SoloBuddy

An interactive improvisational practice app for budding soloists and experienced musicians alike.

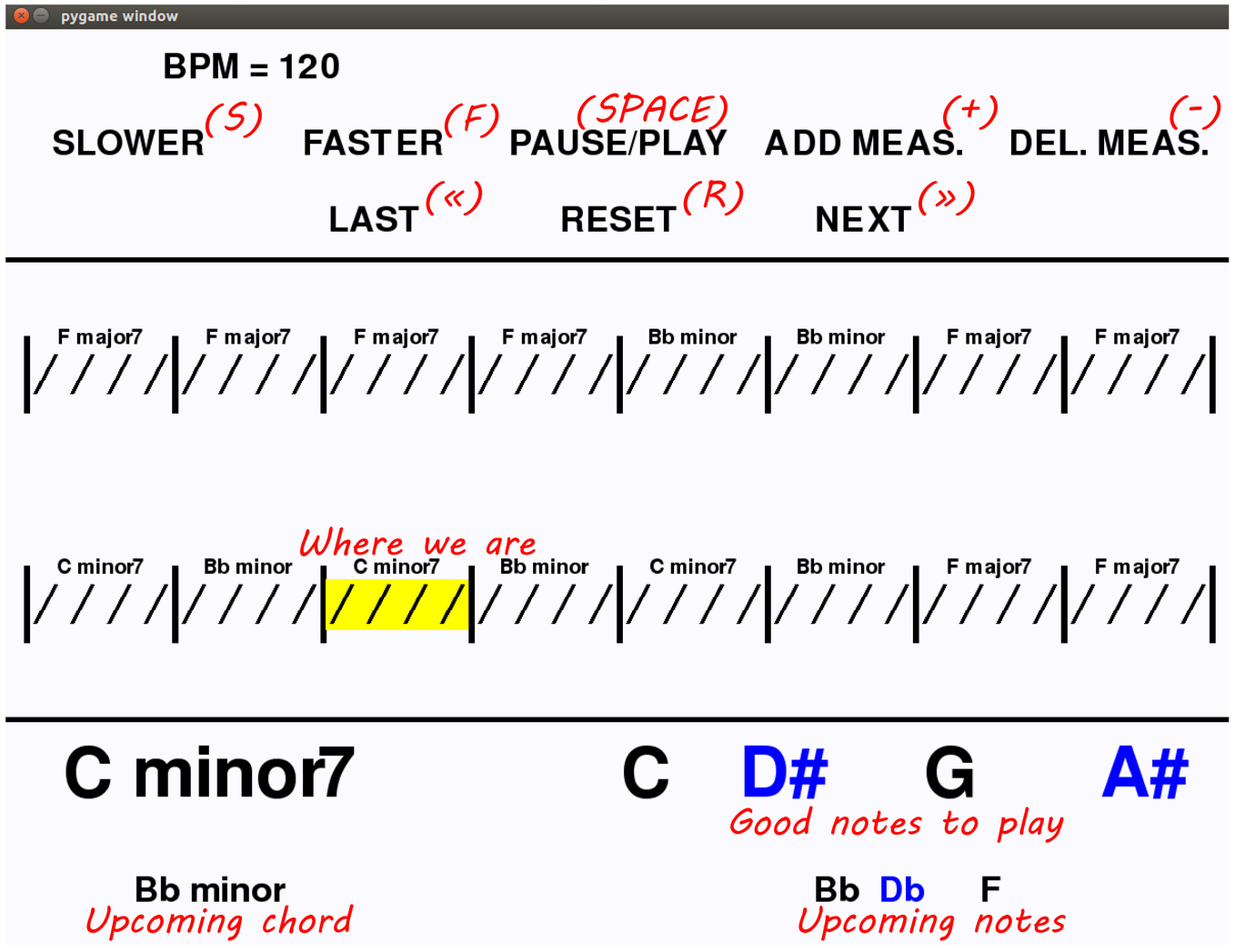
An app by
Eric Elder Jacobsen
&
Flynn Michael-Legg

What is SoloBuddy?

Solobuddy is an app that helps you learn how to improvise. Just put in a chord progression, and the app plays it out loud for you by modulating and sampling chords. You can play along to the progression and use simple, one button commands to move to a new part of the song, to make it faster or slower, or to add or subtract measures.

As it plays your chords, SoloBuddy suggests notes that will sound good in your solo. It will suggest two “safe” notes, and up to three notes that sound more interesting, shown in blue. The soloist can focus less on figuring out which notes are available and focus more on using those notes to make music that sounds good.

The app also highlights the current chord, and allows the user to jump around to different parts of the song.



How does it work?

SoloBuddy uses multiprocessng to run three simultaneous threads of code. One thread plays the chords, one plays the metronome, and the third listens to input from the user. This input can be clicks on the buttons at the top, or it can be keys that do the same thing. The user can change the progression with a menu.

SoloBuddy stores C chords of twenty one different tonalities, and can modulate the frequency of them to get chords of other roots. The multithreading allows the app to play the chords on the right beats, while listening for input to know if it should change the chords or beats.

The display is done with PyGame, and consists of text and a musical hash chart. The sound is done by sampling wav files directly, using SonicPi’s sampling function to bypass Ubuntu’s difficulty with wav files.