MAGIX

MUSIC MAKER

English language manual

Copyright

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Customer support

Dear MAGIX customer,

Our aim is to provide convenient, fast and solution-focused support, which is why you can get unlimited web support and help through our online community at www.magix.info.

As a registered MAGIX customer, you have unlimited access to web support offered by the MAGIX service portal in the **Support** area at www.magix.info. You have access to an intelligent help wizard, high-quality FAQs, patches and user reports that are constantly updated.

The Online Community is available for free to all registered MAGIX customers in the **Forum** area. The community enables you to ask members questions concerning MAGIX products as well as use the search function in order 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, who are on www.magix.info everyday, guarantee quick answers, which sometimes come within minutes of a question being posted.

Note: *A free registration is required for a support request at www.magix.info.*

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

Phone: +49 5741 3455-31, Monday to Friday 10:00 am - 4:00 pm

Email: infoservice@magix.net

Address: MAGIX Software GmbH, Borsigstrasse 24, 32312 Lübbecke

Particularities for purchases made through Steam™

Different conditions apply if you have purchased the program through Steam™. You can find more information at https://support.steampowered.com.

Serial number

A serial number is included in each product. This serial number is required for software activation. Please store this number in a safe place.

Use of a serial number

With a serial number your program license is clearly assigned to you and only you. This allows you to use the free customer service via email.

Serial numbers also help protect against software piracy. This makes it possible for us to offer our customers the most value for their money.

Where is the serial number located?

For boxed versions of the program, the serial number can be found on the insert card inside the box.

If you have purchased a download version, you will receive a confirmation email containing the serial number that you can use to activate the program. This will be sent immediately following purchase to the email address you provided.

When is the serial number needed?

The serial number is required when you start the program the first time, as well as for program registration.

Using the serial number on another computer

If you want to use the serial number on another computer or after reinstalling your operating system, you must deactivate the program on your current PC.

This "releases" the serial number from the current computer so that it can be used on another.

Note: *You can also deactivate the program in the MAGIX Service Center, but it is much more convenient to do this with the integrated feature in* ***MAGIX Music Maker****.*

Introduction

> ***Note:*** *This documentation describes Music Maker with all its available functions. Certain functions are only available after an Edition has been activated or after the functions have been purchased in the Store.*

What is MAGIX Music Maker?

MAGIX Music Maker is the ideal program for creating professional sounding recordings without having to learn any complicated musical theory. You can simply combine the professionally produced loops in the intuitive arranger and mix them to create your own personal sound.

Aiming for a one-of-a-kind sound that will let you stand out from the crowd? Try creating your own sounds with the included software synthesizers or load your own plug-in synthesizers. High-quality effects help to give your tracks the final polish or you can take things in the other direction and distort them until they are almost unrecognizable. Express your creativity by recording your own vocals or instruments and adding them to the project.

Whether rock, techno or orchestral film music, you can produce all kinds of tracks using the wide range of genres available in the program. When you combine elements from different style libraries the tempo is adjusted automatically to make sure your arrangement fits together perfectly. Who knows? Maybe flamenco rock or country techno is the next big thing.

If you need even more sounds and samples, the in-app Store offers a rich selection of audio, video, images and professionally created sound effects for adding even more variety to your project.

Or how about a remix? Load up your favorite hits from the past and add some fat bass or a totally modern beat! When you load audio CD tracks and MP3s into **MAGIX Music Maker** the tempo of the song is recognized and adjusted to fit the project. The track can also automatically be cut into loops.

But music alone isn't everything! You can import images and video files to your project, include text and add video effects and cool visuals. Your finished music video can then be directly exported from **MAGIX Music Maker** and posted on Soundcloud or YouTube.

Quick Start

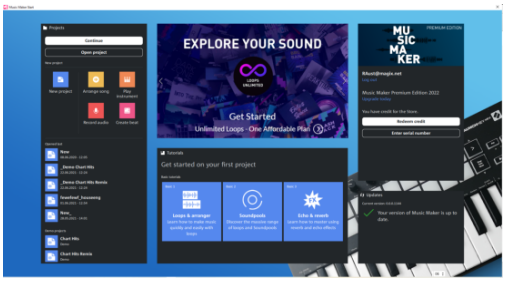
This chapter explains the basic functions of **MAGIX Music Maker** with a step-by-step introduction. A systematic description of all program functions can be found towards the

end of the manual.

> ***Tip:*** *Watch the tutorials videos on our website and learn some tips and tricks from other users at* magix.info - Multimedia Community.

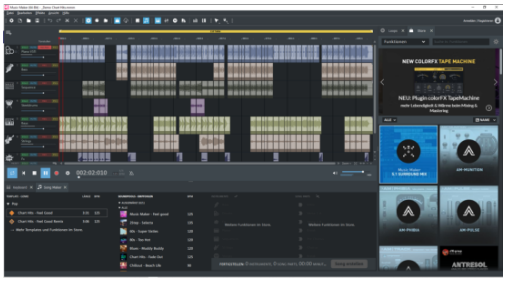
Preview demo song

Upon opening the program, the **start screen** will appear.



If you are not signed into the Store, **MAGIX Music Maker** runs as the **free** version of **MAGIX Music Maker**. In this case, many program functions are not available or are limited, but there are still enough to familiarize yourself with the program's workflow.

To get an idea of what **MAGIX Music Maker** can do, click on **Demo projects** and select a demo song. Once it is loaded, the **MAGIX Music Maker** interface will be displayed.



The large area with the horizontal tracks is the arranger. The colored rectangles are objects. They represent various samples. Look at the individual tracks of the song in the arranger: In **MAGIX Music Maker**, create a complete song by compiling objects. Click on the vertical scroll bar on the right-hand side of the screen and drag them down (hold down the left mouse button) in order to be able to see each track.

Underneath the arranger you'll find the transport console (⇗40) and some buttons for opening important windows and a large volume control.

Below in the program window is the keyboard for playing the synthesizers and the Song Maker, which can be used to automatically arrange songs.

There are several other windows that can be opened using the buttons in the top toolbar. All windows can be freely positioned (⇗23) around the arranger.

To play the demo, click on the Play button with the mouse or press the spacebar 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).*

Previewing and loading sounds

Now you can load your first sound into the arranger.

Create a new, empty project. Simply click on this button.

- Click on **Loops** (1) in the top right. The Loops window will appear.
- Various **Soundpools** (2) are displayed to the right in a window. Soundpools represent particular musical genres. Click on one of the Soundpools to display the loops that match this genre.
- Now, select which instrument you would like to use under **instruments** (3). All of the **loops** (5) will be listed below and you can select the sound you want. The selected sound will play back automatically.
- Most instruments are categorized according to pitch. Click on the **pitch** (4) to listen to the sound in the corresponding pitch. 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 list 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.

Create a Project

Start playback now.

To load new samples into the arranger, you do not need to interrupt playback. **MAGIX Music Maker** has a "Smart Preview" function: You can simultaneously preview new samples in the Loops window – they always run in sync with the song in the arranger. This function considerably simplifies the search for suitable samples for a song you wish to create.

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

The pitch of the first loop is displayed in the pitch bar. When additional loops are are added underneath at the same time position, they are automatically adjusted to the same pitch.

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 (playback range). Playback is "looped" in this range which means that it repeats continuously. New loops can be added when possible.

If you want to create a new part for the song you can reposition the start marker by left-clicking on the bar ruler and the end marker by right-clicking on the bar ruler.

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

Manipulating objects

Even though it's possible to make great projects with the audio building blocks provided, you will probably get to a point where you want to add your own personal touch by shortening or removing objects or adjusting the loops in specific areas.

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. If you make the object longer than it originally was, it will be played back as a loop. This way you can create rhythm tracks from short drum samples simply by stretching them.

If an object is selected, additional "handles" will appear on it.

Two fade handles are found on both sides, which can be dragged inwards in order to fade the object in and out. The handle in the center can be used to adjust the volume of the object.

*You can conveniently adjust the volume of a track in the **Mixer**, which can be opened with the M key or this button:*

All objects can be split into multiple objects. Place the play cursor at the desired location by clicking in the timeline and press the "T" key.

Alternatively, you can also use the "Split" button in the toolbar.

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

***Tip:** You'll really notice the advantages of object-based editing when you start to use Object Effects! You can apply audio effects to each individual audio object. For example, you can cut a sample to create an object for the last beat before a pause in the project and add an echo effect. Or create some crazy drums by applying various filter effects to each beat in the loop.*

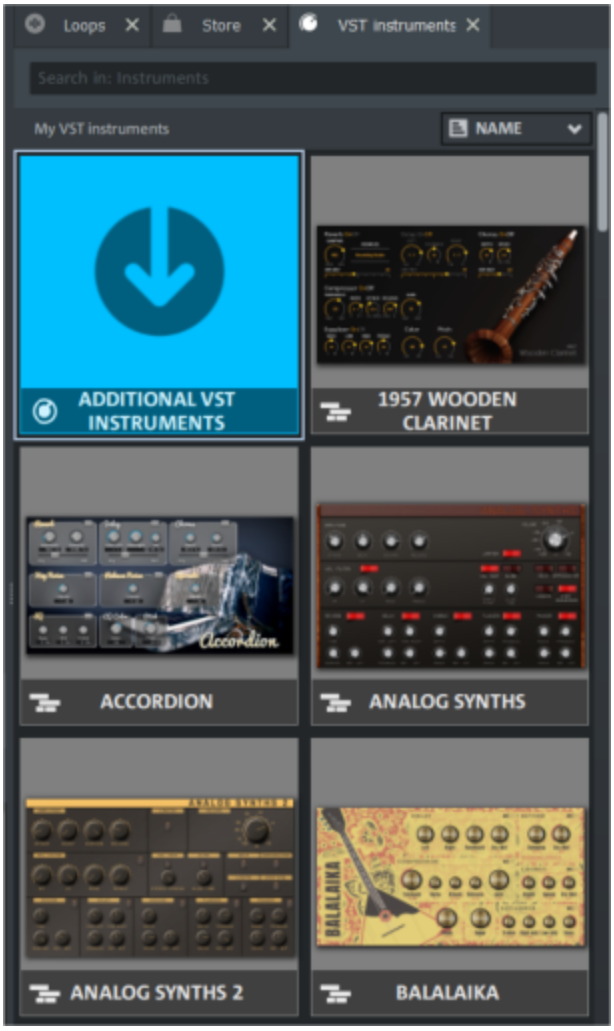
Adding software instruments

The included audio loops in the Soundpool are of the highest quality and melodically synchronized. But sometimes it's good to have a bigger selection of beats and melodies or a way to create your own ideas. In this case you need software instruments.

While audio objects consist of pre-made recordings, the sound from software instruments (synthesizers) is created during playback on the computer. The resulting sounds are not as refined but allow for total control of every musical detail.

Software Instruments are loaded to a track and controlled by MIDI objects in the track. MIDI objects only contain control information (notes) that is used to create sounds in VST instruments. Various MIDI objects arranged on one track control the same synthesizer and that means a maximum of one instrument per track.

Open the Software instruments window by pressing the I key or clicking on this button:



When the mouse is moved over a synthesizer, a play button appears that allows you to play a sample of the instrument. Drag the desired synthesizer into an arrangement track by holding down the mouse button.

A preset MIDI object is added to the track. Double-clicking on it opens the MIDI Editor where you can make adjustments to the melody.

Or open the **Keyboard** window (keyboard shortcut: K). Here you can play the synthesizer using your computer keyboard. You can also record your playing by clicking on the large red record button.

> ***Tip:*** *You can access the sound programs of the included VST instruments with the button on the far left of the track.*

Effects

You can select a number of effects from the context menu for an object. Effect modules can be opened and adjusted to get the exact sound you want.

Effects can be dragged as finished effect templates onto objects. Simply open the **Templates** window and test out the effects listed in **Audio FX** by clicking on them. You'll hear a short preview of the effects. If you like an effect, simply drag it onto the object in the arranger.

Tip: *Use the* ***Object effects window*** *(keyboard shortcut: O) to display all the important effects for an object.*

Another option for using effects is to apply **Track effects**. These effects influence the signals of an entire track, making it a quick way to apply the same effect to several objects or add the audio output from synthesizers.

You can also select from a variety of useful track effect presets by clicking on the button on the corresponding track. These are organized according to the instruments and applications.

Export project:

When your project is finished, you'll most likely want to do something with it – for instance share it with friends. To do this, you first need to export your project from **MAGIX Music Maker**.
The essential functions for exporting can be accessed under **File** > **Export** > **Standard export options** (keyboard shortcut: X).

- **Export as WAV:** If you want to publish or archive a project, it's best to export it in the highest possible quality, as a WAV file.
- **Export as MP3**: You can export your project in MP3 format to listen to it on smartphone.
- **Burn to audio CD**: The classic way to present and share music. You can burn individual songs or entire album projects to CD.
- **Publish on Soundcloud**: Publish directly on these online platforms using this option.
- **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 project.

Program interface overview

1	**Menu Bar**	This bar provides the most important editing commands.
2	**Toolbar**	This contains the buttons for file operations, quick editing as well as accessing the different window and mouse modes.
3	**Track headers**	Complete tracks can be turned on or off (muted) or played separately (solo). Use the FX buttons to apply track effects. Software instruments can be loaded using the buttons at the front. Use the faders to adjust track volume.
4	**Arranger**	You can freely position any multimedia material on all of the arranger's tracks.
5	**Transport control**	The transport controls for playback and record functions and for displaying tempo are located on the right.
6	**Zoom functions**	Here, you can enlarge and reduce the view. The horizontal scrollbar can be stretched and compressed for zooming.
7	**Docks**	All windows in **MAGIX Music Maker** open by default in one of the two docks either below the arranger or to the right of the arranger. However, you can arrange any of the windows in a different way (see below).
8	**User accounts display**	Here, you can see if you are currently logged in to the store, and if so, with which user account. You have to logged in to the Store to be able to use purchased functions.

Docking

Every window can be freely positioned. Using docking, you arrange the windows of **MAGIX Music Maker** on the program interface.

Every window (e.g. Loops, Song Maker, Object effects, Keyboard, MIDI editor...) can be displayed in the interface either undocked (free-floating) or docked.

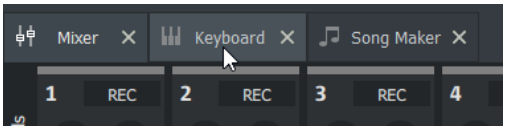
Undocked windows can be placed on top of other windows, resized as desired and feature a title bar.

You can dock undocked windows by touching them in the title bar and dragging them next to or over other windows.

If you drag a window next to another window, it moves a bit to the side and the target area will be displayed in blue.

If you drag a window on top of another window, the entire target window will be colored blue.

The windows then share the same screen area as a "dock".



Click on the corresponding tab to bring the window to the foreground.

If you drag the tab, you can pull it out of its dock again to display it free-floating or dock it elsewhere.

> *In the View > Layouts menu, you can find preset window arrangements for specific intended tasks.*

In the **View** menu you can reset the standard layout (keyboard shortcut: F4) for **MAGIX Music Maker**.

Editions

Until now, **MAGIX Music Maker** was available in different versions: "Classic", "Producer", "Premium", "Live", etc. The one things all versions had in common was that they contained a set collection of Soundpools, synthesizers, available tracks, effects and other functions. And if you needed a certain synth that wasn't included in a more basic version, there was no choice but to purchase a more advanced version, even if this contained other features you didn't need.

Now, things are different: An **Edition** contains some set elements, but also includes credit for functions packs, presets, instruments, Soundpools and Soundpool Collections. You can use your credit to buy the exact content you want. This means you no longer buy a predefined pack, but instead select a number of synthesizers, Soundpools and features. The amount of content you can select depends on the Edition you have.

An alternative option is to start with the free program version and simply buy the functions, sounds and instruments that you need. With an Edition you can really save big, however, as it costs less than buying content individually.

Access all the new Editions, additional functions, Soundpools, effects and instruments via the Store (⇗161).

 Learn more about the Editions here!

Loading sounds

This chapter explains how to load sounds into **MAGIX Music Maker** by using the included Soundpools or the Song Maker, loading audio files via the file manager, or importing CD tracks or your own audio recordings.

Loops

The Loops window can be used to load loops from Soundpools. You can access the Soundpools via the clearly laid out database view, which lets you arrange the loops according to Soundpools, instruments and pitch.

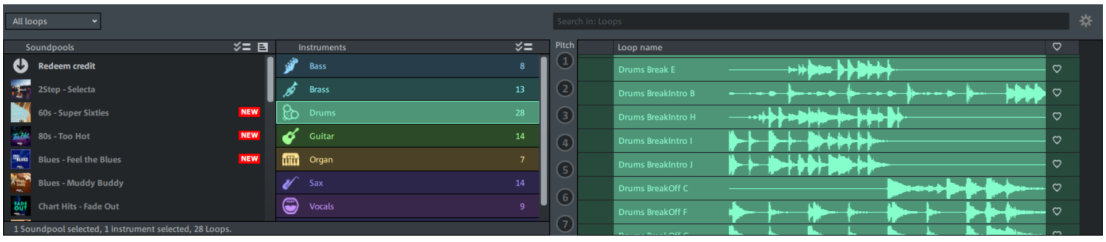
 Using this symbol or the **L** key, you can open the **Loops** window.

A Soundpool is a sound library that belongs together and covers a certain musical style. The sounds of one Soundpool all have a certain tempo. You can also combine loops from different Soundpools and the loop's tempo will be adjusted accordingly. Within a Soundpool, 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).

> *Note: Only a small number of the available Soundpools are included in the Loop window after you install **MAGIX Music Maker**. You can add more Soundpools via the* Store *(⇗161)*.

Soundpools from previous versions of **MAGIX Music Maker** can also be imported. To do this, click on **Add new Soundpools...** in the Settings menu under the gear icon.

> *Note: Under Program settings* > General *(⇗209), you will find different options for maintaining and displaying the Soundpool database.*



All of the Soundpools are displayed in the first column. Click on the **Sort** button to sort them in ascending or descending alphabetical order. The second column lists the instruments.

The list of samples found is created after entry selection in these two columns. With "Ctrl + click" you can reduce or expand a selection. Click on **Select all** to select all entries

in this column. If you select an instrument, e.g. "Drums" and "Percussion", and all Soundpools, all drums and percussion samples in the whole database will be displayed.

Filter results list

The results list can be filtered in a variety of ways to reduce the number of search results according to different criteria.

Full text search: Above right in the search field you can search the list of samples found for a specific sound file name.

The drop-down menu lets you filter the results further.

Only new loops: Only loops newly added during this session will be displayed.

Clicking on the heart in the sample list marks the loop as a favorite. You can use the drop-down menu option **Only favorite loops** to display only the loops that you have marked as favorites.

Sort results list

You can sort the list according to criteria (Instrument category, name, favorite) by clicking on the column header. Via "Optional columns" under the gear icon in the settings menu, you can add in additional columns with loop characteristics such as BPM, length in bars, harmony and type in list for use as sort criteria.

Smart Preview

The loops can be previewed while the project is being played. They are always played in time with the song. This means that if you combine loops from different Soundpools that have a different tempo they will automatically be adjusted to the current project tempo even in the preview.

You can compose a song in realtime by loading different samples and searching for suitable new building blocks during playback.

Start the playback and select a loop by simply clicking the mouse. The loop will be used as a preview on the next available track and played back together with the pre-existing audio material. Update the preview by selecting another loop. You can then try out the all of the soundpool samples in the context.

As a preview, the loop will always be extended to the entire length of the playback range. The result is therefore immediately audible, even if the loop is originally shorter than the

selected playback range. If you adopt the loop in the project, it will be introduced in its original length at the beginning of the playback range.

> ***Tip:** You can also use* key commands to quickly change the playback area *(⇗42) by using the arrow keys. This will let you add loops to your project with more precision.*

Load loops

Simply clicking on a loop starts the preview. Clicking on the numbers 1 to 7 beside "Pitch" changes the pitch. The pitch for that loop is set when you click on a different loop.

Load the loop you've selected using the arrow. You can also double click or drag the loop into the project.

High quality loops

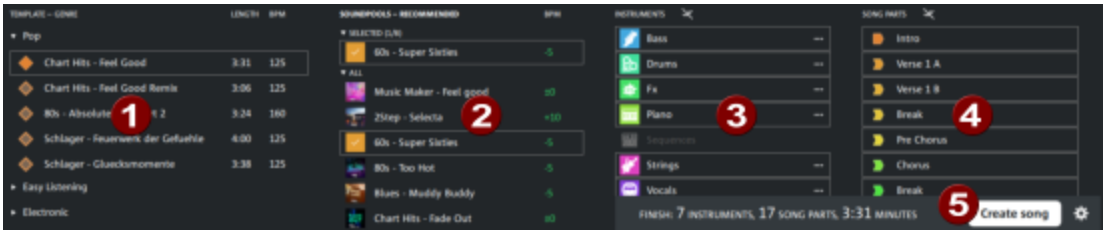
Soundpools are downloaded and installed in .ogg format by default. In the settings menu (gear icon) under **Soundpool format**, you can change these settings from **Normal quality (ogg)** to **Best quality (wav)**. The Soundpools must then be re-downloaded from the Store.

> *The quickest way to find these downloads is to switch the filter in the Store from **ALL** to **UPDATES**.*

Song Maker

With the help of the Song Maker, you can automatically arrange loops using Soundpools for complete songs or song parts without having to drag them individually from the Media Pool into the corresponding tracks. Considering the relatively random selection of loops that are combined you shouldn't expect the Song Maker to produce a chart-topping hit, but it can be very helpful as a basis for making your own adjustments and additions to create a cool arrangement.

Using this symbol or the **W** key, you can open the **Song Maker** window.



1. Select a genre template (style). The templates contain information about the various song parts and pitch sequences. In the **Length** column, the length of the generated song is displayed, when all the song's parts are used, see **4**. In the **BPM** column, the tempo of the templates is shown.
2. Select one or several Soundpools you want to use for the song.

   Tip: The Song Maker works best if you use a Soundpool matching a template.

   Additionally, once a template has been selected, the original tempo of the Soundpools is no longer displayed in the **BPM** column, but rather how many beats per minute the tempo of the Soundpools differs from the tempo of the selected template. The smaller the deviation is, the better the Soundpool will work with a template and the result will sound. The greater this deviation, the more the samples used have to be stretched to match the tempo.
   

   Click this button to sort the deviation in tempo between Soundpools in ascending or again for descending order. Then, the Soundpools that are least suited will be at the top of the list.
3. By default, all instruments contained in a Soundpool are used.
   Individual instruments can be deactivated by clicking them. If, for example, you only want a rhythm section with drums and bass, deactivate the other instruments with a mouse-click. Individual instruments can be deactivated by clicking them. If, for example, you only want a rhythm section with drums and bass, deactivate the other instruments with a mouse-click.
   If multiple Soundpools contain the corresponding instrument category, you can deselect the instruments individually.
   
   Use this button to select or deselect all instruments.
   
   There are more options in the menu of an instrument:
   - **Freeze:** If you have created a song with Songmaker and you are happy with a particular instrument, you can "freeze" it. If you now click on **Create Song** again, this instrument will be retained for the new song.

     This also lets you create a song in Song Maker step by step: Start with a few instruments, for example bass and drums, and click Create Song until you like these instruments. Then freeze it, add an instrument, and repeat the process until the arrangement is complete.

   - **Deselect sound pools:** If you have selected several sound pools, you can specify here within an instrument that certain instruments should only be used from certain sound pools.

4. Select the song part or parts that you want to create. The parts differ in 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 in the verses and refrains remain the same. If you activate all parts, Song Maker creates a complete song, for example, for the pop genre in the typical structure of a classic pop song: Intro - verse - chorus - verse - chorus - bridge (instrumental or solo) - chorus - outro. This structure and also the names of a song's parts vary from genre to genre.

   In the simple version of Song Maker, as included in Music Maker free, the instruments/song parts cannot be deselected.

5. Click **Create song**. Now, the Song Maker will fill the project according to your specifications with suitable loops from the selected Soundpool. If you don't like the results, you can repeat the process.

    **Options:** The **Intelligent Song Creation** prevents certain "unattractive" combinations of loops and can be activated here if you are looking for adventure :)

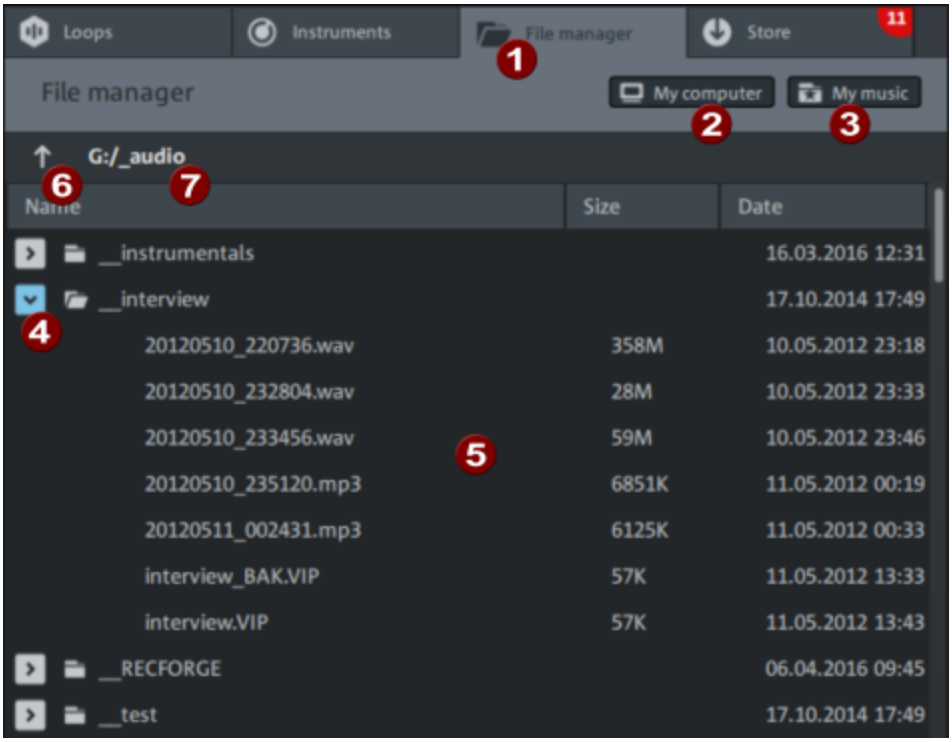
Note: Song Maker will completely overwrite the existing project. If you open Song Maker in a project that already contains audio material, there will be a security question asking if want you to save this project.

File Browser

If you would like to load any other audio files into your project in addition to the loops from the Soundpools, you need to use the File manager.

 Using this symbol or the **F** key, you can open the **File manager** window.

The file manager works in a very similar way to Windows Explorer.



1. You can access the File manager through the tab at the top.
2. **My computer:** Displays the top level of the file system for controlling all drives.
3. **My music** displays the music folder. The **Music** folder under **My files** is preset here, but you can select one of your own folders through the program settings (⇗213).
4. Use the arrows to open and close folders.
5. All supported media files and subfolders of the currently selected folder are displayed in the file list. All entries can be loaded into the arranger tracks by double clicking or via drag & drop.
   Double-click on a folder to switch to it. This folder will become the new starting point for the tree structure.
6. Move up one level.
7. The file path of the displayed folder.

Audio recording

Songs, noises or instruments can be easily recorded in **MAGIX Music Maker** using the audio recording function.

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

The display in the track header will change 

The input signal will be played back featuring all track effects (if there are any) (live monitoring (⇗34)).

Live monitoring requires the use of ASIO drivers *(⇗211)*.

Click the red button on the transport bar to start the actual recording. Click on the gear icon next to it to open the dialog box "Audio recording" (⇗33) with various settings options. This dialog box can also be opened after starting the recording.

Adjusting the signal level

Adjusting the signal level to the sound card is also recommend to get the best sound quality when recording digitally.

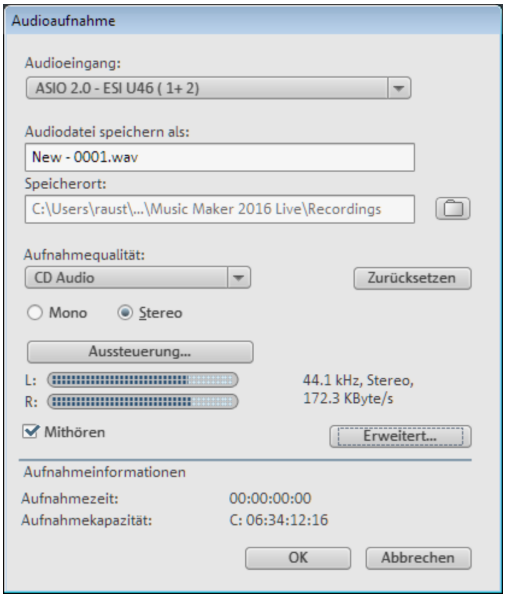
Once a recording source is connected to the sound card, the small gear wheel button next to the Record button opens the recording dialog and starts the recording source. You can now adjust the recording level with the help of the LED display in the record dialog.

If the adjustment is set too high, distortion occurs and the incoming signal must be reduced. If you have linked the sound source directly with the sound card without a mixer, this can only be done via the Windows system settings "Sound". You can access this directly from within the recording dialog via the “Recording level” button. You will see which sound card input is already being used with the amplitude in the small peak meter in the settings dialog. Double-click on this and change in the tab "Level",

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 loudest part of the material is the yardstick for an optimal level. The loudest part should be adjusted to the maximum.

Note: Not all sound card drives fully support the Windows system mixer; this functionality can also potentially fail. Some sound cards also come with its own mixer application in which you can control the input level. If both fail, you need to match the level to the analog source.

Audio recording dialog



Audio Input: Selects the sound card for the recording.

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

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

Mono/Stereo: The recording can be made in mono or stereo. Mono recordings are recommended for song and instrument recordings made using only one standard mono microphone. This reduces the required memory space in half.

Peak control: This opens the Windows system dialog for the selected sound card drivers. There you can customize the input level and deactivate the system monitoring.

Level indicator (L/R): Use the level indicator (peak meter) to monitor the strength of the input signal. Please read more on this in the section 'Adjusting levels'.

Direct monitoring: Select this option to switch the live monitoring on and off. Please read more on this in the section Listening to the input signal - monitoring

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

- **Mono recording:** This can be activated to record in mono. This reduces the required memory space in half. Mono recordings are recommended for voice recordings made using only one standard mono microphone.

- **Real-time sample rate adjustment:** Automatically matches the sample rate of a new file to be recorded with the sample rate of the current movie's sound track (set in the video recording).
- **Ducking (reducing the sound volume):** To add narration or other sound material to a video that already has sound volume levels set, activate the option ”Automatic reduction of sound volume of remaining audio tracks”. This automatically reduces the volume of audio objects in the project during the recording session (”ducking”). This is achieved using an automatically configured volume curve: Before and after the recording other tracks will be faded in and out, resulting in a homogeneous total volume level. (Lowering of volume level during spoken comments is also called "Ducking".)

Listening to the input signal - monitoring

You usually want to listen when you record something. This is called monitoring. There are different options for monitoring available in **MAGIX Music Maker**.

Live monitoring

This is the preset method and allows you to listen to the input signal with **MAGIX Music Maker** audio processing, that is, with all effects including the track effects as well as the AUX send effects and master effects.

You can therefore hear your vocals or guitar recordings with the necessary effects while recording or jam live to a finished project.

An ASIO driver is needed for monitoring. Professional sound cards come with these drivers. For any sound cards that don't have drivers, the MAGIX Low Latency driver is included, which provides any sound card or on-board sound chip fitted with WDM drivers with an ASIO driver.

For more information, see the menu **File** > **Settings Program settings** > **Audio/MIDI** *(⇗211)*.

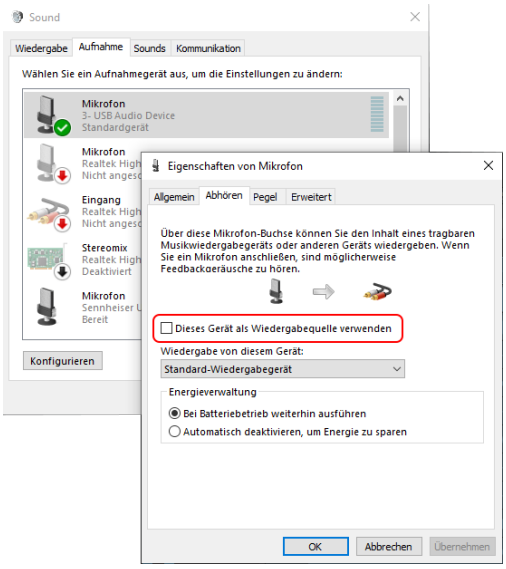
There will be a short delay (latency) caused by processing the audio signal. This delay amounts to just a few milliseconds with modern sound cards, but you can deactivate this option if you prefer. To do this, uncheck the **Monitoring** box in the recording settings dialog.

System monitoring

You may already hear your input signal or two input signals with live monitoring before you have activated the track for recording. This is because the line-in input is configured so that its signal is directly routed to the output. This is a feature of the Windows operating system, not of **MAGIX Music Maker**. The purpose of this is to allow you to

connect external audio sources, such as MP3 players, via the input and listen directly through the computer speakers.

To disable this unwanted "monitoring", click on "Peak control" in the "Audio recording" dialog box, double-click on the input used (visible on the peak meter amplitude), and in the settings dialog that appears, go to the "Listen" tab. Here, you can deactivate the option "Listen to this device".



On the other hand, you can also use this type of monitoring if the live monitoring is not suitable because the ASIO driver is not functioning in a stable way. Or if you don't want to use the live monitoring because you find even a small amount of latency annoying. However, this means you cannot listen to audio along with **MAGIX Music Maker** effects.

Note: Not all sound card drives fully support the Windows system mixer; this functionality can also potentially fail. Some sound cards also come with their own mixer that offers monitoring.

External monitoring with a mixer

You can also monitor independently of the computer by using an external mixer. Small mixers with a USB connection that are both mixers and sound cards are suitable for this. The same applies for system monitoring (no latency but also no effects). But it offers an advantage in that you have direct access to the input level and monitoring level in the mixer. The external mixer also enables you to use the in-program live monitoring. Be careful not to create any feedback loops i.e. a repeat recording of the output signal when using the external mixer for live monitoring.

Record audio output

You can record the complete audio output of **MAGIX Music Maker** directly into a WAV file. This can be done using the "**Write realtime audio to WAV file**" option, which can be found in the **Program settings** dialog (Via "File > Settings > Program settings" or the p key) in the "Audio/MIDI" tab.

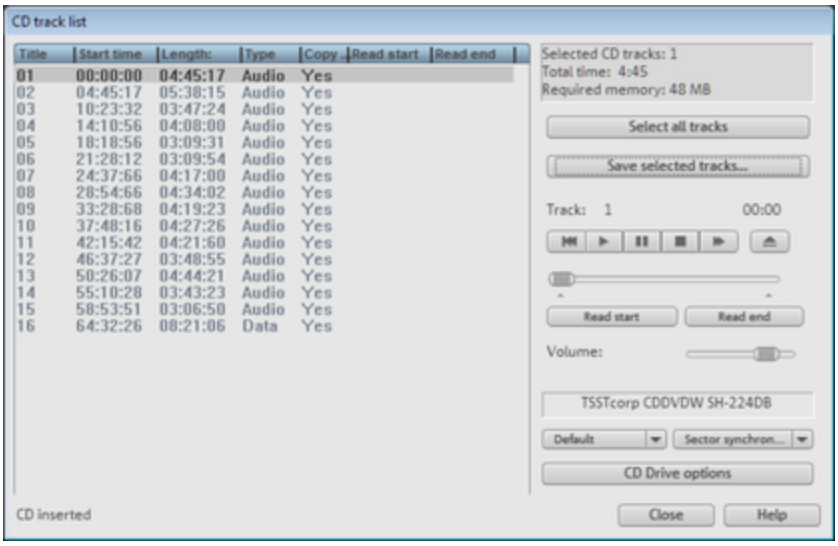
If this option is activated, with the next start the complete playback of the project will be recorded live. With the next stop you can save your recording and load it for immediate editing in the project. Use different names to save your single sessions, ensuring that no recording will be mistakenly erased.

Import audio CDs

To import tracks from CDs, open the **CD import dialog**. In the CD import dialog box you can select tracks from audio CDs and partially or fully import them into the project. The data is imported digitally which eliminates any loss in sound quality. The CD tracks are imported into the project as wave files. The files are saved in the import folder.

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.

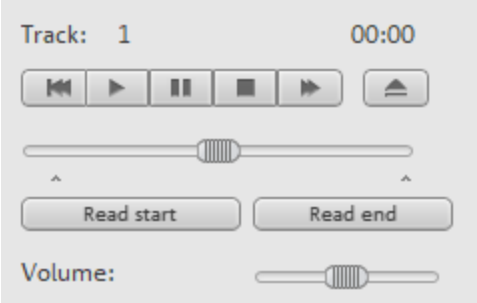
If you have more than one drive, you may have to first select the drive containing the CD. To do this, use the menu option CD Drive options... (see below).



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 the "Shift" key + mouse clicking; "Ctrl + mouse-click" selects several individual tracks. By clicking on **Select all tracks**, all audio tracks will be selected, e.g. for copying the complete CD.

Now click on **Save selected tracks...**. This will open the **Save audio to...** dialog, where you can specify the name and target address of the audio files. The audio files are subsequently numbered depending on their names (name -> name_1.wav, name_ 1.wav...). **Save** starts the audio copying process. A progress bar is displayed. Once ripping is complete, the dialog will be closed and the tracks are inserted into the project as individual objects.

In the top right field, details on the total length and the memory capacity of the selected track/section are displayed.



Transport control: This lets you start and stop playback just like on a real CD player and skip forward and backward in the playlist.
With the faders below it you can go to a specific position in a track. To import just a specific section of a CD track, choose **Start selection** at the beginning of the section and **End selection** at the end.

Use the small **Volume** faders to control the preview volume. The chosen drive appears below it. In the selection box you can select the read speed.

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 themselves. The problem with copy-protected CDs is that they cannot be imported using conventional PC drives. 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.

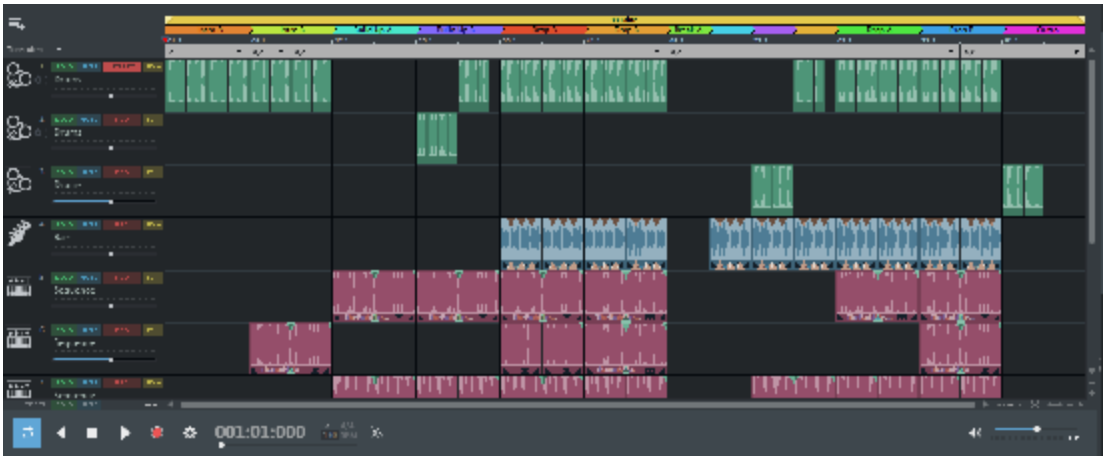
Keyboard shortcut: C

Arranging Projects

This chapter covers about how to edit your loops and samples in the Arranger.

Arranger with tracks

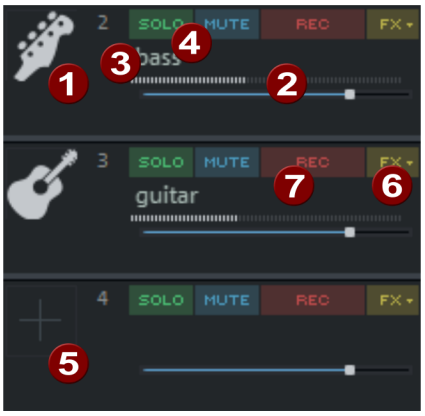
The arranger is organized into tracks. Each track corresponds to a mixer channel (⇗51). You can use this channel to control volume, place panorama, apply effects, mute or solo all of the objects in the track. The loops of the same instrument are typically grouped together on one track (bass track, vocal track, etc.) which makes it easier to edit them.



Additional tracks can be added at any time using the button at the bottom of the arranger or by selecting the **Add new track** option in **Edit** menu (Ctrl + I).

The context menu for a track header also includes the option **Add track** – if you select this, however, the track will be added directly underneath the track that you have clicked, not further below in the section. The context menu also contains an option for deleting a track. To move a track, select **Move track up/down**.

At the beginning of each track there is a **track header** with controls and displays.



1. **Instrument icon**: When you drag & drop a MAGIX Soundpool sample onto an empty track an icon will appear in the track header. You can replace this icon by **right-clicking** on it and selecting a different one. A left-click on the icon opens the menu for the track synthesizer (see below).
2. A **peak meter** and a **volume fader** can be found beside the icons. These let you control the volume of the track. For easier and more precise mixing of tracks, use the mixer (⇗51).
3. **Track name:** You can rename the track by double-clicking on the field.
4. You can use the **Mute** button to shut off the sound of a track or the **Solo** button to play only the sound from one particular track. The Solo function is not exclusive, meaning you can use it to play back the sound from several tracks. On the lower border of the arranger, underneath the track headers you will find the buttons **Reset Solo/Mute** which you can use to restore the previous solo and mute settings of all tracks with one click.
5.  Left-clicking on the field with the instrument icon opens a menu with the sounds from the included software synthesizer which can be loaded to the track. This software instrument will then be used by all MIDI objects in the track. You can find out more about this in the chapters Software Synthesizers (⇗58) and MIDI objects (⇗76).

The track header of a track with a loaded synthesizer has a few additional controls. With the arrows (1) you can switch back and forth from the previous to the next sound in the software instrument and the gear icon (2) opens the instrument editor.

6. 

Here you can open the Track Effects menu. In it you will find presets for track effects sorted according to the instrument type.
A lit FX button indicates that the track effects are active.
7. 

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

Simply click to switch the track to audio recording mode. This also activates monitoring, which means you can hear the input signal of your sound card during playback. Find out more in the section Listening to the input signal - monitoring (⇗34). If you start recording now (R key), the audio recording (⇗31) will start. The recorded audio material is added to this track in the playback range (⇗41).

Clicking this button again puts the track into MIDI recording mode. If a software instrument is loaded, you can play it with a connected MIDI keyboard (Monitoring). If you start recording now, a new MIDI object will be created in the track and MIDI recording (⇗83) will begin.

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

Clicking and dragging on the bottom border of a track header allows you to adjust the height of the display. Use the **tab** key to easily resize the tracks to their maximum or minimum height.

Transport control (playback functions)

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

Tip: Use the space bar to start and stop playback more easily.

Looped playback can be deactivated here. Playback will always stop when the end marker is reached.

Back to start: With this button the start marker is quickly moved to the beginning of the arrangement. Another click on "Back to start" moves the start marker and the playback range to the beginning of the project.

Stop: The "Stop" button ends playback. The playback marker returns to the position from which it started.

Play/Pause: This button starts continuous playback of the project. If the playback marker reaches the end marker, the range between the start and end marker will be played back as a loop. Another click on Play stops it at the current position of the playback marker (Pause).

Record: Depending on the settings in the track header (⇗38) an audio (⇗31) or MIDI recording (⇗83) will be started.

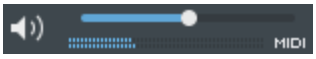
With the gear icon next to it you can open the dialog for recording audio (⇗33) with additional settings options.

Time display

The time display is beside the transport console.

1. This is where the current **playback position** is displayed. By right-clicking it is also possible to switch the time display to show the remaining time (relative to the end of the project) or to choose various units of measurement, e.g. hh:mm:ss or frames.
2. With the **position slider** you can quickly move the playback marker within the visible range.
3. The **current pitch** is displayed at the top and below it the project tempo in BPM (beats per minute). The **tempo** is determined by the first sample used in the project. To enter a new tempo, click on the number and enter a BPM value in the field. The objects in the arrangement are adapted using time stretching.
4. **Time Signature:** Here there are various time signatures such as 3/4-, 4/4- or 5/4 which can be selected for the project.
5. Click on **BPM** to open the **Tap Tempo dialog** where you can set the tempo by "tapping" it out. Click out the tempo you want using the tap button, or press the T key. The tempo is measured and displayed in the dialog. Apply the tempo by clicking on "OK".
6. **Metronome:** This button activates a click track that is played back during recording. This helps with maintaining the right beat and tempo when recording instruments or vocals.

Volume control



The volume control is to the left of the transport controller. With it, you can quickly control the overall volume of your project. To regulate the volume of individual tracks, use the mixer (⇗51).

Clicking on the speaker icon mutes the entire sound output.

Under the volume control there is a peak meter that displays the master signal peak level and an indicator for incoming MIDI signals.

Bar ruler

A timeline is located at the upper edge of the arranger. It is used to determine the playback range or set the playback position.

Playback area - Start and end markers

In the upper area of the timeline, there are two markers between which the playback area is displayed.

The playback range displays the length. The number before the period indicates the number of bars, the number after the number of quarter notes. A tilde (~) in the indicator means that the playback range does not have the exact pattern length and the loop is therefore "non-circular". Double-click on the playback range to expand it to the whole project.

This playback range is also the basis for the commands in the menu under **Edit** > **Range** *(⇗199) (Copy, Cut, Paste...).*

To reposition the start marker left-click the upper half of the timeline. To set the end marker. You can also drag each of the markers to the desired position with the mouse.

Move playback range with the keyboard

You can move the playback range also with the keyboard. Alt + cursor keys shift the playback range by one full length forwards or backwards. Also press "Ctrl" to shift the playback area a quarter of its length. With "Shift + Alt + cursor keys" you can halve or double the length of the playback range. With "Ctrl + Shift + Alt + cursor keys" you can extend or shorten the playback range by a beat. Use this function to the give the playback area a smooth beat length (multiples of 2).

Note: If you deactivate the option "Cursor keys move playback marker" *(⇗208) in the "View" menu > "Arranger", you do not have to press the Alt key. However, it is necessary in order to move the playback marker with the cursor keys.*

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!

Set playback marker

The playback marker can be moved independent of the start marker. Just click on the lower portion of the timeline. Once the playback marker reaches the end marker, playback will recommence at the position of the start marker. If the playback marker has been set to the right, outside of the area, the project will be played to the end. The stretched out playback range will then be played as a loop.

Use the **cursor keys** to move the playback marker with the keyboard. The option **Cursor keys move playback marker** in the **View menu** > **Arranger** is preset as active. If you deactivate this option, you can move the playback marker with Alt + cursor keys and only require the cursor keys to turn down the playback range.

Grid

At top of the toolbar there is a field for entering the grid step size.

The grid ensures that the objects and the start, end & play markers only snap into place at specific positions so they can be positioned precisely according to the beat. When an object or marker is close enough to a grid snap point, it automatically jumps or "snaps" to this position. For example, if the grid has been set to "1/2 Note", the objects and markers will snap into position when they are close enough to a half beat position (1:1, 1:3, 2:1, 2:3 on the bar ruler).

Note: "Close enough" refers to the screen display, so the distance of the object from the desired position in screen pixels. If you have zoomed in to just a few bars, but have the grid set rather coarse (e.g. 1/2 notes), it is possible that objects can be moved to positions between grid positions.

This way, there won't be any gaps between the objects and beat-matched cuts are made possible. The selection ranges from full beats to 1/64 notes. Triplet values are also possible. The setting "Frames" is important for videos and allows objects to snap to single frames in video files.

In addition to the beat grid, two consecutive objects will seamlessly snap together. This avoids undesired gaps or overlaps. This also works if they are located in different tracks.

Only 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 pressing the shortcut **Ctrl + F12.**

Pitch bar

A pitch bar can be found below the timeline.

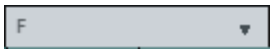
When a Soundpool sample is moved to an empty section of the project, the corresponding key will be displayed in the pitch bar.

The pitch bar can help make sure that the same pitch is always used in order to prevent disharmonious sound combinations when adding more loops.

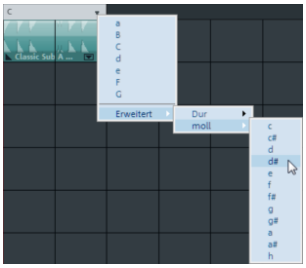
When the "wrong" pitch is moved into a pitch range, you will be asked if the pitch should be automatically adjusted. If you select **Do not show this message again**, your choice will mean that the program will either automatically make adjustments every time from this point on or it will not make any adjustments.

> *This setting can be changed via the menu under **File** > **Settings** > **Automatic pitch adjustment**.*

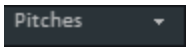
If several pitches are used within the same duration, several chords will be displayed in the pitch bar.



Clicking on the small arrow on a pitch opens a menu where you can set the same pitch for all the loops of this duration in the project.



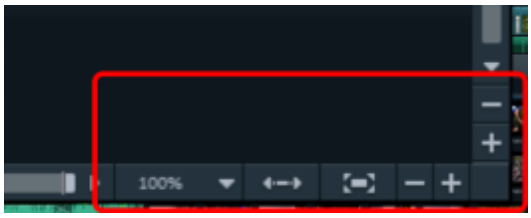
In the "Advanced" submenu, you can find the full offering of major and minor chords. A pitch is pitch shifted (⇗118) to achieve the chord.
You can also divide a pitch range in order to assign a different chord to a single part. To do this, switch to the **split** mouse mode (⇗48) and click on the desired point in the pitch bar.



Clicking on a pitch opens a menu where you can load a preset song template. Some of these templates are typical chord progressions that can help you put loops together to form song parts. Others are complete song structures with entire song sections (e.g. verse, chorus etc.) that are defined by your chord progressions.

You can hide the pitch bar by going to **View** > **Arranger**.

Zooming



The vertical zoom function sets the number of visible tracks. On many tracks zooming is useful for selectively editing a track or an object in full view.

Use the horizontal zoom functions to set up the visible section of the project on the timeline. Clicking and dragging on the bottom border of a track header allows you to adjust the height of the display.

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 project here.


Enlarge objects: Vertical and horizontal zoom levels are increased so that all of the selected objects are displayed at maximum size. When the function is turned off, the zoom level reverts to its previous value.


Optimize view


Zoom buttons Buttons for zooming in and out.

Move/Zoom with the scroll bar

The horizontal scroll bar can be dragged apart and pushed together at the edges in order to quickly zoom in and out of the timeline. Dragging the middle of the scroll bar moves the visible section. The vertical scroll bars control the tracks shown.

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

However, a track cannot be reduced in size completely. The number of maximum displayable tracks is also limited, meaning not all tracks may be able to be viewed at once.

Move/Zoom with the mouse wheel

The visible section can be moved, reduced, and increased in size by using the mouse wheel.

Displayed tracks	Mouse wheel
Number of displayed tracks, increase/decrease track height	Ctrl + Mouse wheel
Moving a visible section	Shift + Mouse wheel
Enlarge or reduce the visible section (Zoom)	Ctrl + Shift + Mouse wheel

Menu **View** > **Arranger** > **Horizontal scrolling** interchanges the horizontal and vertical functions of the mouse wheel. This means you can use Shift and Ctrl+Key for zooming

and scrolling the tracks instead of for the visible duration. This is the similar to the mouse wheel behavior of older **MAGIX Music Maker** editions.

Objects

The audio files loaded to the arranger are displayed there as objects.

All object edits are virtual, that means they may be calculated in real time. The multimedia material is not changed (virtual editing) Each modification can be undone by pressing the "Undo" button (Ctrl + Z). You can play around with having to worry about changing or ruining the original material.

Selecting objects

To edit or delete objects, you must first select them. Click on the object. To select multiple related objects, click the first object and, while holding down the Shift key, click the last object. To add individual objects to a selection, click on them while holding down the Ctrl key.

To visually highlight the current selection, the **object handles** of the selected objects are displayed.

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 with the (Lasso selection).

Shorten or loop objects

Objects can be shortened by dragging the lower right corner to the left. An object can be shortened from the start in the same way, e.g. if too much silence was recorded before the actual audio began.

To extend the object, drag the object border outwards. If you drag the object beyond its original length, it will play in a loop (i.e. repeat). In this way you can create a complete drum track from a short drum loop, for example.

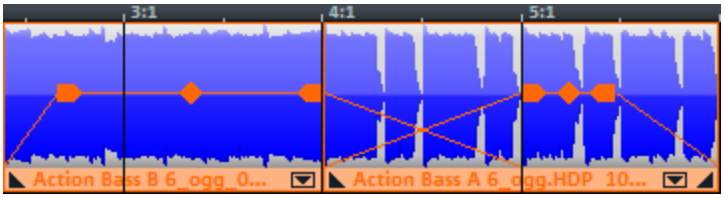
*Normally an object is always looped over the full length of the underlying audio material. To set a clip from a file as a loop, drag the object inwards at the front and the back with the handles to shorten it and choose the menu option **Edit** > **Object** > **Loop range** > **Insert***

***user-defined loop**. This function is very useful for using one of your own recordings as a loop, as the silence at the beginning of a recording can be cut out.*

Fading in or out objects

An object can be faded in or out with the handles to the left and right upper corners of the object. The length of the fade can be adjusted with the handles.

If an object on a track is moved to a position where it overlaps with another object, the length of the overlap will automatically become a crossfade. This means that the first object is faded out while the subsequent object is faded in simultaneously. The duration of the fade-out is equal to the duration of the fade-in but can be adjusted using the upper handles.



Crossfade

Setting object volume

Using the volume handle located centrally at the top of the object, you can adjust the volume of audio or MIDI objects.

It's easier to adjust the overall volume of a track or the volume levels between tracks in the mixer (⇗51).

Mute objects

Each object can be muted individually. Simply select the objects you want to mute and press the shortcut Ctrl + M (or use the corresponding command from the context menu).

Splitting objects

All objects can be split. You can create two new independent objects in this way. To do this select the object and move the playback marker to the position where you want to cut by clicking on the timeline.

Click on this button in the upper toolbar (⇗213)or click on **Edit** > **Object** and select the option **Split objects** or press the **T key**. This is even easier with the mouse mode Split objects (⇗50).

The two new objects maintain all the object effects (⇗108). For example, you can then design a loop in a more varied manner by first overlaying an object as a whole with an effect before cutting it into several parts and then varying the effect parameters in the individual parts.

Duplicate objects

To duplicate objects select the object(s) and then select **Edit** > **Object** > **Duplicate objects** (Ctrl + D). A copy of the object appears right beside the original which can be moved to any position with the mouse.

> ***Tip:*** *Speed up this process by clicking on the object to be copied with the mouse while holding down the Ctrl key. This generates a copy, which you can immediately drag to the desired position.*

Another way to duplicate is by using the copy/edit commands from the menu **Edit** (⇗196) > **Object** or **Section**. For the latter, all objects in the playback range (⇗41) will be copied.

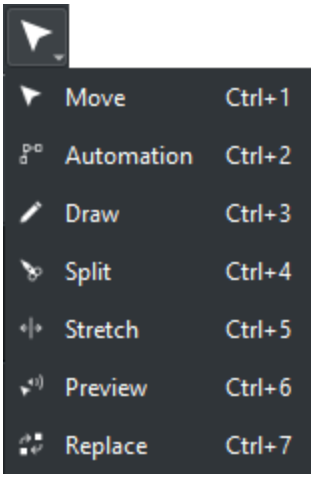
Form or split object groups

Several objects can be grouped together to avoid the objects being accidentally moved away from other. To create a group, select the respective objects and the command **Edit** > **Object** > **Group** > **Form group** (Keyboard shortcut: Ctrl + G).

Once they are combined, clicking on one object of a group will select the entire group, allowing you to move, copy, or delete the group as a whole. To ungroup objects, use the corresponding command in the **Edit** menu or the keyboard shortcut Ctrl + U.

Mouse modes

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



A small arrow next to the mouse pointer symbol allows different modes to be set. You may assign a function to the left mouse button. The right mouse button always opens a context menu that opens a menu with related operations for the object which was clicked.

Move

This is the default, standard mouse mode that can be used to select, move and edit objects.

You can read more about this in the section Arranging objects (⇗46).

If an Automation curve *(⇗182)* *is active, the curve handles can also be selected and moved in this mode. Double-clicking on the curve creates new handles.*

Keyboard shortcut: Ctrl + 1, number key 1

Automation

This mouse mode is used for drawing the volume and effect curves (⇗182).

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 header to enable track automation.

For the object, use the "Automation of this object" command form the "Effects > Automation" menu (keyboard shortcut: 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 *(⇗182)*.

Keyboard shortcut: Ctrl + 2, number key 2

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. This means: 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 playback to this position. Or, put 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 the mode has another consequence: When an object is moved only object borders are moved, the underlying loop, however, always remains intact.

Keyboard shortcut: Ctrl + 3, number key 3

Split

You can split objects quickly in the mouse mode in order to, for instance, remove unwanted parts or attach various effects to parts of an object.

Click the object to separate it at the corresponding position.

After splitting, the rear, newly created object is selected, which you may now delete directly with the Del key or open the object effects window with the O key to apply an effect to it.

Keyboard shortcut: Ctrl + 4, number key 4

Stretch

This special mode is for customizing the length and pitch of objects.

Objects can be on the lower handles stretched or compressed with this tool. Audio material is then lengthened via time stretching without changing the pitch itself The middle object handles allow the object's pitch to be changed using pitchshifting in a halftone range of -7 to +7 .

Keyboard shortcut: Ctrl + 5, number key 5

Preview

In this mode you can individually preview audio objects in the project. Click on a audio object and it will be played back alone for the entire duration and independent of the start and end markers in the timeline for as long as the mouse button is held.

The objects are protected against inadvertent moving in this mode.

Keyboard shortcut: Ctrl + 6, number key 6

Replace

This mouse mode simplifies searching for suitable samples: Left-click on an object from MAGIX' Soundpools replaces 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!

Keyboard shortcut: Ctrl + 7, number key 7

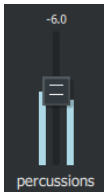
Mixer

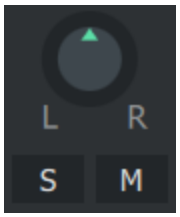
With the mixer you can adjust the volume and position of the entire sound in panorama. You can mute or unmute individual tracks and can apply effects using the track effects.

The mixer can be opened by clicking on this button or pressing the M key.

Slider

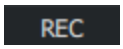
Each track in the project corresponds to a particular volume fader in the mixer, which controls the volume of the track.





The stereo position for each track can be defined with the pan pot. The **S** (solo) button sets the track to solo. This means that all other tracks are muted, except for the tracks that are also set to solo. The **M** (mute) button mutes the active track.

Right-clicking on any of the controls resets it to its default setting. Another right click sets the previous value again.

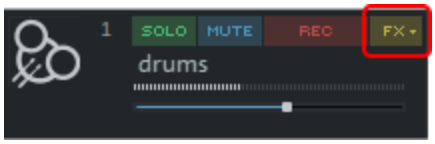


With the **REC** button you can activate audio (⇗31) or MIDI (⇗83) recording for this track, as well as monitoring (⇗34).

Track effects

Besides the object audio effects, a separate track effects rack can be used.

You can open the track audio effects rack with the FX button in the mixer. A brightly colored FX track button signifies that effects are active in the track.

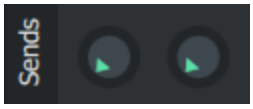


You can also open the track effects rack by going to the track effects menu in the Arranger track header (⇗38).

Track effects always apply to the entire audio output of a track. They are used when software synthesizers (⇗58) serve as audio source, instead of audio objects.

Note: The Vocal Tune, Tempo-Pitch/Resample and Vocoder effects cannot be used as track effects!

FX tracks



Use the FX send control to define how much signal you want to be sent to the two available FX tracks.

An FX track is a additional mixer track which provides a dedicated track effect window for use as a .

Insert effects and send effects

A normal track effect, also called an insert effect, is inserted directly into the signal path of the track. It fully replaces the audio signal with its effect output.

> *For this reason, reverb and echo have a mix controller for leaving part of the signal unprocessed when used as an insert effect, because you don't want a 100% "wet" signal for reverb and echo. For a phaser or an amp simulation, however, you do.*

With the send effect, the signal is processed on a separate track. Its output therefore can be heard in addition to the track's signal. The signal from several tracks can also be processed simultaneously.

> *This means that you should in particular use the echo and reverb effects as send effects when the mix setting is set to 100%. You control the effect amount for each track via its FX send control, and the overall volume of the effect via the FX track's volume slider.*

In the FX track, you can use **M** (mute) to mute the FX track completely, just as with normal tracks. Click **S** (solo) to listen to the FX track by itself. The other tracks will be muted. The tracks that send to the FX tracks continue to do so, otherwise nothing would be heard on the FX track.

> *In the first FX track, the reverb feature is activated by default, since it is the most essential way of using send effects.*

Master track

In the master track you can control the total volume of the mix.

The **FX** button works exactly like it does in the tracks and opens the panel for the **master effects**.

Mastering: Opens the MAGIX Mastering Suite (⇗127).

5.1 Surround: This button switches the mixer to Surround Mode (⇗177).

> *These two buttons are only visible if the corresponding functions have been activated.*

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. To do this, you can use an function that automatically adjusts the tempo of audio objects to the project's tempo

when they are loaded to the project, plus advanced tools such as Remix Agent (⇗166) and the time processor (⇗118).

Automatic tempo adjustment when loading objects

In general, **MAGIX Music Maker** automatically adjusts audio files to the project tempo. Basically, you won't need to worry about the different tempos 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 project (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 tempos, 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 in it ("patched") will be used, and the tempo adjustment will always work.

For all other (short) samples, an attempt will be made to automatically calculate 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. In this case you can try to manually adjust the sample.

The Remix Agent (⇗166) 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 project or the project to the sample.

MIDI objects always have the correct tempo because they are aligned with the project tempo.

*In the dialog **Program settings** (⇗210) > **Import** (p key) you can deactivate the automatic tempo adjustment or limit it to patched samples.*

Changing the tempo or pitch of individual objects manually

You can change the pitch and the tempo of selected audio objects. You can access these tools via the effects menu or the object effects rack.

The playback tempo can be quickly changed via the stretch mouse mode, i.e. by compressing/stretching the audio object's lower handles –this will change playback speed for the object.

For example, to fit a "non-circular" loop with the stretch mouse mode (⇗50) in a current project, proceed as follows:

1. Load the sample. **MAGIX Music Maker** will attempt to fit it into an even number or bars. Set the appropriate track to solo and place the playback range exactly above the sample.
2. Select it and click on "Enlarge Object" at the bottom left of the arranger window. The object will be displayed at the maximum size.
3. Turn off the grid (in the list field at the top right of the arranger or use the shortcut Ctrl+F12)
4. Now start playback and move the end marker of the playback range to the right until the loop runs smoothly. You can rely on your hearing and not just on the waveform display.
5. Now shorten the object to the playback range length.
6. Deactivate "Enlarge object" and turn the grid back on.
7. Switch to the stretch mouse mode (Ctrl+7) and stretch or compress the object into an even number of bars.
8. Deactivate "Solo", set an even playback range, and start playback. The loop should run perfectly in time. To set the object as a loop, select "Edit > Object > Loop section > Set custom loop".

To match the pitch of the loop to the current project, you can also change the pitch using the mid handles on the object in the stretch mouse mode.

Change project tempo

You can use the tempo setting in the transport controller (⇗40) to change the project's tempo retroactively. This uses the time stretching effect to adjust all audio objects in the project to the new tempo. In some circumstances this can lead to an increased demand on the system and dropping out during playback. If this occurs, use the "Mix audio (⇗57)".

Another option is to use the "Élastique Efficient" timestretching algorithm, which provides a slight decrease in sound quality, but uses less computing power.

Choose a couple of objects that are not so important. Open the Inspector by double-clicking on Tempo Pitch/Resample (Shift + P) and then click the "Setup" button. You can switch to Élastique Efficient here. If the pitch still isn't being retained (drums, percussion, FX sounds), you can switch to Resampling, which uses even less computing power.

Takes

Each object can be saved as a "take". Takes save all editing done on an object, such as its length, fade settings and all object effects. MIDI takes save the instrument controlled by them (MIDI output or software instrument).

Takes are saved as "TAK" (*.tak) files and take up virtually no space on the hard disk. This means 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** projects. Instead of repeatedly saving the original sample, only the object and effect settings are saved.

> *Note: When loading takes, the audio or video file used by the take must be located in the same folder as when the take was saved.*

Keyboard shortcut: Alt + Shift + S

Edit in external editor

A selected audio object can be edited in an external editor using a wide range of special functions. Once editing has been completed, the edited material is used in **MAGIX MUSIC MAKER** instead of the original object.

The path to the executable file of the audio editor can be set in the program settings under the "Folders" tab.

This function is only available if you have purchased an audio editor from MAGIX as part of your Edition, or separately in the Store even if you select a different audio editor there.

Shortcut: Ctrl + Shift + M

Mix audio

If the arranger becomes too full to manage, or you just want to sort out your work so far, use the mix down function to convert the entire project or just sections of the project into a single audio and/or video file.

To do this select the "Audio mixdown" function in the "Edit > Track" 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 project or the area will be replaced by the new object.

Mixing automatically normalizes the audio file, i.e. the loudest point of the audio object matches the maximum level. This prevents loss in sound quality, even if you run the audio mixdown function several times in a row.

This function is very helpful if you want to keep on using the mix down object. To create the finished end version of the song, it's best to select the "Export arrangement" function in the "File" menu instead of the mixdown function.

Shortcut: Ctrl + Shift + G

Playing software Instruments

If would like to work beyond the included sounds and express your own musical ideas, you can also record your own melodies. **MAGIX MUSIC MAKER** has many synthesizers for creating your own sound material.

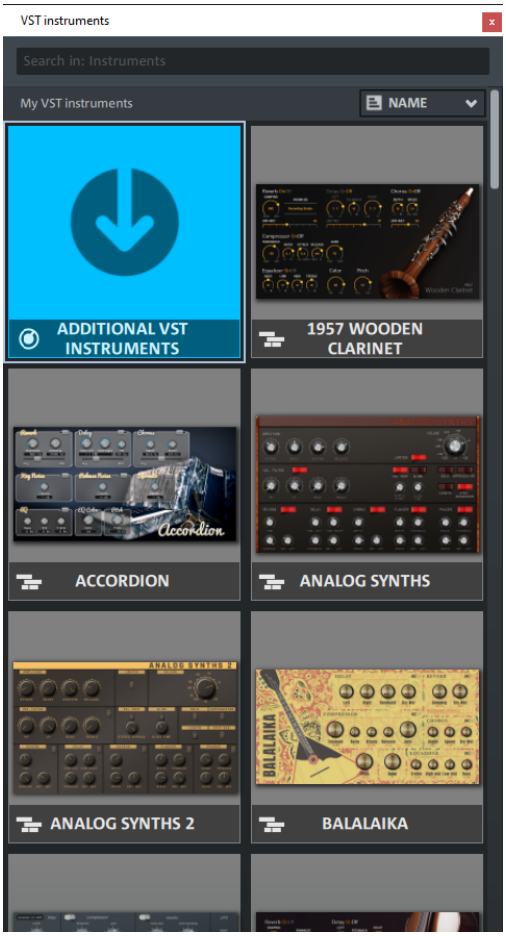
Software Instruments are loaded to a track and controlled by MIDI objects in the track. Instruments cannot be freely moved between tracks like audio objects. Effects may only be applied at the track level.

Insert synthesizer

In order to use a synthesizer, you first need to insert it into a project track. There are several ways to do this:

The VST instruments window

 Using this symbol or the V key, you can open the **VST instruments** window.



All synthesizers that have been supplied with the software, purchased in the Store, and located in the VST folders (⇗213) are listed here.

When the mouse is moved over a software synthesizer, a play button appears that allows you to play a sample of the synthesizer. The synthesizer can be loaded to the next available track by double clicking the instrument or just clicking the arrow button. The synthesizer interface also opens.

The overview is quickly lost when a large number of plug-ins have been installed, so you can also use the **full text search** above.

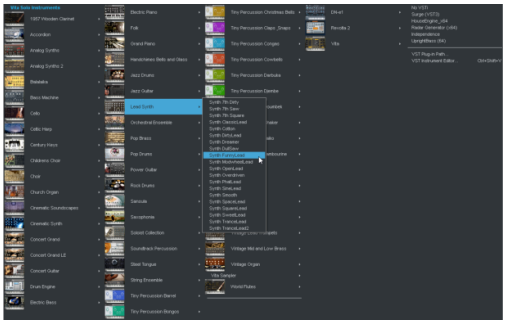
In this menu you can specify whether you want the synths to appear alphabetically or descending or ascending according to category.

Loading synthesizers via the track header

Another way to load synthesizers is to use the synthesizer menu in the track header.

At the start of an arranger track, the track header contains an empty field for the instrument icon.

Left-clicking on this field opens a menu with the sounds from the included software synthesizer which can be loaded to the track.



Tip: You can also access this menu via the MIDI editor *(⇗83) and the* keyboard *(⇗80).*

Removing synthesizers

To remove a synthesizer, select the first entry in the right-hand column "**No VSTi**" in the instruments menu (accessible via the track header, MIDI editor or keyboard).

The program's synthesizers

The software synthesizers included are based on VST plug-in technology (VST instruments). A plug-in is an independent software component that can be loaded in **MAGIX Music Maker**. Various standards were developed for including plug-ins. The "VST" standard has become the most widely used. "VST" stands for "Virtual Studio Technology". "VST" stands for "Virtual Studio Technology". This means you can add to the collection of instruments included in the program with additional instruments (and effects (⇗108)) from third-party providers.

Following instruments are available:

- DN-e1 (⇗61): A virtual analog synthesizer that is suitable as an all-round instrument for many styles and areas of use.
- MAGIX Vita (⇗63): A universal sample player that specializes in realistic playback of "real" instruments for which it uses sampling technology. It contains sound

programs for various conventional instruments: Guitar, bass, acoustic drums, piano, strings, horns

- Revolta 2 (⇗65): Another virtual analog synthesizer for advanced explorers in sound.
- VITA Sampler (⇗67) A simple sampler, which you can use to play sections of samples via MIDI, for example individual drum sounds from drum loops.
- Vita Solo Instruments: (⇗68) Individual instruments based on the same technology as Vita. The interface has been customized and expanded for each different instrument.

DN-e1

DN-e1 is a virtual analog synthesizer that is suitable as an all-round instrument for many styles and areas of use. It works in a subtractive way, i.e. first a basic sound is selected that is then edited using a filter curve.

The DN-e1 is played with a MIDI keyboard or with the aid of MIDI objects. You can use the keyboard in the program to set the sounds.

Sound selection

You can select the sounds and sound configurations at the top.

Bank: Here you can switch between three banks with various complete configurations.

Category: Here you can select a sound category.

Rndm (Random): Here you can activate a random selection of the parameter settings in order to experiment with the sound.

Patches/Name: Here you can select a sound that will then be modulated.

OUTPUT

The end of the signal chain is edited in this area.

Volume: You can adjust the volume here.

Voices: Control the number of voices generated (polyphony) here.

Glide: This controls the glide function. You can access sliding pitch transitions between the individual notes.

Unisono: Switches to monophonic sound, but generates a number of slightly varied voices for "thickening" the sound.

FILTER ENV

In this area the filter curve used to filter the output sound is modulated.

Attack: Use this controller to set the time duration that the filter curve requires in order to reach its maximum.

Decay: This lets you set the time duration that the filter curve requires in order to go from its maximum to the sustain level.

Sustain: Here you can set the degree of filtering that should take place after the decay phase. This filtering remains the same until the key on the keyboard is released; in contrast to the other three parameters, it does not also control a time duration, but a specific level.

Release: Here you can set the time duration which the filter curve requires in order to go from the sustain level to the zero point after the key is released.

REVERB

You can also apply a reverb effect.

Type: Set the sound coloration of the reverb effect using this fader.

Pre Del: For setting the time that passes between the direct signal and the arrival of the early reflections, known as pre-delay. The reverberation time only comes after the pre-delay.

Damp: You can define the cut-off frequency for damping highs for each delay here. This can help make delays reverberate more naturally and is useful for creating special effects (especially in a reggae or dub style).

Decay: Set the complete reverb time here.

Low Cut: Use to set the filter frequency of a high-pass filter. All signal components below this frequency will be filtered out.

Amount: Here you can set the mixing ratio between the effect and the "dry" original sound that has no effect applied.

DELAY

An additional echo effect can be set here.

Type: Different types of echo can be defined here: normal echo, ping-pong echo (where the sound swings through the stereo panorama) and various other forms.

Color: Use to set the sound coloration of the echo.

Feedback: This parameter controls the number of echo repeats.

L Rate: You can set the time duration for individual echoes for the left channel here.

R Rate: Set the time duration for individual echoes for the right channel here.

Amount: Here you can set the mixing ratio between the effect and the dry original sound i.e. with no effects applied.

MAGIX Vita

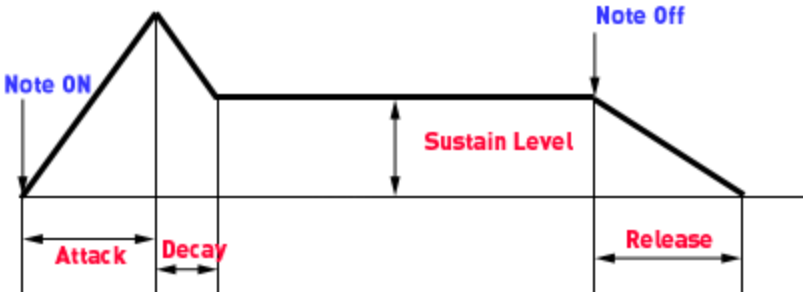
MAGIX Vita Synthesizer specializes on realistic playback of "real" instruments for which it uses sampling technology. This means that short samples of real instruments in different pitches, playing techniques and volumes are used, combined, and played again at the correct pitch.

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: Here the volume, panorama position, pitch characteristics ("transpose") and the fundamental frequency ("master tune") can be set.

3. AMP: This is the volume envelope. With this you can control the timing of a sound'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 fade out.



4. FILTER: Here you can switch on a filter which influences the sound. With FILTER TYPE you can select the kind of filter you want to use. Cutoff controls the filter frequency and "Resonance" controls the strength of the emphasized filter frequency. "Velocity" indicates how much the velocity influences the filter frequency, using "Gain" you can balance the volume. The filter envelope (ADSR slider) influences the filter frequency depending on the time.

5. DELAY: Here you can switch on an echo effect. "Time" controls the delay time and "Level" controls the strength of the echo sound.

6. REVERB: Here you can switch on a reverb effect. "Time" controls the delay time and "Level" controls the strength of the echo sound.

7. TUBE DISTORTION: This is a tube distortion effect like those found in guitar amplifiers. This is normally used for electric guitars but you can also get creative and use it for other things. "Drive" controls the strength of the distortion. "High-cut" and "Low-cut" filter out the high and low frequencies.

8. VALUE DISPLAY: This always displays the exact values of the parameter that was just adjusted.

9. DYNAMIC RANGE: Usually the relationship between the created volume and the MIDI velocity is proportional. You can compensate for the fact that some MIDI keyboards need to be pressed forcefully to produce loud sounds (or conversely produce loud sounds with a soft touch) using the "MIDI Input Curve". Using "Dynamic and "Dynamic curve" you can manipulate the dynamics of a sound, i.e. the relationship between the loudest and quietest sounds.

10. Voices: Here you can control the number of voices played simultaneously. If notes are no longer played, as is the case in some fast passages, you can increase the number of voices at the expense of performance.

11. Keyboard: Here you can preview the Vita sounds. This only works during playback or recording. **12.** lets you hide the keyboard.

Revolta 2

The Revolta 2 is a further development of Revolta 1. It is polyphone and playable with up to 12 tones, including an additional noise generator, a step sequencer and an extra flexible modulations matrix. Its effects section of 9 different effects and presets, designed by a famous designer, make its a full-fledged synthesizer for all kinds of lead, sequence, and pad sounds.

REVOLTA 2 has a whole array of presets. The sounds were created by professional sound designers and factory-direct they already show the amazing potential of this instrument. However, we would still like to encourage you to try out the various controls in the early stage and to experiment around as much as you like. The sky's the limit to your creativity.

Revolta2 interface

Warning: Here, you will find only a short description of the Revolta 2 interface.

For a comprehensive documentation of this complex synthesizer please click the help button on the Revolta 2 interface!

The Revolta 2 interface can be displayed in two sizes. In rack mode only the elements necessary for preset loading are visible:

By clicking the edit button, you can open the complete interface.

1. Main parameter: Here the volume, panorama position, pitch characteristics ("transpose") and the play modes (POLY, MONO, LEGATO) can be set. GLIDE controls the portamento time.

2. Oscillator section: Two oscillators are available with smoothly adjustable curve form and a noise generator. The two oscillators can be detuned against each other and frequency modulate with each other.

3. AMP: This is the volume envelope. With this you can control the timing of a sound'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 fade out. **VEL** specifies how much the envelope curve depends on the velocity.

4. FILTER: Here you can switch on a filter which influences the sound. With FILTER TYPE you can select the kind of filter you want to use. "Cutoff" controls the filter frequency and "Resonance" controls the strength of the emphasized filter frequency. "VEL" indicates how much the velocity influences the filter frequency, using "KEY" you can change the filter frequency depending on the note value ("keytracking"). The filter envelope (ADSR slider) influences the filter frequency depending on the time. "env mod" controls the intensity of the filter envelope, "drive" allows you to overdrive the filter.

5. FX1/FX2: Here you can mix in 2 different effects out of a total of 9 available effects.

6. LFO1/LFO2/STEPSEQUENCER: Two LFOs and the step sequencer can be used to modulate single parameters of Revolta 2.

7. Options and modulations matrix: The two buttons open the options page of the Revolta for general and preset-specific settings and modulation matrix. In the modulation matrix, modulation sources are connected with modulation targets. Simple modulations like the oscillator, where the pitch will be modulated via an LFO (vibrato), may be set quicker directly on the interface. Much more complex modulations are possible in the

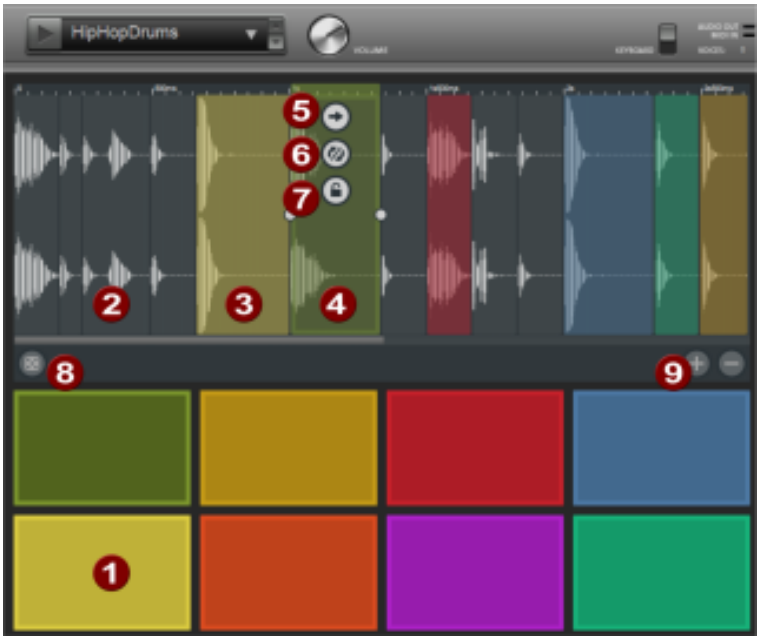
matrix, because the matrix offers more modulation sources (e.g. MIDI controller, oscillators) and the modulation source may influence more targets.

8. VALUE DISPLAY: The value display shows the exact value of the parameter which was just modified. You can also read the load for the twelve voices.

9. Preset section: Here you can select Revolta presets. Every sound can be listened to, and an A-B comparison between two sounds is also possible (for example, an edited and an unedited sound).

Vita Sampler

The Vita Sampler is a simple sampler, which you can use to play sections of samples via MIDI, for example individual drum sounds from drum loops. This function as a so-called "beat slicer", which means that it automatically finds the individual elements in samples (e.g. kick drum in a drum loop), which in turn are available as destinations for eight drum pads.



1. **Wave form:** Your own samples in the file formats .wav. .aiff, .ogg, and .mp3 may be loaded into the Vita Sampler via drag & drop simply by dragging them there. In this case, the sample segments ("slices") are detected automatically and marked in the sample.
2. **Assigned slice**: Of all the detected slices, 8 are selected randomly, assigned to the drum pads, and specified as random playback modes (**5,6**).
3. .**Drum pads:** Slices may be played using the mouse with the drum pads and via MIDI with the white buttons starting at C3 (MIDI note number 60, 62, 64, etc.)

4. **Selected slice:** Slices may be selected for advanced listening by clicking them. The associated drum pad is also displayed at the same time.
   To change the slice assignment for this drum pad, drag the colored frame around another wave form slice.
   To change the size of the assigned slice, drag the edges of the frame using the round handles. The edges will snap onto the specified slice borders. Pressing the **Alt key** shuts off the snapping grid. This enables imprecise positions in the slice detection to be corrected.

   Note: Slices may not be assigned to multiple drum pads, which is why sometimes, the selection cannot be dragged as desired.

5. Clicking the symbol changes the **playback direction** of the slice:
    **Forward**  **Backward**

6. Clicking the symbol changes the **playback mode** of the slice:
    **No loop.** The slice is played back for as long as the drum pad or the MIDI note is active, but only until the end.
    **Loop.** The slice is played back in a loop for as long as the MIDI note is active.
    **One shot.** The slice is played back independently of the length of the MIDI note until the end

7. **Lock pad:** Lock the pad out of the random function (see below).
    **Not locked**
    **locked**

8. **Random:** A new, random selection of slices is added to the drum pads and random playback modes (**4**,**5**) are assigned. Locked pads are not included. You can use the random function repeatedly to discard unwanted results and keep the good ones.
9. **Zoom**: The zoom buttons enable you to enlarge the wave form display, to recognize more details,which is practical for correctly slice edges with the ALT button (see above)

Vita Solo Instruments

MAGIX Music Maker includes some more synthesizers that are based on the VITA Sampling engine. The Vita Solo Instruments are a sample player that have customized interfaces for the relevant instrument.

The basic controls are identical for all synthesizers.

One click on the arrow symbol opens a drop-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". You can also save the settings you changed in order to add them to your favorites lists for later use.

You can control the overall volume of the instrument.

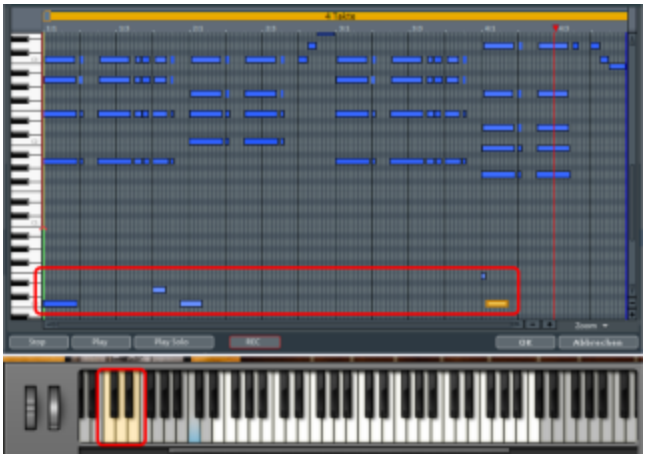
You can turn the instrument keyboard on or off with this controller.

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, Vintage Effects (⇗130), Reverb (⇗124) and Distortion & Filter (⇗112) chapters.

Articulation

Some Vita Solo Instruments have a special feature: In the bass octave (on the keyboard (C0-B0), there are special notes, which let you control the playing style (articulation). An alternative sample set is loaded, which lets the sound even more realistic using various playing styles natural to the instrument, for example note bending and flageolet on the guitar or staccato on the saxophone.

Articulation is switched on and continues until normal articulation is switched on again through the corresponding note (C0).

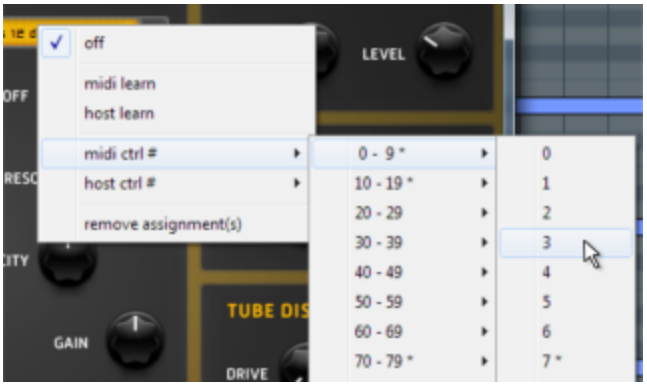


In the keyboard of the instrument interface are the buttons to switch articulation, displayed in a different color. In the MIDI Editor appearing above, you can watch a practical application of articulation. The notes on 1:4 and 4:1 will be played back with varying articulation. Before the next "right" note, normal articulation will be switched on again through C0.

Automation of Vita Solo instruments.

In **MAGIX Music Maker** it is possible to automate 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. This opens a context menu where you can select a MIDI controller number for the automation using "midi ctrl #". A few standard controller settings are already preset, e.g. 7 for volume, 10 for panorama, 91 for reverb.



2. Open the MIDI Editor (Y key) and switch into the "Velocity/Controller Editor".

3. At the bottom right, you can now select the pre-selected controller number in the MIDI controller selection field.

4. Now, draw the desired automation curve.

Additional information can be found in the Controller Editor - Select and edit events *(⇗89)*.

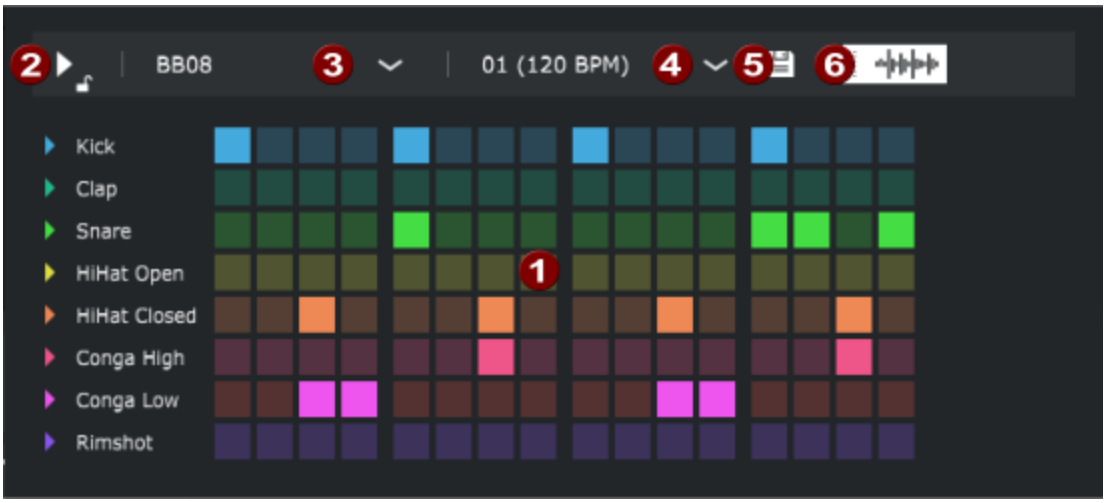
***Tip:** If you are using an external controller, you can also use it to control and automate values. To do so, select "Learn MIDI" in the Vita Solo Instruments context menu. Also read the* Using external equipment *(⇗78)*.

BeatBox

BeatBox is a simple drum machine which is programmable using a step sequencer and was designed to be as easy to use as possible and produce fast results. It holds a special status among the synthesizers in that it has its own window in the main interface and is not controlled by MIDI objects, but by its own sequencer.

This means that you don't have to load the BeatBox onto a track first from the track header like the other synthesizers, but simply open the BeatBox window.

 The BeatBox can be opened by clicking on this button or pressing the B key.



1	**Step Sequencer:** Here is where you program your beats. Each row corresponds to a drum instrument, the 16 boxes in each row indicate where within the measure that particular rhythm instrument sounds. *To add several steps in a row, simply click and drag with the mouse.*
2	**Play:** The Step Sequencer has its own play button. If the small lock symbol is set to open, you can start and stop the BeatBox independently from the arrangement.
3	**Drum set:** Use this button to choose from a menu of different drum sets.
4	**Pattern:** You can select between various drum patterns here. (Patterns are the programmed drum sequences.)

5 **Save pattern:** Use this button to save the patterns you have programmed. They can be loaded the same way as the ones included in the collection of patterns.

Please note that each drum set has its own list of patterns meaning that you will only find your custom-programmed pattern if you have also chosen the appropriate drum set.

It is not possible to save patterns in Music Maker free.

6 **Render audio loop:** If you drag the loop symbol  onto an empty track in the arranger, the current pattern will be saved as an audio file and inserted into the arrangement at that position as an object.

When you play back the arrangement with the inserted BeatBox loops, don't forget to stop the BeatBox window, otherwise the drum beats might be doubled (from the synthesizer and the loop), which might sound a bit strange.

When you play back the arrangement with the inserted BeatBox loops, don't forget to stop the BeatBox window, otherwise the drum beats might be doubled (from the synthesizer and the loop), which might sound a bit strange. This allows you to combine different BeatBox patterns in your arrangement.

VST Plug-in Editor

The VST Plug-in Editor can be opened by right-clicking on the instrument's name in the MIDI Editor, via the corresponding plug-in slot in the Mixer, or via the "VST Instruments Editor" entry in the instrument list.

The Instrument Editor has two views, the so-called "GUI" of the plug-in (Graphical User Interface) and the parameter view. This is either automatically activated when the VST plug-in does not have its own GUI or can be used if the GUI of the plug-in is too unclear or takes up too much space on the screen. The parameter view displays the eight parameters of the plug-in as sliders. In the File menu you can change between these views (plug-in dialog/plug-in parameter).

Load/save patch/bank: The instrument settings can be saved and loaded in the patch formats typical for VST plug-ins (*.fxp) and bank formats (*.fxb).

Random parameters: This function can be an important source of inspiration. If using it, however, please save the preset you have just created first, as the program does not ask you for confirmation before applying this function.

Menu program: Here you can select the presets integrated into the plug-in or loaded via the File menu.

Adding your own plug-ins

You can use your own VST synthesizers and effects with **MAGIX Music Maker**. The program supports VST2 and VST3 formats in 32- and 64-bit.

A VST bridge is required for using 32-bit plug-ins (this comes with some program editions or can be purchased separately from the Store).

Synthesizers and effects that are included in **MAGIX Music Maker** or are purchased in the Store are automatically recognized and can be used right away. To use third-party plug-ins in **MAGIX Music Maker**, you must tell the program in which folder they have been installed. To do this, proceed as follows:

1. Install each VST plug-in according to the instructions provided by the manufacturer. In most cases the plug-in installer suggests a default folder (e.g. C:\Program Files\VST): these System VST folders are included in the plug-in scan by **MAGIX Music Maker** by default. You can also use any other folder. If you already have VST plug-ins installed on your system, it is best to use the existing folder.
2. Open the **program settings** (**P** key) in the **Folders** tab and select **Add VST plug-in path...**. The **VST plug-in scan paths** will open.
3. Click on **Add scan path** and select a path for the folder.

4. Click on **Scan now** to start the plug-in search. This scan may take some time for many installed plug-ins and instruments. Not only are all the plug-ins imported, but they are also checked for usability within the program. Incompatible or incorrectly installed plug-ins and those that cause the plug-in search to crash are also included in the list and flagged as unusable, so that they are skipped during the next scan and cannot cause problems again.
5. The newly found plug-ins can be used immediately.

You can also specify and scan any number of plug-in paths. To remove a path, select one or several and click on **Remove selected paths** to delete them from the list. **Reset to default** removes all paths apart from the VST system folders and the internal paths used by **MAGIX MUSIC MAKER**.

MIDI objects

MIDI objects do not contain audio material. They are used to control synthesizers (⇗58) that then create corresponding sounds. They are comparable to music notation that is about to be played by a musician.

MIDI is a standardized command language that helps control synthesizers..
In addition to the command to play a note (Note On, Note Off), there are control commands (control change) for internal synthesizer parameters (volume, panorama, the pedal for piano, filter settings and others), program change commands (program change) to open saved sound programs and for other tasks. These commands are called MIDI events. A MIDI object contains a series of events and the times at which they occur.

You can create MIDI objects by loading MIDI files, playing and recording with an external MIDI keyboard, or by drawing notes in an empty MIDI object with the MIDI editor.

Arrange MIDI objects

MIDI objects can be positioned exactly like audio objects in the arranger, the volume may be modified (middle handle), or fades (in or out) may be added (top right and left handles).

The differences to audio objects (loops) are:

- Volume changes in MIDI objects mid handles or fades in/out are controlled by adjusting the velocity (MIDI Note On velocity) with the handles on the upper left and right of the object. Many synthesizers do not change the volume, but rather the sound in relation to the velocity level. If you do not want that, adjust the volume in the mixer instead or by using a controller curve (⇗89) (usually controller 7).
- MIDI objects always control the synthesizer that is loaded into its track. If you move a MIDI object onto another track, then a different synthesizer will be controlled and the sound of the project changes accordingly.
- Self-recorded MIDI objects are not available as a loop.

*You can shorten MIDI objects with the lower front and rear handles as desired and convert them to a loop with the menu command **Edit** > **Object** > **Loop range** > **Set custom loop**.*

Transpose MIDI

Using this function from the "Effects" menu, the pitch of MIDI objects can be altered. You can find this function in the **Effects** >**Pitch, Tempo & Remix** > **MIDI transposition...**. Enter the number of half steps to transpose all the notes in the MIDI object up or down!

Note: For drums each note corresponds to a different percussion instrument (kick drum, snare, toms, etc.). Transposition of a drum track is therefore not recommended. Instead, directly adjust the pitch of the respective synthesizer.

MIDI files

The file format with file extension *.mid is used to save and load a **standard MIDI file**. Many pop hits are online free to download as MIDI edits. They may serve as a good springboard for your first musical experiments or cover versions.

You can save the content of a MIDI object as a file in the MIDI editor. In the "File" menu of the MIDI editor *(⇗83) use the command "Export MIDI".*

Preview of MIDI files

Like audio files, MIDI files are loaded by using the file manager. A simple click will start the preview.

Since the number of possible sounds is virtually unlimited and because such files should be universally applicable, they are usually arranged so that they require certain standard sounds. This number of standard sounds is called General MIDI (GM) or in an expanded form General Standard (abbreviated GS). To preview a MIDI file in the file manager **MAGIX Music Maker** uses **Microsoft GS Wavetable SW Synth**, this is a software synthesizer that is part of the Windows operating system and contains these sound programs.

Its sound quality is rather modest compared to "proper" software synthesizers. For further work with imported MIDI data, we recommend using the software synthesizer supplied. And due to another reason: "Microsoft GS Wavetable SW Synth" is not part of **MAGIX Music Maker** and the sounds it produces are therefore not included in a finished song that has been exported.

Note: MIDI data that contain a complete arrangement should be copied onto multiple tracks and filtered by MIDI channels with help from the MIDI channel filter *(⇗101).*

If the preview in the file manager does not work:

- Check the output device for MIDI in the **Program settings** window in the **Audio/MIDI** tab (P key or via **File** menu > **Settings** > **Program settings**). "Microsoft GS Wavetable SW Synth" should be selected here!
- The sound card synthesizer's volume is set via the the sound card mixer. Double click the small loudspeaker icon in the notification area and find the controller for the SW synthesizer.

- Several sound cards cannot use the SW synth simultaneously with ASIO drivers (⇗211).

Connect MIDI keyboards

You can use **MAGIX Music Maker** in conjunction with a MIDI keyboard to play and record the included synthesizer plug-ins or VST plug-ins. You can also control sound generation from external devices using MIDI objects in the project of **MAGIX Music Maker**.

Basics of MIDI interfaces and cabling

MIDI interfaces are system devices that enable communication between the computer and an external MIDI device. They provide music programs with one or more MIDI ports. The music software (in our case **MAGIX Music Maker**) sends and receives MIDI data via this port, everything else is handled by the drivers and operating system. You can set the ports for MIDI input and output in **MAGIX Music Maker** in the Program settings (⇗211) (key P, **Audio/MIDI** tab).

A MIDI interface can be integrated into the computer system in different ways. It can be part of the sound card built into the computer or externally connected via USB or FireWire.

In this case, two MIDI jacks (MIDI IN and MIDI OUT) are located on the sound card. With older sound cards an additional adapter cable must be connected; this provides the classic 5-pin DIN jacks.

MIDI connectors

MIDI connection cable

Connect your MIDI keyboard to your computer by running a MIDI cable from the keyboard MIDI output jack (MIDI Out) to the MIDI input jack (MIDI In) on the MIDI interface. If your MIDI keyboard can generate its own sounds and you would like to use them, connect the computer's MIDI Out jack to the keyboard's MIDI In jack.

With **USB MIDI keyboards** the MIDI interface is part of the external hardware. USB MIDI keyboards are a unique category of devices that are specially designed for

controlling software synthesizers. These devices usually do not contain any separate sound generators, but rather consist of just a keyboard, different controls, and a USB MIDI interface. They are connected via USB to the computer – in this case, no MIDI connection cables are required.

Note: Even on "proper" keyboards and other synthesizers you can now find a USB MIDI interface alongside traditional MIDI connectors.

Normally, no special drivers are needed for these keyboards. All you have to do is connect them. In some cases, you may have to select the port for the device as a MIDI input device via the Program settings ("Audio/MIDI" tab) (⇗211). This is usually called "USB audio device"

In the event that your external device does not have a USB port and the sound card does not have MIDI connectors, you will need to purchase an additional USB to MIDI interface.

MIDI Local Off: If the MIDI keyboard has its own sound source, it must be switched off when you use its keyboard for recording. This enables you to play the software instruments without hearing the sound of your keyboard at the same time. This function is referred to as "Local OFF" and can be directly set on your keyboard. If necessary, refer to the user manual for your keyboard to find out exactly how to do this.

External synthesizers

MIDI objects can also be played back over a MIDI interface onto external synthesizers, sound modules, etc. Set as default, the "pure" MIDI output (i.e. without using software synthesizer plug-ins) is sent to the system software synthesizers (Microsoft GS Wavetable SW Synth). This is required to preview (⇗77) MIDI files.

If you set the MIDI port of an external synthesizer as the MIDI output device (see previous section), the content of each MIDI object will be output in this manner.

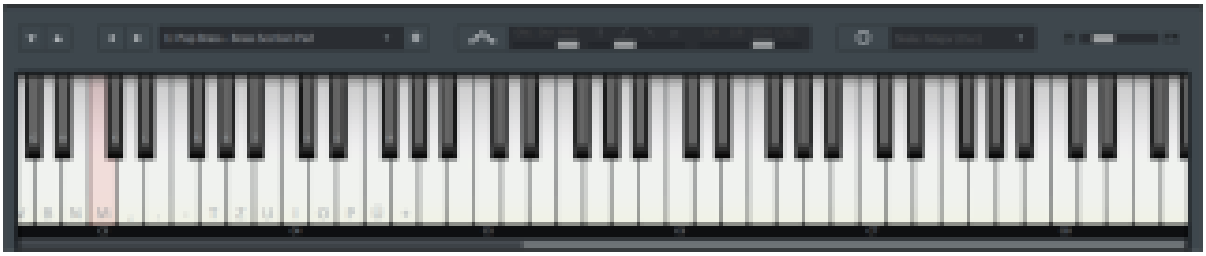
***Note:** If the MIDI object is in a track containing a software synthesizer, the object will control this synthesizer. To output MIDI via an external sound synthesizer, select "no VSTi" from the list of software synthesizers.*

All MIDI tracks that control external synthesizers via a MIDI interface will not be included in the export. To be included, they need to be converted into audio objects first. Connect the output of the MIDI sound generator to the input of the sound card, and play back the MIDI track while recording it again using the recording function.

Keyboard

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

 Use this icon or the **K** key to open the **Keyboard** window.

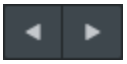


The keyboard always controls the synthesizer in the track for which MIDI recording has been activated.

You can operate 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 play music properly 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 keyboard.

 ***Note**: This works only after you first click once on the on-screen keyboard using your mouse – otherwise the keystrokes will correspond to keyboard shortcuts for various other **MAGIX Music Maker** functions. If the computer keys control the program's keyboard, the piano keys will display the corresponding letters and characters.*

 Use the vertical arrow buttons to shift the octave range so that the keyboard can be played using the computer keys.

 You can use the horizontal arrow keys to select the next/previous sound of the synthesizer, or they may be selected directly in the list field on the side.

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

Arpeggiator

 The arpeggiator is a special function that can be used to create full chords or broken chords (arpeggios, i.e. the notes of a chord played in quick succession) by pressing a single key.

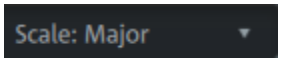
C note C minor chord C minor arpeggio with 1/16 notes

1. This button activates the arpeggiator.
2. This switch determines whether the played note will generate no chord, a minor chord or a major chord.
3. This switch determines the type of arpeggio. When set to the far right, a normal chord is played. The other positions are up, down or up and down. The figures are repeated as long as the note is played.
4. The tempo of the arpeggio is set here and can range from 1/4 notes (slow) up to 1/32 notes (very fast).

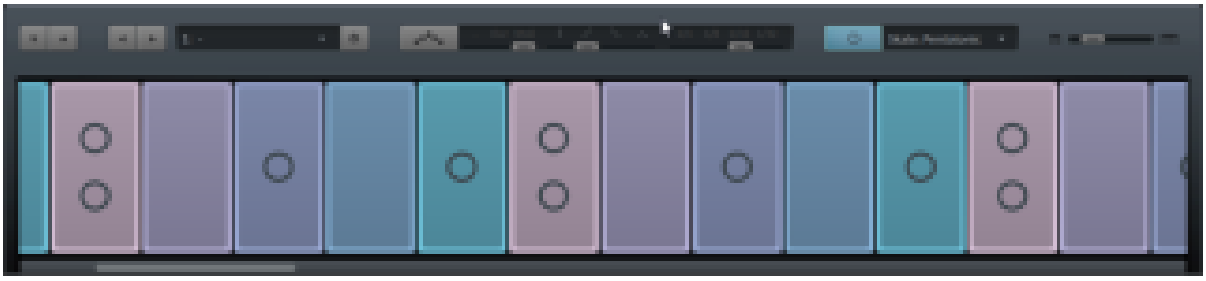
Scale

With the "scale" feature, you'll never hit the wrong note! The keys of the screen keyboard are replaced by a bar of playing areas where you can only play notes from the scale that has been selected.

 This button activates the scale feature.



Choose between various scales by clicking on the arrow.



The keyboard in scale mode.

The circles on the playing areas will guide you. The doubled circles indicate the tonic, which is the note that the scale begins with. The following scales are available:

Major	C, D, E, F, G, A, H
Harmonic Minor	A, H, C, D, E, F, $G^{\#}$, A
Pentatonic	C, D, E, G, A

Major Blues (Major)	C, D, D#, E, G, A
Major Blues (Minor)	C, D#, F, F#, G, B♭
Indian	C, C#, E, F, G, G#, H
Japanese	C, C#, F, G, G#

Tip: The scale feature also works with the MIDI keyboard. The scale is played on the white keys and the black keys play the same note as the white key directly below it.

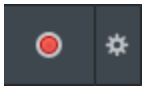
Playing and recording MIDI synthesizer

MAGIX Music Maker allows you to play and record software synthesizers or external MIDI devices from the arranger. The MIDI editor does not have to be open.

Presuming that the MIDI input and output devices are set correctly (see above), you should be able to play software synthesizers with the MIDI keyboard.

MIDI recording mode must be activated in the corresponding track by clicking "Rec" twice in the track header. 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 header or opened via the MIDI Editor, then MIDI recording mode is activated automatically.

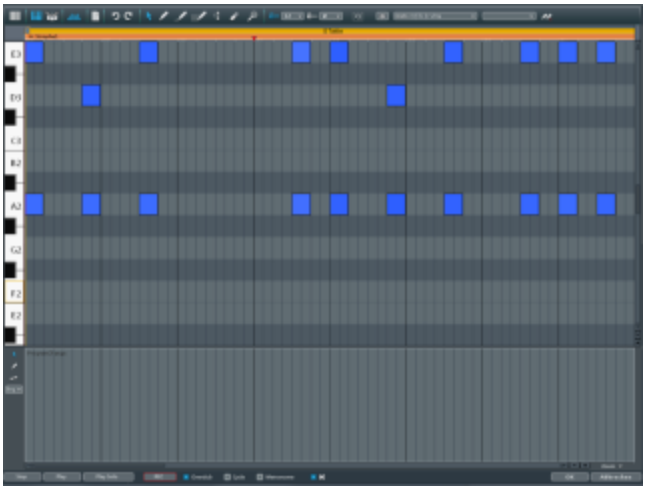


In order to record a new MIDI object, simply click the red "Record" button in the transport bar

MIDI editor

The MIDI Editor makes it possible for you to edit MIDI objects. The MIDI Editor provides different views and aids to do this.

Using this symbol, double-clicking on a MIDI object or pressing the **Y** key, you can open the **MIDI editor** window.



In the center you'll find the Piano Roll Editor (⇗87), 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 (⇗91). 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 mode (⇗93).

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

Clicking on this button opens the Controller Editor (⇗89) 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.

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

Along the top edge, you will also find buttons for selecting the editing tools (⇗87), for the Piano Roll, quantization (⇗97), for the output used by the MIDI object (MIDI out or VST instrument), and for step recording (⇗99).

The MIDI editing window features its own menu (⇗103) with its own keyboard shortcuts (⇗105).

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

Alt + mouse wheel: Scroll vertically

Shift + mouse wheel: Zoom vertically

Ctrl + mouse wheel: Zoom horizontally

Select sounds

Select the desired VST instrument from the menu. This corresponds with the instrument menu in the track header. This can also be done by using the gear icon to open the synthesizer's interface. You can test the same MIDI object with various VST synthesizers.

If there is no VST instrument loaded, the MIDI object uses the MIDI output for the external synthesizer or for the synthesizer supplied by your operating system (Microsoft

GS Wavetable Synth). 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"

You can set up the MIDI output channel under **MIDI channel**. MIDI objects can contain objects on different channels. In the **Multi** default setting, these channels are maintained. This is important for VST instruments which can receive MIDI notes on multiple channels and play several different sounds simultaneously *(multi-timbral)*. If you select one channel instead, all events will be output only on this channel. To use different MIDI channels, refer to the section on the MIDI channel filter (⇗101)

Play/ Play solo

"Play Solo" only plays the MIDI Object that is currently opened in the MIDI Editor (corresponding with the filter settings in the “Options” menu).

“Play” plays the entire arrangement.

MIDI recording 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 project during recording: If this option is active, then the project will play during recording.

Selecting MIDI events

Selection of MIDI events for editing is generally the same in all three editing areas (Piano Roll, Controller Editor, List Editor). The differences are visible in the table:

Selection	Mouse action
Select the Event	Left-click on event

Add/Remove event from selection	Ctrl + left-click on event
Select current event, deselect all other events	Double-click on event
Marquee selection	Left-click on a free space and click and drag selection. (Selection tool in Piano Roll and Controller Editor)
Unselect all	Left-click on a free space (only in selection mode, not in the List Editor)
Set or change current events within multiple selection.	Left-click on selected event
Selection of section of events	Left-click on first event, Shift + left-click on last event
Selection of all notes of a pitch	Double-click on a free space with this pitch or press the appropriate key on the keyboard (only Piano Roll)
Selection of all events	Ctrl + A, depending on the editing section, includes the selection of notes (Piano Roll), Controller events (Controller Editor), or all events (List Editor).
Select next or preceding note	Arrow left/right (only Piano Roll)

Fundamentally, an event selection always applies to every other range as well with just a few exceptions. You can, for example, select a group of notes in the Piano Roll and then change the velocity for the selected group of notes using the Controller Editor, modifying all selected notes simultaneously.

Meaning of the colors in the Piano Roll and Controller Editor

Notes which are not selected within the editor are displayed in blue. The intensity of the color represents the velocity: With increasing velocity the color will become darker/stronger.

Selected notes: Multiple selected notes are displayed in yellow. Here too, a more intense color symbolizes increased velocity.

Alternatively, the color in the Piano Roll can symbolize the MIDI channel of a note. Select in the "Options" menu "Use MIDI channel colors".

Current event: Appears with an orange border. If an event is selected with the mouse, it turns into the current event.

Filtered Events: Events filtered with the MIDI channel filter (⇗101) appear in gray.

Muted Notes: For test purposes you can mute notes (Menu "MIDI Functions (⇗102)"), which then for selected and unselected events will be displayed with a fainted color.

Events outside of the object borders: Events in front of or behind the beginning and end of the object – recognizable by the blue lines in the Editor – also appear fainter and have a white border.

Piano Roll

For notes inside the Piano Roll, various editing tools, so-called mouse modes, are available.

When **clicking existing notes** all tools generally act in the same manner: You can select notes simply by clicking on them (see Selecting MIDI events (⇗85)) and then by clicking and dragging notes, whose start time, pitch or note length you are editing. Depending on where you click on the note bars several options are available, which are visible by different mouse pointers.

	Change note start time: Grab note bar at the beginning, note end remains the same
	Change note length: Grab note bar at end
 + Shift	Set fixed note length for multi-selection: Hold Shift key and drag current reference note longer/shorter. This sets all selected notes to the same length.
 + Ctrl	Scale note length for multi-selection: Hold Ctrl key and drag current reference note longer. All notes will be lengthened by the same factor.
	Move note freely, pitch and start time change
	If **H** is also pressed in Move mode, the note will only be moved horizontally, retaining the pitch.
	If **Shift** is pressed while in Freehand Draw mode, only the pitch can be changed, the position will remain the same.
	If the setting **Ranges for limited movement** is activated in the **Options menu**, clicking and dragging the first half of the note results in a change to the position, while clicking the end half changes the pitch.

*Pressing the **Alt key** while moving the mouse temporarily deactivates the quantization grid.*

There are two exceptions: The eraser tool deletes notes by clicking on them and with the velocity tool, notes are not moved but rather their velocity is adjusted (see below).

The mouse modes display their special functions by **clicking or clicking and dragging into empty sections** of the Piano Roll:

 **Selection** (Ctrl + 1)	**Simple click:** Clear existing selection. **Click + Drag:** Draw out a rectangular selection frame. For additional selection options see Selecting MIDI events (⇗85).
 **Draw** (Ctrl + 2)	**Draw note:** The start position and the length snap respectively to the current quantization settings. Draw mode can be activated in all modes by pressing the **Shift key**.
 **Drum (draw)** (Ctrl + 3)	**Draw sequence of notes:** The lengths and distances of the notes are set according to the current quantize settings. If **H** is pressed while drawing, the pitch of the first note will be applied to all subsequently drawn notes. Moving backwards with the mouse when drawing removes notes already drawn.
 **Pattern (draw)** (Ctrl + 4)	**Draw note pattern:** A selection of existing notes can be saved as a pattern (phrase) and then drawn in different pitches. To create a new pattern select the respective notes and press **Ctrl + W** or select in the **Edit** menu > MIDI/Drum Editor > **Create pattern from selection**. Draw the pattern at the position of the deepest note of the pattern. This makes an original pitch sound. You can, of course, draw in different pitches. If **H** is pressed when drawing, the basic tone pitch from the beginning will be retained. Moving the mouse back (to the left) while holding down the mouse button removes the notes which were just drawn.
 **Velocity mode** (Ctrl + 5)	**Click an empty section** like in selection mode. **Left-clicking on notes and dragging them vertically** alters the velocity of the notes. The velocity of notes can be edited directly in the Piano Roll and the Controller Editor remains free for other outputs.

	**Delete** (Ctrl + 6)	**Left-click:** Delete note. Clicking one selected note deletes all selected notes when multiple notes are selected. **Click and drag:** Delete all notes that come into contact with the eraser. The Delete mode can be activated anytime by clicking with the right mouse button. You can add new notes with the Drawing pencil by using a left-click and remove existing notes with a right-click, without having to change the tool.
	**Magnifying glass** (Ctrl + 7)	Left click: zoom in Right mouse button: Zoom out Left click + drag: Zoom in into a range

Controller Editor

The Controller Editor is a graphic editor that allows you to edit the velocity of notes in the piano roll and in controller events. A Continuous Controller abbreviated as CC or simply referred to as the Controller allows you to transfer control values such as for filter, volume and panorama position.

Tip: All control elements for MAGIX Vita Solo Instruments and MAGIX Vita can be controlled via the MIDI controller *(⇗70)*.

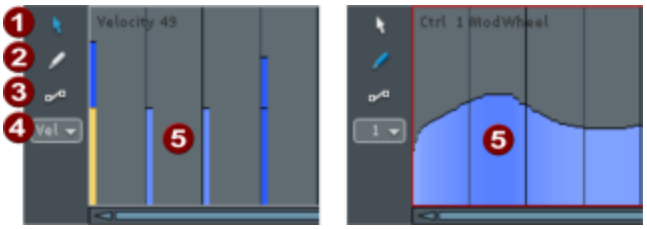
The Controller Editor is preset as hidden. You can have display by clicking the button below the piano roll or with the key shortcut "Alt + V".

The velocity values of note 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 respective notes.

The values of other controllers are shown as bars. The width of the bar extends to the next event that has a different value. Because the controllers typically change more or less continuously in smaller time intervals independently of note events, they appear as ascending or descending ramps. The height of the ramps and their color intensity also represent the last defined value of an event. Selected controller events also appear in yellow.

MIDI controller events can be quantized and thinned out. To do this go to the ***MIDI functions menu*** *and select* ***Quantize/thin out controller****. Quantization is defined by the* quantization settings *(⇗98)*.

Utilities



Controller Editor for editing the velocity of existing notes (left) or controller values (right)

1. **Selection tool:** Specifically select existing controller events or notes and adjust their values.
2. **Freehand drawing tool:** Freely draw new controller values or a gradient.
3. **Draw line:** Use the line function to quickly insert a straight controller gradient (ramp).
4. **Controller Selection**. Select a controller to edit by clicking the menu. Controllers, whose data is already available for the MIDI object, are marked by an asterisk.
5. Velocity values are only available at time positions of the corresponding notes and in the case of multiple notes occurring simultaneously, several appear on top of each other (⇗91). Controllers are independent of the notes.

Selector tool

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. When selecting a velocity bar, the corresponding notes will also be selected.

By clicking and dragging the upper edge of a velocity or controller bar, you can immediately change its value. For multiple selection, the following rules apply: Each controller is increased or decreased by the same absolute value. Holding **Ctrl** while dragging changes the values relative to each other.

For example: Two controller values are selected; the first is 30 and the second 60. If you drag the end of the larger bar up by 30, then the values will change to 60 (30 + 30) and 90 (60 + 30). If you increase the larger bar with relative values (by holding Ctrl) by 30, it will result in an increase of 50%. The smaller bar will also increase by 50%, meaning a increase by 15 (50% of 30), resulting in a final value of 45. If you instead drag the smaller bar (+ Ctrl) and move it from 30 to 60, it will result in an increase of 100%. The larger bar will accordingly be increased to 120. In other words: The relation between the selected values will remain the same when they are relatively changed.

If you hold **Shift** while changing the value of a multiple selection, all of the selected events will be set to the same new value.

Drawing tools

With the **Freehand drawing tool** (Mouse pointer: pencil) you can draw any number of controller curves. With the **Line drawing tool** (Mouse pointer: crosshairs) you can create a linear controller gradient (ramp). You can temporarily activate the Freehand drawing tool with the Selection tool by additionally pressing the **Alt key** before clicking. The **Shift key** temporarily activates the Line drawing mode when using the Selection tool as well as the Freehand drawing tool.

Hint: If you edit velocity using the drawing tool, no new notes are generated; only existing velocity values are modified.

Tips for editing velocity

In polyphonic events where multiple notes are played simultaneously, the bars appear on top of each other, making it difficult to edit the end of a particular bar.

To edit only notes in a certain pitch, e.g. all C1 notes in the Controller Editor, click on the respective key on the keyboard to the left of the piano roll. The key and the background of the selected pitch are highlighted. Now only the velocity values of notes in this pitch are displayed in the controller editor. This also works for several pitches. You can add additional notes with Ctrl + click or create a range between two notes with Shift + click on the second note.

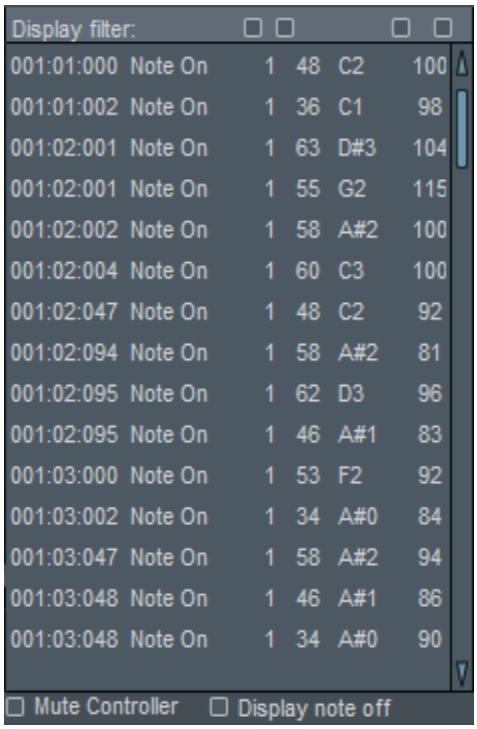
This is simply a view option of the Velocity Editor. You can double-click the key to select multiple notes.

Another option is to selectively edit velocity bars located on top of each other, since the bar of the currently selected note is selected or edited using the mouse. First, click on the note within the piano roll, or click on the bars located on top of each other and then select the required note using the up/down arrow keys. You can then change the velocity value by dragging out the highlighted (current) bar.

List Editor

In addition to note and controller events, which can be edited with the Piano Roll or Controller Editor, MIDI objects usually contain other types of events, e.g. program change commands (Prog Ch) to change the sounds in the software synthesizers. The MIDI editor has an integrated display of all events in list format. Here, you can edit MIDI data in detail.

This List Editor is opened either with a click on this button or by using the shortcut "Alt+L".



The List Editor lists all MIDI events in tabular form. The time position in beat: quarter note: tick is at the very front. Ticks are the 192 subdivisions of a quarter note. After that is the event type, the MIDI channel, and depending on the event type one or two data fields.
When the List Editor is opened and activated for editing it has a narrow red border. This makes it clear that certain functions, for example, select next/previous event (cursor keys) or the command "Select All" (Ctrl+A), only refer to the list.

Mute Controller: MIDI controller commands can be filtered during playback.

Show Note Off: Each note contains a "Note On" and a "Note Off" event, which are always selected and edited together, therefore, Note Off is preset as hidden. Use this check box to see Note Off events.

Display filter: To edit specific events only, the List Editor provides a view filter for each column. These are small check boxes above the list editor columns.

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

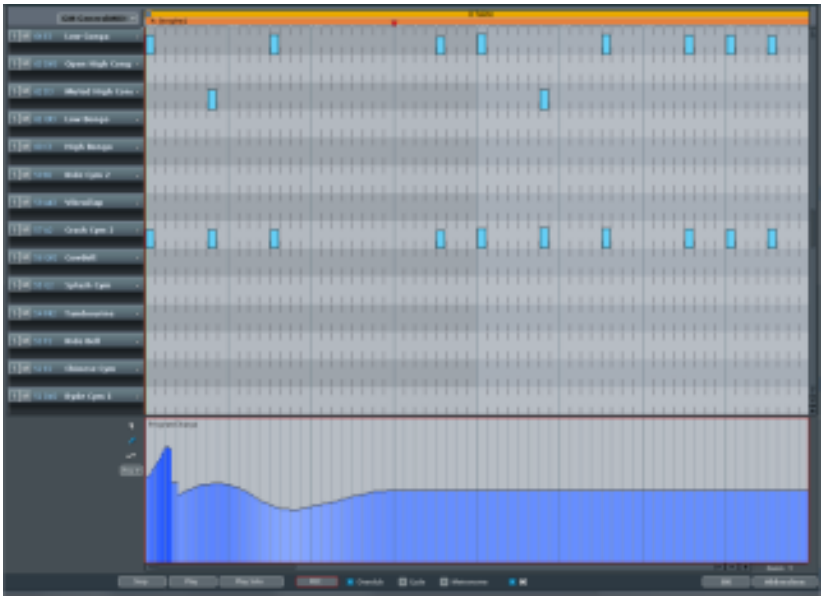
Display filters can be combined with one another. This way, you can, for example, when working with the "Select All" *command* (Ctrl+A), select and edit all control change events of type 10 (volume) on MIDI Channel 6.

To add special events use the button below the List Editor.

Select an event type in the list field on the left and click "Insert". The event will then be added with preset parameters, which can be adjusted in the List Editor.

Drum Editor

 Clicking this button switches the MIDI editor to Drum Editor mode.



The same MIDI object content can be edited with the drum editor like in the "normal" MIDI editor – you can access the same tools in both. The "Piano Roll" here is specially adapted to edit drum sequences:

- For each pitch there is a **drum editor track header** instead of simple piano keys. Here, you can assign a name to each drum instrument or rather to each pitch, as well as set the output note and channel, grid and quantization settings, and velocity scaling in %.
- Cell mode (⇗94)is used. The display width for each drum event in a cell can be individually set for each instrument as well as in the respective track header.
- All individual settings for each note can be edited as a whole in a drum map.

 Note: When you switch from drum editor mode back to the standard piano roll, you will be asked if you wish to apply mapping *(⇗95)* *or not. If you* ***add mapping****, all mapping settings will be applied to the MIDI object. For example: You changed the output value for an instrument with a pitch of 35 ("Bass drum 1" in GM Standard) to 36 ("Bass drum 2") in the track header. If mapping is applied, these notes will be replaced by corresponding "real" notes with a pitch of 36.*

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, rather a unified display width is used. This way, it all looks similar to the step sequencer of a drum computer (like the BeatBox).

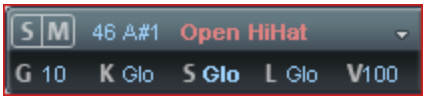
The set quantization grid can be read from the width of cells. Swing and Offset settings of the quantization options are also made clearer thanks to cells of various widths and by repositioning.

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 track header

Each individual note has its own track header in the drum editor. Here, individual settings can be specified for each instrument. When zoomed out, each track header can be increased in size with a simple 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 (⇗98), 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 (⇗97).

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 for adjusting the volume ratio between the individual drum instruments. Software instruments usually include their own mixers.

Drum Maps

Drum synthesizers usually respond to notes with different pitches and different sounds. You're able to control an entire drum kit and an array of other percussion instruments via one MIDI channel. Assigning a MIDI note to a particular drum sound is called "mapping". A "General MIDI" map is used by default.

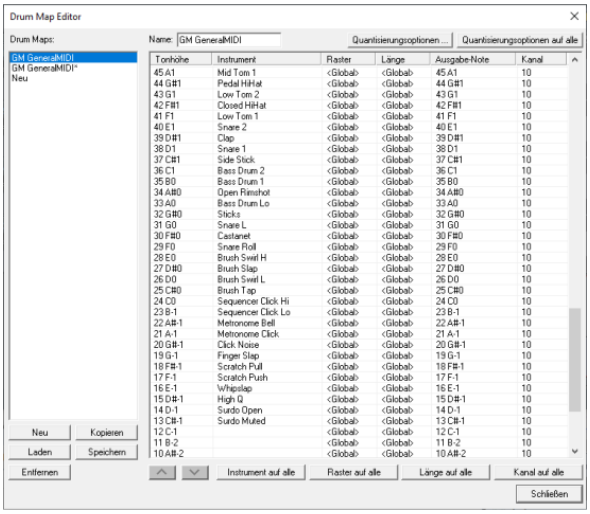
It may be the case that your synthesizer (regardless if real or virtual) uses a different mapping setup. This means that when you play the drum event, the sound you wish to hear may not be heard (for example, instead of a bass drum, you get a high tom). In this case you must adjust the mapping. The settings for individual instruments can be specified in the track header (the number/note value next to the solo/mute buttons).

For more extensive changes we recommend using the Drum Map editor (see below). You can save your Drum Map as a file in the editor.

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 individual Drum Maps in the Drum Map editor.

The Drum Map can be set in the drum editor by clicking on the list field above.

You can also open the drum map editor in this menu.



All Drum Maps that are available for the project are listed on the left. The Drum Map **GM General MIDI** is always available to start off with.

New: This creates a new empty Drum Map.

Copy: A copy of the existing map is created. This way you can quickly create variations of a Drum Map with various note allocations, which can then be toggled from within 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 (mappings) of the individual notes for each Drum Map selected will be displayed below this in table form.

Pitch: This is the incoming MIDI note.

Instrument: Displays the name of the drum instrument, for example, "Bassdrum 1".

Grid: If you like, 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.

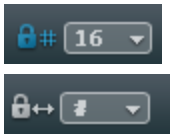
Quantization options: This opens the dialog for the each instrument's quantization options (⇗98).

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

Quantize

Small irregularities during recorded playing can be smoothed with the quantization function. In contrast, 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. Right-clicking on the symbol opens the quantize settings (see below).



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). In the menu **MIDI functions** (⇗102) > **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.

Quantize grid

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 (Ctrl + G).

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

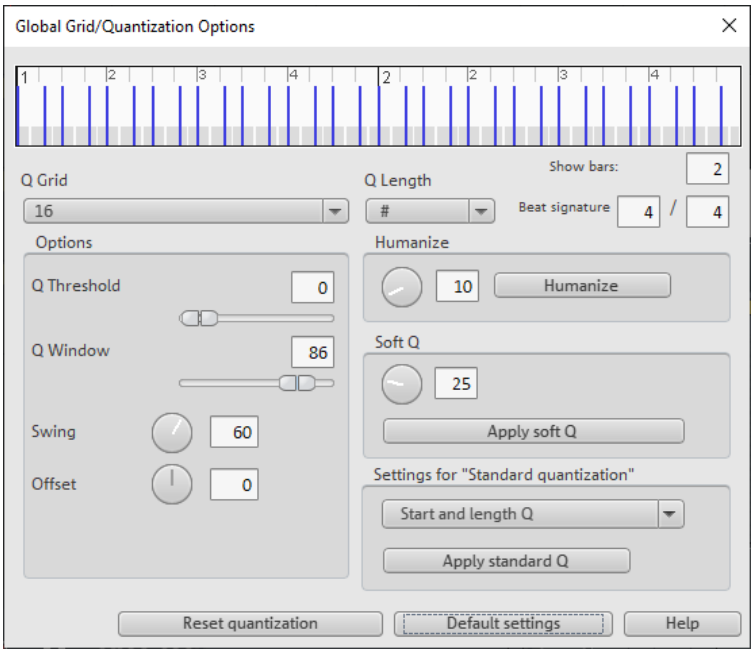
Move relatively on grid ("Options" menu): If this option is activated, notes keep their original intervals relative to the grid and not to the note start when they are moved; the distance moved snaps to the quantization value. Use this option if you want to move unquantized notes a certain distance without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

Soft Grid ("Options" menu): If this options is activated, the quantization options are applied, e.g. when notes are moved they will only snap to the corresponding position within the quantization window.

Keyboard shortcut: Shift + G

Quantization settings

The quantization settings can be found in the menu "MIDI functions > Advanced quantization" in the MIDI editor. The dialog with the settings is not "modal", i.e. you can leave it open if you wish, 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 the target points within the bar on which the note start points or lengths move. (see above)

Q threshold/Q window: With the parameters Q threshold/Q window you can restrict the quantization to certain notes in order to retain the genuineness of an MIDI recording. The parameter "Q threshold" can be used to exclude notes from quantization that are very close to the next snap point. Only notes that are far enough from the raster will be quantized. Conversely, by reducing the "Q window" notes that deviate too much from the raster can be excluded from the quantization. It is therefore possible, for example, to quantize quarter and eighth notes and retain the sixteenth notes that lie between by reducing the appropriate window.

In summary this means: Events less than the "threshold”-distance or more than the "window"-distance from the grid point will not be quantized. The time range affected by the quantization is 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 halfway 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. backward in time. The maximum of 100 corresponds with an offset distance of half the grid width.

Presentation of blue grid points in the dialog as well as of 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 specified value thus regulates the maximum possible spacing of the quantized notes at 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, i.e. quantization off

The command "Soft Q" 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 hard quantization without having to adjust the quantization options every time.

Standard quantization settings: Select from a list of quantization actions (see MIDI functions (⇗102)), that are listed by clicking the "Quantization" button.

Reset quantization: All notes will be reset to their original positions.

Standard settings: Restores the default values.

Step Recording with a Keyboard or Controller Keyboard

In the MIDI editor, you can also carry out so-called "Step recording" using the computer keyboard or MIDI keyboard. Step Recording means you can enter the notes with the computer keyboard or another keyboard but you do not have to enter them in realtime. You can allow for as much time as you like between notes.

The notes are added with a predetermined length and after each entry the playback marker moves one step farther. Step length and note length can be specified by the grid and length quantization values. The note lengths cannot, however, exceed the step lengths.

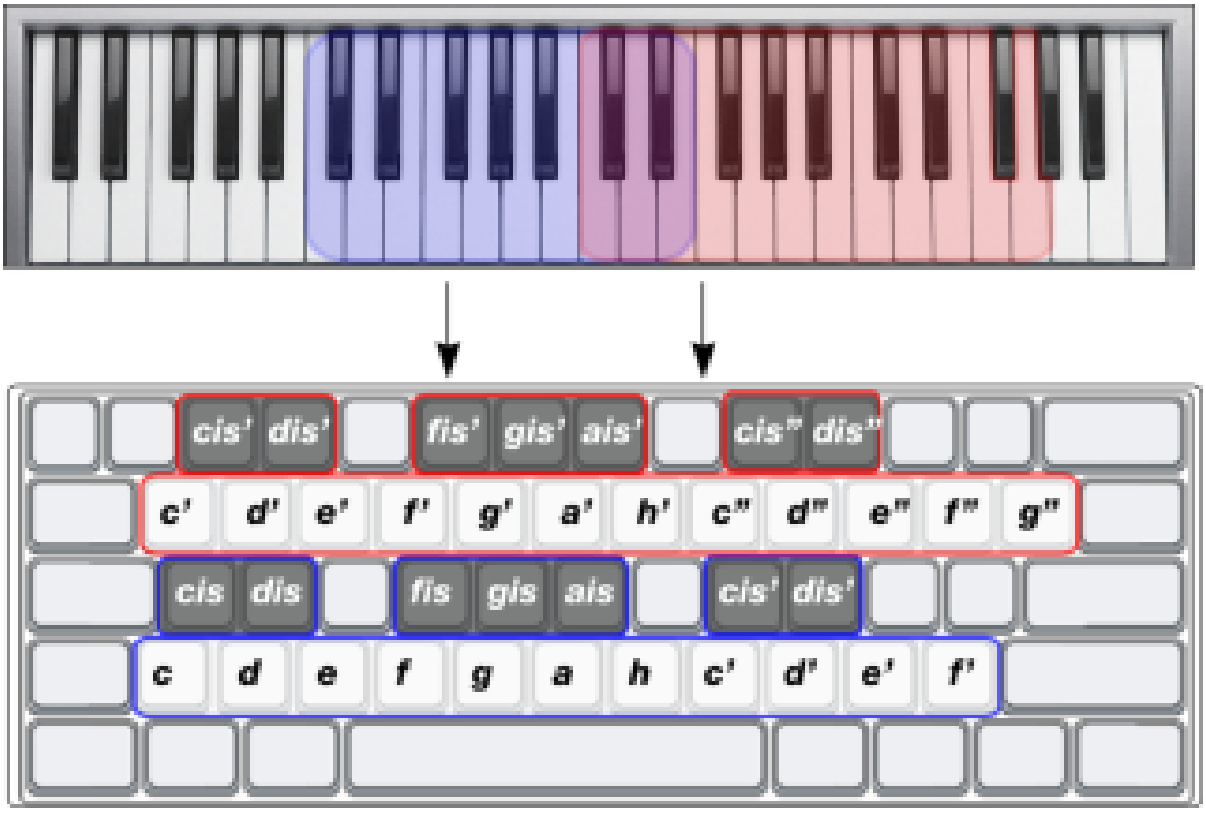
 Activate Step Recording with this button.

The playback marker shows the scope of the current octave for the following entries. Now you can enter MIDI notes step-by-step. Push multiple keys simultaneously to enter chords. The most important keyboard shortcuts for entering MIDI notes using step recording:

TAB	One step forwards (set pause)
Shift + Tab	One step backwards
Page up/Page down	Enter octave upwards/downwards
<yxcvbnm... (the precise keys depend on the type of keyboard you have)	Enter notes in current octave (see Playing instruments with the keyboard (⇗100))

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 channel filter

You can control multiple instruments with one MIDI output via the MIDI channels. A MIDI object can contain events in up to 16 **channels**.

Events in one object from all channels or only from selected channels can be played back with the MIDI channel filter in the MIDI editor. To play back or edit events only from certain channels, select the appropriate channels in the **Options** menu > **MIDI channel filter**. Events in channels that are not selected will be filtered out. **Play back all** deactivates the channel filter.

Events that have been filtered out appear in gray and can be edited using the selection tool. They can be hidden with the command **Hide filtered MIDI data** in the **Options** menu.

Note: The list editor *(⇗91) provides additional filters (such as filter by event type, controller number, Note Off events) that only function within the list.*

Using the MIDI channel filter

Completed songs in MIDI files as you would find them on the Internet usually contain a complete arrangement in which various instruments are played on different channels simultaneously. The standard software synthesizer for Windows that is used to preview MIDI files (⇗77) can receive MIDI on multiple channels and play several different sounds at the same time. This is called a multi-timbral synthesizer.

If you load a MIDI file, it will load as a MIDI object on a single track. However, **MAGIX Music Maker** can only control one software synthesizer per track, and most software synthesizers, also those available in **MAGIX Music Maker**, can only play back one instrument at the same time and are thus not multitimbral.

For this reason, duplicate your MIDI one beneath the other as often as there are different instruments involved and set the corresponding Channel filters (⇗101) 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 menu (⇗38).

You can quickly find out which MIDI channels events are assigned in a MIDI object by adding the list editor.

MIDI features

The **MIDI functions** menu contains advanced quantization (⇗97) and editing functions for MIDI notes. The commands in the "MIDI functions" menu always affect the selected events. If nothing has been selected, the functions are applied to all events.

Legato: If necessary, notes may be lengthened until the next note to be played in legato.

Quantize notes (default): A standard quantization will be used on all selected notes. If no notes are selected, all notes will be quantized. The standard action can be defined in the Quantization Settings Dialog (⇗98). "Quantize notes (start and length)" is set as 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 (Quantization approximation) :** This 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 hard 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 Note Ends 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.
- **Undo quantization**: Use this command to reverse all completed quantization steps. This works even after the project has been saved.
- **Quantization settings**: Opens the selection dialog for the quantization settings (⇗98).

Quantize controller events: Allows you to quantize controller events to reduce their number.

Humanize: Use the Humanize function to make quantized notes sound more "human" meaning less perfect. Notes will be moved to a random value. See Quantization settings (⇗98) .

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

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

Remove overlaps (monophonic): Notes are 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 "Pedal released" event (CC64 < 64), and the pedal events removed.

Menu reference MIDI editor

file

- **Import MIDI:** Load a standard MIDI file (*.mid) to the MIDI object. See Load and save MIDI files (⇗77).
- **Export MIDI:** Export the content of a MIDI object as a standard MIDI file (*.mid).
- **New (Delete all MIDI data):** Deletes all MIDI data in the object

Edit

- **Undo/Redo:** The last editing function is undone or restored.
- **Copy/Cut/Paste:** Depending on the editor area, the copy actions can be used for notes (Piano Roll), controller events (Controller Editor), or all events (List Editor). You can copy and paste within one MIDI object or between different ones. Events are inserted at the position of the playback marker.
- **Duplicating:** If the grid is activated, the notes selected in the Piano Roll are copied and inserted from the next grid point following the selection. They are otherwise inserted immediately after the selection.
- **Select all:** Select all events in the MIDI object. Depending on the editor area, the selection includes notes (Piano Roll), controller events (Controller Editor), or all events (List Editor).
- **Reverse selection:** All non-selected MIDI events are selected and selected events will be deselected.
- **Create pattern from selection:** Selected MIDI notes are saved as a pattern. The length of the pattern is quantized when the grid is active. Afterwards, the pattern can be drawn in the Piano Roll in Draw pattern mode (⇗87).
- **Delete selected MIDI data:** Selected MIDI data are deleted.
- **Delete all MIDI data** = File > New
- **MIDI recording:** Same as the REC key and starts the MIDI recording (⇗85).

MIDI features

see MIDI Functions (⇗102)

Options

- **Hide MIDI channel filter/filtered MIDI data**
- **Use velocity colors/Use MIDI channel colors:** Changes the colors of the MIDI notes from a graduated representation of the velocity values to different colors for each MIDI channel.
- **Scroll mode/Soft scroll mode:** In Scroll mode (preset) the displayed section of the MIDI object follows the playback marker. In Soft scroll mode, this is done continuously, meaning the section moves behind a fixed playback marker.
- **Show event list/Show Matrix Editor (Piano Roll)/Drum Editor/Velocity/Controller Editor:** Shows or hides the elements of the MIDI editor. (corresponds to the functions of the buttons above in the MIDI editor)

- **Step input**
- **Play notes that have been clicked:** Deactivates the playback of notes that have been clicked or the piano keys on the left
- **Zones with restricted movement for notes:** If active, the notes react differently to the movements of the mouse, depending on where you click on the bar in the Piano Roll, see Edit notes with the mouse (⇗87).
- **Quantization grid active:** Activates/deactivates the quantization grid (⇗97).
- **Show quantization grid:** Shows/hides the quantization grid.
- **Automatically quantize selection:** If active, quantization takes place automatically after recording.
- **MIDI Panic (End all notes):** In rare cases, after a Note On event the corresponding Note Off event may not be sent to the synthesizer and the notes "freeze". Use this command to send Note Off events to all channels in all pitches.

Mouse mode

Mouse mode for editing events, see Piano Roll (⇗87).

MIDI Editor shortcuts

Play/Stop	Spacebar
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 recording	Ctrl+R
Undo	Ctrl + Z
Redo	Ctrl + Y
Cut	Ctrl+X
Copy	Ctrl+C

Paste	Ctrl + V
Duplicate	Ctrl+D
Imported standard MIDI file	Ctrl+I
Export standard MIDI file	Ctrl + E
Fade in/out Event Editor	Ctrl + L
Fade in/out Velocity Editor	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
Magnifying glass	Ctrl + 7
Quantize	Ctrl + Q
Quantization options	Alt + Q
Select previous note/event	Up/Left arrow
Select next note/event	Right/Down arrow
Play selected notes	Ctrl + N
All notes off	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
Zoom	Ctrl + Mouse wheel

Audio effects

MAGIX Music Maker offers a variety of intuitive and customizable audio effects.

- For editing the sound spectrum, there is a graphic 10-band EQ (⇗117) and a parametric EQ (⇗123) with 6 bands.
- The stereo processor (⇗122) lets you correct stereo width and direction.
- Reverb (⇗112) provides an artificial room sound.
- Delay (⇗116) creates an artificial echo.
- The compressor (⇗117) lets you compress volume levels.
- Filter (⇗125) and distortion (⇗124) let you add subtle to drastic levels of distortion.
- The tempo pitch/resample (⇗118) effect can be used to change the tempo and pitch of objects and you can use Vocal Tune (⇗119) to adjust the melodies of recorded instruments and vocals (autotune).
- The Vocoder (⇗125) can transfer the sound sequence from one audio signal to another. You can use this to teach synthesizers to talk, or to create ghost voices.

Effects from third-party developers in VST format can also be used for effects editing. Some of the included effects are plug-ins. **MAGIX Music Maker** contains the following plug-ins:

- Vintage FX Suite (⇗130) includes tiny guitar effects (also known as "stomp boxes") and recreated standard effects, including Analog Delay, Flanger, Chorus, Vintage Filter, Vintage Distortion and Bit Machine.
- Essential FX, a collection of "bread and butter effects" for basic tasks. Includes efx_StereoDelay, efx_Phaser, efx_ChorusFlanger and efx_VocalStrip (optional).
- VandalSE (⇗141) – the "lite" version of guitar amp simulator MAGIX Vandal.
- AM-Track SE (⇗129), an analog vintage compressor that produces an especially warm, pumping sound.

Using audio effects

Audio effects can be added at different positions in the project, to individual objects, to a complete track, or to the master (i.e. everything you hear).

The effect window's operation is the same for all three effect positions, which is why it is described collectively below (⇗110) .

Object effects

Object effects only affect individual objects and not the entire arranger track. This has the advantage that you can use effects in a targeted and multifaceted manner.

For example, try adding a distortion effect to a drum loop, then cutting it into separate beats and setting different sound parameters for each object.

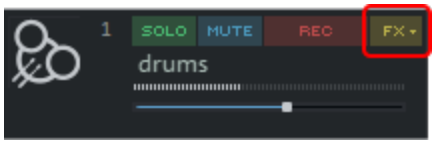
To activate an effect for an audio object, double click on the audio object or select the object and click on this button in the toolbar.

Right clicking on an audio object or going to **Effects** > **Audio** opens individual **audio effects** which can be activate via menu commands.

Track effects

Besides the object audio effects, a separate track effects with an equalizer, reverb/echo, compressor and the Vintage Effects Suite plug-ins can be used.

You can open the track effects window with the FX button in the mixer. A lit FX track button signifies that effects are active in the track.



You can also open the track effects by going to the track effects menu in the Arranger track header (⇗38).

Track effects always apply to the entire audio output of a track. They can be used when software synthesizers (⇗58) serve as audio source, instead of audio objects.

Note: The Vocal Tune, Tempo-Pitch/Resample and Vocoder effects cannot be used as track effects!

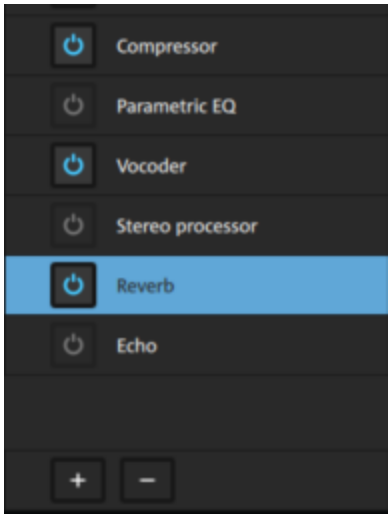
Master effects

Master effects influence the mixed sum of all audio tracks.

The master effects are opened in the mixer window by using the FX button over the master volume control.

The controls work similarly to the object and track effects. The MAGIX Mastering Suite (⇗127) is also available to help produce perfect sound.

Effects window



The effects window comes equipped with the most frequently used effects. At first, they are deactivated and won't use up any computing power. Clicking on the effect name opens the effect's interface.
Once you have selected an effect preset or have set the parameters manually, the effect will be activated.
You can tell an effect is active if the on/off button is lit.

You can also use this button to temporarily bypass effects without losing their settings.

Clicking this button lets you activate additional effects.

This button removes effects from the window. Since deactivated effects don't use up any computing power, this option is used mostly for maintaining an overview.

The effects unit interfaces are controlled by using slider controls, knobs and buttons. The individual effect descriptions provide more detailed information. Several effects contain two special features:

Sensor fields: Sensor fields allow you to control two parameters at the same time by moving a circle around on a flat surface. The horizontal and vertical positions correspond to the parameters.

A/B: If you have selected a preset for the effect and make manual changes to it, you can compare the original preset sound with the new settings using the A/B button.

Presets for individual effects

Each effect in the window has a range of presets that can be easily loaded by clicking on them. You can scroll through the list with the mouse wheel. Some lists also contain subfolders. Each list contains the **Reset** subfolder, which in turn contains the entries

Standard setting and **Settings before opening the dialog**. You can use these to completely reset the effect or reset it to its last value.

The list can be hidden using the arrow to the right.

Tip: Presets often contain more effect parameters than are normally accessible through the control elements of each effect. It's worth spending some time turning the knobs and trying out the available presets.

Templates

The folders for effects presets will be opened. Included and saved audio and video effect presets, as well as title templates end up in these folders, so that over time, a complete library of your own presets will be created.

 Using this symbol or the G key, you can open the **Templates**.

The buttons to the left open the folders for audio effects ("Audio FX"), title templates ("Titles"), and video effects ("Video FX").

These contain a range of presets for the most important effects and effect combinations. The presets have a preview feature, which lets you here an example of the effect when you click on it. You can drag & drop presets into audio objects in the Arranger.

You can also add effects by drag & drop. They can be dragged onto the corresponding object using the mouse.

 Tip: When an audio effect lands on the audio objects using the context menu, the dialog for the particular audio effect *(⇗108) will open and you can adjust it more precisely!*

The current settings for each applied effects device in the **object effects** window can be saved together as an effect preset, e.g. so that it can be used for other objects. To save your own effect preset, go to **Effects** > **Audio** > **Save audio effects**. Your own templates will also be available to you in the Templates window.

 You can find presets for **track effects** sorted according to the instrument type in the track effect menu in the Arranger track header (⇗38).

In this menu you can also save and load your own effect settings or completely reset the track effects.

Reverb

The reverb effect device offers realistic reverb algorithms to add more room depth to your recording.

The **Simulate space** presets attempt to realistically replicate spatial impression, while the **Reverb** presets create more artificial reverb effects.

You can control the sound of the reverb effect using the following parameters:

Room Size: Defines the size of the room (or the system for the plate and spring). The larger a room, the longer the sound travels between walls or objects. 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.

Tone Quality: You can manipulate the sound characteristics of the effect to an extent. The effect of this controller depends on the used preset. In rooms, "tone quality" controls the dampening of the highs in the reverb (from dark to bright) as well as pre-filtering of the signal. With plate and spring presets, this fader determines the dampening of the basses as well.

Reverberation Time: With this knob you can adjust the reverberation time and determine how much of it will be absorbed and, simultaneously, the reverb's decay.

Pre-Delay: The reverb portion ("Mix") and the early reflections play a big role in the spatial perception of the sound. Here the time required for the perception of the early reflection is know as "pre-delay". For sound sources that are close, the reverb portion is usually low, and the early reflections reach the ear noticeably later than the direct sound. By contrast, sound sources that are far away usually have a high reverb portion, and the early reflections reach the ear almost simultaneously with the direct sound. The length of the pre-delay can be used to influence the perceived "distance" between the sound source and the listener.

Mix: This controller sets the mix ratio between the original and the edited signal. For rooms, you can move a signal further into the room by increasing the effect share.

The basics

Our everyday experience shows that not every room matches every instrument. For this reason, we've designed a number of "virtual" rooms. However, finding the right parameters is still important. 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.
- 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 fade out as diffuse noise within the reverb time.

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 sliders provided.

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.

A **plate reverb** consists of a large metal plate (often 0.5 to 1m² thick or more), that is put into motion by a magnet and coil system (similar to a loudspeaker). On the reverb plate, "taps" are positioned at different locations. These are pick-ups comparable to those on a guitar. Several of these taps are combined to make up a full signal. Reverb plates have a very dense sound (high diffusion); no direct echo can be heard. They are therefore ideal for percussive material. With vocals, a plate reverb can create a "feel-good" effect.

Spring Reverb You are probably familiar with 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. Like the reverb plate, it uses systems for transforming the electric signal into a mechanical one and the other way around. 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 off, 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 used pick-up/transmitter. Despite this, or maybe because of this, the sound is unique, and spring reverb is essential for the sound of certain music styles (e.g. dub & reggae).

Presets

The presets represent the basic settings for the various room algorithms, which can be still be varied along with the other parameters. In this respect, they are more than just

parameter sets.

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. In general, 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 richer 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, good for percussion instruments

Drums: Studio B: Slightly larger & more lively than A, medium diffusion, distinct first reflections, signals seem closer than those in 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 hiss of a reverb plate

Drums: Snare reverb plate B: Reverb plate, high diffusion, slight dampening of highs & basses, sound moves more to mids over 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), more 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 mid-range sound characteristics

Echo

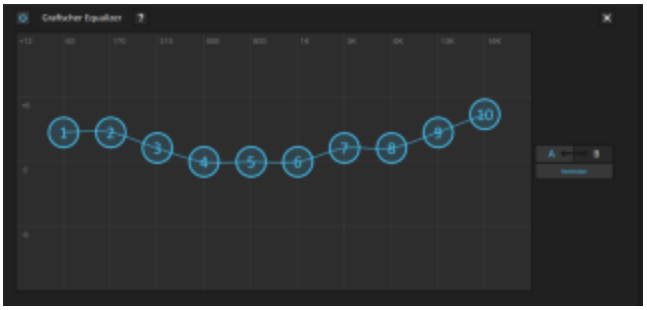
Delay: This sets the period of time between the individual echoes. The more the control is turned to the left, the faster the echoes will follow each other.

Feedback: This adjusts the amount of echo. If you turn the dial completely to the left, there is no echo at all; if you turn it completely to the right, there are seemingly endless repetitions.

Mix: This fader determines how much of the unprocessed original sound (dry signal) is subjected to the echo (wet signal).

Graphic equalizer

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



Bullets 1-10: Each of the 10 frequency ranges can be separately made louder or softer with the 10 volume controllers.

A/B: 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.

Link: Using this feature randomly combines the frequency ranges with each other in order to avoid artificial-sounding overemphasis of an individual frequency range.

Dynamics

Dynamics 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.

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.

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

Ratio: This parameter controls the amount of compression.

Attack: Sets the algorithm's reaction speed 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 speed to falling sound levels.

Gain: The gain controller amplifies the compressed signal.

A/B: If you have selected a preset for the effect and make manual changes to it, you can compare the original preset sound with the new settings using the A/B button.

Tempo pitch/resample

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

Note: This effect may start automatically if you use loops with different original tempos in a project or when you make changes to the project tempo at a later stage. This effect is also used when you use the stretch mouse mode *(⇗50). You can find more information about arranging in the audio object chapter*, Change the playback tempo or pitch *(⇗53)*.

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.

Pitch: This control changes the pitch independent of the speed of the object ("pitch shifting").

+/- buttons: Use this feature to change the pitch in semitones.

Setup: This button opens a settings dialog where you can set the algorithm for tempo and pitch correction.

- **Élastique Pro:**This algorithm is used by default and provides optimal results for most audio material.
- **Élastique Efficient:** This is a version of the algorithm that saves computer power and has reduced sound quality as a result.
- **Monophonic voice:** This is a special algorithm for vocal solos, speech or solo instruments. It is also used for the Vocal Tune Vocal Tune (⇗119) effect.
- **Resampling:** This effect corresponds with faster or slower playback of records or tapes. Every change in tempo results in a simultaneous change in pitch. This function requires very little processing time and is a popular design element for "Mickey Mouse" voice effects or drum loops, for example.

*Note: Other algorithms (e.g beat marker stretching) are available for older soundpool samples. These ensure that older **MAGIX Music Maker** projects sound exactly the same as before in the new version of Movie Edit Pro. However, these algorithms cannot be used once the sample has been changed to the default Élastique algorithm and the settings dialog has been closed.*

Vocal Tune

The Vocal Tune effect can be used to edit the pitch progression of an audio object. On the one hand, it is possible to rebalance "distorted" vocal passages. Depending on what you want, this can be as inaudible as possible or even drastically distorted.

It is also possible to completely change the melodic line into a piano roll (see MIDI Editor (⇗83)).

To customize the pitch correspondingly, the original pitch of the audio material must, of course, be known. Fundamental to the functionality is therefore a preliminary pitch analysis of the material. This is basically only for tonal, monophonic audio material like solo vocals, solo instruments, and speech. Polyphonic material, effects such as reverb or chorus and background noises do not provide good analysis results.

The analysis function starts automatically when the vocal tuner is opened. For larger objects, the analysis can take longer. After the analysis the audio object is divided into

individual slice objects according to the detected pitches; a slice object corresponds more or less to a sung note. If the pitch deviations within a note are too large or the audio material contains noisy components that interfere with the analysis, this also results in two or three slice objects per note.

1. **Slice Object:** The mid pitch of a slice object determines its position in the graphic independent of the set progression of the pitch inside the slice object.
2. **Pitch Curves:** The resulting pitch progression is displayed with a yellow pitch curve. The original pitch progression is displayed as a blue curve.
3. **Selected Slice Objects** can be edited with the Move Tool. (see below)
4. The vertical axis is the pitch, the corresponding notes are displayed as a **piano keyboard** on the left border. Individual keys can be removed from the pitch grid (see below) by clicking on them (displayed in gray).
5. Similar to the arranger (⇗45), the displayed time section or the pitch range can be controlled with the **+/- buttons** and the **scroll bar**.
6. The **play and stop buttons** at the bottom left can be used to start and stop the playback of the project. **S** causes the audio object to play solo in the Vocal Tuner.
7. **Tools** for editing pitch (see below)
8. „**Auto**" Automatic pitch correction
9. „**Reset**" removes all edits and returns all settings to their original status.
10. Activates the **pitch grid** for automatic pitch correction.
11. The **Naturalness** slider sets the intensity of the automatic pitch correction
12. „**Bypass**" temporarily deactivates the effect

Editing Pitch

There are three tools available for editing pitch:

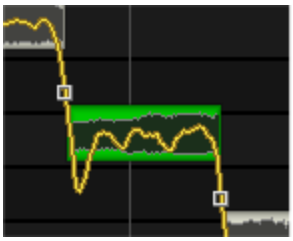
Move tool: You can use this tool to select slice objects for the editing by simply clicking on them.

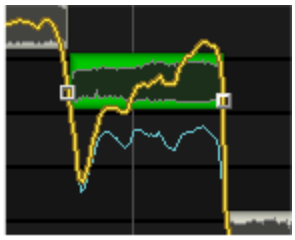
Ctrl+click enables the multiple selection of individual slices. Clicking on an empty area of the editing window and dragging a selection frame is another method for selecting several slice objects simultaneously. Selected slices can then be moved vertically, i.e. moving the pitch.

If "pitch grid" is active, the slice objects always snap precisely to the semitones of the chromatic scale.

To limit the snap function to specific keys (e.g. G minor) individual notes on the piano keyboard can be deactivated by clicking on them. The slice objects will then snap to the next "allowed" semitone.

On the borders of the slice objects two **handles** are created on the pitch curve. These handles can be moved in order to produce an increasing or decreasing pitch characteristic while retaining the small changes in the basic frequency (vibrato).





The handle at the end has been moved up to create a rising pitch progression. The small pitch fluctuations remain intact.

Double-clicking on an individual pitch slice makes it possible to enter the pitch more precisely in a +/- cent deviation from the corresponding semitone.

Cut Tool: You can use this tool to cut slice objects and create two slice objects that can be edited separately. This does not affect the pitch of the slice object.

It is possible, however, that a slice moves when cutting because the pitch of a slice displayed is only ever an average value across the total pitch progression within the slice.

Draw Tool: This tool can be used to directly draw the pitch curve. If you hold the *Shift* key while drawing, a straight line will be drawn between the start position of the drawn curve and the current mouse position.

If a pitch curve extends beyond the borders of a slice object, the two slice objects will be joined together.

Automatic Pitch Correction

The "Auto" function for automatic pitch correction can be found beside the draw pitch function. The **Auto** button moves all selected slice objects to the next semitone.

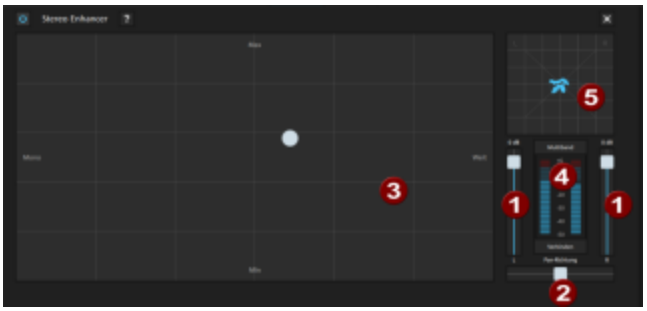
Single notes can be deactivated by clicking on their respective keys on the piano keyboard. The will result in the note being moved to the next available semitone during the correction process. This makes it possible to limit the automatic correction to specific notes in a key.

The "Naturalness" slider determines how much the original pitch progression is retained. With small values, the natural vibrato of the voice is radically "flattened" and the famous "Cher effect" results.

Stereo Enhancer

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

Use the maximize feature to move the echo (e.g. into the foreground) and improve the stereo picture.



1. **Volume controller:** Adjusts the volume of every single channel, thereby adjusting the entire panorama. The reduction of left and right levels is displayed under the control buttons.
2. **Panorama:** Use this controller to move the sound source from the middle into stereo panorama. The signals at the outer edges of the sound picture remain unchanged.

3. **Bandwidth/maximize sensor field**: Adjusts the base width between mono (extreme left), unchanged base width (normal stereo), and maximum base width (wide, extreme right). Raising the bandwidth (values over 100) diminishes the mono compatibility. This means that recordings edited this way sound hollow when listened to in mono.
   Maximize strengthens the spatial component of the recording, which also increases the stereo transparency without influencing the mono compatibility.
4. **Multiband:** This can be used to switch Stereo FX to Multiband mode. Stereo editing only applies to the middle frequency, the bass and highs remain unchanged.
5. **Stereo meter (correlation gauge)**: This provides a graphical display of the phasing of the audio signal. You can use it to check the alignment of the signal in the stereo panorama and the effect of the stereo enhancer. To maintain mono-compatibility, the "cloud" shown should always be higher than it is wide.

Parametric EQ

The parametric equalizer has six filter bands that you can use to shape the sound of the music track. Each band is a filter with a typical "bell shape". Within a certain frequency range around an adjustable middle frequency, you can increase or reduce the signal level gain. The width of this frequency range is called bandwidth. The bandwidth is defined by the Q value. The higher the Q value, the narrower and steeper the filter curve.

You can influence the basic sound of the mix by boosting or cutting specific frequency ranges (low Q value) to give it more "depth" (lower mids 200-600 Hz) or more "air" (Highs 10 Khz). You can also decrease very specific frequencies (high Q-value) to remove unwanted noise.

1. **Sensor field:** The sensor field displays the resulting frequency response of the equalizer. The frequency is displayed horizontally and the increase or decrease of the respective frequency is displayed vertically.
2. Spheres 1-6 in yellow symbolize the six frequency bands. You can move them around with the mouse until you find the frequency response you want. The bandwidth (Q value) can be adjusted using the mouse wheel.

3. The faders under the filter graphic display the parameters of the currently selected band. You can use the knobs to set the values for each band more precisely:
4. **Frequency:** The center frequency of the individual bands can be set between 10 Hz and 24 kHz with the frequency controller. The freedom to select frequency enables you to set multiple filters to the same frequency in order to have a greater effect.
5. **Gain:** This controller allows you to raise or lower the filter. Setting the controller to 0 deactivates the frequency band so it does not use any processing time.
6. **Q factor:** Here the Q factor (bandwidth) of the individual filters can be set.
7. Band 1 and 6 are special in that they can be operated using three different filter curves.
   - **Peaking:** This is the same bell shape used for the center bands.
   - **Shelving** (basic setting): Starting from the set frequency, there is a gentle increase or decrease in the frequencies.
   - **High-pass and low-pass**: Starting from the set frequency, all higher and lower frequencies are filtered out.
8. It is possible to control the output level of the equalizer with the Peak Meter, and with the **output amplification** beside it you can balance level changes resulting from EQ adjustments.

Distortion

This is a distortion tool that overmodulates the audio object.

Gain: With these faders you can specify the degree of distortion.

Cut-off frequency: Here you can set the frequency range you want to distort A specific frequency band will be made stronger with a bandpass filter. The filter deactivates if the cut-off frequency is set to 100%.

Threshold value: You can have the distortion applied once the level exceeds a certain threshold value, so that quiet signals remain undistorted.

Volume: Here you can set the volume of the distortion. This allows you to even out a stark increase in volume which can be caused by the distortion.

> *Tip: Be sure to try out* Vintage Distortion *(⇗137) or the* VANDAL SE *(⇗141) amp simulator for authentic guitar sounds!*

Filter

> *Note: This effect is only contained in **MAGIX Music Maker** for the sake of compatibility with older projects. You can get better results by using the* parametric 6-band EQ *(⇗123) or the* Vintage Filter! *(⇗134)*

The filter controls the volume of specific frequency ranges similarly to the Equalizer. You can use the filter to completely suppress frequencies, which can in turn create quite strong distortions.

Frequency: Here you can set the frequency you want to filter.

Level: Here you can set the strength of the filter. The frequency can be increased or decreased.

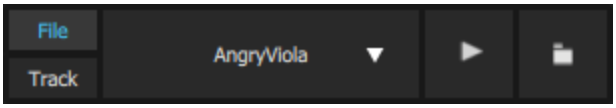
Q factor: This sets the filter Q factor. This defines the filter bandwidth around the frequency to be increased.

Volume: Here you can even out volume differences resulting from the filtering.

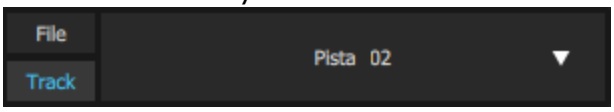
Vocoder

The vocoder works as follows: Carrier material (e.g. a string instrument pad or synth chord) is affected by a modulator (e.g. language or singing) to give the impression that the pad sound is “speaking” or “singing”. Additionally, rhythmic pads can be created by modulating an area with a drum loop.

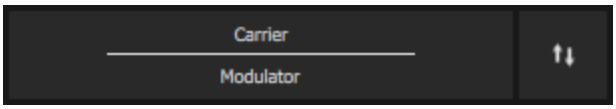
This works by transmitting the modulator's frequency characteristics (language) to the carrier (chord).

1 

Select the carrier signal for the vocoder here. Click the arrow button to select one of the predefined carrier samples in the list field. The carrier sample can be previewed via the small "Play" button. Another carrier sample can be loaded via the folder icon.



By switching to "**Track**", the output signal of another of the project's tracks can be used as the carrier signal.

2 

By clicking the double-arrow button you can swap carrier and modulator signal. The object's audio signal will then be modulated by the selected sample or track signal.

3 Set carrier signal volume with the "**Carrier input**" in the middle.

4 Material containing all frequencies in equal amounts, such as strings, orchestra chords, broad synthesizer pads, hissing or wind noise, are particularly suitable for carrier samples. If this is not enough, additional white noise can be mixed into the carrier signal with the "**Carrier Noise**" fader to improve speech clarity.

5 **Filter graphic:** Here you can draw any frequency progression you want with the red line in order to optimize the vocoder output. For example, you can get rid of disruptive bass frequencies by adjusting the curve downward in the left area. Or you can boost weak highs by adjusting the curve upward in the right area. The yellow line shows the frequency curve without filters, the blue line the frequency curve with filters.

6. **Dynamic reduction:** Influences the dynamics of the modulator signal to reduce the modulation depth of the vocoder. This prevents two often undesired side effects of modulation. On the one hand the volume change of the modulator signal is added to the output signal in a slightly more moderate form, which may improve the power of the vocoder voice. On the other hand, the low-level portions of the modulator signal are ignored in order to prevent modulation of the carrier by breathing or noise.
7. **Dynamic release:** Influences the speed of adjusting the vocoder to the modulator spectrum. As this value increases the vocoder starts to follow the modulator more slowly resulting in softer, reverberated sound changes in the carriers.
8. In the **Mixer** you can also mix parts of the carrier and modulator signal to the vocoder output signal. If the output signal of a track is used as a carrier in the vocoder, this track will first be muted. In the vocoder mixer you can then make it audible again.

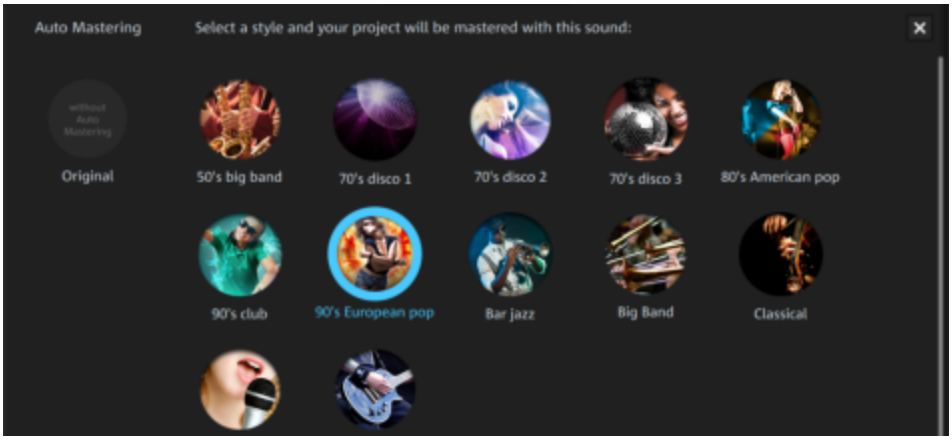
MAGIX Mastering Suite

MAGIX Mastering Suite is a special effects rack for use with the mixer master channel. The effects in the Mastering Suite are used as part of the mastering process, in which the mixed music piece is given a final polishing.

Auto Mastering

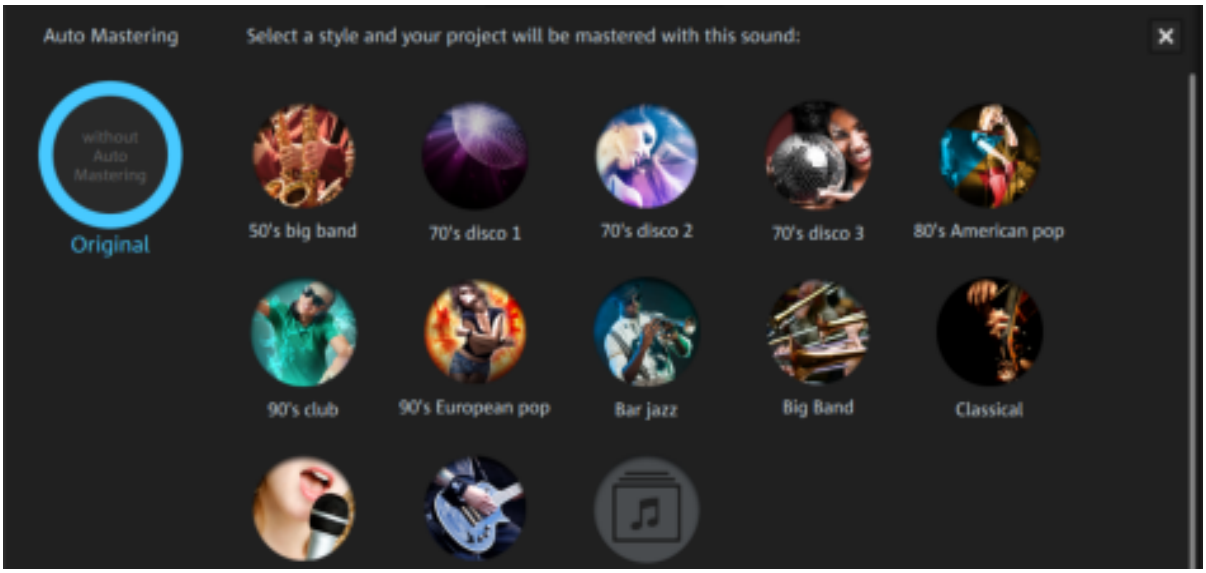
The Auto Mastering feature enables you to automatically apply the sound of typical musical styles from the past and present (e.g. '70s disco, '90s club, jazz etc.). The sound of the source material is analyzed and appropriate equalizer and dynamic effects are applied.

Start by choosing a musical style.



MAGIX Music Maker will analyze the audio material in the project.

The Auto Mastering results will be played back immediately. You can now click through the different styles to compare them.



Selecting "Original" allows you to compare the edited version with the original.

Stereo processor / parametric EQ

The stereo processor (⇗122) and the parametric EQ (⇗123) in the Mastering Suite are identical to those in the effects window for objects, tracks and the master.

MultiMax

Multimax is a compressor with three independent frequency bands. The dynamics are edited separately for each band.

The advantage of a multi-band compressor versus a "normal" compressor is that the "pumping" tendency and other unwanted side effects are dramatically reduced while editing the dynamics. For instance, it can prevent a bass top peak from "dragging down" the entire signal.

Multiband technology also lets you specifically edit individual frequency ranges.

Setting the frequency bands: The settings of the frequency bands are changed directly in the graphic. Simply click on the separator lines and move them.

Lows/mids/highs: These knobs control the level of compression for each frequency band.

Link: When this button is activated and a fader is adjusted, all other faders are changed proportionally. However, the way the dynamics are edited is not affected.

Presets: In MultiMax, you can use Presets 2 to open further special features:

- **Cassette NR-B decoder: MAGIX Music Maker** simulates decoding of Dolby B + C noise suppression if a Dolby player is not available. Cassettes recorded with Dolby B or C sound more muffled and dull if played back without the corresponding Dolby.
- **De-esser**: These special presets help to remove overemphasized sibilants from speech recordings.

Analogue Modelling Suite: AM-Track SE

AM-Track SE is a purely analog compressor simulation. The tape simulation contained in the full version (Analog Modeling Suite AM-Track) is not included. This is used primarily for so-called "tracking", i.e. editing individual channel strips or subgroup signals. Compression uses the "vintage" setting – an additional "VCA" mode is available in the full version. The plug-in recognizes the number of incoming signals and, if necessary, edits the signal in mono.

***Am-Track SE limitations** compared to the full version:*

- *No tape simulation*
- *No "VCA" mode in the compressor, only "Vintage" mode can be implemented along with the presets*
- *Some expert compression settings are integrated in the interface, parameters: "ahead" (pre-delay) and "adapt release" (switchable release automation) are missing. (Release automation is always activated in the SE version which corresponds to the set value of the mid position of the 'capacity' controller.)*

Vintage mode

In this mode, you can intuitively (by ear) use the dynamic editing features with just three knobs. You can edit as much as you want, but keep in mind that less is often more.

- **Drive**: You can use the "drive" potentiometer to control the amplification factor in the feedback loop, i.e. the signal strength which the detection circuit calculates. Furthermore, the internal 'ratio' changes within a limit, the more 'drive' there is, the higher the compression ratio.
- **attack** and **release**: The same basic conditions as in VCA mode apply here. However, not only do you change the actual control response time after detection, but also the 'temporal window' in the detector. Additionally, the feedback arrangement method does bring about a certain amount of unpredictability. You should expect less control over the device in this mode, but more leniency on its part.
- **Detector hp filter**: This high-cut filter is positioned before the two compressors' detection circuit. You can use it to specifically exclude basses and mids from these rules. Complex signals with bass and hi information such as a subgroup or complete mixdown tend to produce less pumping artifacts. This is because low frequency signals have the most power and would thus always trigger the regulation and modulate other frequency ranges in the volume.
- **Auto makeup gain**: Normally, you have to continuously adjust level reduction to generate "compression" at the same maximum level. This is done by activating auto makeup gain. The volume difference expected from the set working parameters is determined and applied as an output factor after master regulation. If you prefer to adjust the "classic" level reduction and amplification manually, you can deactivate this function.
- **Mix**: Parallel compression is a popular "studio trick", particularly with complex material. Adding the original signal retains the transients and spectral balance of the source. You can add compression by turning the mix controller. A "mixed" signal is particularly discreet, more transparent, and less "squishy" with vocals, whereby the compressed part usually has a higher level reduction than without adding the original.

Vintage effects

If you're a guitar, bass or keyboard player, you'll probably recognize the look of our "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 playing live.

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 loss of highs during playback ("feedback"). The feedback has a two-band filter that can be used to create dark, bright, or mid repetitions depending on the settings.

These properties can be useful, for example to create dub/reggae-style echoes that move towards the center of the sound with each repetition and even drone 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 is increasingly compressed and distorted similarly to a tape.

Analog delay parameters

Delay Type

Delay Type (L+R): The delay times can be controlled separately for left and right (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: Press this button to control the "delay type" pots for both channels simultaneously.

Mix: Adjusts the ration between the original signal and echo.

Modulation

Speed: The speed of "wow and flutter" variations. Low-speed variations (wow) result in very light fluctuations, high-speed values (flutter) result in drastic warbling.

Depth: The intensity of variations. If the control is turned all the way to the far left then there is no pitch modulation. For a subtle "analog" feel we recommend that the controller setting is at somewhere 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“ Here the inverse is the case, i.e. 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. The "Stereo effect" does not only work when the values of both of delay type controllers are different, but also when the settings are the same. This happens because the delay switch functions internally with minimal drift between both channels to create the effect of more space.

When you turn the width function to the right, an additional effect is produced: the panning of the delays increases. This is commonly known as the "ping-pong" effect, which in turn increases the spatial quality of the sound.

Drive: You can define repetitions here. When turned to the left, only a single repetition will occur (feedback is inactive). Turned to the right, the feedback is virtually unending, it takes a very long time for the repetitions to die out.

The actual strength of the effect is dependent on the material as the feedback loop is compressed and applied with a tape saturation effect. If you send a loud signal to the delay, the feedback will last longer than at a lower input level as compression "brings it up" to a certain level. If you are used to "purely digital" delays this might take a short time to get used to. However, the results will most probably sound "livelier".

Flanger

The flanger effect is similar to that of the chorus, but has a different technical and historical background. It came about by chance when someone (according to legend, John Lennon) slowed down one of two running interconnected tape machines in a studio with their hand. A rather brief delay of the second signal compared to the first resulted in cancellation within the frequency spectrum, leading to a comb filter effect (since the sum of both signals creates peaks and valleys 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 the focus here; the result is a much more creative frequency response deformation.

A "complete" flange effect will definitely require feedback, where the flange part is sent back to the input to increase the effect. People often talk about the flanger's "jet effect", since it resembles a plane on take-off.

Flanger parameters

Speed: As with Chorus, you can define the modulation speed here.

Depth: The amount of modulation in terms of the entire sound.

Feedback: The extent of the internal feedback.

Mode: As with the Chorus effect, there are four different operating modes:

Normal: One consistent flanging effect.

Dual:2-voice, across left and right in panorama. As with the chorus, modulation and delay between the voices are independent.

Quad:4-voice, alternating between left and right in panorama.

Quad Pan: Like Quad, but the additional depth control determines how the intensity of the signal traveling in panorama (between left and right).

Filter

Like chorus and flanger, "filter" is a modulation effect. 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. This is adjustable in note values from 1/1 to 1/16, either straight or dotted. As with the delay effect the tempo information is removed from the project.

A distinctive feature is the last stage of the controller:

The tempo synchronization is deactivated and the modulation from the signal level is controlled.

Freq: Here you can define the start frequency of the filter modulation. This is generally carried out above this frequency, i.e. the filter frequency is increased by the modulation.

Depth: This fader adjusts the modulation depth, i.e. how much the speed fader (called the "envelope curve mode" above) moves the input frequency upwards. If you want for example a "maximum" effect turn "Freq" to the far left and "Depth" to the right.

Filter mode

Low pass  A steep 24 dB octave filter with some resonance, which greatly restricts the highs above the input frequency. *Potential use:* For filter sweeps for synth interfaces and drum loops.

Band pass  Only the frequencies around the application point are let through (24 dB with resonance). Suitable for "wah-wah" effects on guitars for example.

Notch  Two parallel filters (-36 dB) with separate frequencies, which move together and provide frequency response in two notches. You can use this to create some interesting sounds e.g. with guitar chords. This effect may remind you of a "phaser".

High pass  Basically, the opposite variation of the low pass. Frequencies below the application point are sharply reduced. Due to the tempo-based thinning out of sounds you can place emphasis on individual sections (e.g the drums), especially if the full spectrum is subsequently available (for example, when the following object doesn't have a filter).

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 in day to day 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 effect parameters

You can enter the following parameters to control the floating effect:

Speed: The modulation speed. Slow times create a quiet, continuous beat; high speeds however sound like vibrato or, in extreme cases, like it's under water.

Depth: The modulation depth. This describes to what extent the speed affects the pitch modulation. At max, the amplitude is at its largest; in the minimum position, the effect remains static.

Mix: Here you can set the mixing ratio between the direct and effect signal.

Mode: You can choose between **four operating modes** of the Chorus effect:

Normal: A combination of the direct signal and the detuned delay signal.

Normal, low cut: Like "Normal", but the bass is trimmed in the delayed signal. For example this is advantageous for bass guitars because the "down low" the sound remains clean and defined but the effect is noticeable in the mids.

Dual: Delivers a combination of direct signal and two delayed and off-tune parts. These two "voices" are modulated independent of one another and possess different delay times. This makes the character of the sound livelier than with a single voice only. It is also distributed over the stereo panorama so that this mode sounds "broader".

Quad, low cut: Here four voices are active, which, like in "normal, low cut" mode begin to have an effect in the mids range. Ideal for example when creating deep "Synth pads" with tight bass frequencies.

***Tip:** Clicking on the "rubberized" surface of the pedals (under the logo) turns the A/B-comparison effect on and off, just like with "real" models. Incidentally this applies to all effects in this suite.*

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.

Distortion parameters

This effect only has three parameters; however, you can have them interact with each other to generate quite a variable sound:

- **Low**: The "bass" controller. This allows you to define the amount of bass before or after 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 in high quality with **MAGIX Music Maker**. There are sometimes cases where, for example, an "imperfect" lo-fi sound would work perfectly with a drum loop or a synthesizer sound.

Remember that the first hardware samplers from the '80s that usually only ran at 8 or 12-bit rates and at low sample rates. With BitMachine, modifying the sound to create an "antique" vibe is simple.

You can use the BitMachine to bring back to life the times when minimalist and scratchy sound chips 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.

The effect also has a modulation section with which you can control individual parameters using an oscillator (LFO) or the input signal.

Reduction

Bits: This dial controls the resolution of the audio material. Turning the dial to the left results in 16-bit quantization, and thereby 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.

In 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 calculated with this dial to reduce the internal sample rate. Here, a new separation ratio between old and new rates is created and a sample from the data stream will be "dropped" at the various points in accordance with this ratio.

📝 ***Note:*** *The two smaller dials from this section are explained under* ***Modulation****.*

Filter

The filter in the BitMachine is a digital model of one of the most well-known filters in music electronics. The filter in question is the "Chamberlin 2-pole" filter, which was used in old Oberheim synthesizers. These types of filters sound exceptionally musical. They can also be used in quite creative ways in the BitMachine and don't necessarily have to be used only to smoothen out artifacts.

The filter works in low pass mode – according to the settings, it lets through low frequency (or medium) material and dampens the highs and medium ranges.

Freq: With this dial, you can specify the cut-off frequency of the filter. Filtering starts above this frequency.

Reso: The signal in the range around the cut-off frequency can be significantly increased ("resonance": to just below the self-oscillation) using this function. This makes sharp, cutting sounds possible. 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 up this dial, the more the signal is overmodulated. What happens is that the parameters of the internal workings of the filter interact with one another. So increasing *drive* weakens the resonance, but at the same time, the signal receives more volume, more bass and becomes acoustically fuller.

📝 ***Note:*** *The two smaller dials from this section are explained under* ***Modulation****.*

Modulation

You can automate your effects via the settings in the **Modulation** section.

Here, you'll find what is known as a 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. Make sure that the main dial isn't turned up to full. If this were the case, 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 modulation to both parameters with the LFO. They are not changed uniformly, but rather in contrast to one another. A negative setting is nothing more than an inversion of the modulation – in effect, you're turning down the control signal.*

Waveforms in modulation section

We've already explained this example with the help of sine oscillation. The LFO can be in:

- Sine
- Square wave (that is, only 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, the LFO adapts to the song speed, and the dial locks musical values into place (for example, ¼ note). With it, rhythmic paths of the sound distortion are made possible. 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, the signal itself can be used to extract "modulation tension": here, an 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 roughly set the input sensitivity 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. We recommend you experiment with the signal according to its complexity. The presets provided can only point in a rough direction.

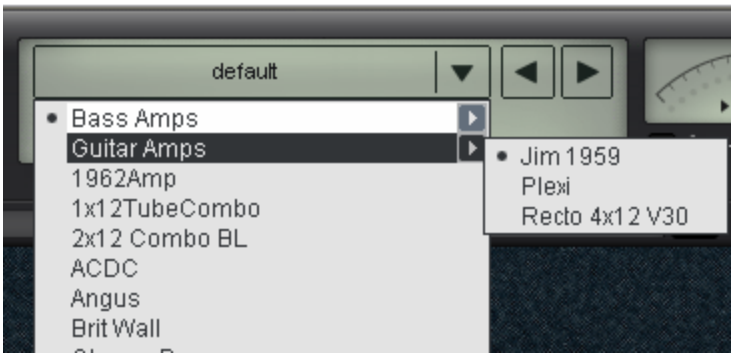
Vandal SE

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: Stomp boxes, amp settings, cabinet simulation, studio effects, and a series of control parameters.



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. You can use it like any analog device: It

automatically displays the note that has been struck (in octave) and the display visualizes deviations (in cents).

The following describes the major 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:

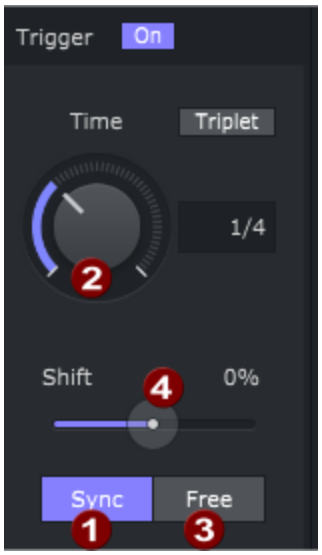
- **Mono delay** (msec & tempo sync): Possibly a simple delay with free selection of delay time or synched to the sequencer tempo with a musical raster. In case of high feedback values, a reduction of the damping frequency is required to provide naturalness to echoes.
- **Stereo delay** (msec & tempo 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 via 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 touch to your sound.

Volume Former

The Volume Former is an automated volume envelope, that is controlled by a beat-synched or free running LFO. For the volume control you can alternatively manipulate the volume level (VCA) or use a low pass (LPG) or high pass gate (HPG). With the Volume Former you can apply a Tremolo effect, transform pads into pumping chords (for hosts that doesn't support side-chaining) or accentuate rhythmical aspects of a drum loop, like isolating the kick drum. Just try the presets to get the idea!

Trigger LFO

The Trigger LFO (low frequency oscillator) periodically triggers the envelope. So, for instance, set the time to 1/4 to trigger the envelope every beat.



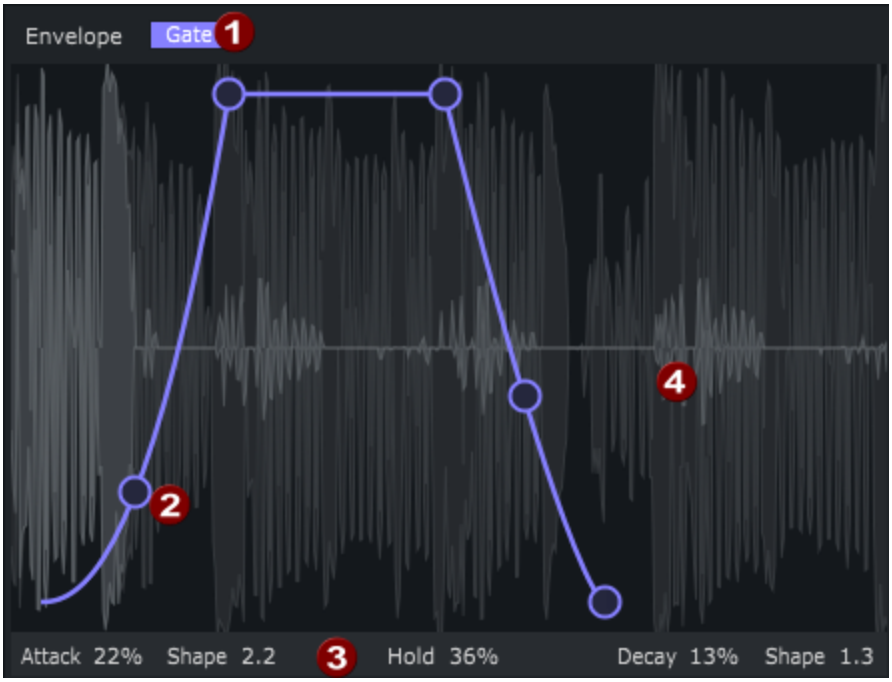
When **Sync(1)** is active the trigger frequency is set dependent from the host tempo and you can chose a **Time(2)** between 1/1 (whole note or once a measure with a 4/4 beat) and 1/64 note (a quite fast stutter effect). The envelope tempo and phase always follows the host tempo and beat position.
When **Free(3)** is active, you can set a trigger frequency between 0.2 and 25 Hz. This is independent from the host tempo and also from the playback position, the trigger oscillator is free running, that means, it just runs once the plug-in is loaded and the actual trigger time is more or less random.

> *Some hosts may reset the LFO on playback start due to technical reasons.*

> *The Time value for the Sync and Free modes are independent parameters. When you switch from either mode to the other and change the time, the former mode's time is still set when you switch back.*

Move the Phase of the LFO with the **Shift** value **(4)**. You can shift the starting point of the envelope from -50% to +50% of the selected time.

Envelope



The envelope is an AHD envelope, thus consisting of three phases **A**ttack, **H**old and **D**ecay. The Envelope can be used in **Gate** or **Pump** mode **(1)**. In **Gate** mode the Envelope rises the volume over the attack time, keeps it at maximum level for the hold time and lowers it over the decay time. In **Pump** mode the envelope is mirrored horizontally and works vice versa: starting from maximum level, it fells to zero over the attack time, stays there for the hold time and rises back to maximum over the decay time.

(2) Adjust the time spans and curve shapes by dragging the circular handles at the envelope. Below the graphic there's also a numeric readout of the values **(3)**. You set the time spans in percent of the whole LFO cycle.

> *You'll notice, that the values don't have to add up to 100%. That means, you can set envelopes that are longer or shorter than the LFO cycle. By this you can use only the parts of the envelopes or open/close the gate for just a part of the LFO cycle.*

(4) You can see the effect of the Volume Former on the volume directly in the waveform display, that runs through behind the envelope.

Gate

Choose between **VCA**, **LPG** and **HPG** with the gate type switch **(1)**.
VCA: The envelope controls the volume with a **V**oltage **C**ontrolled **A**mplifier, so all frequencies are affected equally.
LPG: The envelope controls the volume with a **L**ow **P**ass **G**ate. The low pass gate comes from the "west coast style" synthesizer design and works differently: The volume reduction is accomplished by a 1-pole low pass filter where the envelope controls the cutoff frequency (higher envelope level = higher cutoff frequency = more of the whole signal coming trough the gate). This results in a more natural sounding volume reduction, where the higher frequencies are reduced earlier as the lower ones when the level turns down. (With a departing sound source, the higher frequencies also disappear first.)
HPG: With the **H**igh **P**ass **G**ate a high pass filter is used for gating, here the lower frequencies disappear first.

The **Amount** slider **(2)** controls the overall effect of the volume former: When set to 0% it has no effect at all, at 100% it turns the volume to silence when the envelope level is 0. You can check the input and output levels with the peak meters **(3)**.

Bypass the whole effect with the **Bypass** checkbox **(4)**.

Non-realtime effects

All the effects mentioned above are calculated in realtime. Some audio effects are not calculated in realtime. When you apply the effect to an object, copies of the audio material are created for calculating the effect after the settings dialog is closed. You cannot change the effect parameter in realtime during playback. However, no additional calculations are required during playback.

To change these effects, use the undo feature.

Sketchable filter

Use the sketchable filter to draw the wildest filter effects with the mouse. The left side of the graphic is for the lower frequencies of the sound, the right for the higher. Click **Test** to switch on realtime playback.

From now on all changes to the red line can be heard immediately. A "mountain" in the left part of the graphic creates a large increase in bass, a "mountain" in the right increases the highs noticeably. Often, interesting effects can be achieved when the filter curve is deleted for the entire range (i.e. set completely to the lowest value in the display). This more or less deletes the sound.

A couple of mouse clicks in the upper display area will make only individual frequency ranges audible. In this way a normal drum loop can be quickly turned into into a science fiction-esque sound.

With **Reset** you can quickly restore the filter curve to its initial state.

The **Anti-clipping** option will automatically attempt to prevent the audio material from distorting.

The **Volume** fader controls the volume of the material.

Filter sweeps/Morphing

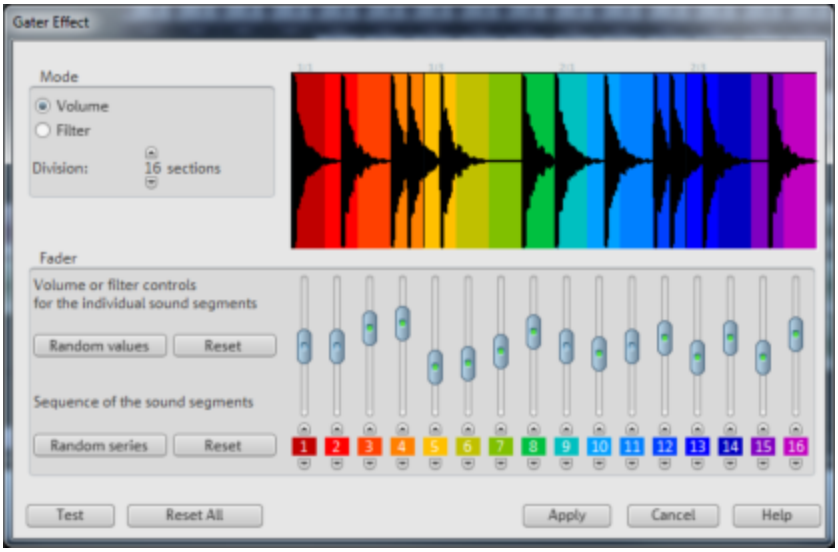
There's also an option to create filter sweeps and morphing.

1. To do this, activate the **start curve** on the far right.
2. Now a red filter curve can be drawn for the start of the audio material , for example a mountain in the left side of the display (low pass range).
3. Activate the **end curve**.
4. Now a blue filter curve can be drawn for the end of the audio material , for example an increase on the left side of the display (high pass range).
5. Click **Test** to start realtime playback and you will be able to hear a soft filter sweep from the red to the blue curve.

Invert phase

With a stereo signal the phase of a channel is inverted. In other words: The waveform is flipped from top to bottom, all positive values are replaced by negative values and vice versa. This cancels all the signal components that are identical in both channels. The result is a special, hollow sound that only contains the extreme right and left positions in the stereo image. One side effect of this function is that the object is only played back through the rear speaker in a Dolby Surround system.

Gater



This special effect "chops up" a sample into a given number of parts (16-128) Select the number of steps, which will then be distributed over the duration of the sample. Additionally you can set the volume for each individual step using the fader, so that the hard sections can be produced in the same way as soft levels.

The Gater function can also work as a filter to create interesting sound deformations which are particularly good for Techno! This is useful when you want to create a cool sample from a sound without its own rhythm.

In "Division" you can set more than 16 sections to produce even more variations in the sound. The fader settings are then repeated which means that step 17 has the same value as step 1 etc.

A real-time monitoring function allows immediate musical control of any fader change.

There are two operating modes which can be combined with each other, **Volume and filter curves** and **Rearrange**.

Volume or filter curves

The faders change the volume or timbre of the audio material in 16 (or more) steps. Each fader corresponds to a 16-tel of the audio - with i.e a 1-bar loop a 16th note, in a 2-bar loop a 8th-grade etc.

Interesting, rhythmic patterns result e.g by lowering the volume of an individual fader or by staircase-style increases. It can also quickly create different gradients using the random function. The realtime monitoring function gives you constant acoustic control.

Gater progressions make it very simple to create rhythmic sounds from a simple string´s or synthesizer-section, or to emphasize or tone down certain beats in a drum loop.

New arrangement

Using the color-coded numerical fields beneath the fader the playback order of the 16 steps can be altered. So it is possible, e.g to repeat a beat from the first 16th on the fourth 16th. For this, the number under fader Nr. 4 must be the number 1. Through the use of color it is shown that at position 4 the material from position 1 is played.

By rearranging the parts, you can quickly and effectively create lots of variations from one drum loop.

Reversed

Here the samples are reversed so that they can be played from the end to the beginning. Some really interesting effects can be achieved using this feature, among others the infamous "Backmasking" (playing lyrics backwards).

Loading, Saving and Exporting Projects

In this chapter, you'll learn everything you need to know about loading and saving projects, how to backup work, and how to export finished songs.

Create a new project

 To create a new project, click this button or select **File** > **New Project...**. (Keyboard shortcut: Ctrl + N)

The project is created with a preset number of 4 tracks. Additional tracks can be added using the corresponding button in the arranger.

If you want to start right away with a higher number of tracks, open the **project settings** dialog (keyboard shortcut: A) and select one of the default values. Since all changes made in this dialog are always used as presets for new projects, all new projects created in future will also be assigned this number of tracks. This also applies to all other settings defined in this dialog, such as for sample rate or automatic backup.

Save/load projects

A "project" encompasses all objects in the arranger with their positions, fades, lengths and volumes as well as all settings and effects.

In other words, saves your project and closes **MAGIX Music Maker**. When you start the program and load your project later, it will look and sound exactly the same as before and you can continue from where you left off.

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

Save a project

 To save your project, click on this button or in the menu go to **File** > **Save project** (keyboard shortcut: Ctrl + S).

The project will be saved. When you save your project for the first time after creating it, you will be asked to assign it a name and storage location. The default storage location used is the one specified in the Program settingsFolders (⇗213).

Occasionally, you might only want to try something out and would like to keep the current version of the project. In this case, it is recommended to save the project first

normally and then additionally under a new name via the menu under **File** > **Save as...**. Under this name, you can continue to save your current work, but can revert to your old version if desired.

Load project

 To load your project, click on this button or select **File** > **Load project** from the menu (keyboard shortcut: Ctrl + O).

Please note that the program must be able to access object (⇗46) files used in the project. **MAGIX Music Maker** first searches for sounds and videos used for the project where you saved the project. If it is not found there then **MAGIX Music Maker** subsequently searches for the objects in the same folder as the project itself.

Project Settings

In this dialog, the general properties of the project can be set. Statistical information about the project is also displayed.

Keyboard shortcut: A

General

- **Name**: Enter the name of the current project.
- **General project settings**
  Path: This is where you determine the folder on your hard drive in which your project is saved.
  Save automatically: Saves the project automatically according to the settings used for automatic backups in the program settings.
  Use settings as presets for new projects: The settings entered in the Project settings dialog are also applied by default to all new projects. If you specify project settings that you only wish to use once, you should deactivate this option, so that **MAGIX Music Maker** uses the default settings again for the next new project.
  Number of tracks: Here you can set the number of tracks you wish to use.
  Audio sampling rate: The default sampling rate is set to 44,100 Hz (CD-Standard).
  Time signature: Several types of bars are available to choose from, for example ¾ beat. With various grid settings you can also set additional time signatures. For example, with a set 3/4 beat and a 1/8 note grid a 6/8 beat would be the result.
  Video resolution: Here you can specify the presets for the video resolution used and the video format.

Synchronization

- Options for Synchronization (⇗181) and Rewire (⇗182) support.

Information

- **Name/Path:** See above
- **Created on:** Displays the time the project was created.
- **Last changed**: The time of the last save.
- **Number of used objects:** Displays the number of all objects in the project.
- **Used files:** Here the names and paths to all multimedia files used in the project are shown.

Backups

Backup projects

MAGIX Music Maker automatically saves backup projects of the current status of your work periodically as a safety measure. This type of automatic backup gets the file extension **MM_** (underscore) and are stored in the same file as the main file for your project.

Backup projects can be used when, for instance, a program crashes in order to recover the last status of the project. These automatic backups are also useful if you unintentionally saved your change and wish to return to the previous version.

Saving the entire project

When loading projects you must ensure that all media files used are available in their respective folders. To save projects completely, to archive them, or to edit them using a different computer, use the function **Save project and used media...** located in the menu under **File** > **Backup** (Keyboard shortcut: Ctrl + Alt + S). This will save the entire project along with the media files in one folder.

If you instead select **Save project and used media (audio as &Ogg Vorbis)...** (keyboard shortcut: Ctrl + Shift + C), all the audio files used will be compressed into the more space-efficient OGG format before being saved.

If you have purchased the CD burning feature with your Edition or separately, you may also save the project to CD/DVD.

Choosing **File** > **Backup** > **Burn project and media to CD/DVD-R(W)...** (keyboard shortcut: Ctrl + B) from the menu, burns the project and all its associated files to CD or DVD.

By selecting **Burn manually selected files to CD/DVD-R(W)...**, you may also select which files you would like to burn to disc.

Both options use a separate program, MAGIX Speed burnR, for this task. For more information, please consult the Help included in this program.

Export Wizard

The export wizard can be opened via **File** > **Export** > **Common export options** (keyboard shortcut: X).

This bundles different options for exporting your project in different formats, for burning onto CD, or publishing on the Internet with different platforms.

Export as WAV: Export a song in the best possible quality as an uncompressed WAV file.

Export as MP3: This selection exports the project in the popular MP3 format for use on the Internet or on mobile playback devices (MP3 players, mobile phones, etc.).

Export as OGG: OGG, the open source alternative to MP3, offers slightly better audio quality for the same file size – however, not all devices can play this format.

To export to these and other formats, use the Audio export dialogAudio export dialog (⇗156)

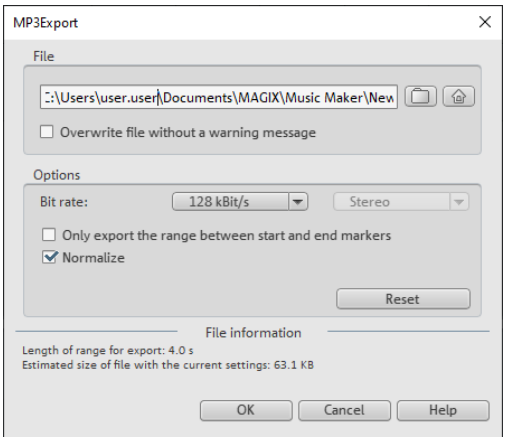
Burn to CD/DVD: This selection exports the project in the best possible quality and opens an additional program for burning an audio CD. The option is also available to backup the entire project with all involved files onto CD or DVD. See Burn audio CD (⇗160).

Publish on YouTube: This selection uploads the project as a music video to YouTube. More info about YouTube export is available the Publish online (⇗158) chapter.

Publish on Soundcloud: The project will be uploaded to Soundcloud. You can find further information about this in the section Publish online (⇗159).

Audio export dialog

You can find all possible export options and audio formats in the menu under **File** > **Export**. Depending on the chosen file format, the export dialog contains a number of other options, which are explained below.



File

In **"File"** you can enter the file name for your exported file.

Use the folder symbol to select the folder into which you want to export. The dialog will remember the export path for future exports.

Use the "home" symbol to restore the original preset (⇗213) path.

The option "**Overwrite file without confirmation**" option allows you to execute multiple exports in the same file.

Options

Only export the area between the start and end markers: Set this option if you wish to export only one section of the project.

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.

Audio as Wave/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.

Mono/Stereo/5.1 Surround: Select whether to export in mono/stereo or 5.1 Surround. 5.1 Surround is available only if you create a 5.1 mix. See Mixer in Surround mode (⇗176))..

Export tracks individually: Each track is written to a separate file. Use these function if you want to mix down your project in a different program.

Keyboard shortcut: Shift + U

Compression (IMA ADPCM): This option compresses the WAV file in to the ADPCM format. This format is needed for playing WAV files on older mobile phones. Many older mobile phones also need a lowered sample rate. (usually 16000 Hz).

Keyboard shortcut: Shift + W

Audio as MP3

MAGIX Music Maker 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 the audio track of AVI audio files.*

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.

Keyboard 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 these settings under **Advanced...**, you can 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.

Keyboard shortcut: Shift + O

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 other compression methods like MP3 or OGG, the full sound quality is kept intact with FLAC.

Keyboard shortcut: Shift + F

Audio tracks as single waves

Opens the WAV export dialog with activated "Export single tracks" option. Clicking on OK saves each track as a separate wave file in the export folder.

Keyboard shortcut: Shift + U

Publish online

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 YouTube

You can upload your project directly to YouTube from **MAGIX Music Maker**.

The command opens a dialog where you can set the name of the project for YouTube (default is the same as **MAGIX Music Maker**), description, keywords (so-called "tags"), and the category for the video. After confirming this data with "OK", the project will be exported and uploaded to YouTube. For connecting and transmitting the video file, you must log in with your YouTube username and password. If you don't have an account open your browser and go to YouTube to sign up for an account first.

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. YouTube takes to process the video for online presentation you and every Web user around the world can watch it.

Title templates for YouTube

If your project does not contain a video, then you can still upload it to YouTube with an attractive still image.

In the **Templates** you will find the subfolder **YouTube** under the **Title**. This contains special title templates for 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 project.

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

The website's user guide is in English.

- Under **Titles**, you can specify the title, under which the piece of music should appear on Soundcloud.
- Enter a short description for your file under **Description**.
- To make sure your music is found on Soundcloud, you should specify meaningful keywords under **Keywords**
- **Broadcast** defines who may listen to your music on Soundcloud. It is recommended to select "Public" to reach the largest audience possible.

Burn audio CD

Two options are available for burning your project as an audio CD:

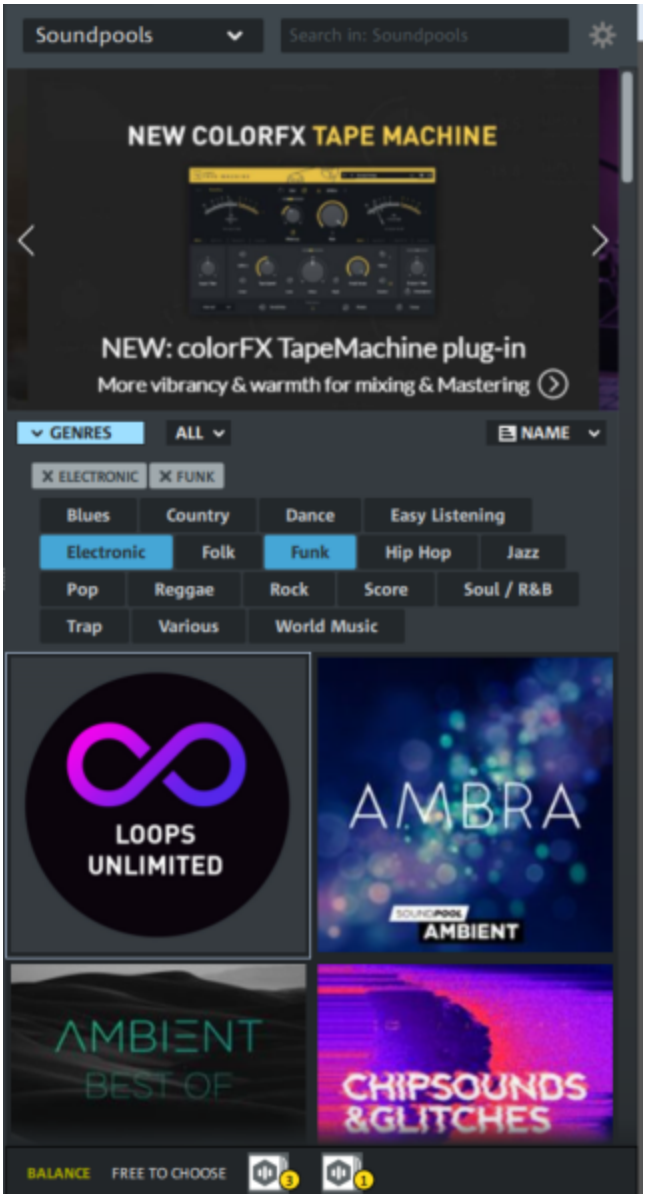
1. To burn an Audio CD, export your project as a wave file: Click on "File" and select the "Export arrangement" option > "Audio as Wave/ADPCM". The WAV file created can be burned as an Audio CD with any burn program.
2. The "Burn song as audio CD" option in the "Share" menu exports the project directly in a Wave file and transfers it to the MAGIX Speed burnR burn program. Optionally, the Sound Forge Audio Studio can be used for this purpose. You can load your project into the Sound Forge Audio Studio using the option "Burn project on audio CD" and then burn an audio CD using this CD mastering tool. Or you can open MAGIX Speed burnR, for example, with the help of the context menu in the Media Pool. An MP3 data CD can also be created MAGIX Speed burnR.

Additional functions

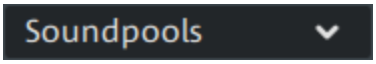
This chapter focuses on all other functions,

Store

New Soundpools, function packs, presets and virtual instruments can be bought directly in the Store within the program. Soundpools, presets and instruments are automatically downloaded and installed following purchase and can be found in **Loops** and **Instruments** windows. New program functions can also be used right away.



The top section displays special offers and selected content.



Here, you can switch between different Store categories:

- **More instruments:** For purchasing additional software synthesizers (⇗58).
- **Presets:** More presets for the software synthesizers supplied can be found here.
- **More functions:** Contains function packs for expanding the functions in **MAGIX Music Maker**, such as CD burning function, VST and more.
- **Editions:** Editions are bundle offers that include specific feature packs and free credit for Store content. To learn more, read Editions (⇗24)

*Note: You can learn more about individual functions in the program documentation, which outlines all the features and functions available in **MAGIX Music Maker**.*

All available content is displayed in the form of tiles. The search list above lets you filter search results such as music genres or the names of packs.

Applying the genre filter to narrow down the selection according to genre.

The drop-down menu also lets you filters results in terms of new features, discounts and updates.

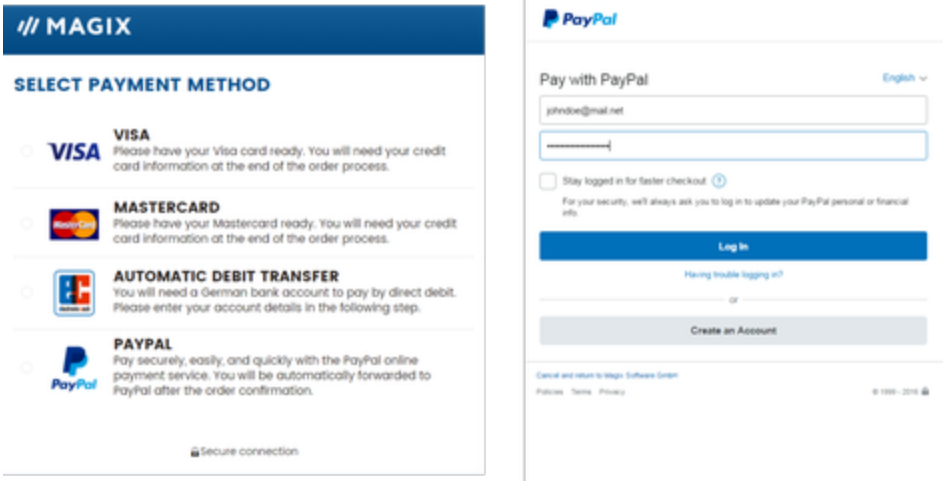
Other control elements appear on top of a tile when the mouse hovers over the tile:

- Using the play button in the middle, you can preview a sample song with the loop, instrument or preset.
- The info button below right lets you switch to an info page with additional information for the content.
- Clicking on the price on the left starts the purchase process.

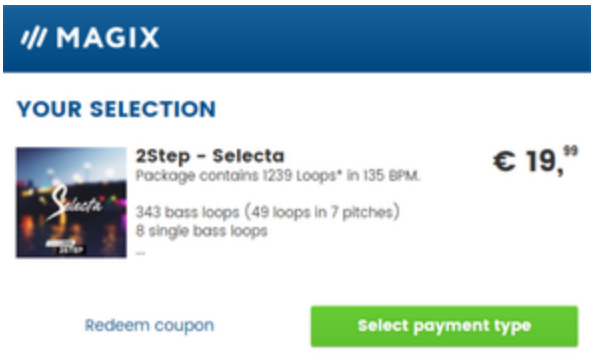
Buy new content

When you make your first purchase, you will be asked to select a currency. Then, log in to your MAGIX account.

In the next step, select the payment method and enter the required details.

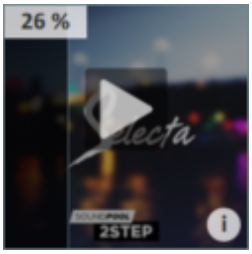


This step will be skipped for later purchases. You will go straight to the "Purchase" window. You can also adjust the payment method afterwards by clicking on the pen icon next to "Pay with".



Click on "Buy now" to complete the purchase.

Your purchase will download immediately, as shown by the download progress on the tile.
After downloading and/or installing the content, you can switch to a view which will display your newly purchased content (marked here as "NEW").



You can use the loops and instruments you have purchased in your projects right away.

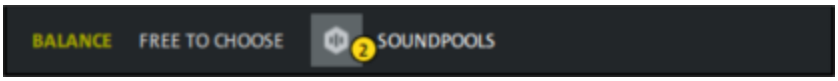
Activate Edition

When you install **MAGIX Music Maker** for the first time, you have access to the free basic version. If you have bought an **Edition** (⇗24) you'll also receive a selection of

additional content including Soundpools, instruments, presets and program functions. In order to use this content, you will need to activate the Edition first, then add the content.

To do this, click on **Sign in** in the account area of the start dialog and log in to your MAGIX account. Now, please enter the serial number of the Edition you purchase under **Enter serial number**.

Next time you go to the Store, you will see a balance counter for each Store category.



You can now add the relevant content in the Store. This works exactly the same as a normal purchase – all you do is click on the price. The only difference is that you don't purchase the content - it's free.

After you download and install content, you'll see your remaining balance in the balance counter. When you have used up your balance, you can continue purchasing additional content as normal. Then, you will need to enter payment information.

Notes:

- *When you own a more basic Edition (or own a previous, basic version) and then buy a more advanced Edition, you will not receive all the content again - instead, you'll only receive credit for the more advanced Edition.*
- *If you are upgrading from a previous **MAGIX Music Maker** version, all features and sound content already available in this version will be automatically marked as purchased in the Store and can be downloaded there. Enter the serial number for your previous version in the start dialog.*
- *The Store also offers instruments and third-party effect plug-ins for purchase in the **Instruments** and **Features** categories, for which the balance from the Editions cannot be used.*

Re-download purchased content

Content you have purchased is not linked to a specified computer or installation, but to your MAGIX account. If you re-install **MAGIX Music Maker** on another computer at a

later point, you can download all the content you have already acquired without needing to repurchase it.

Items you have already purchased are faded out in the shop by default. Select the "**Show purchased items**" option under the gear icon.

This displays all items in the shop.

Content which you have purchased but is not present in your current installation is marked with this symbol. Click the symbol to re-download the content.

Existing purchases are marked with this symbol. Click it to switch to the content in the Soundpool or instrument view.

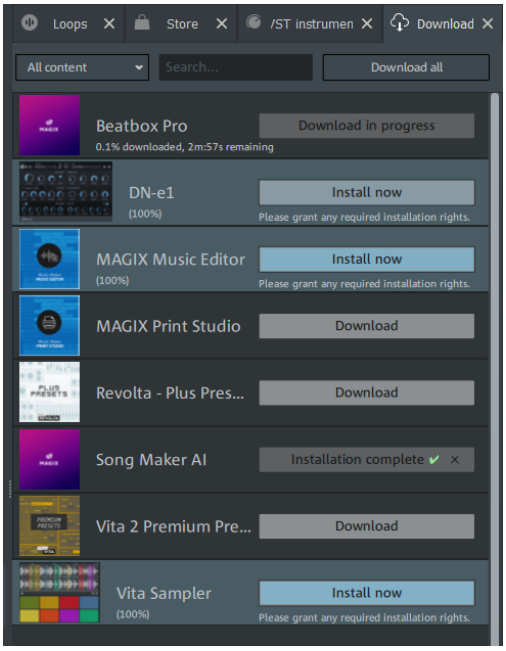
Content that has been purchased and downloaded, and for which an update is available, displays this symbol. This may be the case if a bug fix is available for a software synthesizer, or if the format for Soundpools has been changed.

Content

Use the "Download purchased content" function to open the **Downloads** window, which lists all of your purchased content.

Downloads

All content you have acquired appears under Downloads, whether this is content purchased after the fact, or content included as part of your Edition (⇗24) that you haven't downloaded yet.



After activating an Edition or reinstalling **MAGIX Music Maker**, for instance on another computer, this list may be pretty long. Therefore, you can select **Download all** to start all downloads simultaneously.

You must install all packs separately, however, since further information may be needed from you for the installation of some program functions or instruments. Following some installations, **MAGIX Music Maker** may need to be restarted before the downloaded content can be used.

Installed functions, Soundpools or instruments will be displayed above in the list under **Installation complete** until the next program start.

Remix Agent

To create a remix, elements from a completed song or components of a song are added and removed creating a new song. In order to combine your own loops and beats with a given song, it is important to know the exact tempo (in BPM - beats per minute) of the song. The **MAGIX Music Maker** in Remix Agent allows you to define the tempo of MP3s or imported tracks from a CD in **MAGIX Music Maker**.

Once the tempo has been determined, you can optionally match the tempo of the project to the tempo of a song, the tempo of a song to the tempo of an existing project, or divide a song into individual beats (remix objects), which can then be rearranged as desired.

Requirements for using the Remix Agent

- The song must be longer than 15 seconds.
- The songs have to contain "rhythmic" music.
- The track must be in stereo.

If audio files longer than 15 seconds are loaded into the project, the Remix Agent is started automatically.

Workflow of the Remix Agent

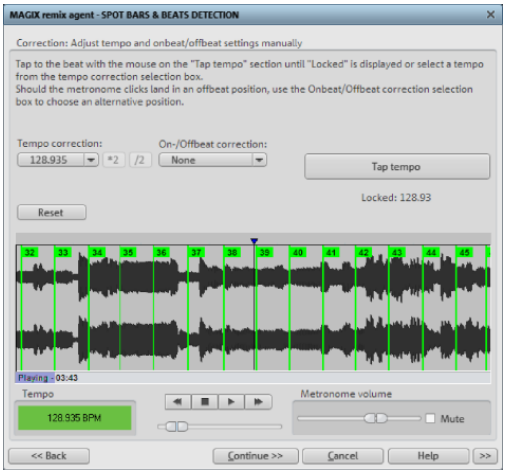
The Remix Agent works in four steps:

Step 1: Checking the start marker

Step 2: Tempo recognition

Step 3: Specifying beat starts

Step 4: Application of BPM and beat recognition



Step 1: Checking the start marker

Place the play cursor at the position where detection should start in the object by clicking the timeline. If the object contains a longer intro without beats but rather calm synthesizer pads, you should position the start marker after the intro.

Furthermore, the start marker should always be positioned just before a beat hit, even better, just before a beat at the start of the bar.

Step 2: Checking the automatic tempo recognition

After opening the Remix Agent by pressing the "Continue" button, it will begin to analyze the audio material and try to determine the tempo. The object is played back while a metronome click relative to the event can be heard and numbered green beat lines appear in the waveform.

The following will be indicated:

- Position of the start of the measure (one): red lines.
- Position of the other quarter notes (two, three or four): green lines.
- Reliably recognized positions: thick lines.
- Unreliably recognized positions: thin lines.
- Tapping is indicated by additional blue lines.

Note: *If the tempo or bar information of the object you wish to analyze is already available, these are displayed as dots at the respective positions above the display of the wave shape.*

Under the waveform on the left side the established tempo is displayed in BPM. There is a small transport console in the middle to make navigating easier. The slider serves as a

position controller. To set the metronome volume, an additional fader and mute button are provided on the right-hand side.

Change beat positions and tempo

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

To correct the metronome speed and any timeshift that may occur between the metronome clicks you can use the tempo correction as well as the "Tap tempo" button:

Tempo correction: The Remix Agent provides various speed settings – the speed the Remix Agent determined as the most probable is preset. If this tempo isn't correct, you can choose another one from the list. The next time you play back the song it should be in sync with the metronome.

On/Off beat correction: Now it may happen that the tempo is right, but the beats have been displaced. "On/off beat correction" provides a number of alternatives for moving the beats according to the complexity of the rhythm. Try out various alternatives until the metronome clicks are in sync with the beat.

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

Use the **"0" key** to manually set the quarter beats while the music plays. Surrounding markers will automatically be removed to ensure that the set tempo remains intact.

You can move the markers with the mouse. If you hold down the "Ctrl" key simultaneously, the subsequent markers are also moved. If the metronome clicks now correspond with the music, you can continue to the next step.

Step 3: Determining the start of a bar:

Next you can set the time signature. The default setting is 4/4 but you can adjust this if necessary. The beat at the start of the bar should coincide with the high sound of the metronome, or the red line in the waveform display.

It can now be corrected in one step: If the start of the bar can be heard, click on **Tap One** once using the mouse or press the **"T" key** on the keyboard. Alternatively, select how many quarter notes the "One" is to be moved back. Use the **"0" key** to manually tap the

position of the beginnings of the bars during playback. This allows you to correct the beginnings of the bars in longer sections.

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

Step 4: Applying BPM and bar recognition

This lets you determine what you want to do with the analyzed audio material. The following option is available:

- Create remix objects from the analyzed audio material
- Adjust the project tempo to that of the analyzed audio material and vice-versa.
- Save only the tempo and beat information in the audio file for possible editing later on.

Following this, you can also start the Remix Maker (⇗172) and the Harmony Agent (⇗174)

Create remix objects

This will split the song into individual objects according to beats. The following uses are possible:

- **Create loops** from complete songs which you can then use with your own material. Important: Not all remix objects are suitable for loops. Less complex material such as drums from an intro are ideal.
- To **remix songs**, that is, change the order of the objects, cut and duplicate individual parts or beats of the song, or enhance the song with various other loops or synths.
- For **mixing 2 songs:** The beat and tempo match perfectly so you can fade without "side effects".

You also can activate this function from the "Object" menu only if the tempo information has been saved.

Audio quantization: The new objects are precisely fitted into the bar grid of the project.

There are slight tempo variations in “hand-made” music, so that different bar lengths can occur. To make sure the objects fit into the bar grid of the project, the **time processor** is automatically activated and object-timestretching used so that the difference in length is corrected.

Use resampling for small corrections: If the required corrections are not too significant, you can use higher-quality resampling instead of time-stretching. You should then no longer change the project tempo as this may result in considerable pitch changes.

Remix objects in loop mode: New objects are put into loop mode. When extending the length of the object using the right object handle, the object is continuously played back.

Set project tempo to object tempo: (See "Adjust tempo").

> ***Note:*** *The time correction allocated to the objects can be undone later if the time processor is opened and edited (menu item: Timestretch/Resample Object Menu).*

Cancel: The dialog will be closed.

Adapt tempo

Set object tempo to project tempo

Adjusts the object length to the existing project. There are three different options: Time stretching, resampling or audio quantization.

- Use **Time stretching:** The pitch of the song remains constant in time-stretching; however, the sound quality may suffer.
- **Resampling** changes the pitch (similar to changing the speed of a record player), but retains most of the sound quality.
- During **Audio quantization** the tempo adjustments are calculated into the audio file in such a way that it appears as if remix objects were created and then immediately compiled into a new audio file (see below). If recognition is unreliable, the result can show extreme tempo variations. In this case, it is particularly important to set the playback marker at such a position (before opening the Remix Agent) that the tempo can be reliably recognized. The advantage of audio quantization is that smaller tempo variations can be balanced in the music. The beat starts of the music always correspond with the beat starts of the project. They do not slowly drift apart.

Set project tempo to object tempo

The project assumes the found BPM value. If you would like to use the cut-up song as the basis for a new composition like with remixes this option should be active.

Save tempo and bar info

Only the information will be saved in the Wave file. This makes sense if manual correction is required for defining the bar/tempo. Once the information has been saved the tempo and bar adjustment will no longer be required for future tempo and bar adjustments or when creating remix objects.

Find loops

The Loop Finder was developed for the purpose of finding BPMs in short rhythmic passages and placing BPMs into the project. Furthermore, the BPM Finder can help to fit short loops into an existing project or extract short rhythmic passages from drumloops.

The Loop Finder can also help to fit short loops into an existing project or extract short rhythmic passages from drum loops.

> ***Note:*** *For longer passages (e.g. complete CD tracks), you can use the* Remix Agent *(⇗166)*.

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 step-sequence to determine 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's 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 marker one beat forward or one beat back. This makes it very easy to select "round loops", i.e. whole bars, during running playback.

As long as a loop runs through without any problems, the correct tempo will be able to be read to the left.

Here you should make sure that the number of beats per bar (default: 4) has to adapted to the actual loop length. That means if four bars are selected as a loop, 16 has to be entered into this field.

Start (S) and End (E) Markers: These markers indicate the beginning and the end of a 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 this function in order to be able to use it again later.

Use new BPM: The project applies the BPM value found.

Timestretching: Adapts the object to the tempo of the project (as a result of the determined tempo) using timestretching.

Resampling: Adapts the object to the tempo of the project (as a result of the determined tempo) using resampling.

Keyboard shortcut: L

Remix Maker

The Remix Maker can be run directly following the Remix Agent.

Use the Remix Maker to automatically create remixes. Here, the remix objects created by the Remix Agent are moved, copied, and newly compiled according to specific criteria. You can select one of four DJs who each represent different styles and specify the length of the remix and the form of the compilation.

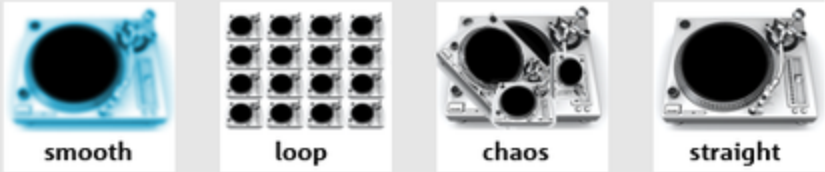
Opening the Remix Maker

- New Song
    1. Load a new song that you'd like to remix. It should preferably contain clearly rhythmic material.
    2. When the Remix Agent loads it breaks down the song into useful parts (See above "Remix Agent").
    3. In the last window of the Remix Agent, activate the **Open Remix Maker** option.
    4. After the Remix Agent has broken down the song Remix Maker will automatically open.
- Pre-edited songs in the arranger
    1. Load an project, that contains a song which has loop-cut objects.
    2. Select one of the loop objects.

3. With a right mouse click select the **Remix** > **Remix Maker** option from the context menu.

- Long, unedited audio objects in the arranger
  1. Load an project that contains a long, unedited audio object.
  2. With a right mouse click select the **Remix** > **Remix Maker** option from the context menu.
  3. A prompt will appear asking you whether remix object should be created or not.

Presets



Here you can choose from four DJs with differing remix characteristics. It's best to try out all four and check out the results.

Length adjustment:

Very short: Approx. 20 seconds.

Short: Half the length of the original song.

Normal: Normal length of the original song

Doubled: Double the length of the original songs.

Song structure

Here you can edit the order of the selection in more detail.

No changes: The order of the objects remains the same.

Small changes: A sequence of objects ("Pattern") will either be repeated or the following pattern will be added.

Comprehensive remix: The objects in the original song are assembled far apart.

Random: The objects will be randomly ordered.

Fills

"Fill" i.e "Fill in" means that the loop object is cut from the Remix Agent and then in turn cut into very small components, which are then looped and played back very quickly one

after another other for an intermittent change from the regular beat.

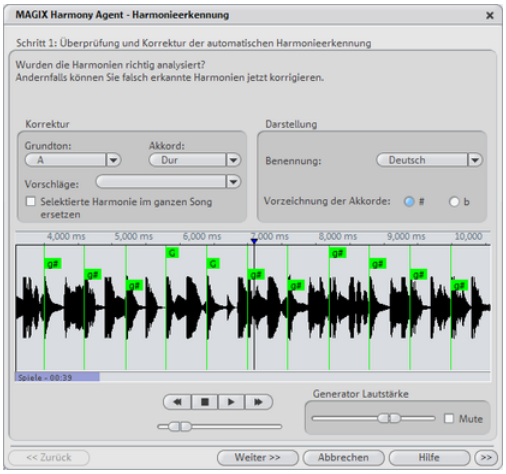
None: No fills are used.

Moderate use: A few, simple fills are used.

Heavy use: Numerous, interconnected fills are used.

Random: All possible fills are used in a random order.

Harmony Agent



The Harmony Agent is designed to analyze harmonies.

When you open the Harmony Agent, the music track is analyzed first. The Harmony Agent attempts to automatically identify harmonies for each quarter beat of the music. The correct beat information (⇗166) is an important prerequisite for the Harmony Agent.

During subsequent playback, the detected harmony is played as a chord by an internal generator for verification purposes. You can adjust the volume with the "**Volume**" function. "**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.

Checking and correcting 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. To select a chord left click on the respective harmony symbol in the waveform display. Hold the key if you want to mark several subsequent harmonies.

Recommended alternatives to the recognized chords are displayed in the section "**Correction**" under the menu **Suggestions**. The initially recognized harmony is marked with an *. If none of the alternatives apply, you can select the correct "**Root**" or "**Chord**"

from the menu. Use the option "**Replace marked harmony in the entire song**" if you are sure that the incorrectly recognized harmony is not included in the entire song. Usually, major and minor keys have been mixed up.

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

Using harmony recognition

You can apply the information from the Harmony Agent here. There are different ways to output harmonies:

Generate chords in arrangement: In the project two tracks are created, one that contains the chords symbolized as guitar chords, the other contains other title objects with the respective chord symbols. You can graphically display harmonies in the video monitor in sync to the music.

Save information about harmonies from the audio file: This also ensures that the harmonies are available later. For instance, to display the harmony information in the timeline (Edit > Show object marker > Harmony marker).

Display: You can choose between different displays for the harmony symbols. You can choose between English, German or Roman symbols to **"name"** the tones. You can also set **"Predraw"** to force enharmonic reinterpretation. **"#"** shows all notes as "sharps" (C#, D#, F#,...), and **"b"** displays them as flats.

5.1 surround

MAGIX MUSIC MAKER supports playback in real 5.1 Surround.

What you'll need

To edit audio tracks in Surround Mode you need a sound card in your computer which can operate the following channels:

- front left (**L**) / right (**R**)
- center (**C**) / Subwoofer (**LFE**)
- back left (**Ls**) / right (**Rs**)

Surround playback is possible with all audio driver models. You can adjust these in the **program settings** in the **Audio/MIDI** tab.

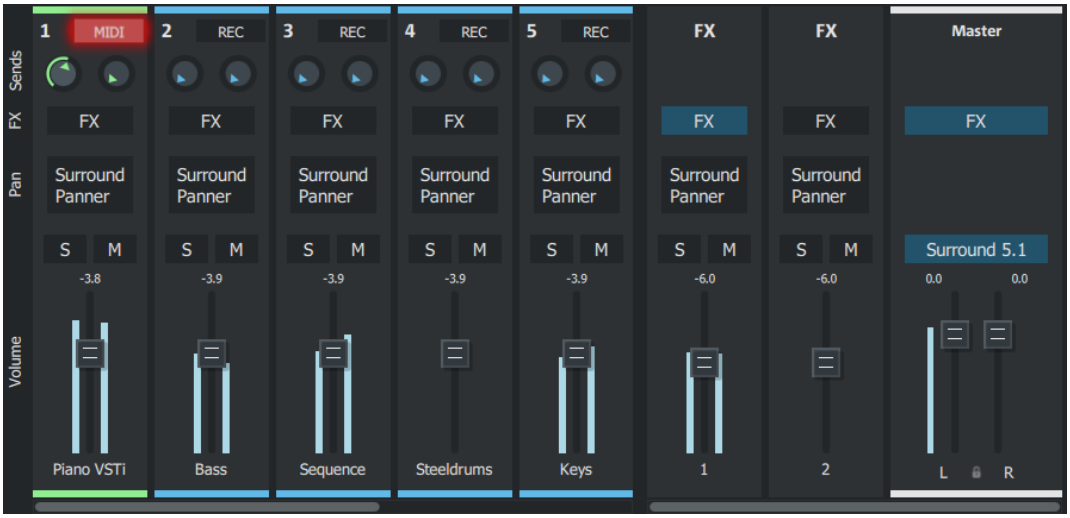
Output of the six output signals in all driver models in the output channels is in the same (standardized) order:

Channels 1/2:L- R

Channels 3/4:C - LFE

Channels 5/6:Ls – Rs

Mixer in surround mode



To activate multichannel playback, open the mixer (M key) and click on "5.1 Surround" button in the master.

The mixer channel pan control is replaced by a Surround Panner button that opens the 5.1 Surround Editor.

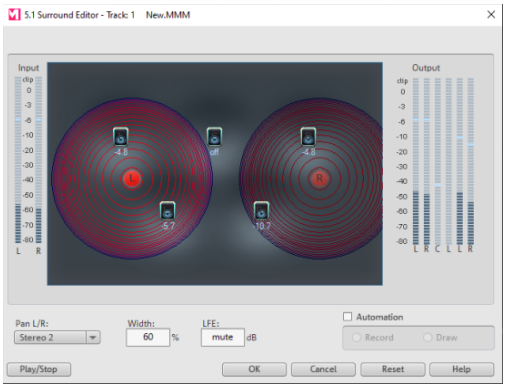
The Surround Editor is also available for the FX tracks (⇗52). For example, you can send the original track to the front **L/R speakers**, the FX track however will remain at the rear **L/R speakers**.

The master volume is applied to all channels, here the left controller influences channels L and Ls, the right controller; channels R and Rs and the middle value of both controller; the channels C and LFE.

The master plug-ins are only applied to the front channels.

In the master FX rack of the MAGIX Mastering Suite the full effect palette is not available in 5.1 Surround mode, but rather only the compressor and the parametric equalizer (⇗123) (from the Mastering Suite). The settings of these effects have the same effect on all six channels.

5.1 Surround Editor



In the 5.1 Surround Editor of the mixer track you can arrange the audio signal of a track (displayed as two red sound sources) in the "imaginary" room. The signal is dispersed to the 5 (blue) loudspeakers which represent the individual surround channels.

There are 6 channels:

- **L:** Front left
- **R:** Front right
- **C:** Center
- **LFE** Sub bass (**L**ow **F**requency **E**ffect) channel
- **Ls:** Back left/left surround
- **Rs:** Back right/right surround

Dispersing the signal to the 5 loudspeakers occurs after the so-called sound source emits a sound field of a certain level (displayed as red circles). The further away a loudspeaker's source is, the less its share of the corresponding loudspeaker channel. The position of the source and the loudspeaker can be moved with the mouse.

The sub bass level (**LFE**) is set directly in the corresponding field, which you can also adjust with the mouse.

There are various modes in which you can use the source signal:

Mono: The (stereo) source signal is seen as mono material, the left and right channels are mixed together and arranged together. The original stereo information is lost here.

Stereo 1: Similar to mono mode insofar as the left and right channels are moved together, however, only a portion of the left source is audible in the loudspeakers **L**and **Ls**, and only a portion of the right source in the right channels **R** and **Rs**. The stereo information remains as faithful as possible.

Stereo 2: The left and right channels can be moved individually. The distance between the left and right source is retained when you move the left source. You can move an

individual source by holding down the "Alt" key. You can move an individual source by holding down the "Alt" key.

Center/LFE: Only the left channel is arranged. In return, the LFE share is drawn solely from the right channel. This mode is only of importance when importing Surround material.

The **width** determines the level of the sound field of an individual source.

Importing and exporting surround audio files

Import

Interleaved 6-channel wave files can be imported. On loading, these can be transformed automatically into 3 stereo wave files and the corresponding track settings can be activated (First track L/R, second track C/LFE, third track Ls/Rs).

Export

Surround exports can occur in any one of the following formats:

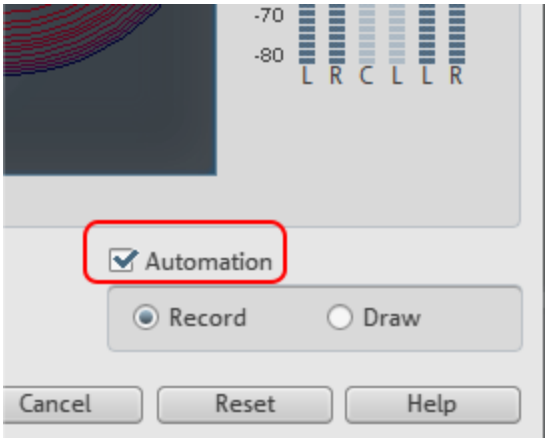
- Interleaved 6-channel WAV files: These are wave files containing 6 channels (corresponding to the surround channels L,R,C,L,Ls,Rs).
- Windows Media files (Windows Media Audio or as a surround soundtrack of a Windows Media Video).

The files created are fully compatible with the normal file formats. This means that they can also be played on computers incapable of playing Surround (in normal stereo).

The export is performed using the same menu commands (e.g. **File** > **Export** > **Audio as wave**) like the normal stereo export. **Surround 5.1** will then be preset for export in the export dialog (⇗156).

Automating Surround position

Panning of the sound source on the loudspeaker can be automated to simulate movements in the room. For this to happen, **Automation** must be activated.



There are two methods to create automations: **record** and **draw**.

To record (when automation is on), the sound source is moved between the loudspeakers during playback. When recording the automation, the **Record** checkbox lights up red.

The **draw** function is an alternative way of recording complex movements. If drawing mode is active, all panner movements are transmitted to the time interval between the start and end marker (when the mouse button is dragged). You can draw the entire movement curve for the selected time range.

Reset deletes surround automation from the track.

There is no automation of the parameters for width and LFE, of the distance between the left and right source in "Stereo 2" mode, or of the loudspeaker positions.

Integrating other programs - Synchronizing and ReWire

MAGIX Music Maker enables other programs or external MIDI hardware (e.g. Grooveboxes, hardware sequencers) to be remote controlled via MIDI synchronization or to be controlled by these devices. Synchronization means that both components involved always use exactly the same tempo and operate at the same time position.

ReWire technology makes it possible to play ReWire-capable programs like Propellerheads Reason or Ableton Live in **MAGIX Music Maker** just like a software synthesizer via MIDI objects.

Synchronization

Sometimes **MAGIX Music Maker** is not enough on its own. A friend has a Groovebox and wants to jam...

If two software or hardware sequencers (devices like Grooveboxes or keyboards) are intended to play music together, then it's important to synchronize them.

Why is that important?

You would have to be pretty skilled to be able to play both programs or devices at the same time - there would most likely be problems with time delays, and as soon as one side pauses or skips forward, chaos is fairly likely the result.

Even if playback was started simultaneously (or "synchronously"), the sequencers may become "out of sync" over time. That's because, even if the same tempo is set on both ends, it will never match 100%. Software sequencers use a time-based value to determine the tempo, which is derived from the sample rate of the sound card. Theoretically, this has a fixed value, e.g. 44100 Hz, but in practice this value can differ, so that the real tempo can be slightly faster or slower than the one indicated.

Therefore, synchronization means that one side constantly receives information about the current time position from the other, and that the position and tempo is corrected correspondingly to result in a match. This includes provision of all transport functions like start stop, or jump to a specific time position.

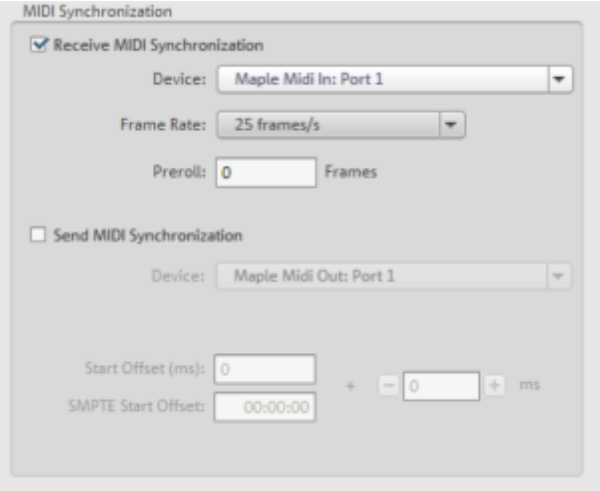
The side which sends the synchronization information is called the **Master**, and the side which receives the information is called the **Slave**.

MAGIX MUSIC MAKER can run in both of these functional modes. For synchronization, the protocols **MTC** (MIDI time code) and **MMC** (MIDI machine control) are applied.

For synchronization, a normal MIDI connection is required, i.e. depending on the operational mode, you connect a MIDI output (MIDI OUT) on the computer with the MIDI input (MIDI IN) on the other computer or device for master synchronization or other way around (MIDI input on the computer with the output on the other machine for slave sync).

Activate synchronization in the dialog **Arrangement settings** (keyboard shortcut: A) under the **Synchronization** tab.

Synchronization settings



Receive synchronization (slave): Slave sync on. **MAGIX Music Maker** follows the tempo and transport control of the external device/program.

Device: Here you have to select the MIDI input driver via which **MAGIX Music Maker** should receive the MIDI timecode.

Frame rate: The master and slave frame rates must match. Synchronization with video programs/video hardware matches the frame rate of a specific video format, e.g. 24 for cinema, 25 for PAL video/audio synchronization, 29.97 drop/no-drop or 30 for NTSC video.

Pre-roll frames: Here you can enter a frame number that **MAGIX Music Maker** will ignore before synchronization starts. This takes into account the fact that analog devices normally require a certain amount of time before they reach the correct speed. In order to prevent synchronization of **MAGIX Music Maker** to an invalid time, this can be skipped by means of preroll frames.

Send synchronization (master): Master sync on. The external device/program follows the tempo and transport control in **MAGIX Music Maker**.

Start offset (ms/SMPTE): Here you can specify a period in milliseconds and SMPTE frames (minutes:seconds:frames) to be deducted from the incoming SMPTE time before the time is applied for synchronization. With an offset of 60:00:00 (1 hour), you can therefore synchronize a tape with an SMPTE code that starts at 1 hour; **MAGIX Music Maker** will still start at 0 at the tape beginning. Vice versa, sending a timecode snaps this value to the current position.

Correction factor: Normally, this value should be at "1" if you don't change it. In seldom cases, synchronization of MIDI and audio can run apart for longer project. You can

accelerate the speed of the MIDI playback by slightly increasing this factor (e.g. to 1.000001).

ReWire

ReWire-compatible client applications (like, for example, Propellerheads Reason) can be integrated into **MAGIX Music Maker** as synthesizers.

Activate the ReWire function in the **Project settings** ("E") under the **Synchronization** tab.

Afterwards, installed ReWire applications can be loaded as instruments into a track. All ReWire client applications appear as individual sections in the selection menu for software instruments in the track header and in the MIDI editor and are loaded as software instruments (VSTi).

Several client applications can be opened automatically by right clicking on their name in the selection menu, just as you can open the plug-in window for VST instruments by right clicking. ReWire clients which support the direct opening of the client application via the host application (**MAGIX Music Maker**) need to be started manually. You can do this by starting your client application as you would normally. It then automatically recognizes the host and starts in a special client mode. The client application should always be launched after **MAGIX Music Maker** and should be closed before exiting.

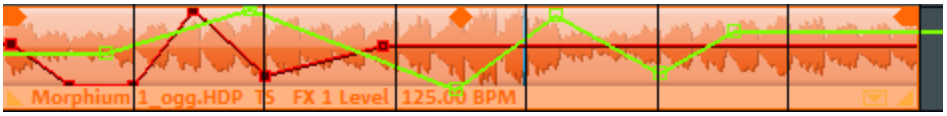
The ReWire application can be controlled via MIDI, just like a software instrument. The client application runs, starts, and stops synchronously with the time position in **MAGIX Music Maker** so that you can also use the sequencer in the client application.

*The "classic" MIDI channel of MIDI notes and events is not important; it is replaced by the ReWire MIDI bus system. **MAGIX Music Maker** only sends to the ReWire MIDI bus and only supports the ReWire master output-side, not the ReWire audio bus system.*

Automation curves

Alongside the object-based effects and the mixer effects for entire tracks/for the entire sound, there is also the option of controlling effects via freely drawn curves.

There are track curves and object curves. The track curves are saved in the track and affect all of the objects the track. Object curves are attached to an object and can be moved together with it If the object's length is changed the curve will be adjusted accordingly.



Object featuring FX Level 1 object curve on a track with an active volume curve

Automation curves change a specific value, e.g. the volume value for a track, which is "automated" during playback. This enables you to make your projects more exciting, e.g. the volume of several tracks shortly before the refrain may be reduced slightly in order to make the refrain itself more powerful once it appears.

Effects that may be automated

The following effects can be controlled via effect curves:

Audio objects

- **Volume** and **Panorama** are identical to the functions in the mixer, in which case a volume curve is added to the mixer setting and a panorama curve replaces the mixer setting entirely. 0% in the Panorama corresponds with all the way to the left, while 100% is all the way to the right.
- **Softening and sharpening filters** as well as **distortions** (objects only) are additional effects that are only available for effect curves and that are independent of the filter or distortion effect in the effects rack. This controls the filter's input frequency or the degree of distortion.
- **Effects level 1 and 2** control the effect level sent from the object or track to the two effects tracks (↗52).
  In this case, the value of the curve is added to the

Video, image, and title objects

- **X,Y position:** An X curve value of 50% corresponds to the normal position; at 0%, the video is moved to the left by its own complete width, and at 100% it is moved to the right (it becomes invisible in both cases). Analogous to this, a Y value less than 50% moves the video downwards, and a value more than 50% moves it upwards.
- **Height/Width/Zoom:** 50% corresponds with the original size; 100% corresponds to double size. 0% causes the object to disappear.
- **Rotation**: 50% corresponds to the original orientation, 180° corresponds to the maximum clockwise rotation, and 0% 180° rotates the object counter-clockwise.

Video effects are only available as object effects.

Track automation

FX You may also show an automation curve for editing the project in the track's "Effects" menu. In this case, only one automation curve per track will be displayed; all automation curves are able to affect the track simultaneously.

Edit track curves

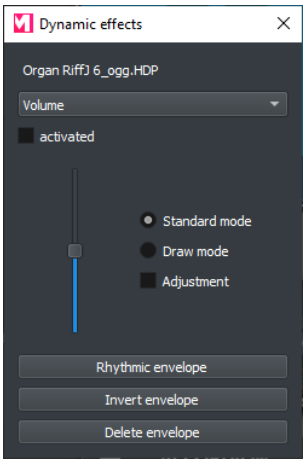
The curves can either be edited with the individual handles or by freely drawing the effects curve.

New handle points can be added by left-clicking on the curve; existing ones can be deleted by double-clicking. All handles can be moved with the mouse in a horizontal and vertical direction.

In Automation (⇗49) mouse mode, the left mouse button may be used to draw a new curve on the track.

Object automation

Object curve effects are selected and edited in the "Dynamic Effects Editor" dialog. This can be opened with the command **Automation for this object** from the context menu by right-clicking on an object.



In the top drop-down menu, you can choose from the available effect curves for the selected object. The box **activate** allows you to activate the respective curve. To keep things clearly laid out, only one curve for an object can be edited at time, all other active curves will be displayed as thin, black lines on the object.

Tip: You can select and activate another object and its automation curves without having to close the editor in the meantime.

The volume and panorama curves of an object may also be hidden/shown via "Effects -> Automation".

Rhythmic envelope: This options creates a rhythmic curve either via the generator or (for audio objects) via volume analysis of the object.

Invert envelope: Mirrors the current curve on the 50% horizontal axis, i.e. 0 becomes 100%. For a panorama curve, this would result in the playback side changing.

Reset envelope: Deletes the current effect curve.

Editing object curves

Standard mode: While the project is not being played back, it is possible to use a slider to create and vertically move a point of the effect curve and move it vertically at the start marker's position. This means that you can edit an effect curve by placing the start marker at different positions and adjusting the curve's value at that point using a slider.

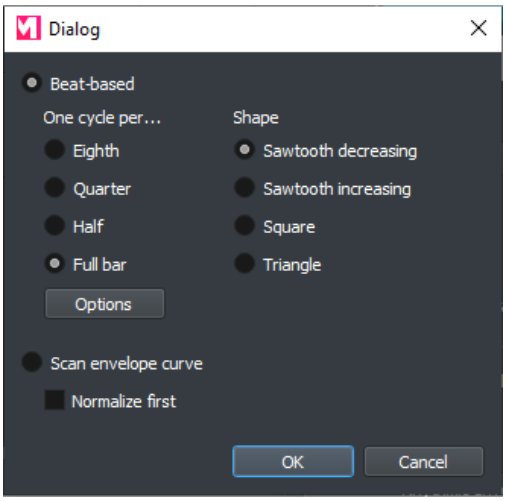
Draw mode: Move the slider in the dialog (while the playback is stopped) and a curve will be drawn in the track between the start and end marker accordingly. The duration of the curve drawn corresponds with the object's duration. Automation mouse mode (⇗49) is also activated so that the curve may also be drawn in with the mouse. This also works while playback is running.

Active Adjustment: Adjust curve to object length: Specifies behavior of the object curves if the length is altered subsequently. If the "Active adjustment" option is active, the object curves are compressed and extended with the objects, i.e. the curve points are moved correspondingly. For instance, if a pan curve is set so that an object is moved from 100% right to 100% left, this is also done after the length has been changed (only slower or faster).

Curve generator

The curve generator will create a beat-based automation curve that pulses according to eighth, quarter, half, or full notes. Enter a minimum and maximum value or define delay values as an option for the beat-based envelope curve calculation.

The option "Create..." opens a selection dialog to define the shape of the automation curve more accurately.



Beat-based: This option causes the form of the automation curve to follow the beat in the arrangement.

There are 4 basic patterns available for beat-based automation curves: 2 sawtooth shapes, rectangle, and triangle. These shapes run depending on the beat and control the intensity of the activated effect. The left side of the dialog enables the automation curve to be set to activate once per eighth, quarter, half, or whole note.

Options: This opens an additional dialog to control the style and intensity of the influence of the beat on the automation curve.

- **Limitation:** Determine the minimum and maximum value of the envelope. Via **Delay Minimum/Maximum** the basic forms can be altered further.
- **Shift** moves the entire curve. This lets you create interesting off-beat effects.

Scan envelope: This option allows the volume process to be displayed as an automation curve (as an alternative to a beat-based automation curve).

First normalize: This function normalizes the level of the audio object before the object is scanned to create an automation curve.

MAGIX Audio Remote

The MAGIX Audio Remote app is for remotely controlling certain functions of **MAGIX Music Maker** via smartphone or tablet. Your computer and device need to be on the same Wi-Fi network for this to work.

Download the app for Android or for iOS or download directly from MAGIX.

Get Connected

Setting up a connection between **MAGIX Music Maker** and MAGIX Audio Remote is simple.

1. Make sure that your PC and the mobile device are connected to the same network. The connection will be automatic if both devices are using the same internet router.
2. Open the app and click the gear icon in the top right corner. The settings screen shows the name of the computer on which **MAGIX Music Maker** is running under **List of found devices**.
3. Tap the **Connect** button. The connection is now established.

General operation

Tune-ups
The gear icon opens the settings screen. This is where you set up the connection to the program. Use the slider to adjust screen brightness.

Menu: Here you can choose how many pages you want in the control area. Currently, there are four pages in the control area

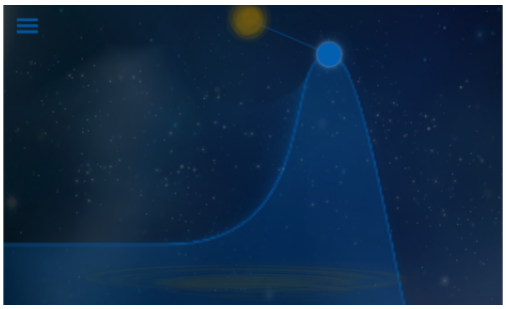
- Filter
- Reverb
- Transport
- Live Pads

The small **transport console** is visible on every page.

1. Loop on/off
2. Go to start
3. Stop
4. Play/Pause
5. Record

Filter

Filter is a remote control / modulation source based on physical modeling for the filters in MAGIX Vita Solo Instruments.



The vertex of a filter curve is controlled by a sphere graphic that hangs from a thread in a set position (the sun). When the whole thing is set in motion, things start to get exciting. Depending on how the graphic is manipulated, you can carry out slow filter changes, LFO modulations or chaotic reflections. Even if you're not an expert, the interface makes it easy to experiment.

To use the filter, load one of the Vita Solo Instruments with filter. How to set the filter in motion:

- Click on the graphic and drag it. You can also click in space and drag to illuminate the sphere with a tractor beam.
- The sun can be moved.
- Zoom between the sun and sphere to change the length of the thread.
- Click on the sun to undo the connection between the sphere and the sun. The sphere now flies freely through space. It bounces off walls and the sun and gains energy in doing so. The "ground" is in the lower part of the screen.
- Drag below left or right to the change the gravity.
- Two-finger zooming in free space changes the damping. As damping is increased, the quicker the sphere comes to a stationary position.

In technical terms, the Filter control sends the xy positions of the sphere as MIDI CC20 and CC21 to the Vita Solo Instruments. These correspond to the controllers that are used by the the first two Novation LAUNCHKEY MINI sliders and that are assigned preset parameters in all the Vita synthesizers. In the replications of the synthesizers these are the cut-off and resonance filters. These attributes can be changed in order to modulate two other synthesizer parameters with the "Filter".

Details for assigning MIDI controllers to Vita Solo Instrument parameters can be found under Automation of Vita Solo Instruments *(⇗70)**!*

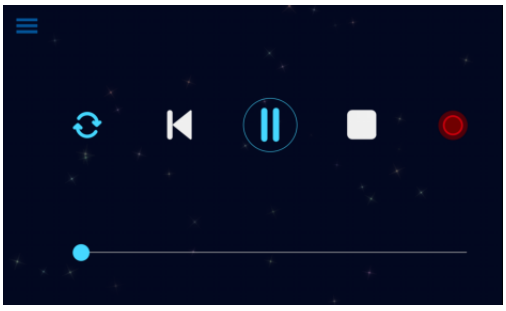
Reverb

In the reverb page you can control reverb in the Vita synths.

- Set room size in the rectangle
- Zoom with a two-finger gesture to define the amount of reverb (Dry/Wet).

Transport control

The transport console performs exactly the same function as in **MAGIX Music Maker** (and in the small transport console on the edge of the app).



Tip: For anyone creating music and producing at the same time, a recording in a recording booth can be controlled remotely.

Live Pads

Operate the **MAGIX Music Maker** with the app. The interface will be the same as the Live Pads interface (⇗190) in **MAGIX Music Maker**.

Live Pads

The Live Pads are ideal for quick music production in realtime, live performances or sketching out ideas for new songs. You can control 16 matching loops, global pitches and effects via mouse, keyboard, MIDI keyboard or smartphone app (⇗187). This transforms **MAGIX Music Maker** into a musical instrument that can be played right away and intuitively. 50 premade Live Sets in 13 great styles are included. You can also create your sets from the Soundpools and your own recordings.

Live Pads interface

Open the Live Pads by clicking on this button or by pressing the H key.

1. **Pads:**Loops are started using the pads.
2. **Pitch:** Like in the Soundpools, all melodic and harmonic loops in a live set are divided into 7 pitches. If you choose a different pitch, all loops will adapt to create a harmonic mix.
3. **Record**: If a recording is active, objects added to the project via the pads stay in place and the live performance is recorded.
4. **Quantization:** When the pads are clicked, the loops don't start immediately, but right on the beat to ensure that beats and melody synchronize. You can set the time resolution for this (1 beat to 1/32 note) or deactivate quantization entirely.

5. **Presets:** Select one of the pre-programmed live sets from the submenu and load it to the pads. Use the < > buttons to select the previous/next Live Set.
6. Opens the settings menu with the following options:
    - **Create empty Live Set:** Removes all samples from the pads.
    - **Load Live Set:** With this button you can load your own or premade live sets.
    - **Save Live Set:** The complete assignment of the Live Pads can be saved with this button as a "Live Set" (.lms file) to be used later. The current Live Pad assignment will be saved together with the project.
    - **Reset**
    - **Sync mode:** See below
    - **Pad text:** Use this option to hide the labels of the pads.
    - **MIDI control:** MIDI control of the pads can be deactivated here.

Playing the Live Pads

Load one of the live sets supplied by clicking on "Presets". This fills the pads with loops and gives them different colors. Loops can be played back by clicking on the corresponding Live Pads using the computer (keys 1-8 and Q-I) or MIDI keyboard (see below).

As soon as a Live Pad is selected, playback begins. During playback the corresponding object will appear for each Pad, and then disappear again when the Pad is released (when recording with **REC** it will remain visible).

The pads that are being played will illuminate more brightly.

Pads in the same color form a group. This means that these loops are sharing a track and only one of them can be played at a time - for instance different variations of one drum loop.

Sync mode

By default, loops are played in **Sync Mode**, as if they were all started at the project start and switched with the pads to "audible" (Mute Automation). This means that all loops always play in synch. Use this mode to create a basic structure for your project. If the sync mode is turned off, loops will always be played back from the start. Use this mode if you would like to add solos or effect sounds or separate the beats in break beats. Sync mode can be deactivated through clicking on the gear icon.

Your own live sets

Using drag & drop, you can add samples from the Loop window to the Live Pads in order to put together your own live sets. If you're using loops from the Soundpools in addition, these also adapt to shifts in pitch. However, pitch shifting will not function with your own samples, or recordings that don't contain any information about pitch.

If using several drum loops that are played backed alternatively, these should be mutually exclusive. Therefore, they need to be grouped together. To do this, right-click on the pads you have selected and choose the same group number for all of them.

Text to speech

With this function you can have the computer "speak" a text. You can adjust the speed and volume of the spoken passage, as well as the voice used.

Open the dialog **Generate speech from text...** via the **Effects** menu or by using the shortcut Ctrl + Shift + T

Load text: Here you can load a text file in the formats: *.txt or *.rtf.

Save text: Your entered text can be saved.

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

Voice: If additional voice packages (TTS engines) have been installed, you can select a different voice here.

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).

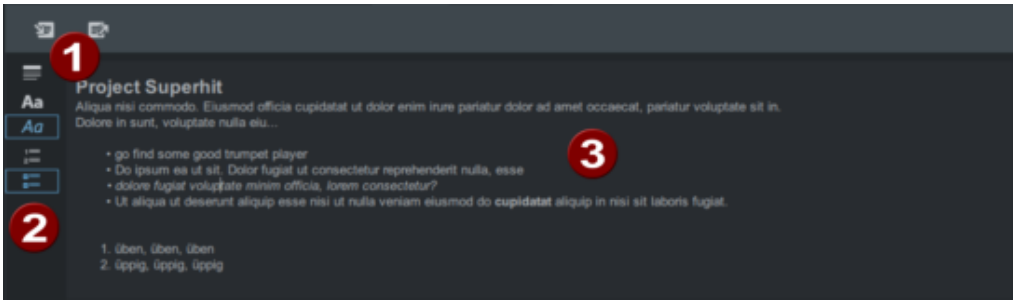
File: Path selection for the wave file to be created.

Create object in arranger: When you're happy with the result, click on this button to create an audio object in the arranger and close the dialog.

Notes

In the **Notes** window, you can add notes to the current project that are saved together with the project file, for example lyrics, to-do lists or information about the recording. This is a common text editor with some additional formatting options.

 Open the Notes window by clicking on this button or by pressing the N key.



1. **Import text** You can import texts in HTML or plain text format. HTML formatting is kept, but cannot be edited beyond the possibilities of the Notes editor. If notes already exist in the editor, you can choose whether the imported text should replace the existing one or whether it should be added.
   Export text You can export the contents of the Notes editor as an HTML file.
2. **Formatting**
   Headline Bold Cursive Bullets List
   To format a paragraph (e.g., headings, lists), place the text cursor in the line and select the corresponding icon. To format individual words (e.g., bold, italics), select the words first and then click the corresponding button.
3. **Text editor** Type in your text here.

Menus

All of the program's features are listed and thematically sorted in the menus.

Many features can also be accessed elsewhere using buttons, the advantage of items in the menu is that they can be performed using keyboard shortcuts.

- **File menu:** Here, all the functions for loading and saving projects and media files, as well as the program, language and project settings can be found.
- **Edit menu:** Here, all the functions for editing the arrangement can be found.
- **Effects menu:** Here, all audio effects that cannot be accessed from the Object Effects or Track Effects windows, the master effects and other audio features can be found.
- **View menu:** This menu can be used to show or hide the different windows in **MAGIX Music Maker** and to define settings for the arranger's functionality.
- **Help menu:** Here, various help functions can be accessed locally or on the Internet to assist you while working with **MAGIX Music Maker**. Various settings for the Store and your MAGIX account can also be found here.

File menu

New Project Wizard

A new project (⇗152) will be created.

Keyboard shortcut: Shift + N

Load project

This loads a **MAGIX Music Maker** project.

Keyboard shortcut: Ctrl + O

Save project

The current project will be saved.

Keyboard shortcut: Ctrl + S

Save project as...

The current project will be saved in a new file.

Shortcut: Ctrl+Shift+S

Read more on this under Save/load projects *(⇗152)!*

My projects

In this submenu, recently opened projects are listed for quick access.

Import audio CD tracks

This menu command opens the CD import dialog for importing tracks from audio CDs into projects. More can be found in the Importing Audio CDs (⇗36) section.

Keyboard shortcut: C

Export

In this submenu, all functions for exporting a finished song can be found, for more details read the chapter Export projectLoading, Saving and Exporting Projects (⇗152)

Settings

In this submenu, you can open all the important setting dialogs and specify settings.

- **Program settings**Program settings (⇗209) (keyboard shortcut: P)
- **Project settings**Project Settings (⇗153) (keyboard shortcut: A)
- **Automatic pitch adjustment**, see Pitch barPitch bar (⇗43)
- **Audio recording**, see audio recording dialogAudio recording dialog (⇗33) (keyboard shortcut: Shift+R)
- **Language:** Change the language used in **MAGIX Music Maker** here. Normally, the language that is used for installation is set as the program language.
- **Reset standard program settings:** Use this function to reset all Program settings you made in **MAGIX Music Maker** to their original settings.

Exit

Closes **MAGIX Music Maker**.

Keyboard shortcut: Alt + F4

Edit menu

Undo

In projects the last (up to 10) changes, including object and playback manipulations, can be undone. This way, it's no problem if you simply want to try out different operations. If you don't like the result, you can always revert to the previous state using "Undo".

Keyboard shortcut: Ctrl + Z

Redo

This function undoes the previous "Undo" function.

Keyboard shortcut: Shift + Y

Object

Create a new object

You can create new empty objects with these functions:

- **New MIDI object** creates a new MIDI object in the current track. You can choose between empty MIDI objects with 1, 2, 4 or 8 bars in length and some standard templates.
  Keyboard shortcut: Ctrl + Alt + N
- **Create a new title object:** A new title object will be created and the Title editor will be opened.
  Keyboard shortcut: Alt + Shift+ T
- **Generate speech from text** (⇗192)

Cut objects

Objects selected from the current project will be cut out and saved to the clipboard. They can then be pasted to a different location.

Keyboard shortcut: Ctrl + X

Copy Objects

Objects selected from the current project will be cut out and saved to the clipboard. They can then be pasted to a different location.

Keyboard shortcut: Ctrl + C

Duplicate objects

This menu point duplicates all selected objects. The copies appear beside the original and can be placed in the correct position using drag & drop.

Keyboard shortcut: Ctrl + D

Insert objects

The contents of the clipboard are added into the current project at the position of the start marker.

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.

Keyboard shortcut: Ctrl + V

Inserting multiple objects

This function is similar to **Insert objects**, but you can choose how often the content of the clipboard is to be inserted.

Keyboard shortcut: Ctrl + Numeric pad '+'

Deleting objects

 Removes the selected objects from the current project.

Keyboard shortcut: Del

Splitting objects

 You can cut a selected object at the position of the playback marker into two smaller objects.

If no object is selected, all objects are cut at the playback marker position.

Keyboard shortcut: T

There is a special Mouse mode *(⇗50) for splitting objects.*

Save objects as takes...

The selected objects are saved in the takes directory.

For more about using takes, please refer to the section Takes *(⇗56).*

Keyboard shortcut: Shift + K

Grouping

- **Group objects:** All selected objects will be assembled in one group. This means that 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.
  Keyboard shortcut: Shift + G
- **Ungroup objects:** This command splits an object group into separate objects.
  Keyboard shortcut: Shift + U

Loop range

Normally an object is always looped over the full length of the underlying audio 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 **Set custom 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.

Using **Deactivate user-defined loop**, the user-defined loop length is reset.

Object properties

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

Keyboard shortcut: Ctrl + P

Track

Add track

A new empty track will be added to the arranger.

*If you already know that you need several tracks, you can set the number of tracks in the **Project settings** (in the menu under **File** > **Settings** or (keyboard shortcut: **A**) to a larger value, so that you won't need to click this button as often.*

Keyboard shortcut: Ctrl + I

Combine audio...

This function can combine the project or segments of the project into a single audio/video object. Please read more on this in the section Combine audio (⇗57)

Keyboard shortcut: Ctrl+Shift+G

Range

In addition to the to various features to Cut, Copy, Paste, Duplicate and Delete objects, these features are also available as "band-oriented" editing tools. This means that the copy operation is applied to the content on all tracks within the *Range* between the start and end markers, regardless of which objects are selected. Just like if the arrangement were a tape, from which parts are cut or pasted.

This leads to an important distinction from copying/pasting objects: The following content on all tracks is moved forward when cutting and deleting, so there is no gap.This leads to an important distinction from copying/pasting objects: The following content on all tracks is moved forward when cutting and deleting, so there is no gap. When pasting, the following material is moved backward and not overwritten.

Cut range

The area between the start and end markers is cut from the current project and placed on the clipboard. This section can be reinserted elsewhere. The objects located at the end of the pasted material will also be moved forward.

Keyboard shortcut: Ctrl + Alt + X

Copy range

The area between the start and end markers in the current project is copied to the Clipboard. This section can be reinserted elsewhere.

Keyboard shortcut: Ctrl + Alt + C

Insert range

The contents of the clipboard are added into the current project at the position of the playback marker. The objects located at the end of the pasted material will also be moved forward.

Keyboard shortcut: Ctrl + Alt + V

Insert segment multiple times

Similar in function to **Insert range**, but you can stipulate how often the content of the clipboard is to be inserted.

Delete range

The area between the start and end markers in the current project is deleted and the following objects are moved forward.

Keyboard shortcut: Alt+Del

Extract range

The area between the start and end markers is retained, all the material in front and behind it are then deleted. Use this option to isolate a specific part of an arrangement for further individual editing.

Keyboard shortcut: Ctrl + Alt + P

Navigation

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.

Note: These commands similarly move the playback marker when it's stopped, the marker always remains visible in the project section.

To next object edge	Ctrl + 0
To the previous object edge	Ctrl + 9
To beginning of project	Home
To end of project	End
Go to start marker	Ctrl + Home
Go to end marker	Ctrl + End
Page to right/left	Page up/down

Grid unit to right/left	Ctrl + Page down/up

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.

Set jump marker

This sets a jump marker at the position of the current playback marker. Here you can note specific parts of the project. With the "Move playback position" function you can quickly jump to these positions.

Keyboard shortcut: Shift + 1 ... 0

Go to the next jump marker	Ctrl + Shift + PgDn
Go to the previous jump marker	Ctrl + Shift + PgUp

Create jump marker sequence

This option duplicates the currently selected playback area between the start and end markers by setting start markers equidistant to one another in the bar ruler. Now you can jump to every jump marker using keyboard shortcuts.

Keyboard

Delete all jump markers

Deletes all jump markers

Keyboard shortcut: Alt + Shift + M

Move playback position

This moves 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 project live once the jump markers have been placed where you want them without losing the beat.

Keyboard shortcut: 1 ... 0

Select all

All objects found in the project are selected.

Keyboard shortcut: Ctrl+ A

View menu

Standard layout

Resets the window arrangement and the windows' docking in **MAGIX Music Maker** to the default setting:

- **Loops** and **Store** are docked to the right of the arranger.
- Keyboard, BeatBox and Song Maker are docked below the arranger.

Layouts

Here, you will find different preset window arrangements for various tasks, which can be quickly selected using the F4 to F8 keys.

For more information about free-floating window arrangements, please refer to Overview of the program interface *(⇗22)*

Window

This menu lets you open and close the various windows in the program.

Arranger

Optimize view

The start marker is set to the beginning of the project, the end marker is set to the end of the last object, so that the entire project can be played.

Zooms out of the project so that the complete duration of the project is visible. The vertical zoom steps (track height) remain preserved.

Keyboard shortcut: F12

Maximize height of tracks

This option lets you quickly maximize or minimize track height.

Keyboard Shortcut: Tab

Objects with stereo imaging

If this option is selected, audio objects are displayed with separate waveforms for each stereo channel In addition, video objects are displayed as individual frames in the arranger. Normally, only the first and last frame are shown to allow for a faster display.

Shift: Ctrl + Alt + Z

Show loop range

The loop range between the start and end markers is highlighted and played back as an endless loop. This can also be deactivated here.

Display pitch ranges

Displays or hides the Pitch bar (⇗43).

Horizontal scrolling

This option reverses the horizontal and vertical functions of the mouse wheel for zooming and scrolling (⇗45). This means you can use Shift and Ctrl+Key for zooming and scrolling the tracks instead of for the visible duration. This corresponds with the performance of the mouse wheel in the old **MAGIX Music Maker** version.

Cursor keys move playback marker

This option is activated by default. If you disable this, you can move the playback marker with the arrow keys while additionally pressing the Alt key. You can then move the playback range (⇗42) with just the cursor keys.

Show object marker > Show bar/beat/harmony marker

After running the Remix Agent or Harmony Agent, the analyzed audio material receives a beat or harmony information in the form of markers that can then be shown in the arranger with the above commands.

Keyboard shortcut:	Bar marker	Ctrl + Shift + F9
	Harmony marker	Ctrl + Shift + F10
	Beat marker	Ctrl + Shift + F11

Effects Menu

Master Audio Effect Rack

Here you can open or close the master effect rack. You can read the "Audio effects" (⇗108) chapter for more information on audio effects.

Keyboard shortcut: B

Mastering Suite

You can open the MAGIX Mastering Suite (⇗127) with this option.

Keyboard shortcut: N

Text to speech

Read more on this topic in the Additional functions (⇗192) chapter.

Keyboard shortcut: Ctrl + Shift + T

Audio effects

This submenu contains the non-realtime effects (⇗148) **Sketchable filter**, **Gater**, **Invert phase**, and **Reverse**, which cannot be applied using the Object Effects or Trace Effects (⇗108) windows.

Convert stereo into two mono objects

With this option, stereo recordings can be split into two mono objects which are then grouped together. You can use the "Ungroup" button to edit the channels as independent objects.

Keyboard shortcut: Shift + Z

Load/Save/Reset audio effects

You can save the current effect combination of an audio object separately and apply it to other objects later. Alternatively, you can deactivate all currently used effects entirely (reset) if you want to undo the changes.

Keyboard shortcut: Load audio effects Ctrl + Alt + O
Save audio effects
Reset audio effects Ctrl + Alt + R

Volume

An assortment of different menu commands which influence the volume of your audio objects.

Mute/Unmute

Use 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 in the effects menu and context menu sets the volume of individual objects to a uniform value.

Automatic volume damping

This command automatically dampens the volume of other audio objects. This can be used to insert voiceovers into your project 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 (Audio recording (⇗33), advanced options).

Shortcut: Ctrl + Shift + D

Normalize (maximum level)

The "Normalize" function raises the level of an audio object to the maximum possible level without clipping the material. This searches for the highest signal peak in the audio material and raises the level of the object so that this peak matches 0 dB (maximum level) exactly.

Keyboard shortcut: Shift + N

Pitch, tempo & remix

These are the commands for remix functions in **MAGIX Music Maker**.

MIDI transposition

This command is only available for MIDI objects. This allows you to increase or reduce the pitch of all notes of a MIDI object by a certain value (in semitones). See Arrange MIDI objects (⇗76)

Shortcut key: Shift + T

Harmony Agent

The Harmony Agent is designed to analyze harmonies.

You can read more about this in the section Additional functions *(⇗174)*.

Keyboard shortcut: H

One pitch higher/lower

You can quickly alter the octave of an included sample without having to go to the corresponding loop in the loop window.

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 (⇗172) loop objects.

Shortcut: Shift + K

Tempo & beat recognition

MAGIX Music Maker provides a Remix Agent for the automatic determination of the speed in BPM (beats per minute) and for the creation of loop objects.

You can learn more under Remix Agent *(⇗166)*.

Shortcut: J

Loop finder

See Find loops (⇗171)

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After running the Remix Agent or Harmony Agent, the analyzed audio material receives a beat or harmony information in the form of markers that can then be shown in the arranger with the above commands.

Keyboard shortcut:	Bar marker	Ctrl + Shift + F9
	Harmony marker	Ctrl + Shift + F10
	Beat marker	Ctrl + Shift + F11

Program settings

In **Program settings**, you can customize certain features in **MAGIX Music Maker** to your liking as well as for the capabilities of your computer's hardware.

 To open the program settings, click on this button or select **File** > **Settings** > **Program settings** in the menu. (Keyboard shortcut: P)

General

Arranger

Autoscroll during playback: If autoscroll is activated, the screen view automatically shifts when the playback marker reaches the right edge of the screen. Here, two speeds for autoscroll are available and it can also be deactivated.

Simplified object display: If this option is selected, audio objects are displayed with separate waveforms for each stereo channel In addition, video objects are displayed as individual frames in the arranger. Normally, only the first and last frame are shown to allow for a faster display.

Spacebar stops at current position: Activate this option if you want the playback marker to remain at the same position after stopping playback. If this option is not active, the playback marker will jump to the original position when playback is stopped.

Automatic saving of backup projects

Here you can the time intervals at which automatic backup projects will be saved. (⇗154).

Hints

In its newly installed state, **MAGIX Music Maker** displays a number of security queries at various parts of the program. Each of these 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

Hide news: This option deactivates the MAGIX News Center in the main interface of **MAGIX Music Maker**.

Text size for readability and touch: A larger text size can be set here in order to use the program on touch devices or devices with a high screen resolution.

Send usage data to MAGIX: Anonymous data is sent to MAGIX for improving product quality. This option can be deactivated here.

Loops

Hide unavailable loops: All Soundpools are saved into a database automatically. The Loops window 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 Loops window.

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 Loops window (instead of being grayed out).

Standard quality/Best quality: See High quality loops (⇗26)

Clean up Store: The local Store database and its cache are deleted and reset. This function is intended for emergencies such as if the shop is not operating correctly even after restarting the program.

Rescan Soundpool: This resets the Soundpool database and rescans the Soundpools folder.

Import

Options

Preview samples (Wav, OGG) while playing the project (Smart Preview): Here you can switch off the preview when a playback is running (Smart Preview).

Automatically adapt samples to BPM: When loading or previewing the project, **MAGIX Music Maker** tries to adapt the samples to the tempo of the project. This always works properly with newer MAGIX soundpool samples as the tempo information is saved in the audio file. It usually works with all other loops as well, provided the loops are clean, that is, they are cut to entire bar lengths.

With "**For patched samples only**", automatic timestretching can be deactivated for all other samples. With "**Apply to samples longer than 15 seconds as well**", longer samples will also be adapted if they contain tempo and bar information provided by the Remix Agent.

Automatic preview starts for...

Here you can deselect automatic file preview start in the file manager for certain file types.

Import Formats

File formats that you never use can be de-selected here. Once de-selected they will no longer be imported. Please keep in mind that several import modules exist for some file types (AVI, WMA); **MAGIX Music Maker** uses the fastest one in each case. If you experience problems when importing certain files, you can experiment with deactivation of certain import modules, forcing the program to use the slower but more compatible import module.

Audio/MIDI

Audio playback

These options specify which sound card or output plays audio and which drivers should be used.

Wave/Direct Sound/ASIO/WASAPI: Specifies which drivers should be used for the sound card.

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, we recommended that you use **ASIO** drivers for full functionality in **MAGIX Music Maker**. If your sound cards do not have ASIO drivers, you can use the MAGIX Low Latency driver. Only when you do not have an ASIO driver and the MAGIX Low Latency driver isn't working either, select WASAPI, Direct Sound, or, if none of these work, Windows Wave driver.

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 supplied MAGIX Low Latency ASIO 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 buffers

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. Since error-free playback is usually more important than fast reaction times, the buffer size should be raised to 16384 or 32768 to avoid drop-outs.

Video

Video standard

PAL is used in Europe; the United States and Japan use NTSC. This setting should not be changed.

Movie 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.

Options

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 project in the transport control. Otherwise, the project applies the BPM tempo of the first sample that is loaded.

Adjust minor deviations from 4:3 aspect ratio during export: This option automatically customizes photos that have an approximate 4:3 aspect ratio to 4:3 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.

Automatic preview of exported material: This option starts the exported media file 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 on 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

Folders

Here, you can change the storage locations where the various files used by MAGIX MUSIC MAKER are stored.

- Storage location for the **Projects**.
- Storage location for export (**Export**) or import files (**Import**), save recordings (**Recordings**), If desired, recordings can also be saved in the project folder.
- Storage location for files from the Soundpool (**Soundpool**)
- Path to an external audio editor (⇗57)
- Storage location of your MP3 collection (**My MP3s**).

Add VST plug-in path

This allows you to specify the search paths for your own specify VST plug-ins and reset these path details to the default settings with **Reset VST plug-in information**.

For more information about this topic, please read the section Add custom Plug-ins *in the chapter "Instruments".* *(⇗74)*

Toolbar

 Settings (⇗209)

 New project

 Load project

 Save project

 Undo last action (Undo)

 Redo action

 Split object

 Delete object

 Loops

 VST instruments

 File manager

 Store

 Downloads

 BeatBox

 Song Maker

 Live Pads

 Keyboard

 Mixer

 Object effects

 Templates

 Notes

 Analyzer

 MIDI editor

 Select mouse mode (⇗48)

 Grid on/off (⇗43)

Publishing works created in MAGIX Music Maker

What needs to be taken into account when publishing a music or video production?

A distinction is made between "non-commercial use" and "commercial use".

1. What constitutes non-commercial use?

If songs are created with **MAGIX Music Maker** or if music is added to private videos, they can be shared with others on social networks (e.g. YouTube, Facebook, Soundcloud, Twitter or personal blogs/websites). The decisive factor in these cases is that no money is made or will be made from the song or video soundtrack.

Examples of non-commercial use:

- A user creates a song with **MAGIX Music Maker** and uploads it to their SoundCloud page or YouTube channel.
- A user produces a song using **MAGIX Music Maker**, burns it to CD then sends it to their friends.

2. What constitutes commercial use?

Commercial use refers to videos with soundtracks or songs created using **MAGIX Music Maker** for commercial purposes. Commercial use if if sales are made, if revenue is accrued through advertising (e.g. as a YouTube partner or through the process of monetizing) or if contracts are concluded. In this case the necessary licenses must be purchased.

Examples of commercial use:

- A user creates a song in MAGIX Music Maker and uploads it to their YouTube channel, which they've enabled for advertising (YouTube Partner Program).
- A user produces a song in MAGIX Music Maker and makes it available for purchase from an online download shop (e.g. iTunes, Musicload).
- A musician produces a song with MAGIX Music Maker for a CD Compilation, which is sold at concerts.
- A user makes a video in which they advertise their company or one of their company's products.

Important: *The downloadable styles that are licensed for commercial use consist of high quality WAV files. Any "normal"* ***MAGIX Music Maker*** *content from the installation DVD is in .ogg format for space reasons.*