tRiLLbEaTz
TBASS – Drum Synthesizer/Sequencer

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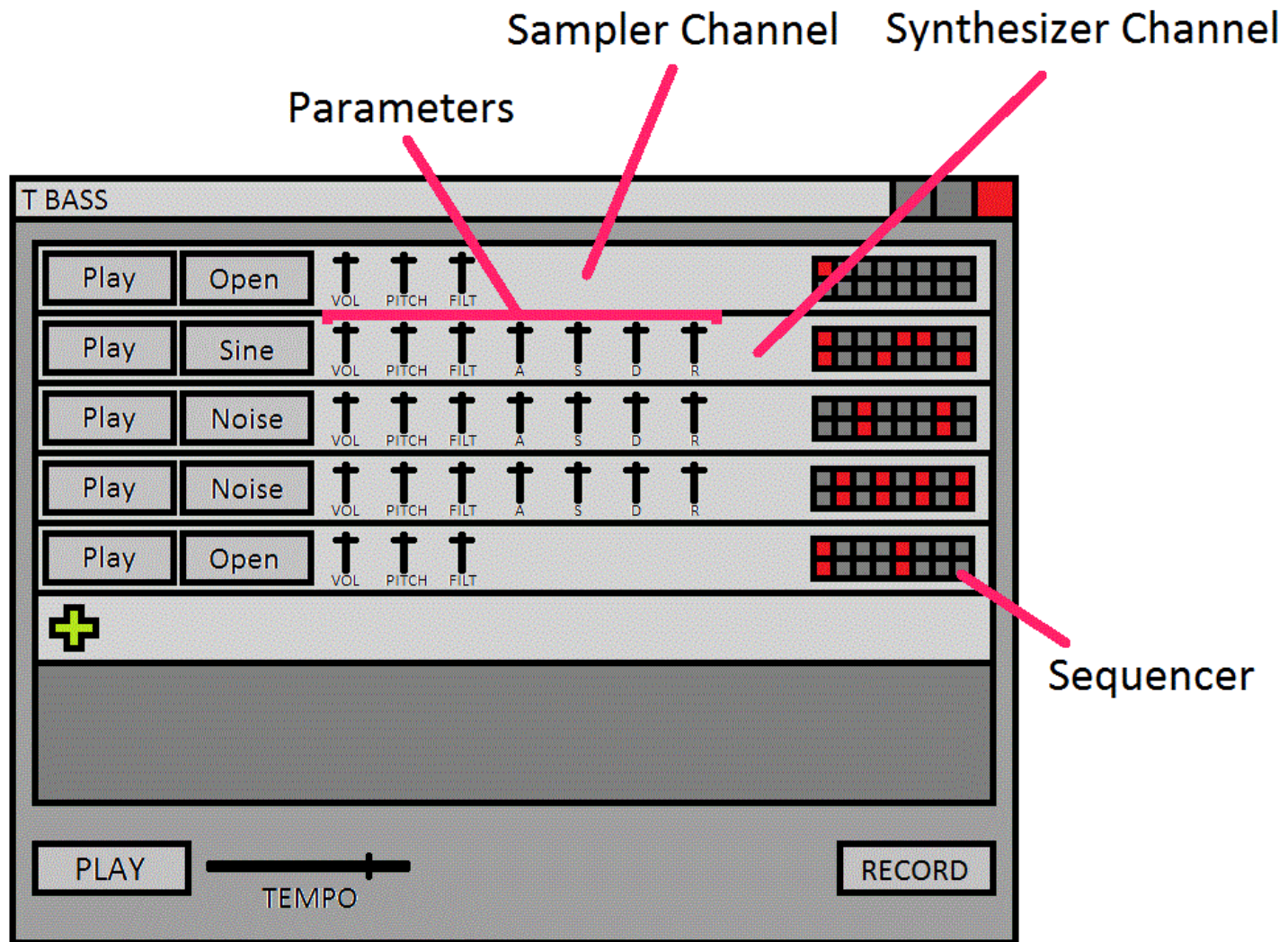Giselle Gutierrez

Gabe de la Mora

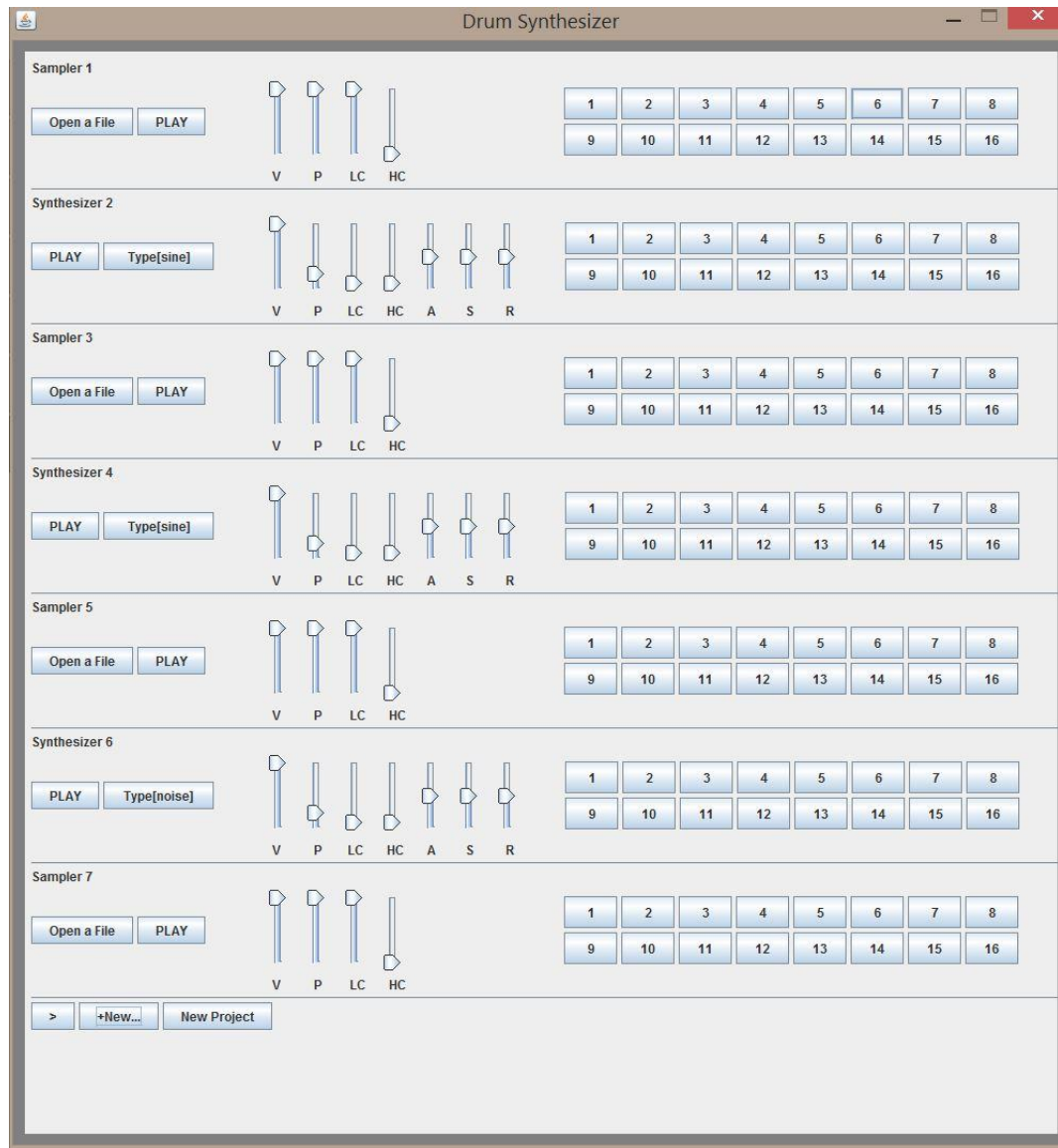# Introduction

- Simple interface to make drum loops using samples and synthesizer tones

- ☐

- Application Domain
  - Musicians
  - Producers
  - Untrained Musicians
  - Sound Designers

Planned Product

Actual Product

Goals

- Code efficient enough for audio processing
  - minimal latency
  - effective multi-threading

Goals

- Accessible to anyone
  - intuitive interface for beginners
  - streamlined for ease of use

Goals

- Allow for creativity
  - enough parameters to create a variety of sounds
  - simple effects
  - tempo and swing control
  - users can add their own external audio files for editing as well as export their newly edited sounds
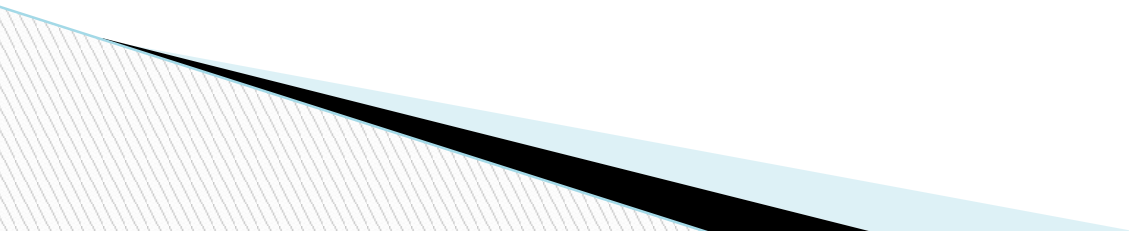
Challenges and Accomplishments

- Basic Sound Synthesis
  - create synthetic tones
  - use volume envelope to shape waveform
  - allow user the ability to effectively use these tools

Challenges and Accomplishments

- Sequence samples and tones
  - play sound from multiple sources at once using threads
  - keep playback on beat, despite latency

Challenges and Accomplishments

- GUI Layout
  - challenging to correctly format the layout

Technologies

- Libraries
  - JSYN – audio processing library
  - Java Swing – graphical user interface library

Management Techniques

- Agile Development
  - Individuals and Interactions over Processes and Tools
  - Responding to change over Following a plan

- SCRUM

Lessons Learned

- SCRUM values
  - Small tasks to tackle big problems
  - Responding to unexpected events during development
  - Keep it Simple and Stupid

Personal Reflections

- Teamwork and friendship
  - Made great software and great friends
  - It was great working on a large scale project