mp3) options.
- Additional software: MAGIX web mail for managing your email inbox.

MAGIX Website Maker offers 3 months of free, non-binding service. This way, you have enough time to find out everything about MAGIX Website Maker and all existing possibilities for editing and managing your homepage.

MAGIX Website Maker offers everything for the perfect Flash website:

- **Design templates:** Numerous high-quality website templates in the latest professional Flash® design with pre-finished, customizable subpages, start pages, profile pages, photo pages, video pages, and much more.
- **Text & text effects:** Freely positionable text fields with fantastic fonts and animated text effects can be added and individually formatted with ease.
- **Multimedia content:** Select your favorite photos, spectacular slideshows, videos and an online video player with your own background music, or integrate it all as an online music player with playlists.
- **Decorative elements:** Attractive design objects, plenty of vector shapes, background images, buttons, and much more offer more possibilities for designing unique websites than ever.
- **Animation objects:** Large selection of dynamic, impressive animation objects for breathtaking, moving websites.
- **Links:** Easily add links to your own or external websites.
- **Top extras:** Enhance your website with a visitor counter, guest book, contact form, and many other useful extras.
  Export function: Conveniently add individual components of your website (e.g. video player, slideshow, online music player) or even the entire website to external sites as an embedded website.

Proceed as follows:

After registering your desired domain, you can start creating your website right away.

1. First, select a design for your website in MAGIX Website Maker
2. If you would like to place an intro (start animation) at the start of your domain, select your intro as a next step.
3. Now you can replace the mock text with your own text as you see fit. All free-standing elements on all webpages can also be moved as you please. To do so, click to select the element and move it using your mouse.
4. Once everything is just how you want it, you can put your page online, so that your domain can be accessed.

Catooh – the Online Content Library

Catooh provides you with high-quality photos, videos, and music for every theme, expanded by intelligent iContent with professional Soundpools, DVD menu templates, and brilliant MAGIX ShowMaker styles to help you make your photo, video, and music projects reality. All of this is available directly from your MAGIX software.

Just choose "Online" from the menu "Catooh" to set up an Internet connection.

Browse through the thematically sorted categories or view the results directly by entering a keyword. After downloading, you can drag the objects from the Media Pool directly into your arrangement.

Tip: Read the introduction online http://rdir.magix.net/?page=JRF6LASAR2Z3!

Import media backup

iContent (for example, 3D transitions) which you buy and download from Catooh is stored directly in your central **My files\MAGIX Downloads\Backup** directory. If you have downloaded these files from other MAGIX programs, then you can use the command "Import media backup" to make them accessible for use in MAGIX Music Maker MX Premium.

Find media

Opens Catooh and loads your files directly into the arrangement.

Shortcut: O

Manage login details

These are options for managing user names (email addresses) and the associated passwords so that you are able to access your Online Services without having to enter the details each time.

This information applies to all of my Online Services: If this option is activated, then the account details you have entered will be applied to all Online Services. Deactivate this option if you have different details for individual services, then choose the corresponding service via "Select service and enter the associated login details.

Settings

Arrangement settings

In this dialog, the general properties of the arrangement can be set. Statistical information about the arrangement is also displayed.

Shortcut: E

Properties

Name: Here you can enter the name of the current arrangement.

Universal arrangement settings
Path: This is where you determine the folder on your hard drive in which your arrangement is saved.
Number of tracks: Here you can set the number of tracks you wish to use.
Audio sample rate: The sample rate determines the pitch and the speed at which audio objects are played back. The sample rate you can use depends on your sound card (some sound cards even permit changing the sample rate during playback). The sample rate you can use depends on your sound card (some sound cards even permit changing the sample rate during playback). If you halve the sample rate, wave audio objects are played one octave lower.
Type of beat: Several types of bars are available to choose from, for example ¾ beat. With various grid settings you can also set additional beat types. For example, with a set 3/4 beat and a 1/8 note grid a 6/8 beat would be the result.
Video resolution: Here you can specify the presets for the video resolution used and the video format.
Use as presets for new projects: The settings specified in the dialog are used as the standard settings for newly created projects.

Synchronization settings/ReWire

Options for Synchronization (view page 261) and ReWire (view page 262) support.

Information

Name/Path: See above
Created on: Displays the time the arrangement was created.
Last changes: Displays the time when last saved.
Number of used objects: Displays the number of all objects in the arrangement.

Used files: Here the names and paths to all multimedia files used in the arrangement are shown.

Program settings

Here you can set MAGIX Music Maker MX Premium according to your needs and wishes.

Shortcut: P

General options

Autoscroll: If autoscroll is activated, the screen view automatically shifts when the playback marker reaches the right edge of the screen, which is particularly useful for longer arrangements. 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.

Simplified Object Display: This lets you switch between various object views. Here video objects are displayed in the tracks either with detailed preview frames or in simplified form. Audio objects are displayed either with one or two separate wave form displays for stereo.

Shortcut: Ctrl + Alt + Z

Automatic saving of backup arrangements: Here you can the time intervals at which automatic backup arrangements will be saved.

Soundpool

Hide unavailable loops: All Soundpools are saved into a database automatically. The Media Pool lists all loops saved in the database, i.e. also those which originate from external media (Soundpool discs) that may not be in the drive at the moment. These results can be hidden, but this slows down the search results in the Media Pool.

Hide instruments which are left empty in the style selection: Instrument groups for which there are no loops present in a certain style are completely hidden in the Media Pool (instead of being grayed out).

Clean up Soundpool: Every detected Soundpool (on CD/DVD or on the hard drive) is added to the database and displayed there, even if the corresponding medium is currently not in the drive or if the Soundpool has been deleted or moved. This option helps to remove these entries in the database.

Reset Soundpool: Deletes the Soundpool database. You have the option of maintaining the included and installed factory-provided Soundpool in the database.

Hide advanced tooltips: The additional information for the detected loops in the Media Pool will be hidden.

Instruction dialogs: In its newly installed state, MAGIX Music Maker MX Premium displays a number of security queries at various parts of the program. Every one 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 "**Reactivate dialogs**" option.

Program interface

Darken screen when dialogs are opened: Darkening signals modal dialogs which need to be closed before the rest of the program can be operated. This can be deactivated if it disturbs you.

Hide news: This option deactivates the MAGIX News Center in the main interface of MAGIX Music Maker MX Premium.

Import

Preview samples (Wav, OGG): Preview Wave files while playing the arrangement: Here you can switch off the preview when a playback is running (Smart preview).

Adapt waves automatically to the BPM: When loading to the arrangement or previewing, MAGIX Music Maker MX Premium tries to adapt the samples to the speed of the arrangement. This always works properly with newer MAGIX soundpool samples as the tempo information is saved in the wave file. It usually works with all other loops as well, provided the loops are clean, that is, they are cut to entire bar lengths (see the Arranger chapter).

With "For patched samples only", automatic timestretching can be deactivated for all other samples. With "Apply to longer samples as well", longer samples will also be adapted if they contain tempo and bar information provided by the Remix Agent.

Remix Agent for the tempo and beat recognition of longer samples (>15 s): Here you can deactivate the automatic opening of the Remix Agent for longer samples (for example, CD tracks or MP3s).

Automatically adjust waves to pitch: A wave's pitch can be adjusted automatically using pitchshifting. For this to work however, the used samples (much like the samples on the MAGIX soundpool CDs) must have the corresponding key and pitch information. The pitch of the arrangement will then correspond to the pitch information of the first sample in the arrangement.

Use destructive adjustment for shorter samples: Usually, loaded samples are adapted to the arrangement in realtime with timestretching. For computers with lower processing power, this method can be deactivated – the timestretching effect will then be calculated into a new file which is copied to the hard disk.

Import CD tracks analog instead of digitally: If this option is activated, you can record audio CDs via the record button in the transport control. Read more on this in the "Recording audio CDs" section in the "Audio objects" chapter. (view page 84)

Automatically open MIDI editor during import of MIDI files: The MIDI Editor will automatically open after the loading of MIDI files, allowing you to make changes to channel and instrument assignment and other settings.

Start file preview in Media Pool for...: Here you can deselect automatic file preview start for Media Pool files and certain file types.

Import formats: You can deselect file formats that you never use, and these will no longer be imported. Please keep in mind that for some file types (AVI, WMA) several import modules exist, and MAGIX Music Maker MX Premium uses the fastest one in each case. If you experience problems during the import of certain files, you can experiment with deactivation of certain import modules, forcing the program to use the slower, but more compatible import module.

Audio

Wave output device: This option specifies which sound card or output the wave audio objects play and which drivers should be used.

Advanced: Use these buttons to access the playback options window which provides information on the current sound card. ASIO provides the settings dialog for the ASIO driver, e.g. the MAGIX Low Latency ASIO driver.

Wave/Direct Sound/ASIO: Specifies which of the conventional Windows wave drivers should be used for the sound card, i.e. the DirectSound system or ASIO.

Windows **wave** drivers have the advantage of being relatively stable against strained peaks caused by large buffers. If playback becomes jerky as a result of processor-heavy effects like time-stretching, switching to wave drivers may solve the problem. Otherwise the system may react more slowly with wave drivers because of the large buffers, that is, all changes are heard with a delay.

16/24-bit wave/driver communication: If your sound card is able to play 24-bit audio, your arrangement will be played at this higher resolution (internal 32-bit float calculation). This is applicable only to wave drivers.

When using live monitoring and when playing and recording VST instruments in real time, i.e. with as low a reaction time (latency) as possible, it's recommended that you use **ASIO** drivers. If your sound cards do not have ASIO drivers, you can use the MAGIX Low Latency driver.

If you select ASIO as the driver model, you can set the output in the upper list field (for cards with multiple outputs) and the ASIO driver in the lower list field. Advanced opens the settings dialog of the ASIO driver. Please refer to the sound card manual for more information.

Audio buffer: 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.

As a rule of thumb: If response and loading times are too slow, reduce the buffer size; otherwise increase the buffer size if the audio playback is choppy or if real-time effect computation errors occur.

As error-free playback is usually more important than fast reaction times, the buffer size should be raised to 16384 or 32768 if dropouts occur.

MIDI
Output device: Without using software instruments and to preview a MIDI file in the Media Pool MAGIX Music Maker MX Premium uses the external MIDI device. Here "Microsoft CD Wavetable SW synth", a standard software synthesizer included in Windows® as an OS component, should be set as default. If sound cards with their own synthesizer are used or in case MIDI hardware synthesizers are connected, the MIDI driver of the sound card or a MIDI interface should be set!

FX: If MIDI playback is too fast or lagging behind, you can enter a speed correction factor here.

Input device: Lets you select the MIDI drivers for MIDI recording, i.e. the drivers for the MIDI device which you have connected your MIDI or USB keyboard.

Use MIDI target channel: The MIDI system offers 16 different channels to control 16 different sounds. Normally, MAGIX Music Maker MX Premium receives MIDI notes on all channels simultaneously. With this option, you can select a specific channel. Next you have to set the desired sound together with the MIDI channel on the device and select the MIDI recording options on this channel.

Synthesizer latency: Some synthesizers, especially software synthesizers like VST instruments, create delay during playing, i.e. playback of the sound is delayed when the button is pressed. This value lets you even this out, causing all notes to be moved over by a certain temporal value.

Integrate MIDI keyboard with Live Performer: The MIDI keyboard can be used to remotely control the Live Performer (only in Premium version); see Live Performer MIDI assignment (view page 172).

Options
Create "Undo" before destructive editing of audio data: To undo destructive effects, the original files must be saved to the hard disk. If you use this type of effect quite often, you can switch off the undo function and save on time used to create an undo file as well as save space in memory.

Write real-time audio to wave file: If this option is activated, the entire arrangement can be mixed live and recorded simultaneously. During playback you can, for example, control mixer fades and effects or, with the help of keyboard shortcuts, you can play the beats in the arrangement – all activities will be recorded and written to a separate wave file. – All real-time activities are recorded and saved in a separate WAV file. Every time playback stops you will be asked if the portion you just played should be saved as a wave file, loaded into the arrangement, or deleted.

Video

Video standard: PAL is used in Europe, the US and Japan use NTSC. This setting should not be changed.

Video display: The resolutions that can be set here concern only the picture display of DV videos in the Arranger. If playback becomes jerky, we recommend entering a lower value. The quality of exported videos is not influenced by this.

Extract sound from videos during import: If a video contains audio data as well, you can use this function to extract the audio track from the video. It will be loaded directly underneath the video track and grouped together with it. If you ungroup them (in Edit menu), you can edit the sound as an independent object.

Automatically adjust videos to BPM during import: With the available BPM information you can automatically create a video in which the rhythm and order of pictures are synchronized. This does not play all frames of a video, but some are excluded according to the BPM setting on frame playback. The video appears faster at a higher BPM setting; it "dances" to the rhythm. The tempo can be set before every new arrangement in the transport control. Otherwise, the arrangement applies the BPM tempo of the first sample that is loaded.

Adjust minor deviations from 04:03 aspect ratio during export: This option automatically customizes photos that have an approximate 04:03 aspect ratio to 04:03 TV screen format. The pictures are therefore easily stretched or compressed. This inevitably brings about distortions in the picture. If this option is deactivated, black bars appear along the sides.

Automatically preview exported clips: This option starts the clip immediately after exporting for verification.

Automatically copy exported material to clipboard: This option is particularly useful when used with other programs, such as Microsoft PowerPoint. If switched on, the created multimedia file will be available straight after being inserted.

Video priority: Usually, audio objects have priority over playback. Here, an overloading of the computer as a result of too many effects can bring about jerky video playback while the audio continues to play without any problems.

To change this, you can give the video playback precedence over the audio. Video playback is then renewed after every audio buffer, which may lead to interruptions in the sound.

Folders

Here you can set the path where

- arrangements will be saved (**Arrangements**)
- files are exported (**Export**) or imported (**Import**), and recordings (**Recordings**) are saved,
- files from the Soundpool are loacted (**Soundpool**)
- your MP3 collection is available (**My MP3s**)

Edit keyboard shortcut

Opens the dialog for editing shortcuts used in MAGIX Music Maker MX Premium.

Shortcut: U

Reset Program Settings to Default...

Use this function to reset all program settings (view page 288, view page 286) you made in MAGIX Music Maker MX Premium to their original settings.

Exit

Exits MAGIX Music Maker MX Premium.

Shortcut: Alt+F4

Edit Menu

Undo

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

Shortcut: Ctrl + Z

Redo

Redo lets you reverse the last Undo command.

Shortcut: Ctrl + Y

Object

Create a new object

Record a new object

A new audio object is recorded; see Audio recording.

Shortcut: R

Create a new MIDI object

This function creates a new MIDI object in the current track. After invoking the function, a pop-up menu opens in which you can choose between an empty MIDI object or several standard templates.

Shortcut: Ctrl + Alt + N

Text to speech

Please refer to the Audio objects (view page 96) chapter.

Shortcut: Ctrl + Shift + T

Record a new object

A new video object is recorded; see Video recording (view page 237)

Shortcut: G

Create a new title object

Creates a new title object and opens the title editor (view page 235).

Shortcut: Alt + Shift+ T

Cut

The marked objects are cut out of the current arrangement and placed onto the clipboard. They can then be inserted at different positions.

Shortcut: Ctrl + X

Copy Objects

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

Shortcut: Ctrl + C

Duplicate objects

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

Shortcut: Ctrl + D

Paste

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

The playback marker is positioned at the end of the most recently inserted object so that the quick and easy multiple use of the command is also possible. Existing objects now become overwritten.

Shortcut: Ctrl + V

Multiple insertions

Like Insert, but you can stipulate how often the content of the clipboard is to be inserted.

Shortcut: Ctrl + Num "+"

Deleting objects

Objects selected from the current arrangement will be deleted.

Shortcut: Del

Split objects

You can cut up a selected object at the S marker position. If you have not selected an object, all objects will be cut into pieces at the S marker position.

Later on, if you want to re-join the pieces of an object, select "Build group" to join all selected objects to a group.

Shortcut: T

Save objects as takes

The selected objects are saved in the takes directory. To use takes, please read the chapter ""Saving objects separately" (view page 72).

Shortcut: Alt + Shift + S

Grouping

Group objects

Orders all selected objects into groups. As soon as an object is selected in the group, all objects in the group become highlighted so that you can work on them collectively.

Shortcut: Ctrl + G

Ungroup objects

Any selected objects that are part of an object group will become independent objects again in this case.

Shortcut: Ctrl + U

Loop range

Set user-defined loop

Normally an object is always looped over the full length of the underlying data material (audio or video file). To set a clip from a file as a loop, shorten the object at the front and the back with the handles and choose the menu option **"Edit > Object > Loop range > Insert user-defined loop"**. This function is very useful for setting your own recording as a loop, as the silence at the beginning of a recording can be cut away.

Remove user-defined loop

The user-defined loop length is reset.

Object properties

This function displays all the information about the currently selected objects such as file name, position on the hard-drive, tempo, etc.

More information is available under Object properties.

Shortcut: Ctrl + P

Track

Add track

A new empty track will be added to the arranger. In the "File > Arrangement properties" the count of tracks can be set in large increments.

Shortcut: Ctrl + I

Mixdown audio...

This function can combine the arrangement or segments of the arrangement into a single audio/video object. Please refer to the "Track mixdown" (view page 73) section in the "Arrange objects" chapter.

Tip: To create the finished end version of the song or video, it is recommended you select the "Export arrangement" function in the "File" menu instead of the "Mixdown" function.

Shortcut: Ctrl+Shift+G

Range

MAGIX Music Maker MX Premium provides object-based functions as well as "band-oriented" editing functions. These always refer to the whole arrangement from the first to the last track as well as to the area between the start and end marker.

Cut range

The section between the in and out points is cut from the current arrangement and placed on the clipboard. This section can be reinserted elsewhere.

Shortcut: Ctrl + Alt + X

Copy range

The section between the in and out points is copied from the current arrangement to the clipboard. This section can be reinserted elsewhere.

Shortcut: Ctrl + Alt + X

Insert range

The contents of the clipboard are inserted at the current arrangement's position of the in point.

Shortcut: Ctrl + Alt + V

Insert segment multiple times

Similar in function to "Insert", but you can stipulate how often the content of the clipboard is to be inserted.

Shortcut: Ctrl + Alt + Number key

Delete range

The section between the in and out points is deleted from the current arrangement and not copied to the clipboard.

Shortcut: Ctrl + Del

Extract range

The section between the in and out points is preserved, and all of the material in front and behind it are deleted. Use this option to isolate a specific part of an arrangement for further individual editing.

Shortcut: Ctrl + Alt + E

Navigation

Move screen view

Using these commands, a viewable portion together with the start marker will be moved in the timeline. You can quickly skip between different jump markers and object edges.

Shortcuts: See keyboard shortcut overview in the Arranger View (view page 329) section.

Move playback position

This sets the playback marker to the position of a jump marker. This function can best be used via the keyboard.

When stopped, you can immediately move the playback markers to the position of the saved jump markers. During playback, the playback marker along with the playback range will be moved. Here, the old range is always played until the end so that you can remix your arrangement live once the jump markers have been placed where you want them without losing the beat.

Shortcuts: 1..0

Set jump marker

This sets a jump marker at the position of the current playback marker. Here you can note specific parts of the arrangement. With the "Move playback position" function you can quickly jump to these positions.

Shortcut: Shift + 1...0

Create jump marker sequence

This option duplicates the currently selected playback area between the start and end markers by setting start markers equivalent to one another in the bar ruler. Now you can jump to every jump marker using keyboard shortcuts.

Shortcut: Ctrl+Shift+M

Delete all jump markers

Deletes all jump markers

Shortcut: Alt+Shift+M

Select all objects

All objects in the arrangement will be selected.

Shortcut: Ctrl + A

Menu effects

Object automation / Track automation

The dialog Dynamic effects editor (view page 245) for object automation or track parameters is shown. A parameter can be selected and edited in Automation mouse mode (view page 64).

More about automation in the chapter Automation curves (view page 242).

Shortcut: Ctrl + H

Song Maker

With the help of Song Maker, you can automatically arrange multiple audio objects (loops) using included samples for songs or song parts without having to drag them individually from the Media Pool into the corresponding tracks.

1. Activate the Song Maker by pressing the "Song Maker" button or from the Effects menu.
2. Select a music style.
3. Select the instruments that you want to use. If, for example, you only want a rhythm section with drums and bass, deactivate the other instruments with a mouse-click.
4. Select the song part or parts that you want to create. The parts differentiate through their harmonic structure and instrument density, for example verses have fewer instruments than refrains, while there are accompaniment variations between the 1st and 2nd verses as well as in the refrains. The pitch sequence from verse to verse remains the same. If you activate all parts, Song Maker creates a complete song in the known structure of a classical pop song. The intro-verse-refrain-verse-refrain-bridge-(transition or solo)-refrain-outro.
5. Use the sliders to the right to set the speed and the length of your song.
6. "Chaos" draws a different loop of the corresponding instrument for each new object. Normally, the same loop is continuously used in various pitches for each element of the song such as verse, chorus etc.b If you use "Automatic", a new song in a randomly generated style will be created automatically, as soon as a song has been played.

7. Use the play button to preview the song maker's suggestion. If you do not like the result, create other arrangements, song parts or enhancements. You can return to a previous status anytime by clicking on "Undo" or "Redo".
8. Once you're happy with Song Maker's suggestion, click on "Apply". The building blocks are only now added to the Arranger. Alternatively, you can recalculate the Song Maker suggestion into a WAV file. A click on "Cancel" closes Song Maker and returns to the original arrangement status.

Shortcut: W

Audio

Please read the chapter "Audio effects (view page 173)" for more details on audio effects.

Master audio effect rack

Opens or closes the master effects rack; you can also use the "Master FX" button in the mixer window for this.

Shortcut: B

Mastering Suite

You can open the MAGIX Mastering Suite (view page 203) with this option.

Shortcut: N

Text to speech

Please refer to the Audio objects (view page 96) chapter.

Shortcut: Ctrl + Shift + T

Object effect rack

See Object and master effects rack (view page 178).

Shortcut: E

Audio effects

This submenu includes all audio object effects plus the vintage effects and the effects from the MAGIX Mastering Suite (Premium version only); the latter can be used individually.

Individual effects can be found in the chapter "Audio effects (view page 173)".

Volume

An assortment of different menu commands which influence the volume of your audio objects.

Mute/Unmute objects

With this command you can mute one or more selected objects. Selecting this command again makes it audible once again.

Shortcut: Ctrl + M

Set volume

This function, located in both the effects menu and the context menu, controls the sound volume for individual objects, just like the object handles in the arranger.

Automatic volume damping

This command automatically dampens the volume of other audio objects. This can be used to insert voiceovers into your arrangement or add commentary to a film (with the original sound). You can also specify whether you want to dampen the original sound of existing videos or all soundtracks equally.

In the dialog you can activate and deactivate the value of the dampening.

You can use this command while recording audio (view page 79) (Audio recording, advanced options).

Shortcut: Ctrl+Shift+D

Normalize

The function "Normalize" raises the level of an audio object to the maximum possible level without clipping the material. This searches for the largest signal peak in the audio material and raises the level of the object so that this position matches exactly 0 dB (maximum overdrive).

Shortcut: Alt + N

Tempo and pitch

An assortment of different menu commands which influence the pitch and tempo of your audio objects.

MIDI transposition

This command is only available for MIDI objects. It increases/decreases the pitch of a MIDI object's notes by a specific value (in semitones). Use this function, for example, to adjust the sound of imported MIDI files to other audio objects. This is more effective than repositioning audio objects (pitchshifting), since this can diminish the sound; transposition does not diminish the quality of MIDI objects because they are produced by the synthesizer.

Shortcut: Ctrl + T

Timestretch and pitchshift

See Timestretch/pitchshift.

Shortcut: Shift + P

Harmony Agent

The Harmony Agent is designed to analyze harmonies.

Read more on this in the corresponding section of the "Audio Objects (view page 95)" chapter.

Shortcut: H

One pitch higher/lower

You can quickly alter the octave of an included sample without having to access the corresponding Soundpool folder in the Media Pool.

The "*" and "÷" keys on the numeric keypad (right on the keyboard) place the sample one level higher or lower.

The "+" and "-" keys on the numeric keypad change the pitch via pitchshifting; the respective effect in the audio effects rack is utilized for this.

Set pitch

Use this command (only in the Soundpool sample's context menu) to quickly change the pitch of the selected object (if present). This also functions when working with multiple selection. Simply select all the objects which are under one another and select a new pitch to create variations in the arrangement.

Remix

These are the commands for MAGIX Music Maker MX Premium's remix functions.

Create Remix objects

If, while running the Remix Agent, the tempo and beat information were saved to the audio file, this command can be used to create remix objects. If the Remix Agent has not yet been implemented, this command starts it and opens the presets dialog for creating remix objects.

Shortcut: Ctrl + J

Remix Maker

With the Remix Maker, automatic remixes can be created from Remix Agent loop objects.

Shortcut: Shift + K

Tempo & beat recognition

MAGIX Music Maker MX Premium provides a Remix Agent for the automatic determination of the speed in BPM (beats per minute) and for the creation of loop objects.

Please refer to the "<Remix Agent>"chapter.

Shortcut: Shift + K

Audio > Loop Finder

The Loop Finder was developed for the purpose of finding BPMs in short rhythmic passages and placing BPMs into the arrangement. Furthermore, the Loop Finder can help to fit short loops into an existing arrangement or extract short rhythmic passages from drum loops.

Note: For longer passages (for example, complete CD tracks), you can use TBPM Finder.

The waveform of the audio material is displayed in the upper part of the dialog, preset at a zoom level of about 10 seconds.

The principle involves moving the green start marker to the start of the beat and the red end marker to the start of the next beat. The BPM display to the left then shows the tempo of the loop in beats per minute (BPM). Here we presume that there are exactly the same amount of beats in the selected passage as is displayed in the "Beats" input field – 4 is the default. If there are two full bars between the start and end markers, the number of beats has to be increased to eight, otherwise the Loop Finder will only correlate half the speed.

The precise marking of the beat length is required for exactly defining the loop length. This is also possible manually by moving the start and end markers, and can be similarly precise when using the zoom functions. But it's easier to do so using the following:

Tap tempo: activates the automatic procedure for setting the tempo. First, audio playback begins at the start marker position. Then you will be requested to tap in the beat with "Tap" or by pressing the "T" key, that is, the "T" key should be pressed in time with the music. Playback stops after the number of beats set above is reached. The start marker is now positioned at the start of the tap process and at the end marker at the end. And that was it! The beat has now been set and the tempo can be read. Program automation makes sure that the start and end positions are placed exactly at the next beat. Even if the tap process didn't work out exactly, automation nearly always finds the right beat meant when tapping.

Snap marker: You can use the red and green arrow buttons at the top beside the wave display for moving the start and end markers one beat forward or one beat back. This makes it very easy to select "round loops", that is, whole bars, during running playback.

As long as a loop runs through without any problems, the correct tempo will be able to be read to the left.

Here you should make sure that the number of beats per bar (default: 4) has to adapted to the actual loop length. So, if four bars are selected as a loop, 16 has to be entered into this field.

Start and end markers: Both of these markers show the start and end points of the loop. You can move them around with the mouse to fine-tune the range.

Cut: Once a correct loop has been found, it can be cut using the Cut function in order to, for example, be able to use it again later.

Use new BPM: The arrangement applies the BPM value found.

Timestretching: Adapts the object to the tempo of the arrangement (as a result of the determined tempo) via timestretching.

Resampling: Adapts the object to the tempo of the arrangement (as a result of the determined tempo) via resampling.

Load/Save/Reset audio effects

You can save the current effect combination of an audio object separately and apply it to other objects later. Or you can deactivate all currently used effects entirely (Reset) if you want to undo the changes.

Shortcut:	Load audio effects	Ctrl + Alt + O
	Save audio effects	
	Reset audio effects	Ctrl + Alt + H

Convert stereo into two mono objects

With this option stereo recordings can be split into two mono objects which are then connected to a group. You can use the "Ungroup" button to edit the channels as independent objects.

Shortcut:	Shift + Z

Edit in external editor

A selected audio object into the external program MAGIX Music Editor where it can be edited with lots of special features. Once editing has been completed, the edited material is used in MAGIX Music Maker MX Premium instead of the original object.

Shortcut: Ctrl + Shift + M

Video

Edit image in external editor

Graphics files (BMPs or JPEGs) may be edited retroactively with an external graphics program from the arranger. The selected image file is loaded automatically and, once editing has been completed, is used in the MAGIX Music Maker MX Premium instead of the original material.

Shortcut: Ctrl+Shift+B

Video effects

Opens the Video Controller for selected video and picture objects. Please read the "Video Effects" chapter for more details.

Shortcut: Shift + G

Load video effects

This command enables a saved effects combination to be loaded for the currently loaded object. If multiple objects are selected, then the effects combination will be applied to each selected object.

Save video effects

This command saves the current effects combination for each object separately.

Reset video effects

This option allows you to deactivate all currently used effects. The material will be reset to the state it was in before you applied the effect.

Title

Title Editor

Opens the title editor (More information can be found in the section "Title Editor" on page 235) for the selected photo or video object.

Shortcut: Alt + Shift + T

Load title template

Use this command to load previously saved title effects for the current object.

Save title template

You can save the current effect combination for each title object separately and apply it to other title objects later.

Automation

Display object volume curve

The automation curve for object volume is shown and can be edited in Automation mouse mode (view page 64).

More about automation in the chapter Automation curves (view page 242).

Display object panorama curve

The automation curve for object panorama is displayed and can be edited in Automation mouse mode (view page 64).

More about automation in the chapter Automation curves (view page 242).

Object automation / Track automation

The dialog Dynamic effects editor (view page 245) for object automation or track parameters is shown. A parameter can be selected and edited in Automation mouse mode (view page 64).

More about automation in the chapter Automation curves (view page 242).

Shortcut: Ctrl + H

View menu

Easy mode

Switches the screen in MAGIX Music Maker MX Premium to "Easy" mode's simplified interface. More about this in the chapter "Arranger -> Normal mode/Easy mode".

This documentation describes MAGIX Music Maker MX Premium in normal mode. If you can't find one of the functions while reading, make sure that you don't have Easy mode turned on.

Shortcut: Tab

Arranger

Optimize view

The start marker is set at the beginning of the arrangement and the end marker is set at the end of the last object in the arrangement, so that the arrangement may be played back in full.
Zooms out of the arrangement so that the complete duration of the arrangement is visible. The vertical zoom steps (track height) remain preserved.

Shortcut: F12

Change object presentation

This lets you switch between various object views. Here video objects are displayed in the tracks either with detailed preview frames or in simplified form. Audio objects are displayed either with one or two separate wave form displays for stereo.

Shortcut: Ctrl + Alt + Z

Highlight loop area

With this option, you can fade the loop area in and out, visible by the stripe above the first track that indicates the area that will be played as an endless loop.

Show object marker > Show bar marker/harmony marker

After using the Remix agent or the Harmony Agent, the analysed material receives beat and harmony information which is then shown in the arranger via these commands.

Shortcut:	Bar Marker	Ctrl + Shift + F9
	Harmony Markers	Ctrl + Shift + F10
	Beat Markers	Ctrl + Shift + F11

Media Pool

Show Media Pool...

This option hides or displays the Media Pool.

Shortcut: F2

Media Pool views / template folders

Opens the corresponding folder in the Media Pool.

It's even easier to access the corresponding Media Pool views and folders via the corresponding keyboard shortcut.

Video monitor

Show video monitor

Opens and closes the video window.

Shortcut: F3

Full-screen Video Monitor

This option shows the video preview monitor in full-screen mode. The right mouse button opens the context menu, the Esc-key returns you to normal viewing mode.

Shortcut: Alt + Enter

Video output

This option switches the preview monitor on or off to display the existing video objects in the Arranger.

Shortcut: Shift + F3

Arrangement overview

With this option you can display an overview of the entire arrangement on the video screen. It is particularly suitable for long and complex arrangements to prevent you from losing track.

You can view the whole arrangement and and still be able to access the sought-after object in a split second – you can zoom in directly on the video monitor or move around the clip displayed in the Arranger.

Overview   The function can also be opened via "Overview" on the video monitor.

Shortcut: Shift + F2

Audio peakmeter

Peak meter   The video monitor is transformed into an analyzer which displays the sound as a graphic.

Shortcut: Shift + F4

Infobox

InfoBox   The InfoBox mode shows help text in the preview monitor if you hold the mouse pointer over a button on the screen.

Shortcut: Shift + F1

Mix

Mixer

With this option you can open and close the real-time mixer. Further information can be found in the Mixer (view page 248) chapter.

Shortcut: M

Master audio effect rack

Opens or closes the master effects rack; you can also use the "Master FX" button in the mixer window for this.

Shortcut: B

Mastering Suite

You can open the MAGIX Mastering Suite (view page 203) with this option.

Shortcut: N

Live Performer

Activates the Live Performer . Please refer to the "Arranging objects" (view page 67) chapter, section "Live Performer" (view page 165)!

Shortcut: K

Standard layout

This option determines, whether the video monitor and Media Pool are integrated in the main window or appear as a separate window which can be closed or opened.

Shortcut: F4

"Share" menu

The Online menu provides access to online social networks as well as export functions to other MAGIX programs.

Here you'll find options for uploading individual objects in the Arranger or files from the Media Pool as well as the entire arrangement, as audio or video. You can also transfer your arrangement to another MAGIX program (if it is installed) in order to, for example, use it as background music for your slideshow.

Community upload

The menu entries featured under "File" > "Export" >"Community upload" or via the Export assistant allow you to upload the finished song to different web communities.

Tip: The Myspace upload creates an "embedded player" that may be embedded into other websites, e.g. your own homepage or into your blog.

Upload video to YouTube

Uploads the current arrangement to YouTube. See Export to YouTube (view page 269) for details.

Shortcut: Shift + Y

Upload video to Facebook.

Uploads he current arrangement to Facebook. You can find additional information under Export to Facebook (view page 269).

Upload audio to Soundcloud.

Uploads the arrangement to the Soundcloud music platform. You can find additional information under Upload audio to Soundcloud (view page 270).

Upload current arrangement as MP3...

Converts your arrangement's audio track into an MP3 file and uploads it to your personal MAGIX Online Album.

Internet > Send arrangement as email

This option generates a compressed file in the Windows media format. At the same time, the respective mail program is activated and the previously generated file is added as an attachment to an open message. Any type of arrangement can thus be compressed and sent without any intermediate steps.

Shortcut: Shift + U

Use as background music

Converts your arrangement into MP3 format and sends it to one of the specified programs, where it can be used as background music.

- Video easy 3 SE
- Video easy 3 HD
- Movie Edit Pro MX HD
- Movie Edit Pro MX Plus HD
- Movie Edit Pro MX Premium HD
- Photo Manager 10
- Photo Manager 10 Deluxe
- Photo Manager MX
- Photo Manager MX Deluxe

Note: This function is only available if you have at least one of the above programs installed..

Add to music collection

Converts your arrangement into MP3 format and sends it directly to one of the specified programs, where it is added to an existing music collection.

- mufin Player (Pro)
- MP3 deluxe MX

Note: This function is only available if you have at least one of the above programs installed.

Edit with an external editor

Converts your arrangement into WAV format and sends it directly to one of the specified programs, where it can be edited further.

- Music Editor 3.1
- Audio Cleaning Lab MX

Note: This function is only available if you have at least one of the above programs installed.

Burn song as an audio CD

Your arrangement will be sent to MAGIX Speed burnR, where it can be burned as an audio CD. The Premium version offers you MAGIX Music Editor.

Save on CD or DVD

You arrangement will be sent to MAGIX Speed burnR, where it can be burned to CD or DVD.

More online services

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

Show welcome dialog

With this command you can display the "Welcome" dialog again. There, you have a quick access to important functions during program start.

Shortcut: Shift + F1

Documentation

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.

Context help

The mouse cursor will turn into an arrow with a question mark.

Click on any button of the main screen, to open program help which will describe the control element in question.

Shortcut: Alt + F1

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.

Shortcut: Ctrl + Shift + F1

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.

Shortcut: Ctrl + F1

To play the introductory video you may have to insert the program CD.

Find knowledge & workshops

Opens the magix.info with online tutorial videos.

Update program / Upgrade functions

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 Music Maker MX Premium -> Service and support -> Register") you can register via post or fax. Simply print it out, fill it in, and send it off!

Shortcut: F12

Online Update

Connects directly to the online update page where you can get the latest version of your program.

Activate additional functions

In the submenu you have the option of activating encoders/decoders for various file formats.

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 Music Maker MX Premium 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 be able to provide you with optimum value for money for your software.

The following fee-based activations are available on MAGIX Music Maker MX Premium: **MP3 Surround encoder**.

Fee-based MP3 activation

To create Surround MP3s the appropriate fee-based codec must be activated first.

Order activation code online
Click on "Order online..." (Field 1). The web browser will open for you to register MAGIX Music Maker MX Premium 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 Music Maker MX Premium 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 10).

magix.info - Multimedia Knowledge Community

Help others and find help Directly from within the program you'll be able to access magix.info – the new MAGIX knowledge base. You'll find answers to all the most frequently asked questions about MAGIX products and multimedia in general. Couldn't find an answer to your particular question? No problem, just ask the question yourself.

Ask the Knowledge Community a question online

Ask magix.info a question.

Find knowledge & workshops

Have a look at the newest workshops at magix.info and read useful tips from other MAGIX Music Maker MX Premium users.

Present music on magix.info...

Show other magix.info users your music, discuss your own and their projects or be inspired by the photos, videos and music by other users.

Open magix.info - Multimedia Community

Opens the magix.info main page.

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 Music Maker MX Premium 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 "Online" 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 "Online" 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.

About MAGIX Music Maker MX Premium

Displays copyright info and version number of MAGIX Music Maker MX Premium.

Buttons overview and keyboard shortcuts

Toolbar

	Save arrangement		Copy selected objects
	Export assistant		Insert
	Undo last action (Undo)		Song Maker (view page 33)
	Redo action		Select mouse mode (view page 64)
	Cut		magix.info

Keyboard shortcuts

In MAGIX Music Maker MX Premium, there are many functions for which key commands can be used to open your desired program at the touch of a button. In detail:

- Menu and object context menu entries
- Functions of the Media Pools (Options menu)
- The video monitor menu
- Move and zoom of the arranger view
- Playback control (Moving the playback marker and the playback area)
- Mouse modes
- Smart preview function (Previewing Media Pool files in the arrangement context)

File menu

Load/Save arrangement

New arrangement	Ctrl+N
Load arrangement	Ctrl+O
Save arrangement	Ctrl+S
Save arrangement as	Shift + S

Import

Import audio CD track(s)	C
Audio recording	R
Video recording Premium	G

Export

Common export options	X

Burn audio to CD-R(W)	Shift+C
Audio as Wave/ADPCM	Shift + W
Audio as MP3	Shift + M
Audio as OGG Vorbis	Shift + O
Audio as Windows Media	Shift + E
Audio as AIFF	Shift + I
FLAC audio	Shift + F
Video as AVI	Shift + A
Video as MAGIX video	Shift + X
Video as Quicktime Movie	Shift + Q
Video as Windows Media video	Shift + V
Picture as BMP	Shift + B
Picture as JPEG	Shift + J
Upload video to YouTube	Shift + Y
Upload audio to MySpace	Shift + S

Backup copy

Save arrangement and used media	Ctrl + Alt + S
Save Arrangement and Used Media...(Audio as Ogg Vorbis	Ctrl+Shift+C
Burn arrangement and used media onto CD/DVD-R(W)	Ctrl+B
Burn manually selected files to CD/DVD	Ctrl + Alt + B

Settings

Program settings	P
Arrangement settings	A
Audio recording	Shift + R
Key shortcut	U
Exit	Alt + F4

Edit menu

undo	Ctrl + Z
Restore	Ctrl + Y
Select all	Ctrl + A

Object

Record new audio object	R
New MIDI object	Ctrl + Alt + N
Text to speech	Ctrl +T
Record a new video object	G
Create a new title object	Alt + Shift + T
Cut	Ctrl + X
Copy	Ctrl + C
duplicating	Ctrl+D
Insert	Ctrl + V
Multiple insert	Ctrl + "Num+"
Delete	Del
Select all	Ctrl + A
Split	T
Save objects as takes	Alt + Shift + S
Group objects	Ctrl+G
Ungroup objects	Ctrl+U
Object properties	Ctrl+P

Range

Cut	Ctrl+Alt+X
Copy	Ctrl+Alt+C
Insert	Ctrl + Alt + V
Multiple insert	Ctrl + Alt + "Num+"
Delete	Ctrl + Del
Extract	Ctrl + Alt + E

Navigation: Set jump marker, move playback position (see Playback control), move view (see Move arranger view (view page 329)).

Effects menu

Song Maker	W

Audio

Master audio effects rack	B
Mastering Suite	N
Text to speech	Ctrl + T
Object effects rack	E
10-band equalizer	Q
parametric EQ	Ctrl + Q
Sketchable filter	F
Compressor	Shift + D
Stereo processor	Z
Invert phase	Ctrl + I
Echo/Reverb	Shift + H
Distortion/Filter	Shift + F
Elastic Audio	S
vocoder	V
Gater	Shift + G
Reversed	Ctrl + Shift + R
Mute/Unmute	Ctrl + M
Volume reduction	Ctrl + D
Normalize	Shift + N
Timestretch/pitchshift	Shift + P
MIDI transposition	Ctrl + T
Harmony Agent	H
One pitch higher	Num *
One pitch lower	Num /
Create remix objects	Ctrl + J
Remix Maker	Shift + K
Loop Finder	L
Remix Agent – Tempo and beat recognition	J
Load audio effects	Ctrl + Alt + O
Reset audio effects	Ctrl + Alt + H
Convert stereo into two mono objects	Shift + Z
Edit wave in external editor	Ctrl + Shift + M

Video
Edit image in external editor   Ctrl + B

Title
Title Editor   Alt + Shift + T
Automation
Object automation   Ctrl + H
View menu

Easy mode   Tab

Arranger
Optimize view   F12
Change object presentation   Ctrl + Alt + Z
Show object marker
Bar marker   Ctrl + Shift + F9
Harmony marker   Ctrl + Shift + F10
Beat marker   Ctrl + Shift + F11

Media Pool
Show Media Pool   F2
Soundpool   F5
File Browser   F6
Synthesizer   F7
Templates   F8
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Show video monitor   F3
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Arrangement overview   Shift + F2

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Help menu

Context help mouse mode	Alt + F1
About MAGIX Music Maker MX Premium	I

MIDI objects context menu

MIDI editor	Ctrl + Shift + D
Track VSTi editor	Ctrl + Shift + F
MIDI transposition	Alt + Shift + D

Media Pool

Settings

Soundpool	F5
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Video Monitor

Show video monitor	F3
Fullscreen video monitor	Alt + Enter
Video output	Shift + F3
Arrangement overview	Shift + F2
Audio peakmeter	Shift + F4
Info Box	Shift + F1

Move Arranger view

Note: These commands similarly move the playback marker when it's stopped, the marker always remains visible in the arrangement clip.

To next object edge	Ctrl + 0
To the previous object edge	Ctrl + 9
Go to beginning of arrangement	Home
Go to end of arrangement	end cap
Go to start marker	Ctrl + Home
Go to end marker	Ctrl + End.
Page right/left	Page Up/Down
Grid unit right/left	Ctrl + PgUp/PgDn

Go to the next jump marker	Ctrl + Shift + PgDn
Go to the previous jump marker	Ctrl + Shift + PgUp

Arranger view - Increase/Reduce clip size (zoom)

Increase clip size (zoom in)	Ctrl + Arrow up
Reduce clip size (zoom out)	Ctrl + Arrow down
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 view between start and end marker	Ctrl + 7
Zoom over whole arrangement	Ctrl + 8
Increase track pitch	Alt + Arrow up
Reduce track pitch	Alt + Arrow down

Move playback control / playback marker / playback area

Start/Stop playback	Space bar
Stop at position (stop playback, move playback marker to current position)	Escape
Set jump marker	Shift+1...0
Playback marker to jump marker	1..0

Note: When stopped, the playback marker is moved to the jump marker (after the end of the current loop).

Create jump marker sequence (10 markers with intervals equal to the current playback area)	Ctrl + Shift + M
Delete all jump markers	Alt + Shift + M
Move playback range	Arrow left/right
Move playback one quarter of its length	Ctrl +Arrow left/right
Double/Halve playback area length	Shift + Arrow right/left
Double/Halve playback area length by a bar	Ctrl + Shift + Arrow left/right

Mouse modes

Mouse modes for individual objects	Alt + 1
Connect objects in one track	Alt + 2
Connect objects in all tracks	Alt + 3
Curve mouse mode	Alt + 4
Draw objects	Alt + 5
Splitting objects	Alt + 6
Object stretch mouse mode	Alt + 7
Preview objects mode	Alt + 8
Scrub mode	Alt + 9
Replace mouse mode	Alt + 0

Preview/Smart preview

Preview of pitches	Numbers 0..9
Change preview object	Arrow keys
Insert into arrangement	Enter
Delete smart preview object	Del

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