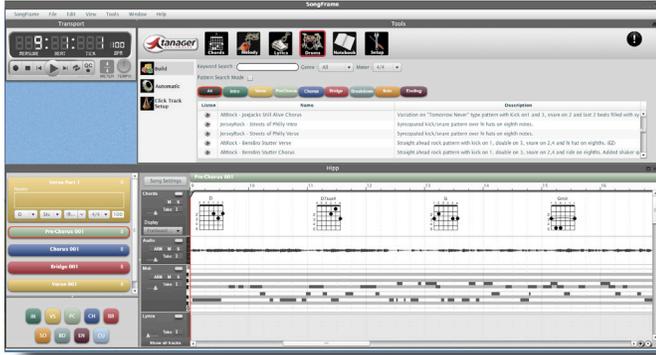# Getting the Most From SongFrame

This document reviews the basic architecture of SongFrame and covers some tips on how to ensure a good user experience with the product.

SongFrame is a fairly unique application focused on providing a variety of songwriting tools and presenting them in a manner which appeals to today's modern Digital Audio Workstation (DAW) software user. It features a advanced Adobe AIR based graphical user interface on top of a SQLite-based database architecture.

The primary focus of SongFrame is to separate the songwriting process from production and arrangement. We find all too often that today's excellent array of computer-based production tools can lead to a subconscious blending of the writing, arrangement and production steps. We are certainly not preaching a "right and wrong" way to go about creating art - but we are suggesting that isolating your songwriting process from tinkering in your studio with all the great toys you own may be a method of arriving at different or better results. We find all too often that our best songwriting intentions when performed in the studio get derailed with endless fiddling with plug-in's, sound selection, and computer support issues. In SongFrame, get a sound for each track that is acceptable and turn your attention to the writing part of the process! **Leave the final sound selection to later steps in the production process.**

There's plenty to understand about SongFrame - you will not figure it all out unless you consult the manual and other available documentation. **Please make sure you have the latest manual and videos at your fingertips.** The most up-to-date versions can always be found on our website.

Tip for Windows Users - Install SongFrame on your C root drive - it will operate best there. We've had reports of issues when users install the product on other drives. We're working to understand why, but for best results keep it on the root drive.

SongFrame is NOT a DAW!

Perhaps the most common frustrations of new users who are experienced DAW users is that SongFrame is not as "responsive" as their DAW, and that they can't seem to use all their VST Plug-in's with the product. **SongFrame is not your DAW** - it is a song development environment - sort of a "pick and place" CAD tool for songwriting. We assume you already own a DAW and will use it as the next step in your production process.

VST Plug-in support is provided for "inspiration" - not for production purposes. Not all VST's will work with SongFrame, and frankly we have no plans of ensuring universal VST or AU operation. We provide support primarily as a means of replacement sounds for the less than stellar built-in GM/GS synth provided as standard on most computers. (Actually- for you Mac users, the built-in Quicktime MIDI synth sounds pretty darn good! Kudo's to Apple again.)

SongFrame is not a production environment; your use of plug-in instruments should be a choice made during production and arrangement in your DAW application of choice.

Tip - do not point SongFrame's plug-in instrument path selection tools to your main VST/AU directories. Every time SongFrame loads, it "takes attendance" of all the plug-in's in the path - and this takes time. Pick a small set of plug-in's that represent a good set of sounds you can write with and stick to that. Among our favorites (besides the Front Pianos and EZ Drummer Lite product from Toontrack we supply with the purchased versions of SongFrame) are the Dimension Pro or LE products from Cakewalk. Check them out.

What Is Going On Under The Hood?

For the more technically inquisitive, **SongFrame is actually a large database application connected to a DAW-like interface**. It's underlying architecture is a classic "model-view-controller" structure. It shares very little in common with the manner in which most recording or sequencing applications work - particularly the "tools" aspects of our product. Your typical DAW application writes audio and MIDI data directly to disk based audio or MIDI data files, and reads these data files back directly from the disk. Editing your MIDI tracks changes the actually MIDI data, and editing your audio tracks may or may not change the actual recorded audio data on disk depending on what program/feature you are using. The bottom line - the program is reading a disk file which was written during the recording process.

SongFrame uses a database structure to "store" all of its audio and MIDI data. A ".song" file is actually an open un-encrypted SQLite database document. As you add SongBits, Tracks and Takes to your song, they are all stored in a single SQLite database associated with your .song file. SongBits inside your Song document are presented to the user in the NoteBook - allowing you access to this level of detail and extracting SongBits from other songs into your current Song file. (You are actually copying a database record when you drag and drop this SongBit from your notebook into your new Song file.)

Every time you get ready to press the Play button on the Transport, SongFrame takes a look at the latest version of the various tracks and takes you have at the "top" of your tracks and creates audio and MIDI files data on the fly. It constructs a new temporary MIDI file from the top-most takes of your Chord, Drum and MIDI/Melody tracks, and concatenates an new temporary audio file from the top-most takes in each SongBit of the audio tack. These files are then read from disk during playback. (The C:\Program Files\SongFrame\Null folder is the location

where these temp tracks are stored and read.)

When you use the various chord, drum or melody tools in the Tools Pane in SongFrame, you are in effect doing a database search through the hundreds of thousands of records in the main database in SongFrame. This database is a SQLite database as well - but it is not written to like the Song file database; instead it is the musical knowledge repository that forms the foundation of SongFrame. The more difficult the operation being performed, the longer the operation will take. The Chord Suggest carousel feature is perhaps the most difficult search operation being performed, and thus has the longest latency to provide results. When you click on a chord in the chord track, SongFrame searches hundreds of thousands of records for those exact preceding and following chord combinations from its database of historical song chord progressions and presents the results in a graphical carousel. We try and make this operation happen as fast as possible, but there's a lot to it - so there will always be some GUI latency while it searches. The advantages of these tools will become apparent as you get familiar with the program. For instance, SongFrame is one of the few tools on the market capable of transposing songs and song sections with the actual correct enharmonic root names assigned to the transposed chords. This is an extensive database routine which considers every chord and its location relative to the root note and attempts to assign the proper musical root name to the chord. Every DAW and most notation programs only allow transposing by shifting tracks up and down by a specified number of semitones - we haven't found any that present to new results in terms of correctly selected chord diagrams.

Audio Interface Compatibility

SongFrame for Windows works with any audio interface which has common WaveDriver/MME drivers. The audio input and output from Song-Frame is 16 bit/44.1 KHz, so be sure to set your audio interface to this sample rate and bit depth in order to hear/record sounds into SongFrame. Audio interfaces can have several driver types installed at the same time, but SongFrame will only work with the MME drivers. Because of this, SongFrame must be the only application using the interface when it is running.

SongFrame for Mac is a CoreAudio application, so any interface with CoreAudio drivers should work fine. Again, the audio input and output from SongFrame is 16 bit/44.1 KHz, so be sure to set your audio interface to this sample rate and bit depth in order to hear/record sounds into SongFrame. (For the more technically inquisitive, SongFrame uses Win32 API's for audio and DirectMusic API's for MIDI implementation.)

Support

We always place the most up-to-date help information on the Tanager AudioWorks website both on the documentation tabs of the specific Product Pages as well as links on the Support page. Please log on to **www.tanageraudioworks.com** and check it out. The SongFrame Troubleshooting Guide can also help solve specific operational issues - this can be found at:

http://www.tanageraudioworks.com/Datasheets/SongFrame_Troubleshooting_Guide.pdf

Last - we can always be reached at **support@tanageraudioworks.com** for technical support.