MA-2 Authoring Tool User's Manual (ATS-MA2-P Edition)

Ver. 1.0.1

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YAMAHA Corporation

⊛YAMAHA

Revision History

Ver.	Date	Content
1.0.0	2003/09/24	First Edition

1.0.1	2004/03/18	2.2.2 Starting Window
		    The skip function of a splash image display was added.
		    A splash image was changed.
		3.8 Version Dialog
		    Dialog image was changed.

Contents

1. Outline

This document describes the usage of the MA-2 Authoring Tool ATS-MA2-P (hereafter called ATS-MA2).

1.1. Functions of ATS-MA2

ATS-MA2 is an application software which can be performed on the environment of Windows®2000 and Windows®XP, in addition, it is also for authoring a ringing melody that is usable on the terminals which has on board a synthesizer LSI [MA-2] for the mobile phones.

The main functions are as follows.
- The conversion function from SMF (Standard MIDI File) to MLD file
- The voice editing function of MLD file
- The performance function of MLD file
- The filter function for MLD file conversion of SMF (hereafter called SMF Filter)
  In order to the formal conversion of "SMF → MLD" without the SMF Filter, the creating of SMF in accordance with the "Ringing melody authoring guideline for ATS-MA2-P" is needed.
  [Note] When SMF Filter is used, all voices are changed to FM preset voice. Therefore, all setting of FM user voice/ADPCM voice becomes invalid.

1.2. Recommended Operation Environment

This application software needs the following operation environments.

1.2.1. CPU Clock

➢ Pentium®/Celeron™ or compatible processor
➢ 400MHz or more

1.2.2. OS

➢ Windows®2000 / Windows®XP

1.2.3. Required Hard Disk space

➢ 40MB or more

1.2.4. Memory

➢ 64MB or more

2. Starting and Ending of the Application

2.1. File Structure

ATS-MA2 is consisted by the following five files.

File name	Function
ATS-MA2-P.exe	Main body of Application
M5_EmuHw.dll	Hardware emulator
M5_EmuSmw5.dll	Middleware emulator
S2M_P.dll	MLD to System Format Converter
M2S_P.dll	System Format to MLD Converter
fm_temp.vma	Voice library file

2.2. Starting

2.2.1. Starting Operation

This application starts from selecting the shortcut created on the desktop by the installer, or from the program menu. It is also started by double-clicking of "ATS-MA2-P.exe" directly or inputting of a file name by the "Run: specifying and performing a file name" in a start menu.

In addition, two or more simultaneous starting of ATS-MA2 cannot be performed. When "ATS-MA2 is already running." is displayed, ATS-MA2 is already in operation. Please perform an End process as the need arises.

2.2.2. Starting Window

The following pictures are displayed in a starting stage.
While a starting screen displays, it is possible to cancel the display of bitmap by pressing a space key or return key.

2.3. Ending

2.3.1. Ending Operation by the Title bar Menu [Close]

The operation will be terminated, when the [Close (Alt+F4)] in a title bar menu is chosen.

2.3.2. Ending Operation by the [Close] Button

The operation will be terminated, when the button (⊠) on a right corner of a title bar [closes] is pushed.

2.3.3. Other Ending Operation

The operation will be terminated, when the [Alt] + [F4] (press [F4] with [ALT]) is pressed at the time of the main window being active.

2.3.4. Ending Limitation

The End process cannot be performed, in the condition of the sub dialogs, such as MA2 Voice Library, are opening.

3.   Window

The relation between each window（□display） and process are summarized as follows.
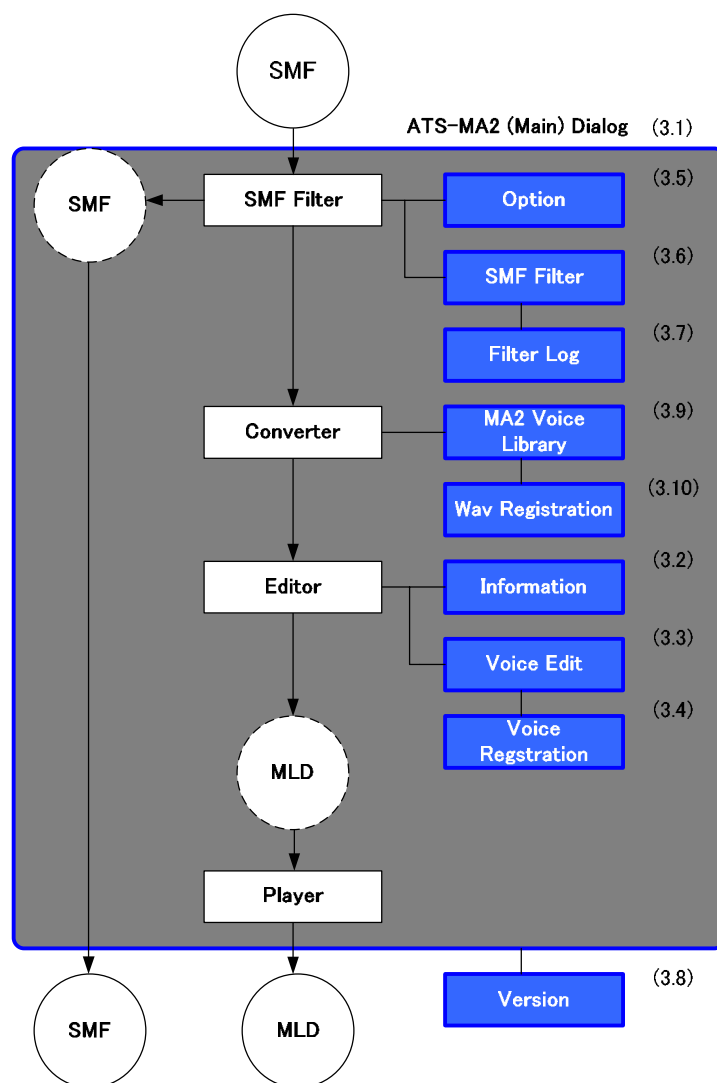
(3.1) ATS-MA2 Dialog

This is a Main dialog of ATS-MA2 application. The specification of preservation and a read of both MLD and SMF file, and a playback operation of MLD file by player are performed.

(3.2) Information Dialog

A set up of the information which peculiar to MLD file are performed.

(3.3) Voice Edit Dialog

The editing and the audition of FM voice information on a converted MLD file and the audition of an ADPCM voice are performed.

(3.4) Voice Registration Dialog

FM voice information edited into the specific MLD file in the Voice Edit dialog (3.3) is registered into the voice library of application, and re-use is made possible.

(3.5) Option Dialog

This is a setup dialog for the option functions. Specifically, it is a setup of SMF Filter (3.6) and Filter Log display (3.7).

(3.6) SMF Filter Dialog

The channel which becomes effective by SMF filter is set up.

(3.7) Filter Log

The specific details about the operation contents of SMF Filter (3.6) such as an event operation, a Channel deletion etc. are displayed.

(3.8) Version Dialog

The version information of ATS-MA2 application is displayed.

(3.9) MA2 Voice Library Dialog

The operation and editing of the voice information library which is managed by an application is performed. The voice units of an audition are also possible.

(3.10) Wav Registration Dialog

ADPCM conversion of the voice information on a Wav file is carried out, and it is registered with the voice library of an application as the voice information.

3.1. ATS-MA2 Dialog

This is a Main dialog. It is displayed at the starting of application.
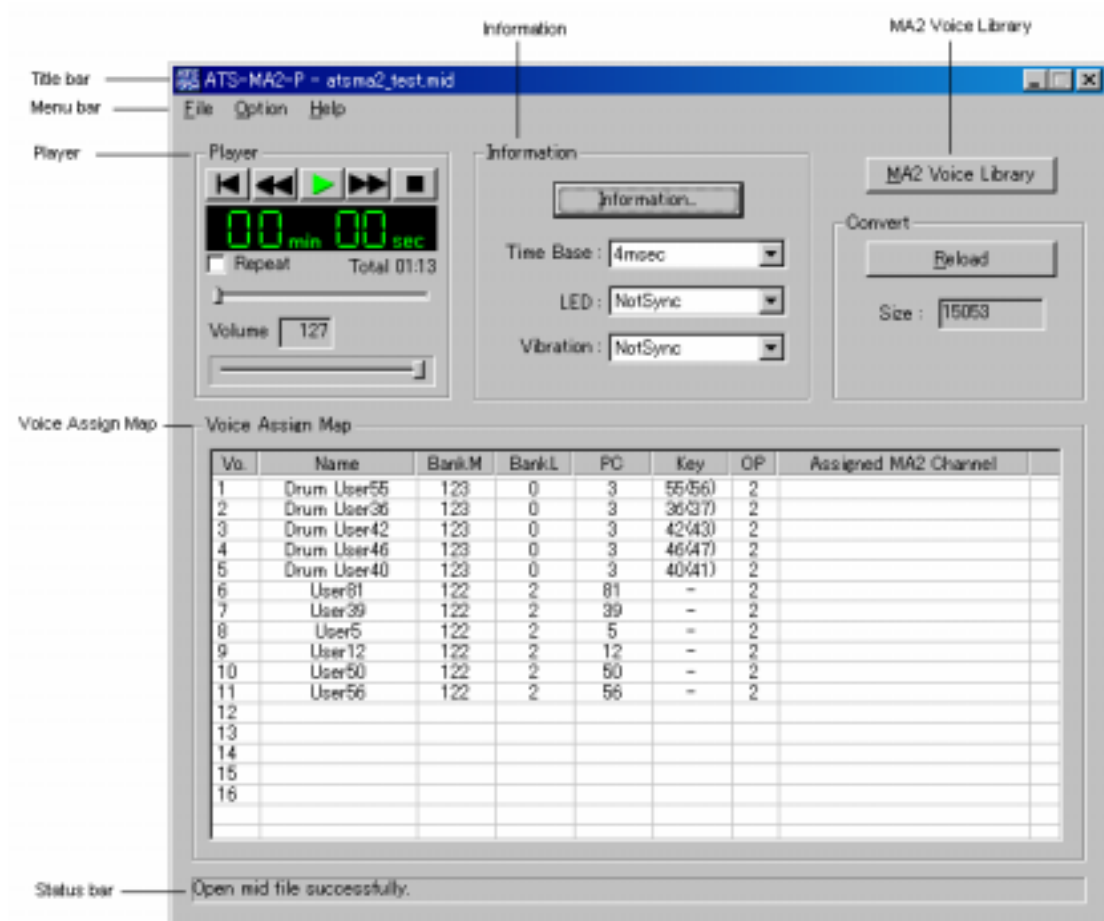
3.1.1. Menu Bar

3.1.1.1. File Menu

The following File menu is displayed when "File" of Menu bar is selected.

SMF Open

The "SMF Open" dialog is displayed, and SMF can be specified. The designated SMF is converted to MLD file, and when the conversion is completed successfully, a playback by a player is made available. However, the menu cannot be selected during a playback by player.

The same operation is possible by drag and drop SMF to ATS-MA2 dialog directly.

Save SMF

SMF is overwritten with the file name saved in "SMF Save As" dialog just before. The SMF file which had a SMF Filter processing is applicable. When SMF Filter is not in used, this menu cannot be selected.

SMF Save As

The "SMF Save As" dialog is displayed, and the file name which will be saved can be designated. Since a File in which SMF saved received a SMF Filter that had a process is applicable, this menu cannot be selected when SMF Filter is not in used. If the input of extension is omitted at the input of File name, the ".mid" is added.

mld Open

The "mld Open" dialog" is displayed, and the MLD file can be specified. Although the specified MLD file can be played back by a player, reediting and saving cannot be performed. In addition, this menu cannot be selected during a playback.

The same operation is possible by drag and drop MLD to the ATS-MA2 dialog directly.

mld Save

The "mld" file is overwritten with the file name saved in "mld Save As" just before. When the "mld Save As" is not in used, this menu cannot be selected.

mld Save As

The "mld Save As" dialog is displayed, and the file name which will be saved can be designated. This menu can be chosen when MLD conversion of the read SMF is carried out normally. If the input of extension is omitted at the input of File name, the ".mld" is added.

Exit

The present dialog is closed, and the application is terminated.

[ALT] + [F4] is same operation.

3.1.1.2. Option Menu

When the "Option" in a menu bar is selected, the following Option menu is displayed.
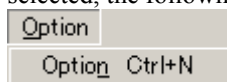
Option

Option setting dialog (3.5) is displayed.

3.1.1.3. Help Menu

When the "Help" in a menu bar is selected, the following Help menu is displayed.

Version

Version information dialog (3.8) is displayed.

http://smaf-yamaha.com/what/other2.htm

The Web page which shows the information about the application for the authoring a ringing melody data which includes ATS-MA2-P is called. URL is specified and a browser is started.

3.1.2. Player

The playback functions of MLD file are performed in this block.
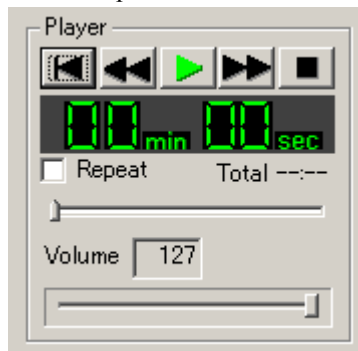
3.1.2.1. Search Button

 The playback position of music is returned to a head.

3.1.2.2. Rewind Button

 The playback position of music is returned for 1 second.

3.1.2.3. Play Button

The playback of music is started.

It can be operated only in the state in which a playback by the Player is possible.

3.1.2.4. Fast-forward Button

The playback position of music is advanced for 1 second.

3.1.2.5. Stop Button

The playback of music is terminated, and a playback position is returned to a head.

3.1.2.6. Time Display

The playback position of music is displayed. After a playback is completed, it returns to "0."

3.1.2.7. Repeat Check Box

The repeat playback of music is set up. (A repeat playback is fixed with a check.)

The operation under a playback cannot be performed.

3.1.2.8. Playback time
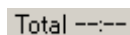
Total --:-- The total time of the music's playback is displayed.

3.1.2.9. Playback Position Slider

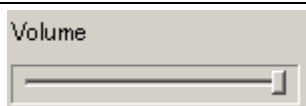The playback position of music is displayed. After a playback is completed, it returns to "0."

Moreover, it is also possible to specify a playback start position by operating a slider position directly.

3.1.2.10. Volume Display

Volume 127 The current Volume value (0 to 127) is displayed.

3.1.2.11. Volume Slider

Volume

The Volume value at the time of a playback (0 to127) is set up.

3.1.3. Information
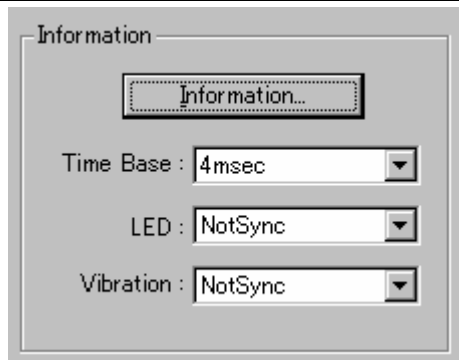
The peculiar information of MLD is set up by this block.

3.1.3.1. Information Button
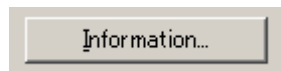
The information dialog (3.2) is displayed.

3.1.3.2. Time Base Combo box
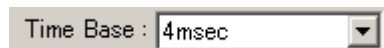
The time base at the time of MLD conversion can be chosen from 4, 5, 10, and 20msec. Default is 4msec.

3.1.3.3. LED Combo box
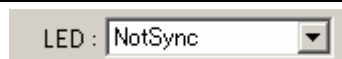
The channel which synchronizes Note and LED flicker can be specified from the channel of 1-12.

Default is with no synchronous setting (NotSync).

[Note] It does not synchronize with Note which Pitch Bend requires irrespective of this setup.

3.1.3.4. Vibration Combo box
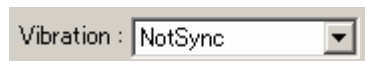
The channel which synchronizes Note and Vib vibration can be specified by the individual channels (1 to 12).

Default is with no synchronous setting (NotSync).

[Note] It does not synchronize with Note which Pitch Bend requires irrespective of this setup.

3.1.4. MA2 Voice Library

The voice library of application is operated by this block.

3.1.4.1. MA2 Voice Lib Button
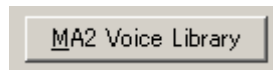
MA2 Voice Library dialog (3.9) is displayed.

3.1.5. Convert
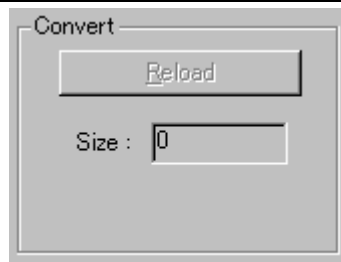
The conversion to MLD from SMF is operated by this block.

3.1.5.1. Reload Button
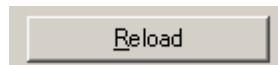
Conversion to a reading MLD file is again performed for SMF.

3.1.5.2. Size Display
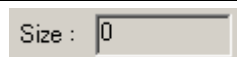
The size of the changed MLD file is displayed. The unit is a byte.

3.1.6. Voice Assign Map List View

The information about the used voice of the MLD file which is converted from SMF is displayed. A Voice Edit dialog (3.3) is displayed by double-clicking the displayed line, and editing and audition of voice information are attained.

In the Preset voices (ProgramChange: 1-2) of drum (Bank Select MSB: 123), Note of undefined voice (Note: 0-12, 92-127) is processed as conversion error. But Note which is not defined the effective voice (Note: 13-23, 85-91) is not processed as conversion error and it is displayed by red colored font on VoiceAssignMap.

This Note can play by Player since it does not become the conversion error. However, it is desirable deleting from SMF since it is not effective setting.

3.1.6.1. Voice No

The registration number of a voice is displayed.

3.1.6.2. Voice Name

A voice name is displayed.

3.1.6.3. BankMSB

The value of Bank Select MSB of voice is displayed.

3.1.6.4. BankLSB

The value of Bank Select LSB of voice is displayed.

3.1.6.5. Program Change

The value (1-128) of Program Change of a voice is displayed.

3.1.6.6. Key

The Note number in the case of a Drum voice (0-127) is displayed.

3.1.6.7. Operator

The using operator number of voice is displayed.

3.1.6.8. Assigned MA2 Channel

The channel of MA2 assigned to the voice as starting playback is displayed.
And information about the conversion error, which is occurred by the problem of the Note
(0-12,92-127) setting of APCM in User voice (ProgramChange: 3-10) of drum bank
(BankSelectMSB: 123) is displayed.

①Cannot open vma file
    This message is displayed when the Note corresponding to the ADPCM voice which is not
    registered into MA-2 Voice Library is specified.
②Either 4k Hz ADPCM or 8k Hz ADPCM can be used.
    This message is displayed when ADPCM voices of different sampling frequency are
    specified simultaneously. This conversion error is removed by making frequency in
    agreement with 4kHz or 8kHz.
③Program Change is out of range.
    This message is displayed when 0 or 1 which is Program Change for preset is specified.
    Please set Program Change of ADPCM voice from #2 to #9.

① and ②, among the above-mentioned error messages, are correctable by updating registration
of ADPCM voice. The shortcut to ADPCM registration dialog operation (Refer to 3.10 ADPCM
Registration Dialog) is possible in double-clicking the line as which these messages are displayed.
After registering the ADPCM voice from shortcut, it is possible to re-convert to MLD file by
operation of "Reload" button.

3.1.7. Status Bar
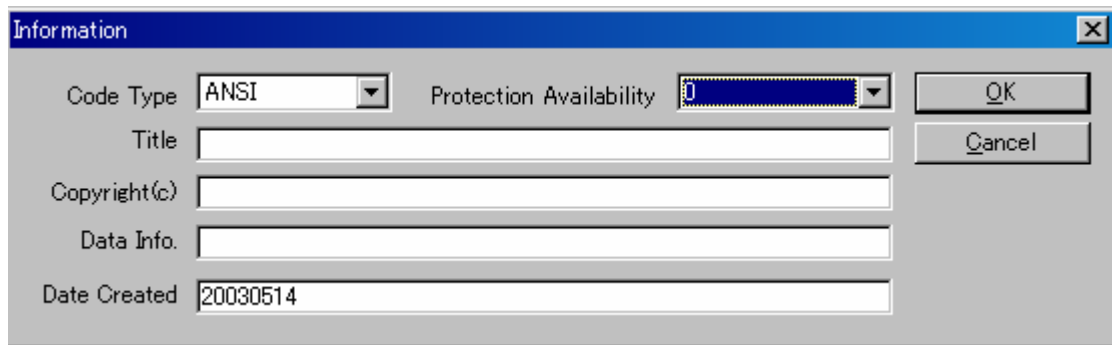
Open mid file successfully.

The information about reading and saving of a file is displayed.

Please refer to Status Display (4.1) for the details of the displayed contents.

3.2.Information Dialog

It starts by operation of the Information button of a main dialog (ATS-MA2).

3.2.1. Code Type Combo Box

The code type is set up.

It becomes a selection from the ANSI character or UCS2.

3.2.2. Protection Availability Combo Box

The information about re-distribution propriety is set up.

It becomes a selection from 0 (re-distribution is possible) and 1 (re-distribution is impossible).

3.2.3. Title Edit Box

A music name is described. However, data is restricted to 50 bytes.

3.2.4. Copyright© Edit Box

Copyright information is described. However, data is restricted to 256 bytes.

3.2.5. Data Info Edit Box

Data Info. [   ]

Data management information is described.

When input the copyright management information, please input in the following ways.

The character sequence in data management information starts in "<AUTH>", and makes the character sequence surrounded by "<AUTH>" and "</AUTH>" the character sequence showing a copyright management information in the data management information that "</AUTH>" exists after "<AUTH>".

[Example]: "<AUTH>JASRAC¥nX-0X0000¥n Composition：YYY

　　　　　</AUTH> Conventional data management information character sequence"

3.2.6. Data Created Edit Box

Date Created [   ]

Data creation time is described.

Please input according to an example.

[Example]: 2002/6/21 → "20020621"

3.2.7. O.K. button

[OK   ]
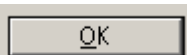
Each setup on a dialog is decided and a dialog is closed.

3.2.8. Cancel button
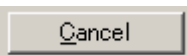
[Cancel   ]

Each setup on a dialog is canceled and a dialog is closed.

3.3. Voice Edit Dialog

It starts in double-clicking one item of the voice information on Voice Assigned Map of a main dialog (ATS-MA2).

The editing and audition of FM voice information and an audition of an ADPCM voice are possible.
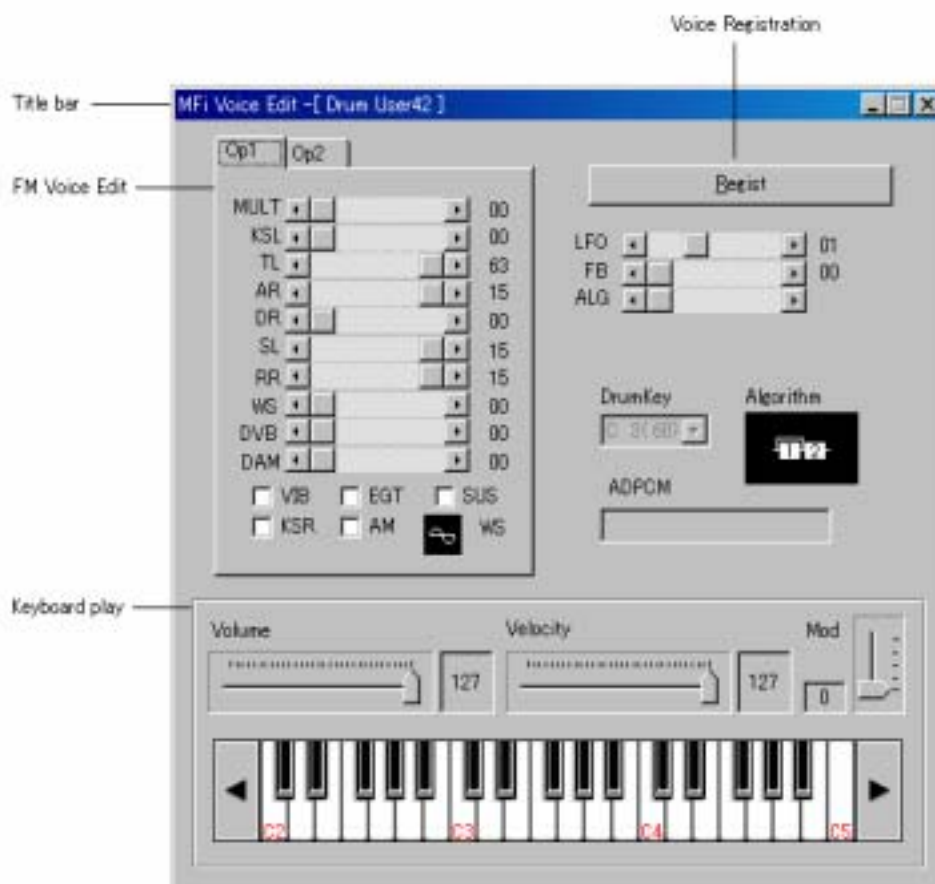
3.3.1. FM Voice Edit

FM voice information is edited by this block.
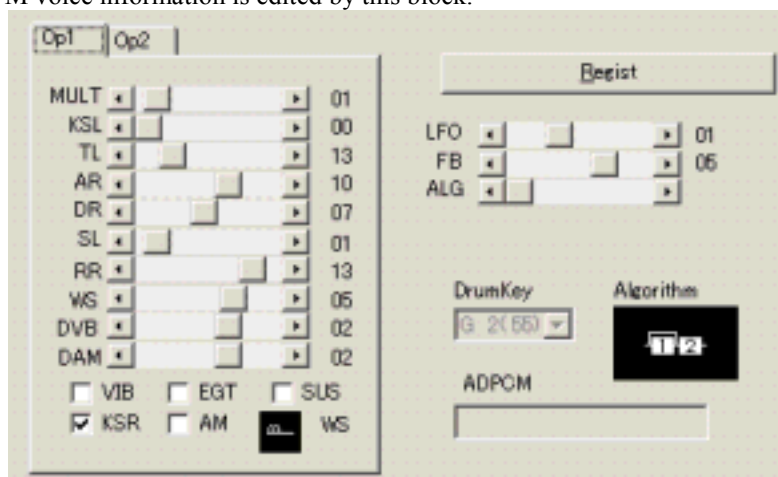
3.3.1.1. Operator Tab

The two or more operators which constitute FM voice are changed and displayed with a tab.

For the operation of a scroll bar, the same operation is possible also for a button on either side.

MULTI Scroll Bar

It is a setup of the magnification of frequency. It can be set up in the range of 0-15.

KSL Scroll Bar

It is a setup of level scaling (the amount of attenuation for every octave) for carrying out the simulation of volume declining as a pitch becomes high like a natural musical instrument. It can be set up in the range of 0-3.

TL Scroll Bar

It is a setup of an envelop level. It can be set up in the range of 0-63.

AR Scroll Bar

It is a setup of time after sound generation starts (-96dB) until it becomes the maximum volume (0dB). Although it can be set up in the range of 0-15, an attack becomes early, so that a value is large.

When AR of a carrier (operator of the algorithm last stage) is set as 0, it will not pronounce. Such voice edit is restricted.

DR Scroll Bar

It is a setup of attenuation time after becoming the maximum volume (0dB) until it is set to a Sustain level (SL). Although it can be set up in the range of 0-15, it decreases early, so that a value is large.

SL Scroll Bar

In the case of the level on which it shifts to a release rate from a decay rate in the case of attenuation sound, and self-sustaining sound, it is a setup of the sustain level used as the volume level under continuation. It can be set up in the range of 0-15.
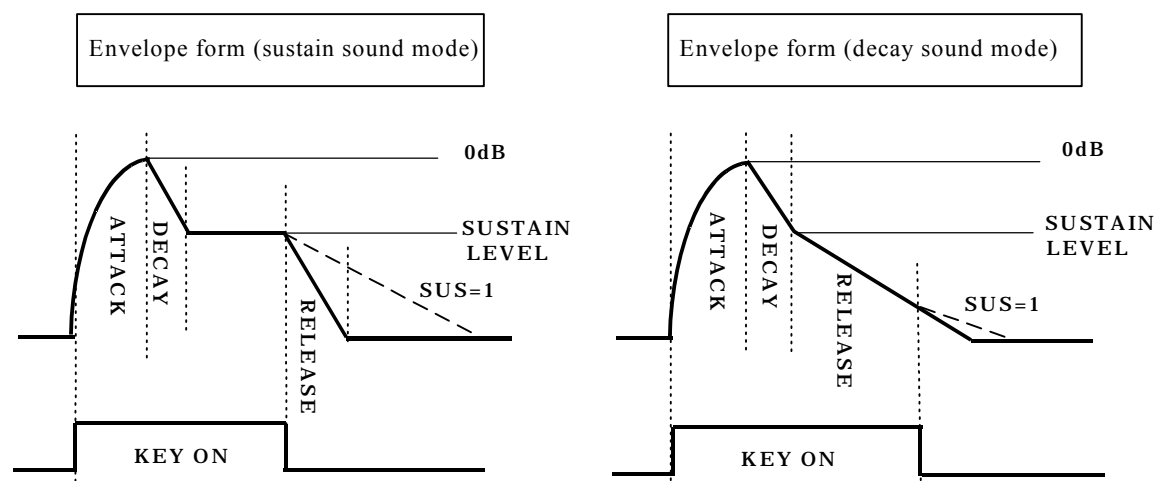
RR Scroll Bar

It is a setup of time after carrying out key-off until it will be in a silent state (-96dB). It can set up in 0-15. This setup is disregarded when both EGT and SUS are checked.

WS Scroll Bar

It is a setup of each operator's waveform used by FM operation. It can be set up in the range of 0-7. This setup is reflected also in the display of WS picture.

DVB Scroll Bar

It is a setup of the depth of vibrato abnormal conditions. Although it can be set up in the range of 0-3, amplitude is carried out so greatly that a value is large.

DAM Scroll Bar

It is a setup of the depth of AM abnormal conditions. Although it can be set up in the range of 0-3, amplitude is carried out so greatly that a value is large.

VIB Check Box

A vibrato can be applied to an operator with a check.

EGT Check Box

Sets as the sustain sound with the checkmark, and sets as the decay sound without the checkmark.

SUS Check Box

It becomes a setup of sustain ON with a check, and after a length of sound generation is terminated, it is changed to the release rate 4.

KSR Check Box

The key scale of a rate is confirmed with a check.

AM Check Box

The AM abnormal conditions can be applied to the operator which corresponds with a check.

WS Display

The waveform picture corresponding to a setup of WS scroll bar is displayed.

WS value	waveform	WS value	waveform
0		4	
1		5	
2		6	
3		7	

3.3.1.2. LFO Scroll Bar

It is a setup of the frequency for a vibrato and AM abnormal conditions. It can be set up in the range of 0-3.

LFO	0	1	2	3
Frequency (Hz)	1.9	4.2	6.1	7.2

3.3.1.3. FB Scroll Bar

It is a setup of the degree of feedback abnormal conditions.

3.3.1.4. ALG Scroll Bar

It is a setup of each operator's connection method. Although there are a total of six kinds, a setup of different algorithm from the number of use operators of the algorithm displayed at the time of Voice Edit dialog starting cannot be performed.
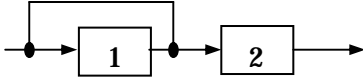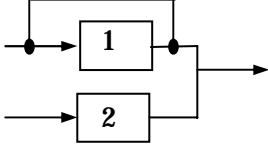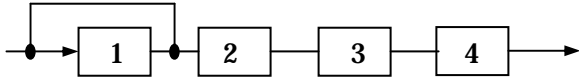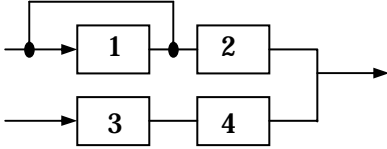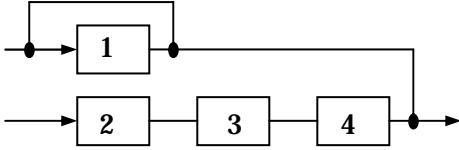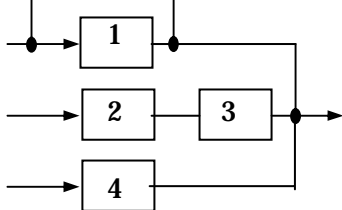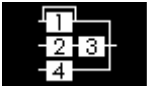
3.3.1.5. Drum Key Combo box

It is a setup of the actual key which a voice pronounces.

It can be set up in the range of 0-127. In a Voice Edit dialog (3.3), it is invalid control.

3.3.1.6. Algorithm Display

The algorithm pattern corresponding to a setup of ALG (3.3.1.4) is displayed.

Note: The above number 1 to 4 corresponds to Operator 1 to 4.

3.3.1.7. ADPCM Display

The data format information on ADPCM is displayed.

It is displayed only when a Voice Edit dialog is started and carried out from a setup of ADPCM on Voice Assign Map.

3.3.2. Regist Button

A Voice Registration dialog (3.4) is started. The voice information under edit can be registered to Voice Map shown on a MA2 Voice Library dialog.

3.3.3. Keyboard Play

The operation about a voice audition is performed by this block.
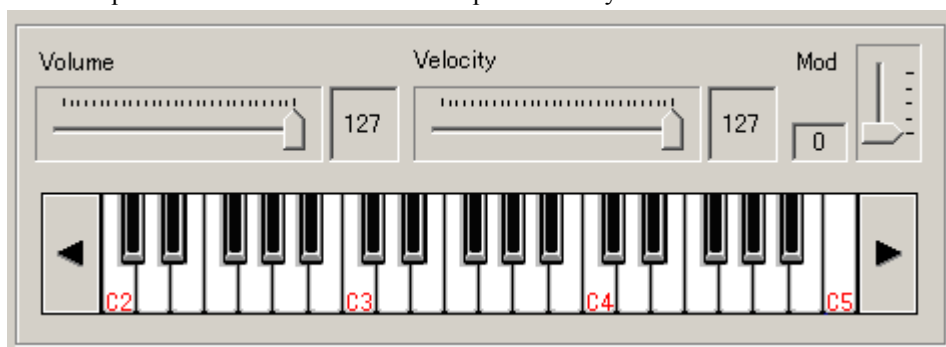
3.3.3.1. Key Board

It is control for a voice audition. The voice specified that it clicks a keyboard is pronounced by the single sound.

Scroll button

A keyboard display is scrolled right and left per octave.

3.3.3.2. Modulation slider

It is a setup of Modulation of the control change 01 reflected in the pronunciation of Keyboard. It can be set up in the range of 0-127. The vibrato of the voice which checked VIB is changed.

Slider setting	State of application of vibrato
0	Vibrato off
31	Vibrato with depth of DVB
63	Vibrato with depth of DVB+1
95	Vibrato with depth of DVB+2
127	Vibrato with depth of DVB+3

3.3.3.3. Volume slider

It is a setup of Volume of the control change 07 reflected in the pronunciation of Keyboard operation. 32 steps of setup are possible to 4 units in the range of 3-127. A default setup is 127.

3.3.3.4. Velocity slider

It is a setup of Note On Velocity reflected in the pronunciation of Keyboard operation. 32 steps of setup are possible to 4 units in the range of 3-127. A default setup is 127.

3.4. Registration Dialog

It is started by an operation of the "Regist" button of a Voice Edit dialog. A setup of Voice Map Entry at the time of starting becomes the same as the Voice Assign Map specification item at the time of starting a Voice Editing dialog.

3.4.1. Voice Name Edit Box

The voice name at the time of registration with Voice Map of a MA2 Voice Library dialog is set up.

3.4.2. Voice Map Entry

3.4.2.1. Bank MSB Combo box

The Bank Select MSB at the time of registration with Voice Map of a MA2 Voice Library dialog is set up. A normal voice should be set up as 122 and a drum voice as 123.

3.4.2.2. Bank LSB Combo box

The Bank Select LSB at the time of registering with Voice Map of a MA2 Voice Library dialog is set up. In the case of a normal voice, for the reasons for pre-set voice, please set up 0 in a range of 1-9. A drum voice is fixed by 0.

3.4.2.3. PC Combo box

PC

39
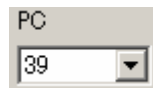
The program change at the time of registering with Voice Map of a MA2 Voice Library dialog is set up. Please set up a normal voice in the range of 1-128. In the case of a drum voice, for the reason for pre-set voice, please set up 1 in the range of 2-10.

3.4.2.4. Note Combo box
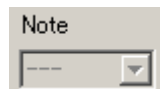
Note

A Note at the time of registering with Voice Map of a MA2 Voice Library dialog is set up. In the case of a normal voice, there is no necessity for a setup. Please set up a drum voice in 1 the range of 3-84.

3.4.3. OK Button

OK
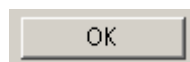
Each setup on a dialog is decided, and then the dialog is closed.

3.4.4. Cancel Button
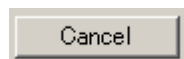
Cancel

Each setup on a dialog is canceled, and then the dialog is closed.

3.5. Option Dialog

It is started by selection of the menu bar "Option" of a main dialog (ATS-MA2).
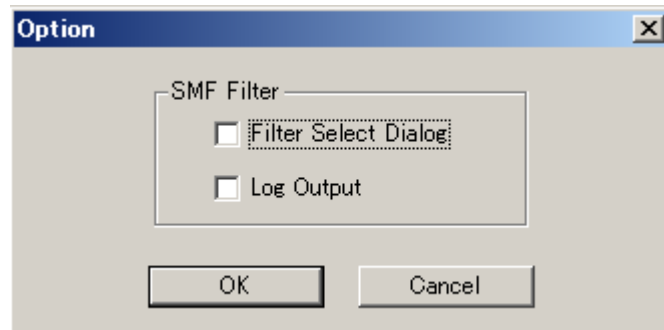
3.5.1. SMF Filter

3.5.1.1. Filter Select Dialog Check Box

The dialog display which checks SMF Filter processing to see it carries out an error end as it is, when there is a problem at conversion to the MLD file from SMF is set up.

(A dialog is displayed with a check. A default is with a check.)

About a part of conversion errors, it is uncorrectable also by SMF Filter. In this case, even if there is a check of Filter Select Dialog, selection of SMF Filter processing cannot be performed.

Please refer to "4.2 Error display" about the corresponding error.

3.5.1.2. Log Output Check Box
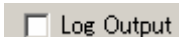
It sets up whether the result of Filter processing is displayed as a log.

(A Filter Log dialog is displayed with a check)

This can be chosen only when Filter Select Dialog (3.5.1.1) is checked.

3.5.2. OK Button

Each setup on a dialog is decided and a dialog is closed.

3.5.3. Cancel Button
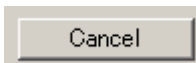
Each setup on a dialog is canceled and a dialog is closed.

3.6. SMF Filter Dialog

The analysis result of SMF is displayed in SMF Filter processing. It is possible to set up the channel which effective after Filter by operation of ch check box, and is carried out.
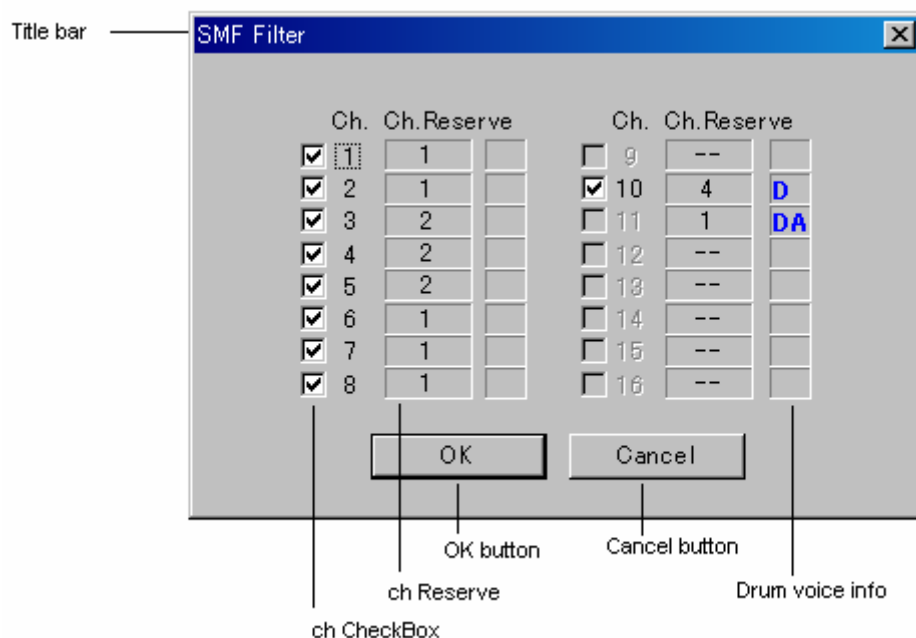
3.6.1. Ch Check Box

The channel changed by SMF Filter is specified. The channel is removed for conversion by clearing a check.

The check at the time of a dialog display is performed in the form which gives priority to a drum channel in the range of restriction of the number of simultaneous pronunciation, and assigns the remainder in order of chNo. Although change of a check is possible, when the number of the maximum pronunciation is exceeded in the sum total of a channel, a setup is restricted by canceling the O.K. button.

3.6.2. Ch Reserve Text

The number of channel reserve (equivalent to the number of channels of MA2 and the number of the maximum simultaneous pronunciation) secured to each channel is displayed at the time of conversion.

3.6.3. Drum Voice Classification Text

In the case of an ADPCM voice, in the case of "DA" and FM voice, about a drum voice, it is displayed as "D". It does not display about a normal voice. In addition, since the channel of an ADPCM voice setup is altogether deleted by SMF Filter processing, operation of a check box is invalid.

3.6.4. OK Button

Each setup on a dialog is completed and a dialog is closed.

3.6.5. Cancel Button
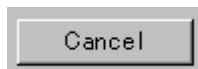
Processing of SMF Filter is stopped and a dialog is closed.

3.7. Filter Log Dialog

A check of the log output check box of the Option dialog started by the file menu Option of a main dialog (ATS-MA2) starts the Filter Log dialog which displays the log of analysis / conversion result of SMF at the time of a SMF Filter processing end.
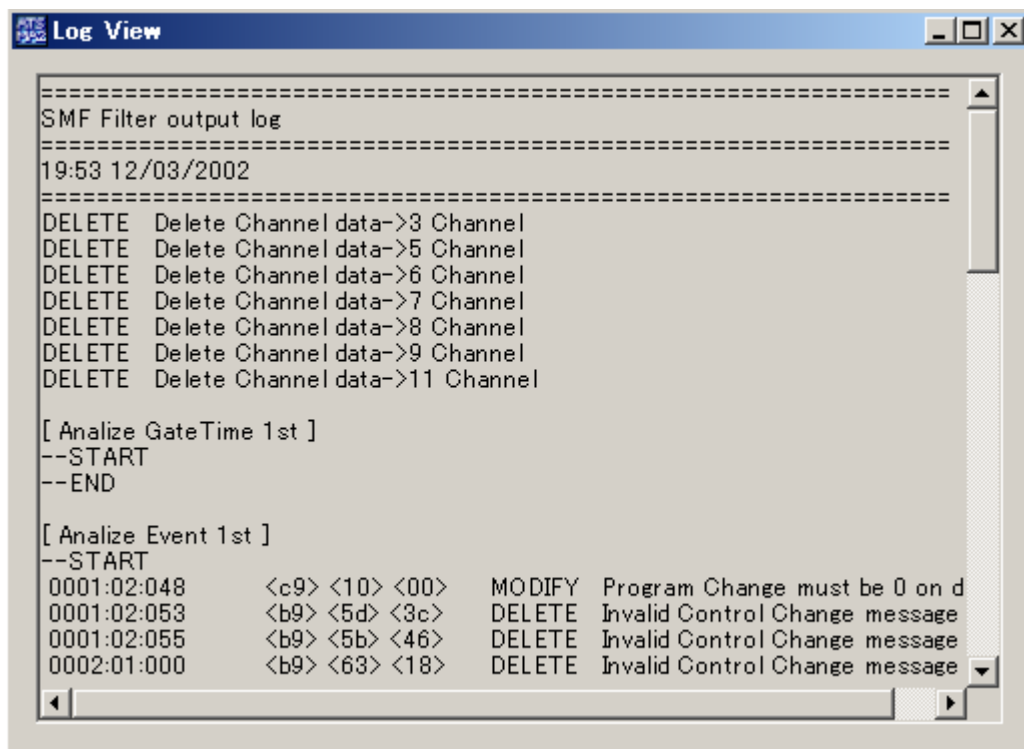
3.8. Version Dialog

It starts by selection of file menu Help-Version of a main dialog (ATS-MA2).
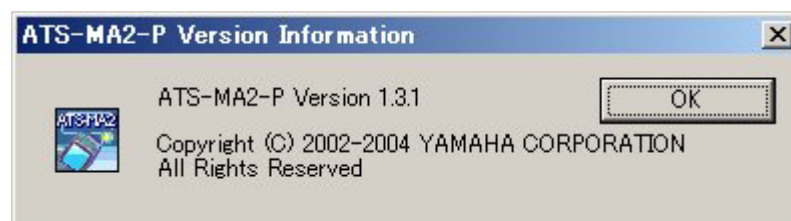
3.9. MA2 Voice Library Dialog

It starts by operation of the MA2 Voice Lib button of a main dialog (ATS-MA2). Edit of FM voice information, and an audition and the audition of an ADPCM voice are possible.
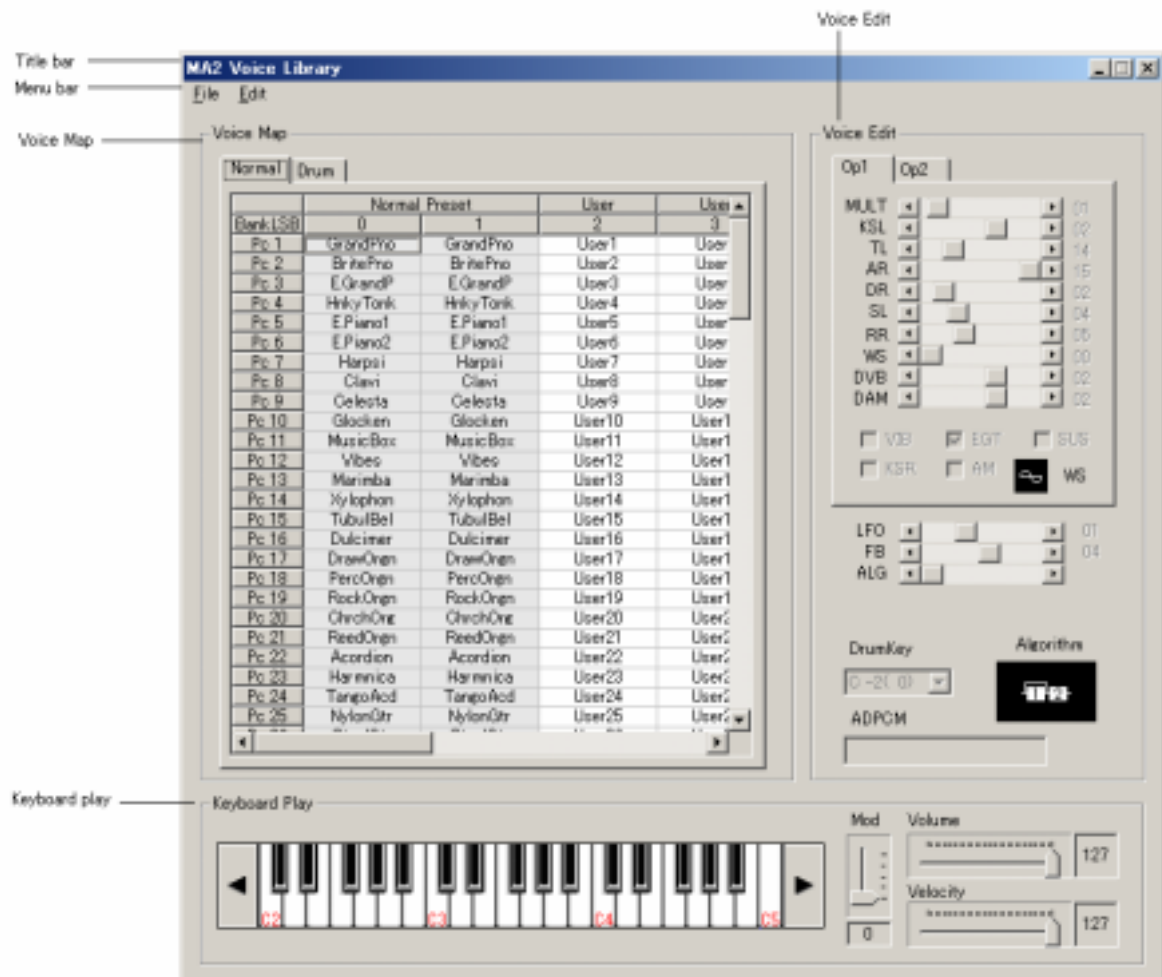
3.9.1. Menu bar
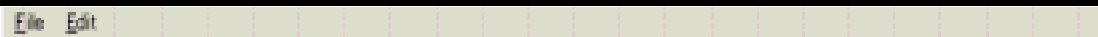
3.9.1.1. File menu

The selection of File of a menu bar displays the following File menus.
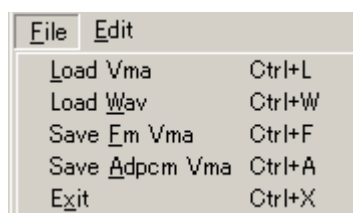
Load Vma

If a voice library file (*.vma) is chosen from "the dialog which opens a file", the voice information on MA2 Voice Library will be updated.

In addition, the voice information on MA2 Voice Library is backed up by the fm_temp.vma file of the same folder as ATS-MA2-P.exe at any time.

Load Wav

A Wav file is changed and registered into selection and ADPCM from an "ADPCM registration dialog". It is effective only where the specific cell of ADPCM is chosen by Program Change and Note on Voice Map.

Save Fm Vma

FM voice information of MA2 Voice Library can be saved with the appointed file name on "Save As dialog". .vma is added when the extension is omitted.

Save Adpcm Vma

ADPCM voice information of MA2 Voice Library can be saved with the appointed file name on "Save As dialog". .vma is added when the extension is omitted.

Exit

MA2 Voice Library dialog is ended.

3.9.1.2. Edit Menu

Selection of Edit of a menu bar displays the following Edit menus.
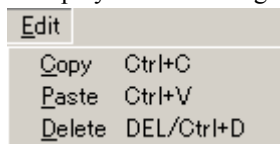
Copy

The cell portion by which a highlight indication of Voice Map was given is primarily held on a memory. Continuous two or more cell specification is also possible.

Paste

The information primarily held by Copy is copied into the cell portion by which it was indicated by the highlight. When a highlight indication of two or more cells is given, it copies by making the cell finally added to the highlight display into the standard at the upper left of the Copied domain.

Delete

The voice information on the cell portion by which it was indicated by the highlight is reset to a default voice setup. It becomes correspondence of only a User voice portion.

3.9.2. Voice Map

The voice information made applicable to edit by this block is specified.
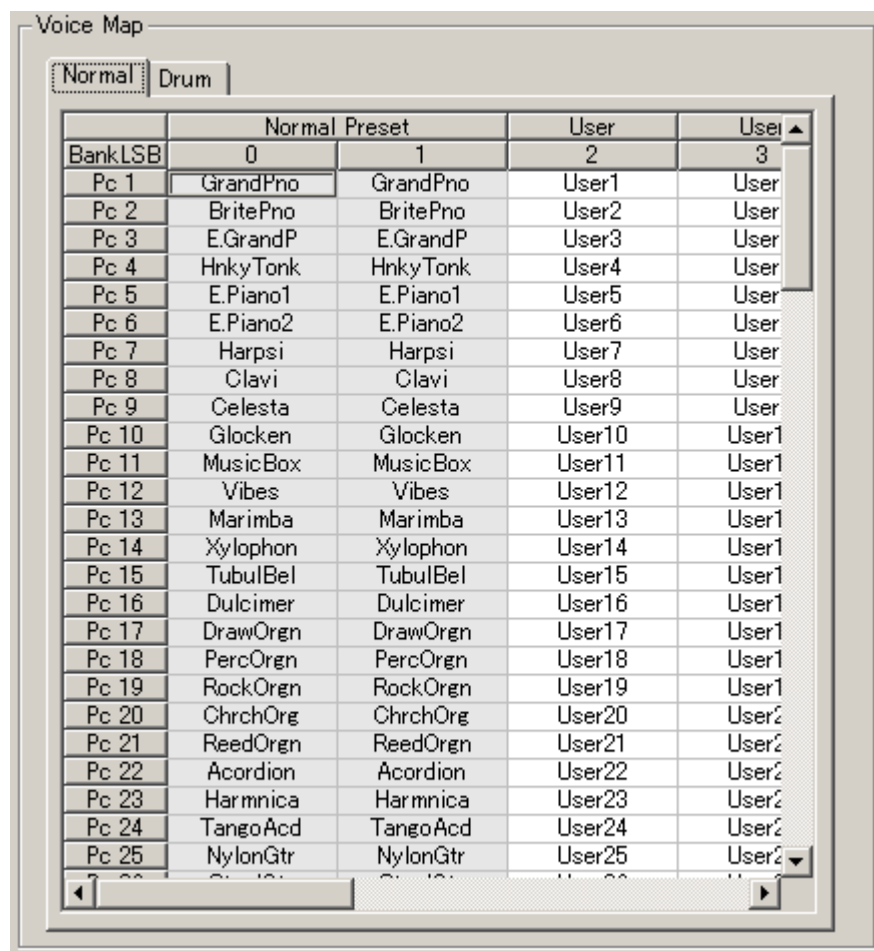
3.9.2.1. Normal tab

Normal

The voice map corresponding to BankSelect MSB:122 of SMF is chosen. Please refer to Appendix (5.2.1) for the details of Preset voice.

Voice Map List View

It displays in a list in a Bank Select LSB sequence (0-1: Preset voice, 2-9: User voice) and a ProgramChange line (1-128). Where a highlight indication of the cell is given, Copy/Paste/Delete processing of a menu is possible. It corresponds also to operation of drag and drop by USU. Moreover, a pop up menu is expressed as the right click of a LSB portion, and file preservation and reading of voice information are possible per sequence.

3.9.2.2. Drum tab

| Drum |
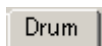
The voice map corresponding to BankSelect MSB:123 of SMF is chosen. The details of a preset voice should carry out Appendix (5.2.2) reference.

Voice MapList View

A ProgramChange sequence (1-2: Preset voice, 3-10: User voice) and a Note line (1-128) are displayed in a list. Where a highlight indication of the cell is given, Copy/Paste/Delete processing of a menu is possible.

It corresponds also to operation of drag and drop by the mouse. Moreover, a pop up menu is expressed as the right click of PC portion, and file preservation and reading of voice information are possible per sequence.

3.9.2.3. Voice operation on Voice Map

Moving cursor display

The following rectangles displayed on the inside of a voice map as "a cursor display" are shown. It is located most in the upper left at the time of the early stages of MA2 Voice Library dialog starting.

| User8 |

A cursor display is movable by the [↑], [↓], [→], and [←] key. [of a keyboard] When a voice name is clicked with a mouse, it is also possible to move a cursor display to the place.

Changing voice name

If it is made to move to the position of the voice which wants to change a cursor display and the [RETURN] key or the [ENTER] key is pushed, a name change EDIT box will be displayed and a cullet will blink.

| User8 |
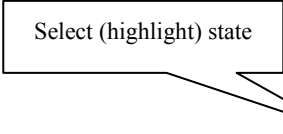
A new name will be applied, if a new name is inputted and the [RETURN] key or the [ENTER] key is pushed.

| NewName |
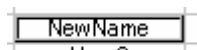
The voice name which can be inputted is restricted by 16 bytes. Change of the voice name of a preset voice and the ADPCM voice which is not assigned cannot be performed.

Selecting voices and canceling the selection

If a voice changes into a selection state with a list view, a cell will serve as a highlight display as follows.

Select (highlight) state

| E.Piano1 |
| E.Piano2 |
| Harpsi |
| Clavi |
| Celesta |
| Glocken |
| MusicBox |
| Vibes |
| Marimba |

There are two method of selection of voices, the one using keyboard and the one using the mouse.

1. Selecting voices by using keyboard

    Use [↑], [↓], [←] or [→] key while pressing and holding [SHIFT] key to move the cursor display.

2. Selecting voices by using mouse

    When selecting only one voice, click in the rectangular area of the voice name. When selecting two or more voices, press the mouse button and drag the mouse so that all the voices to be selected are highlighted.

The keyboard or mouse can also be used to canceling the selection of the voices.

1. Canceling selection of voices by using keyboard

    Press [ESC] key.

2. Canceling selection of voices by using mouse

    Click on a voice that is not in selected state (highlighted).

Copying and pasting voices

The copy of voice information is possible on the voice map on a list view. However, the copy between a normal voice map and a drum voice map is not made. Copy & attachment of a voice has the operation using the shortcut of a keyboard, and operation by the mouse.

1. Copying and pasting voices by using keyboard (menu shortcut)

At first, voices to copy changes into a selection state and press "C" key, while pressing holding "CTRL" key.

Press "V" key while pressing holding "CTRL" key.

Move the cursor display to the top voice which performs paste

---
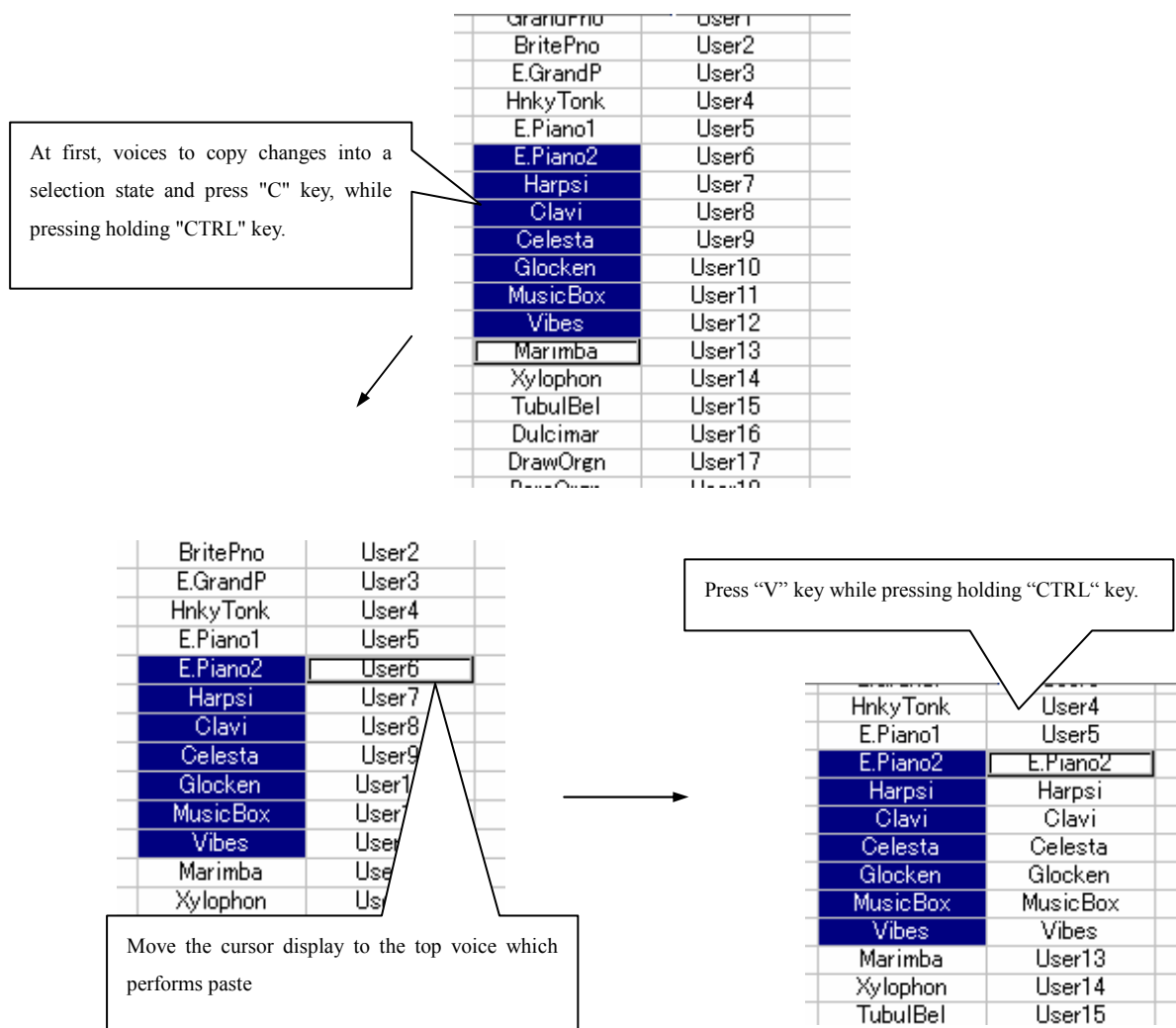
2. Copying and pasting voices by using mouse (drag and drop)

At first, a voice to copy changes into a selection state.

It changes into the state where mouse button was depressed in the portion of a selection state.

If a mouse cursor is moved with mouse button depressed (If it drag), this rectangle is moved too.

Pasting will be completed, if a red rectangle is moved to a place to paste on and mouse button is released (if it drops). A selection state is canceled at this time.

Assignment of ADPCM voices

An ADPCM voice is created by changing into ADPCM from a WAV file. The formats of a convertible WAV file are only 8000Hz and 4000Hz of sampling frequencies by the 16-bit monophonic recording.

Starting of an ADPCM registration dialog (3.10) has operation by the keyboard and the mouse.

1. Method using keyboard (menu shortcut)
    Move the cursor display to one of ADPCM voices with note numbers 0 to 12 and 92 to 127 of program change 3 to 10.
    And press [W] key while pressing holding [CTRL] key.

2. Method using mouse
    Double-click to one of ADPCM voices with note numbers 0 to 12 and 92 to 127 of program change 3 to 10.

Normal	Drum			
	Drum Preset		User	User ▲
PC	1	2	3	4
Note 0	-----	-----	Adpcm	Adpc
Note 1	-----	-----	Adpcm	Adpc
Note 2	-----	-----	Adpcm	Adpc
Note 3	-----	-----	Adpcm	Adpc
Note 4	-----	-----	Adpcm	Adpc
Note 5	-----	-----	Adpcm	Adpc
Note 6	-----	-----	Adpcm	Adpc
Note 7	-----	-----	Adpcm	Adpc
Note 8	-----	-----	Adpcm	Adpc
Note 9	-----	-----	Adpcm	Adpc
Note 10	-----	-----	Adpcm	Adpc
Note 11	-----	-----	Adpcm	Adpc
Note 12	-----	-----	Adpcm	Adpc
Note 13	Drum	Drum	Drum User13	Drum Us
Note 14	Drum	Drum	Drum User14	Drum Us
Note 15	Drum	Drum	Drum User15	Drum Us
Note 16	Drum	Drum	Drum User16	Drum Us
Note 17	Drum	Drum	Drum User17	Drum Us

3.9.2.4. File operation of Voice Information of List sequence unit

Read file

   Selection of the sub menu which divides FM/ADPCM from the LoadVma menu can be performed by carrying out the right click of the "portion which displays the setting value of a sequence" which shows [in the case of a normal voice] ProgramChange in the case of BankSelectLSB and a drum voice.

   A voice information file (*.vma) is chosen from "the dialog which opens a file" with each menu, and voice information is read into this voice list sequence. Although the voice information file and extension of whole (ALL) Voice Map which are operated from a file menu are the same, only the file saved in the sequence unit can be read from operation of file preservation.

Save file

   Same as read file, sub menu can be selected to assort FM/ADPCM from SaveVma menu by right-clicking on "the row number".

   By each menu, the voice information file (*.vma) is designated from "Save As" dialog and the information of same voice list column can be saved.

   The voice information file of whole Voice Map which is operated from file menu and the extension are same, however, it is different from the contents saved per sequence. Its file extension is same as the voice information file extension of whole Voice Map, which is operated from file menu. However, contents of each file are different.

3.9.3. Voice Edit

FM voice information is edited by this block.

3.9.3.1. Operator Tab

It is same as "3.3.1.1 Operator Tab".

3.9.3.2. LFO Scroll Bar

It is same as "3.3.1.2 LFO Scroll Bar".

3.9.3.3. FB Scroll Bar

It is same as "3.3.1.3 FB Scroll Bar".

3.9.3.4. ALG Scroll Bar

It is same as "3.3.1.4 ALG Scroll Bar".

3.9.3.5. Drum Key Combo Box

It is a setup of the actual key Drum Key (0-127) which a voice pronounces. It becomes effective only when a user drum voice has a cursor display.

3.9.3.6. Algorithm Display

It is same as "3.3.1.6 Algorithm Display".

3.9.3.7. ADPCM Display

It is same as "3.3.1.7 ADPCM Display".

3.9.4. Keyboard Play

It is control for viewing and listening to a voice. A click of a keyboard pronounces the voice under edit by which it is indicated by cursor on Voice Map by the single sound.

It is same as "3.3.3 Keyboard Play".

3.10. ADPCM Registration Dialog

It starts after choosing the Drum tab of a MA2 Voice Library dialog in double-clicking two or more PCs [of Voice Map] Note 0-12, and the ADPCM cell set as 92-127.
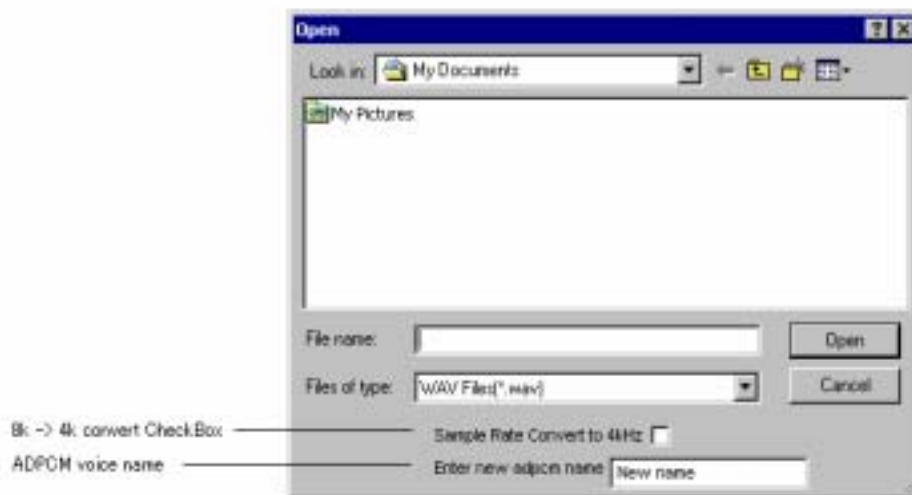
3.10.1. 8k → 4k Conversion Box

When data of 8kHz of sampling frequencies is read, it sets up whether the down sampling to 4kHz is performed in ADPCM conversion.

3.10.2. Voice Name Input Text Box

The voice name of ADPCM registered is set up.

4. Message

4.1. Status Bar Display

The following message about read/save/conversion of file is displayed.

Open error:

Reading of file, or SMF → MLD conversion is failure.

Conversion has finished successfully:

SMF → MLD conversion is success.

Open mld file successfully:

Read of MLD file is success.

Save mld file successfully:

Save of MLD file is success.

Open mid file successfully:

Read of SMF is success.

Save mid file successfully:

Save of SMF is success.

4.2. Error Display

It is a list of errors displayed in a dialog at the time of conversion from SMF, and SMF Filter processing. According to the error content, it is classified so that it may be easy to look for an error message.

4.2.1. Cannot….

Cannot assign a 2 operator tone. :

2 operator voices cannot be assigned. Please set 4 operator voices and 2 operator voices with 32 or less operators in all.

Cannot assign a 4 operator tone. :

4 operator voices cannot be assigned. Please set 4 operator voices and 2 operator voices with 32 or less operators in all.

Cannot open adpcm_temp.vma file. :

adpcm_temp.vma file has broken.
Load ADPCM data on MA-2 Voice Library. When this is loaded, MA-2 Voice Library will create the adpcm_temp.vma file.

Cannot find ADPCM data in vma file. :

adpcm_temp.vma file did not contain ADPCM data for the program changes and key numbers used in the song.

Cannot assign a drum channel. :

Drum channel cannot be assigned. All channels may be used up. Check the number of voice operators and their combination.

Cannot open mld file !! :

An MLD file cannot be opened.
Please check whether it is satisfactory to the specified file. In addition, please check whether it is opened in exclusion mode from other applications.

Cannot open SMF :

SMF cannot be opened. Please check whether it is satisfactory to the specified file. In addition, please check whether it is opened in exclusion mode from other applications.

Cannot save SMF :

SMF cannot be opened. Please check whether it is satisfactory to the specified file. In addition, please check whether it is opened in exclusion mode from other applications.

Cannot load fm_temp.vma :

fm_temp.vma cannot be loaded. This file is broken. Check whether the unjust operation is done. When this file is broken, delete it or change the file name. Then when MA-2 Voice Library is started, fm_temp.vma will be newly created automatically.

Cannot load adpcm_temp.vma :

adpcm_temp.vma cannot be loaded. This file is broken. Check whether the unjust operation is done. Load ADPCM data on MA-2 Voice Library. MA-2 Voice Library creates an adpcm_temp.vma file at the loading.

Cannot create fm_temp.vma file. :

Creation of an fm_temp.vma file is failure. Please check the setup of installation directory.

Cannot open vma file. :

VMA file cannot be opened. Check whether it is opened in exclusion mode from other applications.

Cannot load vma file :

VMA file cannot be loaded. This file is broken. Check whether the unjust operation is done.

Cannot save vma file :

VMA file cannot be saved. Check whether it exists already as read-only file or it is opened in exclusion mode from other applications.

Cannot open Wav file. :

WAVE file cannot be opened. Check whether it is opened in exclusion mode from other applications.

Cannot load WAVE file. – Sampling Frequency must be 4k / 8k Hz. :

Reading of a Wave file cannot be performed. The Wave files which can be read are only 4kHz and 8kHz of sampling frequencies.

Cannot load WAVE file. – Bits per sample must be 16 bit. :

Reading of a Wave file cannot be performed. The Wave file which can be read is only 16 bits.

Cannot load WAVE file. – WAVE Nonsupport stereo format :

Reading of a Wave file cannot be performed. The Wav file which can be read is only a mono recording.

Cannot load S2M_P.dll and/or M2S_P.dll. :

There is no DLL required for MLD conversion. Please check S2M_P.dll and M2S_P.dll.

Cannot save mld file. :

An MLD file cannot be saved. Please check whether it is opened in exclusion mode from other applications.

Cannot convert to mld file. :

Conversion to an MLD file cannot be performed. Please check whether there is any problem in a setup.

4.2.2. MidiCh….

MidiCh ** : Bank Select MSB is specified incorrectly.:

Designate 122 (0x7A) or 123 (0x7B) for BankSelectMSB.

MidiCh ** : Bank Select LSB is out of range. :

Designate 0 to 9 at the BankSelectMSB=122 (0x7A) and designate 0 at the BankSelectMSB=123 (0x7B) for BankSelectLSB

MidiCh ** : Control Change is not supported. :

The control number of the designated Control Change cannot be used.

MidiCh ** : Program Change is out of range on drum channel. :

The specified Program Change cannot be used.
Use 0~9 for the drum channel.

MidiCh ** : RPN LSB must be 0 :

The specified RPN:LSB cannot be used. Only 0 can be used it. (Only Bend sense of RPN MSB/LSB:0/0)

MidiCh ** : RPN MSB must be 0 :

The specified RPN:LSB cannot be used. Only 0 can be used it. (Only Bend sense of RPN MSB/LSB:0/0)

MidiCh ** : RPN LSB is not specified. :

There is no setup of RPN:LSB to DataEntry. Please set up required RPN:LSB.

MidiCh ** : RPN MSB is not specified. :

There is no setup of RPN:MSB to DataEntry. Please set up required RPN:MSB.

MidiCh ** : RPN MSB and RPN LSB are not specified. :

There is no setup of RPN:MSB to DataEntry. Please set up required RPN:MSB.

MidiCh** : Cannot assign a normal tone. :

There are too many normal voices to assign.
Decrease number of program change at normal channel.

MidiCh ** : Cannot assign a drum tone. :

There are too many drum voices to assign. The number of drum voices corresponds to the number of different notes on the drum channel. Check how many different notes are being used.

MidiCh ** : Channel Reserve is not specified. :

This MIDI channel has no Channel Reserve message. Set up required Channel Reserve.

MidiCh ** : Program Change is not specified. :

This MIDI channel has no Program Change. Set up required Program Change.

MidiCh ** : Data Entry is out of range. :

The range of values, which can be designated by DataEntry, is 0~24.

MidiCh** : Cannot assign a normal channel. :

The number of voices designated by Channel Reserve has exceeded the number of channels that can be assigned. Check the number of operators that can be used overall, and modify the Channel Reserve setting.

MidiCh** : Pitch Bend is not supported on drum channel. :

Cannot use PitchBend for Drum Channel.

MidiCh** : After Touch is not supported. :

Cannot use AfterTouch (Polyphonic Key Pressure, Channel Pressure).

MidiCh** : Program Change is specified incorrectly on drum channel. :

Program change is prohibited on drum channel during the music.
Program change is prohibited during pronunciation.

MidiCh** : Bank Select MSB is specified incorrectly on drum channel. :

Bank select is prohibited on drum channel in the music.

MidiCh** : Bank Select LSB is specified incorrectly on drum channel. :

Bank select is prohibited on drum channel in the music.

MidiCh**: Channel Reserve is specified more than once. :

Two or more Channel Reserves exist on the same MIDI channel.

MidiCh**:Channel Reserve must be equal to the number of assigned drum tones (*). :

Channel Reserve on drum channel is unfit. Set it to designated value.

MidiCh * : Cannot assign 4-operator and 2-operator on same channel :

The numbers of operators of a voice differ before and after the program change. Please unify into either 2-operator voice or 4-operator voice.

4.2.3. aa:bb:cc….

aa:bb:cc   MidiCh** Gate Time is 0. :

The note of the NoteNumber** at the position of Measure aa: Beat bb: Tick cc has a Gate Time of 0.
The gate time must be 1 Time Base value or greater. Please increase the Gate Time.

aa:bb:cc   MidiCh** Notes are overlapped on ADPCM Channel. :

ADPCM Notes of NoteNumber** at the position of Measure aa: Beat bb: Tick cc overlaps. Avoid
overlapping by moving location of one of the ADPCM Notes or making gate time shorter.

aa:bb:cc   MidiCh** Gate Time is too long. :

GateTime of the note of at the position of Measure aa: Beat bb: Tick cc is too long. Please check the
GateTime.

aa:bb:cc   MidiCh** : Notes are overlapped. :

The Measure aa: Beat bb: Tick cc location contains identical notes overlapping. Please erase one side.

aa:bb:cc   MidiCh** Cannot assign Note in the channel. :

The note at the position of Measure aa: Beat bb: Tick cc cannot be assigned to an MA2 channel. Many
voices may be played simultaneously over the designated number by Channel Reserve. Either delete
those notes, or increase the Channel Reserve setting.

aa:bb:cc   MidiCh**   Note number is out of range on normal channel :

NoteNumbers of notes at the positions of Measure aa: Beat bb: Tick cc cannot be used. Use them in the
range from 13 to 108.

aa:bb:cc Note On/Channel Volume is specified incorrectly on ADPCM Channel. :

Events of the same time are located in the positions of Measure aa: Beat bb: Tick cc of ADPCM part.
StartPoint, ChannelVolume or NoteON may be set at the same time. Take time of 1 TimeBase or longer
for insertion of these events. And, this error message is also displayed when ChannelVolume and
NoteOn are put on the head position (1:1:0) of music. These events should be placed to have interval 1
TimeBases or longer from the head position.

aa:bb:cc   Time interval of 2 Time Base is required from Note Off to the next Note On on ADPCM Channel. :

The time from NoteOn, which is inserted at the positions of Measure aa: Beat bb: Tick cc of ADPCM
part, to previous NoteOff does not reach 2 TimeBase. Insert NoteOn taking time of 2 TimeBase or
more.

aa:bb:cc   STOP is specified incorrectly on ADPCM Channel. :

This error message is displayed when another event exists at STOP point Position, which is inserted at
the positions of Measure aa: Beat bb: Tick cc of ADPCM part. This error message is also displayed
when the total of time intervals of "START-first NoteOn-last NoteOff- STOP" is less than 2 TimeBase.
In either case, this problem can be solved by moving the location of STOP point backward. This error
can be avoided by moving other event.

4.2.4. Others….

Not enough Memory. :

Memory can not be allocated. Please increase system memory.

adpcm_temp.vma file is invalid. :

The format of the adpcm_temp.vma file is invalid. Check whether it was created correctly.

Either 4k Hz ADPCM or 8k Hz ADPCM can be used. :

The sampling frequencies of ADPCM voices which are used simultaneously are not equal each other. When you are using more than one ADPCM data, they must all be either 4 kHz or 8 kHz.

Note On has no corresponding Note Off. :

A NoteOff corresponding to the NoteOn was not found. Normally, this message will not appear. The MIDI file may be damaged.

Extension is not .mid/.mld. :

The extension of designated file differs from the extension of SMF and MLD file. Check the extension.

The extension is not .mld. :

The extension of designated file differs from the extension of MLD file. Check the extension.

The extension is not .mid. :

The extension of designated file differs from the extension of SMF. Check the extension.

mld file is invalid. :

This is an invalid MLD file. Check the file data.

Input file is not mld file. :

This file format differs from the format of MLD. Check Chunk ID.

Input file is not SMF. :

This file format differs from the format of SMF. Check Chunk ID.

Format of SMF must be format0. :

The form of this SMF is not Format 0. Any form other than Format 0 are not supported. Convert the format to Format 0.

fm_temp.vma is a read-only file. :

fm_temp.vma is a read-only file. Check the attribute of file.

adpcm_temp.vma is a read-only file. :

adpcm_temp.vma is a read only file. Check the attribute of file.

WAVE file is invalid. :

This is an invalid WAVE file. Check the file data.

All sub-windows should be closed before exiting this application. :

The end processing is impossible when the sub-dialog is opening.

Player failed to load data. :

Load of data to Player is failure.

Player failed to play data. :

Play by Player is failure.

SMF Filter failed during conversion. :

SMF Filter is failure.

Program Change is out of range on ADPCM Channel. :

It is set as ProgramChange which cannot use an ADPCM tone. Check a setup of ProgramChange.

No note message in mld file. :

There is no note message in mld file. Check the file data.

No note message in SMF. :

There is no note message in SMF. Check the file data.

SMF is invalid. :

This is an invalid SMF. Check the file data.

Non-sounding voice is assigned :

The voice which is not pronounced is specified. Check the voice setup and the voice registered into Voice Library.

vma file is invalid. :

There is a problem in the specified vma file. Check the file data.

START / STOP is specified incorrectly. :

START point is set after STOP point. START point must be set before STOP point.

START is specified incorrectly. :

There is a NoteOn before START point. The position of START point must be same as the first NoteOn or before it.

STOP is specified incorrectly. :

There is a NoteOff after STOP point. The position of STOP position must be after the last NoteOff.

5. Appendix

5.1. Voice Map (Voice Assign)

MA2 Voice Library treats the following 2 kinds of voice.
- 2/4 operator FM voices
- ADPCM voices with sampling rate of Fs 4 kHz and 8 kHz, 4 bit monaural.

For FM voices, Bank Select MSB 122 and LSB 0 to 9 are assigned as normal voices, and Bank Select MSB 123 LSB 0 Program Change 1 to 10 and note number 13 to 91 are assigned as drum voices.
ADPCM voices are assigned to Bank Select MSB 123 LSB 0 program change 3 to 10 and note number 0 to 12 and 92 to 127. The assignment table is shown below.

Voice assignment of bank select MSB 122 voices

	Preset FM 2OP GM128 voices	Preset FM 4OP GM128 voices	FM user voices	FM user voices	FM user voices
Bank select LSB#	0	1	2	3…8	9
Program change # 1	GrandPno	GrandPno	User1	User1	User1
…	…	…	…	…	…
Program change # 128	Gunshot	Gunshot	User128	User128	User128

Program change 1 to 128 of Bank Select MSB 122, LSB 0 and 1 are preset voices.
Their names and voice parameters cannot be changed.

Voice assignment of Bank Select MSB 123, LSB 0

	Preset FM 2OP drum voices	Preset FM 4OP drum voices	User FM drum /ADPCM voices	User FM drum /ADPCM voices	User FM drum /ADPCM voices
Program change #	1	2	3	4…9	10
Note# 0	----	----	ADPCM	ADPCM	ADPCM
…	----	----	…	…	…
Note# 13	Drum	Drum	Drum User13	Drum User13	Drum User13
…	…	…	…	…	…
Note# 91	Drum	Drum	Drum User91	Drum User91	Drum User91
…	----	----	…	…	…
Note #127	----	----	ADPCM	ADPCM	ADPCM

Drum voices of Bank Select MSB 123 LSB 0 Program Change 1 and 2 are preset voices.
Their names and voice parameters cannot be changed.

Note number 13 to 91 are assigned as FM drum voices,
  and note number 0 to 12 and 92 to 127 are assigned as ADPCM voices.

[Note] Up to32 ADPCM voices can be set to 1 MLD. The setting more than 32 is impossible.

5.2. Preset Voice

5.2.1. Normal Voice

BankSelectMSB: 122

BankSelectLSB: 0 is 2-operator voice

BankSelectLSB: 1 is 4-operator voice

PC# (Program change number) 1 to 128

BankSelectMSB 122 BankSelectLSB 0,1		BankSelectMSB 122 BankSelectLSB 0,1		BankSelectMSB 122 BankSelectLSB 0,1	
PC#	Name	PC#	Name	PC#	Name
1	GrandPno	51	Syn.Str1	101	Bright
2	BritePno	52	Syn.Str2	102	Goblins
3	E.GrandP	53	ChoirAah	103	Echoes
4	HnkyTonk	54	VoiceOoh	104	Sci-Fi
5	E.Piano1	55	SynVoice	105	Sitar
6	E.Piano2	56	Orch.Hit	106	Banjo
7	Harpsi	57	Trumpet	107	Shamisen
8	Clavi	58	Trombone	108	Koto
9	Celesta	59	Tuba	109	Kalimba
10	Glocken	60	Mute.Trp	110	Bagpipe
11	MusicBox	61	Fr.Horn	111	Fiddle
12	Vibes	62	BrasSect	112	Shanai
13	Marimba	63	SynBras1	113	TnklBell
14	Xylophon	64	SynBras2	114	Agogo
15	TubulBel	65	SprnoSax	115	SteelDrm
16	Dulcimer	66	AltoSax	116	WoodBlok
17	DrawOrgn	67	TenorSax	117	TaikoDrm
18	PercOrgn	68	Bari.Sax	118	MelodTom
19	RockOrgn	69	Oboe	119	Syn.Drum
20	ChrchOrg	70	Eng.Horn	120	RevCymbl
21	ReedOrgn	71	Bassoon	121	FretNoiz
22	Acordion	72	Clarinet	122	BrthNoiz
23	Harmnica	73	Piccolo	123	Seashore
24	TangoAcd	74	Flute	124	Tweet
25	NylonGtr	75	Recorder	125	Telphone
26	SteelGtr	76	PanFlute	126	Helicptr
27	JazzGtr	77	Bottle	127	Applause
28	CleanGtr	78	Shakhchi	128	Gunshot
29	Mute.Gtr	79	Whistle		
30	Ovrdrive	80	Ocarina		
31	Dist.Gtr	81	SquareLd		
32	GtrHarmo	82	Saw.Lead		
33	Aco.Bass	83	CaliopLd		
34	FngrBass	84	ChiffLd		
35	PickBass	85	CharanLd		
36	Fretless	86	VoiceLd		
37	SlapBas1	87	FifthLd		
38	SlapBas2	88	Bass&Ld		
39	SynBass1	89	NewAgePd		
40	SynBass2	90	WarmPad		
41	Violin	91	PolySyPd		
42	Viola	92	ChoirPad		
43	Cello	93	BowedPad		
44	Contrabs	94	MetalPad		
45	Trem.Str	95	HaloPad		
46	Pizz.Str	96	SweepPad		
47	Harp	97	Rain		
48	Timpani	98	SoundTrk		
49	Strings1	99	Crystal		
50	Strings2	100	Atmosphr		

5.2.2. Drum Voice

BankSelectMSB: 123
BankSelectLSB: 0
ProgramChange : 1   2-operator voice
ProgramChange : 2   4-operator voice
NOTE# is note number (Describes as the value which starts from 0)

BankSelectMSB : 123		BankSelectMSB : 123	
BankSelectLSB : 0		BankSelectLSB : 0	
ProgramChange : 1,2		ProgramChange : 1,2	
NOTE#	Name	NOTE#	Name
24	SeqClick H	55	Splash Cymbal
25	Brush Tap	56	Cowbell
26	Brush Swirl L	57	Crash Cymbal 2
27	Brush Slap	58	Vibraslap
28	Brush Swirl H	59	Ride Cymbal 2
29	Snare Roll	60	Bongo H
30	Castanet	61	Bongo L
31	Snare L	62	Conga H Mute
32	Sticks	63	Conga H Open
33	Bass Drum L	64	Conga L
34	Open Rim Shot	65	Timbale H
35	Bass Drum M	66	Timbale L
36	Bass Drum H	67	Agogo H
37	Closed Rim Shot	68	Agogo L
38	Snare M	69	Cabasa
39	Hand Clap	70	Maracas
40	Snare H	71	Samba Whistle H
41	Floor Tom L	72	Samba Whistle L
42	Hi-Hat Closed	73	Guiro Short
43	Floor Tom H	74	Guiro Long
44	Hi-Hat Pedal	75	Claves
45	Low Tom	76	Wood Block H
46	Hi-Hat Open	77	Wood Block L
47	Mid Tom L	78	Cuica Mute
48	Mid Tom H	79	Cuica Open
49	Crash Cymbal 1	80	Triangle Mute
50	High Tom	81	Triangle Open
51	Ride Cymbal 1	82	Shaker
52	Chinese Cymbal	83	Jingle Bell
53	Ride Cymbal Cup	84	Belltree
54	Tambourine		

5.3. The Rough Procedure of ATS-MA2

① *Preparation of SMF*

Please create the optimal SMF for MLD conversion by ATS-MA2 based on "Ringing Melody Authoring Guidelines for ATS-MA2-P". Please use the usual SMF as it is.

② *Setting*

If the SMF prepared in "① Preparation of SMF" is created in accordance with "Ringing Melody Authoring Guidelines for ATS-MA2-P", it is possible to convert into MLD file with no problem.
But if you use a usual SMF, please set it to use SMF Filter in accordance with Option setting (3.5). SMF Filter processes SMF into the possible form to MLD conversion.

③ *SMF → MLD Conversion*

Please read SMF and convert into MLD by designating SMF from File menu or drag & drop SMF on Main dialog.

④ *SMF Filter*

In case that you set to use SMF Filter in the setting of "② setting", when an error occurs in MLD conversion in ③, the dialog which urges verification of whether to use SMF Filter is displayed.

⑤ *Voice Edit*

Please start the dialog for voice edit (3.3) from voice setting of Voice Assign Map in Main dialog, and edit FM/ADPCM voice.

⑥ *MLD Information Edit*

Please set MLD peculiar information from control of MLD Information (3.1.3) in Main dialog.

⑦ *MLD playback*

Please confirm the MLD play sound.
You can always play and confirm the newest MLD because MLD is re-converted for every edit operation of the Voice edit and the MLD information edit. (3.1.2)

⑧ *Save MLD*

Save MLD, which ended each edit processing, into the file.