

# MUSIC MAKER MX



English language manual



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# Preface

MAGIX Music Maker MX 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 program is particularly easy to use, 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.

Your MAGIX team.

# Table of Contents

<b>Copyright</b>	<b>2</b>
<b>Preface</b>	<b>3</b>
<b>Support</b>	<b>10</b>
<b>Uninstalling the program</b>	<b>12</b>
<b>Before You Start</b>	<b>13</b>
Package Contents	13
System requirements	13
Installation	15
<b>Serial Number</b>	<b>16</b>
<b>More about MAGIX</b>	<b>17</b>
MAGIX Online World	17
magix.info	18
Soundpool DVD Collection	18
<b>Introduction</b>	<b>19</b>
What is MAGIX Music Maker MX?	19
What's new in MAGIX Music Maker MX?	19
The Features	21
Additional features of the Premium version	25
<b>Overview of the Program Interface</b>	<b>28</b>
<b>Quick start</b>	<b>30</b>
Play Demo Project	30
Preview and Load Audio Files	31
Position Audio Objects	32
Add Videos or Images	33
Edit Objects	33
Effects	34
Export Arrangement	34
Burn audio CD	36
<b>Arranger</b>	<b>37</b>
Normal mode/Easy mode	37
Tracks	37
Trackboxes and Instrument icons	38

Zooming	39
Move/Zoom with the mouse wheel	40
Grid	40
Playback area, Start and end markers	41
Moving the playback marker	42
Transport bar (playback functions)	43
Arranger, Video Monitor, and Media Pool	45
Arranger buttons	45
<b>Media Pool</b>	<b>46</b>
Preview function	46
Positioning the Media Pool	47
Soundpool settings	47
File manager settings	49
Synthesizer	53
Template settings	53
Keyboard settings	54
Object Inspector settings	55
Setting Catooh	56
<b>Videoscreen</b>	<b>57</b>
Audio peakmeter	57
Overview	58
Infobox	58
<b>Mouse modes</b>	<b>59</b>
Automation	59
Move to track	60
Move all	60
Move selection	60
Draw	60
Split	61
Stretch	61
Preview audio	61
Scrubbing	62
Replace	62
Context help	62
<b>Arranging Objects</b>	<b>63</b>
Loading and saving arrangements	63
Multimedia files and objects	63
Select objects	64
Mute objects	64
Build or split object groups	64
Split objects	64
Exact object positioning	65

Duplicate objects	65
Object handles	66
"Draw in" loops	67
Takes	67
Object properties	68
Mixdown audio	68
Mouse gestures	69
<b>Audio Objects</b>	<b>71</b>
Audio formats	71
Load and process audio files	71
Smart Preview for the incorporated samples	71
Audio recording	72
Import audio CD	75
Change the playback tempo or pitch	79
Remix agent - Tempo and beat assignment	82
Remix Maker	88
Harmony Agent	90
Text to speech	92
<b>MIDI Objects</b>	<b>93</b>
Arrange MIDI objects	93
Load MIDI files	93
Connect external equipment	94
Playing and recording MIDI synthesizer	96
MIDI Editor	97
<b>Synthesizer objects</b>	<b>120</b>
Opening the synthesizers	120
Note for users of older Music Maker versions:	121
Synth objects	121
Automation of Vita Solo instruments.	122
BeatBox 2	123
Atmos	130
Loop Designer	131
Robota	135
LiViD - Little Virtual Drummer	144
MAGIX Vita	145
Additional Vita Solo synthesizers	147
<b>Audio effects</b>	<b>148</b>
Effects	148
Using audio effects	149
Object and master effects rack	151
Equalizer	152
Sketchable filter	153

Compressor	154
Invert phase	155
Reverb	155
Sound Warper	159
Gater	160
Backwards	161
Timestretch and pitchshift	161
Essential FX	163
Vintage Effects Suite	166
Vandal SE	180
<b>Video and Bitmap Objects</b>	<b>186</b>
Video and bitmap formats	186
Adjusting the video screen	186
Loading and editing videos and bitmaps	186
Simplify object presentation	187
Visualizer objects	187
Video scrubbing	187
Extract sound from videos	188
Video effects	188
Title Editor	188
Video Compression	191
Choppy or uneven playback	191
General notes on AVI videos	192
Create a video project for the Internet	192
Video export via TV-out	193
<b>Mixer</b>	<b>194</b>
Fader	195
Control groups	195
Track effects	196
FX tracks	196
Live monitoring	197
Master track	197
<b>Reprocess arrangement</b>	<b>199</b>
Export assistant	199
Export as E-Mail attachment	201
Export as ringtone	201
Community upload	204
Burn audio CD	206
<b>File Menu</b>	<b>207</b>
New arrangement	207
Load arrangement	207
Save arrangement	207
<a href="http://www.magix.com">www.magix.com</a>	

Save arrangement as...	207
Import	208
Export	208
Backup	217
Settings	218
Exit	225
<b>Edit Menu</b>	<b>226</b>
Undo	226
Redo	226
Object	226
Track	229
Range	230
Navigation	231
Select all objects	232
<b>Menu effects</b>	<b>233</b>
Song Maker	233
Audio	234
Video	239
Title	240
<b>View menu</b>	<b>241</b>
Easy mode	241
Arranger	241
Media Pool	242
Video monitor	242
Mix	243
Standard layout	244
<b>"Share" menu</b>	<b>244</b>
Community upload	244
Use as background music	245
Add to music collection	246
Edit with an external editor	246
Burn song as an audio CD	246
Save on CD or DVD	246
More online services	247
<b>Tasks menu</b>	<b>249</b>
<b>Help Menu</b>	<b>249</b>
Show welcome dialog	249
Documentation	249
Update program / Upgrade functions	250
magix.info - Multimedia Knowledge Community	253



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MAGIX Screenshare	254
About MAGIX Music Maker MX	254
<b>Buttons overview and keyboard shortcuts</b>	<b>255</b>
Toolbar	255
Keyboard shortcuts	255
<b>Index</b>	<b>263</b>

# 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 at [www.magix.com](http://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](http://www.magix.info), which includes approx. 120,000 members and offers the opportunity to ask members questions concerning MAGIX products as well as use the search function to search for specific topics or answers. In addition to questions & answers, the knowledge pool includes a glossary, video tutorials and a discussion forum. The multiple experts, found round-the-clock at [www.magix.info](http://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, you can do so via the control panel under "Software". Or go to "Programs > MAGIX > MAGIX Music Maker MX > Service and Support > Uninstall MAGIX Music Maker MX".

# Before You Start

## Package Contents

### DVD

On this DVD you will find the installation manager for MAGIX Music Maker MX, 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 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

### Computer:

- Intel® Pentium® or AMD® Athlon® 700 MHz or higher, 256 MB RAM (512 MB recommended)
- Min. free hard disk space: 900 MB
- SVGA graphics card with min. 4 MB RAM, min. resolution 1024 x 768 at 16-bit high-color
- 16-bit sound card
- DVD-ROM drive
- Microsoft®-compatible mouse (mouse wheel recommended)
- Operating system: Microsoft® Windows® 2000 | XP | Vista™

**Optional:**

- Burn CDs/DVDs with CD/DVD±R(W) recorder.
- Access to and publication on [www.magix.com](http://www.magix.com) and in MAGIX Online Services only with Internet connection and Microsoft® Internet Explorer™ 6.0, or higher.
- Sending video emails with available standard email software Microsoft® Outlook™ or Microsoft® Outlook Express™.

## 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, click on "MAGIX Music Maker MX". The MAGIX Music Maker MX 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, you can do so via the control panel under "Software". Or go to "Programs > MAGIX > MAGIX Music Maker MX > Service and Support > Uninstall MAGIX Music Maker MX".

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

### **Where can the serial number be found?**

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

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

### **When will you need the serial number?**

The serial number is required when you start or register MAGIX Music Maker MX for the first time.

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



# 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:

### MAGIX Online Album

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

### MAGIX Blog Service

With MAGIX Blog Service, YOU make the news! Share your thoughts, experiences, and news with a worldwide audience in no time using your own interactive online multimedia journal. Invite family, friends, and acquaintances to join in and enter their comments! A free MAGIX Online Album belongs to the MAGIX Blog Service so that you always have full control over your contributions.

### 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 247)

### Catooh – the Online Content Library

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

## MAGIX Community

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

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

## 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](http://www.magix.info)

## Soundpool DVD Collection

MAGIX Music Maker MX 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](http://www.magix.com) you'll always find the latest soundpool offers.

# Introduction

## What is MAGIX Music Maker MX?

MAGIX Music Maker MX 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 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?

### New Sound Library

MAGIX Music Maker MX 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.

### 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.

### **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.

### **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 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.

VST instruments and effects are external programs, which must first be installed before being used in MAGIX Music Maker MX. 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 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 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. 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 24).
- **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 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 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 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 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 important 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.**

### **Additional tracks**

The Premium edition has 96 tracks (instead of 64) – even more space for your most complex arrangements.

### **Object and track 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 an echo in or out at a specific position in the song by drawing in a curve peak at the corresponding position.

### **Video recording**

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

### **DirectX and VST plug-ins**

MAGIX Music Maker MX 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.

### **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 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 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



- 1** **Menu bar** This bar provides the most important editing commands.
- 2** **Toolbar** (view page 255) This contains the buttons for quick editing as well as the different mouse modes.
- 3** **Easy Mode** (view page 37) This turns the clearly laid-out beginner mode on or off.
- 4** **Track boxes** (view page 38) Complete tracks can be turned on or off (muted) or played separately (solo). Use the FX buttons to apply track effects.
- 5** **Arranger** (view page 36) You can freely position any multimedia material on all of the Arranger's tracks.
- 6** **Zoom functions** (view page 39) Here you can enlarge or reduce the view. The horizontal scrollbar can be stretched and compressed for zooming.
- 7** **Media Pool** (view page 46) All files listed here can be added to the Arranger via drag & drop.

- 8** **Monitor** (view page 56) 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 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 edit and make changes to the positions 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, 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.

## 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, a Soundpool Collection or have purchased soundpools from other sources, you can add these to your Media Pool via **Add styles...** (5).

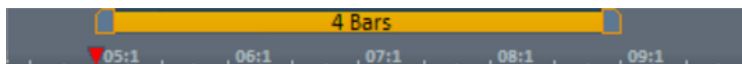
## Position Audio Objects

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 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.



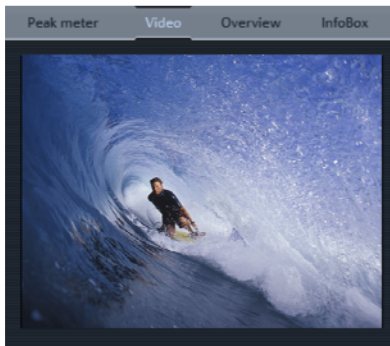
## Add Videos or Images

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.



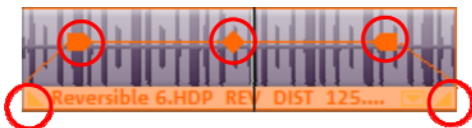
Once you have found the video material you want, use the mouse button to drag it onto any track (like previously with the audio files). You can add as many video and photo files as you like to your music.

You can adjust the length of the individual image objects with the help of Object handles (view page 33).

## Edit Objects

To get an impression of the object-based work method of MAGIX Music Maker MX, 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.

## 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.

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 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 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 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.

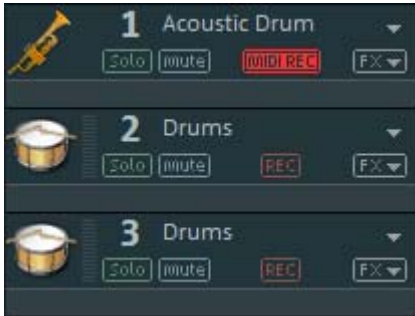


Fundamentally, all object types can be placed on all tracks. You can also combine videos with MIDI and audio objects one track.

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 and 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 197))  
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 100).
- FX** Here you can open the "Track effects" menu where you will find presets for track effects (view page 150) 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 double 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 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 241)



**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.

## 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.

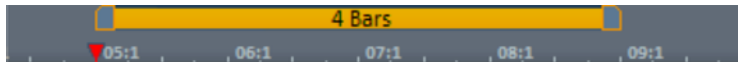
The "Frame" setting allows fine positioning using the time code. The time display in the timeline and transport control automatically changes from bars:beats:ticks to hours:minutes:seconds:frames.

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

"Select beat type" switches the timeline to irregular bars like  $\frac{3}{4}$  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 38) is activated for MIDI or audio recording, this will start either audio (view page 74) or MIDI recording (view page 100).



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

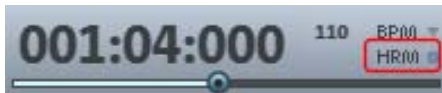
### Time display



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



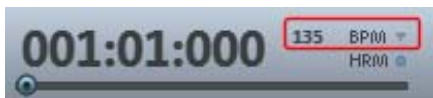
If this symbol is activated, harmony symbols will be displayed during playback. Harmonies can be detected with the Harmony Agent (view page 90).

### 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 194).

### 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 242)").

## 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.

## Media Pool

MAGIX Music Maker MX'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 92), 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 119).
- **Templates** (view page 53) provides effects presets for all kinds of audio, video, and titling effects.
- **Catooh** connects you directly to Catooh.

## 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 71)).

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

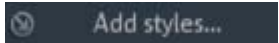
 Using the small button at the top edge of the Media Pool, you can turn the Media Pool display on or off.

## Soundpool settings

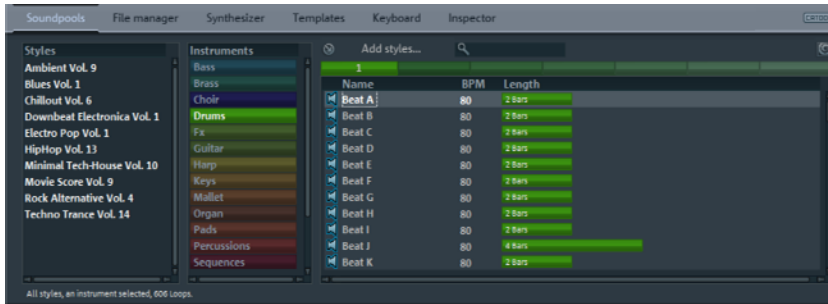
This setting can be used to access Soundpool media. Access to the supplied Soundpools is via a new, more clearly laid out database overview that enables the display of loops, multiple styles and instrument categories, e.g. all bass loops of every installed style or every loop of a style.

If you did not install the Soundpools on your hard drive during installation, then insert the MAGIX Music Maker MX 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 219), 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.



acid

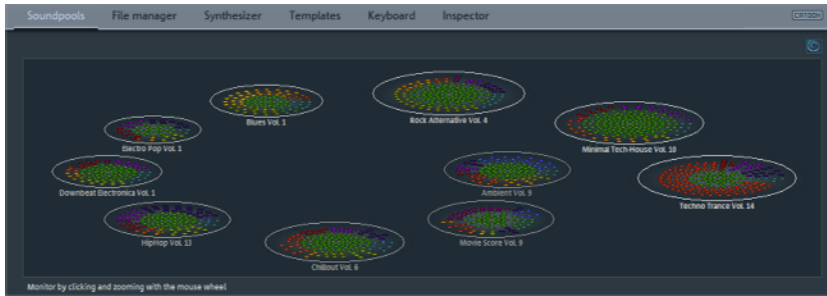
In the search field, you can search the list of the sounds found for a certain sound file name.



**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'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.

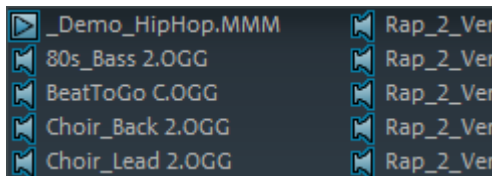
You can right click in the file list to define further buttons ("links"). Switch to the folder which you would like to create a link to and select the option "Link to folder" from the context menu.

### Navigation buttons






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

### Various file list view modes

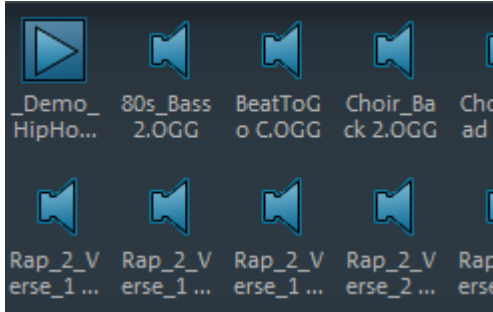
The **file list** displays all supported multimedia files and subfolders of the currently selected folder. Three different views (list, detail, large symbols) can be set by right clicking on the options or Media Pool's context menu.



**List:** Only file names are listed. This view mode displays the most files simultaneously.

Name	Type
 _Demo_HipHop	.MMM
 80s_Bass 2	.OGG
 BeatToGo C	.OGG
 Choir_Back 2	.OGG
 Choir_Lead 2	.OGG

**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 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, 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 (view page 219, view page 218).

**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

#### 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 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 119) 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 ("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 set audio effects in the effects rack (view page 148) precisely!

## Keyboard settings

The keyboard enables software synthesizers to be played and recorded directly via the on-screen keyboard.

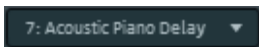


If a track synthesizer is not present, then a new track will be added and a new synthesizer plug-in will be added when the view is switched to "Keyboard" (Vita with Sound Acoustic Bar Piano).

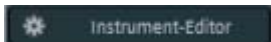
The keyboard always controls the synthesizer in the track for which MIDI recording has been activated.

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 255) 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.



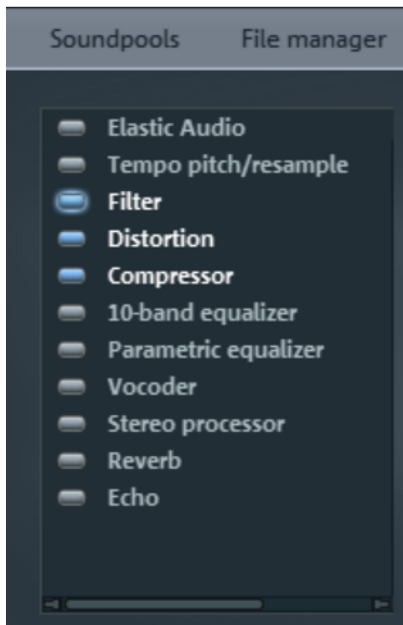
This button opens the editor window for the synthesizer for fine tuning the sound.

## Object Inspector settings

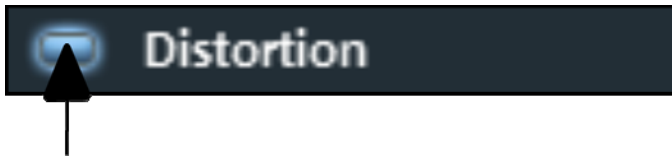
The Object Inspector offers quick access to properties of objects, e.g. audio effects for audio objects. For MIDI objects (view page 92), a smaller version of the MIDI Editor is shown, which allows you to edit the selected object.

### 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 149) in a clearly laid out list.

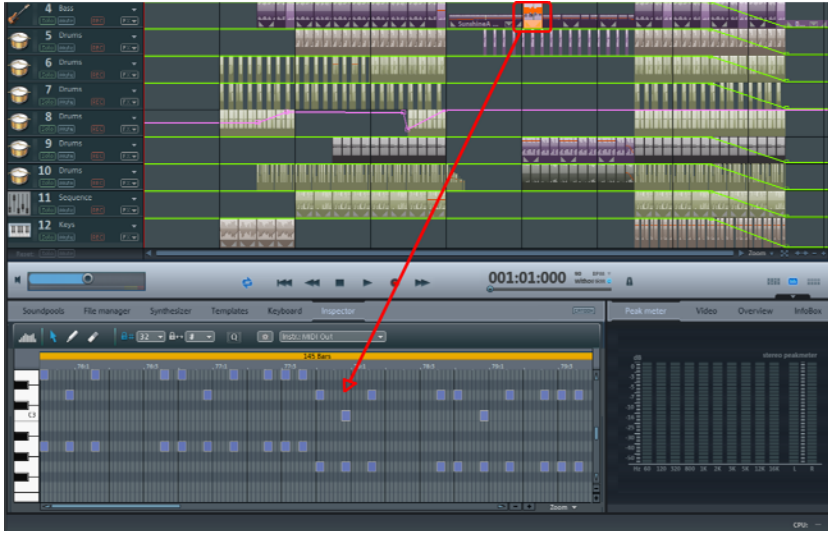


This button switches effects on and off.

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"!

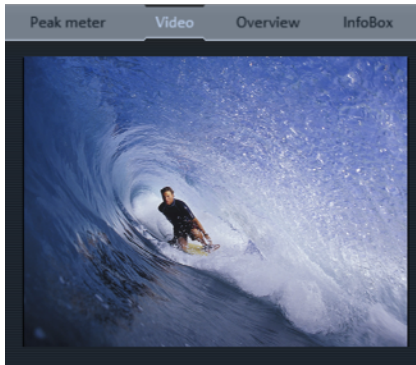
## Setting Catooh

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!



# 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.

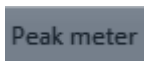
The video monitor can be increased to full size by double clicking on it or pressing "Alt + Enter". Press "Esc" to leave maximized screen mode.

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 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.

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 from 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!

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.

Select objects with a left click. 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 section "Arranging objects (view page 62)". Right clicking on an object opens the context menu with the most important effects and settings available for that specific object.

## 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 67)" 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 screen.

Shortcut:                      Alt + F1

# Arranging Objects

In MAGIX Music Maker MX 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 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 61)" 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 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 40)".

## 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.

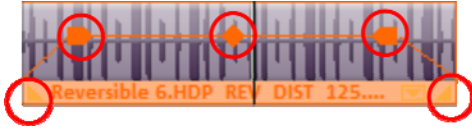
Then select the command "Edit menu -> Duplicate objects"

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 saved 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 arrangements.

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

You can also save Synth objects as takes to create your own preset libraries for the synthesizer.

MAGIX Music Maker MX 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 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.

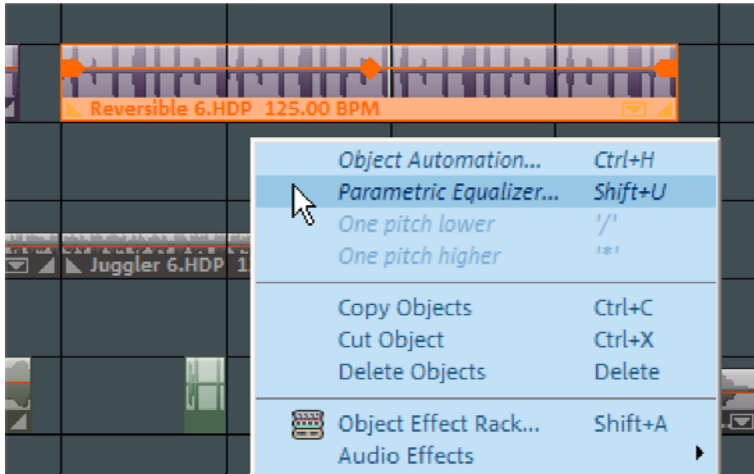
Shortcut:                      Ctrl + Shift + G

## Mouse gestures

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

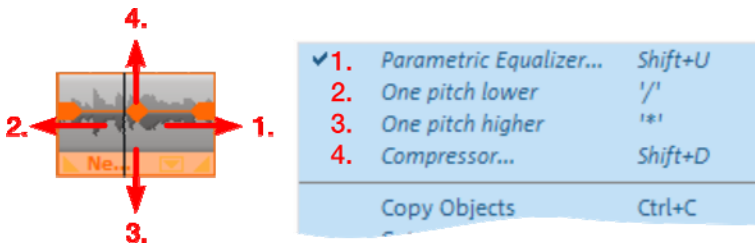
Mouse gestures help you access these menu commands quickly without having to dig them out of the menu structure every time.

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 submenu may be accessed via Mouse gestures

# Audio Objects

## Audio formats

MAGIX Music Maker MX 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. 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.

## 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 using the audio recording function.

 Click the **REC** button in the track box to specify the track for the recording.

The display in the track box will change 

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 197)).

Live monitoring requires the use of ASIO drivers (view page 221).



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.

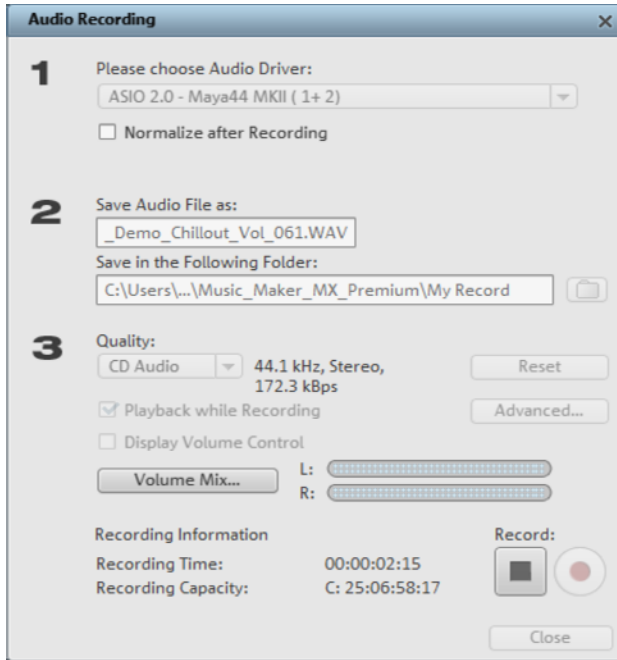
You can now adjust the recording level with the help of the LED display in the recording dialog. For this, you must first check off "Show Levels".

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



**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 73)'.  
'

**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

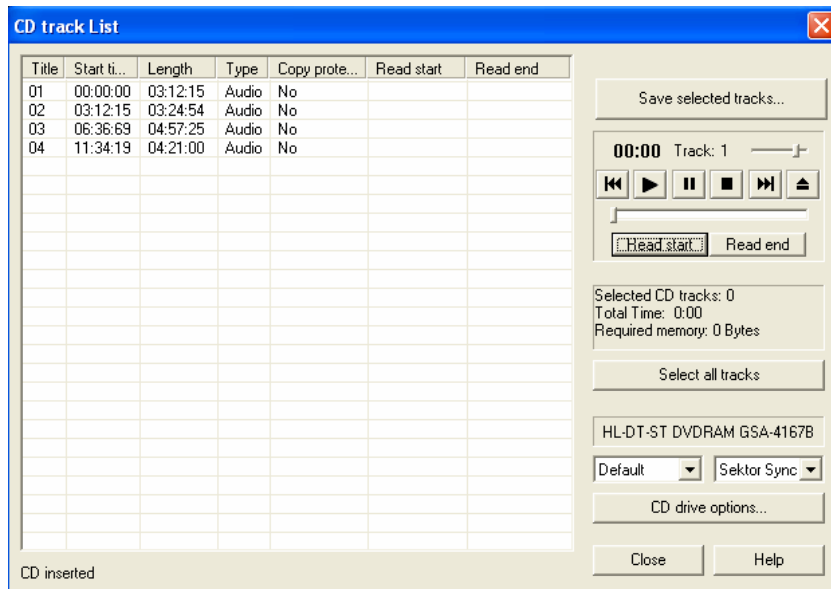
This option opens the CD manager to select tracks from audio CDs and partially or fully import them into the arrangement. You can also select and configure the used drive if you have more than one drive.

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:

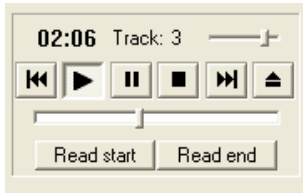
1. Insert an audio CD into the drive and select "Import audio CD track(s)" from the "File" menu. A dialog with a list of the CD tracks will open. If you have more than one drive, you may have to first select the drive containing the CD. You can do this in CD drive options.
2. Select the desired tracks (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; "**C**opy

**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 237).

### Automatic tempo adjustment when loading

In general, MAGIX Music Maker MX 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 237)"). 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 220) -> 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 151) or the Combine audio (view page 229) 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, 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 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.

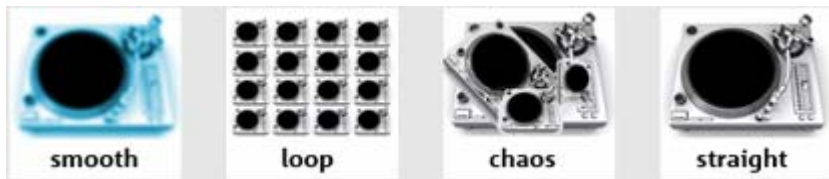
**Remedy:** The song should be limited in such a way that only rhythmic passages are contained.

**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.

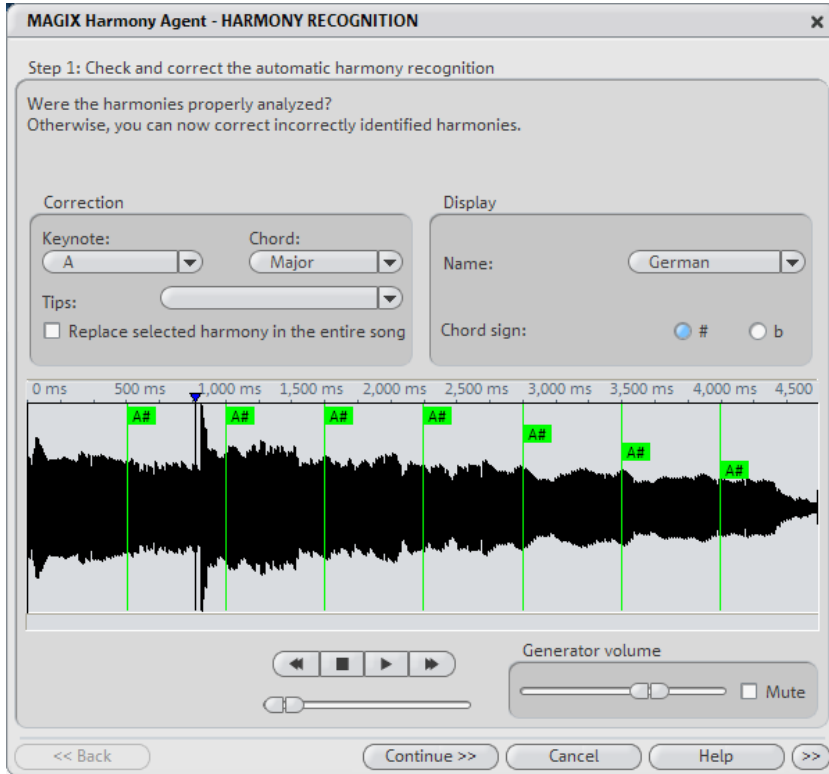
**Use randomly:** Different kinds of fills are used in a random order.

## 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.

# 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 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 uses the external MIDI device (view page 96) 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 card 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. 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 96)). 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 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 102) 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 38) 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, 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 221). 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. In this scenario, the keyboard is used as the computer's input device, and MAGIX Music Maker MX 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 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 68)'

All MIDI objects that control external synthesizers via a MIDI interface (view page 96) 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 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 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.



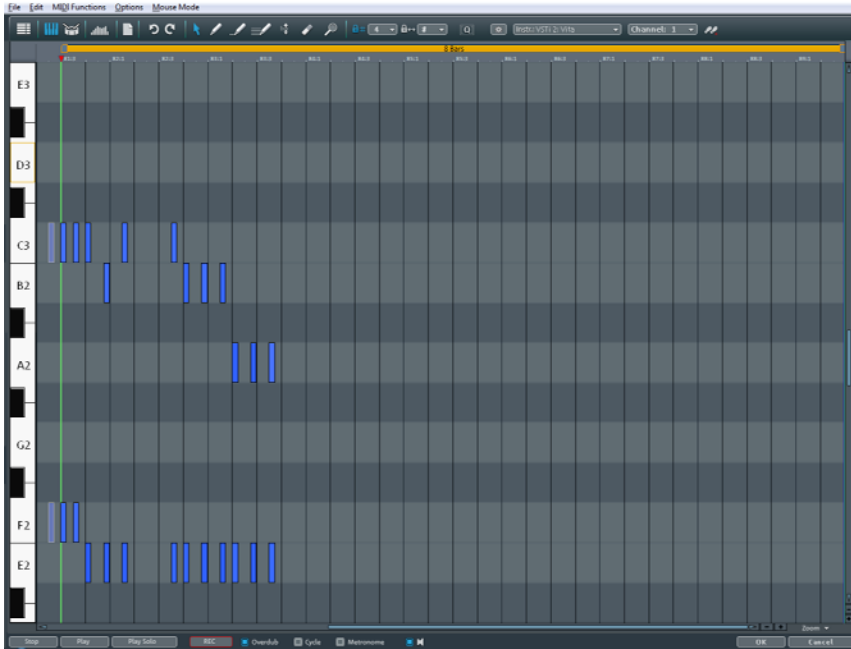
In order to record a new MIDI object, simply click the red "Record" button in the transport bar

## 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 108). 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 114) 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 106) in the bottom area. This allows you to edit features such as the note velocity, pitchwheel, and controller data.



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 103), for quantization (More information can be found in the section "Quantization settings" on page 110), and for the output (view page 99) 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. 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).

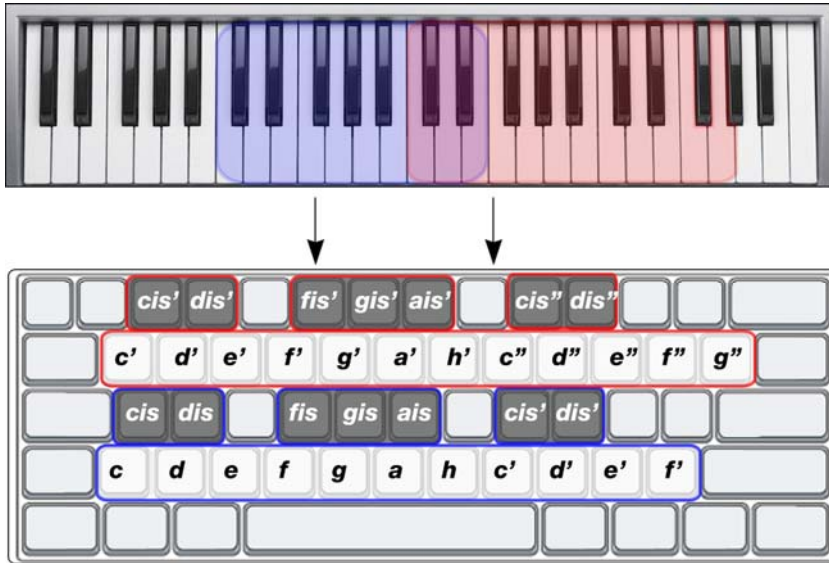
### Play/ PlaySolo

**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 104)
- Velocity editor (view page 106)
- Lists editor (view page 108)

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 108) 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.



Delete  
(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

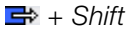
If you move the mouse over a note, the mouse cursor will change and, depending on the part of the note, the following options will be available:



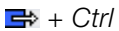
Change note start time (Grab note bar at the beginning, note end remains the same)



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 110).

### 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 smoothed 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 111) -> 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").

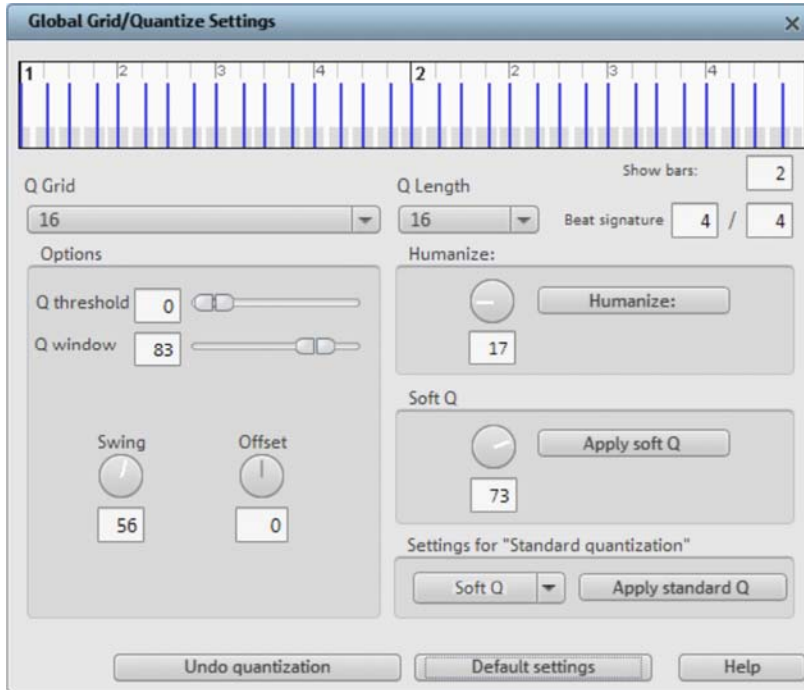
You can deactivate the snap function while creating or editing notes by holding down "Alt" as you draw them.

**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.

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 than the "window" from the grid point will not be quantized. The affected target range will be indicated in gray in the dialog graphic.

**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 reset to their 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 110) 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 110) 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 110).



**Quantize controller events:** Allows you to quantize controller events (view page 108) 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

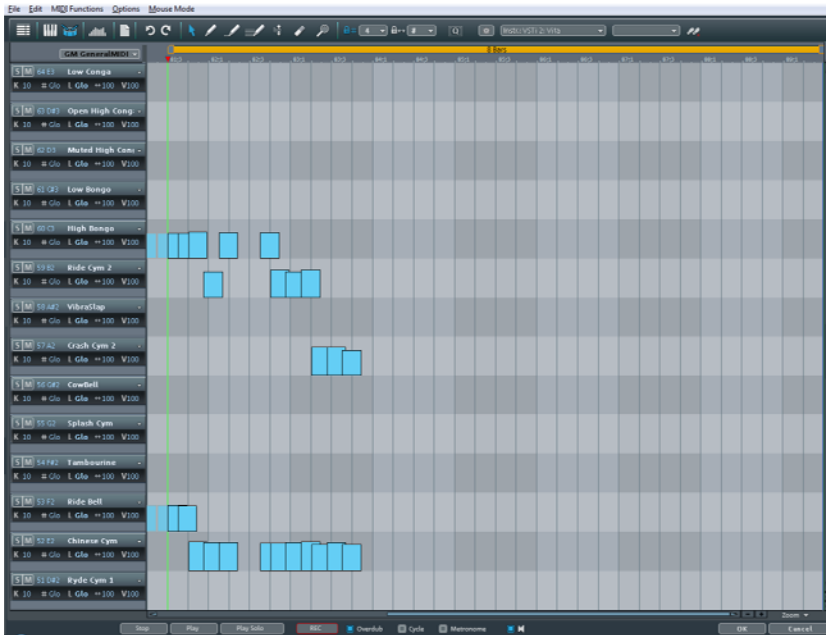
Restore (Redo)	Ctrl + Y
Cut	Ctrl+X
Copy	Ctrl+C
Insert	Ctrl+V
duplicating	Ctrl+D
Imported standard MIDI file	Ctrl+I
Exported standard MIDI file	Ctrl + E
Fade in/Out Event Editor	Ctrl+L
Fade Velocity In/Out	Ctrl + T
Show Quantization grid	Ctrl+K
Mode selection	Ctrl + 1
Drawing mode	Ctrl + 2
Drum (Draw 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 the 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 140)).

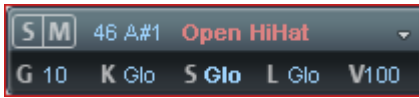
The set quantization grid can be read from the width of cells. "Swing" and "Offset" settings of the quantization options are also made clearer thanks to cells of various widths and by repositioning.

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 110), 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 110)
- 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 it 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 110).

**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 delivers many software synthesizers 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 the Vita synthesizer, by MIDI objects.

Here's an overview:

Synthesizer	Type	Use scenario
Atmos	Synth object	Background noise
BeatBox 2	Synth object	Nature and electronic beats
Loop Designer (view page 131)	Synth object	Breakbeats, bass lines
Livid	Synth object	acoustic drums (complete song parts)
Robota	Synth object	electronic drums
Vita	MIDI synthesizer	Nature instruments, guitar, bass, acoustic drums, piano, strings, horns

## Opening the synthesizers

The software synthesizers can be loaded just like any other objects in MAGIX Music Maker MX 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 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 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.

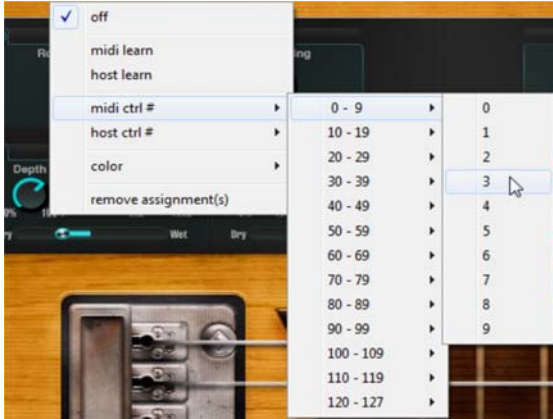
If the synth objects melodies or rhythms are programmed, you can close the the control console and arrange the synth object in the track. Synth objects are handled like normal objects and can be edited with all available effects (view page 148), drawn longer or made shorter using handles, or have their 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 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 106).

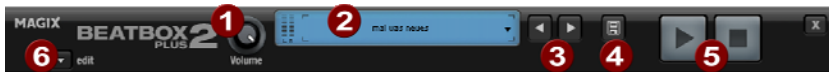
**Tip:** If you are using an external controller, you can also use it to control and automatize values. TO do so, select "Learn MIDI" in the Vita Solo Instruments context menu. Also read the Using external equipment (view page 94) chapter.

## BeatBox 2

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.
- 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 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:** In the **velocity** section, the velocity levels for the selected instrument's beats are displayed as a bar for detailed editing.
- 5 **Synthesis:** Selected sound parameters and the level of the effect 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 be 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.

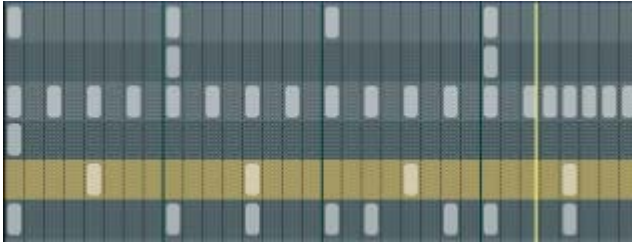
- **Reset automation:** BeatBox 2's own presets contain automations. These are dynamic sound parameters like filter curves or pitch changes. This command allows you to completely remove these for the selected instruments.

### 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 128) (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.

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
<b>Pattern editor - options</b>	
"1>2-4" Auto copy	a
Follow	f
Display bar 1... 4	1... 4
Show all bars	0
Grid finer/rougher	+/-
<b>Selected drum instrument</b>	
Previous/Next	Cursor up/down
Preview	p
Live input	Enter
Mute on/off	m

Solo on/off

sec

## Velocity

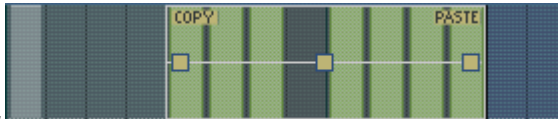
The velocity section serves for editing the velocity of the individual drum notes for the selected drum instrument.



- 1 Reset:** Sets all velocity levels to 100%
- 2 Random:** The random parameter adds random variations to the set velocities. This helps make your beats sound more natural.
- 2 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 (view page 128).

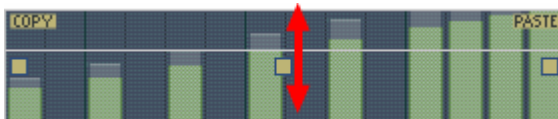
## Editing velocity values

Hold down "Shift" and select any number of columns with the mouse



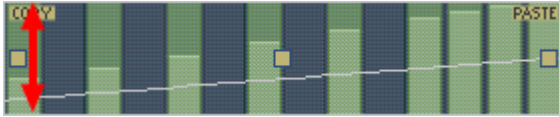
The "Copy" button copies the selection to the clipboard. If you select this or that track in another editor, then you can paste the notes there now from the clipboard. If the target selection is larger than the contents of the clipboard, then it will be inserted again. This lets you quickly add a short section throughout the complete length of the pattern.

The three handles allow the velocity values to be edited together.

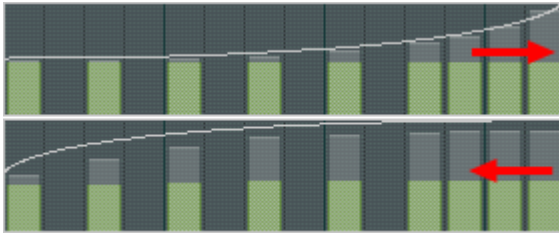




The middle handle increases or lowers the values together.



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 velocity 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.



### 1 Preview drum instrument

- ② **Mix:** Mix relationship between drum sampler and synthesizer.
- ② **Parameter controller:** All six sound parameters for a drum sound can be directly set and automated via the parameter controllers. The parameters in question depend on the drum sound currently loaded.
- ④ **Effects level:** Each of BeatBox 2's drum instruments includes an effects unit which is fed in after the actual sound synthesis and editing. The type of effect depends on the selected drum sound.

## 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).

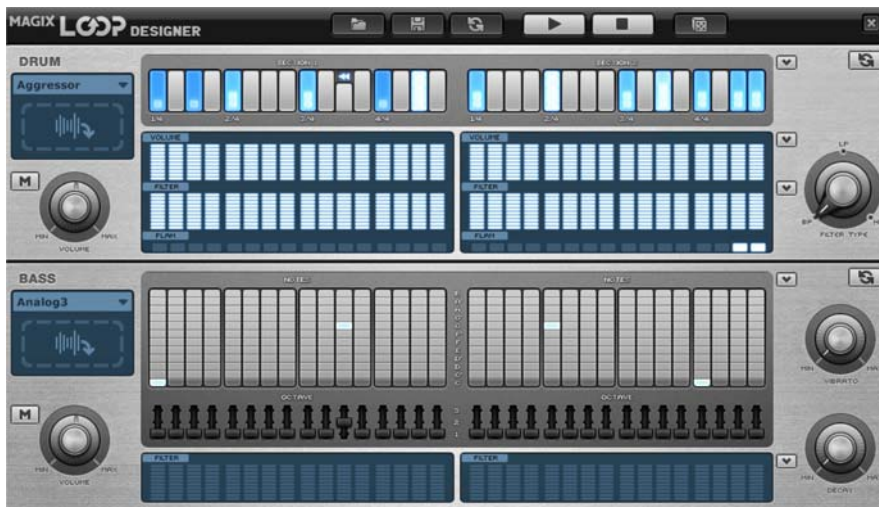
- At the bottom right border you will find a master volume fader with which the master volume of the synthesizer can be set. Furthermore, the "Randomize" setting is also located here. This way you can change the settings of the control elements by yourself.

## 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 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.

## 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 137).



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

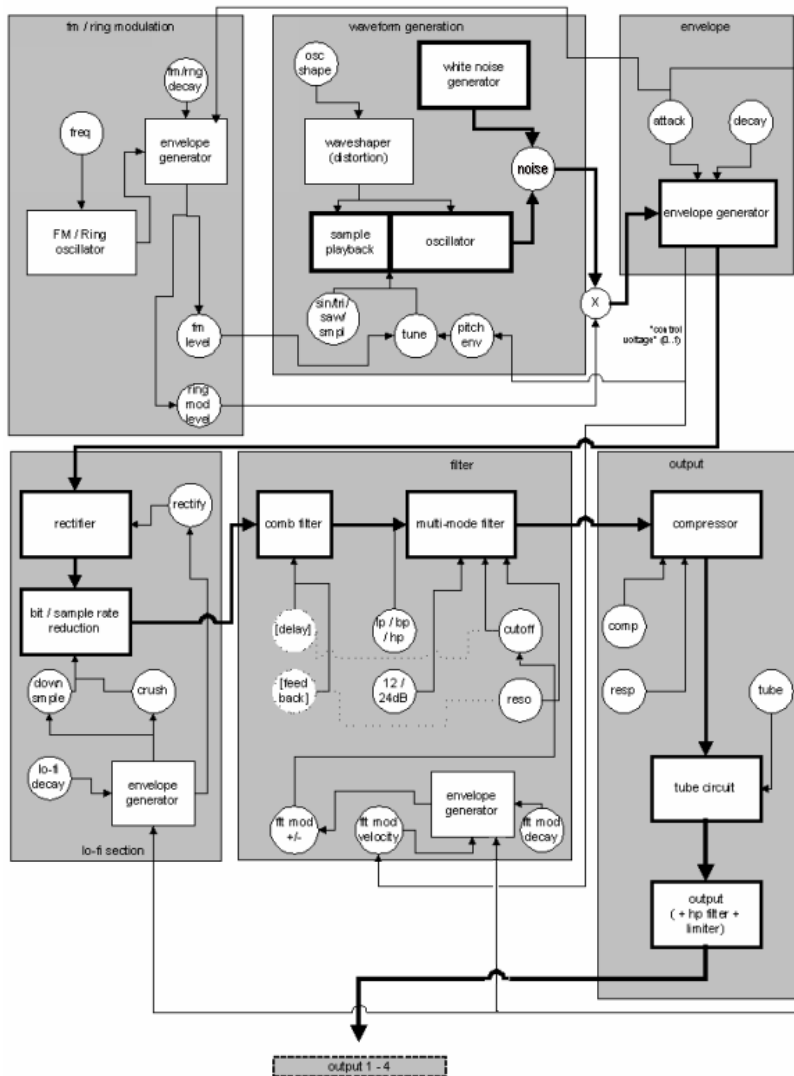
**Volume** regulates the total volume of the Robota. **Distortion** adds an adjustable tube distortion to make the sound "dirtier" and more powerful. The peak meter helps control the output level – when it enters the red area, reduce the total volume.



## Schematic illustration of the Robota synthesis



instrument 1 - 4 signal flow



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 to 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**

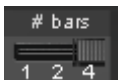
Controls the volume and panorama position of the drum instruments.

**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.

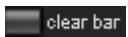


- Select “Event” mode.

- 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 known 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.

## 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).

## 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.

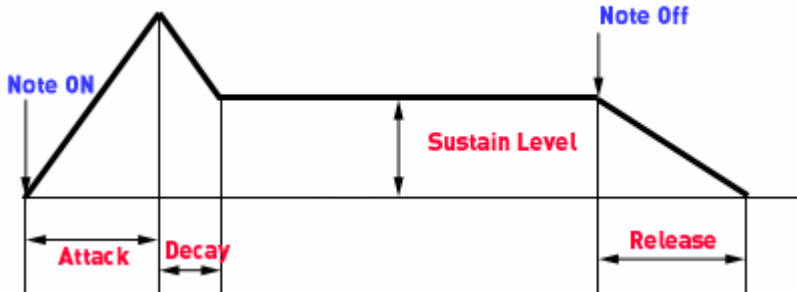
### The Vita interface



**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 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 163), Vintage Effects (view page 166), Reverb (view page 155) and Distorsion & Filter (view page 159) chapters.

Additional information is also available in the Synthesizer plug-ins chapter.

# Audio effects

MAGIX Music Maker MX offers you a multitude of infinitely variable and intuitively adjustable audio effects.

## Effects

The effects in MAGIX Music Maker MX 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.

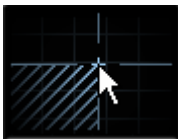
To change a real-time effect, open the effects rack or the effect's settings dialog and drag the respective control elements; the changes will be audible immediately.

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 150). 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 Effect Suite plug-ins can be used.



The Vintage Effect Suite plug-ins are being 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 38) also features the track FX menu. In it, you will find presets for track effects (view page 150) 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

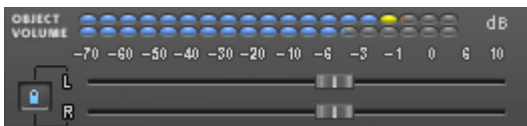
Master effects influence the mixed sum of all audio tracks. For this purpose a Master Audio Effects Rack and further the Vintage Effect Suite plug-ins are installed in the Mixer window.

## 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.

### FX plug-ins



These buttons also open the effects from the Vintage Effect Suite (view page 166).

### 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). 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 229))

### 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.



**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.

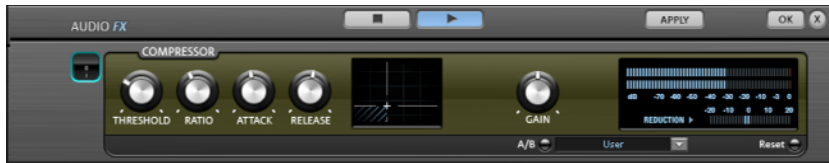
The "volume" control controls the volume of the material.

## 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.

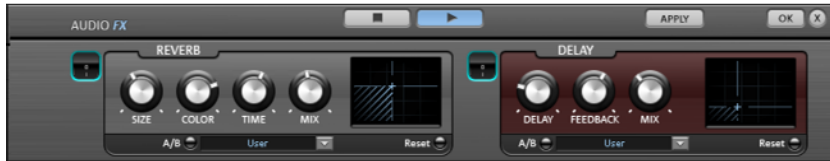
**Gain:** The gain controller amplifies the compressed signal.

## 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 1m<sup>2</sup> 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.

## 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.

## 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" in the "Audio effects" chapter or "Track effects (view page 150)" 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.

## Stereo Delay

The stereo delay is a simple tool 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. 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.  $\frac{1}{4}$  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



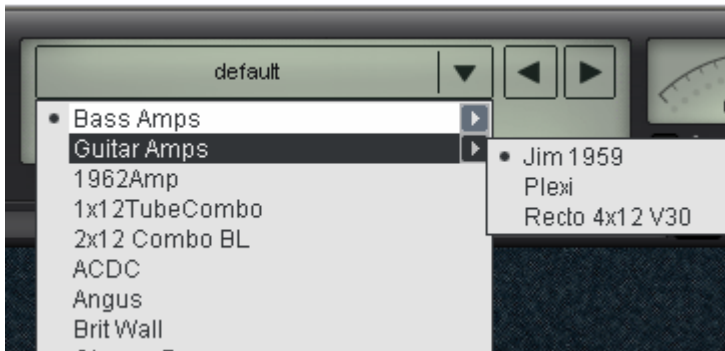
### Virtual Guitar & Bass Amplification

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 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, but you can also use your own files.

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 62)".

## 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 well 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 (\*.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 move 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 scrub 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 228) 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 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

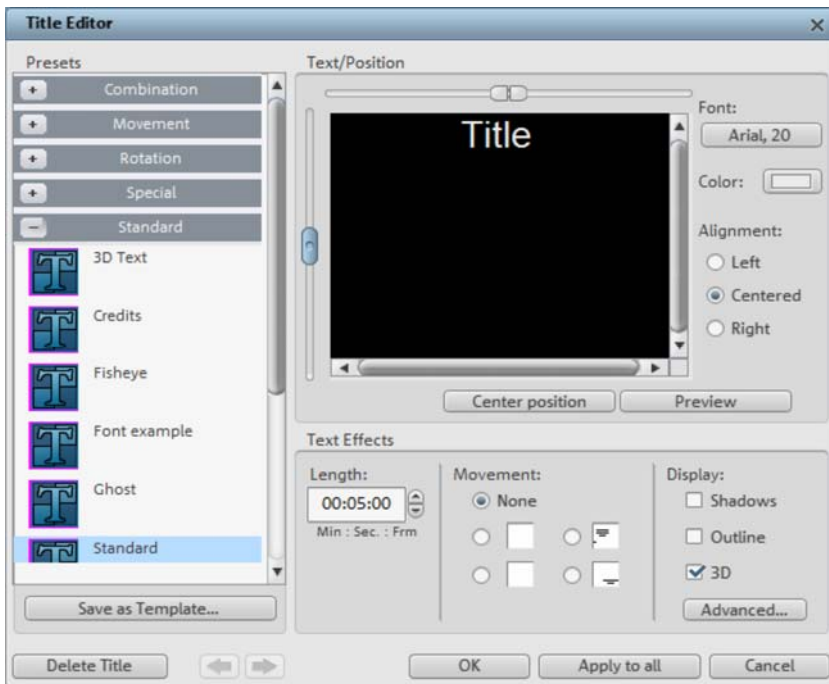
### Text objects and title templates

MAGIX Music Maker MX 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 [www.magix.com](http://www.magix.com)

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 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 can also process such high-resolution video data completely. Within MAGIX Music Maker MX, 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 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 (**c**oder/**d**ecoder) 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".

# Mixer



MAGIX Music Maker MX 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.

## Master Limiter

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 Effect Suite plug-ins can be used.



The Vintage Effect Suite plug-ins are being 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.

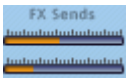


The arranger's trackbox (view page 38) also features the track FX menu. In it, you will find presets for track effects (view page 150) sorted according to the instrument type.

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 148).

## 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**. The complete mixer settings including the FX tracks can be reset with the "**FX reset**" button.

Both faders control the total volume.



**Link button:** If you deactivate the Link Button, you can control the volume of the right and left channels individually.

Master limiter: Effectively prevents overmodulation.

# Reprocess arrangement

## Export assistant



The export icon on the toolbar (view page 255) 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 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 208)" 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 205).

**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"

**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 read the chapter video and image objects (view page 186). More info about YouTube™ export is available in "Export to YouTube (view page 204)" 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 205) 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 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 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 directly to Facebook.

The command opens a dialog where the arrangement name (displayed according to the settings in MAGIX Music Maker MX), 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.

You can find this function in the menu "File -> Export -> Youtube".

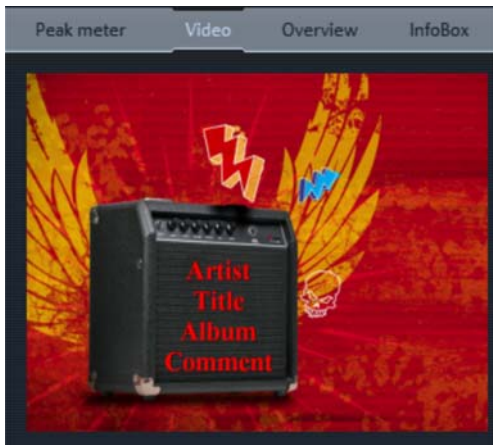
The command opens a dialog where you can set the name of the arrangement for YouTube (default is the same as in MAGIX Music Maker MX), description, keywords (so-called "tags"), and the category for the video. After submitting this data by pressing "OK", the arrangement is exported and uploaded to YouTube®. 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 special 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)  
<http://www.soundcloud.com>.

## 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 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 arrangement is loaded with this menu item. Please note that the object files for the arrangement must also be available! MAGIX Music Maker MX 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 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 75)" in the "Audio objects" chapter.

Shortcut: C

### Audio recording

See Audio recording (view page 72).

Shortcut: R

## 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 199).

Shortcut: X

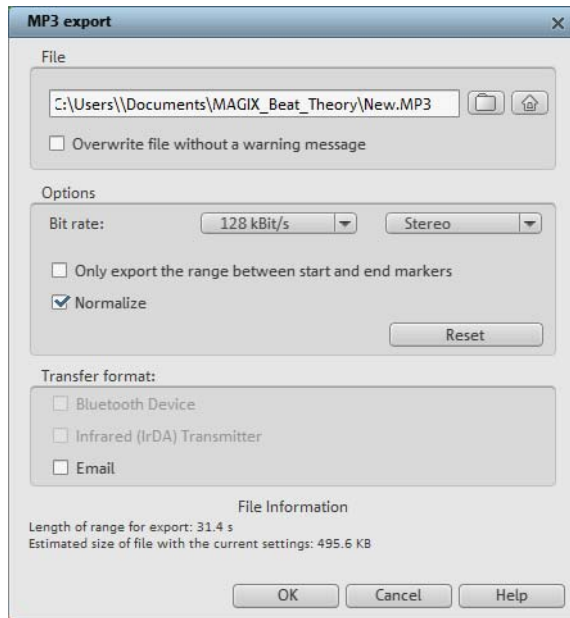
### Burn audio to CD-R(W)

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) 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 the exported arrangement to mobile devices via Bluetooth, infrared or email. Read more in the Reprocess arrangement (view page 198)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 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 201).

**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:** Most mobile devices have only one loudspeaker. To save memory, you can also export in mono.

**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 214) 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.

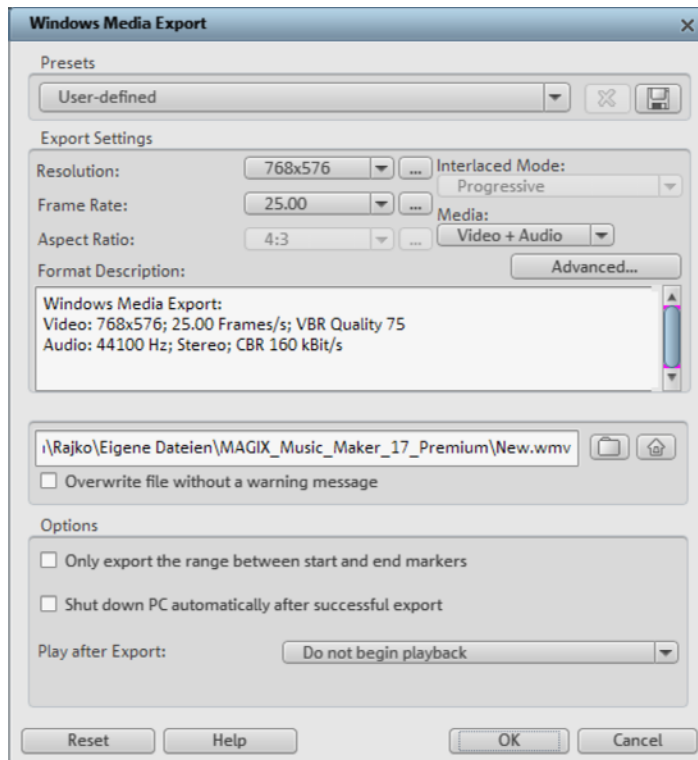
Shortcut: Shift + I

### 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 arrangement 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 "...". 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 198)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 192, view page 213) 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 (**c**oder/**d**ecoder). 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 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

**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

**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.

**Upload video to YouTube**

Uploads the current arrangement to YouTube. See Export to YouTube (view page 204) for details.

Shortcut:                      Shift + Y

**Upload audio to MySpace**

The audio material will be exported as an MP3 file and uploaded to the MySpace community. You can find more details under Upload audio to MySpace (view page 205).

Shortcut:                      Shift + S

**Upload video to Facebook.**

Uploads the current arrangement to Facebook. You can find additional information under Export to Facebook (view page 204).

**Upload audio to Soundcloud.**

Uploads the arrangement to the Soundcloud music platform. You can find additional information under Upload audio to Soundcloud (view page 205).



## Backup

### Load backup arrangement

Using this command you can load a backup arrangement. Backup arrangements are created automatically by MAGIX Music Maker MX 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 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

### 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

### 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 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

## 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  $\frac{3}{4}$  beat. With various grid settings you can also set additional beat types. For example, with a set  $\frac{3}{4}$  beat and a  $\frac{1}{8}$  note grid a  $\frac{6}{8}$  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 and ReWire 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 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 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.

### 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 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 79)

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 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 (view page 223) 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 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 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.

## 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.

### MAGIX Low Latency ASIO driver settings

These settings usually do not need to be changed; they are already optimized for maximum compatibility. However, if you wish to increase performance and reduce latency, then you can change individual settings.

**Audio device:** If you have more than one audio device (e.g. on-board sound and additional sound cards), you have to specify the device that you wish to use for the MAGIX Low Latency driver here.

**Buffer size:** Sets sample buffer size. The smaller the buffer, the lower the latency and the larger the CPU load. Modern computers can manage latencies of up to 256 samples.

**Always convert 44.1 KHz:** Some on-board sound chips (AC97) and sound cards (e.g. manufactured by Creative) support 48 KHz as the only hardware-side sampling frequency. If these are accessed via normal audio with a sample rate of 44.1 KHz, they either function not at all or the sound card's driver changes the sample rate, usually into quite poor quality. You will be able to recognize this by the sound during playback of soundpool files being much more thuddy than when playing DVDs whose audio is set to 48 KHz. The MAGIX Low Latency driver provides a significantly better resampling function and is for this reason activated by default, that is, the output signal is boosted to 48 KHz. If you are certain that your sound card can play 44.1KHz sample rates properly, you can deactivate this option, and thereby reduce the processing load.

### 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 loaded (**Soundpool**)
- your MP3 collection is available (**My MP3s**)

## Edit keyboard shortcut

Opens the dialog for editing shortcuts used in MAGIX Music Maker MX.

Shortcut: U

## Reset Program Settings to Default...

Use this function to reset all program settings (view page 219, view page 218) you made in MAGIX Music Maker MX to their original settings.

## Exit

Exits MAGIX Music Maker MX.

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.

Keyboard 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 91) chapter.

Shortcut:                      Ctrl + Shift + T

### Create a new title object

Creates a new title object and opens the title editor (view page 188).

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

**Select all objects**

All objects in the arrangement will be selected.

Shortcut: Ctrl + A

**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 67).

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 68) 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 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

### 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

### 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

## 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 260) 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

## 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. 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 148)" 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 with this option.

Shortcut:                    N

### Text to speech

Please refer to the Audio objects (view page 91) chapter.

Shortcut:                    Ctrl + Shift + T

### Object effect rack

See Object and master effects rack (view page 150).

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 148)".

### 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 74) (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 90)" 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'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.

Please refer to the Audio objects (view page 87) chapter.

Shortcut:                      Shift + K

### Tempo & beat recognition

MAGIX Music Maker MX 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 be 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
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### 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 instead of the original object.

Shortcut:	Ctrl + Shift + M
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## 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 instead of the original material.

Shortcut:	Ctrl+Shift+B
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## Title

### Title Editor

Opens the title editor (More information can be found in the section "Title Editor" on page 188) 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.



# View menu

## Easy mode

Switches the screen in MAGIX Music Maker MX to "Easy" mode's simplified interface. More about this in the chapter "Arranger -> Normal mode/Easy mode".

This documentation describes MAGIX Music Maker MX 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

## 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 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 194) 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 with this option.

Shortcut:                    N

### **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.

#### **Upload video to YouTube**

Uploads the current arrangement to YouTube. See Export to YouTube (view page 204) for details.

Shortcut:                    Shift + Y

#### **Upload video to Facebook.**

Uploads the current arrangement to Facebook. You can find additional information under Export to Facebook (view page 204).

### Upload audio to Soundcloud.

Uploads the arrangement to the Soundcloud music platform. You can find additional information under Upload audio to Soundcloud (view page 205).

### 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

Your arrangement will be sent to MAGIX Speed burnR, where it can be burned to CD or DVD.

## More online services

### 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.



# 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 -> 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 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:  
**MP3 Surround encoder.**

### Fee-based MP3 activation

To create Surround MP3s the appropriate fee-based codec must be activated first.

1. Register and order activation code

Easily order your personal activation code online, by telephone, email or fax any time. Your activation code will be emailed to you within minutes.

Activate online...    Activate by post/fax...

2. Enter activation code

Please enter your activation code and click on the "Activate" button. An online connection will be established during the activation process.

   Activate

### Order activation code online

Click on "Order online..." (Field 1). The web browser will open for you to register MAGIX Music Maker MX first (if you have not already done so). You will then be forwarded to a website where you can request the corresponding activation.

If your computer has no Internet access, then you have the following options for activation:

**Order activation code in MAGIX Service Center**

Use this option to conduct activation from a different computer which has Internet access.

**Order activation code via post/fax**

After clicking on "Order via post/fax" (field 2) your user code will appear. This automatically assigns your personal activation code to your PC. Click on "Continue to order form" to transfer your user code automatically to the post/fax form. Now send the completed form as a printout to the address/fax no. mentioned. Once payment has been processed successfully, your activation code will be sent to you in the post/via fax in just a few days. Optionally, it can also be sent by email if an email address is stated.

**Enter activation code**

After receiving your personal activation code use the export or burn function to reopen the activation dialog for the corresponding file format. Type or copy the activation code into the input field in the dialog and click on "**Activate...**".

**Activation problems**

**Problem:** The entered code is incorrect (telephone activation)

Make sure your entry is correct; in most cases a typo is to blame. If the code is entered correctly, dial the number of our Call Center. Our support staff will help you personally.

**The MAGIX website won't open**

Check your Internet connection; you may have to use manual dial-up.

**The form for ordering via post/fax won't open**

- Check that an adequate text editing program is installed and activated (for example, MS Word).

**I still haven't received an email with the activation code**

- Check that your inbox isn't full.
- Have a look in your spam folder.

You can always send questions via email to our support whenever you like. Please have the following information at hand so that we can assist you as quickly and as specifically as possible.

- Complete product name

- Exact version number (to be found in the about box in the "About" menu item of the "Help" menu)
- Encoder/Decoder name
- Your user code (accessible via the "Activate via post/fax" dialog)

**Problem:** I have installed MAGIX Music Maker MX on a new computer, installed a new hard drive in my old computer (sound card, memory...), or installed it multiple times on the same computer. My activation code is no longer accepted!

If the program cannot be activated again after it has been activated multiple times, please contact the MAGIX customer service (view page 9).

## 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 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 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

Displays copyright info and version number of MAGIX Music Maker MX.

# Buttons overview and keyboard shortcuts

## Toolbar



Save arrangement



Copy selected objects



Export assistant



Insert



Undo last action (Undo)



Song Maker



Redo action



Select mouse mode (view page 59)



Cut



magix.info

## Keyboard shortcuts

In MAGIX Music Maker MX, 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

**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	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 260)).

**Effects menu**

Song Maker	W
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**Audio**

Master audio effects rack	B
Text to speech	Ctrl + T

Object effects rack	E
10-band equalizer	Q
Sketchable filter	Ctrl + Q
Compressor	Shift + D
Invert phase	Ctrl + I
Echo/Reverb	Shift + H
Distortion/Filter	Shift + F
Gater	Ctrl+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	Shift + 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
<b>Video</b>	
Edit image in external editor	Ctrl + B
<b>Title</b>	
Title Editor	Ctrl + T
<b>Automation</b>	
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

Catooh O

**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

**Mix**

Mixer M

Master audio effects rack B

Mastering Suite N

Standard layout F4

**Help menu**

Context help mouse mode Alt + F1

About MAGIX Music Maker MX 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

File Browser F6

Synthesizer	F7
Templates	F8
Keyboard	F9
Object inspector	F10
Catooh	O

### 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
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### 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

Change preview object

Insert into arrangement

Delete smart preview object

Numbers 0..9

Arrow keys

Enter

Del

# Index

## 6

---

64-track Arranger (Premium 96) 21

## A

---

About MAGIX Music Maker MX 254

Activate additional functions 251

Activation problems 252

Add songs to your MySpace profile 216

Add to music collection 246

Add track 229

Add Videos or Images 33

Additional Audio Effects 25

Additional features of the Premium version 25

Additional Instruments 25

Additional new features in the Premium version 21

Additional Styles & Samples 25

Additional tracks 26

Additional Vita Solo synthesizers 147

Adjusting the Signal Level 73, 74

Adjusting the video screen 186

Adjusting volume/brightness 67

Advanced options 75

Also in the Premium version 27

An additional 2,000 sounds can be found in the online archive 19

Analog Delay 167

Analog delay parameter 168

Apply (destructive editing) 81, 152

Arrange MIDI objects 93

Arrangement overview 45, 243

Arrangement settings 218

Arranger 28, 37, 241

Arranger buttons 45

Arranger view - Increase/Reduce clip size (zoom) 260

Arranger, Video Monitor, and Media Pool 45

Arranging Objects 60, 63, 187

Ask the Knowledge Community a question online 253

Atmos 130

Audio 72, 95, 221, 234

Audio & MIDI 23

Audio > Loop Finder 79, 80, 237

Audio as AIFF	212
Audio as FLAC	212
Audio as MP3	210
Audio as Ogg Vorbis	211
Audio as WAV/ADPCM	210
Audio as Windows Media	211
Audio effects	53, 121, 148, 196, 234
Audio Effects	21
Audio export dialog	209
Audio formats	71
Audio object effects	55, 149
Audio objects	55
Audio Objects	71
Audio peakmeter	57, 243
Audio recording	72, 208
Audio recording dialog	43, 74, 235
Automatic tempo adjustment when loading	79
Automatic Tempo Recognition	83
Automatic volume damping	235
Automation	59
Automation of Vita Solo instruments.	122

## B

---

Backup	217
Backwards	161
Bass amp	184
Bass section (lower pane)	134
BeatBox 2	21, 123
Before You Start	13
BitMachine	176
Build or split object groups	64
Burn arrangement and used media onto CD/DVD-R(W)	217
Burn audio CD	36, 200, 206
Burn audio to CD-R(W)	208
Burn manually selected files to CD/DVD-R (W)	218
Burn song as an audio CD	246
Buttons overview and keyboard shortcuts	255

## C

---

Catooh – the Online Content Library	17
CD Manager	75
CD/DVD	51
Cell mode	116
Change object presentation	241



Change tempo or pitch of individual objects manually	80
Change the playback tempo or pitch	79
Check and correct the automatic harmony recognition	91
Choppy or uneven playback	191
Chorus	173
Chorus flanger Parameters	164
Chorus parameters	174
Chorus/Flanger	163
Common export options	208
Community upload	204, 216, 244
Compressor	154
Connect external equipment	94, 122
Connecting the source for recording	72
Content	249
Context help	62, 249
Context menu	125
Control groups	195
Controller editor - Selecting and editing events	98, 101, 106, 122
Controller Editor Hints	106
Convert MIDI objects into audio files	94, 96
Convert stereo into two mono objects	239
Copy Objects	227
Copy range	230
Copyright	2
Create a new MIDI object	226
Create a new object	226
Create a new title object	227
Create a video project for the Internet	192
Create jump marker sequence	231
Create Remix objects	237
Cut	227
Cut range	230

## D

Database	52
Delay (echo)	159
Delete all jump markers	232
Delete range	230
Deleting objects	228
Deleting, copying, and moving files	51
Determining the start of a measure	84
DirectX and VST plug-ins	26
Display harmonies	44
Display Tool Tips	250
Distortion	159, 175

Documentation	249
Draw	60
Drive list dialog	77
Drum Editor	98, 115
Drum Editor trackbox	117
Drum Engine	20
Drum kit	125
Drum Map Editor	118
Drum Maps	117
Drum section (top half).	132
Duplicate objects	65, 227
DVD	13

## E

---

Easy mode	24, 241
Edit image in external editor	239
Edit in external editor	239
Edit keyboard shortcut	225
Edit menu	257
Edit Menu	226
Edit notes with the mouse	105
Edit Objects	33
Edit with an external editor	246
Editing velocity values	127, 128
Effect devices controls	148
Effects	34, 148
Effects menu	257
Equalizer	152
Essential FX	147, 163
Event display filters	94, 102
Events above or below the currently visible selection	103
Exact object positioning	65
Exit	225
Export	200, 208
Export Arrangement	34
Export as E-Mail attachment	201
Export as ringtone	201, 211
Export assistant	199, 208
Export to Facebook	204, 216, 244
Export to YouTube	200, 204, 216, 244
External synthesizers	93, 96
Extract range	231
Extract sound from videos	188

---

**F**

---

Fader	195
Fee-based MP3 activation	251
File manager settings	49
File menu	255
File Menu	207
Fill mode	89
Filter	159, 171
Filter parameters	171
Filter-Sweeps/Morphing	154
Find knowledge & workshops	250, 253
Flanger	169
Flanger parameters	170
Folders	225
Formats and Interfaces	22, 24
Full-screen Video Monitor	242
Fundamentals	155
FX plug-ins	151
FX tracks	196

---

**G**

---

Gater	160
General info on AVI videos	213, 214
General notes on AVI videos	192, 213
General options	47, 219
Grid	40, 65
Group objects	228
Grouping	228
Guitar amp	183

---

**H**

---

Harmony Agent	24, 44, 90, 236
Help menu	259
Help Menu	249
High-end 32-bit floating point	23
Highlight loop area	241

---

**I**

---

Import	22, 80, 208, 220
Import audio CD	75, 208

Import audio CD tracks	208
Infobox	58, 243
InfoBox	24
Information	218
Input	182
Insert range	230
Insert segment multiple times	230
Installation	15
Internet > Send arrangement as email	216, 245
Internet upload to many platforms	25
Introduction	19
Invert phase	155

## K

---

Keyboard settings	54
Keyboard shortcuts	54, 127, 255

## L

---

Lead Synth	20
List Editor	98, 101, 103, 108
Live monitoring	39, 72, 197
Live Sessions	25
LiViD - Little Virtual Drummer	144
Load and process audio files	71
Load arrangement	207
Load backup arrangement	217
Load MIDI files	93
Load title template	240
Load/Save	151
Load/Save/Reset audio effects	239
Loading and editing videos and bitmaps	186
Loading and saving arrangements	63
Loop Designer	20, 120, 131
overview	131
Loop Finder	89
Loop range	229

## M

---

MAGIX Blog Service	17
MAGIX Community	18
MAGIX Low Latency ASIO driver settings	221, 223
MAGIX Mastering Suite 2.0	26

MAGIX Music Editor	26
MAGIX Online Album	17
MAGIX Online World	17
MAGIX Screenshare	254
MAGIX Vita	145
MAGIX Website Maker	17, 247
magix.info	18
magix.info - Multimedia Knowledge Community	253
Manual	13
Master audio effect rack	234, 243
Master effects	150
Master track	197
Mastering Suite	234, 244
Media database	22
Media Pool	28, 46, 242, 259
Media Pool views / template folders	242
Menu effects	233
MIDI cabling	95
MIDI Editor	97
MIDI Editor shortcuts	113
MIDI editor techniques	113
MIDI functions	109, 112
MIDI objects	56
MIDI Objects	46, 55, 93
MIDI objects context menu	259
MIDI Record options	39, 43, 100
MIDI transposition	236
Mix	243
Mixdown audio	68, 96, 229
Mixdown audio...	81, 152, 229
Mixer	24, 44, 45, 194, 243
More about MAGIX	17
More online services	247
Mouse gestures	69
Mouse modes	59, 255, 261
Move all	60
Move Arranger view	231, 257, 260
Move playback control / playback marker / playback area	261
Move playback position	231
Move screen view	231
Move selection	60
Move to track	60
Move/Zoom with the mouse wheel	40
Move/Zoom with the scroll bar	39
Moving and zooming	106
Moving the playback marker	42

Multimedia files and objects	63
Multimedia Library	21
Multiple insertions	227
Mute objects	64
Mute/Unmute objects	235
Muted events display	103
My MP3s	52
My Projects	51

## N

---

Navigation	231
Navigation buttons	50
New arrangement	207
New menu structure	20
New Sound Library	19
Non real-time effects	149
Normal mode/Easy mode	28, 37
Normalize	235
Notation display, movement, zoom	101
Note display in the piano roll and the controller editor (with velocity curves)	102
Note for users of older Music Maker versions:	121

## O

---

Object	226
Object and master effects rack	150, 151, 234
Object and track curve automation	26
Object effect rack	234
Object fades	66
Object handles	66
Object Inspector settings	55
Object properties	68, 229
Object Volume	151
One pitch higher/lower	236
Online Update	250
Open magix.info - Multimedia Community	253
Opening the Remix Maker	88
Opening the synthesizers	120
Optimize view	40, 241
Overview	58
Overview of the Program Interface	28
Own recordings	23

---

**P**

---

Package Contents	13
Parameters	156
Paste	227
Pattern editor - matrix	127
Pattern editor buttons	126
Piano Roll - Edit events	99, 103
Play Demo Project	30
Play object/Play arrangement	152
Play/ PlaySolo	99
Playback area, Start and end markers	41
Playing and recording MIDI synthesizer	96
Playing instruments with the keyboard	100
Position Audio Objects	32
Positioning the Media Pool	47
Preface	3
Preparation - Setting the start marker and object end	83
Present music on magix.info...	253
Presets	88, 157
Preview and Load Audio Files	31
Preview audio	61
Preview function	46
Preview/Smart preview	262
Problems and Remedies regarding the Auto Remix Assistant	87
Program settings	51, 219, 225
Properties	218

---

**Q**

---

Quantization grid (	109
Quantization settings	99, 108, 110, 112, 117, 119
Quantize	108
Quantize controller events	108, 113
Quick start	30
Quick start via preset selection	180

---

**R**

---

Rack effects (FX1/FX2)	184
Range	230
Real 5.1 Surround Sound	26
Real-time effects	148
Record a new object	226

Recording Audio CDs	79, 221
Redo	226
Register as guest of a screen session	254
Register as host for a screen transfer	254
Register online	250
Remix	236
Remix agent - Tempo and beat assignment	82
Remix Maker	88, 237
Remove user-defined loop	229
Reordering	161
Replace	62
Reprocess arrangement	199, 210, 213
Requirements for using the Remix Agent	83
Reset Program Settings to Default...	225
Reverb	147, 155
Revolta 2	27
Robota	135

## S

---

Save arrangement	207
Save arrangement and used media	217
Save arrangement and used media (audio as OGG Vorbis)	217
Save arrangement as...	207
Save objects as takes	228
Save on CD or DVD	246
Save only Tempo & Beat information	85
Save title template	240
Schematic illustration of the Robota synthesis	136, 137
Scrubbing	62
Search the database	52
Select all objects	228, 232
Select objects	64
Select sounds	99
Selecting MIDI events	101, 104
Sequencer	116, 140
Serial Number	16
Set jump marker	231
Set pitch	236
Set user-defined loop	229
Set volume	235
Setting Catooh	56
Setting the manual and Onbeat/Offbeat	84
Settings	51, 218, 225
Setups, drum kits, presets, and patterns	142
Shortening or looping objects	66



Show Media Pool...	242
Show object marker > Show bar marker/harmony marker	242
Show video monitor	242
Show welcome dialog	249
Shuffle mode	89
Simplify object presentation	187
Single picture as BMP	215
Single picture as JPG	216
Sketchable filter	153
Smart Preview for the incorporated samples	46, 71
Software Synthesizers	23
Some advice on creating ring tones	201
Song Maker	24, 233
Sound synthesis	135
Sound Warper	147, 159
Soundpool DVD Collection	18
Soundpool settings	47
SoundVision	25, 49
Split	61, 64
Split objects	64, 228
Standard layout	244
Start introductory video	250
Step recording via keyboard or controller keyboard	101
Stereo Delay	165
Stereo Delay Parameters	165
Stomp boxes	182
Stretch	61
Support	10, 253
Switch to Drum Editor Mode and back.	116
Synchronization settings/ReWire	218
Synth objects	121
Synthesizer	53, 129
Synthesizer objects	46, 53, 120
System requirements	13

## T

Takes	67, 228
Tasks menu	249
Template settings	46, 53
Tempo	44
Tempo & beat recognition	237
Tempo adjustment	85
Tempo and pitch	235
Text objects and title templates	188
Text to speech	92, 226, 234

The CD-ROM configuration dialog	78
The Features	21
The track list dialog	76
The Vita interface	145
Time display	44
Timestretch and pitchshift	161, 236
Title	240
Title Editor	188, 189, 227, 240
Title templates for YouTube	205
Toolbar	28, 199, 255
Tools	107
Track	229
Track effects	39, 150, 163, 196
Track position slider	45
Trackboxes and Instrument icons	28, 38, 43, 94, 150, 196
Tracks	37
Transfer with Bluetooth	202
Transfer with Infrared	203
Transport bar (playback functions)	43
Transpose MIDI	93
Tuner	181

## U

---

Undo	226
Ungroup objects	188, 228
Uninstalling the program	12
Update program / Upgrade functions	250
Upload audio to MySpace	216
Upload audio to Soundcloud.	216, 245
Upload current arrangement as MP3...	245
Upload song to Soundcloud	200, 205, 216, 245
Upload to Facebook	20
Upload video to Facebook.	216, 244
Upload video to YouTube	216, 244
USB-MIDI keyboards	94
Use as background music	245
Use harmony recognition	91
Using audio effects	149
Using BPM and beat detection	85

## V

---

Vandal - Amplifier	182
Vandal SE	180
Various file list view modes	50

---

Velocity	128
Video	45, 224, 239
Video and bitmap formats	186
Video and Bitmap Objects	186, 200
Video as AVI	213
Video as MAGIX video	214
Video as Quicktime Movie	214
Video as Windows Media	211, 215
Video Compression	191
Video effects	188
Video export dialog	212
Video export via TV-out	193
Video monitor	242
Video Monitor	260
Video recording	26
Video scrubbing	187
Videoscreen	29, 57
View menu	241, 259
Vintage Effects Suite	147, 151, 166
Visualizer objects	187
Volume	234
Volume or filter progressions	160
Volume regulation	44
VST Support	20

## W

---

What is MAGIX Music Maker MX?	19
What's new in MAGIX Music Maker MX?	19

## Z

---

Zoom buttons	40
Zooming	28, 39