

A Web Application for Real-Time Creation of Beat-Synchronous Music Mashups

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Motivation:

Help people easily and quickly create dynamic, intricate, and musically-coherent soundscapes.

Provide a new tool for musicians that breaks the traditional Digital Audio Workstation paradigm.

Lower the barrier to entry for mashup creation by partially automating the process.

Expand access to cutting-edge DSP technology using a web-based Flash platform.

Technical Requirements:

Real-time phase vocoding of multiple, simultaneous audio signals.

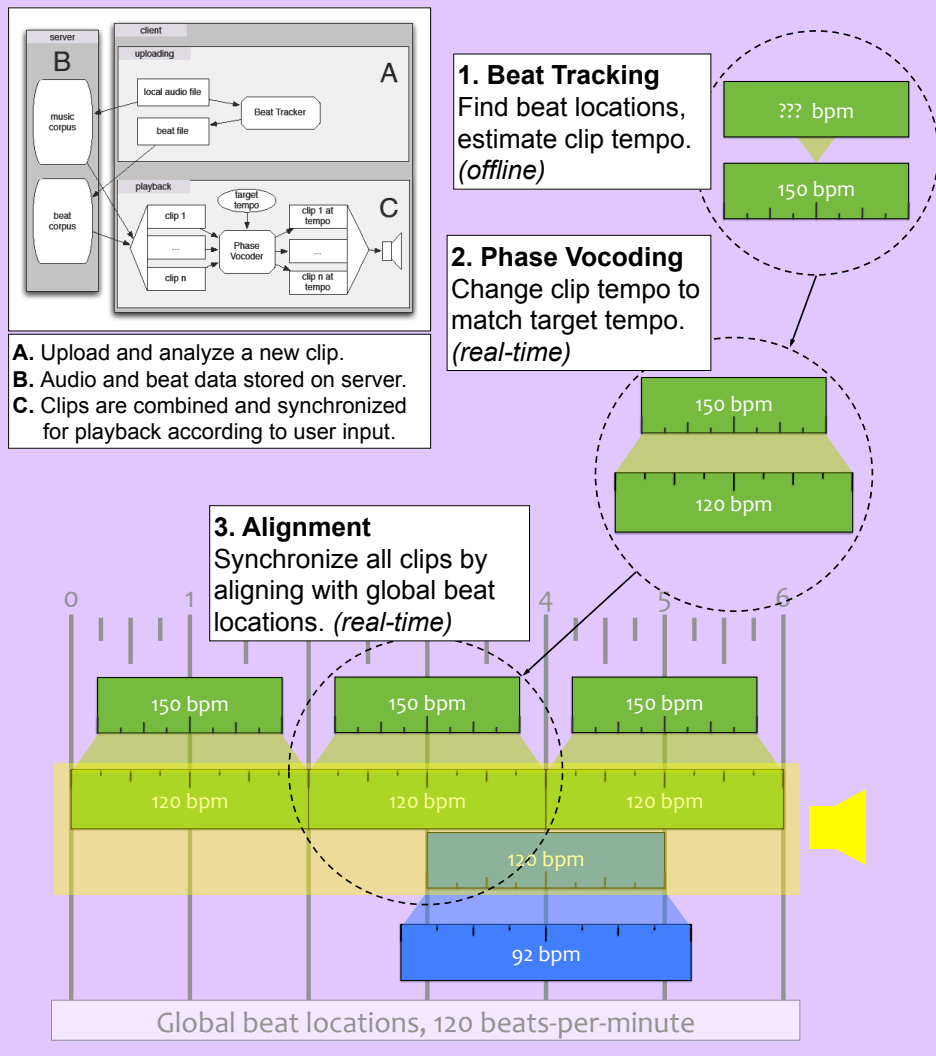
Quickly adapts to new input from the user.

Consumer-level hardware.

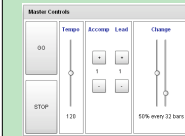
Web-based and platform-independent.

Try it out yourself:

<http://music.ece.drexel.edu/bsmc/>

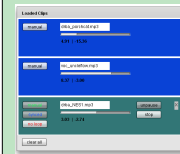


User Interface:



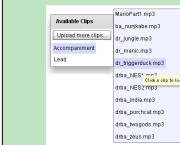
Master Controls:

Automatic addition and removal of clips.
Global tempo parameter.



Loaded Clips:

Clip status information.
Individual clip playback controls.



Available Clips:

Lists clips available on server repository.
Users can select clips to load or upload new clips.

Real-Time Performance:

Processor		Memory		
Speed (GHz)	Type	Size (gb)	Speed (mHz)	Maximum simultaneous
2.16	Intel core duo	2	667	5
2.0	Intel core 2 duo	1	667	6
2.4	Intel core 2 quad	8	800	7
2.66	Intel core 2 duo	4	800	9

Future Work:

Improved interface for clip uploads.

Social networking, forums and community features.