

# SynthFont2

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## Introduction

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### What is SynthFont2?

SynthFont2 is a software synthesizer ("MIDI-to-WAV" tool, "Midi Expander") for playing standard midi files using SoundFonts (".sf2" files) or other sound files in formats like DLS, GIGA, 404, GUS, SFZ, or even VST instruments. SynthFont2 is intended to mimic the behaviour of SoundFont compatible hardware/sound cards like the old SoundBlaster Live!. But SynthFont2 is more. SynthFont2 is modulator aware, which Live! was not. It also provides an interface into the SoundFont structure and has basic midi and SoundFont editing capabilities.

*Sound Blaster Live! was a PCI sound card from Creative Technology Limited for PCs. The PCI speed allowed the card to dispense with onboard memory, storing digital samples in the computer's main memory and then accessing them in real time over the bus. This allowed for a much wider selection of, and longer playing, samples. It also included higher quality sound output at all levels, quadrophonic output, and a new MIDI synthesizer with 64 sampled voices. The Live! was introduced in August 1998 and variations on the design remained Creative's primary sound card line into the early 2000's.*

The midi file provides the musical content while SoundFont files provide the sound content. SynthFont2 can store arrangement settings for each midi file in an Arrangement file. A typical arrangement setting is the selection of SoundFonts. SynthFont can also use *VST instruments* to replace the internal sound engine. **One of the main features with SynthFont2 is the ability to easily assign different SoundFonts to each MIDI channel.** These assignments are the stored in the Arrangement file.

With SynthFont2 you do not need any particular sound card. In fact, if you only want to render audio files (".WAV" files, or compressed files like in the popular MP3 format) you don't even need a sound card at all.

**This help file focuses on the commercial version, called SynthFont2. There is a free version as well, often referred to as SynthFont[1] or SynthFont1 or simply SynthFont. Much of what is said here for SynthFont2 is valid also for SynthFont1.**

SynthFont2 is the second generation of SynthFont and has a number of features not found in the free SynthFont. Here is a short list of some of them:

- \* support for multiple time signatures
- \* support for multiple CPU cores
- \* support for creating compressed audio format in format M4A, based on the free AAC format
- \* support for creating compressed audio files using Variable Bit Rate
- \* a combined SoundFont Override and Bank Manager: you can give SynthFont a number of SoundFonts and folders in which to search for banks missing in the default SoundFont
- \* VU meters for the MIDI channels
- \* function to quickly determine the maximum loudness of a song
- \* lots of MIDI editing features
- \* MIDI data can be saved in the Arrangement file
- \* Enhanced Karaoke Lyrics support
- \* and more ...

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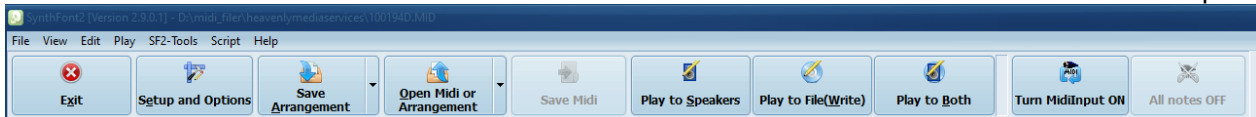
## Main window

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**For a overall picture of the looks of the main window, see [Color schemes](#).**

The first thing to do before loading a midi file is to select the default SoundFont. SynthFont2 will ask you to do it the first time you run it. You can change the SoundFont later on (go to the Files... menu to find this function). The default SoundFont is used whenever an "unknown" midi file is loaded for which there is no SoundFont information available. (Note, that if there exists a SoundFont file having the same base name as the midi file in the path, then that SoundFont will be used and assigned to all channels instead of the default SoundFont.) The default SoundFont should preferably be a GM (General Midi) SoundFont, i.e. a SoundFont with programs/presets for all 128 instruments defined by the GM standard. The SynthFont installation package includes a basic GM/GS SoundFont: GMGSx.sf2. If you want a better alternative then you can download some from [SynthFont's web site](#).

The main window has a standard main menu and a series of often used buttons at the top:



The buttons are mostly self-explanatory, but here a few comments:

**"Save Arrangement"** - press to save a file that will contain most of the settings required to play the MIDI file in a certain manner. These settings include, for example, the choices of SoundFonts, VST Instruments, VST effects, playback speed, muted MIDI tracks, etcetera

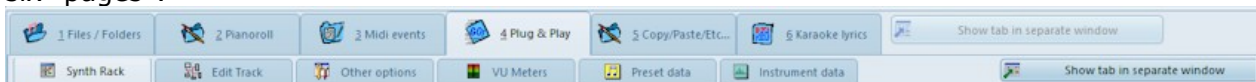
**"Save Midi"** - SynthFont2 has some basic MIDI editing capabilities. Press this button to save the file after editing.

**"Play to File (Write)"** - press to make SynthFont create an audio file using the current settings. You will have the choice to choose among a few audio formats.

**"Play to Both"** - press to make SynthFont create an audio file while also playing to the speakers. The above method is faster,

**"Turn Midi Input ON"** - press to make SynthFont "listen" to MIDI data on a predefined input port, for example belonging to an external keyboard. This is "live" playback mode,

Below the row of buttons there is another set of buttons or "tabs" for selecting one of up to six "pages":



**1 Files / Folders** - to use the file Playlist or the inbuilt Explorer

**2 Pianoroll** - to inspect and edit the midi file in a so called *Piano Roll* format

**3 Midi events** - shows a table for in-depth inspection and editing, only for die-hard experts!

**4 Plug & Play** - this is where all the fun begins. The image below shows this screen. At the top you have the "synth rack", with a few things you can change. Below this you have the tracks list, which also gives you access to a number of parameters. For example, to change the SoundFont for a particular track, select it and press the "SF File" button in the list heading or then "SoundFont File..." button in the main toolbar.

**5 Copy/Paste/Etc...** - this page displays MIDI notes and other events for all tracks. Here you can simply draw a rectangle covering a region and copy these selected MIDI notes for processing.

**6 Karaoke lyrics** - only show if the MIDI file contains Karaoke lyrics

NOTE: The button "Show tab in separate window"- Press this to "lift" the contents out from the tab page into a free floating window. Only the "4 Plug & Play page" cannot be treated like this.

NOTE: You only see the screen like this, showing the page "4 Plug & Play", when you have a MIDI file loaded. Before that you will see the screen showing "[1 Files / Folders](#)".

For playback of a MIDI file, the page "4 Plug & Play" is where everything happens. At the top of this page are many standard functions useful for adjusting the playback and the sound created separated into a set of six more pages:

**Synth Rack** - this page contains the most important functions for adjusting playback

**Edit Track** - this page contains a set of useful track related functions for adjusting playback

Other options - this page contains a set of useful functions

VU Meters - this page shows VU Meters for the MIDI channels in the file (not for the tracks)

Preset data - a table showing the Layers for the currently selected Soundfont Preset

Instrument data - a table showing the Splits for the currently selected Soundfont Instrument for the current Soundfont Preset Layer

At the bottom is a table with **tracks** found in the MIDI file. Normally each track references one, and only one, MIDI channel, but often *the same midi channel is used by many tracks*.

### **The Tracks list**

The lower part lists the tracks in the midi file. Using this list you can for example assign a SoundFont and a Preset (or "Patch") to a midi channel, mute a MIDI channel or make it play solo. To the right of this list is a region simply called MIXER, although it is more of a general purpose sound editor,

### **How to play a midi file**

When SynthFont starts up for the first time it will ask you to load a midi file, or load one file delivered with the installation package. To load your own file you can either go to the "1 Files / Folders" page and to the Explorer at the bottom and look for the folder with the midi file you want to load. Double-click the file in the files list to open it in SynthFont. Alternatively you can press the Open Midi or Arrangement button in the main toolbar. An Arrangement file is simply a text file with information regarding the settings you want for a particular midi file. When you open a new midi file there will not be any Arrangement file available, but as soon as you change something, like the Payback volume or SoundFonts used, SynthFont will create an Arrangement in memory which you can save (or not). **Note that if the MIDI file you select has an Arrangement that can be found it will be shown at the bottom and the checkbox "Read data from Arrangement as well" is enabled and checked**

### **Creating audio files**

You play a file to the standard audio output (i.e. your audio card and speakers or headphone) by pressing the "Play to Speakers" button in the main toolbar. You also have two more choices: "Play to File" or "Play to Both". "Play to File" will by default create a standard Windows WAV file but other formats are available provided that the required dynamic library files are installed. The speed of creating a file is highest when you use the "Play to File" button, as nothing is sent to the standard output then. "Play to Both" sends audio to the output at the same time. You can let SynthFont convert the WAV file to a compressed file, for example Windows Media Audio (WMA), MP3 or OggVorbis (OGG) by choosing the file format in the save file dialog box.

### **The Arrangement file**

This file contains the name of the midi file for which it was created and a number of additional settings. For example, the VST effects you have installed are stored here. Thus, when you open a new midi file you may find that the VST effects list is empty. If you find that the arrangement is not what you want you can either erase it from the system (it is a file) or you can open the midi file using the "Open Midi or Arrangement" button and uncheck the "Read data from Arrangement as well" check-box.

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## **Color schemes**

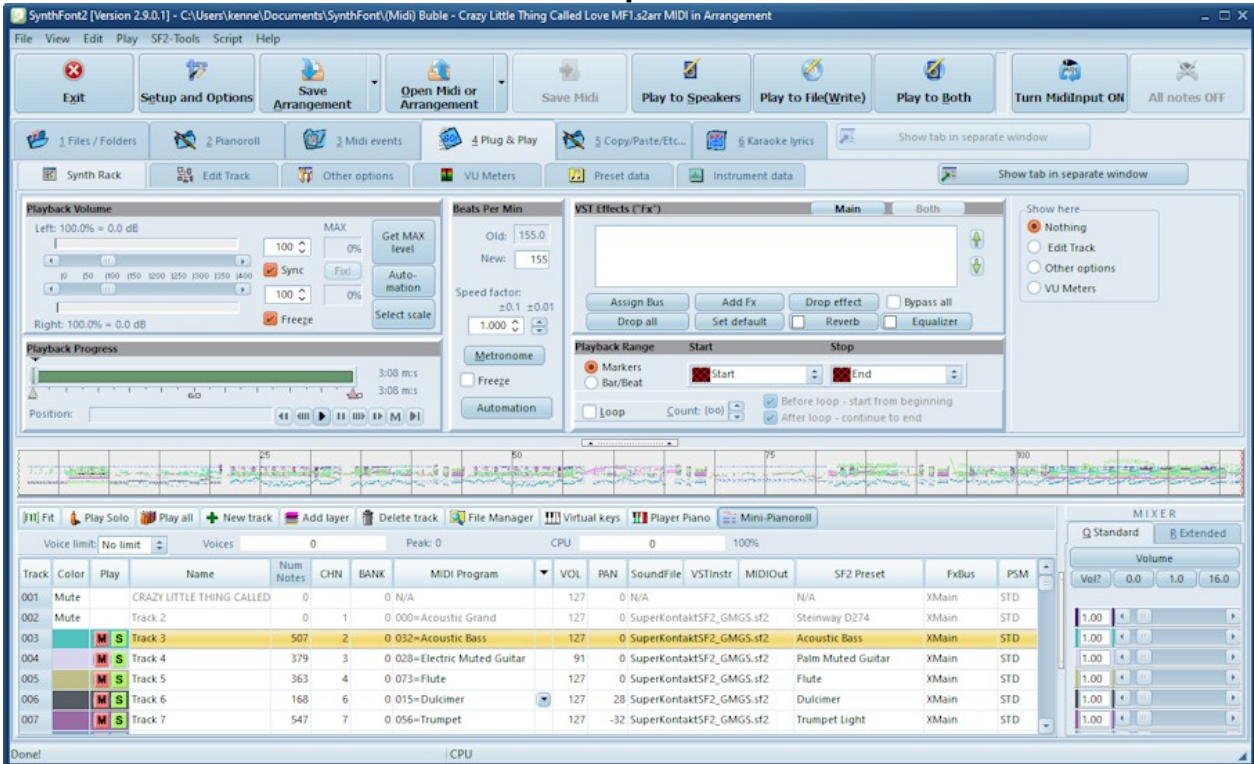
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SynthFont2 supports a wide range of color schemes.

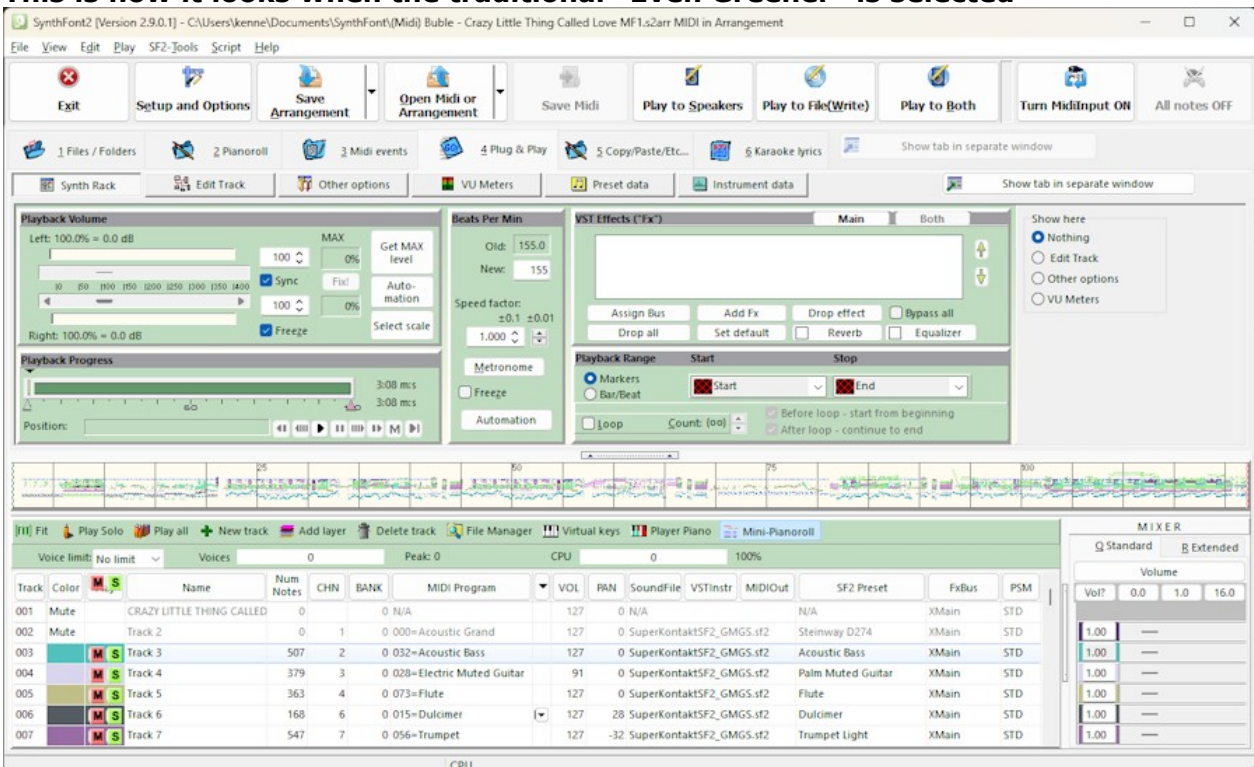
Below are depicted three schemes for the main window. This is the window normally used for playback of a MIDI file.

NOTE: You only see the screen like this, showing the page "4 Plug & Play", when you have a MIDI file loaded. Before that you will see the screen showing "[1 Files / Folders](#)".

**This is how it looks when the scheme "Sapphire Kamri" is selected:**

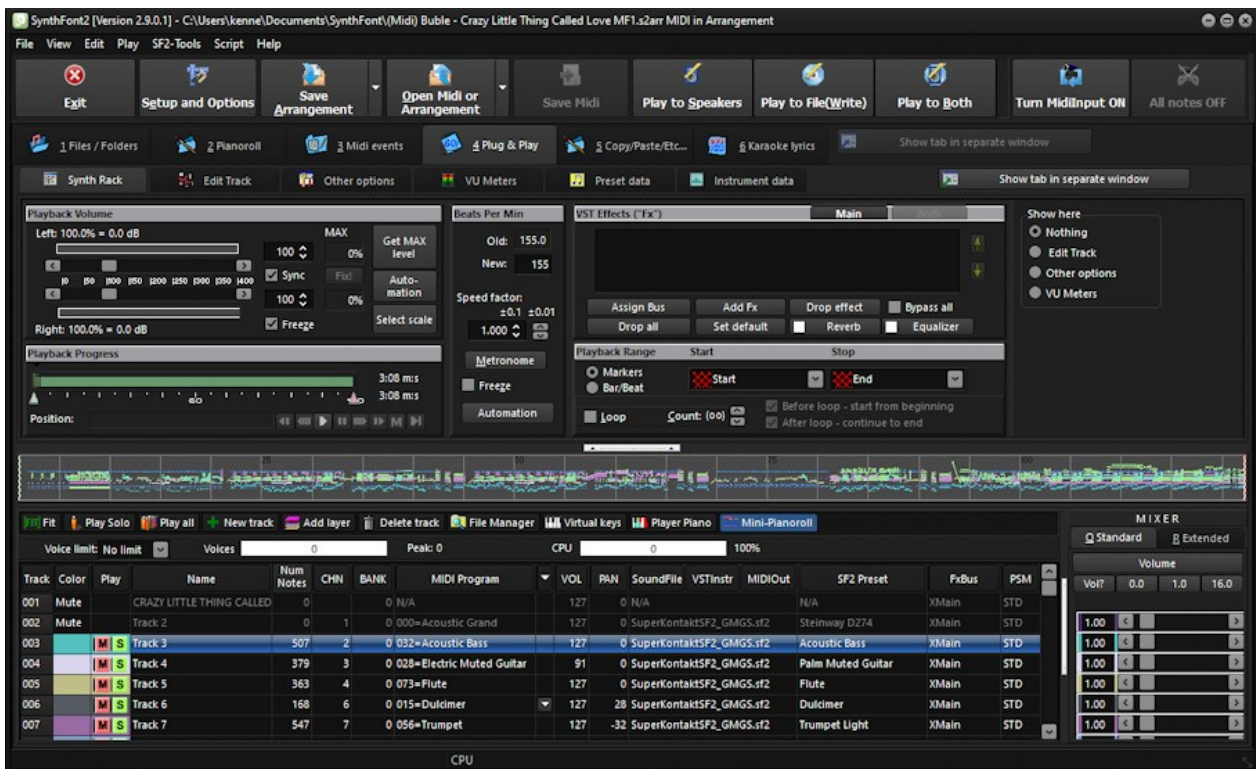


**This is how it looks when the traditional "Even Greener" is selected**

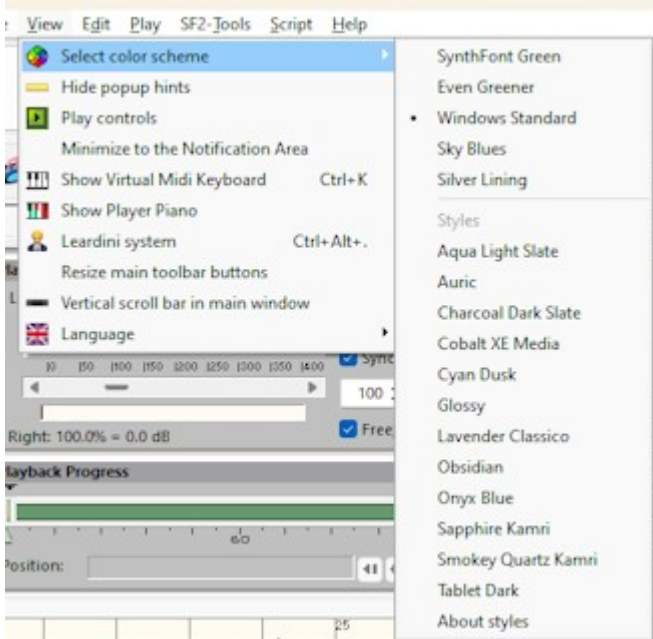


**This is how it looks when "Glossy" is selected**





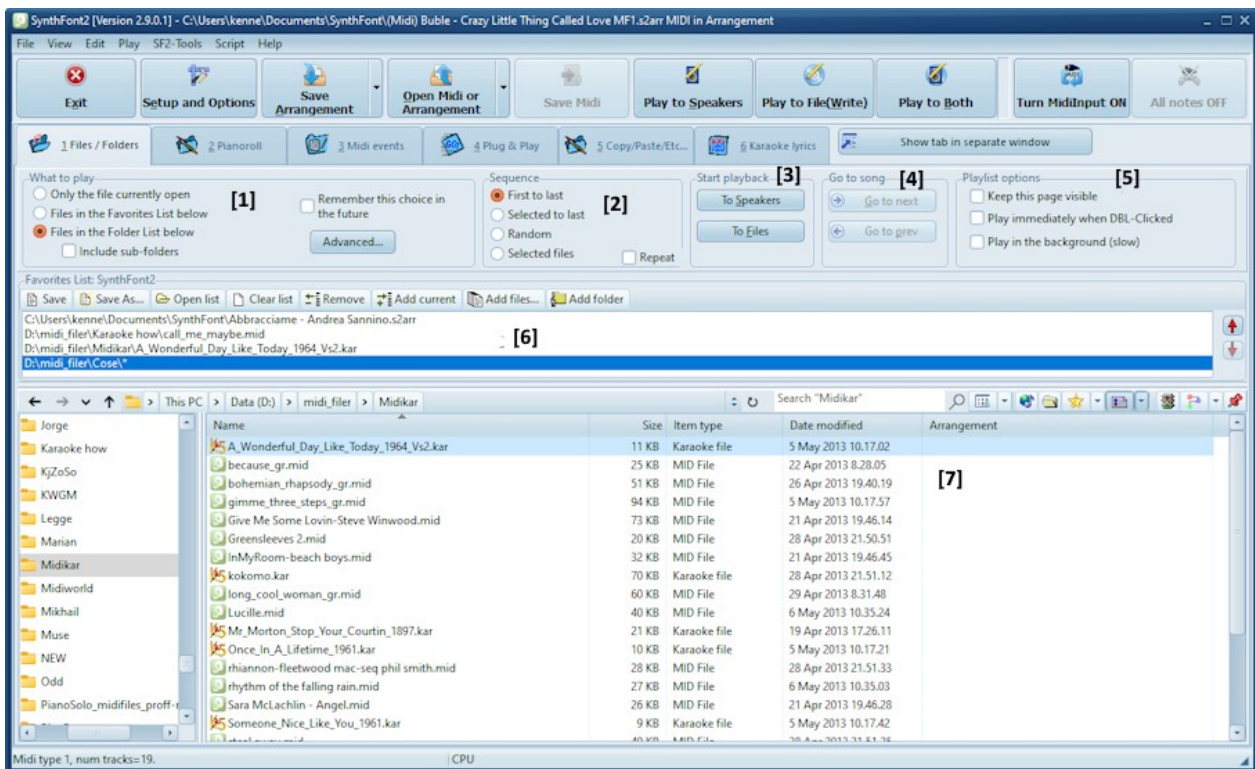
Go to menu **View** and **Select color scheme**:



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## 1 Files & Folder

Page "1 Files / Folders" - The Playlist and file Explorer



This is the Playlist and Explorer view. The Explorer at the bottom is very similar to the standard Windows' Explorer. Here you can navigate among folders where you keep files of interest - MIDI files, Arrangements and SoundFonts. Note the column to the right, showing the name of an arrangement found for a particular MIDI file. If you double-click on the MIDI file, the arrangement will be opened instead.

Also this page is in two parts. At the top is a section where controls for controlling the playback of a list of files. There are two types of lists: one that you create by adding files from the Explorer at the bottom (with a button or drag and drop), and the other list is equal to all files in the current folder in the Explorer.

**[1]** You have three options: 1) only the file open in SynthFont2. This is the default state. 2) Files in the Favorites list [5]. Favorite lists are saved in files. NOTE that the list also can contain a FOLDER. 3) Files in the Explorer folder [6]

The Advanced button is only for creating advanced playlist where the target is to enable playing the same file with various combinations. This feature is superseded by the Scripting feature.

**[2]** Normally a list is played in sequential order, first to last, but here you can select alternatives.

**[3]** In order to start playing from a list you need to press one of these two buttons. If you press any button on the main toolbar ("Play to Speakers" etc) only the currently open file (if any) will be played.

**[4]** Here you can jump to the next or the previous song

**[5]** This group contains a various selection of options: 1) Keep this page visible - if not checked, whenever you double-click in an item in a list to open the file in SynthFont2, the program will switch to page "4 Play & Play". 2) The second choice is quite self-explanatory. 3) If playing from a list seems to grab too much computer resources while working on other task in the PC, try to check this box.

**[6]** The Favorites list is a playlist proper. The list is saved in text files which can be edited.

**[7]** The Explorer view. Top right there are a set of buttons:



In Search "<FOLDER>" you can enter a file name or part of it to search for suitable files.



1. Button and drop-down menu for selecting the view mode
2. Add the selected MIDI file to the Favorites list
3. Open the selected MIDI file, SundFont or folder
4. Press to cycle through the list of favorite folder, use the drop-down menu to pick a folder or edit the list of folders
5. Select the kind of files you want to show
6. This button is a mirror of the checkbox "Play immediately..." in group [5]
7. Preview play. Activate the button and select a file to play it in preview mode
8. If you have lost the location of the file currently open, you can press this to go to the folder for it

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## 2 Pianoroll

### "2 - Pianoroll" - The Pianoroll and Editor



You can use the Pianoroll for editing the MIDI file.

**[1]** is a list of MIDI markers. Usually these are found in the MIDI file, but you can also create your own which can then be saved in the Arrangement or the MIDI file. Click on a marker to move to that region. Double-click to edit.

**[2]** Here are a number of tools and options. In this image all notes for all tracks are now shown in are [5]. You can choose to show only the notes for the currently selected track. Additionally, muted tracks are by default not shown. In order to better see if there are overlapping notes, you may choose to display them with a "tail" at the end. Press the button **[3]** to play the selected track in solo mode. Beneath there is a block of eight buttons, most are self-explanatory. Using these you can erase notes, draw new notes, select multiple notes and change the position and length of notes.

**[4]** To the right is a graph showing the bars and also writing out the markers at their positions. There is also some other related information displayed here.

**[5]** This is the Pianoroll graph. This image shows notes from all tracks (in respective colors) but you can choose to display notes from one single track only. You can click on the keys in the virtual keyboard to sound a note. The graph can show 120 note values or 10 octaves. The keyboard also has 120 keys which you can play on. At the bottom of the screen in section **[12]** there are several alternative and options to make this graph show what you want.

**[6]** This is a Mini Pianoroll similar to the one on [Plug & Play](#). The rectangle shows the currently visible are in the major graph. You can drag it to scroll through the notes.

Below the list of markers you find an array of buttons for basic editing.

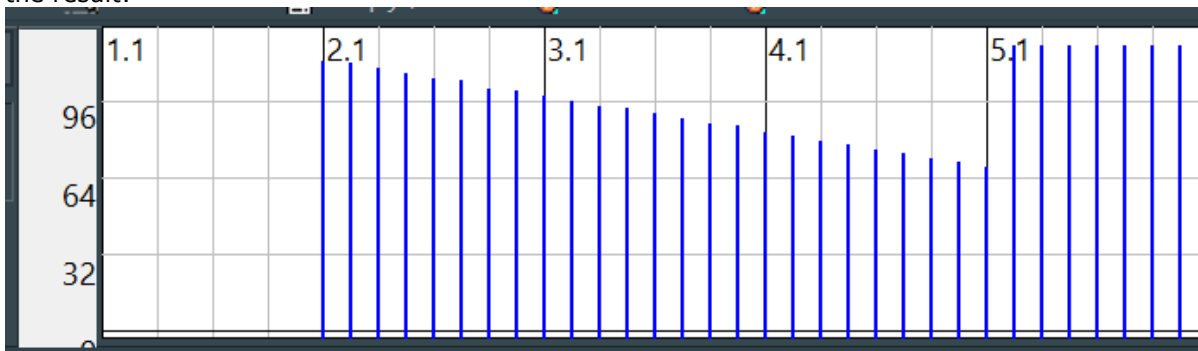
With these buttons you can erase notes, draw new notes, select multiple notes and change the position and length of notes.

At the bottom of this page there is an area that contains tools to change aspects of the Pianoroll note display.

At the bottom is an area which offers six pages with alternative methods and means for editing a MIDI file. The first on is the Controllers window. Shown here is one of many Controllers: "Note Velocity" equal to the note loudness. (SynthFont makes no difference here between self-contained MIDI events like Note Velocity and "real" Controllers, which are equal to a controller MIDI event with sub-detail. In the MIDI events list you see the difference.)

Here is a simple way to change the "Note Velocity" of notes:

Select the "Draw" method Line a then draw a line that crosses the Velocity peaks, somewhere in the graph. You can see this line stretching from top left down to roughly the middle of the graph. Here is the result:



The second page, **Edit note**, can be used to change values for one particular note (the selected note).

The third page, **Draw note**, is automatically displayed when you activate the tool button "☐Insert new note☐ from the array of tool buttons. When you draw a new note in the Pianoroll graph using this tool it will initially get the length set in Draw note, but you can change the note length by moving the cursor left/right before release the mouse button.

The fourth page, **Copy / Paste**, is activated automatically when you select notes using the "☐Select several notes..."☐ tool button in the tool button array. You can copy notes to three internal buffers and to the clipboard, as text. Using the clipboard makes it possible to copy notes between two instances of SynthFont or between two MIDI files.

The fifth page, **Batch edit**, has a number of useful functions to move notes up or down (Transpose), Change note length and Velocity. At first you must select which notes to work on. By default it is all notes in the selected track, but if you have selected notes manually in the Pianoroll, then you can also choose to work with those only. The first function is to move the notes up or down in semitones. There is one special characteristic of this function: you may choose to use it to change the key of the song by having ☐Apply to all tracks☐ checked.

You may change the note length of the selected notes. Be aware that ALL selected notes will get the same length then.

You may change the note velocity of the selected notes. Be aware that ALL selected notes will get the same velocity then, OR get the same offset (☐Up/Down☐ offset).

Finally, you can delete all or the selected notes.

The last page, **Edit track**, is also a kind of batch edit. Here you can move notes back and forth and change the length of all notes by a certain factor (☐stretch☐ or ☐shrink☐.

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## 3 Midi events

### "3 Midi events" - The Midi events list

The screenshot shows the SynthFont2 software interface with the '3 Midi events' tab selected. The main window displays a list of MIDI events for track 2, 'Acoustic Grand Pi'. The list includes columns for event number, bar/beat/tick, when, channel, note, velocity, length, operation, and data. Event 4 is selected, showing a 'Controller -> Pan position (coarse) = 96'. On the right, the 'Edit event' panel is active, showing parameters for the selected event: When (1 bar, 1 beat, 0 ticks), Type (Pan position (coarse)), Value (96), Length (0), and Lyrics Text. Below the 'Edit event' panel is the 'Search and Replace' section with options for event type (Meta Events, Controllers, Notes, Program, Aftertouch, Channel press, Pitch wheel, Any type) and search criteria (Note, Vel, Length).

Here is where you can change the parameter values for a selected event. The labels in the box 'Edit event' will reflect which event you have chosen.

To the left is a list of of MIDI events in the selected track and to the right some tools for editing single events.

In the box 'Show these events' you select which kind of events to show.

You can change the midi channel for all events, but you should avoid to choose a channel used by another track.

in box 'Edit event' there are a few editing features: you can change the timing of an event (☐When☐), the type of the event (if it is a Controller) or the note value for a note, the Value of the Controller (or velocity ☐Vel☐ for a note) and the length of a note.

NOTE that a MIDI note always comprise of two events, the ☐note **ON**☐ event and the ☐note **OFF**☐ event. SynthFont tries to connect the right pairs, but sometimes this is not possible if there are several notes of the same value overlapping.

Surplus events are events that do not change the current value of the parameter.

'Search and Replace' can be used for further filtering of events in order to find only those you want to change.

### New feature in version 2.9.1.0:

You can list events in TWO tracks:

The screenshot shows the SynthFont2 interface. The main window displays a table of MIDI events with columns: #, Bar:Beat:Tick, When, Chnl, Note, Vel, Length, Operation, and Data. The events are listed for two tracks, 2 and 3, both named 'Acoustic Grand Pi'. The right-hand panel contains controls for selecting tracks, saving data, and editing events. The 'Edit event' section shows fields for 'When', 'Type', and 'Value'.

#	Bar:Beat:Tick	When	Chnl	Note	Vel	Length	Operation	Data
0	0001:01:000000		0	-1	3	0	0 METAEVENT ->	Track name = Acoustic Grand Pi
1	0001:01:000000		0	0	0	0	0 Controller ->	Bank Select (coarse) = 0
2	0001:01:000000		0	0	0	0	0 Program	0: Acoustic Grand
3	0001:01:000000		0	0	7	96	0 Controller ->	Volume (coarse) = 96
4	0001:01:000000		0	0	10	96	0 Controller ->	Pan position (coarse) = 96
5	0001:01:000000		0	-1	3	0	0 METAEVENT ->	Track name = Acoustic Grand Pi
6	0001:01:000000		0	1	0	0	0 Controller ->	Bank Select (coarse) = 0
7	0001:01:000000		0	1	0	0	0 Program	0: Acoustic Grand
8	0001:01:000000		0	1	7	96	0 Controller ->	Volume (coarse) = 96
9	0001:01:000000		0	1	10	32	0 Controller ->	Pan position (coarse) = 32
10	0001:03:000000	960	0	83	75	107	Note On	B6
11	0001:03:000000	960	0	95	75	68	Note On	B7
12	0001:03:000000	960	1	59	75	105	Note On	B4
13	0001:03:000000	960	1	71	75	68	Note On	B5
14	0001:03:000020	980	0	64	127	0	Controller ->	Hold Pedal = 127 (ON)
15	0001:03:000020	980	1	64	127	0	Controller ->	Hold Pedal = 127 (ON)
16	0001:03:000068	1028	0	95	0	0	Note Off	
17	0001:03:000068	1028	1	71	0	0	Note Off	
18	0001:03:000105	1065	1	59	0	0	Note Off	
19	0001:03:000107	1067	0	83	0	0	Note Off	
20	0001:03:000147	1107	0	95	75	32	Note On	B7
21	0001:03:000149	1109	1	71	75	30	Note On	B5
22	0001:03:000179	1139	0	95	0	0	Note Off	
23	0001:03:000179	1139	1	71	0	0	Note Off	

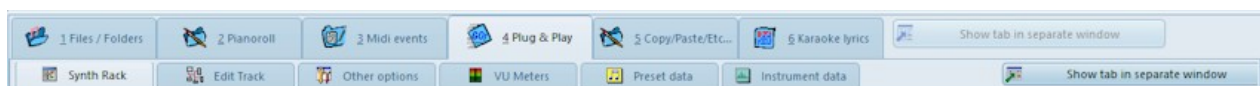
This can be useful for example if the MIDI file contains, for example:

- one track for the left hand on a keyboard and another track for the right hand (like in the image above)
- Karaoke lyrics in two (or more) tracks
- tracks that seem to be copies of each other (i.e. duplicates)

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## Plug & Play

There are two main parts of this window. The upper part contains a set of options you can set for playback and the lower part contains the tracks list



The bottom row in this image contains six tabs for six pages with tools and options related to



**playback:**

- [Synth Rack](#)
- [Edit Track](#)
- [Other options](#)
- [VU Meters](#)
- [Preset data](#)
- [Instrument data](#)

The lower part is the [tracks list](#).

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## Synth Rack



[1] **Playback volume:** There are two sliders you can pull, Left and Right. Normally these are synced to each other and change at the same time. To change them separately you need to un-toggle the Sync button. Above the Sync button there is a Soft button. Toggle this to switch on/off the soft limiter which reduces distortion when the signal becomes out of range.

[2] **Beats Per Minute:** The midi file contains data that defines the BPM for the song. This data may change throughout the song. You can also change the overall playback speed by changing the Speed factor. Use the four up/down buttons to change the factor in units of tenths ( $\square.1\square$ ) or hundreds ( $\square.01\square$ ). You can activate a metronome that will click at the current BPM speed.

[3] **Output VST Effects ( $\square Fx\square$ ):** You can assign third party VST effects to 17 separate lines, or  $\square$ busses $\square$ . The first bus is the Main bus, which is always used by all midi channels. The other 16 busses can be assigned to each midi channel separately. Below the  $\square$ Bus chain $\square$  drop-down list there are six buttons for manipulation of VST effects. You have to install or register VST effects at first in  $\square$ Setup and Options $\square$  before you can use them.

[4] **Playback progress:** The two small triangles below the progress bar can be pulled around to define the Bar/Beat playback range. There are nine small buttons: Back to start, Back one or ten bars, Play/Stop, Pause, Forward to next marker, Forward one or ten bars, Create a new marker (markers can be seen and manipulated in the Pianoroll pane), Go to next song of the playlist, and Set the songs final decay length (the time SynthFont will wait for the last notes do ring off). There is one big button: Player. This toggles the real time Player Piano window.

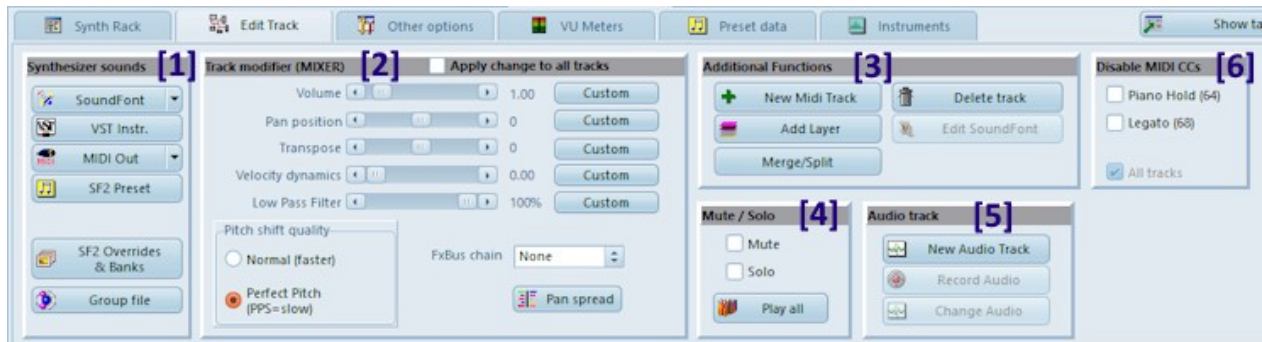
[5] **Playback Range:** Here you can define what part of the tune you want to play. You can select to use Markers, which are either defined in the midi file or later by you (and stored in the arrangement file), or you can select to play an area defined by a set of Bar and Beat numbers. The Playback range is also visible in the playback percentage box to the left, where the markers are show as two vertical lines in the progress bar, and the Bar/Beat start and stop values are shown as two small triangles below the progress bar. If you have selected a Playback range, you may select to loop it a number of times or indefinitely.



[6] Show here: If the main window is wide enough, you may want to show something in the empty region to the right. Select from the list an item, which is then moved from the corresponding tab at the top to this area.

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## Edit track



### Synthesizer sounds

Here you can pick the SoundFont (or similar sound file) for the current MIDI program in the current track. Alternatively, you can here assign a VST instrument instead. NOTE: A VST instrument is always in use for the whole track, for all MIDI program changes, while you can assign different SoundFonts to each MIDI Program change within a track. NOTE: The use of the word "track" here is actually somewhat misleading as the assignments are valid for the MIDI channels. Thus, if two tracks have events for one and the same MIDI channel, they will have the same SoundFonts and VST instruments.

MIDI Out - instead of using the internal synth engine, you can send the MIDI data for a track to an external device

SF2 Preset - choose which Preset to use for the current MIDI program in the current track.

SF2 Overrides & Banks - If you are not satisfied with one or two Presets in, for example, the default SoundFont, you can here define "overrides" or Banks.

Group file - is an alternative to using Overrides. A group file is basically a collection of Presets from a number of SoundFonts. So, if you have one SoundFont you like a lot, but the Saxophone sucks, then create a group file based on this SoundFont and replace the Saxophone with one you like from another SoundFont.

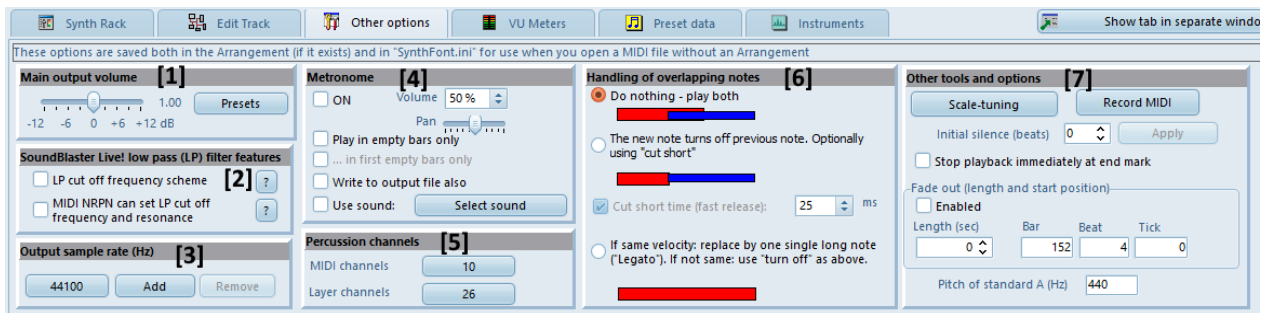
Track modifier (MIXER) in [2] is a "mirror" of certain items the Mixer in the Tracks list, but in a more convenient, user friendly way. The group also contains a few items that are NOT found in the Tracks list's Mixer, like the FxBus (Vst Effects Bus) and the "Pan spread". The latter is a very special feature useful mainly for MIDI files having only a piano track.

In groups [3] and [4] you find a selection of standard track related functions.

Group [5] offers the opportunity to insert a new track into the arrangement: a Audio track. This track will simply contain and play an audio file, in WAV format.

Group [6] offers two Continuous Controller options: There are cases when a CC#64 - Pedal hold - is present in a track, but the Preset you have chosen is not suitable for this effect - turn it off. The same goes for CC #68.

## Other options



**[1] Main output volume.** Apart from the capability to set the Left/Right volume levels in the [Synth Rack](#), here you can set a main level. Note that the scale is in deciBell - 0 means no change.

**[2] SoundBlaster Low pass filter features.** The SoundBlaster and later other derivatives offered a scheme for the low pass filter cut off: The initial frequency for the filter cut off is set to 8500 Hz if not defined by the SoundFont and not modified by the Modulation Envelope or the LFO while the note plays. **MIDI NRPN can set LP cut off frequency and resonance.** If checked, then the initial frequency for the filter can be controlled by NRPN LSB 21 (Initial Filter Cutoff) and the resonance by NRPN LSB 22 (Initial Filter Resonance Coefficient)

**[3] Output sample rate (Hz)**

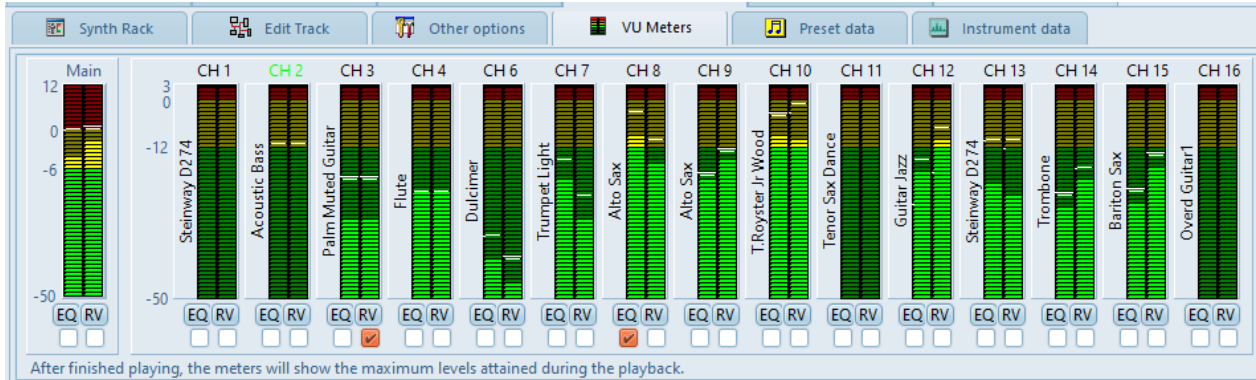
**[4] Metronome.** There are several options here. For example, you can replace the internal sound by a SoundFont Preset.

**[5] Percussion channels.** Normally MIDI channel 10 (range 1-16) is devoted to percussions, but here you can additionally select any other channel for this purpose. NOTE: some MIDI files may contain information that calls for MIDI channels 9 and/or 11 be used for percussions as well.

**[6] Handling of overlapping notes.** This is a rather complicated subject. A MIDI note event always comprises of TWO events: NOTE ON and NOTE OFF. Hence there is a chance that there will be several NOTE ON events for a single note value before and NOTE OFF events arrive. In this case we will have overlapping notes. SynthFont2 offers three schemes for handling this: 1) **Do nothing**, in which case the end result may be unexpected. 2) **The new note turns off previous note. Optionally using "cut short"**. This is mostly the safest and natural alternative as few real life instruments can play several instances of a single note at the same time. 3) **If same velocity: replace by one single long note ("Legato")**. If not same: use "turn off" as above.

**[7] Other tools and options.** This group contains a mixture of other tools related to playback, for example Scale tuning, Fade out and standard pitch value

## VU Meters



This is mostly for visual use only, but each channel has a pair of buttons underneath. The EQ button shows the dialog box for the inbuilt Equalizer, while the RV button shows the inbuilt Reverb. Use the checkboxes to turn the effects on/off.

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## Preset data

Synth Rack	Edit Track	Other options	VU Meters	Preset data	Instrument data																																															
000:064 = Soprano Sax 000:065 = Alto Sax 000:066 = Tenor Sax Dance 000:067 = Bariton Sax 000:068 = Oboe1 000:069 = English Horn 000:070 = Bassoon Barok 000:071 = Clarinet Bb 000:072 = Flute Piccolo 000:073 = Flute 000:074 = Recorder 000:075 = EthnicFlute 000:076 = BottleBlow 000:077 = Shakuhachi 000:078 = Whistle 000:079 = Ocarina	<div>Layers: Global</div> <table><thead><tr><th>Parameters</th><th>1: AltoSaxSus1A_L1</th><th>2: AltoSaxSus1A_L2</th><th>3: AltoSaxSus1A_L3</th></tr></thead><tbody><tr><td>Key Range</td><td>34-89</td><td>34-89</td><td>34-89</td></tr><tr><td>Velocity Range</td><td>0-65</td><td>66-110</td><td>111-127</td></tr><tr><td>Attenuation (+/-)</td><td>-8.00</td><td></td><td></td></tr><tr><td>Pan (+/-)</td><td></td><td></td><td></td></tr><tr><td>Root Key</td><td></td><td></td><td></td></tr><tr><td>Tune, Coarse (x)</td><td></td><td></td><td></td></tr><tr><td>Tune, Fine (x)</td><td></td><td></td><td></td></tr><tr><td>Scale Tuning (x)</td><td></td><td></td><td></td></tr><tr><td>Filter Frequency (x)</td><td></td><td></td><td></td></tr><tr><td>Filter Resonance (+/-)</td><td></td><td></td><td></td></tr><tr><td>Vol Env Delay (x)</td><td></td><td></td><td></td></tr></tbody></table>	Parameters	1: AltoSaxSus1A_L1	2: AltoSaxSus1A_L2	3: AltoSaxSus1A_L3	Key Range	34-89	34-89	34-89	Velocity Range	0-65	66-110	111-127	Attenuation (+/-)	-8.00			Pan (+/-)				Root Key				Tune, Coarse (x)				Tune, Fine (x)				Scale Tuning (x)				Filter Frequency (x)				Filter Resonance (+/-)				Vol Env Delay (x)						
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Filter Resonance (+/-)																																																				
Vol Env Delay (x)																																																				

This page is for information only. It shows the layers in the current SoundFont Preset (or the VST instrument editor if a VST instrument is selected).

To the left are the most important parameters listed. (Parameters are often called *generators* in SoundFont literature). Each layer in the Preset corresponds to one *SoundFont Instrument*.

There is always a Global layer, even if it is empty. If a value is defined in the Global layer, but not in the layer itself, then the global value will be used. ,

The values define in this table are combined with the corresponding value in the Instrument used by a certain formula.

See [SoundFont struture](#) for more information.

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## Instrument data

Parameters	Splits: Global	1: ASanA_sus_#2	2: ASanA_sus_#3	3: ASanA_sus_#4	4: ASanA_sus_#5	5: ASanA_sus_#6	6: ASanA_sus_#7	7: ASanA_sus_#8	8: ASanA_sus_#9	9: ASanA_sus_#10	10: ASanA_sus_#11	11: ASanA_sus_#12	12: ASanA_sus_#13	13: ASanA_sus_#14	14: ASanA_sus_#15
Key Range		57-59	69-71	81-83	60-62	72-74	84-87	63-65	88-89	66-68	78-80	75-77	51-53	54-56	34-50
Velocity Range															
Attenuation (dB)	5.0														
Pan (%)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sample Mode (Loop?)	1														
Root Key		58	70	82	61	73	85	64	89	67	79	76	52	55	40
Tune, Coarse (st)	0														
Tune, Fine (c)	0														
Scale Tuning (c)															
Filter Frequency (Hz)															

This page is for information only. Instrument data shows the Splits for an Instrument.

To the left are the most important parameters listed. (Parameters are often called *generators* in SoundFont literature). Each split references one single audio sample.

There is always a Global split, even if it is empty. If a value is defined in the Global split, but not in the split itself, then the global value will be used. ,

The values define in this table are combined with the corresponding value in the Preset by a certain formula.

See [SoundFont struture](#) for more information.

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## Copy/paste

This is a tool that has many functionalities.

Top left is a group called "Show these events" [1]. Here are all different kinds of MIDI events found in the file listed. The events are grouped into Standard MIDI events, Controllers and Meta events. Only event types actually found in the file are shown. Here you can select which

events to show in the track's Pianoroll at the middle of the screen ([8]). By default a copy, move or delete procedure will always act on all events checked in box [1]. Uncheck All shown events in box "Copy/Move" [2] if you want to act on notes only.

With the mouse pointer, click and draw a rectangle in the "Pianoroll" graph to select notes and other events. You can choose in [1] which kind of events to show and copy. Click in the rectangle and move it to where you want to paste the events. In the above image a rectangle has been drawn around a number of events in three tracks, from bar 6 up to bar 10. This rectangle with the events can now be moved around to any position in the grid or a certain action can be performed.

Group [3] contains the some information and two radio buttons for alternative choices. This box is enabled only if the region you want to paste into is not void of events. In this case you can choose between Merge old and new and Delete old (replace with new). In the first case the events will be mixed together, in the second case new events will replace the existing ones ("old").

The region to paste into may be empty, but still you can choose between two paste methods: paste into the empty region and leave everything else untouched, or move events above (later) than this region up a certain amount. The second approach can be compared to INSERT text in a text editor, when pasting text. Group [4] gives you some options. Check the box Move events up to move all events a desired amount. You may choose to move only the events in the tracks you are pasting into, or all tracks at the same time. Here you can also determine how much the events should be moved. Normally this amount would correspond to the length of the region you have defined to copy and paste, but not always, as we shall see later.

Group [5] "From tracks" shows some statistics related to the selected region. It will list all selected tracks and numbers of events. In front of each track there will be a check box which you can toggle. For example, we have selected tracks 7, 8 and 9 but only want to copy tracks 7 and 9, so we uncheck track 8 in this list then. To the right of this list there are four action buttons. Before you Paste anything, move the selection to the position you want to paste into. NOTE: even if you have selected to copy from tracks 7-9 you can still decide if you want to paste everything into the other three tracks (wherever they are).

In the middle of this window you find data for the tracks, [7]. Starting from left: check boxes for muting a track during playback, name of track (and color), default MIDI Program (you can change it here), and finally the Pianoroll [8] - actually several - one for each track. The Pianoroll for a track does not only show notes (shown as black horizontal lines) but also the other selected events, as colored vertical lines. Above the tracks Pianoroll there is an area [11] that displays bar numbers and Karaoke lyrics - if available and check box in [9] is checked.

The bottom part contains, from left: [9] a list with markers, a button for adding a new marker, a button to start playback from the selected marker, and a button to pause playback. If you want to add a marker at a certain position, do this: click somewhere in bar area [11]. A small down arrow will appear. You can move this around before creating the new marker. Press "Add marker" when you are ready.

**There is a more indepth tutorial in a PDF file.**

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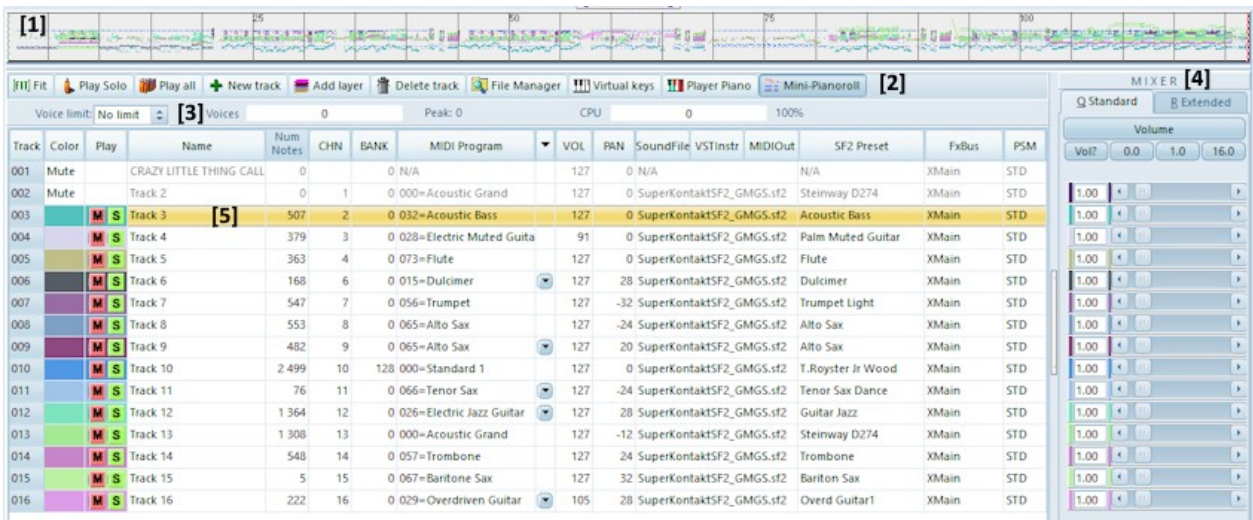
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## Tracks list

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### The Tracks list





SynthFont2 is midi channel oriented - like any hardware synth. MIDI files are often organized in tracks. SynthFont2 handles tracks, but is very much channel aware, which means that many things you do in the arrangement effects all tracks referencing a certain MIDI channel. For instance, when you assign a SoundFont to a track you actually assign it to the MIDI Channel, which means that the SoundFont will change for all other tracks using the same MIDI Channel. Each track can reference any number of channels and two or more tracks can share the same channels. There are 16 channels in the standard MIDI implementation. This is an unnecessary limitation for a software synth, and SynthFont2 internally can use a larger number of channels. Currently 32 channels are available, the additional 16 are in "Slot 2". (MIDIi channels are usually numbered 0-15 (and 16-31 in Slot 2) or 1-16 (and 17-32 in Slot 2) (you can choose the numbering scheme in Options). The percussion channel is by default channel 9 (or 10), although in SynthFont2 you can freely assign a percussion bank to any channel.

In the image above the graph [1] shows all notes in all enabled tracks in a Mini Pianoroll view. You can toggle the button in the toolbar [2] to show/hide this view.

Buttons in the toolbar [2]:

1. Fit the contents of the tracks list to the available space. Normally this is done automatically.
2. Play the select track(s) solo (thus, mute all other tracks). This selection can be stored in the arrangement file. NOTE that solo only means that notes in other tracks are muted. Midi controllers are still active and may cause unexpected effects, like pitch bend or a midi program change.
3. Play notes in all tracks.
4. Create a new midi track. This will have to be saved in the midi file as a new track. You will have an option to copy notes from the selected track:
5. Add a layer to a track. A layer shares the MIDI data with the parent track, but can have different SoundFonts and Presets as it makes use of an "extended" MIDI Channel
6. Delete the selected track
7. Show the Sound File Manager. This is a tool you can use to audition the Presets in your collection of sound files in order to choose the most suitable SoundFonts and Presets for the tune.
8. Show/hide the virtual piano. Use the virtual keyboard for listening to instruments in the SoundFont.
9. Show/hide the Midi Pianoroll at the top

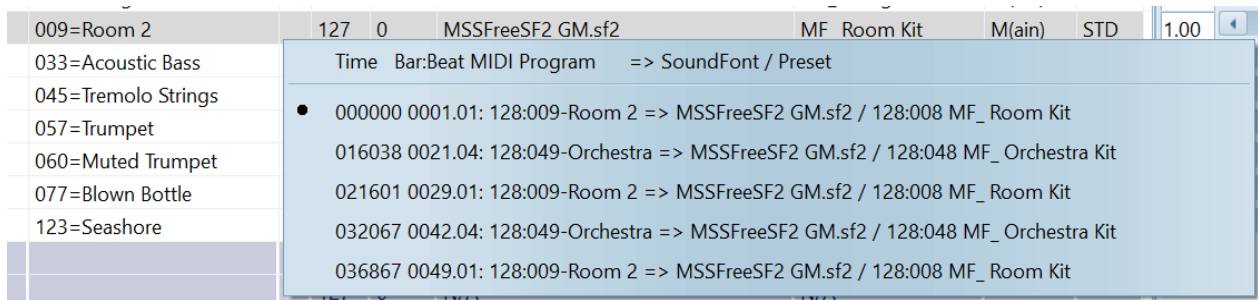
In area [3] you can choose to limit the maximum number of simulanous Voices being played ("polyphony"), This can help to reduce stutter in the audio output. NOTE: "Voices" is not the same as notes, as often a note is build up of several layers, or voices. NOTE: when playing to a file (creating an audio file) you should select to have no limitation.

The MIXER [4]: There are two versions to use. See [Mixer](#) for more details

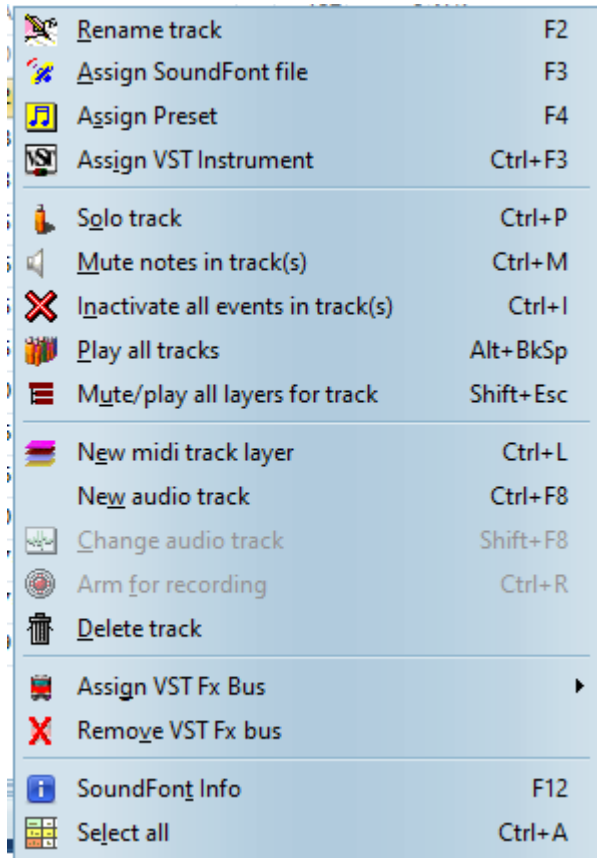
The tracks list [5] shows a list of all tracks in the MIDI file. Some MIDI files have all data in one single track, but in this case SynthFont2 creates separate tracks for all MIDI channels used. Here is where you can select for example the SoundFont and Preset to be used for a particular MIDI channel.

In the tracks list header:

1. Track – press this button to open a tool for rearranging the tracks. The change can be save in either the midi file or the arrangement file. The column contains check boxes for muting tracks.
2. Color – change the colors used by the tracks
3. Play – this button toggles the Mute state (M) for the currently selected tracks
4. Name – press to change the name of the track. The change can be saved in either the MIDI file or the Arrangement file.
5. CHN – press to change the channel value. You can use this button to switch between the two channel slots.
6. BANK – press to display the bank setup. Banks are explained in details in another section.
7. MIDI Program – press to pop up a list of General Midi programs (all 128). You can use this to change the program defined in the MIDI file. NOTE that this is NOT an Arrangement feature and you need to save the MIDI file (or in the Arrangement if MIDI is saved in it) for this change to become permanent. Also NOTE that a track may contain more than one MIDI program change. Press the button with a down arrow (e.g. Track 6 in the above tracks list) to display a list of MIDI Programs and which SoundFont preset is assigned. In the example below is shown a case with when the percussion track has five MIDI program changes at five different moments (Bars and Beats)
8. Down arrow – normally the button with an arrow is displayed in the tracks list only when the track contains multiple MIDI Program changes. You can here select to have this button displayed for all tracks. This makes it easy to see when a program changes occurs and which SoundFont and Preset is assigned.
9. VOL – press to display a tool to define and insert MIDI Volume changes. These are Continuous Controllers and must be saved in the MIDI file (or in the Arrangement if MIDI is saved in it)
10. PAN – press to display a tool to define and insert MIDI Pan changes. These are Continuous Controllers and must be saved in the MIDI file (or in the Arrangement if MIDI is saved in it)
11. SoundFile – press to search for a suitable SoundFont (or other Sound File). You can also select a file from the history drop-down list
12. VSTinstr – press to select a VST instrument to be used instead of a SoundFont
13. MidiOut – press to select a MIDI Out Port to send the midi data to. SynthFont2 will not internally play the data then,
14. SF2 Preset – press to select the Preset to be used if you want to override the default MIDI Program choice.
15. FxBus – press to select a VST effects bus chain from the menu.
16. PSM – press to select Pitch Shifting Method (PSM stands for Pitch Shifting Method). Pitch Shifting is used to create audio for notes which are not stored in the SoundFont. The more the original audio data has to be shifted away from its root note, the bigger is the risk for artificial secondary noise, or **aliasing** effects. The better PSM method called **Perfect Pitch** gives better results in cases like these, but is more CPU power consuming than the standard method. Use carefully!



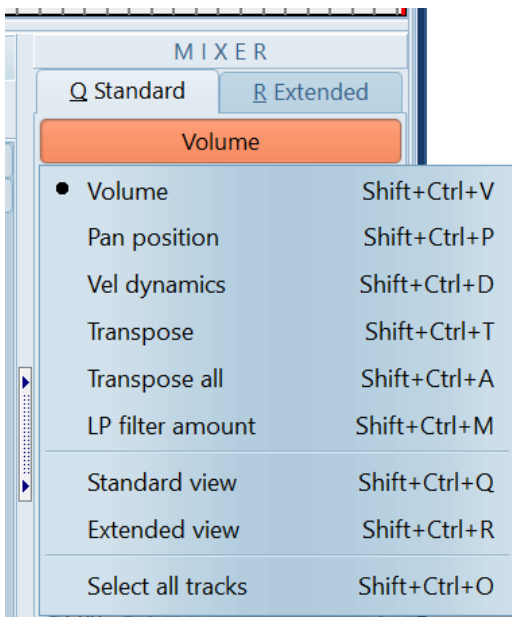
The tracks list has a context sensitive menu that can be displayed by using the right mouse button:



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## Mixer

There are two alternative mixers: the “Standard” and the “Extended”. The Standard mixer lets you edit only one parameter at a time. You can choose the parameter from the drop-down list at the button at the top (reading “Volume” in the image above). There parameters are:



**Volume:** Changes the overall volume of the TRACK (not for the MIDI channel). Note that the range is much larger than the normal MIDI channel volume range.

**Pan position:** Changes the overall pan position of the TRACK (not for the MIDI channel).

**Vel Dynamics:** Each note has its own velocity value. The Vel Dynamics changes the range of these velocity values. Note that the lower limit is always 0.0 (N/A = not applied) but the upper limit is much higher than the MIDI upper limit.

**Transpose:** Changes the note values up/down in steps of semitones

**Transpose all:** Changes the key of the tune up/down in steps of semitones. Note that the notes in a percussion track will NOT change!

**LP Filter amount:** The amount of signal sent to the Low Pass filter. 0% = none, 100% = all.

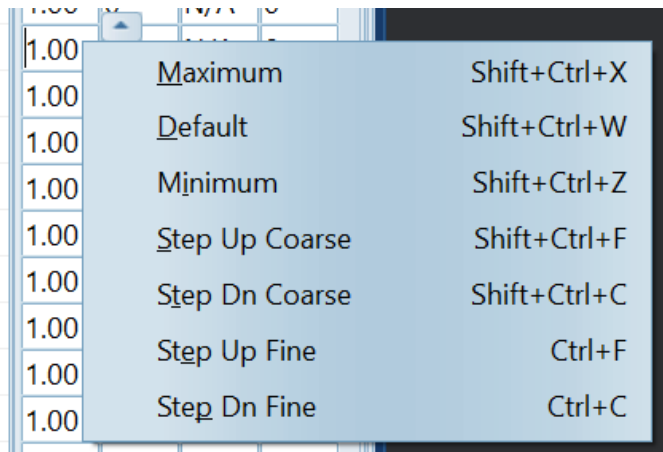
**Select all tracks:** Select in order to change in all tracks,

*The extended Mixer:*

Standard (Q)		Extended (R)	
Vol	Pan	Dyn	Tra
1.00	0	N/A	0
1.00	0	N/A	0
1.23	0	N/A	0
1.00	0	N/A	0
1.00	0	N/A	0

You can either edit the values directly in the cells or use the scrollbar.

Both Mixers offer a context sensitive menu (right mouse button) for setting some default values:



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## SoundFont structure

### The SoundFont structure

The overall structure of a SoundFont is described here. The *Preset* (also often referred to as an *Instrument*, a *Program*, or a *Patch*) is the feature that is visible to the outside. Presets are combined into Banks. Each Bank can hold 128 Presets and these are numbered from 0 to 127. There can be 128 Banks (numbered 0-127). Hence the total number of Presets in a SoundFont file is large enough. Very few SoundFonts have more than a few Banks in use. Usually these are *variation banks*, i.e. there may be a slightly different Acoustic Piano in Bank 1 Preset 0 (1:0) than in 0:0.

A Preset may have one or more *Layers*. In the simplest case there is only one Layer, which then has to cover the whole key range and also the whole velocity range. The sound data used for a Layer is called an *Instrument*. The Instrument structure usually contains all the information needed to create the sound. Hence, in the simplest case, the Preset has only one Layer, referring to one single Instrument. NOTE: Instruments are pooled, meaning that several Presets may share the same Instrument. This is cost effective but also a risk. When you edit an Instrument, be sure to check what happens with ALL Presets making use of this Instrument.

A Layer may contain parameters (usually called *generators*) that can alter the sound of an Instrument. So, although two Presets may share one single Instrument, they may sound differently due to the Layer's data.

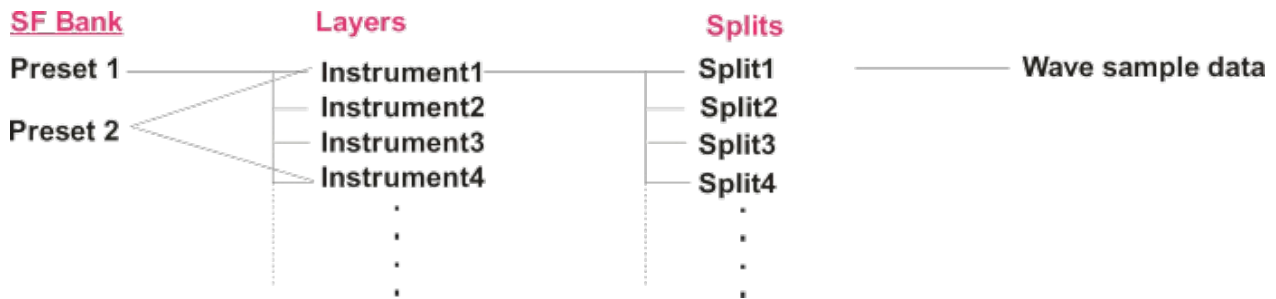
Layers are often used to separate key and velocity ranges, but this is no rule. Many Presets are *artificially* created by layering several Instrument sounds on top of each other. Another very common use is to add stereo to the sound with Layers. The wave samples used in a SoundFont file are always monophonic. A stereophonic wave sample is hence split up into two monophonic wave samples (labeled e.g. *Horn (L)* and *Horn (R)*) and Instruments may be created for each these horn sounds. In the layers, these two horn Instruments are then included on top of each other, but panned hard left and right. Artificial stereo may be created in the same way by having one instrument in two layers slight tuned off up and down (and panned, of course).

Instruments, again, are structured in *Splits* (often referred to as *Zones*). Usually, a Split is used for a certain key and/or velocity range. A split always uses one single wave sample for the sound and has generators that can alter the sound. Instruments often need to make use of several splits and samples for a particular sound. For a real world instrument, the pitch range is so large that it cannot be recreated in a synthesizer just by manipulating one single sample. Hence, many samples are recorded and assigned a root note. Typically one sample can cover a key range equal to root note  $\pm 5$  semitones. Velocity splits are also common. Typically the same sample is used, but with different frequency filter and envelope parameters.



One sample may be used by many splits and Instruments. Again, this is cost effective but potentially a risk. If you replace one sample with another then it may have unexpected side-effects.

All in all, it is important to understand that there are MANY parameters (usually called ☐generator) that are involved when creating a Preset sound, and it may be a very CPU power consuming task.



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## Keyboard shortcuts

Ctrl+A = Save midi file  
 Shift+Ctrl+A = Show mixer "Transpose All"  
 Ctrl+Alt+A = Save midi file as  
 Ctrl+B = Unassigned  
 Ctrl+C = decrease mixer value, fine  
 Ctrl+Shift+C = decrease mixer value, coarse  
 Ctrl+D = Define Default SoundFont Overrides  
 Ctrl+E = add vst effect to bus  
 Shift+Ctrl+E = remove vst effect  
 Ctrl+F = increase mixer value, fine  
 Ctrl+Shift+F = increase mixer value, coarse  
 Ctrl+G = edit group file  
 Ctrl+H = Define default SoundFont  
 Ctrl+I = activate/inactivate track  
 Ctrl+J = Shift BPM factor down 0.01 step (fine)  
 Ctrl+K = show/hide Virtual Keyboard  
 Ctrl+L = add track layer  
 Ctrl+M = mute/unmute notes  
 Shift+Ctrl+M = show mixer "Low Pass filter amount"  
 Ctrl+N = new midi  
 Ctrl+O = reopen midi file  
 Ctrl+P = play track solo  
 Shift+P = pause  
 Shift+Ctrl+P = show mixer "Pan"  
 Ctrl+Q = stop playing  
 Ctrl+R = arm for recording audio  
 Ctrl+S = save arrangement  
 Shift+Ctrl+S = save arrangement as  
 Ctrl+T = Show/hide Karaoke Lyrics  
 Shift+Ctrl+T = show mixer "Transpose"  
 Ctrl+U = Shift BPM factor up 0.01 step (fine)  
 Ctrl+V = playback volume up  
 Shift+Alt+V = playback volume down  
 Shift+Ctrl+V = show mixer "Volume"  
 Ctrl+W = show Sound File Manager  
 Shift+Ctrl+W = set mixer value to default  
 Shift+Ctrl+X = set mixer value to maximum

Shift+Ctrl+Y = set mixer value to minimum  
 Ctrl+X = Show list of keyboard shortcuts  
 Ctrl+Y = Unassigned  
 Ctrl+Z = Unassigned  
 Ctrl+SPACE = Pause

[Alt+]A = Save Arrangement  
 [Alt+]B = play to both (speakers and file)  
 Alt+C = set loop count  
 Alt+D = open Edit menu  
 [Alt+]E = open Setup dialog  
 Alt+F = open File menu  
 Alt+G = play next song (playlist)  
 Alt+H = open Help menu  
 Alt+I = Unassigned  
 Alt+J = Unassigned  
 Alt+K = Unassigned  
 [Alt+]L = toggle Loop ON/OFF  
 Alt+M = toggle metronome (see Other Options)  
 Alt+N = Unassigned  
 [Alt+]O = open an arrangement or midi file  
 Alt+P = open Play menu  
 [Alt+]Q = show mixer standard view  
 [Alt+]R = show mixer combo view  
 [Alt+]S = play to speakers  
 Alt+T = open SF2-tools menu  
 Alt+U = Unassigned  
 Alt+V = open View menu  
 Alt+W = play to file  
 Alt+X = exit  
 Alt+Y = Unassigned  
 Alt+Z = Freeze BPM factor

Alt+1 = Show "Files / Folders" pane  
 Alt+2 = Show "Pianoroll" pane  
 Alt+3 = Show "Midi events" pane  
 Alt+4 = Show "Plug & Play" pane  
 Alt+4 = Show "Copy/Paste etc" pane

F2 = rename track  
 F3 = assign soundFont to program change in track  
 F4 = assign soundFont preset to program change in track  
 F5 = Setup and Options  
 F6 = go to Tracks list  
 F7 = ??

Alt+BkSp = restore mute and activation to default

HOME = start/stop playback to speakers (instead of SPACEBAR, See Setup to change)

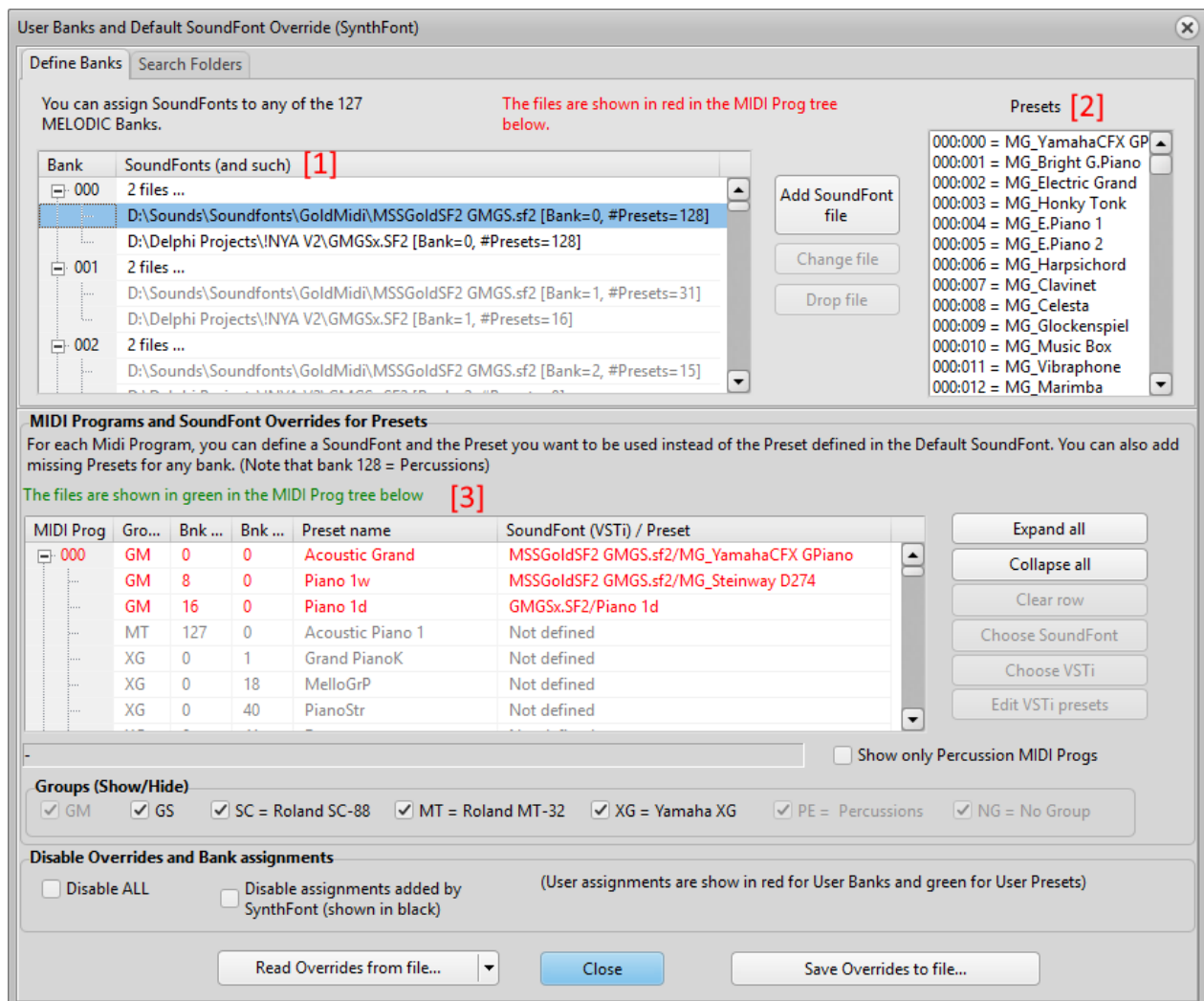
Additionally, for the Virtual Keyboard:

A = Note C  
 W = Note C#  
 S = Note D  
 E = Note D#  
 D = Note E  
 F = Note F  
 T = Note F#  
 G = Note G

Y = Note G#  
H = Note A  
U = Note A#  
J = Note B  
K = Note C' (next octave)  
O = Note C'#  
L = Note D'  
P = Note D'#  
1-9 = Select octave

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## SoundFont banks and overrides



SoundFonts may contain presets in BANKS (see [SoundFont structure](#)) and MIDI files may contain requests for MIDI programs also in banks.

You can add files to any Bank in the list in [1]. If you select a file, you can see the Presets in [2]. In section [3] you can see a more extensive list of which Bank:Preset pairs are available. It is also possible to add files into this section. Here you can also add a VST instrument into a

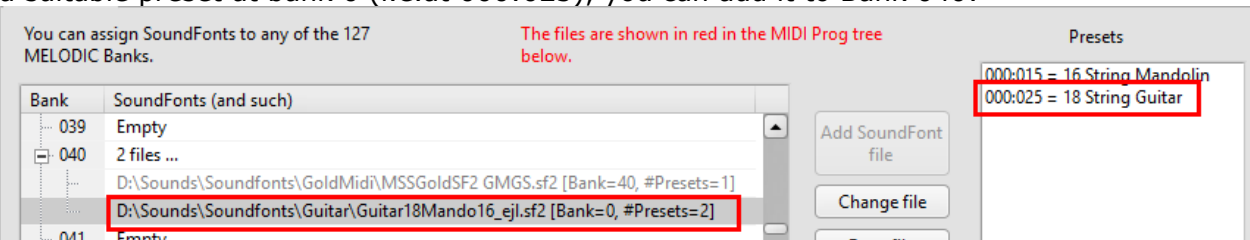
particular Bank:Preset.

This image shows some tracks in a MIDI file with requests for MIDI programs in bank:

Track	Color	Play	Name	Num Notes	CHN	BANK	MIDI Program	VOL	PAN	SoundFile	VSTInstr	MIDIOut	SF2 Preset
001	Mute		Bach Prelude VII	0		0	N/A	127	0	N/A			N/A
002		M S	Track 2	495	0	40	025=Steel String Guita	111	7	MSSGoldSF2 GMGS.sf2			MG_Acoustic Guitar
003		M S	Track 3	283	1	40	025=Steel String Guita	127	-40	MSSGoldSF2 GMGS.sf2			MG_Acoustic Guitar
004		M S	Track 4	436	2	3	048=String Ensemble	113	0	MSSGoldSF2 GMGS.sf2			MG_Orchestral Str.
005		M S	Track 5	226	3	96	101=FX 6 (goblins)	119	0	MSSGoldSF2 GMGS.sf2			MG_Goblin
006		M S	Track 6	220	4	40	025=Steel String Guita	124	40	MSSGoldSF2 GMGS.sf2			MG_Acoustic Guitar
007		M S	Track 7	245	5	40	025=Steel String Guita	127	-12	MSSGoldSF2 GMGS.sf2			MG_Acoustic Guitar

Tracks 2, 3, 6 and 7 want to make use of a 'Steel String Guitar' preset found in Bank 40. However, the Default SoundFont - here 'MSSGoldSF2 GMGS' - although containing many banks, does not contain this particular bank and preset pair. There are three ways to give SynthFont2 a chance to select a preset in this case:

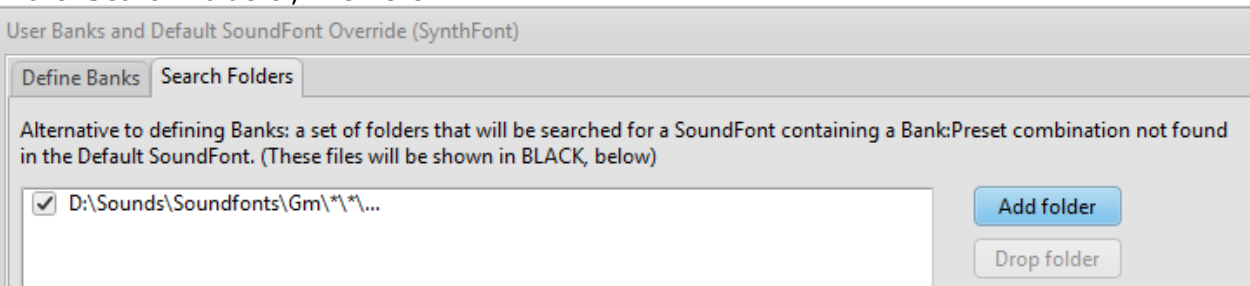
1. Add a SoundFont to the list [1] in addition to the files already present ('MSSGoldSF2 GMGS' and 'GMGSx'). This SoundFont must contain the required bank:preset (040:025)
2. If you do not have a file with a suitable sound at 040:025 but you have a SoundFont with a suitable preset at bank 0 (i.e.at 000:025), you can add it to Bank 040:



Here the file 'Guitar18Mando16\_ejl.sf2' has been added to bank 040. As can be seen in the Presets list ([2]), it contains two presets. When you close this window, the file will be assigned to the tracks:

Track	Color	Play	Name	Num Notes	CHN	BANK	MIDI Program	VOL	PAN	SoundFile	VSTInstr	MIDIOut	SF2 Preset
001	Mute		Bach Prelude VII	0		0	N/A	127	0	N/A			N/A
002		M S	Track 2	495	0	40	025=Steel String Guita	111	7	Guitar18Mando16_ejl.sf2			18 String Guitar
003		M S	Track 3	283	1	40	025=Steel String Guita	127	-40	Guitar18Mando16_ejl.sf2			18 String Guitar
004		M S	Track 4	436	2	3	048=String Ensemble	113	0	MSSGoldSF2 GMGS.sf2			MG_Orchestral Str.
005		M S	Track 5	226	3	96	101=FX 6 (goblins)	119	0	MSSGoldSF2 GMGS.sf2			MG_Goblin
006		M S	Track 6	220	4	40	025=Steel String Guita	124	40	Guitar18Mando16_ejl.sf2			18 String Guitar
007		M S	Track 7	245	5	40	025=Steel String Guita	127	-12	Guitar18Mando16_ejl.sf2			18 String Guitar

The third way to give SynthFont2 a chance to find a preset for 040:025 is to define one or more 'Search Folders', like here:



Here one folder (with subfolders) have been added to the list, and when you close the window, the tracks will be updated to reflect this change:

Track	Color	Play	Name	Num Notes	CHN	BANK	MIDI Program	VOL	PAN	SoundFile	VSTInstr	MIDIOut	SF2 Preset
001	Mute		Bach Prelude VII	0		0	N/A	127	0	N/A			N/A
002		M S	Track 2	495	0	40	025=Steel String Guita	111	7	HD.sf2			NyInStl
003		M S	Track 3	283	1	40	025=Steel String Guita	127	-40	HD.sf2			NyInStl
004		M S	Track 4	436	2	3	048=String Ensemble	113	0	DSoundFont Ultimate Vers			Bellatrix Cello Sect
005		M S	Track 5	226	3	96	101=FX 6 (goblins)	119	0	ColomboGMGS2a.sf2			Bell Choir
006		M S	Track 6	220	4	40	025=Steel String Guita	124	40	HD.sf2			NyInStl
007		M S	Track 7	245	5	40	025=Steel String Guita	127	-12	HD.sf2			NyInStl

NOTE that also MIDI programs for two more tracks (4 and 5) have recieved SoundFont Presets from files found in the Search Folder.

See also the '[SoundFont Manager](#)' feature.

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## SoundFont Manager

The Sound File Manager is a tool to help you find a suitable SoundFont for a specific MIDI Program and Bank. This image shows a tracks in MIDI file that makes use of Banks:

Track	Color	Play	Name	Num Notes	CHN	BANK	MIDI Program	VOL	PAN	SoundFile	VSTInstr	MIDIOut	SF2 Preset
001	Mute		Bach Prelude VII	0		0	N/A	127	0	N/A			N/A
002		M S	Track 2	495	0	40	025=Steel String Guita	111	7	MSSGoldSF2 GMGS.sf2			MG_Acoustic Guitar
003		M S	Track 3	283	1	40	025=Steel String Guita	127	-40	MSSGoldSF2 GMGS.sf2			MG_Acoustic Guitar
004		M S	Track 4	436	2	3	048=String Ensemble	113	0	MSSGoldSF2 GMGS.sf2			MG_Orchestral Str.
005		M S	Track 5	226	3	96	101=FX 6 (goblins)	119	0	MSSGoldSF2 GMGS.sf2			MG_Goblin
006		M S	Track 6	220	4	40	025=Steel String Guita	124	40	MSSGoldSF2 GMGS.sf2			MG_Acoustic Guitar
007		M S	Track 7	245	5	40	025=Steel String Guita	127	-12	MSSGoldSF2 GMGS.sf2			MG_Acoustic Guitar

The Default SoundFont ('MSSGoldSF2 GMGS') does not contain a preset for 040:025 and the default preset at 000:025 will be assigned. You can use the SoundFont Manager to search for another file with a suitable preset:

Track	Color	Play	Name	Num Notes	CHN	BANK	MIDI Program	VOL	PAN	SoundFile	VSTInstr	MIDIOut	SF2 Preset
001	Mute		Bach Prelude VII	0		0	N/A	127	0	N/A			N/A
002		M S	Track 2	495	0	40	025=Steel String Guita	111	7	OmegaGMGS2.sf2			NyIn&Stl

At first, make sure you have defined at least one Search Folder in [1].

By default, SynthFont2 will list the preset for the selected track, here '025 Steel String Guitar'.

Track	Color	Play	Name	Num Notes	CHN	BANK	MIDI Program	VOL	PAN	SoundFile	VSTInstr	MIDIOut	SF2 Preset
001	Mute		Bach Prelude VII	0		0	N/A	127	0	N/A			N/A
002		M S	Track 2	495	0	40	025=Steel String Guita	111	7	MSSGoldSF2 GMGS.sf2			MG_Acoustic Guitar
003		M S	Track 3	283	1	40	025=Steel String Guita	127	-40	MSSGoldSF2 GMGS.sf2			MG_Acoustic Guitar
004		M S	Track 4	436	2	3	048=String Ensemble	113	0	MSSGoldSF2 GMGS.sf2			MG_Orchestral Str.
005		M S	Track 5	226	3	96	101=FX 6 (goblins)	119	0	MSSGoldSF2 GMGS.sf2			MG_Goblin
006		M S	Track 6	220	4	40	025=Steel String Guita	124	40	MSSGoldSF2 GMGS.sf2			MG_Acoustic Guitar
007		M S	Track 7	245	5	40	025=Steel String Guita	127	-12	MSSGoldSF2 GMGS.sf2			MG_Acoustic Guitar

but you can change the desired preset by pressing the button [2]. You can also do free search for a name in [3].


The list in [4] is by default sorted according to the File name, but to change the order, press the heading item. For example, press the Bank heading button to sort in ascending Bank order.



Bank	Preset name	File name	Path
035	12StrGtr	Stgiga's HiDef Soundfont (20...	D:\Sounds\Soundfonts\Gm\Stgiga's HiDef Soundfo..
040	Nyln&Stl	HD.sf2	D:\Sounds\Soundfonts\Gm\HD.sf2
040	Nyln&Stl	HiDef.sf2	D:\Sounds\Soundfonts\Gm\HiDef.sf2
040	Nyln&Stl	HiDef2.sf2	D:\Sounds\Soundfonts\Gm\HiDef2.sf2
040	Nyln&Stl	OmegaGMGS2.sf2	D:\Sounds\Soundfonts\Gm\OmegaGMGS2.sf2
040	Nyln&Stl	Stgiga's HiDef Soundfont (20...	D:\Sounds\Soundfonts\Gm\Stgiga's HiDef Soundfo..
040	Nyln&Stl	Stgiga's HiDef Soundfont (20...	D:\Sounds\Soundfonts\Gm\Stgiga's HiDef Soundfo..

Here we can see that there are only a few files that contain the preset 040:025. Select one and press the button 'Assign to track' in section [5].

Here we selected the file 'OmegaGMGS2.sf2',

Track	Color	Play	Name	Num Notes	CHN	BANK	MIDI Program	VOL	PAN	SoundFile	VSTInstr	MIDIOut	SF2 Preset
001	Mute		Bach Prelude VII	0		0	N/A	127	0	N/A			N/A
002			Track 2	495	0	40	025=Steel String Guita	111	7	OmegaGMGS2.sf2			Nyln&Stl

See also the ['SoundFont banks and overrides'](#) feature.