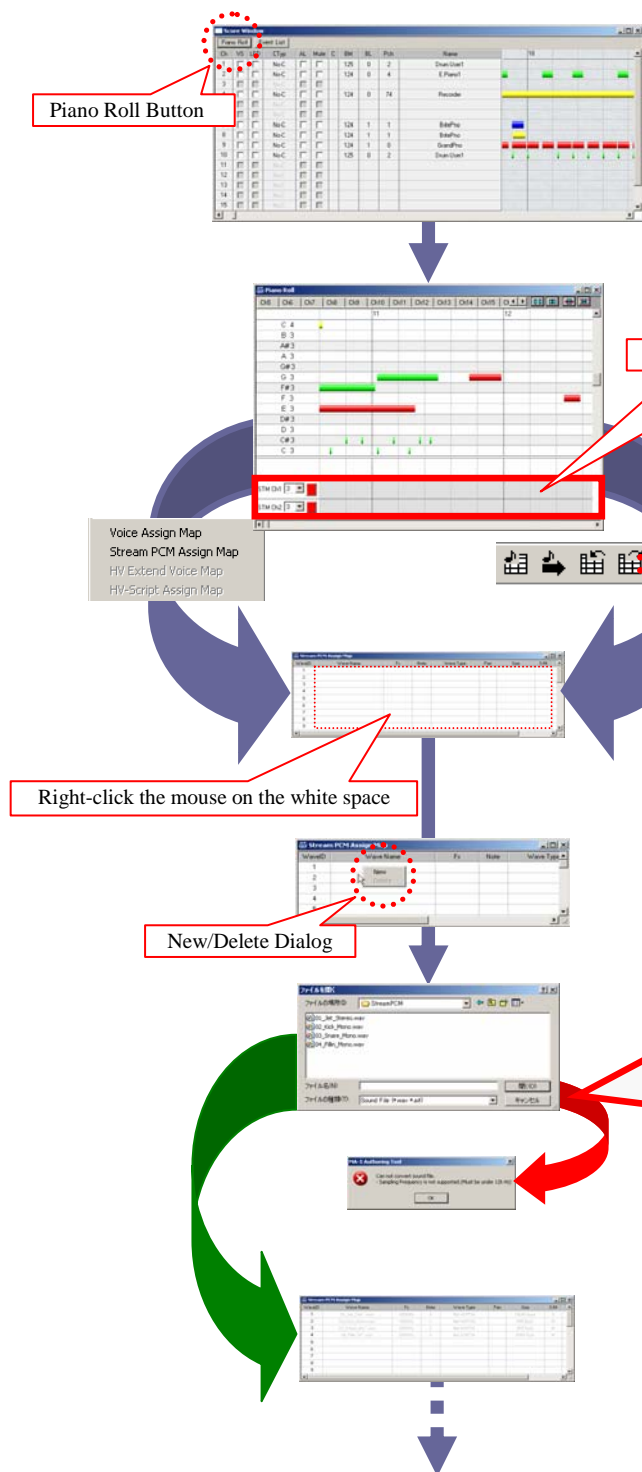


## StreamPCM Assignment

StreamPCM can be played back synchronous with music data of MIDI in SMAF file (\*.mmf). The various sampling sounds can be used as an effect. In this document, procedures of how to assign a StreamPCM into music data using MA-5 Authoring Tool are described.



i. Read a SMF (\*.mid) into MA-5 Authoring Tool. It doesn't matter even if the read SMF has no Note data.

ii. Click "*Piano Roll button*" on "*Score Window*", and then, "*Piano Roll Window*" is opened.

iii. Open "*StreamPCM Assign Map*" from the "*Tool Bar*" on Application Window or "*Menu Bar*."

iv. Register the WAVE data into "*StreamPCM Assign Map*." Right-click the mouse on the white space in "*StreamPCM Assign Map*", and then, select "*New*."

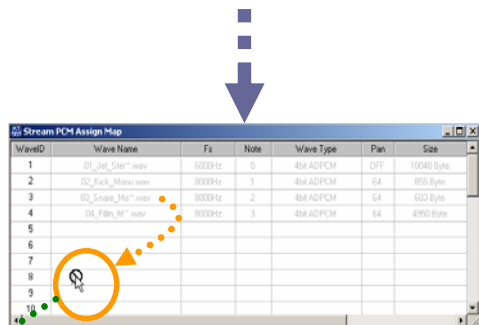
Details of Wave data which can be registered as StreamPCM

Read Sound File			StreamPCM
Bit	Sampling Frequency	Format	Compression
8 bit	4kHz~8kHz (12kHz)	AIFF/WAVE	8 bit PCM
16 bit	4kHz~16kHz (24kHz)	Mono	4 bit ADPCM
8 bit	4kHz~(6kHz)	AIFF/WAVE	8 bit PCM
16 bit	4kHz~8kHz (12kHz)	Stereo	4 bit ADPCM

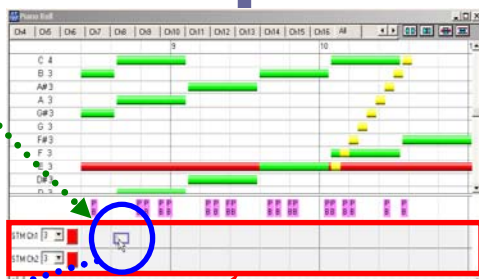
\*Values in a parenthesis show a value at MA-5 mode.

If other wave data was input, error may be displayed.

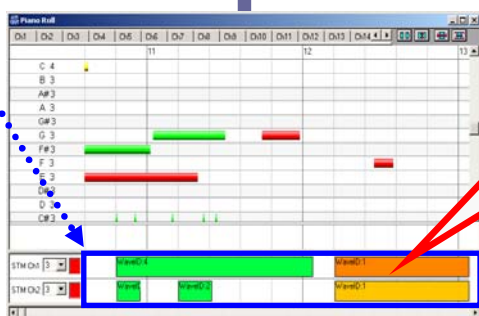
v. The designated WAVE data are registered into "*StreamPCM Assign Map*."



By dragging and dropping from StreamPCM Assign Map to Piano Roll Window, WAVE data can be assigned.



StreamPCM Edit View



STM Note Event Information

vii. Drag and drop the WAVE data, which were registered into “*StreamPCM Assign Map*”, onto “*Piano Roll Window*”, and then assign into “*STM*” (CH1 and/or CH2).

“*StreamPCM Edit View*” is a window for assigning and/or editing a StreamPCM into music data.

Since the maximum simultaneous pronunciation of StreamPCM is up to 2-tone, Piano Roll Window for STM is separated to two sections (STM Ch1/Ch2).

In addition, a channel which has no Note event is automatically output, and it is designated as the channel which is used for StreamPCM.

- StreamPCM in Mono is displayed in yellow-green.
- StreamPCM in Stereo is displayed in orange and yellow.
- StreamPCM which any StreamPCM events are not assigned yet is displayed in gray.

viii. StreamPCMs were assigned in music.

ix. Open the “Score Window”, and then confirm that StreamPCM has been correctly assigned. VS, LED, and Mute can be ON/OFF by placing and un-placing a check of each box.

x. A series of operation to assign StreamPCM into music using MA-5 Authoring Tool is now completed.

## Supplemental Functions of StreamPCM

In this section, supplemental functions to assign StreamPCM into music using MA-5 Authoring Tool are described briefly.

### StreamPCM File (\*.sm3/\*.sm5)

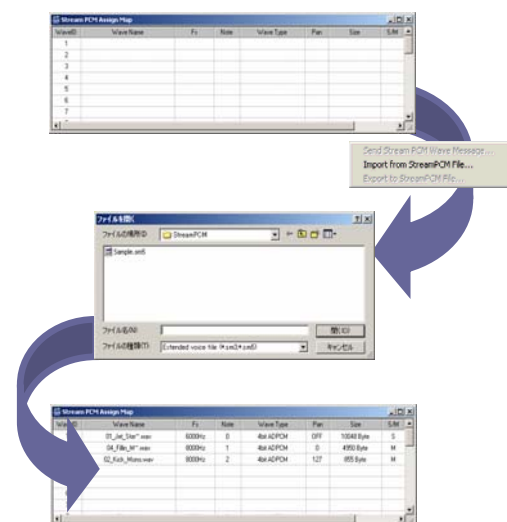
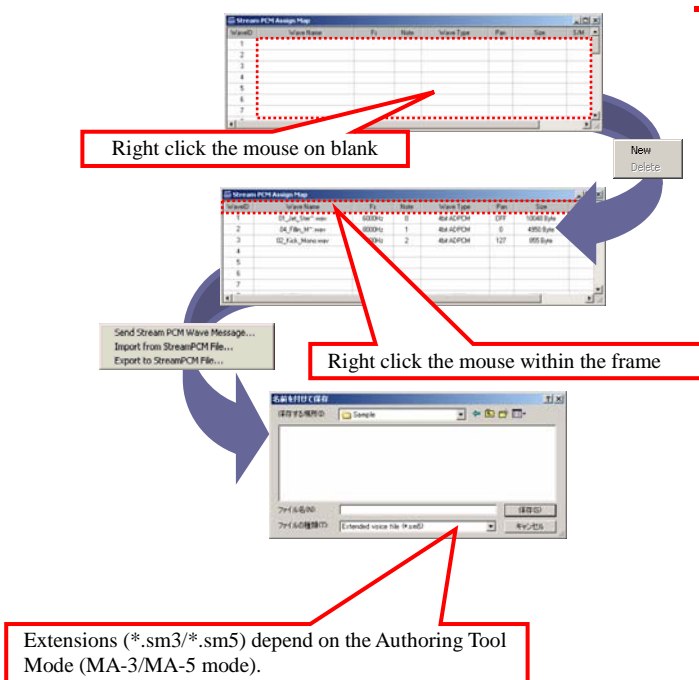
By using the StreamPCM functions, WAVE data (\*.wav) which are your favorite can be saved as a StreamPCM File (\*.sm3/\*.sm5) by assigning in StreamPCM Assign Map and used. The extension of saved file depends on Mode (MA-3/MA-5) in MA-5 Authoring Tool.

#### Saving StreamPCM File (\*.sm3/\*.sm5)

- Open “**StreamPCM Assign Map**” and right-click the mouse on the blank sections.
- “**New/Delete**” popup menu is displayed. Register the WAVE data, which optimized their sampling frequencies previously, into StreamPCM Assign Map one by one. Up to 32 of WAVE data (\*.wav) can be registered into StreamPCM Assign Map.
- After the registration of WAVE data is completed, right click the mouse on a title field (such as Wave Name, Fs, Note, etc..) once again, and then a popup menu is displayed.
- Select the “**Export to StreamPCM File...**” from the popup menu.
- The “**Save As...**” dialog is displayed. Name the created file, and then click “**Save.**” The extension of files becomes “\*.sm3” in MA-3 mode and “\*.sm5” in MA-5 mode.

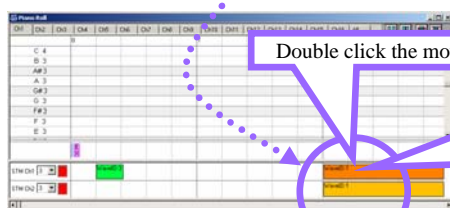
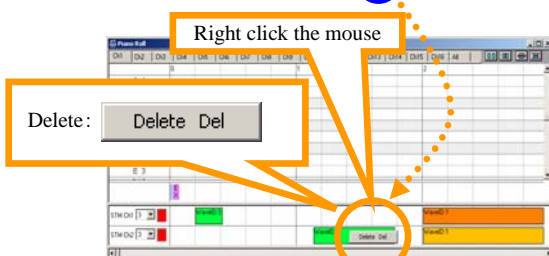
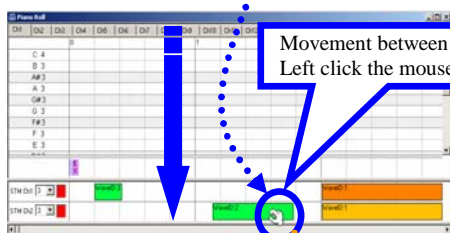
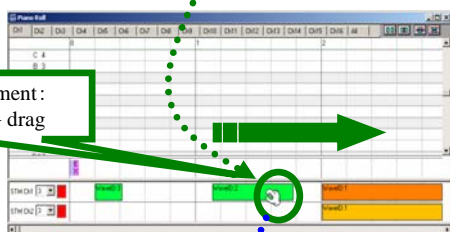
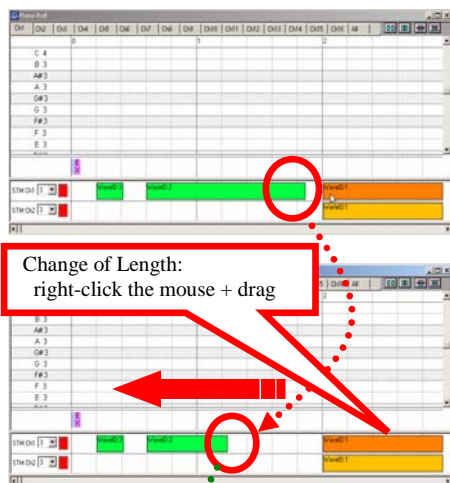
#### Open the StreamPCM File

- Secondly, let’s use the created StreamPCM File (\*.sm3/\*.sm5). At first, open the “StreamPCM Assign Map”. Then, right click the mouse on the title field as described in previous section.
- Popup dialog is displayed, and then select the “**Import from StreamPCM File..**” from the menu.
- “**Open**” dialog is displayed. Specify a file which you expect to open, and then click “**OK.**” At this time, only “\*.sm3” becomes selectable when MA-3 mode is selected; in addition, only “\*.sm5” becomes selectable if MA-5 mode is chosen.
- The selected StreamPCM Files are opened on StreamPCM Assign Map.



## StreamPCM Event

StreamPCM events assigned on “Piano Roll Window” can be moved freely (by dragging); in addition, the length of each event can be changed (by dragging the edge) and deleted. Moreover, the Velocity of StreamPCM can be controlled. A series of each operation are described as follows.



- i. This is a state of which StreamPCM events were assigned on Piano Roll Window.
- ii. Click the right-edge or left-edge of StreamPCM event and drag the edge back and forth; then, the length of StreamPCM can be changed.
- iii. By left-clicking and dragging the StreamPCM event using mouse, each event can be moved back and forth.
- iv. Similarly, by left-clicking and dragging up and down the StreamPCM event, each event can be moved between two channels in STM freely.
- v. By right-clicking the mouse on StreamPCM event, a popup menu “Delete” is displayed. By selecting “Delete” here, the selected StreamPCM event can be deleted from STM channels. Once an event is deleted, it can not be recovered to previous state, so that, please pay an attention when you perform a deletion.

By double-clicking a StreamPCM event, Audio Edit dialog is displayed; in addition, Velocity can be changed. (Default: 100 )

Audio Edit dialog :

