

Descriptions of the programs available from my web site.

I have been scanning piano rolls for several years and have found the need to automate many tasks to speed the process. Over the years, I have written several utility programs to help with the cataloging and modifying of MIDI files. Most of the programs are specifically for use by individuals who scan rolls but some are for modifying files for playback and a variety of other tasks.

It is my opinion that it is worth spending the time to automate a repeated task both to eliminate tedious repetition and also increase accuracy and to facilitate experimentation. Most of my programs will work on batches of files without intervention. Just choose a folder of files, start the program, specify some parameters and come back when the work is done. If changes need to be made, there is little lost but machine time so it is possible to set high standards and repeat work until it is right as the computer does the tedious repetitive work without complaint.

All of my programs are written in Perl which is a scripting language with many libraries and extensions making the writing of these programs within my capabilities. The scripts themselves are very small but they must be interpreted by a Perl interpreter. Fortunately there is a program which produces exe files from these scripts but the down side is that the exes are quite large as each includes the modules and a copy of the Perl interpreter. With modern computers and high speed data rates, this is not a problem. It does, however, make my simple programs look quite bloated. They are also much slower than compiled programs written in C but they are also much easier to write and would never have been written if I had to learn C++.

I have paid little attention to appearance or convention in the creation of most of my programs because the idea is to get the job done, There is little market for these programs so it is not worth the effort to polish them to modern standards of graphic perfection. For programs that might enjoy a greater market, I am willing to make that extra effort so some of my programs have evolved to a graphical version. Most have not. The two major graphical programs are MidiMod2 and Virtual Keyboard.

MidiMod2 started as a program to scale velocities in MIDI files and gradually became more versatile as features were added at the request of owners of solenoid pianos. The velocity profile of MIDI files can be

modified on an individual file or a batch of them. Histograms can be plotted to show the velocity profiles before and after modification. Presets can be saved so that commonly made modifications can be repeated without having to re-enter parameters. Channel remapping and shifting of piano parts may be done to a limited extent in order to adapt files for playing on the solenoid players. A help file explains the use of the various tools included in the program.

Virtual Keyboard is graphical by necessity. It displays a virtual piano keyboard and allows MIDI events to be sent to any MIDI device within or connected to the computer. It was designed as a tool for setting up and testing MIDI interfaced instruments. Notes can be played with the mouse and can be set to accurately timed durations or rates of repetition in order to test for correct tubing and functioning of pneumatic components. Similar use can be made for testing solenoid players. A help file describes the use of the program.

The rest of the programs are command line based and share several common features. Most of them will process all files in a common folder which is chosen by text entry. Most programs default to processing files in a folder called C:\miditemp but this can be changed easily. Custom versions of all programs can be easily made with different defaults if there is compelling reason to do so. All of the programs will accept command line entry via copy and paste so it is easy to be sure of getting things like path names correct by copying from properties windows of folders. When long strings of carefully formatted text are required, they may be composed in a text editor and copied and pasted into the program window. Since there is little or no input testing in any of the programs (this can take longer to program than writing the program itself) it is useful to save data to be entered in text files. A couple of the programs work from configuration files which can be edited in any text editor but this is only for the programs which require a large number of choices to be made.

Some windows installations do not allow pasting of text into the program window without setting an option. This needs to be done as follows if pasting does not work.

Place the cursor on the command window title bar and right click. This brings up a menu. Click properties, then options, select "Quick Edit Mode" and click OK. This opens another window which allows you to specify that this action should be applied every time a DOS program with the same name

is used. It may be necessary to do this with each program or it may be necessary only with some. Thank Microsoft for this added confusion.

Most of the following programs are available from the following page of my web site. If a program is not there, write and I'll e-mail or post it. All programs prompt for needed data entry and attempt to explain their basic functioning. Together with the brief descriptions that follow there should be little need for further help with the exception of a few of the complex programs. Don't hesitate to ask for help if needed.

<http://www.spencerserolls.com/Files4Download.html>

The three following programs all take 88 note MIDI files as input and produce files that will play on each of the reproducing pianos systems with fixed loudness. Loudness may be set to any of 16 levels on the Duo-Art whereas the Welte and Ampico versions have fewer choices.

88_Note_to_Welte

88_Note_to_AMPICO

88_to_Duo-Art

ann_lister_2 This program takes a folder of ANN files and produces a tab delimited text listing of all of the keywords found.

CISLPIchange This program changes the LPI specification of all CIS files in a folder. Use it if you made a bunch of files and later discovered that your scanner LPI was wrong. You might never do this, but I did.

contpedal_to_on-off This program converts Standard MIDI files with continuous pedal events to on off only, with user selectable switch points.

copy_files_from_playlist This program is for use with playlist files created by the E-Roll Player for Windows program distributed on my web site. Copies of files will be made in folders corresponding to the playlists made by the program.

Delimiter_changer This program converts playlists and collection files from the E-Roll File Player into tabbed text and back. This allows for editing of the lists in Excel or other programs and for creating of text listing of same.

Dirlist This program makes a text listing of all files with a chosen extension and in a specified folder. Good for listing all of your CIS files to a text file, for example.

Duo-Art_Ampico_88_note_Pedal_Adjust This program allow for the shifting of sustain pedal events in any MIDI file with sustain pedaling coded as MIDI note 113.

GapFinderTK This programs is a graphical program that can be used to create listings of gaps between notes. This allows for the testing of processing software to see if note spacing is proper for correct repetition and to test files from other sources to find causes of repetition problems.

Gapfixer This program can make some adjustments to inadequate gaps (between notes) in files that otherwise can not be easily corrected but it is to be used as a last resort so I am not distributing it unless there is a compelling reason to do so.

keyword_2_excel This program creates an Excel sheet listing of all standardized keywords found in MIDI files in the specified folder. Standardized keywords are those that meet the specification proposed by Warren Tractman for identifying values in piano roll MIDI files. In addition, a hyperlink is made to the file location so that the files can be played directly from the Excel sheet. Sheets can be edited and merged to create a simple playlist player with all the editing and searching facilities of Excel. You can organize and locate thousands of files with minimal effort.

List_MIDI_events-to LOG This program creates a simple to read text listing of all MIDI events found in each file in a chosen folder. Additional header information is listed as well. Good for checking files for all sorts of problems.

Mid2PRF-WEB This is a rather complicated mess of a program that will produce both WEB/ANN and PRF files from Trachtman punch MIDI

files. It uses a config file for the many parameters and is not easy to use. Warren is in the process of writing a better and simpler to use program which will make this obsolete.

midi_equalizer This program is like a graphic equalizer for standard MIDI files. Each note can have its velocity scaled by a fixed percentage of the original value. Useful for adjusting for piano scaling, room acoustics or other problems such as toning down a harsh loud tenor or boosting a weak bass.

MIDI_file_end_junk_remover This program is specifically for removing the coded roll number at the end of Ampico roll files or for removing other garbage that occurs after the reroll hole. It removes the reroll (user specified) and anything that follows.

Midi_file_shortener This program takes a folder of MIDI files and produces sample files of a chosen duration. Good for making sample to distribute to potential buyers.

Midi_Keyword_Lister This program lists all keywords found in all MIDI files in a folder to a tab delimited text file. This can be used in conjunction with the Titler program to maintain a database of all file data. Both programs are found in the "MIDI Keyword tools" file along with instructions for use

MIDI_note_counter This program makes a text file listing of note counts of all notes specified. In all MIDI files in specified folder. Good for checking for mistracking or other tests.

Midi_Trackname_Lister This program lists all tracknames of all MIDI files in a folder to a text file.

MIDI_Virtual_Keyboard This is a graphical representation of the full MIDI keyboard for use in setting up and testing MIDI controlled pneumatic and solenoid players as well as for other uses. Notes can be played with a mouse click. They can be held on indefinitely for setting expression codes or can be timed or repeated with timed duration and interval. Velocity may be set for testing of solenoid players. Useful for determining the possible need for equalizing. An included help file describes all program features.

MidiMod2 This graphical program includes velocity scaling as well as several features specifically designed to modify standard MIDI files to play on a variety of instruments including solenoid players. The many features are described in the included help file

MidiMod2test This version of the above program has more features but has been tested less although it has been around for a while and is probably pretty bug free.

NoteStretcher This program allows for the lengthening (or shortening with negative time values) of all notes in MIDI files. Notes that may be merged by lengthening are correctly handled with an unlapping routine.

playlist-path-change For use only with PLL files created by the E-Roll Player software, this program will change the path specification. Use it if you changed the location of files and want to keep the old playlists without recreating it.

re-Name_as_track This program renames all MIDI files in a folder to the names contained in the first found track name. Tracknames are edited to comply with windows long file name specifications.

Red_to_Licensee This program converts Welte T100 MIDI files to licensee format. Motor speed control function is shifted to a steady on code on an unused MIDI note.

remap-channels This program changes channel assignments of all events. Every note on one channel may be converted to another channel. Any number of channels may be remapped at once. Useful for moving parts to or from the piano channels or to make files which play specific instruments based on channel assignment.

remap-note-events This program will remap any MIDI note to another MIDI note on the same channel. Specific MIDI notes may also be deleted. Useful for scale changing and many other purposes. Any or all notes may be remapped in one processing. Also useful for key transposition.

remove_short_notes This program will remove all notes of less than a specified duration. Useful for removing specks from scanned roll files or for removing short brushed notes from files that will be played on a solenoid player that increases minimum note duration.

Standard-MIDI_pedal_Adjust This program will shift the sustain pedal timing in standard MIDI files. Useful for stretching (or shrinking) or shifting the duration of pedal timing to compensate for piano variation or room acoustics, or bad dampers or playing.

The following programs do the same to standard MIDI files as the 88 note to reproducing roll programs do to 88 note files. Pedal controllers are converted to MIDI notes for each system.

Std_MIDI_to_88

Std_MIDI_to_AMPICO

Std_MIDI_to_AMPICO_test1

Std_MIDI_to_DA

Std_MIDI_to_Welte

tempochanger This program will scale all tempo events in MIDI files by a user chosen value.

Themodist_to_DAtest This program is similar to 88 to Duo-Art but works with Themodist files only

Titler This program works off a “database” (tabbed text file) which serves as source information for keyworded text to be added to MIDI files. It is best used in conjunction with the keyword lister program. Both programs are found in the “MIDI Keyword tools” file along with instructions for use.

Titler_4_VanBasco This program retitles files and shifts keyword events so as to display more reasonably in the Van Bascos Karoke Player program. Works best with files that subscribe to Trachtman keyword specifications.

Valve Tester This program is for testing of E-Roll Player valve blocks. It is similar to the virtual key board but has functions limited to and

specifically for quick and easy testing of valve blocks. A MIDI output device must be selected. For the correct valves to be played, the E-Roll Player controller must be mapped with the “ascend” map. This is how the controller is shipped unless another map was specified when it was purchased. Choose a block to test with the radio buttons labeled 1 through 8 and select a valve to test with the buttons on the left. The four sliders may be used to adjust the duration and spacing of repeated valve operations as well as the duration of a sustained valve operation test. The last slider is for setting the number of repetitions in the repeated operation test. When a valve button is clicked the associated valve will be tested with a sustained valve operation followed by quick repetitions as specified by the slider positions. These tests are adequate to test all functions of the valve system at various vacuum levels.

Welte_Pedal_Adjust Same pedal adjuster but to work with the lock and cancel system of the Welte Licensee format.

WelteAddCancels This program adds Welte cancel codes both bass and treble to the beginning of all files in a folder. This was a convention with later Welte rolls to assure the starting state of the expression regulators.

Wind_Chime_TK A more musical way to waste time than playing solitaire . This graphical program simulates the sound of a wind chime. It works from a mix of user settable and random variables to create a vast variety of effects. The user may select modes as well as variable which effect the selection of notes and changes of wind patterns. Works best with a decent sound sampler. Just barely passable with the default Microsoft Wavetable synth .