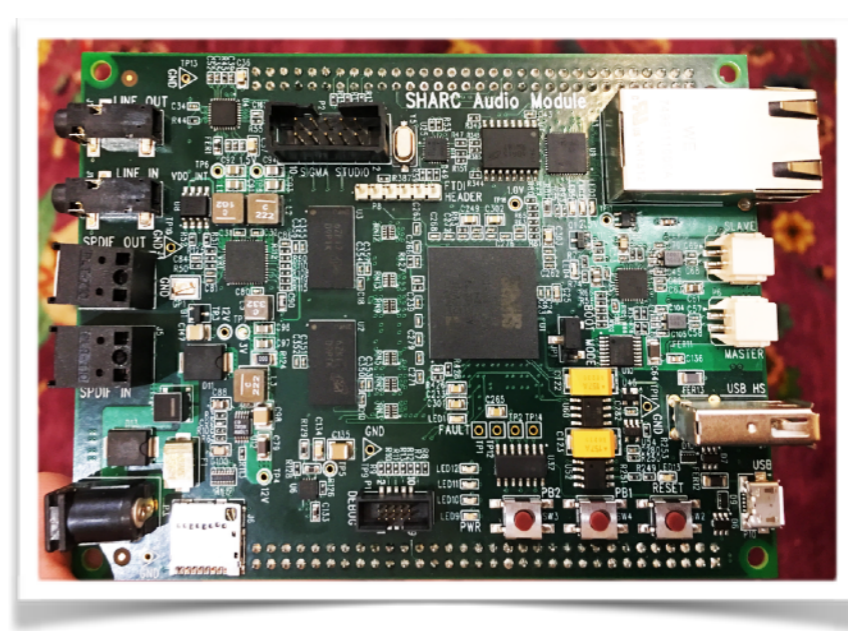


Faust Applications



GeoShred (iOS)
SHARC A2X

Pat Scandalis CEO/CTO moForte
Faust and Furious Day 1/13/2018 CCRMA



This presentation can be found at:

<http://www.moforte.com/FaustAndFurious>

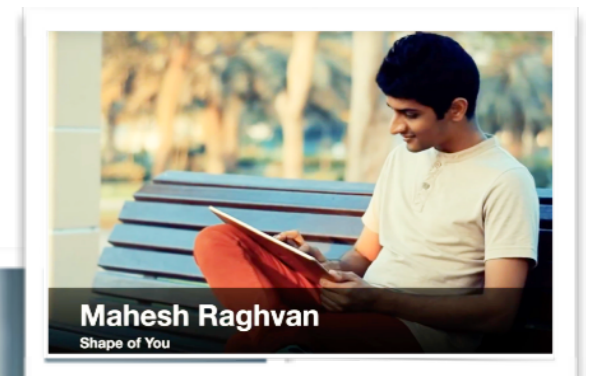
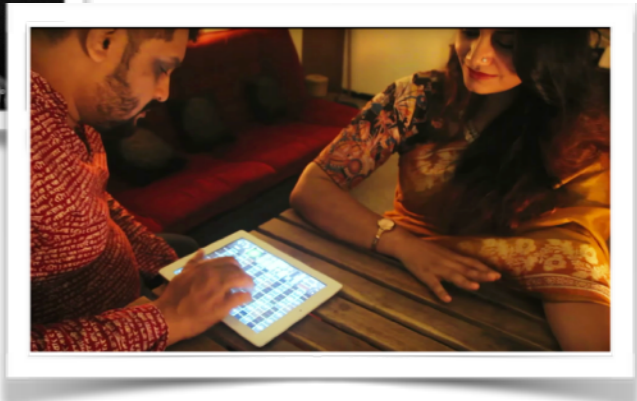
Faust in GeoShred

- All DSP implemented with Faust.
- Detailed 6 string Guitar Physical Model.
- 22 effects processing units. Many effects are circuit level models (distortions, amp tone stack).
- Guitar model uses ~20% on iPad Pro.



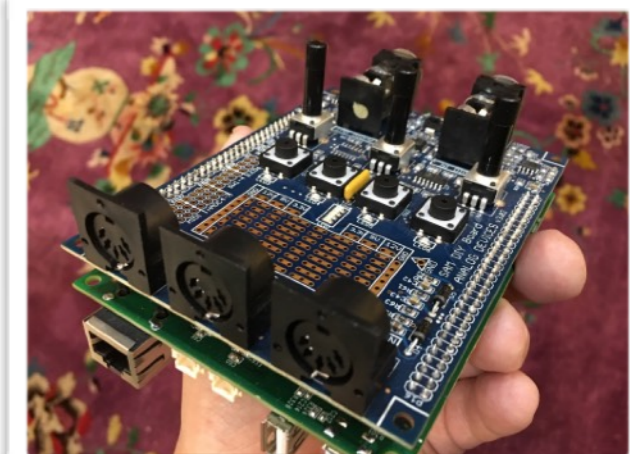
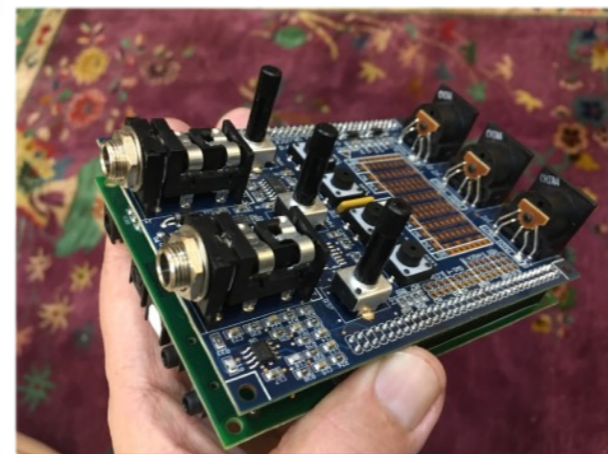
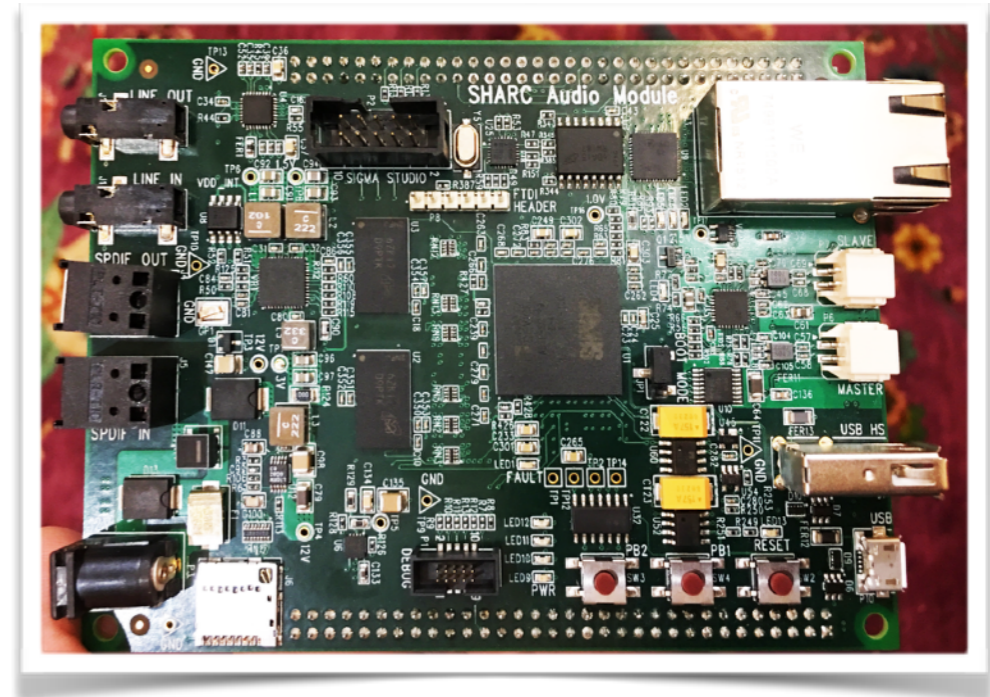
GeoShred Typical Users

- Keyboard players who want to blow away their guitar player
- Performers of South Asian music who use GeoShred for Carnatic Hindustani and fusion music
- With the new diatonic keyboard, people who aspire to shred.



Running Faust Code on the SHARC A2X Platform

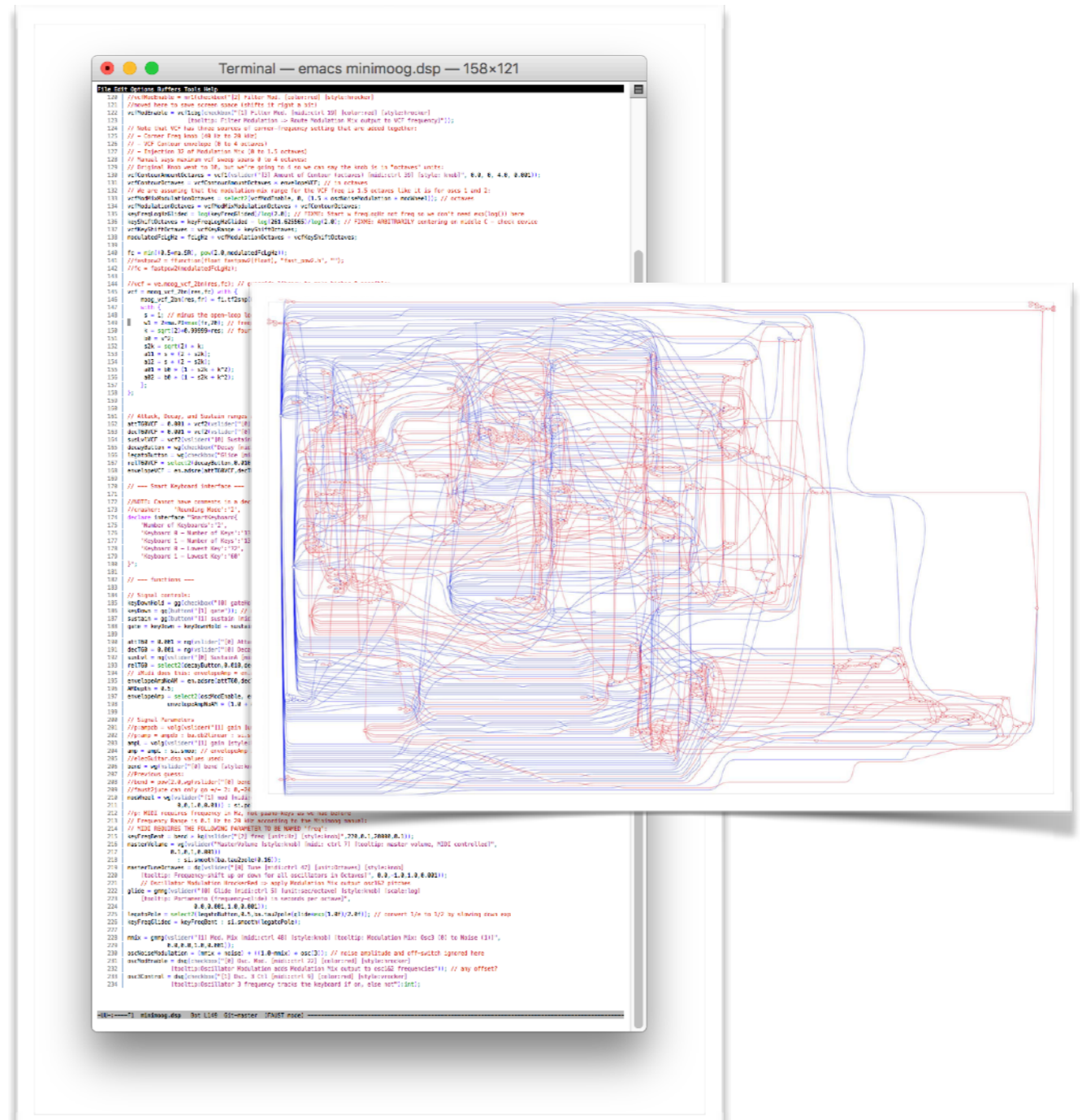
- Analog Devices (ADI) Developer Platform
- 500 MHz dual core SHARC + ARM
- DIY Board with Audio/MIDI, pots, buttons.
- faust2_a2x tool to generate faust code targeted for SHARC A2X.
- Available in April**



**This is a beta, unreleased platform (c)2018 Analog Devices, Inc. Specifications subject to change without notice

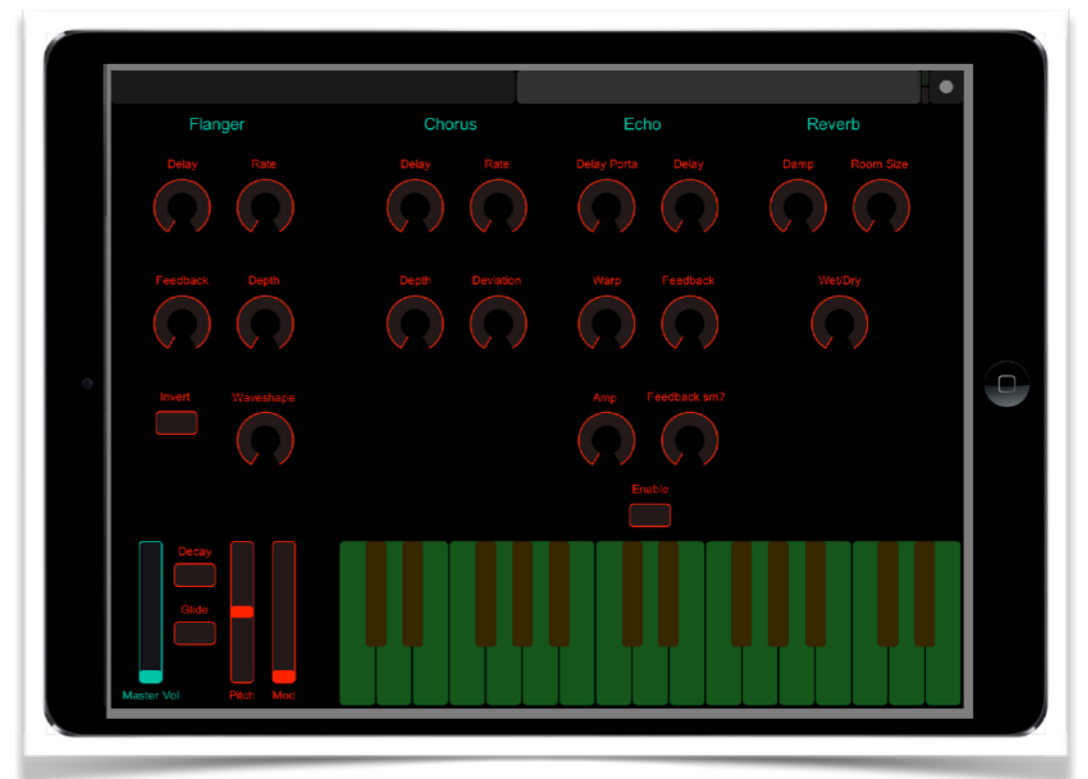
Minimoog Model + Effects Chain in Faust

- Minimoog runs on Core 1 using ~8% CPU
- Effects Chain runs on Core 2 - Echo, Reverb, Chorus, flanger
- MIDI is the API! All 72 controls mapped to MIDI.
- Prototyped on OSX using faust2caqt
- Migrated to A2X using faust2_a2x



Workflow

- Prototype on OSX using faust2caqt
- Evaluate block diagram using faust2firefox
- Migrate to A2X using faust2_a2x
- Run using MIDI Keyboard, touchOSC interface



More Info

- Web: <http://www.moforte.com>
- YouTube: <https://www.youtube.com/user/moForteGuitar>
- Facebook: <https://www.facebook.com/geoshred/>