

# **GNMIXER**

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# 1 GNMixer

## 1.1 Purpose

### Purpose

GNMIXER is a Windows (tm) compatible application that

- reads standard MIDI files (.mid, .smf, .kar) in format 0 and 1
- plays MIDI file through your Windows MIDI device (soundcard, module, keyboard)
- accepts and performs control and program changes from user during playing
- stores MIDI file with the changes of settings.
- mute channels that you want to play self along with the MIDI song accompaniment
- transpose song notes so that it is identical to a given score sheet
- modify song speed to be more close to the speed of your singer
- mix your MIDI song during playing it live

The control changes control the sound, volume, pan (stereo balance), reverb and chorus effects. This allows a simple way to mix MIDI file settings quickly, without knowledge about MIDI file format, score sheets. Just change the settings with mouse clicks in a table and listen to the sound.

## 1.2 Conditions

In order to be allowed to use this software the user must accept the end user license agreement. It will be displayed at start of GNMixer and must be accepted by clicking Accept button once.

Read the end user license agreement in file:  
gnmixeren\_eula.txt

Read more about copyright and distribution rules in file:  
copyright.txt

## 1.3 Suggestions / comments / bug reports / questions

Homepage: <http://www.gnmidi.com> (here you find newest GNMixer version and all my MIDI software)

EMAIL: [info@gnmidi.com](mailto:info@gnmidi.com)

Support is available only for registered users at [support@gnmidi.com](mailto:support@gnmidi.com), telephone support is not available.

Bug reports, comments, suggestions also from testers welcome.

Report abuses to [abuse@gnmidi.com](mailto:abuse@gnmidi.com)

## 2 Installation

### 2.1 Installation

This program is developed for use with Microsoft Windows versions Windows 7 and Windows 8 and Windows 10. It does not run under Windows 3.x and older. It is currently not tested with other Windows versions like Win98, NT, Vista.

*Windows installer:*

Choose the Windows installer (.msi) to install GNMixer application into your program folder. If you already have an older version installed you first need to deinstall it using the Windows Control Panel (deinstall program).

The installation will create shortcuts for the GNMixer application and playlist application in your Start menu and on your desktop.

*zip archive:*

Unzip the content of gnmixer.zip into a new folder (e.g. use Windows extraction assistant in Windows Explorer menu or use a Zip tool like InfoZip, WinZip ...).

Start gnmixer.exe with Windows Explorer by clicking on the Gnmixer.exe.program item.

For future use you should add the program item GNMIXER.EXE to one of your desktop groups (or create a new one), use Windows Explorer to create a shortcut item on the desktop (right mouse opens a context menu).

After ordering a license you will get more information how to install your personal license file. This will remove the registration reminder dialog and enabling full version instead of demo version.

### 2.2 Deinstallation

MSI installation: use function "deinstall program" of Windows and remove the file gnmixer.ini from your "My Documents" folder

ZIP: Remove GNMixer installation folder and gnmixer.ini in your "My documents" folder (in older GNMixer versions gnmixer.ini could be in your Windows folder).

## 3 Usage

### 3.1 Start application

#### Starting GNMixer

Start the software by opening gnmixer.exe in your GNMIXER folder with Windows Explorer.

#### Demo reminder

In demo a registration reminder will appear. Wait till it shows the OK button and read the information. If you accept the usage terms then press ok to enter the software, else use cancel to abort and delete the software from your computer.

#### Full version

In registered version the software shows the registration name at bottom line. If the displayed name

does not match your name then you are not allowed to use the software, close it and delete the software from your computer immediately.

### **Program state without file loaded**

Now the software shows a table that is currently empty because no MIDI file is loaded yet.

## **3.2 Open MIDI song**

### **Open a MIDI file**

Use "Open" in file menu or toolbar (Ctrl-O) and choose a MIDI file (.mid or .kar).

### **If loading fails**

If the file is not a standard MIDI file or if it is corrupt then it won't load. Try GNMIDI Shareware which has many features to inspect the file content and has also an operation to repair corrupt MIDI files.

### **Loading successful**

After successful loading of your MIDI file, the table will be filled with initial settings of the MIDI song. The table cell colors change when the setting changes during playing or by user changes.

### **Setting autoplay**

This option can be set in settings menu. When checked then the MIDI file will be played directly after using open.

## **3.3 First time initialisation**

### **Choose a MIDI device for playing**

The player menu lets you choose a MIDI device for playing. MidiMapper is the default MIDI device your computer. If the MIDI player doesn't sound at playing then check if the correct MIDI device is selected here and that the volume settings on your computer are not too low.

### **Choose a set of sound programs**

There are text files with file extension .set that contain sound program addresses that are supported by certain devices. gm.set should be compatible with all General MIDI compatible MIDI devices. For special keyboards or modules a new .set file with new addresses and sound names could be created by user and loaded. The .set definitions are used to identify the sounds from a MIDI file and to choose sounds from a list for assigning new sounds to tracks.

*Hint:* You may download some .set program definitions for special keyboards and modules made by users at <http://www.gnmidi.com> . If you made a new .set file for your own device then you could share it with other users. Send your working .set file and device name by email to [info@gnmidi.com](mailto:info@gnmidi.com) If you want to include your name or email address inside the .set file then you can add your info in a comment  
e.g.

```
; PSR-9000 sound programs  
; made by Henry Sample 2002
```

## 3.4 MIDI player

The player menu and toolbar offers operations to play, start or stop MIDI file playing (spacebar key)

pause	pauses a MIDI file during playing
stop	stops playing, restarts at song start next time
backward	jumps some seconds back (gnmixer.ini setting SkipSeconds defines number of seconds)
forward	skips some seconds within song and continues to play at this position.

After moving or pausing all settings till the new song position are replayed, so that the song state is up-to-date. This could take short time during playing.

The colors of cells could change if certain tracks change settings during song playing. For each playing track its activity is shown in column mute. Tracks that play only very short notes (e.g. drums) might not show this activity in mute column because the visible period is too short. Tracks that are muted don't show activity.

Bottom side of window displays current play time, song duration, current tempo, transposing state, used sound program list, registration info.

## 3.5 Modify settings

### Setting values

Some table cells contain values e.g. volume 127

These cells contain also a triangle symbol at a horizontal position within the cell that is relative to the value range.

For the volume 127 example the volume value range is 0-127 and for value 127 the triangle symbol is shown at right side of the cell.

For volume 0 the symbol is shown at left side of the cell.

For volume 64 the symbol is shown in center of the cell.

All other values are shown between.

### Change settings

You can change the value directly by clicking with left mouse button on to a new position within the cell, more left for smaller values,

more right for larger values. For cells that contain values you can also click right mouse button into cell and edit the value using edit or slider control. Use OK button to change the cell. The triangle position changes immediately if the change was successful and the modified setting is played through your player that you can listen while song is playing. The modified setting is remembered by song, so after restarting the song player (or moving backward) the new settings are heard.

### Track numbers

The Trk. column shows number of track. This can be same number for all rows if a MIDI song contains several channels in one track (e.g. MIDI format 0 merges all data in track 1).

### Channel numbers

The Ch. column shows channel number 1-16 used by this track or is empty if the track contains only non-channel depending data (e.g. song lyrics, system exclusive data, text comments ...).

*Hint:* Be careful with different tracks that use same channel because the MIDI device will play the merged data on only one channel, so it can't play different sounds or settings on same channel.

### Setting assignment

All modifications of settings are assigned to the recent setting change within the song. If the setting

was not initialized within the song then a new initialization at song position 0 is inserted so that also the notes at beginning of song are affected by the change.

### 3.6 Mute tracks

You can mute (turn off) sound of tracks by clicking into cells of column mute. The muted tracks show an off symbol ("o") instead of note playing activity. You can unmute a muted track by clicking again into the cell (even during playing).

Muting is a very interesting feature: you could mute the melody track and play it live on your keyboard while the accompaniment is played through keyboard by this software.

Save operation ignores the mute settings. Muting is a help to be able to listen to less than all tracks at once to better be able to mix settings.

### 3.7 Solo track

You can solo a track so that only this tracks notes and settings are played. The solo track is marked as "o" in the solo column cell. During this phase all other tracks are muted. Another click into solo or mute column will unsolo and play the tracks that were played before soloing.

Save operation ignores the solo setting. Use this to listen to one track only and change settings when not disturbed by other tracks playing.

### 3.8 Octave tracks

Octave can have values between -2 and +2. The small triangle horizontal position within the cell shows the current setting relative to the cell width. Click within the octave column cell to change the setting. Click left to change it to -2, right to change it to +2, center to change it to 0, and other positions to values between. Click right mouse button into this column to edit the value with a slider.

Octave affects note height playing in this track:

- 2 changes all notes height by 2 octaves (24 halftones) down.

- 1 changes all notes height by 1 octave (12 halftones) down.

- 0 does not change original note height.

- +1 changes all notes height by 1 octave (12 halftones) up.

- +2 changes all notes height by 2 octaves (24 halftones) up.

Save operation changes all notes of this track according to the octave setting. This setting is useful when the new sound of a track is too deep or too high.

### 3.9 Assign sounds

This column shows name of current program (sound address) of each track. It can be empty if the track didn't initialize this setting.

#### Change current sound

At left and right side there are arrows displayed. Click on the arrow to change the sound quickly to the next or previous sound within the

current loaded .set definition.

Click in middle of the cell to open a dialog where to select a program address from a list or the address can be entered by values (program 0-127, msb bank 0-127, lsb bank 0-127). If the sound of this track can be changed then the new sound name is shown within the cell and the following notes are played by this sound (at least till song or user changes the sound at some song position).

If you are using a keyboard that is connected to your computer and a MIDI recording device driver is installed then you can also use

Active MIDI input for choosing a sound program from your keyboard. program/sound dialog shows blinking \* if active sound is available, i.e. midi data is received from your midi input device.

### **active midi input**

Before first use you should select the MIDI input device for active input. Menu Player/Active MIDI input device ... offers list of available input device. Here you can also turn off active MIDI input if you don't want it. This setting will be stored for future program sessions.

Active midi input is currently supported in main table view program choose dialog. A blinking \* symbol is shown regularly if MIDI data is received from your MIDI device.

In main table view the channel of MIDI input is important, changes on keyboard are applied only to the channel of the incoming commands.

In program choose dialog channel of midi command is ignored the change will be applied to the table row that you selected before.

If you see the \* blinking then you can choose a program on your keyboard and if your keyboard echos the midi program change on your MIDI cable GNMixer will notice the change and enter the address of the sound in to the address fields PROGRAM, MSB bank, LSB bank. If the sound is known by current loaded program set, the corresponding sound name will be shown directly.

If the sound is not known by program set then it will be shown as "PRG## MSB## LSB##" with numbers from address fields.

*Hint:* some buttons on your keyboard might send many controller changes at once (e.g. Reset, Start, Stop, change mode, load song ...).

Pressing them during GNMixer editing might perform unwanted changes when using active MIDI input.

*Hint:* The active MIDI input is useful if your keyboard offers buttons and sliders (or touchscreen display controllers) in the song or midi

play mode that allow to change individual settings of channel (sound program, volume, pan, reverb, chorus) comfortable.

### **New Sound definition**

After entering a new program into address fields or by using active midi input, press OK to change the sound within current song. If the sound is not known by program set, a dialog for defining sound will occur. Here you can enter sound name and tell if it is an instrument sound or a drum kit. If you don't want to define the sound now or don't want to modify the current loaded program set, choose cancel.

After OK the new sound will be added to current program set and the current program set file will be updated. A backup copy of program set file (.bak) will be made.

### **Creating own program set of sounds**

Copy one of the existing sound .set files into new folder and if wanted rename it.

Load the program set in GNMixer. After entering a new sound address in program dialog you can define the new sound and definition will be added to your own .set file.



You should not define new sound if the current loaded program set is not intended for the device or device mode that you are currently using.  
E.g. if you loaded `xg.set` and you are using keyboard that has more sounds than standard `xg` offers then you should copy `xg.set` to a new filename or folder and here you can define new sounds that are specially available on your own device. Don't modify `xg.set` directly it might be overwritten if you upgrade to a future GNMixer version in future.

**Warning:** When installing an upgrade of GNMixer be sure that your modified files are not overwritten, because GNMixer upgrade will contain original `.set` files and full installation of upgrade will overwrite files that are existing in GNMixer folder.

*Hint:* For creating own sound program set special for your own keyboard, create a new folder with your keyboard name and copy an existing `.set` file that works best with your keyboard model into this folder, you can rename it if you want and you can modify the text after "description" if you like with a text editor.

If your keyboard or MIDI player is GM2 compatible start with copy of `gm2.set` if it is XG compatible (Yamaha) start with copy of `xg.set` if it is GS compatible (Roland) start with copy of `gs.set`

Use `gm.set` for GM only (it forces to use only GM sounds (no other soundbanks) and GM standard drumkit).

If you created a working `.set` file for your certain midi device and would offer it for using by other GNMixer users you can send the `.set` file to [info@gnmidi.com](mailto:info@gnmidi.com) by email.

## 3.10 Volume setting

This column shows current volume level of each track. It must be in range 0-127. It can be empty if the track didn't initialize this setting.

The triangle is shown at a horizontal position relative to the volume value. Click right mouse button into this column to edit the value with a slider.

Active input is supported for channel volume setting.

Volume of a track is also depending on expression controller and velocity setting of each individual note. So this setting might be already at level 127 (full volume) and sound silent. This strange case is an authoring fault, expression or velocity values are too small. For such cases use a MIDI sequencer to edit expression or velocity values. GNMIDI Shareware could help in such cases, it has ability to increase velocity values of a certain channel or all channels.

## 3.11 Effect settings

### pan (stereo balance) setting

This column shows current pan level of each track. It must be in range -64..+63. It can be empty if the track didn't initialize this setting. The triangle is shown at horizontal position relative to the pan value. This setting allows a stereo mixing, use negative values for playing more sound through left speaker (triangle symbol more at left side), positive values for playing more through right speaker (triangle symbol more at right side) and 0 for playing same amount through both speakers (triangle symbol at center of cell). Click right mouse button into this column to edit the value with a slider.

Active input is supported for channel pan (balance) setting.

### reverb effect setting

This column shows current reverb effect level of each track. It must be in range 0-127. It can be empty if the track didn't initialize this setting.

The triangle is shown at horizontal position relative to the reverb value. Click right mouse button into this column to edit the value with a slider.

Active input is supported for channel reverb setting.

### chorus effect setting

This column shows current chorus effect level of each track. It must be in range 0-127. It can be empty if the track didn't initialize this setting. The triangle is shown at horizontal position relative to the chorus value. Click right mouse button into this column to edit the value with a slider.

Active input is supported for channel chorus setting.

## 3.12 Transposing

Player menu offers to change current transposition setting between -12 .. +12 halftones. All notes are played some halftones lower (negative values) or higher (positive values) than withing the original song. It is possible to change this during song playing.

Save operation changes all notes except those in drum channel 10 depending on this setting.

## 3.13 Tempo

Extra menu offers some methods to change midi tempo that is currently responsible for current speed of the song.

Tempo dialog lets choose a bpm (beats per minute) value between 40 and 255. The tempo change will be applied after OK is pressed, cancel abort the tempo change dialog.

Increase tempo increases current midi tempo by 1 bpm.

Decrease tempo decreases current midi tempo by 1 bpm.

The tempo changes are assigned only to the tempo setting within midi file that is before current player position. If the midi file does not contain a tempo setting (default tempo 120 bpm) then a new tempo setting will be inserted at beginning of song. The tempo change will be overridden by next tempo setting that is inside the MIDI file.

The current song tempo (bpm, beats per minute) is displayed in status bar.

Tempo changes are saved to MIDI file during save operation.

## 3.14 Total volume

The volume bar on bottom of the table is positioned at current maximum volume setting. It can be used like a usual scrollbar and the changes affect the volume settings of all tracks. Uninitialized track volume is treated as value 100. Total volume changes are done relative to current maximum track volume level by increasing or decreasing all track volume values at once.

The volume values are only changed if the change can be applied to all tracks without exceeding

volume value range 0-127. E.g. if one track has currently volume value 0 then it is not possible to reduce the total volume by any amount. If any track has currently volume 127 then total volume can currently not be increased. Change track volume individually if limits for total volume changes are reached. When dragging the volume bar to any direction the bar position slides back to the limit that is possible if limit is exceeded. E.g. if current min. volume value is 3 and volume bar position is dragged to a position that is smaller than 3 away from current maximum volume value then volume bar stops at value (maximum-3) and all track volume values are reduced by 3.

Summary:

Total track volume can be increased till new maximum value reaches 127.

Total track volume can be reduced till new minimum track volume reaches 0.

Menu setting **volume channels** can be used to select channels that are effected by volume bar changes (default: all channels).

### Setting volume channels

This dialog lets choose between all channels or a combination of selected MIDI channels 1-16. When the volume bar position is changed then these selected channels are volume changed at same amount. The maximum position and modify range depends on the selected channels.

## 3.15 Karaoke text

### karaoke view on/off

MIDI files could contain song words that are synchronized to song playing. In this case song words are displayed during playing in a line below parameter table. The words can help to find positions within the song. If the word display is not wanted it can be turned on in menu View/Karaoke. To display words turn this option on with same menu item.

## 3.16 Save modified song

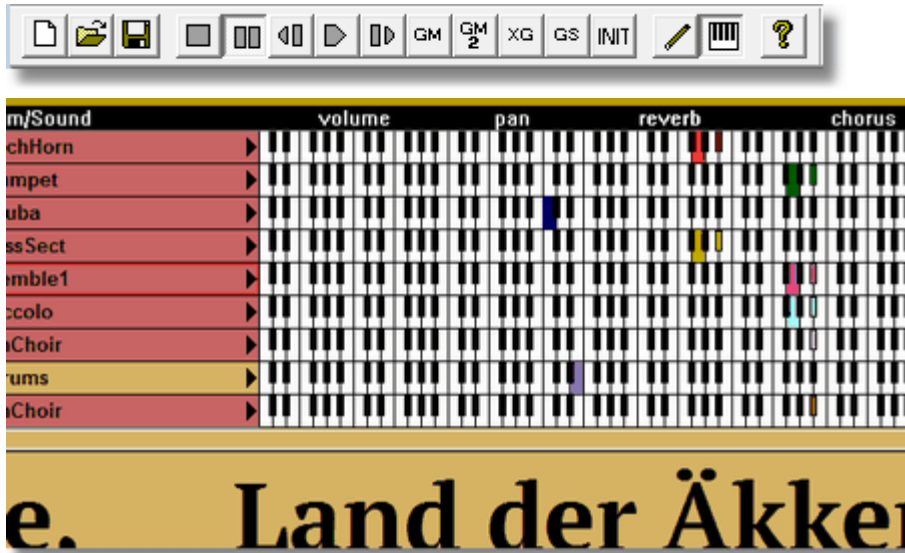
This operation is only available after registering this software. Save As lets choose a file where the result MIDI song is to save. Save overwrites current loaded MIDI file after asking if this is really wanted and a backup of old file is generated (.bak).

**Demo version** doesn't allow to overwrite your original file because it saves only 60 seconds of your song. Use menu File/Save As to save first 60 seconds of your modified song to check that this software stores your changes correctly. For using unlimited save operation please register the software.

You should keep the original file for case that you need the old settings for any reason in future!

Save writes a MIDI file in same format as the loaded file format. It writes all tracks that were available in loaded file and includes all setting modifications that were applied during the last session. It changes notes according to setting changes in column octave and menu setting transpose.

### 3.17 Keyboard View



With the **keyboard toolbar symbol** or key combination **Ctrl+K** you can **display a keyboard view** which displays the pressed keys during playing the song.

With the **pencil symbol** or **Ctrl+K** you can turn off the keyboard view. In menu View you find options to turn on/off the keyboard view.

The keyboard will be placed on the settings table right side of the column Program/Sound. You can still change the settings of the columns by **double clicking** into the column and row with left mouse button or single click right mouse button. This will open the dialog to modify the chosen setting.

If you are using **solo and mute options** in the table then also the turned off channels will be hidden in the keyboard.

With the displayed pressed keys it is very easy for a talented musician to find out the melody from the displayed keys.

*Hint:* menu settings offers an option to show a bigger toolbar for huge screens

### 3.18 New song

Closes current song after asking if modifications should be saved first. The table is empty and ready for loading new song or reloading same song with original settings.

### 3.19 Close song

If menu setting "ask for saving when song modified" is turn on then a dialog appears that asks if you want to save the modified song.

When the setting is off then it is assumed that you don't want to save modified song (e.g. maybe if you modify song only for playing then saving the changes might not be necessary for you).

## 3.20 Playlist

### open or activate Playlist window

With key F4 (or menu View/playlist ...) you can open the playlist window. Additional F4 will switch between the GNMixer and playlist window.

You can position the playlist window so that it does not overlap the mixer window. The position will be stored in program settings and will be remembered also for next program starts.

### close playlist window

Activate playlist window with F4 if necessary. Press <esc> key or close button and the playlist window will hide. You can open it later again with F4, it does not forget the currently loaded playlist.

### load an existing playlist file

Click on Load button in the playlist window (or Alt-L key) and choose a playlist file (\*.lst) that you created with playlist editor before. It will list all the songs contained in this playlist in the listbox. If some files were moved or do not exist anymore then the playlist load operation will warn about these files. In this case you should open this playlist file with playlist editor playlist.exe which gives you possibilities to check and modify song entries.

### play next song from playlist

Activate the playlist window and start to play the next song with <space> key. The selected song will be loaded into the mixer and starts to play. State of menu option "playlist active while playing" decides which window will be active after using this operation. After using this operation the selected song will be moved to the end of the list (only for this session, the playlist file will not be modified).

### option playlist active while playing

When you play songs from playlist then it is the users choice if the mixer window or the playlist window should be active for input.

When the song settings usually are not modified during playing then it is probably better that the playlist window stays active (=> check the option).

When you want to modify song settings while playing (e.g. adjust volume, change tempo ...) then you should better make the mixer window stay active (uncheck the option).

### load next song from playlist into mixer

Activate the playlist window and press <enter> key to load the selected song into the mixer. The mixer window will be activated. The song will not start automatically to play, you can use this for changing song settings before playing. Press <space> key to play the song loaded in mixer.

After using this operation the selected song will be moved to the end of the list (only for this session, the playlist file will not be modified).

### caching song file before playing

The probably next song from playlist (currently selected in list) will be loaded into computer memory after approximately 30 seconds while the current song is playing in foreground. This can speed up the loading of the next song.

### searching a song title in playlist

If the playlist might be longer then finding a song manually (by scrolling) might be difficult. Enter some characters (e.g. word) that are available in the song title (or song filename) that you want to find. Every time entering a new character the list of matching songs are listed only. In shorter list you can select the song.

After playing (<space> key) or opening (<enter> key) the selected song the full list content will be shown again (with the currently activated song entry moved to end of list). The full list content can be shown also by deleting the search term (Shift+left or Shift+right key helps to select the search term quicker and then the selected term can be deleted with delete key).

### **playlist editor**

playlist.exe application can be used to create or modify a playlist. It can add single files or a folder that contains midi files to the list. The song entries can be sorted by moving entries up or down inside the list. The properties of an entry shows and lets modify song title. The check button can be used to check if all playlist songs are still available which is important before a performance. When the songs and playlist are moved to a new computer then you can let it search the new locations of songs automatically on all drives. Invalid or not anymore existing songs can be deleted by remove button (select songs first in list).

Open an existing playlist with File open. You can open recent loaded playlists quicker by the File/1..9 menu.

File/Save As ...           new created list to a new name (file extension .lst is used for a GN playlist).

File/Save                 saves modified playlist.

File/New                 creates a new empty playlist.

## **3.21 Reset MIDI**

### **GM/GS/XG mode reset**

Some MIDI devices might require to set them into certain MIDI mode (GM, GS, XG) that they expect the correct set of sound addresses.

These toolbar buttons pause current playing song and send a reset sysex command to the device.

### **INIT device reset**

Default action of this button is to initialize the MIDI device, it sends all notes off, all sounds off and all controllers off for all channels

to the MIDI device. You can use an own initialization MIDI file for own initialization of device (e.g. put keyboard into certain mode) by adding following line section [Settings] in gnmixer.ini text file in folder my documents:

```
[Settings]
Init=c:\gnmixer\myinit.mid
```

Use Notepad text editor to add or modify this setting.

## 3.22 Shortkeys

Following keystrokes are available for comfortable use in a live situation during playing

mixer:

- F2 ... save song
- F3 ... open song
- F4 ... open playlist, toggle between playlist and mixer
- F7 ... decrease tempo by 1.0 bpm
- F8 ... increase tempo by 1.0 bpm
- F10 .. transpose by halfnotes
- space .. start/stop song player
- Ctrl+K ... show or hide keyboard view

playlist:

- enter .. load next song from playlist into mixer
- space .. play next song from playlist