

Introduction to MidiWriter*Pro*

MidiWriter*Pro* is an application that lets you compose polyphonic music on your UIQ mobile phone. It supports General MIDI (GM) and uses the sounds built into the mobile phone for playback of instrument and percussion sounds. MidiWriter*Pro* can open most format 0 and 1 MIDI files, and save in either MIDI format 0 or 1.

These instructions assume that you are familiar with both MIDI and operating the UIQ range of mobile phones.

MidiWriter*Pro* supports multiple instrument tracks and a drum track. Each track is assigned a MIDI channel number from 1 to 9 or 11 to 16. Each MIDI channel number can be assigned any 1 of 128 instruments, such as piano, violin, church organ, glockenspiel etc. You can assign the same MIDI channel number to more than one track, but all tracks with that channel number will play with the same instrument.

MIDI channel 10 is reserved for percussion/drum track.

Manual is revision 2nd April 2004 and describes v1.06F of MidiWriter*Pro*.

Please contact support@zenobyte.com for updates and support regarding MidiWriter*Pro*

If you open a MIDI file in the MidiWriter*Pro* which was created with another application (for example Cubase), and then save it from MidiWriter*Pro*, it is possible some MIDI data (for MIDI functionality not support by MidiWriter*Pro*) in the file will be lost. Please make a copy of any existing MIDI files before opening them in MidiWriter*Pro*. All MIDI note and channel control events will be retained.

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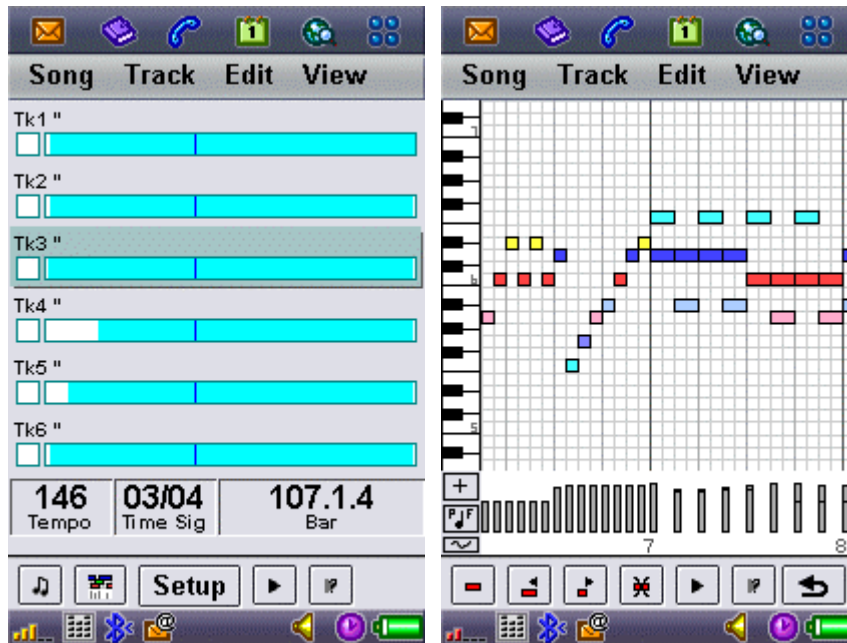
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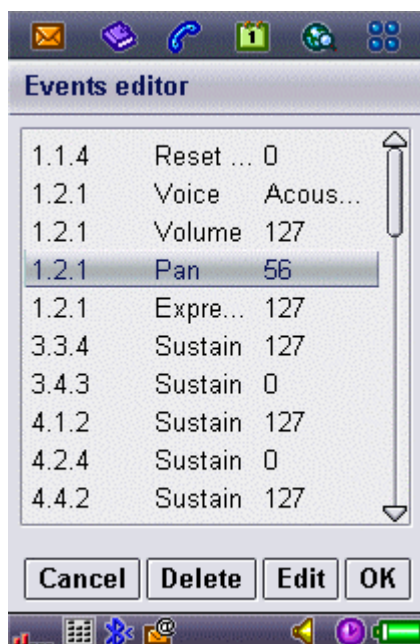
Web: www.zenobyte.com

MidiWriterPro views

There are two main views in *MidiWriterPro*, the 'Track' and 'Key edit' views. These are described later in this manual. A later release of *MidiWriterPro* will include a 'Score' view for editing musical notation.



There are 'list views' for showing tempo changes and MIDI control events. These views allow you to delete and change the parameters of the tempo and MIDI events.



The bar and beat numbers are shown on the left with the event type and data on the right. In the current version of *MidiWriterPro*, the times of the events are displayed to the nearest beat, but are stored with the exact MIDI tick accuracy.

To change the event data tap on the event or tap the "Edit" button. Not all event types can be edited in this version of *MidiWriterPro*.

Events can be deleted using the "Delete" button.

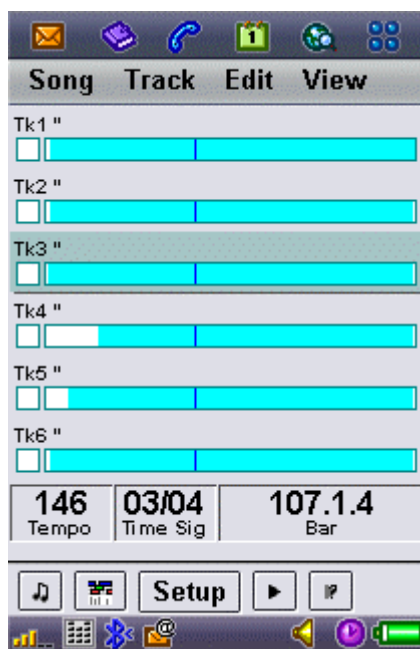
Tap "OK" to confirm any changes made, or "Cancel" to abort any changes.

Track view

This view will be displayed when you first run *MidiWriterPro* and is used to configure and navigate around the tracks.

The cyan coloured bars represent the range of the track from the first note on to the last note off in that track. The outer rectangle represents the entire song duration.

To mute or un-mute a track, tap on the square to the left of the track. Muted tracks will be drawn in grey. You can mute or un-mute tracks while playing back the song.



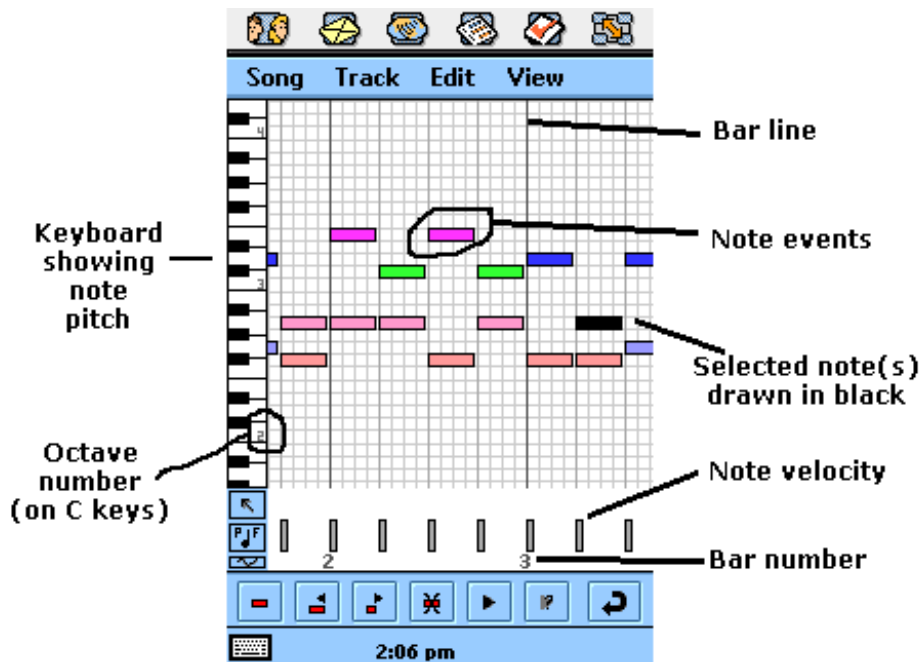
You can scroll through the tracks using the phones roller button or by tapping on a track. If you tap on a track that is already selected, the cursor will move to the position in that track where you tap. You can use this feature to change the playback position when playing your song.

At the bottom of the view are displayed the current tempo, time signature and bar/beat/quarter beat indicators. The tempo value will change to red if the tempo changes at the current cursor position. You can tap on the tempo, time signature and bar boxes to change the set-up of the song or to jump to a specific bar.

The 'Edit' button will take you to the 'Key edit' view for the selected track. Pressing the phones roller switch will also edit the selected track.

Key edit view

The key edit view consists of a grid representing time and pitch. The horizontal represents time, and the vertical represents note number/pitch. The cyan blocks represent MIDI note events - the length of the block is the duration of the note. The vertical position of the note is the pitch of the note.



Screenshot of key edit view with a MIDI file loaded

The keyboard along the left side of the view is for identifying which musical note the events are. The small number indicates the octave, and is on every 'C' key. Middle C is identified by octave 5. You can change the number used to represent middle-C in the *MidiWriterPro* preferences – valid values are 3, 4 or 5.

The dark vertical line indicates the start/end of a bar. Each bar is split up into a number of smaller time slots indicating beats and quarter beats. The grid spacing can be set in the Preferences dialog.








You can scroll the song by dragging with the pen in any blank part of the grid. You can also jump to a specific point using the "Edit: Jump to bar" menu option.

This view has 3 zoom levels, accessed by using the 'View: Zoom' menu option.

Key edit view (cont)

In the key edit view you can tap and hold on a note to hear that note. You can also move the pen up/down the keyboard at the left of the screen to hear notes. **NB:** Currently you can only hear notes in this way after having played the song. We are investigating why this is and hope to have a fix in a later release (it maybe caused by a phone firmware bug...)

The buttons at the bottom and side of the view are:

-  Inserts a new note at the cursor position
-  Decreases the length of the selected note
-  Increases the length of the selected note
-  Deletes the selected note(s)
-  Plays the song from the start
-  Offers a popup menu of play options
-  Returns to the track view

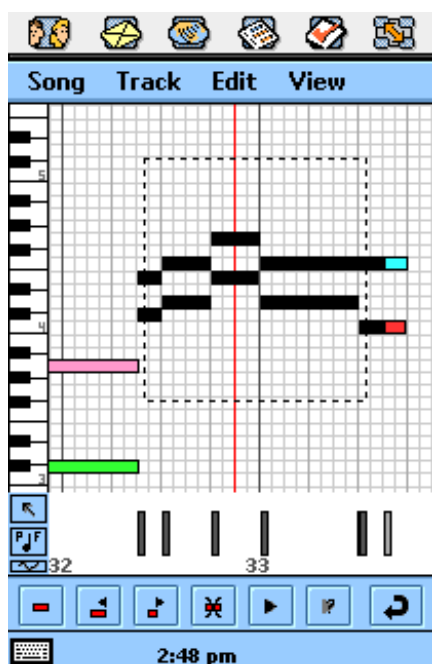
If you hold the select button in while tapping on the first 4 buttons above, the notes following the one you are altering will move in time to compensate for the change you are making.

You can move a note by dragging it.

Key edit view (cont)



You can select multiple notes by holding the roller button in and then selecting an area with the pen. You can then move all the selected notes at the same time by dragging one of the selected notes. You can also select/deselect notes by holding the roller button and tapping on notes.

You can use the "Cut / Copy / Paste" edit menus when multiple notes are selected. This lets you easily copy sections of tracks to other tracks, or duplicate sections of a track within the same track.








Key edit view (cont)

Changing note velocities

The  button at the lower left determines whether the note velocity/channel volume area is shown. If the note velocity or volume is not showing, tap the  button.

You will then see two of the following buttons, indicating the status of the velocity/volume area:

-  Sets 'Select' mode
-  Sets 'Drag' mode
-  Sets 'Draw' mode

-  Shows channel volume
-  Shows note velocities
- PB Shows pitch bend


Select mode: When viewing velocity, this selects the note(s) for the velocity bar you tap on. When viewing pitch bend or channel volume, it selects the control event at the time you tap at.

Drag mode: You can drag selected velocity, pitch bend or volume even.


Draw mode: Used for editing pitch bend and volume. You can draw the shape of pitch bend/volume you want, eg draw a sine wave to sinusoidally change the pitch bend/volume

You can also change note velocities using the "Edit: Velocities" menu or for drum tracks, "Edit: Drum velocity".

Step-record mode

The “Step record” mode (accessed using the pop up play menu on the  button) allows you to enter notes using the piano keyboard on the left side of the screen.

The length of the notes inserted as you play is determined by the “Quantize” setting. If you hold the pen on a key the duration of the note inserted is increased until you move on to another key or lift the pen.

To insert a rest, tap the  button or move the cursor to the new position by tapping in the grid. If the preferences for the scroll wheel are set to move left/right, you can use the scroll wheel to move the cursor on a few beats.

Use the “End record” menu to stop step record mode.

You can then adjust the length of any notes using the decrease/increase note length buttons. If you hold down the scroll wheel, all following notes will be moved on to compensate for the change in duration.

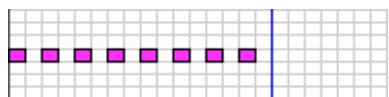
Quantizing

The basic quantize note value is set in the preferences dialog, and can be set to a value of 1 (whole note), 2, 4, 8, 16, 32 or 64 (1/64 note).

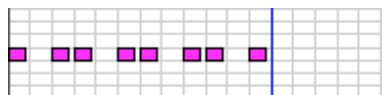
The type of quantizing can be set to 'tuplet' (denoted by T), normal or 'dotted' (denoted by a '.').

- When quantizing, only notes are affected, not other events

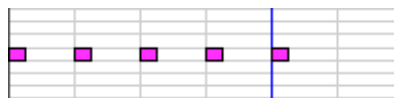
Quantizing will move notes to the closest quantize value without changing the length of the notes. For example:



Starting with an 1/8 note pattern,



Quantizing using 8T moves each 2nd note giving a shuffle beat



Quantizing using 4 moves each 2nd note to qtr note positions. This will mean you now have two notes on each beat

When you select the "Track: Quantize" menu option, you will be prompted to select the quantize level. The level will default to the one set in the preferences dialog.

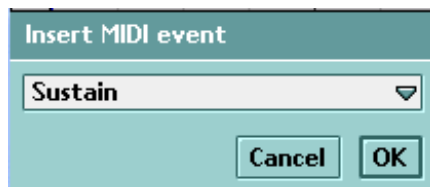
Inserting MIDI events

The “Volume change” option on the track menu allows you to insert a channel volume change at any point in the song.

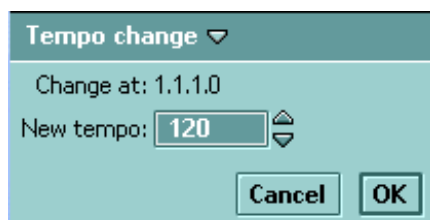
The “Voice change” allows you to insert an instrument change at any point. This is not available on the drum track.

“Other MIDI event” allows you to insert sustain, pan, expression etc. Some of these may not have any effect when playing back on the phone (Sustain works on the P900).

To list and edit any events you insert, use the “View: MIDI events” menu option.



You can insert tempo changes using “Song: Tempo change” or by tapping on the tempo indicator in the track view. Tempo changes can be viewed and edited using “View: Tempo changes” menu option.



Song properties

To change the properties of the entire song, use the "Song: Setup" dialog.

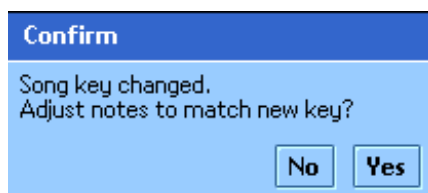


The tempo is the speed of the song in beats per minute. This defaults to 120. You can change the tempo at any point in the song using the "Song: Tempo change" menu. If the tempo you set in this dialog has no effect, there may be a tempo change near the start of the song. To edit tempo changes use the "View: Tempos" menu. This will list all tempo changes, which you can then delete or change the tempo of. Note that this list does not show the tempo set in the song properties dialog, only the tempo changes in the song.

Important! Copyright text cannot be changed once you have saved and re-opened the song. You can use the *MidiWriterPro* Preferences dialog to enter default copyright text: this is then entered into every new song you create in *MidiWriterPro*.

The 'Key signature' defaults to C major and 'Time signature' to 4:4 timing. *MidiWriterPro* supports time signatures upto 64/64, and supports top heavy signatures such as 7/4.

If you change the key signature, you will then be prompted as to whether you want to transpose the notes in the song. If you select 'Yes', all notes in the song will be changed to match the change in the key signature.

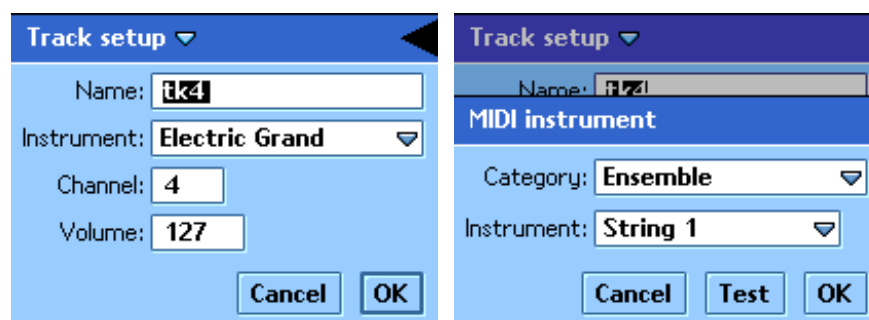


Setting up tracks

When you first start *MidiWriterPro*, or after using the "Song: New" menu, *MidiWriterPro* creates two empty tracks and a drum track.

By default, track 1 is assigned to MIDI channel 1, and track 2 to MIDI channel 2.

The first thing you need to do is assign instruments to the tracks. To do this select a track and use the "Track: Setup" menu. You will see the following dialog.



From the above screen you can set the track name, the instrument, the MIDI channel number and the channel volume.

The channel volume can be set from 0 (off) to 127 (loudest). The default value is 127.

The Channel number can be set from 1 to 16 (with the exception of 10 which is reserved for percussion).

The "Test" button on the MIDI instrument dialog only works if you have played the song. We are investigating the cause of this and hope to have a fix in a later release (it maybe caused by a phone firmware bug...)

Drum tracks, re-mapping and deleting drums

All drum sounds are stored within one track, the 'Drum' track. This appears as the last track in the main Tracks view.

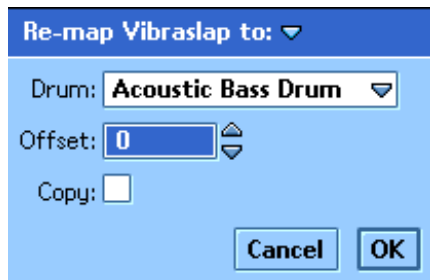
In the percussion track each note produces a different drum sound, for example, middle-C produces a 'Hi bongo' sound.

Because of the small screen size of the phone, it is not possible to list the drum sounds at the left of the screen. To make it easier to find the drum sounds, whenever you move a note up/down the grid (ie changing it's note number and hence the drum sound), the drum sound will appear at the top right of the screen.

Re-mapping drum sounds

If you wish to change all the notes for a particular drum sound to another sound, select any one of the notes for the drum sound to be re-mapped and use the "Edt: Re-map drum" menu option. This option only appears when you have a note selected in the drum track.

You can also *copy* a drum sound by checking the "Copy" option. Optionally the copied notes can be offset by a number of 1/64 notes, determined by the value of 'Offset'. The value of Offset can be -ve or +ve.



Deleting drum sounds

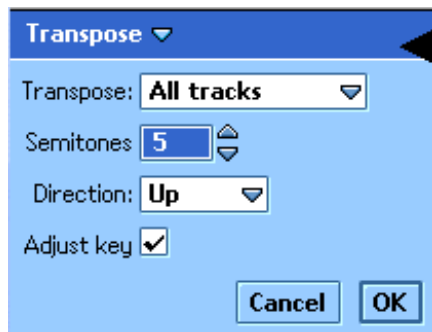
To clear the entire drum track, use the "Track: Clear" menu. To delete a single drum sound, select any note of that sound and use "Edit: Remove drum" menu.

To change the velocity of a single drum sound, select any note of that sound and use "Edit: Drum velocity".

Transposing tracks or song

You can transpose (change the key) of the song using the "Song: Setup" menu. Change the key signature to the required key and press OK, and then press Yes to "Adjust notes to new key?"

You can also change the key of a song in semi tones using "Song: Transpose"



In this dialog you can set:

- Transpose "Current track" or "All tracks"
- Semi tones (0 to 24)
- Direction ('Up' or 'down')
- Adjust key signature

If "Adjust key signature" is ticked, the key signature set in the Song setup dialog will change to match the semi tones transpose.

In the current version of *MidiWriterPro*, all tracks have the same key signature.

Deleting bars

To **delete** one or more bars use the "Edit: Delete bars" menu.



The screenshot shows a dialog box titled "Delete bars" with a blue header. Below the header, there are three input fields: "Delete from:" with a dropdown menu showing "All tracks", "Start at bar:" with a numeric input field containing "1" and up/down arrows, and "Number of bars:" with a numeric input field containing "1". At the bottom right, there are two buttons: "Cancel" and "OK".

Enter the following information and press "Ok"

- Delete from 'Current track only' or 'All tracks'
- Delete from bar number
- Number of bars to delete

In the key edit view you can also select more than one note by dragging with the pen while holding the roller button, or by tapping on notes while holding the roller button. This allows you to delete parts of bars.

Copying and repeating bars

To **copy and repeat** one or more bars, use "Edit: Copy bars" menu. You can copy one or more bars, and insert them at any point into the same or different track of the same type (you cannot copy to/from percussion to normal tracks). You can also specify a number of times to repeat the bars being copied.



Enter the following information and press "Ok"

- Copy from 'Current track only' or 'All tracks'
- Start copy at bar
- Number of bars to copy
- Insert copied bars at bar
- Times to repeat copied bars
- Insert into track

The "Insert into track" option is not available in the following situations:

- When 'All tracks' is selected
- When only one track exists
- When copying from the drum tracks

In the key edit view you can also select more than one note by dragging with the pen while holding the roller button, or by tapping on notes while holding the roller button. This allows you to copy parts of bars between tracks using "Cut", "Copy" and "Paste".

Looping

Use the "Set left marker" and "Set right marker" options on the "View" menu to set markers. You can then play the marked section repeatedly using the "Play loop" and "Play track loop" menu options on the play from popup menu.

Undo

Undo is currently only available for the following operations:

- Quantizing
- Deleting tracks
- Clearing tracks
- Adding new tracks
- Deleting multiple notes
- Transpose
- Remapping drums
- Removing drums

Full undo will be available in a later release as a free update.

Application preferences

General settings

Play scroll

This determines whether the key edit view scrolls in time to the playback.

Patch file

Sets which beatnik patch file is used for playback. Note that setting a patch file other than the one on Z (ROM) may cause the phone to hang before playback starts – this is out of our control and appears to be the phone loading the patches.

Default copyright

This text will be inserted into every new song you create.

Key edit settings

Quantize

Determines the length of notes inserted in step-record mode, and the exact positions the notes are moved to when quantizing

Grid snap

Determines the snap point when moving notes or adjusting their length

Middle C position

This sets the octave number used for middle C. Valid values are 3, 4 or 5.

Note colour

This set the colours used for note and MIDI events in the piano roll view. If you select 'Pitch colours' each note is drawn in a colour representing the note (C, C#, D etc)

Note preview

Sets whether you can hear notes as you drag them around or click on them

Scroll wheel

Sets whether the phones scroll wheel moves the piano view up/down or left/right

Instrument categories and sounds

The following categories of instruments are available when setting up tracks (other than the drum track). Note that the sounds are built into the phone, the quality of the sound is not due to *MidiWriterPro*.

Instrument categories:

1. Piano
2. Chromatic Percussn
3. Organ
4. Guitar
5. Bass
6. Strings
7. Ensemble
8. Brass
9. Reed
10. Pipe
11. Synth Lead
12. Synth Pad
13. Synth FX
14. Ethnic
15. Percussive
16. Effects

Each category is further split into 8 instruments, as detailed on the next page.

The categories are further split into instruments as follows:

Piano category: Acoustic Grand Bright Acoustic Electric Grand Honky-tonk Electric 1 Electric 2 Harpsichord Clavi	Percussion: Celesta Glockenspiel Music Box Vibraphone Marimba Xylophone Tubular Bells Dulcimer	Organ: Drawbar Percussive Rock Church Reed Accordion Harmonica Tango Accordion	Guitar: Acoustic (nylon) Acoustic (steel) Electric (jazz) Electric (clean) Electric (muted) Overdriven Distortion Harmonics
Bass: Acoustic Electric (finger) Electric (pick) Fretless Slap 1 Slap 2 Synth 1 Synth 2	Strings: Violin Viola Cello Contrabass Tremolo Pizzicato Orchestral Harp Timpani	Ensemble: String 1 String 2 SynthStrings 1 SynthStrings 2 Choir Aahs Voice Oohs Synth Voice Orchestra Hit	Brass: Trumpet Trombone Tuba Muted Trumpet French Horn Brass Section SynthBrass 1 SynthBrass 2
Reed: Soprano Sax Alto Sax Tenor Sax Baritone Sax Oboe English Horn Bassoon Clarinet	Pipe: Piccolo Flute Recorder Pan Flute Blown Bottle Shakuhachi Whistle Ocarina	Lead: Square Sawtooth Calliope Chiff Charang Voice Fifths Bass+lead	Pad: New age Warm Polysynth Choir Bowed Metallic Halo Sweep
Fx: Rain Soundtrack Crystal Atmosphere Brightness Goblins Echoes Sci-fi	Ethnic: Sitar Banjo Shamisen Koto Kalimba Bag pipe Fiddle Shanai	Percussive: Tinkle Bell Agogo Steel Drums Woodblock Taiko Drum Melodic Tom Synth Drum Reverse Cymbal	Effects: Guitar Fret Breath Seashore Bird Tweet Telephone Helicopter Applause Gunshot

Drum sounds

The following 47 GM drum sounds can be used in the drum track.

Acoustic Bass Drum	Bass Drum 1	Side Stick	Acoustic Snare
Hand Clap	Electric Snare	Low Floor Tom	Closed Hi-Hat
High Floor Tom	Pedal Hi-Hat	Low Tom	Open Hi-Hat
Low-Mid Tom	Hi-Mid Tom	Crash Cymbal 1	High Tom
Ride Cymbal 1	Chinese Cymbal	Ride Bell	Tambourine
Splash Cymbal	Cowbell	Crash Cymbal 2	Vibraslap
Ride Cymbal 2	Hi Bongo	Low Bongo	Mute Hi Conga
Open Hi Conga	Low Conga	High Timbale	Low Timbale
High Agogo	Low Agogo	Cabasa	Maracas
Short Whistle	Long Whistle	Short Guiro	Long Guiro
Claves	Hi Wood Block	Low Wood Block	Mute Cuica
Open Cuica	Mute Triangle	Open Triangle	

Menus

Song

Open	Opens a MIDI file format 0 or 1
Save	Saves the file as MIDI format 0 or 1
New	Clears all tracks
Send as	Sends a bluetooth, email, IR etc
Tempo change	Inserts a tempo change at the cursor position
Transpose	Transposes tracks
Setup	Sets song properties
Register	For registering!
About	About dialog
Close	Closes the application. Preserves current state.

Track

Clear	Clears the current track
Delete	Deletes the current track
New	Adds a new track
Voice change	Inserts a voice change at the cursor position
Volume change	Inserts a volume change at the cursor position
Control change	Inserts other MIDI events (pan, sustain, pitch bend etc)
Quantize	Moves all notes to start at the nearest quantize point
Setup	Sets track properties

Edit

Jump to bar	Jumps to a specified bar
Jump to	Jumps to start/left marker/right marker/end
Cut/copy/paste	Cut/copy the selected note(s) or paste the notes on the clipboard
Undo	Undo quantize, delete, clear or add track operations
Re-map drum*	Used for moving or copying one drum sound to another
Remove drum*	Used for removing a drum sound
Drum velocity*	Used for changing the velocity of a drum sound
Velocities**	For setting note velocities
Copy bars	For copying and repeating bars
Delete bars	For deleting bars

Menus (continued)

View

MIDI events	For editing MIDI events in the current track
Tempo changes	For editing tempo changes in the song
Set left marker	Sets the left marker to the cursor position
Set right marker	Sets the right marker to the cursor position
Clear markers	Removes the left and right markers
Zoom	Available in piano roll view
Preferences	For setting application preferences

*only available when a drum note is selected in the drum track

**only available on non-drum tracks