Beat•Sync•Mash•Coder
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:**

<table>
<thead>
<tr>
<th>Processor</th>
<th>Memory Type</th>
<th>Memory Size (gb)</th>
<th>Speed (mHz)</th>
<th>Maximum simultaneous</th>
</tr>
</thead>
<tbody>
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<td>667</td>
<td>5</td>
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</tbody>
</table>

**Future Work:**

Improved interface for clip uploads.

Social networking, forums and community features.

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