MA-5 Authoring Tool
(ATS-MA5-L MLD edition)
Introduction Guide

Version 2.3.0

2006/03/01

YAMAHA CORPORATION

<Contents>

<Revision History>

Ver.	Date	Description
2.3.0	2006/03/01	Newly released.

1. Introduction

This document describes general matters of MA-5 Authoring Tool (ATS-MA5-L).
Read this document before reading other documents.

2. About folder composition

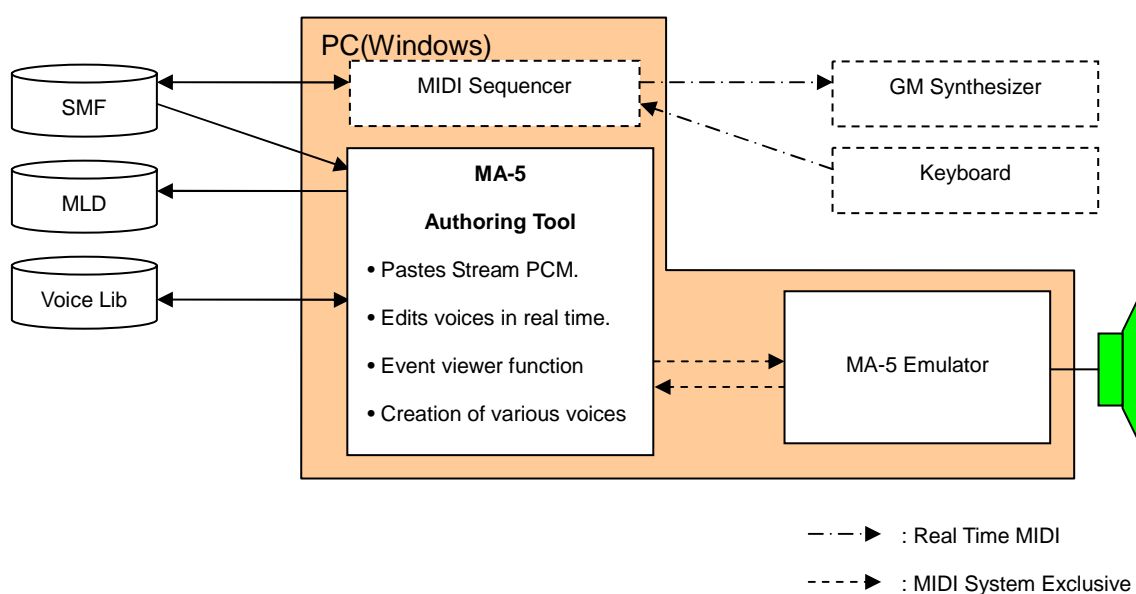The contents of MA-5 Authoring Tool (ATS-MA5-L) are as follows.

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¥___ Doc _____ ATS-MA5-L_UM_***.pdf        : MA-5 Authoring Tool Users Manual
  |         |__ ATS-MA5-L_GL_***.pdf        : Contents Authoring Guideline for MA-5 Authoring tool
  |         |__ ATS-MA5-L-IM_***.pdf        : MA-5 Authoring Tool Installation Manual
  |         |__ ATS-MA5-L_INT_***.pdf       : MA-5 Authoring Tool Introduction Guide
  |         |__ ATS-MA5-L-***.txt           : Release Note
  |
  |__ ATS-MA5-L ___ setup.exe    Other      : MA-5 Authoring tool installer and required file for installation
  |
  |__ Sample _____ NormalMusic              : Sample music data
  |            |__ StreamPCM
  |
  |___ VoiceLibrary _____ VLA-MA5         : Voice library      (AL voice)
  |___ VLF-MA3                                                   (FM voice)
  |___ VLP-MA3                                                   (PCM voice)
  |___ VLP-MA5                                                   (PCM voice)
  |___ VLW-MA3                                                   (Ethnic voice)
```

3. About a Configuration of MA-5 Authoring Tool

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

With this application software, you can convert SMF (Standard MIDI File) into MLD file, edit the voice data and management data, and verify the sound with the built-in MA-5 emulator.
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

◆ **Independence of MA-5 Authoring Tool and Sequencer**

MA-5 Authoring Tool is the 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 MLD file 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.

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

	FM synthesizer	PCM synthesizer	StreamPCM	Total
FM16 mode	16	16	2	34
FM32 mode	32	16	2	50
ALL64 mode	32	32	Cannot use	64

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

	AL	FM synthesizer	PCM synthesizer	StreamPCM	Total
FM16 mode	1	15	15	2	33
FM32 mode	1	31	15	2	49
ALL64 mode	Cannot use	32	32	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 FM16 and FM32 mode, and maximum of 32 tones in ALL64 mode (this has size limitation).

◆ **Stream PCM Pasting Function**

Stream PCM data can be assigned for performing simultaneous play with channel sequence.

◆ **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.

◆ **AL Parameter Function**

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

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

Voice Libraries (VLF-MA3 /VLP-MA3 /VLA-MA5 /VLP-MA5 /VLW-MA3) which record various voices data are attached in this package.

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.

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.

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.

Flow	Supplement

START

Arrange an Authoring environment

Is authoring environment that includes the following items arranged in addition to this authoring tool?
- Commercially available PCM data collection tool
- Commercially available MIDI sequence software
- MIDI keyboard, etc.
Refer to "MA-5 Authoring Tool User's Manual".

Collection / edit of PCM data.

Use commercially available PCM data edition tool to perform collection and edition of voices, and save with WAV format or AIFF format.

Author SMF by using your MIDI sequence software.

Use your MIDI sequence software to make sequence data and save them with SMF Format 0 or 1.
Refer to "Contents Authoring Guideline for MA-5 Authoring Tool ".

Edit voices by using authoring tool, and assign voice data.

Verify tone production by using authoring tool.

Use the authoring tool to read SMF that has been made.
Use the functions as follows to edit the sequence data.
- Voice edition
- Stream PCM pasting Perform verification of tone production, and save tones as MLD data when they are complete.
Refer to "MA-5 Authoring Tool User's Manual".

Completed?
No
Yes

Save with MLD.

END