Introduction SHCdyna

Musical Gesture-based SHC (Smart Hand Computer) Mobile Applications with Dynamic Compilation

SHCdyna

Pad3

Pad4

Smart Hand Computer

Music Gesture Mobile with Dynamic -based Applications Compilation

Setting ⓘ

Load

Piece

Continuing Developpement (since 2016)

SHCdyna: Smart Hand Computer through dynamic compilation

- Developed by LiSiLoG, SHCdyna is a continuation and extension of the faust2smartphone project which generates standalone iOS and Android Faust applications for SHC (Smart Hand Computer) designing for musical gesture-based projects, first introduced at International Faust Conference (IFC) 2018.

- SHCdyna is an iOS application, It allows compiling and executing Faust language dynamically, that enables the dynamic loading of various compatible SHC (Smart Hand Computer) projects. It includes:
    - Motion capture via "motion.lib"
    - Customizable user interface creation

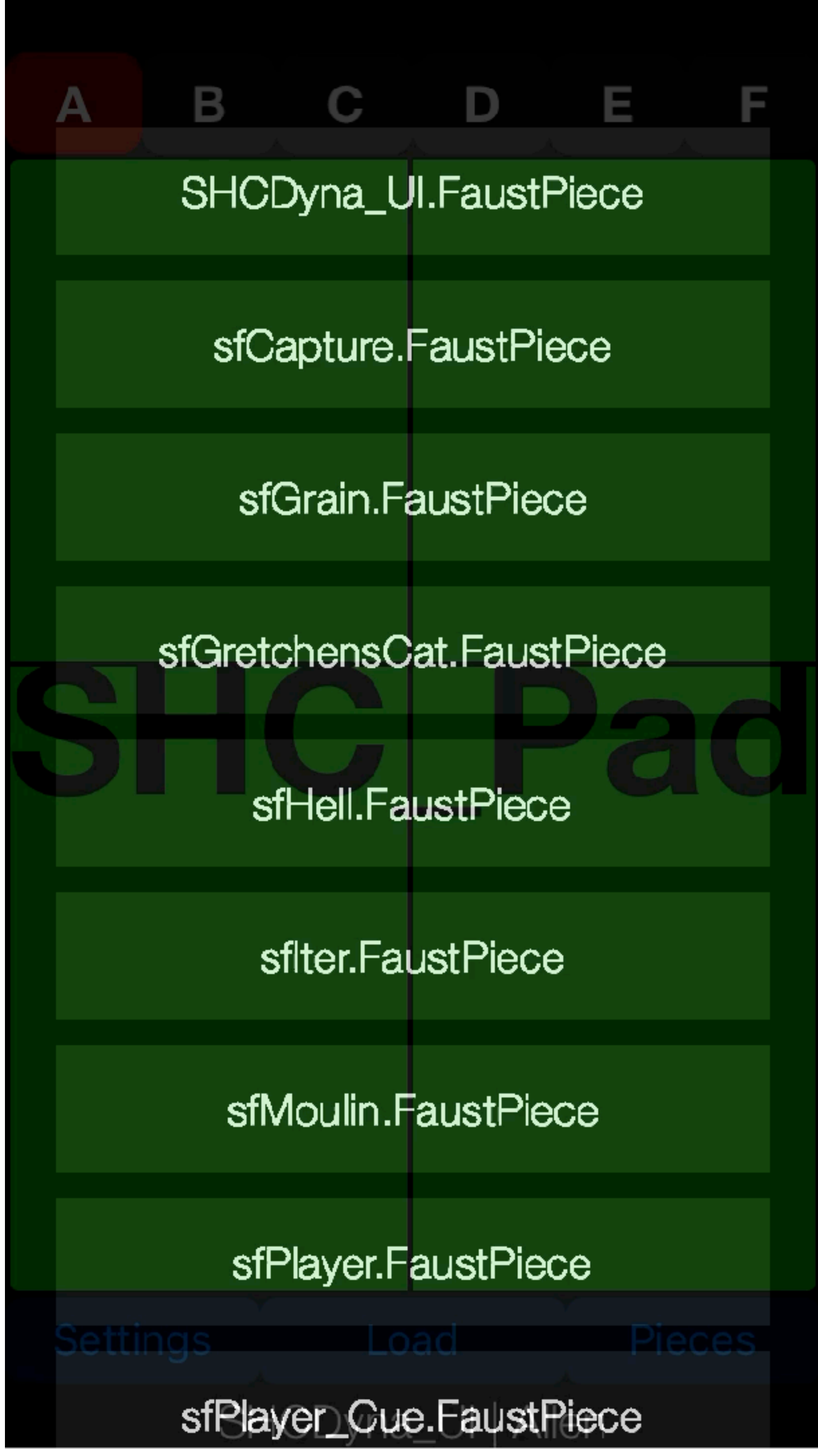
Features

Features

Dynamic Compilation

- Compile and execute Faust code in real-time for a dynamic and interactive musical performance.

- Easily switch from one Faust piece to another from within the application, enhancing flexibility and creativity in composition and musical performance.



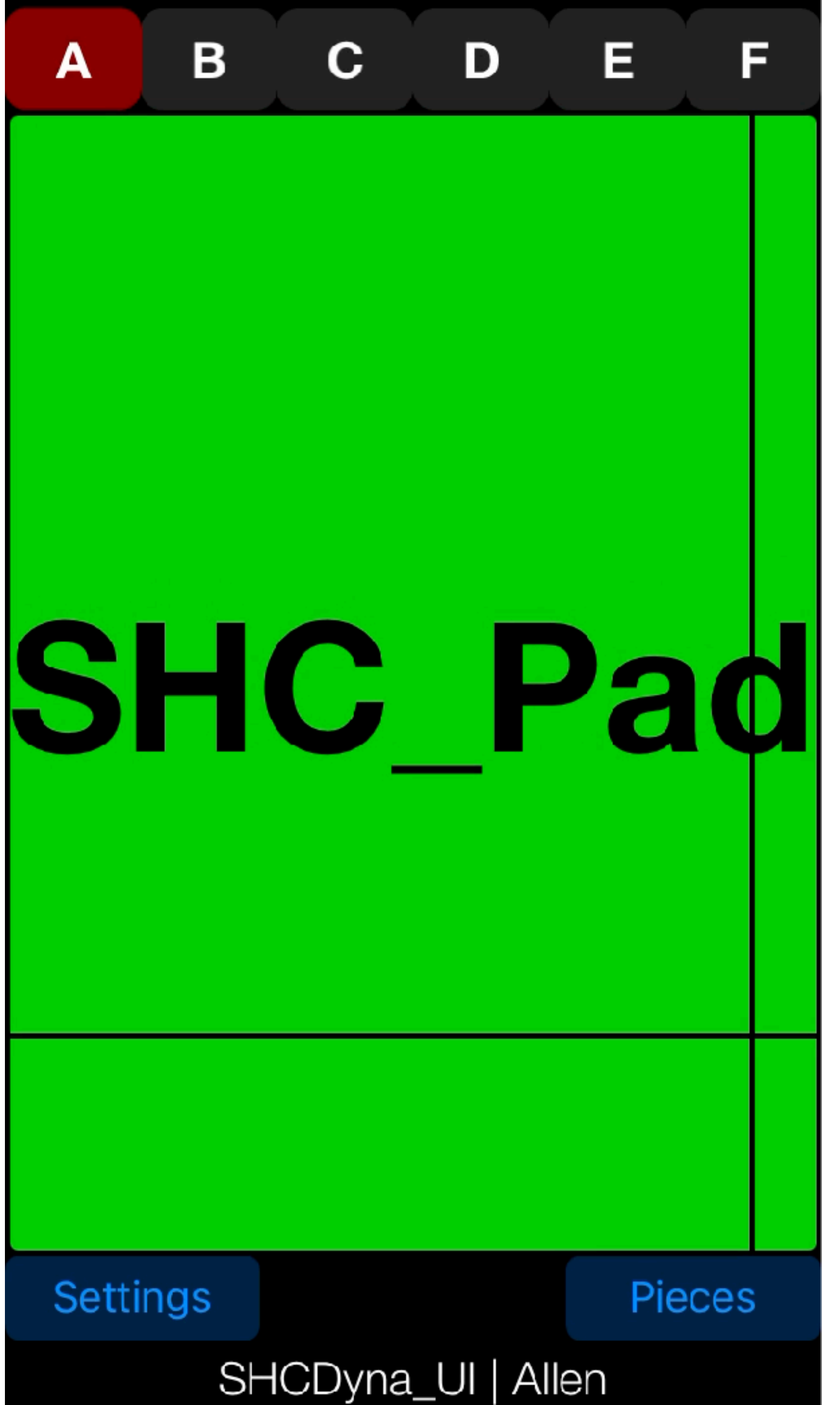
Features

User Interface Creation: "SHCUI"

- Create multitouch screen-based user interfaces for a personalized, intuitive, and real-time manipulation of sound parameters using SHCUI (Smart Hand Computer User Interface).

- Available [SHCUI] Types:

  button, checkbox, hslider, vslider, pad, trigCounter, trigCue, nextCue, prevCue, initCue, setRef, hbargraph, hbargraph



Features 

Motion Sensing: "motion.lib"

- Create interactions using the motion sensors integrated into iOS.
- “motion.lib”: calculates and fuses data from accelerometers, gyroscopes, magnetometers, and rotation matrices.
- Access over thirty motion descriptors to modulate various audio parameters based on user movements.

- Available “motion.lib” types:
- Inclination, shock, rotational speed, and both relative and absolute angular tracking.

Features 

Gestion de communication : « OSC »

- Enable interaction and remote control of standard audio parameters in FAUST from other musical applications or vice versa.

- The OSC (Open Sound Control) protocol is used for network communication between various applications.

Installation

Installation

Download and install “SHCdyna” via App Store

App Store: https://apps.apple.com/cn/app/shc-dyna/id6504476288?l=en-GB

Utilisation

Utilisation

13 Built-in Pieces - SmartFaust

- sfCapture.FaustPiece
- sfSiren.FaustPiece
- sfGrain.FaustPiece
- sfTrashComb.FaustPiece
- sfGretchensCat.FaustPiece
- sfTrashRing.FaustPiece
- sfHell.FaustPiece
- sfTrashShift.FaustPiece
- sfIter.FaustPiece
- sfTrumpet.FaustPiece
- sfMoulin.FaustPiece
- sfWindy.FaustPiece
- sfPlayer.FaustPiece

Creation SmartFaust in 2014

Developpement : Christophe Lebreton

Composition : Xavier Garcia

https://www.grame.fr/articles/smartfaust-5d839e9c3a877

Utilisation

Create Your Instrument

- Demo via Max + Faustgen + SHCdyna

Utilisation

Create Your Instrument

1. Prepare your "yourInstrument.dsp" programmed in Faust language.
2. Compress all source files (sounds, libraries) directly into a .zip file.
3. Rename this file to "yourInstrument.FaustPiece".
4. Use AirDrop to transfer the file.
5. Double-click "Load" to search and load your .FaustPiece from SHCdyna.
6. Double-click the piece in the menu to play or delete.

More info 

faust2smartphone -> SHCdyna -> … …

- SHCdyna is currently not available for Android. ‘faust2smartphone’ allows generating standalone iOS/Android applications for Smart Hand Computer using the same code used for SHCdyna.

- SHCdyna is particularly suited for educational contexts and SHC workshops.

Doc SHCdyna: https://github.com/RuolunWeng/SHCdyna

Website SHC: https://www.lisilog.com/shc/

Thanks

 **LiSiloG - lisilog.com**

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