SCP-MA2-P
User's Manual

Ver.1.1.0

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YAMAHA CORPORATION

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Revision History

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1. Outline

This document describes the usage of SCP-MA2-P.

1.1. Functions of SCP-MA2-P

SCP-MA2-P is the application software which operates on Windows®2000 and Windows®XP, to create MFi (**Melody Format for i-mode**) from SMAF (**Synthetic Music Mobile Application Format**) which supports the MA-2 (**Synthesizer LSI for mobile phones**).

1.2. Recommended Operation Environment

This application requires the operation environment which conforms to the followings.

1.2.1. CPU/Clock

Pentium®, Celeron™, or compatible processor/400MHz or faster.

1.2.2. OS

Windows®2000/Windows®XP

1.2.3. Required HDD Space

40MB or more

1.2.4. Memory

64MB or more

2. Start-up and Termination of Application

2.1. Application Configuration

As follows, this application software consists of a main body to input and output the files, and a plug-in part to convert the data.

SCP-MAX.exe : Application itself
Plugin_P20.dll : Plug-in (including the following files)
- \Plugin_P20\-
S2M_P.dll
Plugin_P20.ini

2.2. Start-up

Double-click the "**SCP-MAX.exe**" or its shortcut icon, or directly enter the file name from "**Run**" of the Start menu.

2.3. Termination

2.3.1. Menu Bar

Select in the order of "File (F)" and "Exit (X)" to terminate this application.

2.3.2. Close Button

Press "**Close**" button located on the lower right on the main window to terminate this application.

2.3.3. Other Terminating Operations

Termination can be performed in the following operations.

- Select the "**Close**" from the system menu on title bar.
- Select the close-button (☒) located on right-end in title bar.
- Press [ALT]+[F4] (Press [F4] while pressing [ALT]) while main window is being active.

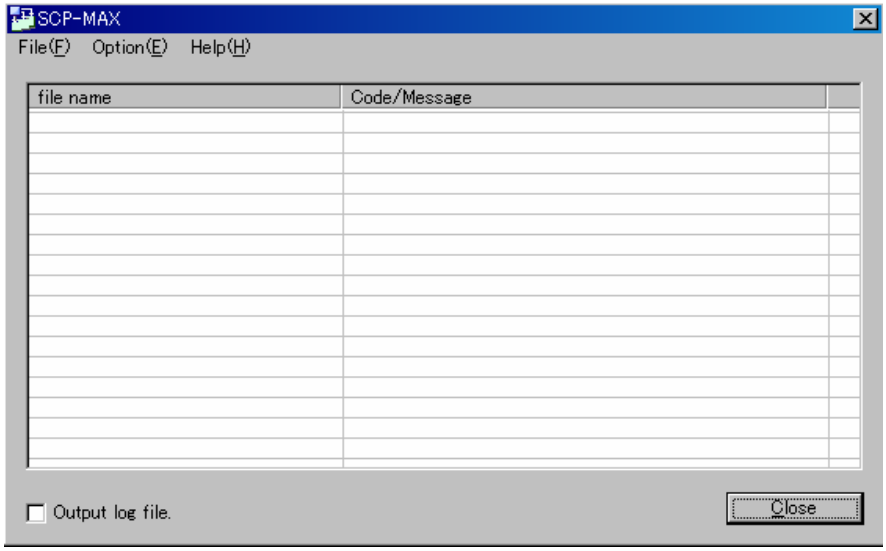
2.4. File Process

A file conversion process is executed by just dragging and dropping a targeted SMAF/MA-2 onto the Main Window.

3. Window

3.1. SCP-MAX Window

This is the Main Dialog. This window is displayed simultaneously with the start-up of this application.



3.1.1. Menu Bar

3.1.1.1. File Menu (F)

1. Open(O)

   A dialog to designate a SMAF which becomes a target of conversion is started up.

   When this menu is used, only one file can be designated; however, multi-file simultaneous designation by dragging and dropping the file or folder designations are also available.

2. Exit(X)

   This application is terminated.

3.1.1.2. Option Menu

1. Plugin Setting (P)

   By starting up the Plugin Setting dialog (3.2), Plugin is set.

3.1.1.3. Help Menu

1. Version Info (A)

   Version dialog (3.6) is displayed.

3.1.2. List Review

Error information of file process is displayed.

1. file name

   The file name for conversion is displayed.

2. Code/Message

   Error contents per each file process are displayed. Use the numbers displayed with parentheses as an index to confirm the detail of errors in error display (5).

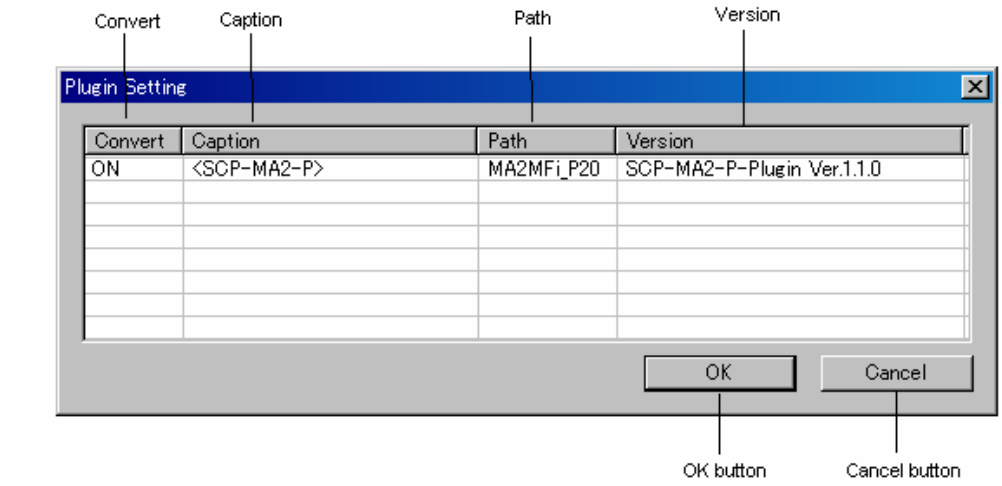
3.1.3. Check Box

It sets the output of error logs (same as a thing which is displayed on **3.1.2List Review**) and logs which record the process result which becomes a list of output file name.
Logs are output when checked.

3.1.4. Close Button

By pressing this button, Main Window is closed and application is ended.

3.2. Plugin Setting Dialog



3.2.1. Convert

The setting for conversion process is performed. By double-clicking on an appropriate cell, ON/OFF is settable. The default (at the application start-up) is "**ON**."

3.2.2. Caption

The information about the conversion target of Plugin is displayed.
By double-clicking a part of display area, the extension-setting-dialog (see **3.3**SCP-MA2-P **Plugin Dialog**) is started up.

3.2.3. Path

An output folder name under the "**Output**" folder with the same path as the input file is designated.
The path can be changed by double-clicking.
However, it cannot be updated under the following conditions.

- When the character string to set up exceeded 32 bytes.
- When the character, such as [\], [/], [:], [,], [;], [*], [?], ["], [<], [>], and [|], which cannot be used for Path was used.

3.2.4. Version

The version information of Plugin is displayed.
By double-clicking a part of display area, the extension setting dialog (see **3.3**SCP-MA2-P **Plugin Dialog**) is started up.

3.2.5. OK button

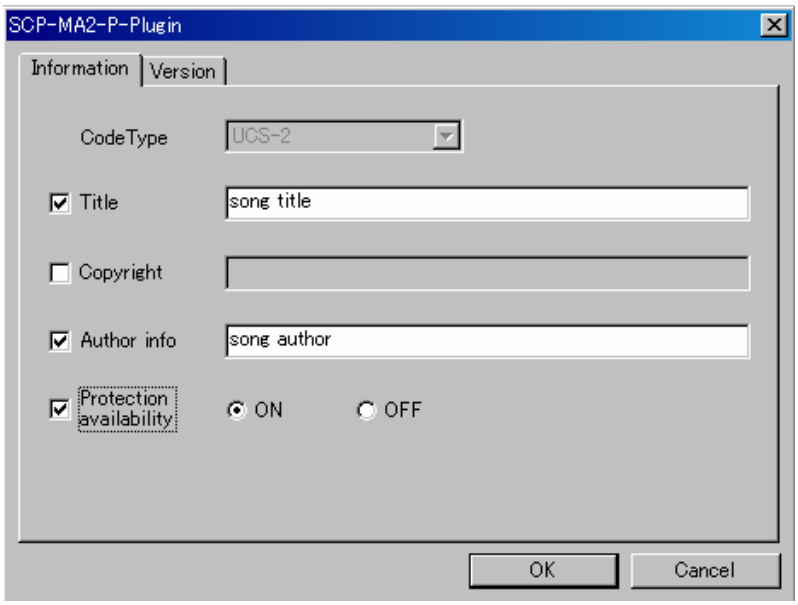
The settings are defined and Plugin Setting dialog is closed.

3.2.6. Cancel button

The settings are canceled and Plugin Setting dialog is closed.

3.3. SCP-MA2-P Plugin Dialog

The extension setting dialog for Plugin is popped up by double-clicking a part of Caption or Version display area on Plugin Setting dialog.



The extension setting dialog categorizes the selectable functions by switching tabs.
In SCP-MA2-P-Plugin, the function is categorized by the Information tab which sets the sub-chunk information of MFi or the Version tab which displays the version information of Plugin.

3.3.1. Information

The sub-chunk information of MFi to be converted is set up.
For the items which are not set up here, the information is obtained from a SMAF/MA-2 which is an original of conversion.
All of the input character string is converted into the UCS-2 character set, and then, is formed into MFi.

3.3.1.1. Title

Checking a left check box enables the settings of edit box on the right.
(Note) The output size to MFi is limited to 50 bytes.

When unchecked, the information is obtained from Song Title (**ST**) tag in SMAF of conversion source.

3.3.1.2. Copyright

Checking a left check box enables the settings of edit box on the right.
(Note) The output size to MFi is limited to 255 bytes.

When unchecked, the information is obtained from Copyright (**CR**) tag in SMAF of conversion source.

3.3.1.3. Author info

Checking a left check box enables the settings of edit box on the right.
(Note) The output size to MFi is limited to 255 bytes.

When unchecked, the information is obtained from Management Group (**GR**) tag in SMAF of conversion source.

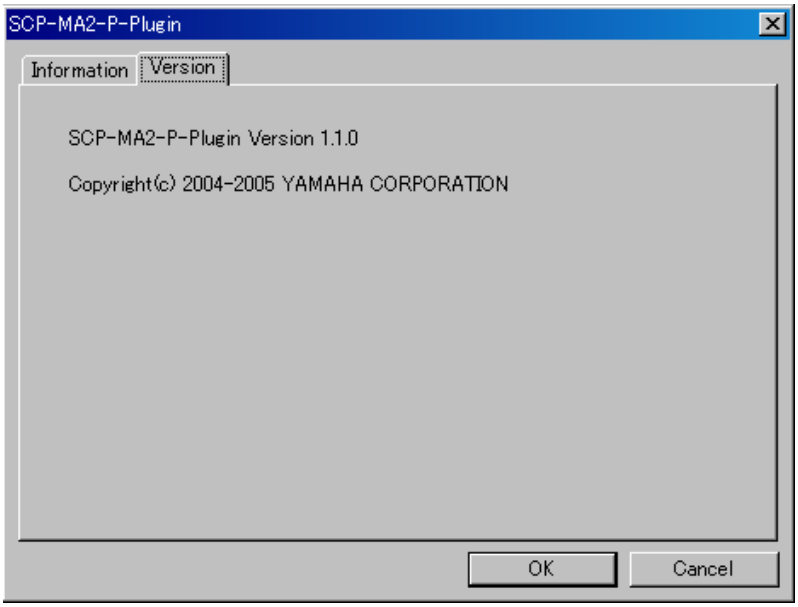
3.3.1.4. Protection Availability

Checking a left check box enables the settings of radio buttons on the right.
ON: Redistribution is possible. OFF: Redistribution is not possible.

When unchecked, the information is obtained from transfer Enable/Disable setting in SMAF of conversion source.

3.3.2. Version

The version of the Plugin is displayed.



3.3.3. OK Button

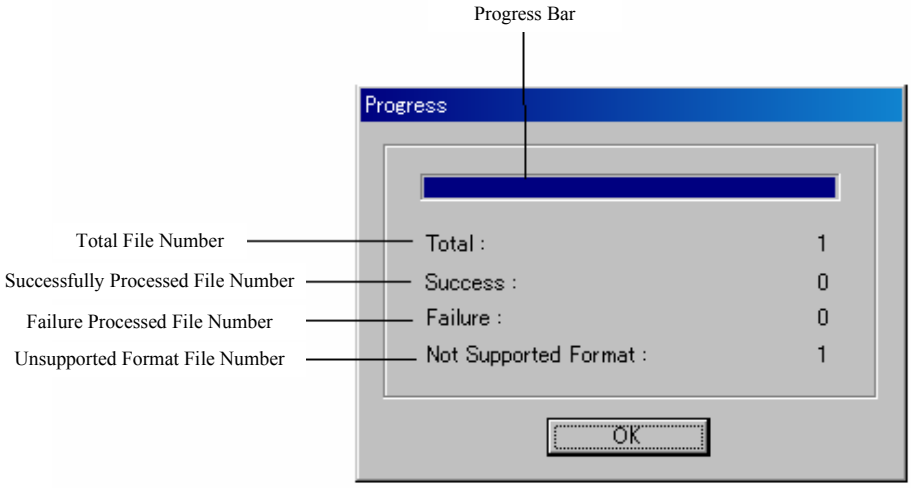
The button defines the settings and closes the dialog.

3.3.4. Cancel Button

The button cancels the settings and closes the dialog.

3.4. Progress Dialog

Process status for the case of processing multiple files together can be checked in this progress dialog.



3.4.1. Progress Bar

The progress bar indicates the percentage of processed file number to the designated file number.

3.4.2. Total File Number

The number of files which were designated by dragging-and-dropping a file or folder is indicated.

3.4.3. Successfully Processed File Number

The number of files which were successfully processed is indicated.

3.4.4. Unsuccessfully Processed File Number

The number of files which were unsuccessfully processed is indicated.

3.4.5. Unsupported Format File Number

The number of files which became error in the interpretation stage because of incorrect SMAF format is indicated.

3.4.6. OK Button

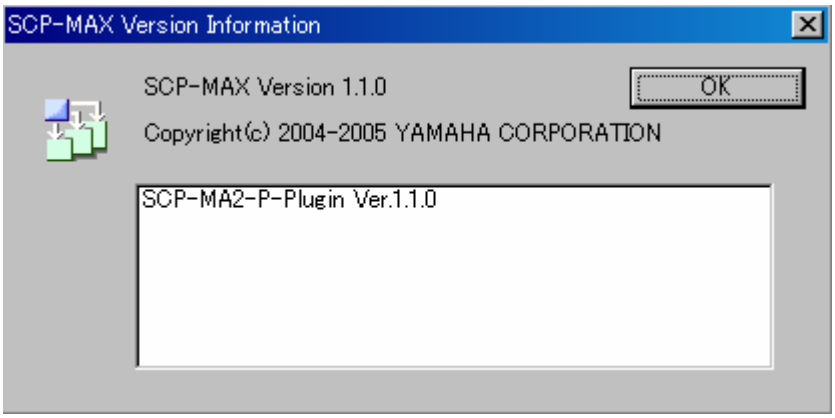
The process can be prematurely ended by pushing the button during "**STOP.**" When a process is ended, display of the button is changed to "**OK**." By pressing "**OK**", the Progress dialog will be closed.

3.5. Overwrite Confirmation Dialog

This is a dialog which is displayed when a file with the same name exists in the output destination. By selecting "**Yes (Y)**", all the followings are processed by the overwriting mode. On the other hand, by selecting "**No (N)**", the process is ended at the moment.

3.6. Version Dialog

Version dialog is opened by selecting in order of Help (H) and Version Info (A) in menu bar.
Version information of SCP-MAX and Plugin are displayed.



4. Input/Output

All processes are executed by just directly dragging and dropping the SMAF/MA-2 file (conversion source) or a folder which includes SMAF files.

4.1. Input File

SMAF/MA-2 files which become a target of conversion.

4.2. Output File

When a conversion into MFi is successfully completed, it is output to the folder designated by Path under the same directory ('Output' folder) as that of input. (If any folder does not exist in there, a folder is automatically created.) Please refer to Plugin Setting dialog (**3.2**) about Path Settings.

4.3. Log File

4.3.1. File Configuration

When a file is processed by placing a check on "**output log file**" check box of dialog, the following log files are output to the same directory as that of output file.

File Name	Content
Log_YYYYMMDD.txt	Record of Process
Error_YYYYMMDD.txt	Record of Error File Process

(YYYYMMDD → Year/Month/Date : Example, 2040930 etc.)

4.3.2. Format

4.3.2.1. Log_YYYYMMDD.txt

in file: Input File Name (SMAF)
in class: Contents Class of Input File Name(SMAF)
in type: Contents Type of Input File (SMAF)
out file: Output File Name (MFi)
(E.g.)

in file	in class	in type	out file
test.mmf	0x01	0x01	test_scp.mld
:	:	:	:

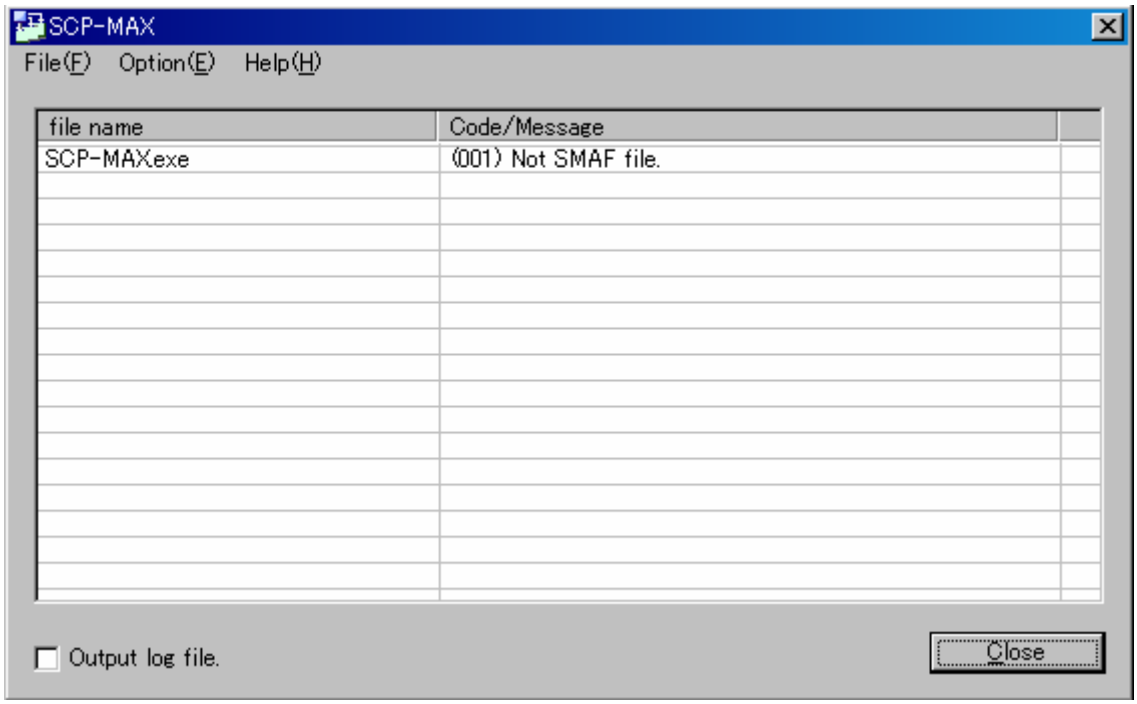
4.3.2.2. Error_YYYYMMDD.txt

The text is composed of Error No., Error Code, and File Name (Full-path).
(E.g.)
(007) Illegal ContentsType [C:\Data\test.mmf]
(006) Illegal chunk length [C:\Data\test2.mmf]

5. Error Display

5.1. Error on File processing

The name of SMAF/MA-2 file which could not be converted and the contents of errors are displayed on the following list view. In addition, when the log output was designated, similar contents are output into the file.



5.1.1. SMAF Error

No	Code	Comment
1	Not SMAF file	Extension of the file is not "***.mmf.**"
2	Not SMAF format	Header of the file is not MMMD.
3	Not SMAF/MA-2 format	Number (No.) of MTR chunk is not '1-4'.
4	Illegal file length	Not larger than the Minimum file size.
6	Illegal chunk length	Incorrect chunk size.
7	Illegal Contents Type	Contents type is out-of-target for processing.
8	Illegal CRC	Incorrect CRC.
9	Failed in loading of contents info	CNTI chunk dose not exist.
10	Failed in loading of optional data	Sub-chunk Dch does not exist in OPDA
11	Failed in loading of track chunk	Each track chunk does not exist.
12	Memory allocation error	Failure of memory reservation
13	File open error	Failure of opening an input/output file.
14	File load error	File reading error
15	File save error	File writing error
16	File path length error.	The length of file path is 260Byte or more.
17	Folder open error.	Problem in output folder (such as access limitation)

5.1.2. MFi Error

No	Code	Comment
101	S2M_P.dll load error.	Failure of loading "**S2M_P.dll**"
103	Error Convert MFi2.0.	Failure of conversion from SMAF/MA2

5.2. Message Box

A part of error which relates to log files is displayed on message box.

Message	Contents
(Log File Name) can't open.	Failure of opening a log file.
(Log File Name) path length error.	Length of log output path is 260Byte or more.
Folder can't open.	When a folder which was dragged and dropped cannot be set as current folder.

6. Appendix

6.1. SMAF-MFi Conversion Event Correspondence Table

The table indicates the correspondence of event in the case of conversion from SMAF to MFi.

SMAF/MA-2	MFi
Note Message Octave Shift	Note Message (Note 1)
Bank Select Program Change	Bank Change Program Change Channel Configuration
Modulation	Extended Vibrato designation
Channel Volume Expression	Channel Volume
Pan	Panpot
Pitch Bend	Extended Pitch Bend designation
Setup data chunk	Extended FM Tone designation
Wave Message	Extended ADPCM Waveform designation
Audio Volume	Extended ADPCM Volume designation
Wave data chunk	Extended ADPCM Waveform designation
Option L2 Tag Channel Status	Extended Sync Status

(Note 1) Note data overlapping with the same key number in a channel of SMAF/MA-2 will be converted after merged as one note. This procedure follows MFi Regulation.