

StyleDump

Description & Operation

This program is a general purpose file viewer for

Yamaha style files

Section data (Main A, Ending A, etc)
CASM
OTS
MusicFinder database entries

Midi song files

Voice edit files

Organ flute files

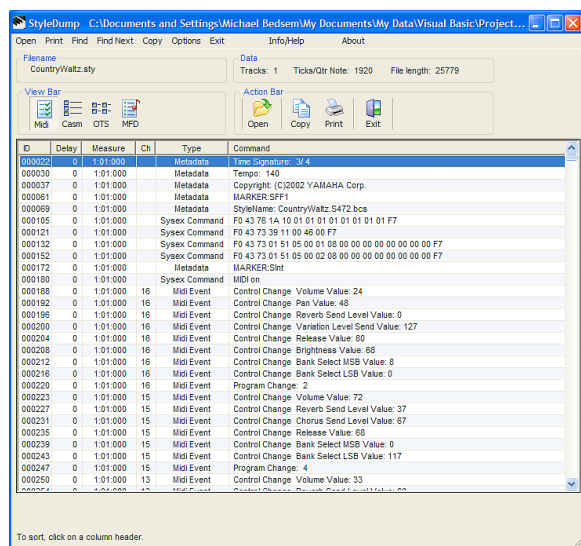
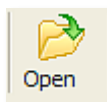
Multipads

The listings include midi events, meta events, sysex events and any special commands, where known. Wherever possible and appropriate, the contents, including sysex commands, have been translated to English descriptions and decimal values.

The displayed information may be sorted, searched, columns rearranged, printed, or copied to the clipboard.

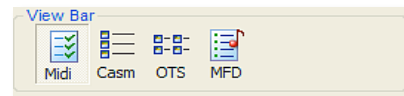
To operate StyleDump:

- **Load the file** that you wish to edit by clicking **Open** in the Menu Bar or Action Bar, select the desired file, and click **Open**. The midi contents of the file will update the program's display. A graphical bar at the bottom of the screen monitors the program's progress in reading and processing the file. A type 1 midi file will automatically be converted to type 0.



Please see the Description of List Elements following for information to help with understanding and interpreting the displayed data. If desired, you can print the appendix with the Print command in the menu bar at the top of the Info/Help window. Select (highlight) the area you wish to print before clicking on Print.

- **Click on one of the other View Bar buttons** to view other data in a style file. The data from the selected section will appear on the screen.



- **Sort the listing** by clicking on one of the column headers.

ID	Delay	Measure	Ch	Type	Command
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- **To reorder the display**, drag a column header to a new location. This does not change the data as printed.

- **Search** for exact or partial matches by selecting the **Find** menu item. This function looks for any occurrence of the characters (Partial Match) or whole word (Exact Match) in any field in any line of the listing. The text search is case insensitive and begins from the beginning of the document. To find the next instance of the search text, click on the **Find Next** menu item.

- **Print the list.** You can print the entire screen or any selected portion. Click on the **Print** button or menu bar item followed by the printer icon at the top right of the preview screen. Select the pages and then Print.

- **Copy the List to the clipboard.** Use Shift or Ctrl Click and the cursor to select the desired text. Click on the **Copy** button or menu item. Your text is now on the clipboard. The header and list information is copied to the clipboard in tab delimited format viewable in Word Pad, NotePad, word processors, and spreadsheets such as Excel.

- **Options.** To suppress the translation of sysex events, click on **Options** in the menu bar and click on Decode Commands. This will remove the default checkmark, and display sysex events hex format, useful with other programs such as Cakewalk. To reestablish sysex decoding, click on **Options/Decode Commands** again, and the checkmark will be restored. Check or uncheck other items to hide the display of grid lines or place a * before any items that uses the running status format.

- **View Help/Info.** Click on the Help/Info menu item. You can print the entire file, or, by dragging the cursor over the desired text, any selected portion. Then click on **Print** in the menu bar, and then Ok.

- **To exit the program**, depress **Exit**.

Description of List Elements

File compatibility (partial list of extensions)

Midi files: .mid
Style files: .sty, .pcs, .sst; .pst, .prs, .bcs
MidiPlayer/ StyleMaker temporary files: .tmp
Voice edit files: .vce, .mgv (mega), .sar (SA), .liv (Live), .clv, .swv (Sweet), .sfx, .lsf, .drm, .ldr
Organ flutes; .org

Header data:



Ticks/per quarter note. Displayed in the Data Box, a tick is really a unit of time. This value defines it in terms of quarter notes and, later in the file, the Tempo defines quarter notes in terms of beats per minute. Typically songs recorded with a style specifying one time resolution (say at 97 ticks/qtr-note) will have a different resolution (e.g. 384 ticks/qtr-note or 4X the amount) in the midi file (with all the times between events larger by the same ratio).

The number of tracks will be shown in the Data Box. This defines the file as a type 0 or 1 midi file. A type 0 is the type of file Yamaha generates when you record a single song. A type 0 file has all events in one continuous stream between a track header (called a chunk) and an end of track event. A type 1 midi file has each channel's data in separate streams, delimited by header chunk-end of track pairs that occur one after each other.

Midi Event Data

ID	Delay	Measure	Ch	Type	Command
000022	0	1:01:000		Metadata	Time Signature: 3/4
000030	0	1:01:000		Metadata	Tempo: 140
000037	0	1:01:000		Metadata	Copyright: (C)2002 YAMAHA Corp.
000061	0	1:01:000		Metadata	MARKER:SFF1
000069	0	1:01:000		Metadata	StyleName: CountryWaltz.S472.bcs
000105	0	1:01:000		Sysex Command	F0 43 76 1A 10 01 01 01 01 01 01 01 01 F7
000121	0	1:01:000		Sysex Command	F0 43 73 39 11 00 46 00 F7
000132	0	1:01:000		Sysex Command	F0 43 73 01 51 05 00 01 08 00 00 00 00 00 00 F7
000152	0	1:01:000		Sysex Command	F0 43 73 01 51 05 00 02 08 00 00 00 00 00 00 F7
000172	0	1:01:000		Metadata	MARKER:Slnt
000180	0	1:01:000		Sysex Command	MIDI on
000188	0	1:01:000	16	Midi Event	Control Change Volume Value: 24
000192	0	1:01:000	16	Midi Event	Control Change Pan Value: 48

In the listing, each line corresponds to one midi event and has two parts: a time specifier followed by an event specifier. The number in brackets at the leftmost position of each line is the location (in bytes) of the event in the file.

The time specifier, listed as the number of ticks from the preceding event, is called delta time and is indicated by the Delay value in the line. A Delay =0 means that events are simultaneous. The Measure: Beat: Tick is a time reference generated by this program derived by translating the sum of all Delay times into to musical terms

The event specifier comes after the time specifier and comes in three flavors:

Meta Events: includes items such as markers, tempo, time signature, style name, copyright, key signature, and sequence specific information. These have all been identified by descriptors in the list.

Sysex events: These typically set the characteristics of the playback device e.g. the PSR in the case of a style file, or a sound card for a midi file played on a computer. Where possible, these events have been identified with decimal values given for the settings. Where unknown (or when Options/Decode Command is disabled), the sysex event is displayed in hex format. Track Assignments codes are (O=Off, K=Keyboard, V= Vocal Harmony, Z=Other).

Midi Events: These are primarily the note on and note off events, but also include control changes, program (voice) changes, key/channel after-touch and pitch wheel changes. These are all identified.

Here is some specific information on the more important elements of the event specifier:

Tempo: Beats per minute. In the file this is recorded as microseconds per quarter note. StyleList converts this to a more familiar system of units.

Channel & Part Numbers: Channels range from 1 to 16. For style files, the channels are the source track numbers and do not necessarily correspond to the PSR part numbers when the style is played. When loaded in a PSR, the CASM for each section (e.g. Main A) is used to redirect events on the Source Channel that you see in this list to the Style Part (or Destination Channel). It is not unusual for a Destination Channel (e.g. ch 11, or the Bass part on a PSR) to have several source channels feeding data to it. For midi files generated by a PSR, the channel numbers are the Destination Channels and correspond to the PSR part channels. Variation Part and MultiPart numbers are shown ranging from 0 to 15 because this is how they are referenced in the manual. Add +1 to convert Variation Part numbers to a channel number.

Controller and Program Changes: The PSR utilizes XG voices and these are always specified by two controller values, MSB and LSB, followed by a program change number (which is the midi identification for this voice). It requires all three to define a voice. These values have not been translated because each PSR uses a different list and it was simply too much work to put them all in. You can identify the voices by looking in the voice list in the Appendix of your manual.

Effects Commands: The PSR makes extensive use of the XG effects. Some of this occurs behind the scenes via default settings or effect assignments built into Panel voice assignments. Because of this, you may not see all the effects being specified in a style file. However, they are all visible in a midi file generated by recording the accompaniment or full song to a midi file.

StyleDump identifies the effect source, the effect and some of the major characteristics. Other details are listed as effect parameter values and you will need to consult your appendix's Effect Parameter List to decode them.

Effect 1 defines the characteristics of the reverb, chorus ('system' effects that are on by default and process data from all channels), and the variation effect. The latter is selected by a setting in each style, and can be either an insertion effect (assigned to specific parts) or a system effect. Effect 2 defines the characteristics of DSP 1-2-3 (used for R1, R2, L1 or other tracks on multi record), and DSP4, which is used by the Vocal Harmony function.

Parameter Change Commands: 'A/D Part' defines the characteristics of the mic input, and 'MultiPart' the characteristics of each of the part channels.

Markers: In style files, markers define the sections of the file (e.g. Main A, Ending B) and, in a PSR, the events between them are played in a loop to generate the accompaniment. You probably will not see markers in midi files generated by a PSR, but you might in a file that has been edited by a computer sequencer.

Note On/off events: These specify the note (the pitch for normal tracks or the instrument (e.g. snare, hi-hat, etc) for drum tracks) and the velocity (equivalent to hitting a key fast or slow- usually effecting volume and sometimes timbre). A number equating to the octave on a keyboard follows each note identification. A note is triggered on by a note on event and turned off by the note off event. A velocity of 0 has the same effect as turning the note off. The note's duration is equal to the sum of the delta times between them. What you hear depends upon the voice. Some, for instance an organ, will hold the note for the duration. Others, such as a guitar pick, may die away long before note off is received.

You may observe that many styles have events on non-drum tracks which are out of key (e.g. G# in the key of C). This happens because some style parts are recorded in keys other than CMaj. You can determine the key for any channel by looking at the Source Chord and Type setting in the CASM (remember each section usually has its own specification). Inside the PSR, these notes are converted back to a common key (along with other processing to force notes to scale and chord tones, adjust root notes etc.) so they sound proper. You can observe this by comparing the notes specified by a style file with the same notes in a midi recording of the style. These out-of-key notes are why a style file sounds so terrible when played by a standard midi player (and why the MidiPlayer program/function was created).

CASM Data

	Parameter	Setting
001	Style Section(s)	Main A, Main B, Main C, Main D, Fill in AA, Fill in BB, Fill in CC, Fill in DD, Intro A, Ending A, Fill in BA
002	Source Track	1
003	Name	HistFX
004	Style Part	Chord 1
005	Editable?	No
006	Notes allowed	C # D Eb E F F# G G# A Bb B
007	Chords allowed	sus4 1+2+5 7(13) 7(b9) 7(b13) 7(#9) M7aug 7aug 1+8 1+5 m7M(9) dim dm7 7 7sus4
008	Key	C min7(11)
009	Note Transposition Rule	Root Fixed
010	Note Transposition Ta...	Bypass
011	High Key	G#
012	Note Low Limit	50
013	Note High Limit	127
014	Retrigger rule	Pitch Shift
015		
016	Source Track	2
017	Name	HistMleg
018	Style Part	Chord 1

This information was obtained in part from information provided by Jørgen Sørensen (js.dk@mail.tele.dk).

Source Track: Identifies the track number (1=16) of the midi data.

Voice Name: Sometimes this is descriptive, sometimes not. It is probably is not used anywhere.

Style Part (Destination Channel): Identifies the part number in the PSR where the source track's data will play. Sub Rhythm=9, Rhythm=10, Bass=11, Chord 1=12, Chord 2=13, Pad=14, Phrase 1=15, Phrase2=16.

Editable: The PSRs Style Creator does not allow editing of a track if this flag is set, or editing of a track when there is more than one track assigned to a single destination track regardless of this setting.

Notes Allowed: Translation of a table indicating what notes are muted.

Chords Allowed: Translation of a table indicating what chords are allowed/muted. This is used to allow a track to be active for only one chord type.

Source Chord & Type: Defines the key and type (Maj, Min etc) to which the source track data belongs.

Note Transposition Table: Root Fixed: The note is kept as close as possible to the previous note. Used in chordal parts. Root Transpose: Keeps the same inversion. Often used for Bass parts.

Note Transposition table: Melody: Suitable for melody lines, e.g. Phrase parts. Chord: Suitable for chordal parts. Bass: Suitable for bass parts. Melodic/Harmonic minor: changes minor definition.

High Key: Specifies the highest note allowed for the root.

Note Low Limit/ Note High Limit: Defines the allowed range of the source. Notes outside will be transposed. 0= lowest possible midi note; 127 = highest possible note.

Retrigger Rule: Defines what happens to notes sustained through a chord change. Options are Stop,

Pitch Shift, Pitch Shift to Root, Retrigger to New Pitch, Note Generator (custom note initiated).

U Data: These bytes in the T3 Casm have an unknown function.

OTS Data

This is the same as for midi data.

MFD Data

Music	Genre	Tempo	Time Sig	Keyword 1
Tyros Man?	Pop Classics	108	3/4	70,piano,waltz
Old Smokey	Sing-alongs	123	3/4	traditional,childrens,waltz
Dear, My Clementine	Sing-alongs	98	3/4	traditional,waltz
Waltz In Tennessee	Country	83	3/4	50,waltz
Lucille Left Me	Country	108	3/4	70,waltz
He's Got To Go	Ballroom	68	3/4	50,waltz
My Home Is In Range	Country	92	3/4	traditional,cowboy,western
Growing Up A Cowboy	Country	99	3/4	american,standard
Somewhere Between Country & Here	Country	77	3/4	dutch,holland,standard
My Everything Has Gone	Country	72	3/4	american,ballad
Take Each Day As It Comes	Oldies	108	3/4	70

Modern style files include records that are used to generate the PSR's internal MusicFinder during a Function/Utility/System Reset/Music Finder reset. These records are also added to the existing Music Finder when a style is added to the User area.

For a more complete description of the style file format please see:

["Style Files - Introduction and Details"](#)

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Communication & Support

Any questions, comments, suggestions for modifications or improvements, or problem reports would be most welcome. Please forward these to the author at mpb@sover.net.

Acknowledgements

StyleDump is one of several programs in the StyleManager Series that is intended to give users the ability to work around common annoyances or operating discrepancies between instruments. StyleDump was created to provide users the capability of examining the basic characteristics of style and PSR midi files on their computer.

Jorgen Sorensen compiled and largely decoded the CASM Section Format that StyleDump used to decode this data.

Michael Bedesem
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