6.111 Final Project Abstract

Project Title: Sound Blocks: an interactive environment for real-time music creation
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The purpose of the Sound Blocks is to provide a unique and interactive interface for creating music in real-time. A user is able to mix, match, and modify sounds by placing and manipulating blocks on an interactive table. There are three types of blocks: source, local-effect, and global-effect. A source block generates sound, such as a drum loop or a bass line. Local-effect blocks, when placed near a source block, modify the waveform of the source block, producing effects such as filtering, reverb, modulation, etc. Global-effect blocks control properties that affect the entire system, such as volume and tempo. To show the interaction between the blocks, the table will display the audio waveforms resulting from each block, and also the output waveform of the entire system.