MAmidiMEmo
A Virtual S/W Synthesizer

User's Manual - Rev 0.3

Install & Basic Settings

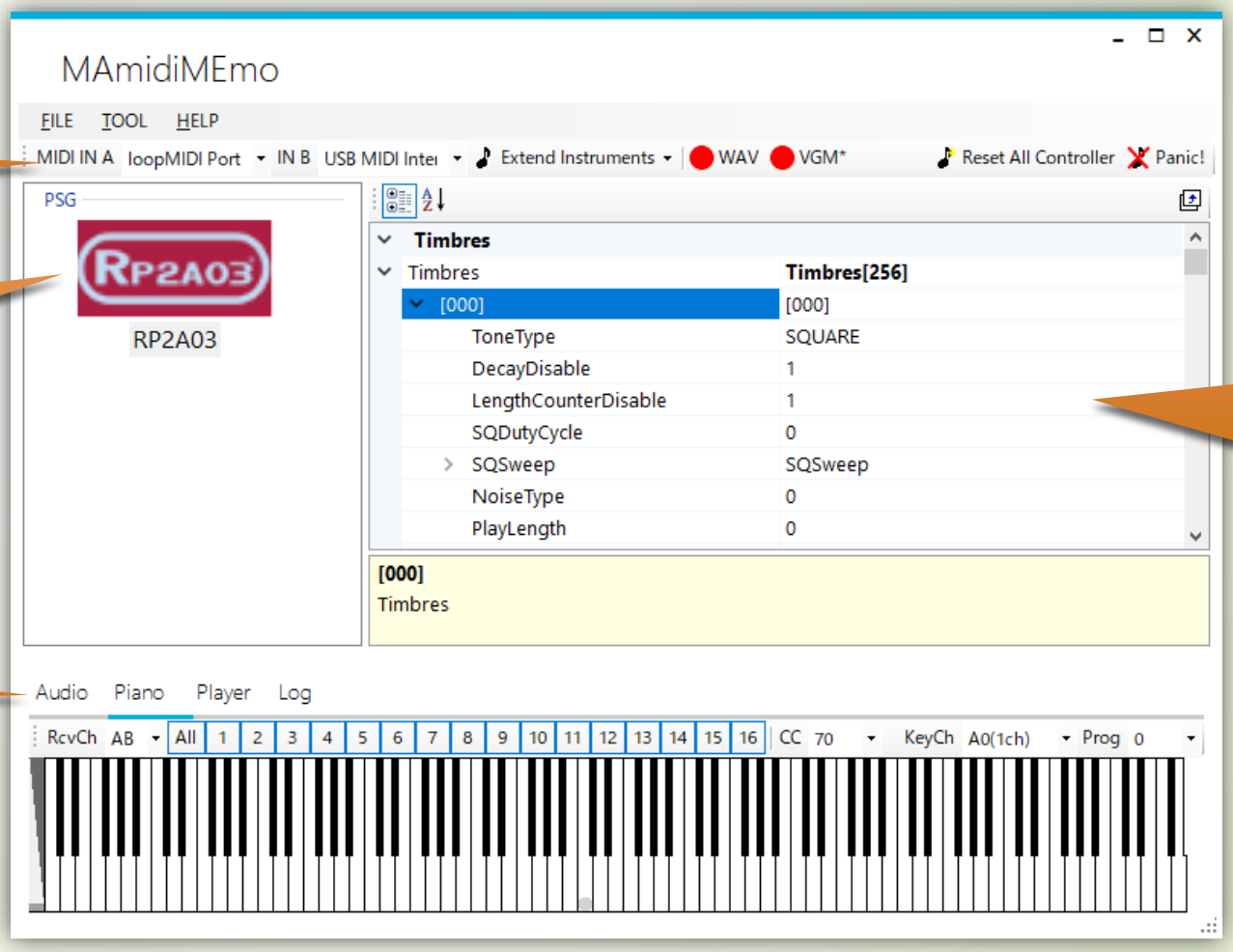
- Install
  - Extract the downloaded zip file.
  - Click MAmidiMEmo.exe
  - Will open the MAmidiMEmo. If not, please check the followings.
    - **.NET Framework 4.7 or later** installed on your PC.
    - **VC++ 2012 Runtime** installed on your PC.
    - (Execute "DelZoneID.ps1“ to remove “Zone.Identifier” flag.)

Window Overview

MIDI IN A,B Selector

Active Chips (see next)

Tools

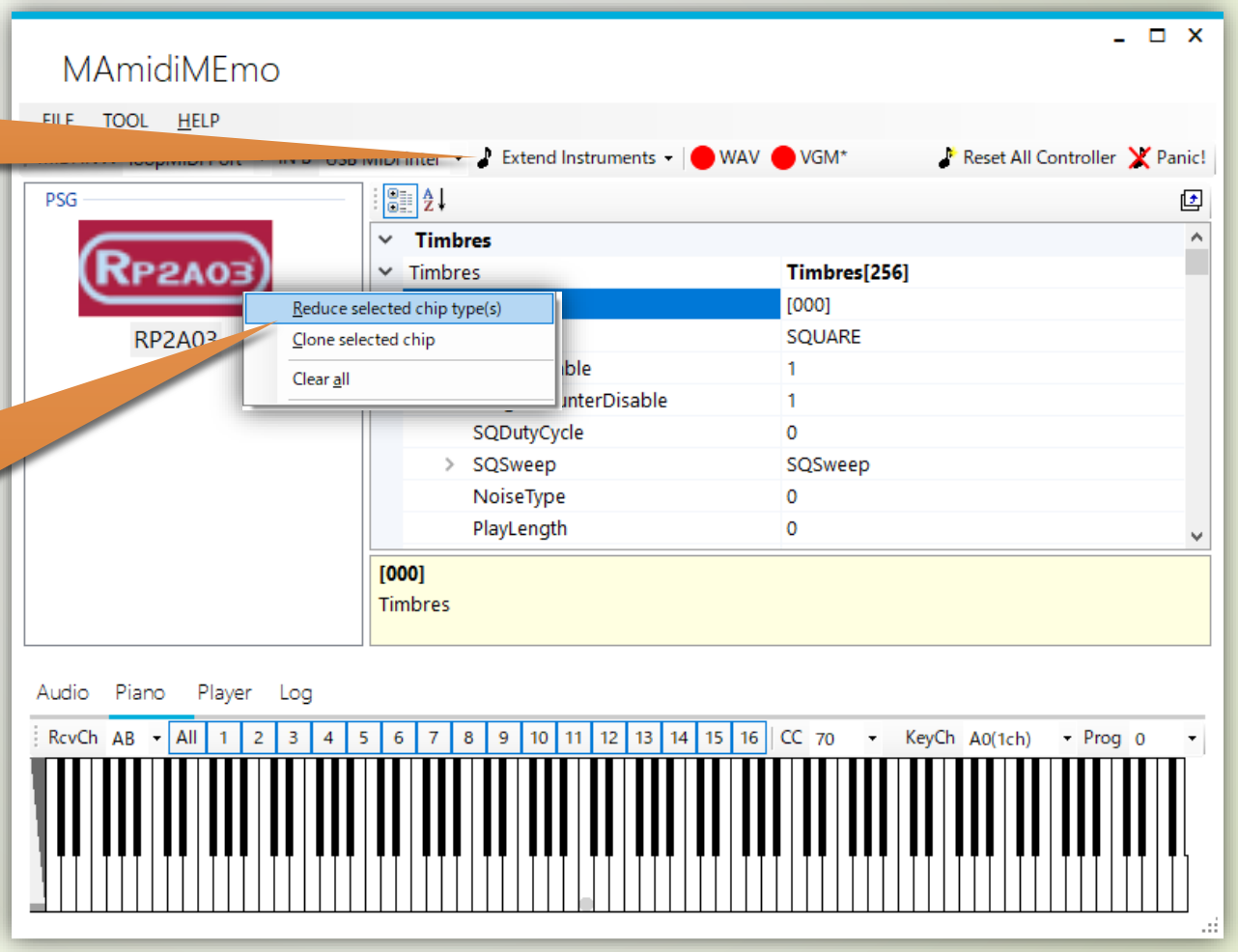


Chip Parameter Editor (see next)

Add and Remove a Chip

To add
Select the chip from this menu.

To remove
Open a context menu and select.

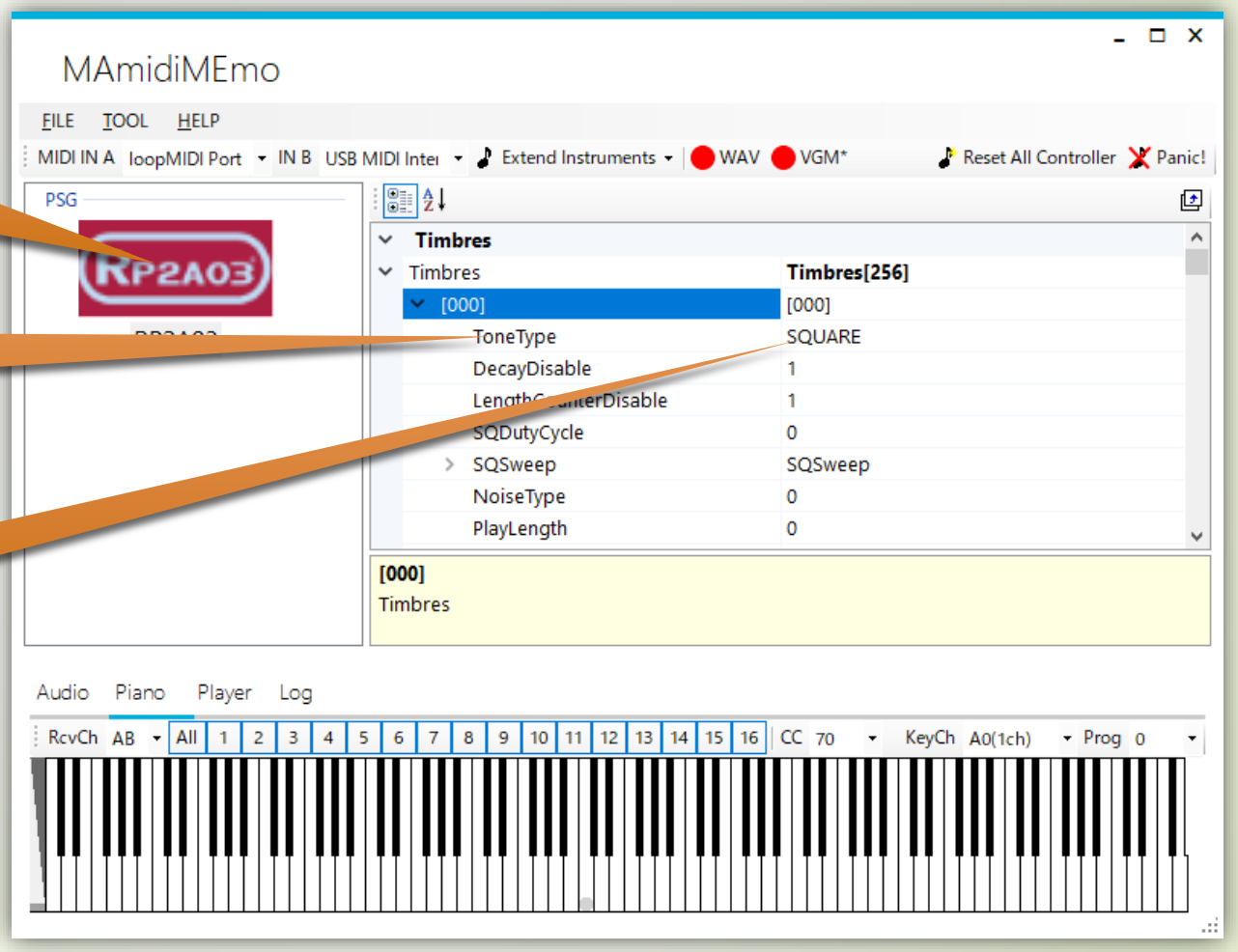


Edit chip and sound parameters

1. Click chip

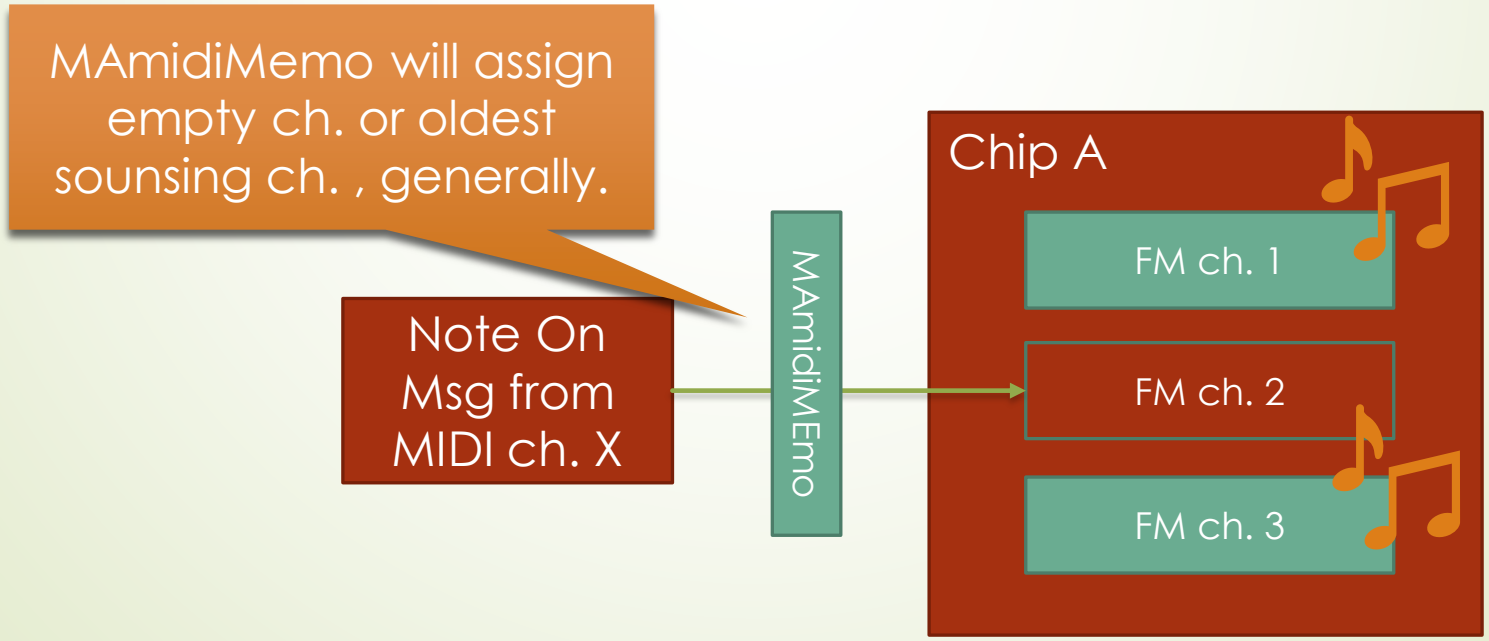
2. Click parameter

3. Change value



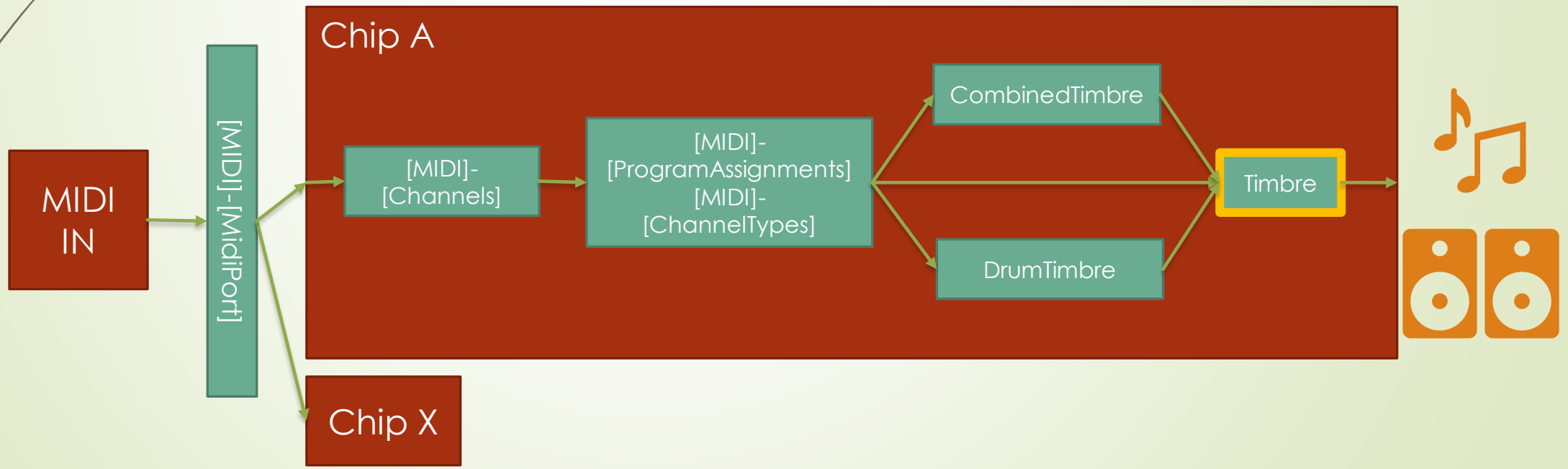
Between MIDI ch and Chip ch Relation.

- You don't need to concern the Chip ch. , generally.
  MAmidiMEmo will assign suitable Chip ch. automatically.
  However, you need to concern a max ch. number of the Chip.
- MAmidiMEmo will assign oldest sounding ch. to sound the new sounds.



Sounding Structure

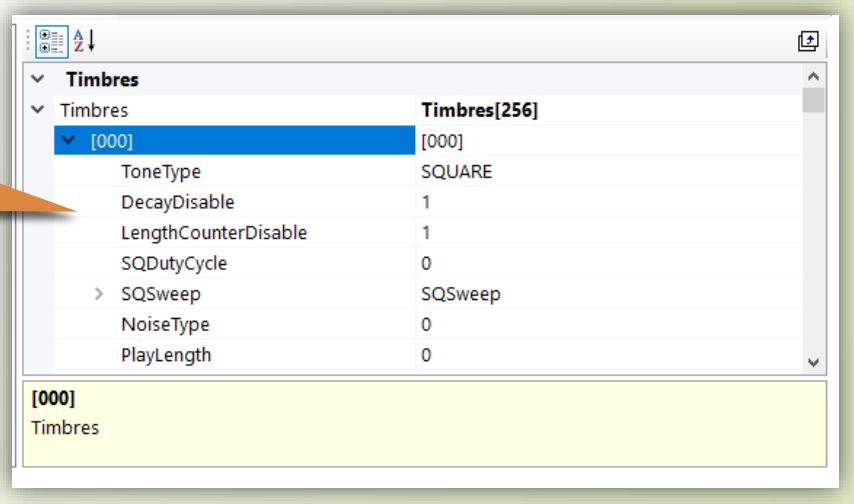
- MAmidiMEmo outputs a sound from MIDI message along with the following structure.
  So, at least, you need to edit the **Timbre** parameters to sound something.



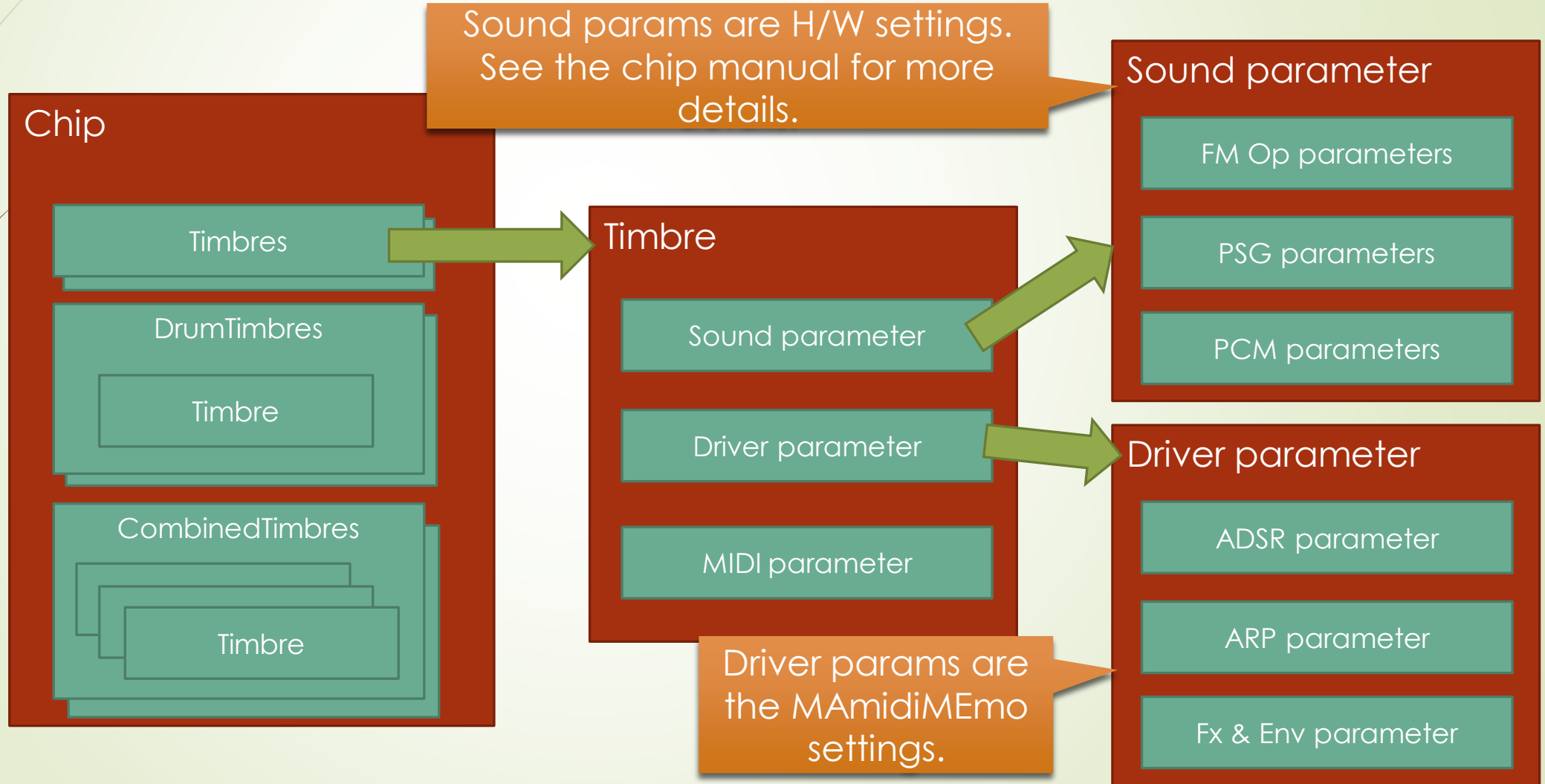
Timbre

- Generally, a chip has 256 Timbres, 256 CombinedTimbres, 128 DrumTimbres.
- CombinedTimbre can sound multiple Timbers at the same time (up to 4)
- DrumTimbre can sound Timbes as a Drum sounds (Ignoring Note Off msg).
- You can change the Timbre parameters on the Chip Parameter Editor. Generally, you need to learn the chip specification to edit the chip parameters.

Chip Parameter Editor

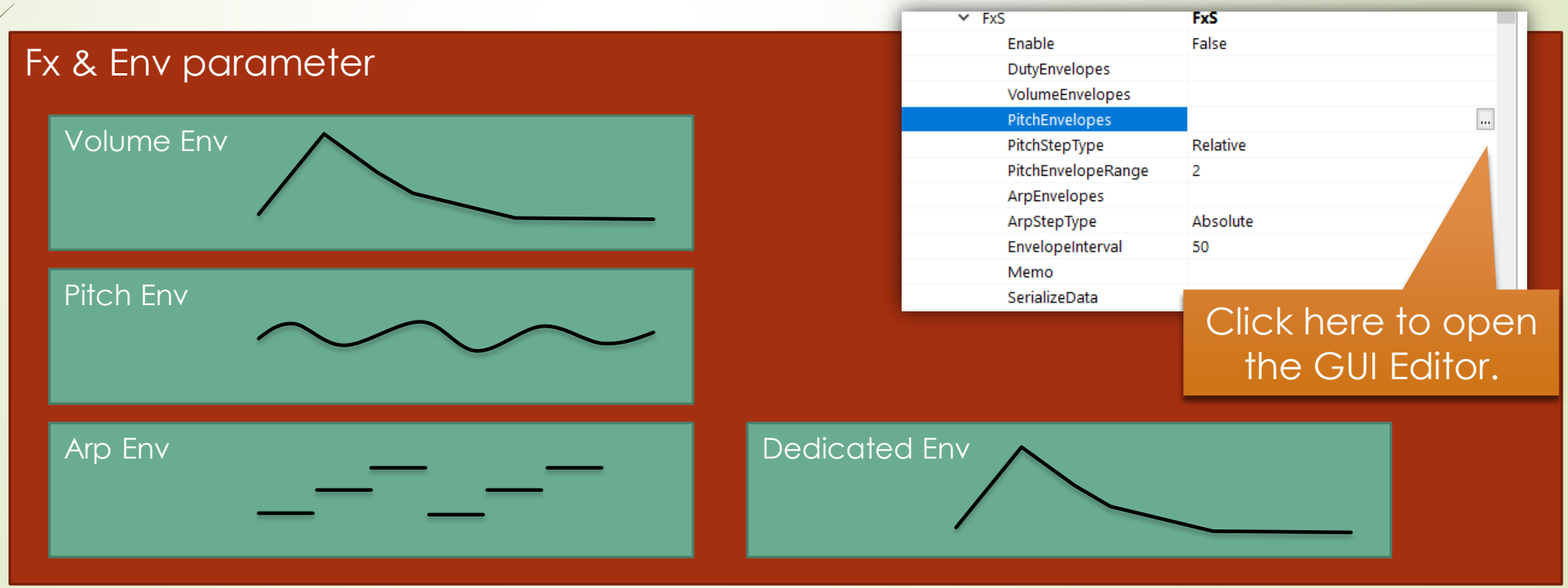


Timbre Structure



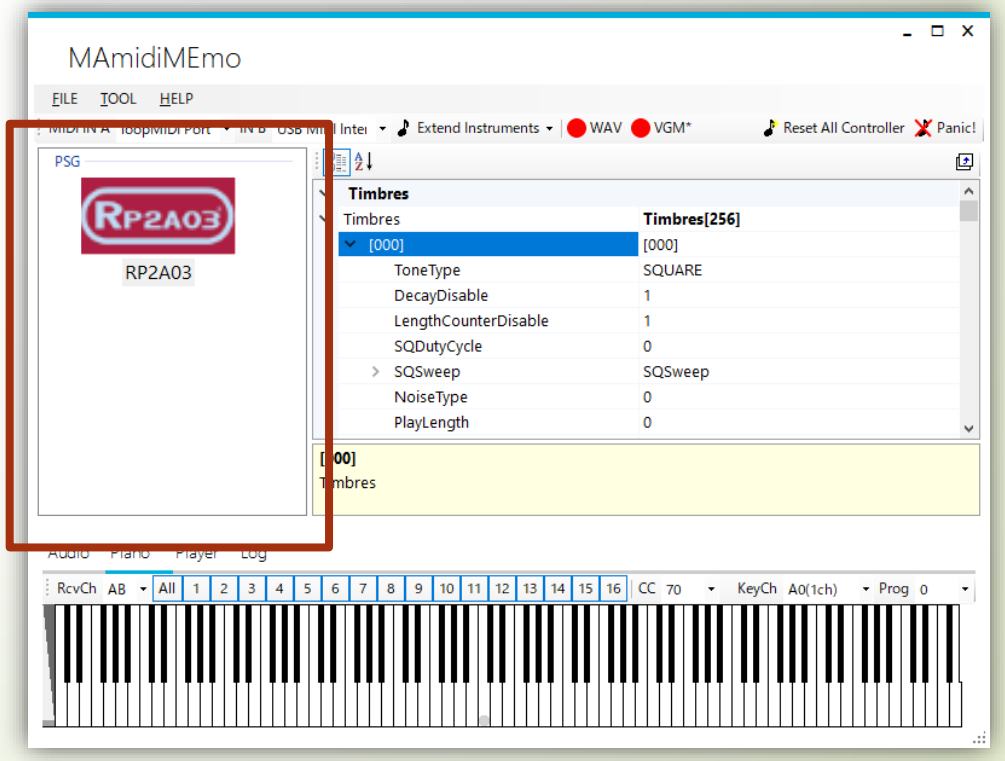
Driver parameters - Fx & Env Structure

- You can make for a rich sound by using driver params. Especially, FxS can do it.



Sample sounds

- There are sample sound files in the “Samples” folder. You can drop a sample file “*.MAmi" to the left pane.



Additional files

- YM2608
  - Place legitimate “ym2608_adpcm_rom.bin” file in the MAmidiMEmo directory to sound ADPCM rhythm sounds.
- MT-32
  - Place legitimate “MT32_CONTROL.ROM” and “MT32_PCM.ROM” in the MAmidiMEmo directory to sound ADPCM sounds.

Limit Break

- Any chip can output only a few voices. However, MAmidiMEmo can break this limitation by the following steps.
  1. Add a chip and complete all settings the chip.
  2. Select the [Clone selected chip]
     Cloned chip added.
  3. Select the cloned chip and
     set the [Follower Mode] value to "Unit0*".
     * If clone source chip ID is 0.

- When the clone source chip consumed all voices, the cloned chip sound for the chip.
- If you want to extend max voices more, select the [Clone selected chip] of the cloned chip. And set the [Follower Mode] value to "Unit0".

VGM Sound Interface(VSIF) – (1)

- MAmidiMEmo can drive real machine chips. Currently supports NTSC SMS(2, *Mk*Ⅲ) for SN76496/OPLL and NTSC Genesis(MD) for SN76496/OPNA2.
- How to
  1. Buy the following parts.
     - 1x UART (FT232R and so on. But CH340 may not) dongle (Note: Supports 163,840bps, 115,200bps)
     - 1x FLASH Cart for SMS or Genesis and 1x D-SUB 9 pin connector (Female) and DuPont wires
  2. Solder like the following.

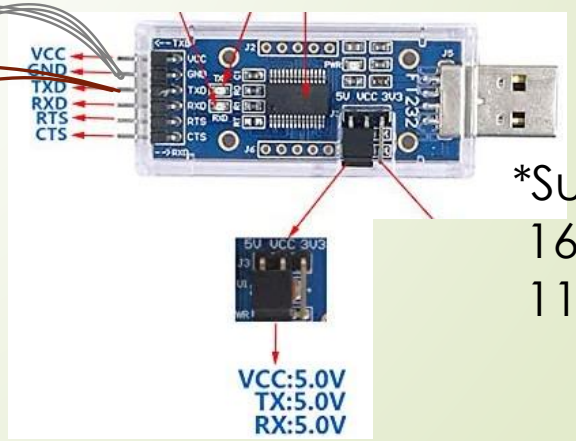
SMS/2 or *Mk*Ⅲ

Pin3 - TX, Pin8 - GND

Genesis/MD

Pin1 - TX, Pin8 - GND

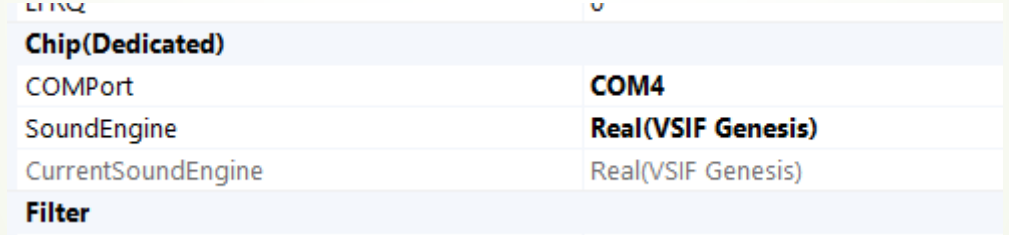
Any UART dongle



*Supports
163,840bps
115,200bps

VGM Sound Interface(VSIF) – (2)

3. Burn VGMPlay_md.bin(for Genesis) or VGMPlay_sms.sms(for SMS) to your FLASH Cart
4. Set the COMPort name and select "VSIF SMS" or "VSIF Genesis".

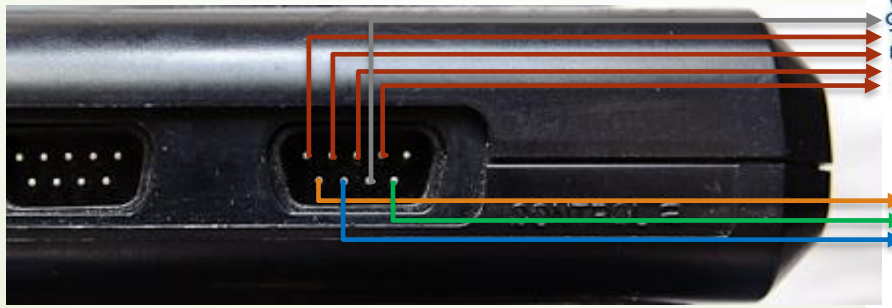


5. Done!
6. If you can not sound sounds, make sure soldering and COMPort name. Or, please contact me.

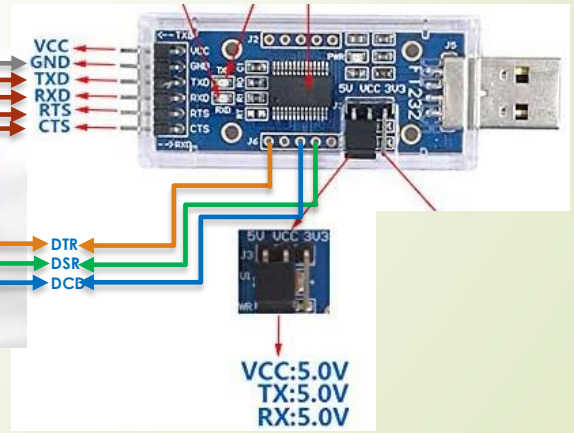
VGM Sound Interface(VSIF FTDI) for VGM Player

- VGM Player can drive real machine chips more faster if you use FTDI2xx(232R, 232H and so on). Currently supports NTSC Genesis(MD) for SN76496/OPNA2.
- How to
  1. Buy the following parts.
     - 1x FTDI2XX (FT232R and so on) dongle
     - 1x FLASH Cart for Genesis and 1x D-SUB 9 pin connector (Female) and DuPont wires
  2. Solder like the following.

Genesis/MD



Any FTDI2XX dongle



VGMPlayer

1) Select interface type

NOTE: Bandwidth of UART is narrow. So you can not play heavy track data properly.

2) Select interface ID

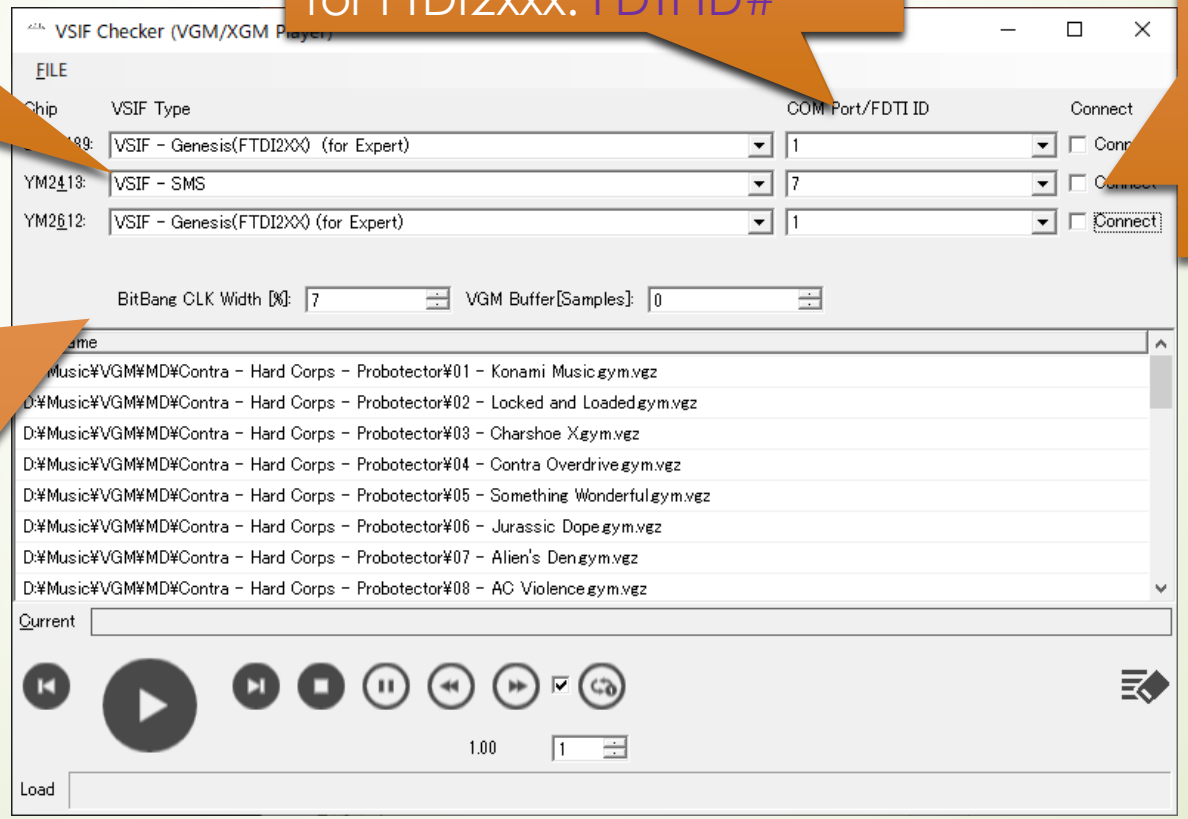
for UART: COMPort#
for FTDI2xxx: FDTI ID#

3) Connect

NOTE: If you re-connect to FTDIxxx mode, please reset Gen/MD.

5) Adjust CLK speed for FTDIxxx mode for each environment (7～8% is best for normal machine)

6) Adjust buffer size for each files. (0 is max accuracy but so heavy.)



Trouble Shooting for MAmi

- If you noticed “sound lag” or “stutter”, open the Settings dialog from [TOOL] menu. Check [Sound Type] and [Audio Latency] value.