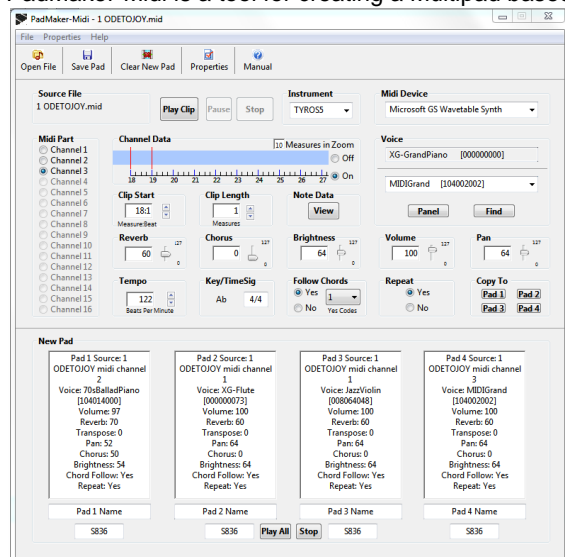


PadMaker-Midi

Overview

PadMaker-Midi is a tool for creating a Multipad based



upon the patterns from one or more midi or pad files.

With it you can:

- ◆ Create a pad by selecting an area of a midi or multipad using the mouse and on-screen options. No typing is required.
- ◆ Edit an existing pad by replacing one or more sections from other pads or sections of midis.
- ◆ Audition the pattern selected on the PC or PSR.
- ◆ Edit the Voice, Volume, Pan, Reverb, Chorus, Tempo and Brightness, Chord Follow and Repeat parameters for each pad. Editing tools are provided for transposing each pad based upon the notes used in the pattern.
- ◆ Access instrument voice support for PSR 450, 550, 740, 1000, 1100, 1500, 2000, 2100, 3000, 9000, S670, S900, S910, S950, S970, S700, S710, S750, S770, Tyros 1, Tyros 2, Tyros 3, Tyros 4 and Tyros 5.
- ◆ Include user-editable text into the pad's copyright field for acknowledging authorship, providing web links, etc.

Note: Recent features are described in [Appendix G](#).

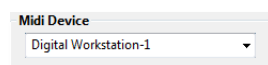
The basic steps to making a pad:

- 1) Open a midi, and then select a pattern defined by a midi channel, start time and clip length.
- 2) Audition your selection.
- 3) Edit the voice and effect settings, if desired.
- 4) Copy the selection to a pad location.
- 5) Repeat for the other three pads patterns. If desired, select a different midi to use for each.
- 6) Save the pad.

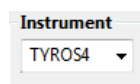
First Time Setup

● Select your midi driver

If you have your instrument connected via Midi or USB to the PC, you can play your pattern selection from the program. Turn on your instrument, and select your midi connection in the Midi Device box.



● Select your instrument

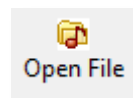


PadMaker-Midi supports PSR 450, 550, 740, 1000, 1100, 1500, 2000, 2100, 3000, 9000, S670, S900, S910, S950, S970, S700, S710, S750, S770, Tyros 1, Tyros 2, Tyros 3, Tyros 4 and Tyros 5. For other instruments: Select a model that is close to yours (e.g. Tyros 2 for CVP-309). See Appendix for instructions on making a file for your instrument.

Creating a Pad

● Open a file

Open a midi by clicking the Open Midi toolbar button and selecting a file. Any midi or multipad may be used. Note that midi loop files differ from midi song files in that they often have a pattern built around one chord. This makes then easier to use when making Chord Follow = Yes multipads.

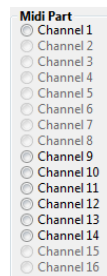


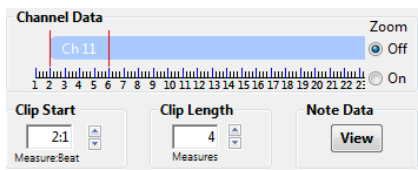
Remember that Tyros and later instruments often employ megavoices that do not sound properly in prior products. Use the program MidiPlayer to convert such styles to standard voices before using them with PadMaker-Midi. Tyros 3 and instruments using the SFF2/ GE StyleFile Format have some guitar pattern playing modes that are not available in earlier instruments and can not be used.

● Select a midi channel and loop settings

When a midi is opened, only channels with available note data are displayed.

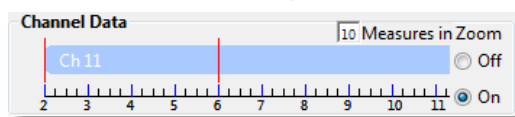
Click a channel to select it. This will create a display that indicates the position, and duration along with the default start and length settings.



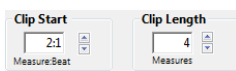


Note that the display is in measure:beat format. The numbers and blue "ticks" represent the start of a measure (e.g., 1:1, 2:1, etc) while smaller "ticks" correspond to the later beats (1:2, 1:3, 1:4).

The clip area that will reproduce with Play, and will be used to make the pad, is defined by the red bars and the Clip Start and Clip Length settings. If the file has many measures, click on the Zoom On button to expand the display.



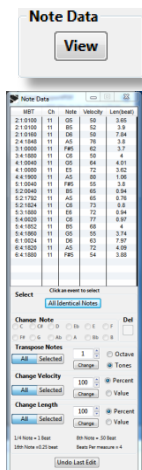
Selecting the midi clip is an important step in making a pad. Use the Up-Down arrows in Clip Start to select where the clip will begin, and Clip Length to select its duration. Alternatively, click in either box to enter a value directly.



In the instrument, pads can be any length, but reproduce in units of one measure. If you select a clip in 4/4 time that is 2 ½ measures long (e.g. from 1 to 3:2), when played, there will be two beats of silence at the end of the pad. PadMaker-Midi selects clips with full measure lengths to help avoid this effect.

The "Clip Length" parameter defaults to a value of "1" when a pad file or midi file is loaded. Note: It is important to set the Clip Length to match the loop length of a preset pad before copying it to a button, otherwise only the first measure of the loop will be saved.

To see the actual data that is in the pattern, and has been selected by the clip, click the Note Data View button.



The current clip is shown and controls at the bottom of the screen provide editing functions. (Other clip editing is discussed in Appendix E)

If there are just a few rogue notes, first **click on an event to play it and select it**, then use the Change Note control to select a replacement, or use Del(ete) to remove the event.

Patterns that are not in the key of CMaj7 or

in the incorrect octave may be corrected by transposing the all or part of the clip using the Transpose Notes control.

Raise or lower either All or Selected notes by either octaves or semi tones and the value entered in the # box. The Up-Down selector can also be used to change the value. Click Change to enter your edits.

Note: Tyros2 and later instruments can use specially encoded guitar parts. These may be encountered in some factory styles and pads. These patterns do not follow the C E G B rule above and must use special notes and Chord Follow codes to play properly. See Appendix F.

Fixed patterns (Chord Follow=No) can use any note data.

To modify velocities ((i.e. how 'hard' a note is 'struck') or the length (in beats) of All or Selected notes, use the Change Velocity or Change length control.

Select either Value or Percent (100= no change, 50= ½, 200= 2X) and enter the setting in the # box. The Up-Down selector can be used to change the value. Click Change to enter the edit.

Click the Undo to reverse the last editing action.

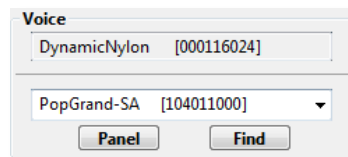
● Edit the voice settings

Voice:

The top box displays the voice currently specified in the pattern. If the Voice is supported in your instrument, the name is shown along with the Bank Select and Program Change numbers. If the Voice assigned to the preset pad is not supported by your instrument, only the MSB, LSB & Program Change will be displayed.

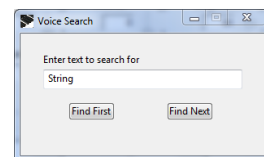
Important: PadMaker follows the midi (zero based) standard and most PC programs for program change numbers. The number displayed will be one less than the value in the Data Manual or displayed on the PSR screen.

Click the arrow in the bottom box to select a replacement. The choices that are presented depend upon the voice type specified by the button below the replacement voice display and include Panel, XG (includes GM), SART, Mega, and GM2. If your instrument does not include such a type, then it will not be displayed.



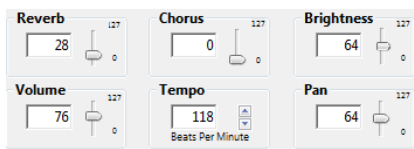
The voices displayed are ordered by their midi program change number. This groups all the guitars together, etc.

To locate a voice by name, click the Find button.



The results of the search are automatically placed in the replacement box.

Volume, Reverb, Chorus, Pan and Brightness:



The current pattern's settings are displayed in the edit controls and may be adjusted to suit.

Note that these settings are recorded with each pad. While they can be different, this may not always be the effect desired if pads are played together or in sequence.

Some users may want to use multiple Pan or Brightness settings that exist in the source file in place of a single setting made by the program's controls. If so, check the Use Existing Pan/Brightness Events in the Properties window.

Volume: Pad volumes range from 30 to 85, with 40-70 being typical. It depends upon the instrument, the velocity used in recording and the complexity of the pattern. If there is no volume setting in the file, 70 is used as the default

If several pads are to be used in the same performance, it may be desirable to set the volume value to achieve a similar audio volume (best determined by auditioning).

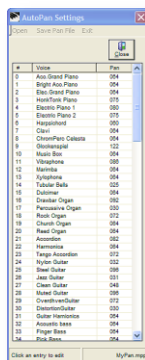
Reverb/Chorus/Brightness: The initial settings are those used in the midi for the instrument selected. If the instrument is changed to a different type, these may no longer be appropriate. If enabled in Properties, all brightness and/or pad events will be available.

If there is no Brightness setting in the file, then PadMaker-Midi assumes a value =64. You may want to verify that this is a reasonable value for this instrument.

Pan: The pan setting determines the position of the voice in the stereo field with 0= hard left, 64= center and 127 = hard right.

Note: There are some conventions that are used by the recording industry and experienced midi song programmers. These reflect the common positioning of band members.

The Appendix of this manual includes a table of these settings.



• Playing the Clip

Click the Play button at any time during pattern selection or editing to play the pattern on the selected midi device. To terminate play at any time, depress the Stop button. To halt the play temporarily, press Pause. To restart paused play, depress Pause again. To halt Play, press Stop.

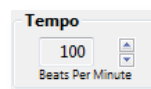
For the best reproduction, it is best to play the pad on the PSR by selecting your midi device.

Note: Rhythm and Sub Rhythm parts always audition using drum voices, but will reproduce as the selected instrument when the pad is loaded. Likewise, patterns employing the special guitar encoding will only sound properly when used on the instrument.

• Edit the pad settings

Tempo

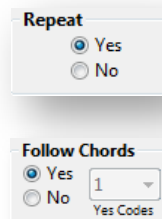
The value displayed, before your editing, is first tempo obtained from in the opened midi. Consider using it as an aid in choosing an appropriate pattern. *Regardless of this setting, the pattern will only reproduce at the tempo setting of the instrument.*



Repeat and Chord Follow

The Repeat setting determines if the patterns plays once and stops (No), or continues until the accompaniment or pad is stopped (Yes).

This setting determines if the pattern's notes change depending upon the root key of the chord played on the PSR. As indicated earlier, chord follow should be limited to the notes of C, D, E, G, A, B to reproduce in a predicable manner.



Follow Chords=No will play the pattern without translation in the instrument and any notes may be used.

Normally drum and sound effect tracks should be set to Follow Off unless you want the drum instruments to change pitch with different chords.

If a multipad is used as a source for a pad part, the program will initially select the follow and repeat settings that were used in the source file.

Tyros2 and later instruments can use Yes Code values from 1-5 for normal patterns and 6-8 for specially encoded guitar parts found in factory styles and pads (see Appendix F). Earlier instruments only use the Yes Code 1.

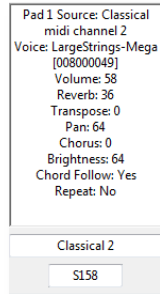
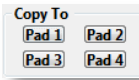
● Copying to a pad location

A pad can be assigned, or reassigned, to any one of the four pad locations. These correspond to the numbered pad buttons on your PSR.

The source of the pad and the settings used are reproduced in the pad display. These are included for reference in the pad file in a midi text event.

Each of the four pads can have a name and an icon that displays on the instrument. If the source is a pad and it has a name, the existing name and icon are displaced below the settings box. If there is none, a default is displayed.

You can edit the name to suit yourself. The icon assignment should be one of the 1000+ that exist on the instrument. MidiPlayer's Icon View can be used to display the icons and identify the icon's code.



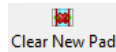
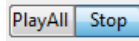
● Playing the pads together

The PlayAll button at the bottom of the New Pad box allows playing all the pads together. This is useful for balancing the volumes or seeing how they will sound when all played together on the instrument.

If you want to repeat the Play All, change the Repeat option by depressing the Properties button.

● Clearing a New Pad

Normally, the New Pad is cleared by saving the pad. To remove all pads from the New Pad without saving, click the Clear New Pad toolbar button.



● Properties

Edit Stored Properties

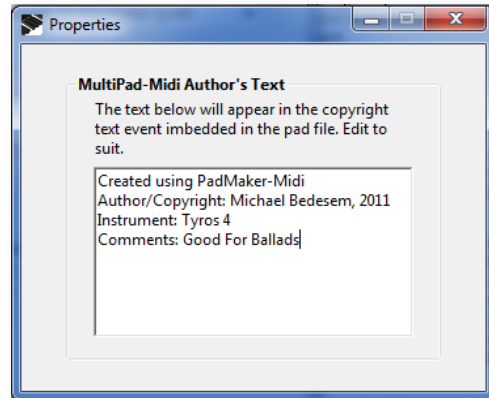
Click on the Properties/Stored Properties menu item or the Stored Properties toolbar button. These settings are saved between sessions and are used to customize the program's operation and Author's Text that will be imbedded in the saved file.

Loop Play Clip – This setting controls the automatic looping of a Play Clip, and may be convenient for voice editing.

Use Events form Source File - Some users may want to use multiple Pan or Brightness settings that exist in the source file in place of a single setting made by the program's controls. These controller events are used to create a sound that moves in

position or harmonic content and is common in modern dance music. To enable, check the Use Existing Pan/Brightness Events in the Properties window.

MultiPad- Midi's Author Text will be included in Copyright and text fields of the midi file and contain any information that you might want to communicate such as author, instrument, date, copyright, email or web site address.



● Saving a pad

To save a completed pad with 1 to 4 patterns, click the Save Pad toolbar button, select a filename and click Save. You do not have to add an extension as PadMaker-Midi does this automatically. Note: It has been reported on systems using non-ASCII fonts that accent characters in a file path will result in a saved file not being visible after saving. If you encounter this, please try saving to a folder with no accents in the path, e.g. C:\.



Appendix

● A. Troubleshooting

A problem caused the program to stop working correctly. Windows will close the program... or any other window warning.

Run the program as Administrator.

A. In Windows 7, right click on the desktop icon and select Properties/ Shortcut tab. Then depress the Advanced button and check the Run as Administrator.

B. If this is unsuccessful, try: Start/ControlPanel. Select System and Security. Select the System Topic. Click Advanced system settings. If you're prompted for an administrator password or confirmation, type the password or provide confirmation. Under Performance, click Settings.

Click the Data Execution Prevention tab, and then click Turn on DEP for all programs and services except those I select.

To turn off DEP for an individual program, select the check box next to the program that you want to turn off DEP for, and then click OK. If the program is not in the list, click Add. Browse to the Program Files folder, find the [executable file](#) for the program (it will have an .exe [file name extension](#)), and then click Open. Click OK, click OK in the System Properties dialog box if it appears, and then click OK again. You might need to restart your computer for the changes to take effect.



When finished click Apply and Ok.

When I play a song, I do not hear any sound.

- Check that your instrument is turned on.
- Make sure you are connected via midi/USB, and that the driver is identified in Setup.
- **I cannot save files using Windows 7.**

Using Windows Explorer, navigate to the C:\ Program Files (x86)\PadMaker folder and mark PadMaker.exe file to run as an administrator:

1. Right click the program and select Properties.
2. Under the compatibility tab, select Run this program as an administrator.
3. Click Apply and OK.

Vista does not support changing the default midi device.

The solution is to install MidiMap. Click on www.pp-express.info/Vista_MIDI/PLWMidiMap.cpl , and it will prompt to install - just save to your desktop. Once on the desktop, unzip the file. When you want to select a midi device, just double click on the unzipped file and a selection box will appear.

There does not seem to be enough room in the toolbar for the display.

Your computer may be set to use a larger-than-normal font.

For XP: Right click an empty area of the Desktop and select Properties/Appearance. Check Font size and change it to Normal.

For Vista: There are two font settings: size and DPI. It is not clear which setting(s) cause this problem.


One user has reported that switching from Windows Aero mode to Windows Classic fixes the problem with no other adjustments. Another user reports switching "Window Color and Appearance" from "Windows Vista Basis" to "Windows Classic" is all that is needed.


See also:

If you set the DPI higher than 96, and you are running Windows Aero (the premium visual experience of Windows Vista), the text and other items on the screen might appear blurry in some programs that are not designed for high-DPI display in this version of Windows. You can avoid this issue by using Windows XP-style DPI scaling for these programs.



Some programs display better using Windows XP style of DPI scaling.

Open Personalization by clicking the Start button  , clicking Control Panel, clicking Appearance and Personalization, and then clicking Personalization.

In the left pane, click Adjust font size (DPI).  If you are prompted for an administrator password or confirmation, type the password or provide confirmation.

In the DPI Scaling dialog box, click Custom DPI.

Select the Use Windows XP style DPI scaling check box, and then click OK.

● B. Using PadMaker-Midi with Other Instruments

PadMaker-Midi can be used with other modern PSRs and CVPs, with some limitations:

Select a Model that is close to yours (e.g. Tyros 2 for CVP-309). Be aware that the voice listing will not correspond exactly to your instrument.

If desired, you can customize one of the voices lists supplied with PadMaker-Midi so it matches your instrument or your needs (e.g., you could remove the XG voices if you never use them).

The files are in the install directory with the file name Instrument.dat (e.g. PSR-1000.dat). Small changes can be made in Word, Word Pad or Notepad. You do not have to change the extension to open the files in these programs. When you save the file, make sure that it is saved as file type txt, with the name unchanged, to the install directory.

It is recommended that you start with a file that is similar to that of your instrument. Once edited, just use the name of the instrument to access your file (e.g. if you edit the PSR-740 for the PSR-730, leave the name as PSR-740.dat and select the 740 in the Instrument box.

The elements in the file have the format: voice name, a semicolon (;) followed by the "Msb Lsb Program#" as a 9-digit text string and a carriage return/line feed. Note that numbers such as 16 always have leading "0s" (e.g. 000016002 is Msb=0,Lsb=16,PC=2). Be sure that there are not any extra line feeds or carriage returns (no blank lines) and that there are no duplicate entries. These errors will prevent the file from loading properly.

The file can be in any order, but most users prefer to group all the pianos together, etc. The easiest way to do this is to organize the list by ascending program number.

● C. Configuring Windows for Files

Periodically users report problems trying to access, view, rename or save style/midi/voice files. To eliminate these problems, please go to Windows Explorer/ Tools/Folder Options/View Tab and confirm the following settings:

'Hide extensions for known file types' is unchecked.
'Display the content of system folders' is checked.
'Show hidden files and folders' is checked.

● D. Common Pan Settings

Aco.Grand Piano	64
Bright Aco.Piano	64
Elec.Grand Piano	64
HonkTonk Piano	75
Electric Piano 1	80
Electric Piano 2	75
Harpsichord	60
Clavi	64
ChromPerc Celesta	64
Glockenspiel	122
Music Box	64
Vibraphone	86
Marimba	64
Xylophone	64
Tubular Bells	25
Dulcimer	64
Drawbar Organ	92
Percussive Organ	30
Rock Organ	72
Church Organ	64
Reed Organ	64
Accordion	82
Harmonica	64
Tango Accordion	72
Nylon Guitar	32
Steel Guitar	96
Jazz Guitar	31
Clean Guitar	48
Muted Guitar	96
OverdhvenGuitar	72
DistortionGuitar	30
Guitar Harnionics	64
Acoustic bass	64
Finger Bass	64
Pick Bass	64
Fretless Bass	64
Slap Bass 1	64
Slap Bass 2	64
Synth Bass1	64
Synth Bass 2	64
Violin	55
Viola	50
Cello	70
Contrabass	64
Tremolo Strings	64
PizzicatoStrinqs	72
Orchestral Harp	40
Timpani	20
StringEnsemble1	64
StringEnsemble2	64
Synth Strings 1	64
Synth Strings 2	64
Choir Aahs	32
Voice Oohs	32
Synth Voice	64

Orchestra Hit	64
Trumpet	74
Trombone	48
Tuba	72
Muted Trumpet	64
French Horn	64
Brass Section	58
Synth Brass 1	74
Synth Brass 2	74
Soprano Sax	64
Alto Sax	64
Tenor Sax	56
Baritone Sax	96
Oboe	64
English Horn	64
Bassoon	64
Clarinet	32
Piccolo	64
Flute	96
Recorder	74
Pan Flute	75
Blown Bottle	76
Shakuhachi	77
Whistle	78
Ocarina	79
Square Lead	64
Sawtooth Lead	64
Calliope Lead	64
Chiff Lead	64
Charang Lead	64
Voice Lead	64
Fifths Lead	64
Bass & Lead	64
New Age Pad	64
Warm Pad	64
Poly Synth Pad	64
Choir Pad	64
Bowed Pad	64
Metallic Pad	64
Halo Pad	64
Sweep Pad	64
Rain	64
Sound Track	64
Crystal	14
Atmosphere	64
Brightness	64
Goblins	101
Echoes	64
Sci-Fi	64
Sitar	64
Banjo	64
Shamisen	64
Kato	64

Kalimba	64
Bagpipe	64
Fiddle	54
Shanai	64
Tinkle Bell	112
Agogo	64
Steel Drums	50
Woodblock	64
Taiko Drum	64
Melodic Tom	64
Synth Drum	64
Reverse Cymbal	64
GuitarFretNoise	64
Breath Noise	64
Seashore	64
Bird Tweet	123
Telephone Ring	124
Helicopter	125
Applause	64
Gunshot	64

● E. Out of Scale Patterns

If Chord Follow is On then the notes must be in C major seventh scale and limited to (C, D, E, G, A and B). This is because the instrument uses conversion tables to shift the pattern based upon the chord you key. These tables assume that only these notes are there. (Note: The easiest way of avoiding scale problems is to use Pads as a source.)

There are three reasons that the notes are not C, D, E, G, A and B:

1. The midi pattern is in the key of C but has extra notes such as F.

Try changing the offending note to one in the pattern or deleting altogether. The Play the pattern. If sounds like something you might use as a Pad, then it is ok.
2. The midi pattern is in a different key (e.g. D= D E F# G A B).

You can usually tell because the collection of notes making a chord indicate chords in this key (D chord= DF#A sounding at the same time) or the key given in the file and displayed in PadMaker-Midi (although is not reliable).

Perhaps your best detective is to play the sequence. Does it sound like something in C? The general fix for other keys is to transpose the pattern so most of the notes are C, D, E, G, A and B. Then delete or replace the out of scale notes. Note that the important notes are usually C E G B. (You

can use PadMaker-Midi to open some existing pads and view their contents).

3. The midi pattern is a guitar fingering track, not a note pattern.

From the T2 on, some styles and pads use a new method of reproducing a guitar part. Instead of the notes, the pattern represents the guitar strings and special processing converts these to a strum or arpeggio. You can easily tell these tracks by playing them. They do not sound like a musical pattern at all!

The solution is to use special chord follow codes that tells the post T2 PSRs how to play the pattern. See Appendix F below.

● F. Guitar Pattern Encoding/Chord Follow Codes

Tyros 2 and later arrangers can employ guitar in which the notes in the pattern represent the strings of the guitar. For example:

B -> 1st string (high E)
A -> 2nd string (B)
G -> 3rd string (G)
F -> 4th string (D)
E -> 5th string (A)
D -> 6th string (low E)
C# -> a quint* above/below
C -> root note

It appears that the following Chord Follow codes are used for:

Code 1 = bypass (no pattern encoding)
Code 2 = Melody
Code 6 = Guitar All Purpose, ie. A mixture of types.
Code 7 = Guitar Stroke, i.e. strum where some guitar notes are muted.
Code 8 = Guitar arpeggio and finger picking

* The quint guitar is tuned five notes above or below.
Up = B E A D F# B and down = A D G C E A

● G. Features added since Version 174

Pan and Brightness events in the source midi can be automatically added to enable panning and sonic effects.

Velocity editing and Play Note has been added to NoteView. Other Note View improvements include use of Ab vs G# etc , range limits, no negative velocity values, etc.

The volume used in playing or copying a clip is determined by the current volume setting on the panel.

Errors previously generated with some time signatures have been eliminated.

Follow codes are always enabled.

The displayed clip range now includes all events not just note events (to display the range of associated controllers).

Automatically uses the pad length when a Pad is loaded.

Tyros 5 support added.

The program now searches up to the first note event for the initial voice.

All voice files have been updated to most recent versions..

Crashes occurring with some computer fonts have been eliminated.

Property and settings recording have been updated.

Clip length is set to pad length when a Pad file is opened.

Select All Identical note events function added.

Windows mouse scroll now only modifies the selected slider.

User Notes

Joe Hlifka [jhlifka@netzero.net] has taken a great interest in making pads from midis and other pads. He has kindly allowed his personal notes to be reproduced here as an aid to other users.

Getting Started

Things to consider before attempting to edit or create new Multi Pad files:

Mix and Match Pads on the Keyboard

An undocumented feature of the PSR and Tyros keyboards is the ability to play individual pads from two or more Multi Pad files at the same time. When loading a new Multi Pad while one is currently playing and then pressing any of the 4 pad buttons, the pad from the newly loaded Multi Pad will play along with the previously loaded pad(s). Additional buttons pressed will result in a new pad replacing the pad that is currently playing.

This technique is useful for developing an ear for how various percussion and musical phrases will sound when played together and can help improve over-all pad-making skills when creating new pads using PadMaker-Midi. You can copy and paste individual pads from one Multi Pad file to another on the keyboard, but PadMaker-Midi accomplishes this task much easier and faster and allows editing of many parameters at the same in a single operation.

Making Pads from a MIDI Song File

It is very helpful to play MIDI song files on a sequencer before attempting to create new pads. Make a note of which MIDI channels and which measures for each channel will be used to make new pads. It will be much easier locating the musical phrases you want to use when the song file is loaded into PadMaker-Midi.

Recording Original Pad Loops

An alternative method to recording pads using Multi Pad Creator is to record original pad loops and phrases played from the keyboard to the on-board sequencer or to an external sequencer. Once one or more musical phrases have been recorded, they can be quantized or edited before saving them as a Standard MIDI File. The loops/phrases can now be loaded into PadMaker-Midi and edited in the same manner as any MIDI song file.

NOTE: When making pads from MIDI song files, PadMaker-Midi will remove unused note-data when a new Multi Pad file is saved to disk. It is a good practice is to copy Clips to the buttons and save the file right away before further editing. When the file is loaded back into PadMaker-Midi, only the chosen Clip area for each channel will be present. You can now

make further edits without losing your new pad loops and phrases.

Auditioning Newly Created Multi Pads in PadMaker-Midi

Connecting your keyboard to the computer as described in the PadMaker-Midi manual will enable you to access all Voices available in your keyboard.

NOTE: Pads may sound slightly different when loaded into the keyboard and played with a style. Volume and pan settings may need some final tweaking using Multi Pad Creator. Pads will use the effects processors assigned to the style currently selected on the keyboard. When creating or editing a Multi Pad that will be used with a specific style, load that style in the keyboard before editing pads. This should produce the best results and truest rendering of how the pads will sound when loaded into the keyboard and played with a specific style.

Categories of Multi Pad Files

You may want to create four pads that are compatible and are playable together, or you may want to create four variations of a bass line, guitar strum, chord pattern, arpeggio, phrase, drum pattern, etc. Once useable pads are created and saved, you can mix and match individual pads to create variants or similar Multi Pads to use with different styles of the same genre of music.

It might be worthwhile to establish a method for naming and organizing pads that will make it easy to find specific files as your Multi Pad library grows in size.

Naming Pads

Pads names are copied to the Pad Name field when a Clip is copied to a button. If you wish to rename all four pads to match the Multi Pad file name, you can use a short-cut method as follows: Delete all pad names. Then type in the new name in the Pad 1 Name field, [Pad Name 1]. Using the Windows Clipboard, right-click to copy and paste to the other three pad-name fields. Then edit the number "1" in each field to match pad-button numbers - "2", "3" and "4".

Multi Pad File Name Conventions:

- Name a Multi Pad file to match a specific style (if it will be used only with a specific preset or custom style).
- Name a Multi Pad file by genre (IE; Ballad, Dance, Techno, Rock, Pop, Classical, Country, Jazz, etc).
- Name a Multi Pad file by musical application (IE; Rhythm, Bass, Chord, Pad, Phrase, Arpeggio, etc).

Individual Pad Name Conventions:

- Name a pad to match the instrument sound assigned to the pad.
- Name a pad using the default method, (IE; Multi Pad file name 1, Multi Pad file name 2, Multi Pad file name 3, Multi Pad file name 4.
- Name individual pads by musical application (IE; Rhythm, Bass, Chord, Pad, Phrase, Arpeggio, etc).

Editing the Pad Parameters

Clip Start Point

This is an important parameter when working from a midi song file. The Clip Start point is used to get the correct timing on the down-beat of a pad-loop or phrase.

Clip Length

Set the Clip Length for each channel to the desired number of measures. The Clip Length may be a different number of measures for each channel/clip.

Editing Note Data

If using Chord Follow (Chord Match) use only Cmaj7 scale notes: C, D, E, G, A and B as noted in the PadMaker-Midi manual.

NOTE: Individual notes will sound in Note View by clicking on them. This is particularly helpful when editing drum sounds or modifying drum notes when changing from one drum kit to a different drum kit.

Note View Window

Be sure the Clip Length is set correctly before editing note data, only notes in the defined Clip area will be displayed in the Note View window. The "Transpose Notes" and "Velocity" buttons default to **All**.

Transposing Notes

When the Transpose Notes button is set to **Selected**, a group of notes can be selected and deselected one-at-a-time while holding-down the Control-Key on the PC keyboard, or by using the method below:

Shortcut for Transposing All Identical Notes

Choose the Transpose Notes - **Selected**, then click the **Note Tab** located at the top of the note list window. This will group all identical notes together. Hold down the Shift-Key on the PC keyboard and left-click to select the first note in the list, then left-click to select the last note in the list you want to change; all notes located between the first and last note selected will become highlighted. Now use the Octave or Semi-Tone button to change the selected group of notes.

Editing Note Velocities

Arpeggio, phrase patterns and chords may sound more natural when certain notes are emphasized by

increasing the velocity value. Some Panel Voices such as Electric Pianos will sound differently played at lower velocities than when played at higher velocity values. Careful editing of note velocities may allow use of Mega Voices for special effects and dynamic sounding pads. (See Data List for Mega Voice velocity settings)

Editing Long Clips

Note View will only display notes in the selected clip. To zoom in on a specific group of notes, temporarily set the clip length to only one measure at a time to tweak a targeted group of notes.

Tempo

It is sometimes useful to temporarily slow the Tempo while editing a pad. While the Tempo value can be saved for a specific genre of music, pads will playback at the tempo set on the keyboard.

Follow Chords and Repeat

PadMaker-Midi will copy Follow Chords (Chord Match) and Repeat settings imbedded in factory preset Multi Pad files. When creating pads from midi song files, refer to the PadMaker-Midi manual for proper settings of these parameters.

Pan settings

Playing several pads together will sound better when there is some spatial separation in the stereo field. Refer to Appendix D in the PadMaker-Midi manual, or use the following convention for basic pan positions. For synth instrument sounds and special effects a good rule of thumb is to set pan positions to correspond with the pad buttons as they are physically situated on the keyboard.

Pad 1 - set at far-left to mid-left

Pad 2 - set at left-of-center

Pad 3 - set at right-of-center

Pad 4 - set at mid-right to far-right.

Reverb and Chorus settings

Using modest amounts of reverb and chorus will often achieve the best results. Over-doing it on the effects can muddy the mix when played-back with a style.

Playing Pads on External Instruments

If you want a pad to play on an external sound module, this can be accomplished by adding those instrument sounds to your instrument Voice list. To do this, refer to Appendix B "Using PadMaker-Midi with Other Instruments" in the PadMaker-Midi manual.

NOTE: A design feature of the XG compatible PSR and Tyros keyboards enables you to use other Yamaha instruments to play one or more pads on an external sound module along with your keyboard.

Each Yamaha instrument is assigned a unique set of Voice banks allowing multiple Yamaha instruments to work together in a MIDI studio setup. When Bank Select and Program Change messages not used by the PSR or Tyros are assigned to a pad to play an external sound module (including plug-in boards), and the PSR/Tyros also receives these messages, the PSR/Tyros will go silent on the MIDI channel that is assigned to play a Voice of the external sound module.

IMPORTANT: You may also need to create a MIDI configuration on the PSR/Tyros to disable transmission of MIDI channels you do not want to play on the external sound module.

Adding DSP 1, Other Controllers and Advanced Editing of Multi Pads

Most MIDI continuous controller messages are supported and can be used in Multi Pad files to modify playback of a Voice or to add some spice to pads. Use Multi Pad Creator to insert controller messages for Variation Effect (DSP 1), Attack Rate, Release Rate, Resonance, etc. Use MixMaster to adjust note MBT, add real-time controller messages for Pan sweeps, Filter (Brightness) sweeps, Expression and Modulation, convert controllers messages from one type to another, thin controller messages, insert new notes, copy measures, add blank measures, combined note data from two different pads into a single pad, etc.

Pad Icons

Preset pads and custom pads with assigned icons will be copied to the Pad Icon field when a Clip is copied to a pad button. For new pads or when changing Voices on a pad, you can assign a new icon from the list below.

Nylon Guitar	S081
Organ	S043
Percussion	S361
Piano Chord	S915
Shaker	S448
Special Effects	S507
Steel Guitar	S084
String Ensemble	S145
String instrument	S151
Synth Lead	S314
Synth Pad	S287
Techno	S914
Trance	S319

Note: Icon list is for the PSR S910 and may not be accurate for other model keyboards.

PSR S910 - Pad Icons for Instrument Type and Music Categories:

Acoustic Bass	S123
Acoustic Piano	S001
Arpeggio	S766
Bells	S300
Brass	S180
Choir	S559
Chromatic instr.	S346
Dance	S720
Drum Kit	S362
Electric Bass	S124
Electric Guitar	S087
Electric Piano	S014
Ethnic instrument	S424
Female Voice	S261
Flute	S249
Guitar Strum/Pick	S458
Harp	S171
Horn	S215
Male Voice	S268

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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@vermontel.net or via the Help/Email the Author menu item.

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PadMaker-Midi is one of several programs in the StyleManager Series that is intended to give users the ability to work around common annoyances, overcome operating discrepancies between instruments, or facilitate the management of PSR files.

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The author gratefully acknowledges utilization of HP Midifile, a Dynamic Link Library (dll) that provides functions to read, write, edit and play type 1 & 0 midi files. This powerful XP-friendly library has been freely made available for non commercial use by its developer Heiko Plate at <http://www.heikoplate.de/hpm/>.

Frank Blecha and Graham Crosby both encouraged me to add clip editing facilities to the original versions. They resulted in Version 1.3.4. Frank was especially instrumental (and patient) in identifying bugs in the initial editing routines.

Joe Hlifka was the first person to report that some pads made from Tyros guitar pad files sounded strange. As a result, versions after 156 enable use of all the new chord follow settings.

Joe has also spent many hours in testing and suggesting improvements to the pad name, icon name, Play All, transpose and other settings such as the Chord Follow codes identified in Appendix F.

And please see Joe's User Notes above. Thank you, Joe.

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