RC-808Edit   Simple Drum Sequencer

User's Manual

Revision history

Revision	Date	Contents
1.0	Aug. 6 2019	First publication
1.1	Sep. 6 2019	added programming procedure and gate function

1．Overview

1.1　Purpose of this application

This application RC-808Edit is a simplified sequencer dedicated to the evaluation of

RC-808 drum sound source software.

It is a simple specification for evaluating gate-time functions etc. and creating a

pattern to assist with tone creation.

The target operating systems are Windows 7, Windows 8 and Windows 10.

1.2　Features and schematic specifications

・ By giving a gate time to each note, it becomes possible to express a drum that has

never been done before.

・ You can play another sound source such as a special noise at the timing when the

sound is off in conjunction with the gate time.

・ It is based on UI which pastes notes on the pattern grid which can be scrolled, and

quantization etc. are also possible.

・ Operation keys and shortcut functions can also be used. (Time scroll = Shift + mouse

wheel etc.)

・ Has 32 tracks (16 x 2) that can play two RC-808 sound source applications that are

dual started simultaneously.

Note) For the above purpose, this application can not be linked with other music sequencers

(such as synchronized performance) or real-time recording with the current version.

1.3　Connection with sound source

This manual is for playing a programmed drum pattern by connecting the RC-808.exe

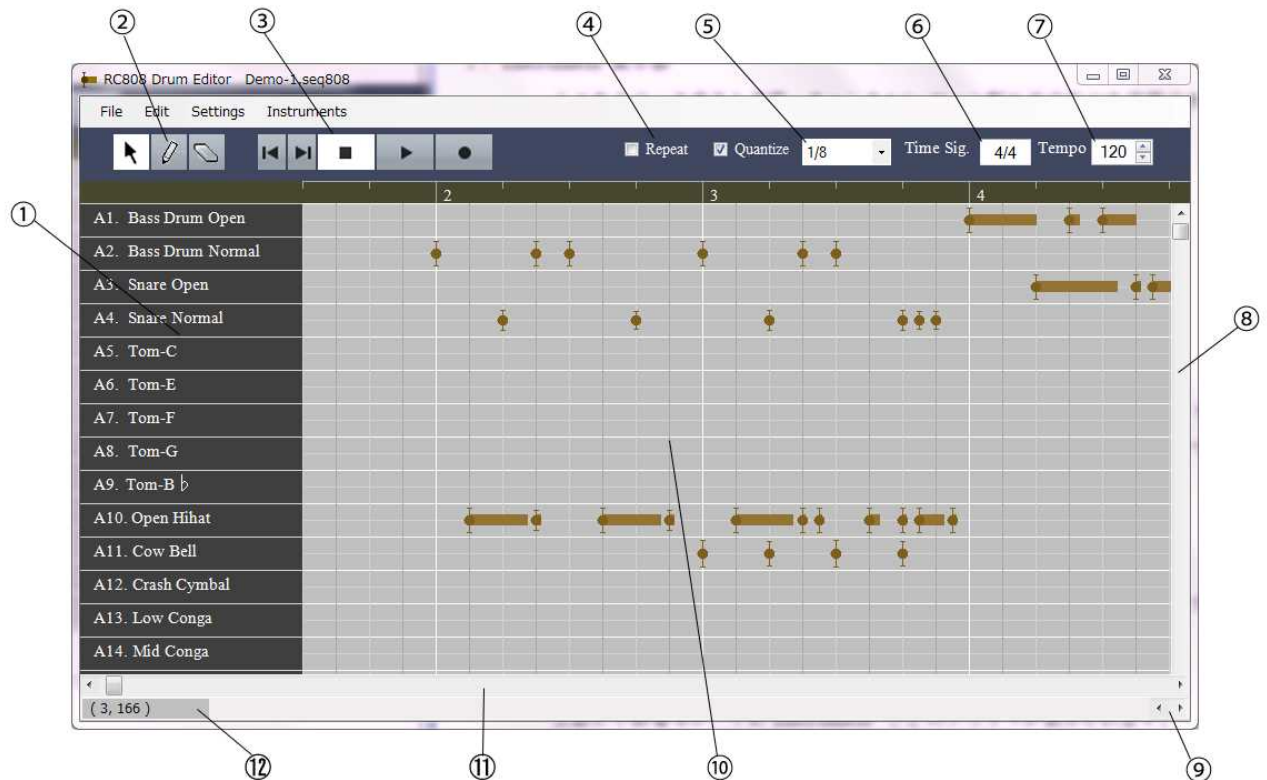application with this simple sequencer instead of the VST plug-in.

Refer to Chapter 4 for the connection method of the sound source and the simple sequencer.

Please read the settings in Chapter 4 before using

2．Basic operation and sequence creation

2.1 Name and function of each part

The names of each part are shown below.

1. **Instrument display area**

   Right-click here to change the track instrument name, Note number assignment, etc.

   You can also read it from the external drum kit file for RC-808.

2. **Editing toolbar**

   Select an editing tool with a pencil, eraser button, etc.

3. **Transport toolbar**

   Has Goto Top, Play, Stop buttons.

   (Goto End and Record buttons are dummy for future version)

4. **Repeat**

   Select the repeat mode to repeat the specified range set by the cursor.

5. **Quantize**

   Click here to get drop-down list and you can change quantize precision for each

   Instrument.

   For example, set Quantize to 1/8 and click near the grid, you can enter the nearest

4

location divided into eight equal parts. It corresponds also to triplets.

6. **Time Sig.**

Enter a time signature such as 3/4 or 6/8.

The time signature's denominator divides the beat line (the white vertical line in the bar).

The timing of Quantize is indicated by gray vertical lines.

7. **Tempo**

Specifies the tempo.

8. **Vertical scroll**

Scroll the screen vertically to display hidden tracks.

9. **Horizontal range setting button**

Sets the horizontal display magnification.

10. **Data display area (time line)**

The measure number is displayed at the top, and the grid for each Instrument

is displayed below.

Scroll horizontally with the scroll bar or Shift + mouse wheel.

11. **Horizontal scroll**

Scroll the screen horizontally to move the time axis.

2.2   About tracks and sequence files

At the left end of the RC-808 Edit screen, information on a total of 32 tracks, tracks A1 to A16 and   B1 to B16, is displayed.

A, B Two different RC-808 sound source instances (called drum kits) can be controlled, but it is safe to use only one side of A or B.
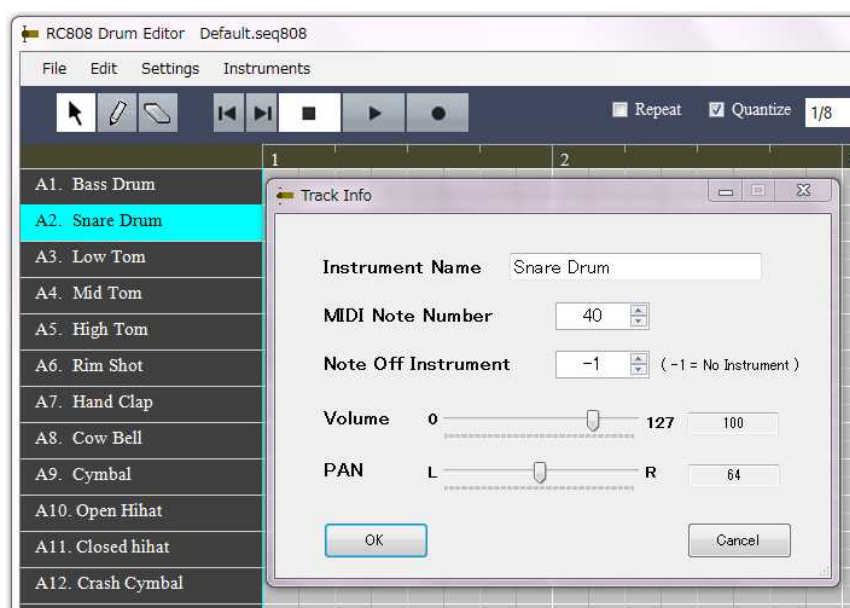
The distinction between A and B is identified by the MIDI channel number.

For example, if B is set to channel 11 in the sequencer, the instance with the RC-808 sound source side also set to channel 11 will be B.

The numbers 1-16 correspond to the 16 instruments from the left to the right of the RC-808 sound panel.

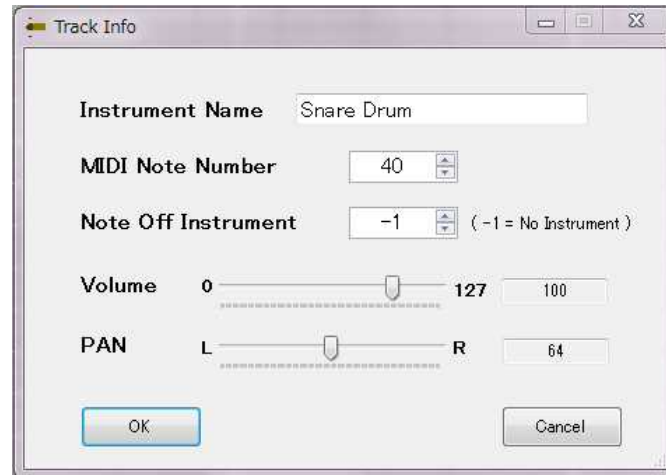All data for 32 tracks are recorded in one sequence file (extension .seq 808).

The drum kit's sound source setting information (drum map) can be imported in groups of 16 tracks from RC-808 drum kit file (extension .allprm), but right-click the instrument name on the sequencer side to set individually Is also possible.

6

2.3 Drum map settings

The lines of each instrument, such as Bass Drum and Snare Drum, in the Instrument display are called "tracks".

Right-click on the name of each track to open the Track Info dialog below and you can change each item.

Contents of each item:

Instrument Name: Instrument name

MIDI Note Number: Note number (decimal number) assigned to this instrument.

When this Note number is received, the instrument sound of this track will be produced.

Note Off instrument: When this value is the default of -1, the gate time is disabled and the Note Off event does not occur.

When the same value (decimal number) as **MIDI Note Number**, the gate function is enabled and the sound is truncated (rapidly attenuated) at the OFF event. .

Please refer to 2.6 Special Gate Function for other values.

Volume: You can change the Instrument sound level of this track using this slider (0..127)

PAN: You can use the slider to set the panning information for the instrument sound of this track.   (value 0: left end, 64: center, 127: right end)

2.4 Editing function

2.4.1 Editing tools

It is called the **selection tool**, the **pencil tool**, and the **eraser tool** from the left.
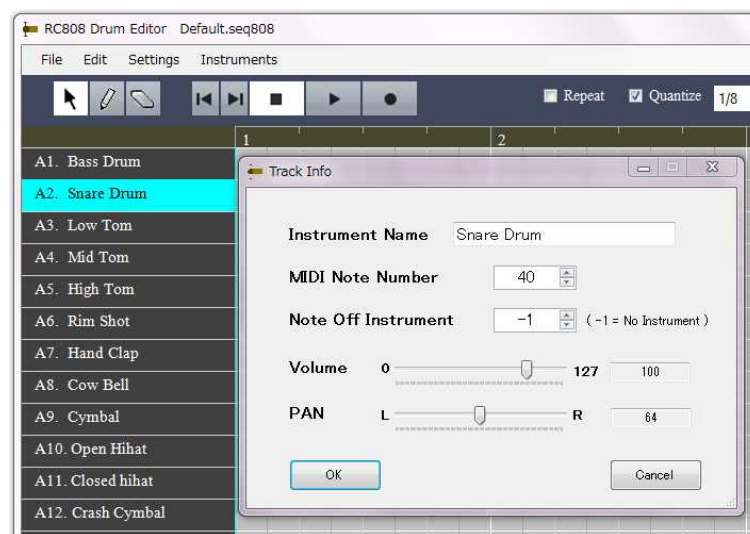
2.4.2 Note input

・If you click the pencil tool button, the mouse cursor changes to a pencil icon, and you can enter notes by clicking on each track's timeline.

・Setting of gate time

If the **Note Off Instrument** is set to the same as **MIDI Note Number** in Track Info below, the gate function will work.　The default of **-1** means no gate (ordinary drum).

If this value is different from **MIDI Note Number**, the instrument will sound when the gate is turned off.　(Refer to 2.6)

Tracks that use the gate function will display a rectangular bar that represents the gate time, so you can drag it to change the gate time. Or you can right-click on a note and enter a number. The number is 480 for one bar, so the quarter note length of 4/4 beats is 120.

Channels with gate time OFF will be displayed with only ●.

8

2.4.3 Timeline format

The timeline is separated by a white vertical line for each measure, with the measure number (1 ..) displayed at the top.

For example, if the denominator of Time Sig. (Time Signature) is 4, one bar will be divided into 4 and a thin vertical white line will be inserted for each beat.

The gray vertical lines also indicate the quantize accuracy. For example, if Quantize is 1/8, a vertical gray line dividing one bar into eight is displayed, and if it is 1/8 Triplet, (8/2) x 3 = 12 vertical lines per bar are drawn.

2.4.4 Scroll the timeline

The timeline scrolls by manipulating the horizontal scroll bar or by holding down SHIFT and turning the mouse wheel.

The mouse wheel needs to be in focus by clicking once on the timeline for it to be effective.

2.4.5 Display range of timeline

The horizontal display range can be expanded (→) and reduced (←) by the lower right ← → range control.

The display range can also be changed by holding the Ctrl key and turning the mouse wheel.

The mouse wheel needs to be in focus by clicking once on the timeline for it to be effective.

2.4.6 Moving notes

The mouse cursor changes to an arrow when you click the selection tool.

Now you can move notes by selecting and dragging them.
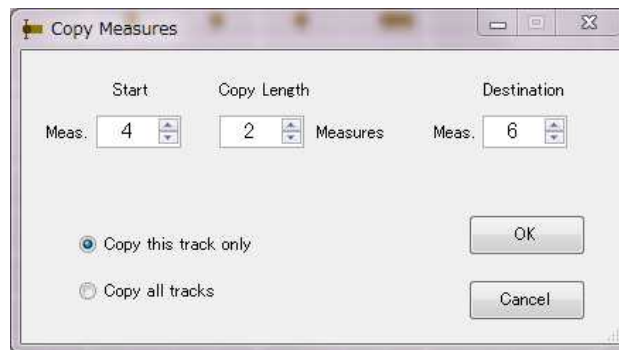
2.4.7 Erasing note

Select the Eraser tool from the editing toolbar to erase pasted notes.

Clicking the Eraser tool button changes the mouse cursor to an eraser icon and erases the note you clicked in the lower left corner of the icon.

Or you can right-click a note to bring up an edit dialog and delete it with the Delete button.

2.4.8 Measure copy

Click "Copy Measures" on the Edit menu to open the following dialog.

First, use radio buttons to select whether to copy only within the selected track or copy for all tracks,

Enter the first measure number of the copy source at "Start", enter the number of measures to copy at "Copy Length", enter the first novel number of the copy destination at "Destination", and click the OK button to execute the copy.

If the end of the copy destination exceeds the current final measure, the final measure is automatically extended.

2.4.9 Sequence initialization

Click New Sequence on the File menu to erase all notes (Note events). There is no change in the track information (such as the instrument name and note number settings).

2.4.10 Save and load sequences

You can save the sequence as a file with the extension .seq 808 by clicking Save Sequence on the File menu.

In addition to the Note event, the sequence also includes a drum map (each track's name and note number etc.)

Therefore, if you change track information, you need to save the sequence again.

You can load a previously saved sequence by clicking "Load Sequence" on the File menu.

When launching a program, if there is a sequence file that was read last time, it will be read automatically and the file name will be displayed in the title bar.
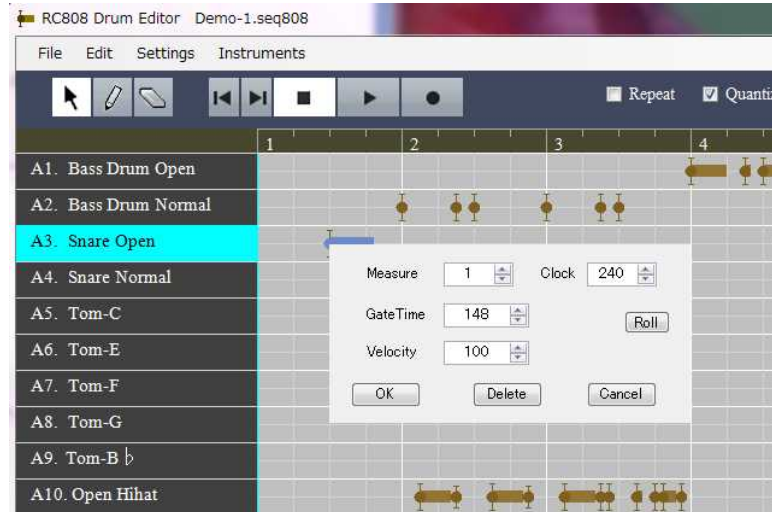
2.4.11 Undo function

Note After adding, deleting, or editing an event, you can return to the previous state by clicking "Undo" on the Edit menu or pressing Ctrl + 'Z' on the keyboard.

The Undo buffer remembers up to 10 edits before, so you can go back there.

2.5   Note properties

If you right-click on the note event on the track, the following dialog will be displayed and you can change each item by numerical input etc.

Measure and Clock are values that represent the measure number (1 to) and the number of clocks in the measure at one measure = 480 at the current position of the note event you clicked.

If you try to fix beyond the previous or next note event, a warning will appear and it will be canceled.

For tracks with gates, the gate length is displayed with the same number of clocks as the gate time.

2.6 Special gate functions

As described in 2.4.2, set "Note Off Instrument" to "MIDI Note Number" in the Track Info dialog.

If they are the same, the gate will function and the note will be truncated at the Note OFF event.

The default of -1 means no gate (ordinary drum).

As a special usage of this value, when a value different from "MIDI Note Number" is set, when the gate is turned off the instrument sound of that MIDI number is pronounced.
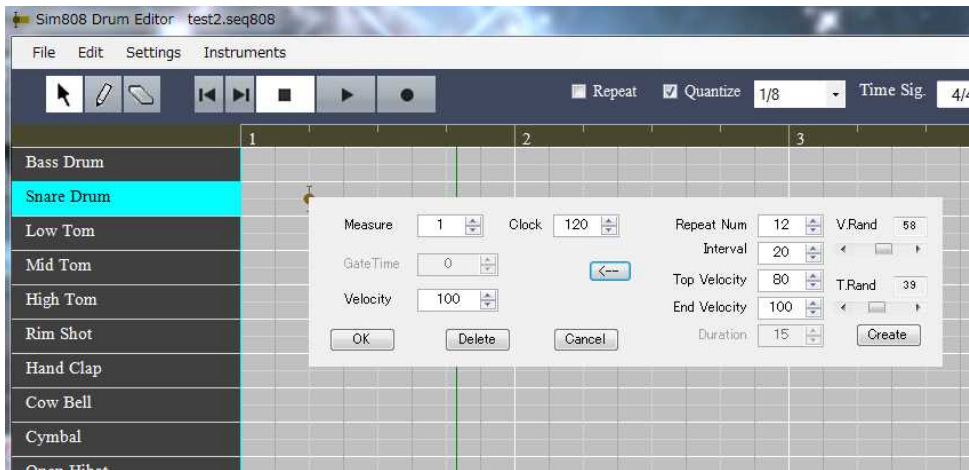
This is useful when you want to play the close sound of the instrument throughout the song.
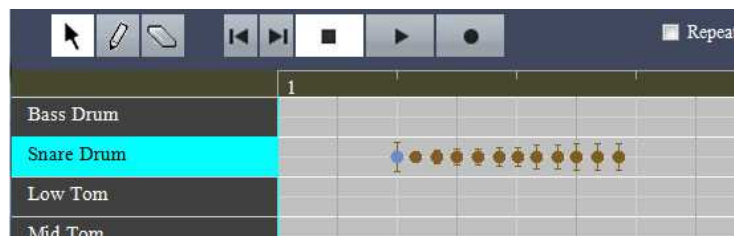
2.7　Drum Roll function

You can create the effect of continuous hit by multiple note events with one command.

After placing a note event for the first time with the Pencil tool, right-click the note event to open the Note Properties dialog, and click the "Rand" button, the window will be extended to the right, and you can enter continuous stroke parameters.

The Rand button changes to <--(Close).

Set each parameter and click the Create button on the lower right to generate the continuous hit data.

The meaning of each parameter is as follows.

Repeat Num　　Number of total note events (including the first one)

Interval　　　Number of clocks between note events (set one bar to 480)

　　　　　　　　→ 8th note = 60, 16th note = 30 etc ..

Top Velosity　Velocity of the first note (0 to 127)

End Velosity　Last note velocity (0 to 127)

Duration　　　Gate time (only tracks with gates, others grayed out)

V.Rand Scroll Bar　　Randomize ± to Velocity.

T.Rand Scroll Bar　　The random number is ± in the interval (time axis). If this is not 0,

　　　　　　　　the total time will not be Interval x (RepeatNum-1).

To redo, click on the main screen to shift the focus and then use Ctrl + 'Z' to undo.

The previously set values are recorded in the config file and restored the next time they are opened.

３．Sequence playback

3.1　Transport toolbar

Top, End, Stop, Play, Rec　button from left to right

Top button　　　Move the cursor back to the beginning.

End button　　　(Does not work with this version)]

Stop button　　　Stop playback.

Play button　　　Play the sequence.

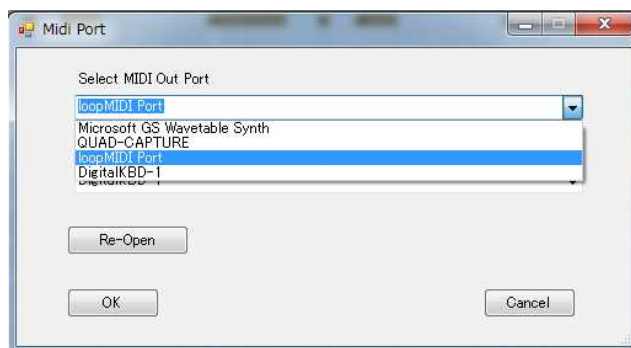Rec button　　　(Does not work with this version)

3.2　Sequence playback

It is necessary to connect with the RC-808 sound source in preparation for playback.

In order to connect the sequencer and RC-808 via MIDI in your PC, start up loopMIDI software.

Please refer to Chapter 4 for the method first.

Click "Open MIDI Port" on the Instruments menu to open the following dialog, and select

"loopMIDI Port" as the RC-808 connection destination from the "Select MIDI Out Port" combo box

at the top.

If you change the selection, please reopen with Re-Open button.

Start up the RC-808 sound source, select the same loopMIDI Port as the input device, and set it

to the same MIDI channel.

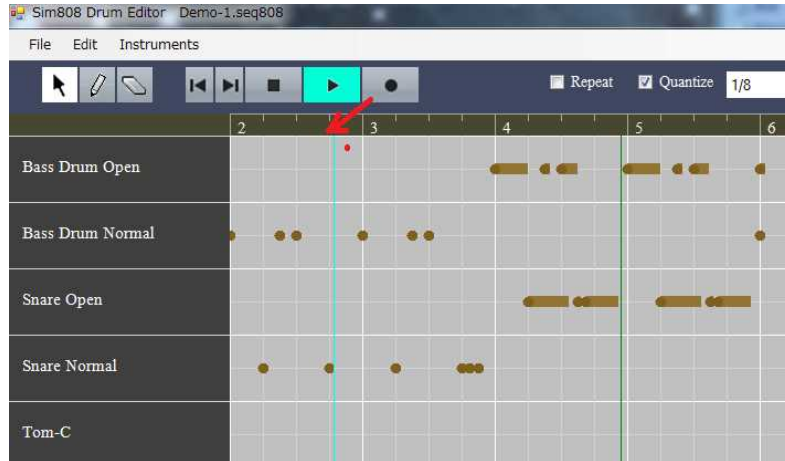The MIDI data from the simple sequencer will now be received by the sound source and played.

First, click on the instrument name of the simple sequencer and check that the sound of the

sound source sounds.

Press the Top button to move to the beginning, and then click the Play button. The button turns

light blue and playing starts.

The Play button will turn gray when you click the Stop button or when the last event has finished

playing.

3.3　Specify the playback start point

When you left-click the measure number display area (dark brown area on the screen), it becomes an A cursor (light blue) and indicates the play start point.
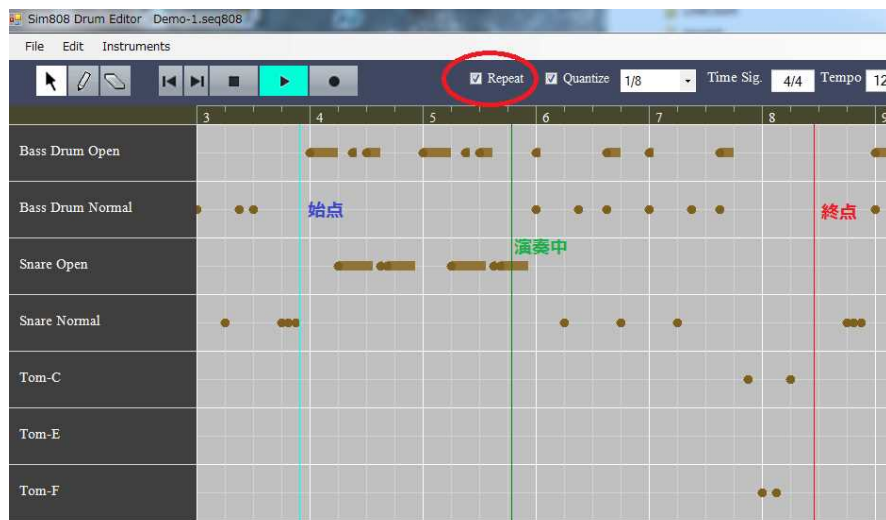

The green vertical line indicates the current position while playing.

3.4　Interval repeat function

If you check the "Repeat" checkbox above, you will be in "Repeat mode".
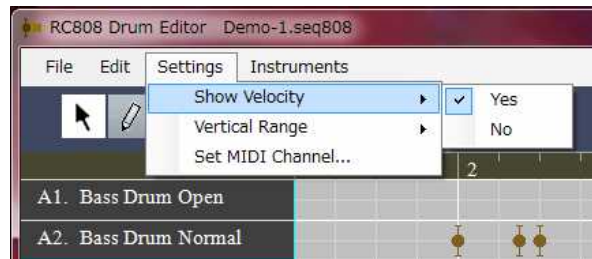
When you right-click the measure number display area, a B cursor (red vertical line) is displayed there to indicate the playback end point.

When the performance reaches here, it will return to the A cursor and repeat again and again.

Since repeated information is not remembered in the initialization file, it will be lost when the program is completed, and the repeated mode will be turned off when the program is launched.

3.5   Graphic display of velocity

The graphic display of velocity can be turned on / off by clicking "Show Velocity" on the Setting menu and selecting Yes / No.
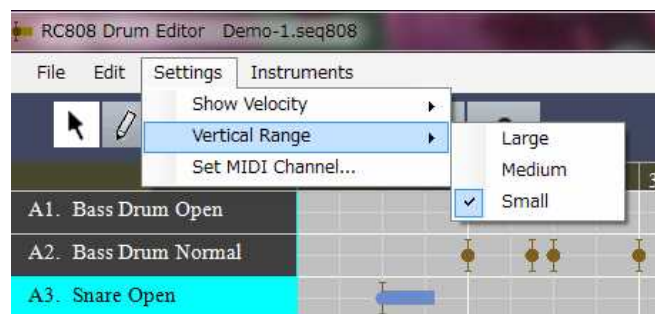

The velocity is represented by the vertical line at the beginning of the note, and the full height of the track is 127.

You can not see the volume below the round note mark, so please right-click and check with the numbers.

3.6   Track width display change

You can select the vertical width from 3 types (Large, Medium, Small) by clicking "Vertical Range" on the Setting menu.

Selecting Small will make the track narrower so you can see the most tracks (instruments) at once.
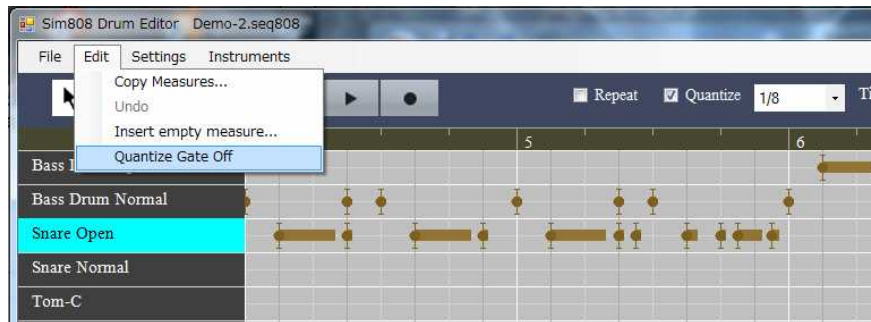
3.7 Quantize the gate off timing

Quantize can be applied to all events of the specified track for which the gate function is set.

Click the left instrument name to select the track (instrument) for which the gate function has been set.

Select the size of Quantize (1/4, 1/8, 1/16, etc.).

If you click Quantize Gate Off on the Edit menu, you will be asked if you really want to quantize.

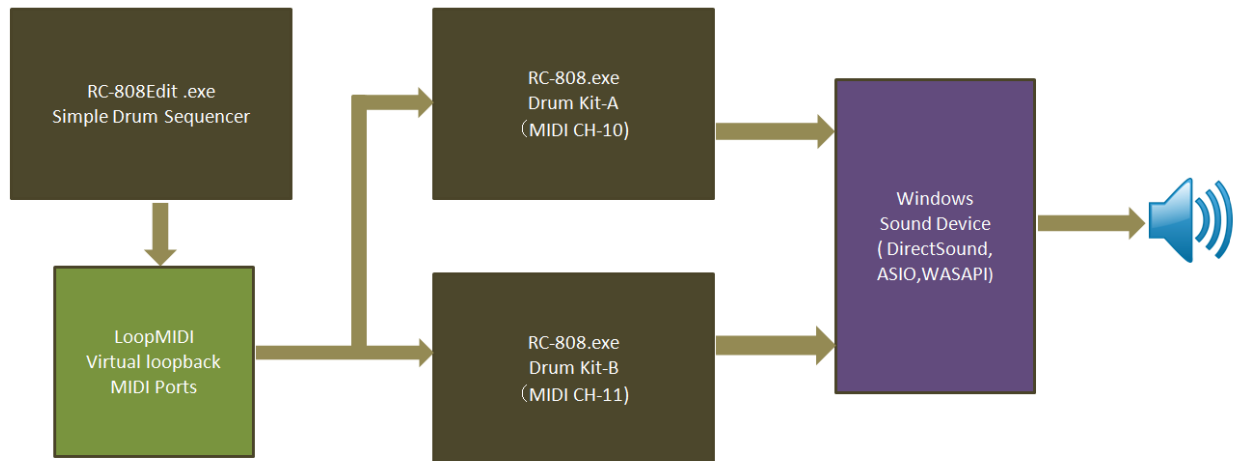If you press Yes, all events on that track will be quantized.

If you want to go back to the pre-quantization, press Ctrl + 'Z' to return to the previous state.

As a result of quantizing, when the gate OFF timing is extended and the next event is overlapped, the gate time is shortened by one quantize unit (or one eighth note in the setting of 1/8).

If the gate length is less than 10 clocks as a result of quantization, it is set to 10.
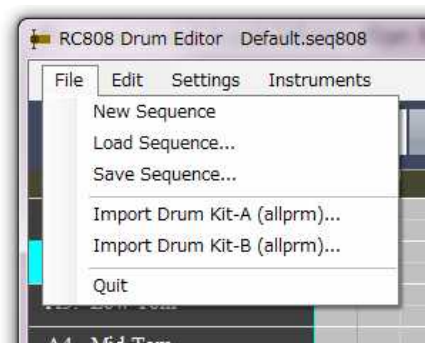
4. Cooperation with RC-808 sound source

4.1 Connection scheme with RC-808 drum sound source app.

4.2 Load sound source file

You can load track information from an RC-808 drum kit file (extension .allprm) and set an instrument name, MIDI received note number, etc.

Click "Import Drum Kit-A (allprm)" or "Import Drum Kit-B (allprm)" on the File menu according to the drum kit you want to change.
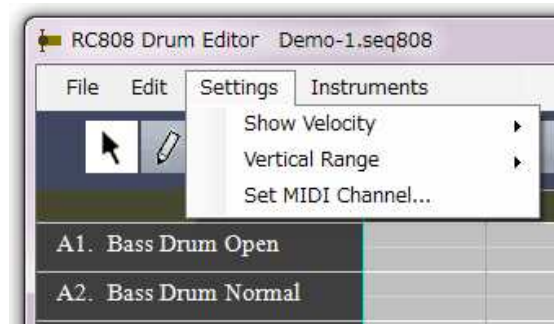

In the dialog that opens, select the data file you want to load (extension .allprm) and click OK to get track information. The RC-808 track information is copied to the sequencer.
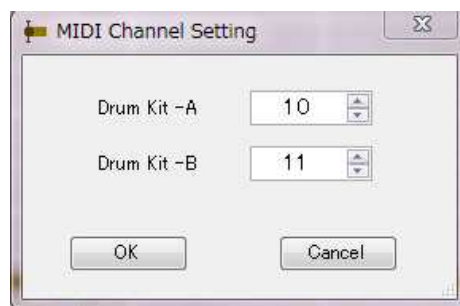
4.3　MIDI channel assignment function

Receive MIDI channels can be assigned to drum kits A and B, respectively.

(The default channels are 10 for A, 11 for B)

Click "Set MIDI Channnel ..." in the Settings menu to open the settings dialog.

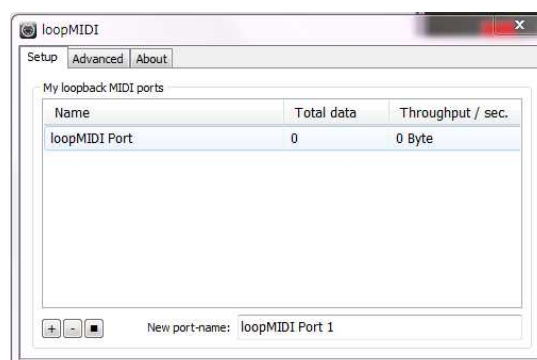Set the channel for each Drum Kit in the range of 1-16.

When using both drum kits A and B, specify different MIDI channel numbers.

The settings are recorded and reproduced in the config file.
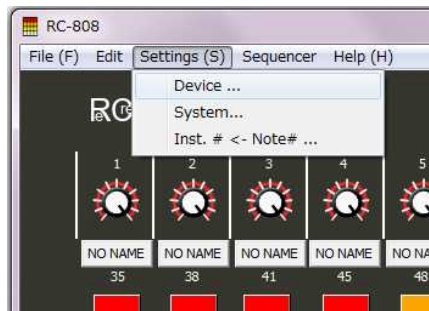
4.4　LoopMIDI

LoopMIDI is a virtual MIDI port creation software that allows you to connect multiple different MIDI compatible software and is a Donation-free freeware limited to personal non-commercial use.

Install and launch it.

4.5   RC-808 settings

Launch LoopMIDI and select Device from the RC-808's Settings menu.

In the device selection dialog that appears, select "loop MIDI Port" for the MIDI IN port.

You can also select the audio playback device from Direct Sound, ASIO, and WASAPI.

However, when setting up the RC-808 with 2 instances (2 drum kits) and setting it to 32 tracks,

if you select other than Direct Sound, there will be only one effective drum kit because of its

exclusive mode,

so select Direct Sound device in this case.

I think that there is no problem with the default CH-10 when using it with 16 tracks (one drum kit)

When using two drum kits, A and B drum kit must be on different MIDI channels.

Set the MIDI IN channel numbers of the two drum kits A and B to the settings with RC-808Edit

sequencer.

Please refer to the manual of RC-808 sound source for the usage of RC-808.

With the above settings, you can play RC-808 sound source from RC-808Edit sequencer.

4.6   Cooperation with RC-808

4.6.1   RC-808 sound source level and pan settings from the sequencer

As described in section **2.3**, you can open the Track Info dialog from RC-808Edit and set

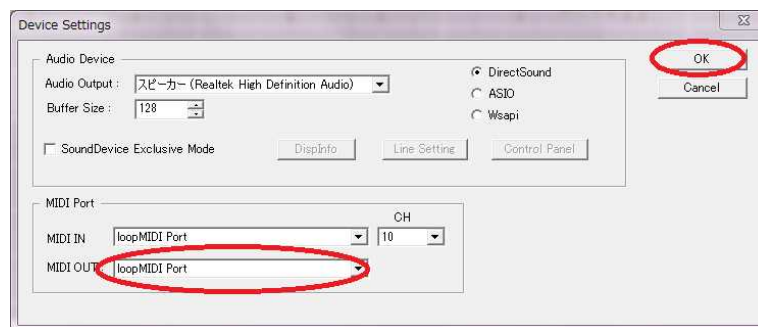the level and pan of each instrument sound of the RC-808.

This value is recorded in the sequence file (extension .seq808) as part of the track information,

and sent to the RC-808 sound generator using MIDI Control Change at the start of the

performance.

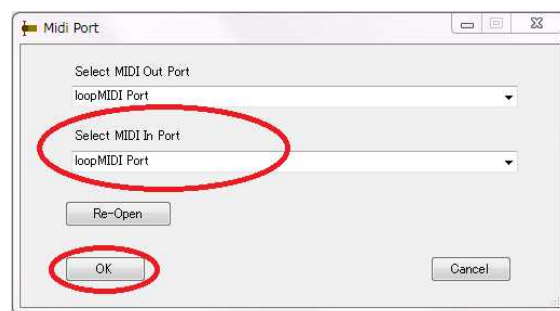Therefore, the setting of RC-808Edit has priority over the setting of RC-808 sound source.

Conversely, if you turn the Level and Pan knobs on the RC-808, the values will be sent to

the RC-808Edit, and both information will be shared.

The following settings are required to feed back the Level and Pan from RC-808 to RC-808Edit.

In the RC-808 Settings-Device menu, select "loop MIDI Port" for MIDI OUT and click OK.

In RC-808Edit, select "Loop MIDI Port" from "Select MIDI In Port" in the Instruments-"Open MIDI Port"

menu and click OK.

Now when you move the Level and Pan sliders of RC-808Edit, the corresponding knobs of RC-808

will turn, and when you turn the Level and Pan knobs of RC-808, the sliders of RC-808Edit will be

linked.

As described above, all level and pan information is sent to RC-808 when RC-808Edit starts

playback of the sequence.

The relationship between the setting method when programming the sequencer and the RC-808 sound generator is summarized below.

4.6.2   Sequencer programming procedure (first time)

1.   Load the drum kit file containing the sound you want to use for the RC-808 sound generator.

2.   Select "New Sequence" from the RC-808Edit **File** menu.

     The contents of the Track Info dialog are: Instrument name: No name, MIDI Note Number: 0,

     Note Off Instrument: -1, Volume: 100, PAN: 64

3.   From **Import Drum Kit-A (allrpm)** in the **File** menu of RC-808Edit

     Read the same drum kit file as 1.

     This will set the instrument name and note number for each track.

     When using 32 tracks, use **Import Drum Kit-B (allrpm)** for 17 to 32 tracks to set the sound.

     It is also possible to set each track manually as described in **2.3** instead of 3.

4.   In this state, there is no gate function (Note Off Instrument), track volume (Volume),

     If you want to change the track pan information (PAN), right-click on the instrument name display

     Open the Track Info dialog, change it manually, and click OK.

     Note that **Note Off Instrument = -1** (no gate function), especially in the initialized state.

     Tracks that use the gate function have the same **Note Off Instrument** as the **MIDI Note Number.**

     If you want to play a sound when the gate is turned off, set the **MIDI note number** of the instrument as **Note Off Instrument**.

5.   Regarding the volume (VOLUME) and pan information (PAN) of the track, the red and white of each instrument on the RC-808 sound source panel.

     The sequencer side is also changed in conjunction with turning the knob. (When **4.6.1** is set)

6.   Once the above settings are complete, name the file using **Save Sequence** from the **File** menu.

     It is recommended to save the settings in the sequence file (extension .seq808).

7.   Create a song by inputting notes and save it with **Save Sequence** from the **File** menu.

4.6.3   Sequencer programming procedure (second and later)

1.   Load the drum kit file containing the sound you want to use for the RC-808 sound generator.

2.   Select **Load Sequence** from the RC-808Edit **File** menu.

     Select and load the sequence file (extension .seq808) being created.

     Since all track information set last time is also read, loading of the drum kit of the sound source is not necessary from the second time.

3.   After creating the next song, save it with **Save Sequence** from the **File** menu.