

MA-5 Authoring Tool (ATS-MA-5 SMAF edition) Introduction Guide

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YAMAHA CORPORATION

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<Revision History>

Ver.	Date	Description
1.0.0	2003/04/25	First edition.
1.1.0	2003/09/12	MA-3 Authoring Tool User's Manual was deleted. VLP-MA5 was newly added. The description about the MA-3 mode was added.
1.2.0	2004/01/19	VLW-MA3 was newly added. Document name was changed from "SMF Authoring Guideline" to "Contents Authoring Guideline". Caution about external AC power adapter was added in package contents. 2. Contents of the tool package were changed. <input type="checkbox"/> MA-5 Authoring Tool Installation Manual (for Windows®98) was deleted. <input type="checkbox"/> USB-midi driver (for Windows® 98) was deleted. 3. Description about Windows® 98 was deleted. 4. VLW-MA3 (Ethnic Voice Library) was added.
1.3.3	2004/11/15	2. Contents of the tool package changed. <input type="checkbox"/> Documents of HV were added newly. <input type="checkbox"/> HV Tool was added newly. <input type="checkbox"/> Easy Procedures were added newly. <input type="checkbox"/> VLD-MA3 voice library was added newly. 4. Description about HV function was added newly. Description about VLD-MA3 voice library was added.
1.4.0	2005/09/22	The support for Korean HV-Script was discontinued. 2. Contents of the tool package were changed. <input type="checkbox"/> Doc, Installer, Simple Procedure, HVTool were updated. <input type="checkbox"/> HV-Script_KR.pdf was deleted. 4. Description about "Karaoke Scoring-Section Setting Function" was added.

1. Introduction

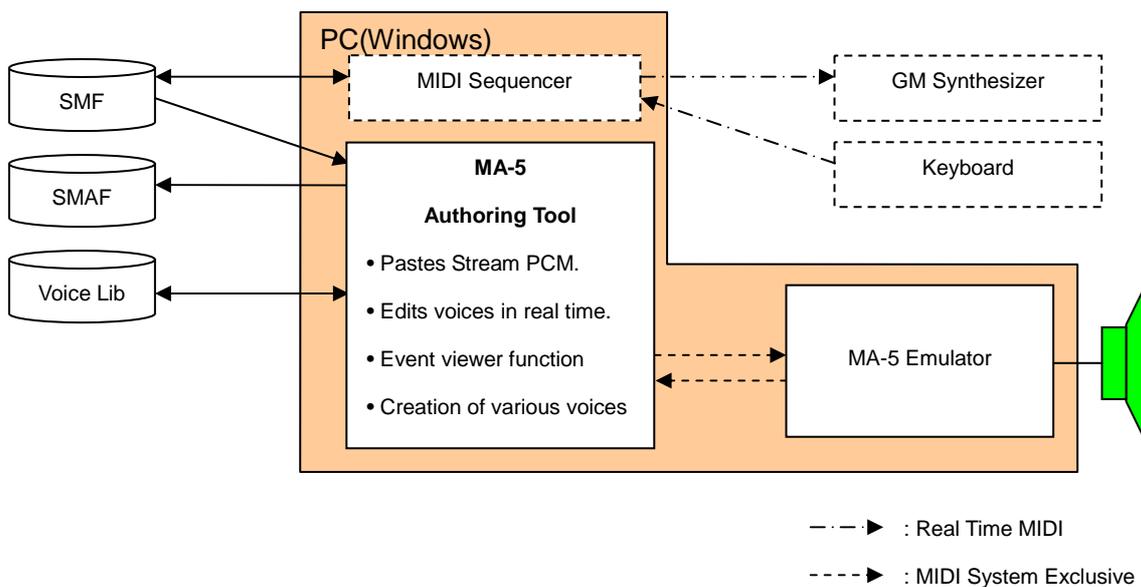
This document describes general matters of MA-5 Authoring Tool (ATS-MA-5). Read this document before reading other documents.

3. About a Configuration of MA-5 Authoring Tool

MA-5 Authoring Tool is software for authoring, editing and valuating of the contents for portable terminals. This software can run on Windows®2000 or Windows®XP.

With this application, conversion to SMAF (Synthetic music Mobile Application Format) from SMF (Standard MIDI File), edition of voices, edition of management information, and verification by the pronunciation of the system in MA-5 emulator can be performed.

The following figure shows schematic configuration of MA-5 Authoring Tool.



Block Diagram of MA-5 Authoring Tool

4. About Functions of MA-5 Authoring Tool

◆ Creation of Contents for MA-3 and MA-5

MA-5 authoring tool can create both of MA-3 contents and MA-5 contents by changing AT-Mode.

◆ Independence of MA-5 Authoring Tool and Sequencer

MA-5 Authoring Tool is an independence application software that is used together with General MIDI sequencer. The user is allowed to use a sequencer that is accustomed to him/her best. All operations up to completion of conversion into SMAF can be by performing the sequence edition with the sequence software that is used and by performing voice edition and management information edition with MA-5 Authoring Tool.

◆ The maximum number of tones generated simultaneously

MA-5 authoring tool has FM16 mode, FM32 mode, and ALL64 mode. The maximum number of tone generated simultaneously differs by whether AL channel is used or not.

<MA-3 Mode>

- The maximum number of tones generated simultaneously when AL channel is not used

	FM synthesizer	PCM synthesizer	StreamPCM	Total
FM16 mode	16	8	2	26
FM32 mode	32	8	2	42

<MA-5 Mode>

- The maximum number of tones generated simultaneously when AL channel is not used

	FM synthesizer	PCM synthesizer	StreamPCM	HV	Total
FM16 mode	16	16	2	1	35
FM32 mode	32	16	2	1	51
ALL64 mode	32	32	Cannot use	Cannot use	64

- The maximum number of tones generated simultaneously when AL channel is used

	AL	FM synthesizer	PCM synthesizer	StreamPCM	HV	Total
FM16 mode	1	15	15	2	1	34
FM32 mode	1	31	15	2	1	50
ALL64 mode	Cannot use	32	32	Cannot use	Cannot use	64

PCM synthesizer reads the sound files (AIFF, WAVE) of 16bitPCM (encodes to 4bitADPCM or 8bitPCM) or 8bitPCM (encodes to 8bitPCM) and changes frequency and envelope, and sets the loop point etc. And you can use your favorite tones that are a maximum of 16 tones in FM32 mode and maximum of 32 tones in ALL64 mode (this has size limitation).

◆ **Stream PCM Pasting Function**

Can read stream PCM file for performing simultaneous play with channel sequence and assign it.

◆ **HV Creating and Editing Function**

<MA-5 Mode>

The data of HV which is the script voice synthesis function of MA-5 can be created and edited. HV script file can be created and the voice can be synthesized from language freely. Moreover, the compound language is assignable so that it may synchronize with a channel sequence. On the piano roll window, it is possible to edit it, such as paste, move, and HV script edit. Language and intonation can be changed by editing HV script, and the tone quality of voice can be changed by editing HV voice.

◆ **Real Time Voice Edit**

SMF data that have been read can be confirmed on the event viewer. Voice change can be made in real time.

◆ **Event Viewer Function**

- SMF data can be read and event information can be verified on the score window.
- The contents of SMF file can be verified on the windows of event list and piano roll. The windows of piano roll advances synchronously during verification of the reproduction.
- Edition of information of music can be made.

◆ **Allows creation of various voices**

MA-5 Authoring Tool adopts two synthesizer systems including FM synthesizer and PCM synthesizer.

<MA-3 Mode>

- FM 16 mode : This mode can use the voice of 2 operators and 4 operators and PCM voice.
- FM 32 mode : This mode can use the voice of 2 operator and PCM voice.

<MA-5 Mode>

- FM 16 mode : This mode can use the voice of 2 operators and 4 operators and PCM voice, and set AL parameter.
- FM 32 mode : This mode can use the voice of 2 operator and PCM voice, and set AL parameter.
- ALL64 mode : This mode can use the voice of 2 operator and PCM voice. (This mode cannot use AL parameter, StreamPCM, and HV voicer.)

◆ **AL Parameter Function**

<MA-5 Mode>

The filter effects can be achieved by setting the AL parameter to FM voice, PCM voice, and Noise.

(You cannot use AL parameter when AT-Mode is set to “MA-3” or FM Mode is set to “ALL64” mode.)

◆ **Realize the various sounds easily by using Voice Library**

In this application, the Voice Libraries (VLF-MA3 /VLP-MA3 /VLA-MA5 /VLP-MA5 /VLW-MA3/VLD-MA3) which record various voices data are attached.

VLF-MA3 is the extended voice library of FM voice. The sounds, which idea differs from default voices, can be used extending simply.

VLP-MA3 and **VLP-MA5** are PCM voice library. Different real sounds from FM sound are easily realizable.

VLA-MA5 is the library of voices which use AL parameter. The sound, which added the filter effect to FM voice and PCM voice, can be used.

VLW-MA3 is the Ethnic Library and is possible to extend a sound of ethnic instruments.

VLD-MA3 is Decorator voice library. The sound of music can be variously changed by replacing a voice set.

The various sounds are possible to realize easily by using these.

Refer to the manual (VLF-MA3_v***.pdf, VLP-MA3_v***.pdf, VLA-MA5_v***.pdf, VLP-MA5_v***.pdf, VLW-MA3_v***.pdf), which are attached to the library for details, such as the registration method of each voice library.

◆ **Karaoke Scoring-Section Setting Function**

The section and the channel for karaoke scoring can be specified.

5. Authoring procedure and flow of data

The following diagram shows basic flow of data authoring. When PCM data and/or MIDI data exists already, and they are used, another flow is possible.

