

iPhone Audio Development and Beyond

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What is Looptastic?



- Live remixing app for iPhone
 - Mix up to 20 simultaneous loops
 - Built in or imported sounds
 - Custom audio mixing engine
- soundtrends.com

Looptastic Under the Hood

- Uses Audio Units callback
 - 256 sample buffers (about 5ms)
 - 32-bit fixed-point audio data (8.24)
- 10 built in audio algorithms
 - Time stretching, filter, delay, repeater, bitcrusher
 - Ogg Vorbis decoding
 - Uses hand tuned ARM assembly language

Moving beyond the iPhone

- Wonderful proprietary tools and APIs
 - Objective-C
 - Interface Builder
- UI Kit
- Support audio signal processing

New Platform: General Needs

- Sizable market of deployed devices
- Strong App Store
- Manageable hardware matrix
- Mature tools

New Platform: Tech Needs

- CPU: 400MHz
- Application RAM: 32MB
- Supports OpenGL
- Support for C/C++
- ARM assembly
- Low-level audio callback

Future Plans

Support iPad and other platforms

Use OpenGL for platform neutral UI

Make lots of \$\$\$\$\$