**BassWhacker**

Basswhacker is a music playing / training application written in AppGameKit.

Screen Layout

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| Bass Stave, simplified. Only supports single notes (e.g. no joins) and rests.  Scrolls Horizontally. Just notes and lines.  Each note is one sprite. | |
| Tab display similar to Yousician. Does not support multiple notes.  Scrolls Horizontally.  Each note is one sprite and one text item. | |
| Bar which shows position, sets range, and can set position. | Control Area |

The control area has icons for faster, normal, slower playback speed, mute metronome, mute playback.

Input music is in raw text form, in the following formats. Anything after // on an input line is stripped. Case and spacing is ignored except commands must all be on the same line *and* a space is required between consecutive notes (e.g. not confusing 1 1 and 11). The file format is .bass . There is no interim conversion (as in the music trainer). The identifier is the file name base (without type and directory) , this should only contain alphanumerics and spaces.

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| **Syntax** | **Type** | **Description** |
| GDAE | Command | Sets the current string (defaults to G) |
| /1 /2 /3 /4 | Same as GDAE | Sets the current string |
| nn | Command | Plays note at fret nn, current string, one beat |
| & | Rest | Single beat rest. |
| - | Modifier | Modifies note to ½ beat |
| = | Modifier | Modifies note to ¼ beat |
| . | Modifier | Modifies last note to 1.5 times its length. |
| o | Modifier | Modifies note to double its length. |
| | | Command | Mandatory, you cannot rely on automatic overflow. If the bar boundary is crossed without such, causes an error. |
| {n} | Command | Sets tempo or beats in a bar (if <= 12). Both are single values. |
| :[letter] | Command | Starts a definition called [letter]. The input stream is copied to the current definition verbatim (e.g. in the above format). There are a possible 26 definitions A-Z. |
| ; | Command | End definition, goes back to compiling music. |
| @[letter] | Command | Generate for definition [letter] |

**Music Data Structures**

**SONG**

barCount integer number of bars

beats integer beats per bar.

tempo integer tempo in beats / second

bars[] BAR bars

**BAR**

noteCount integer number of notes in bar

notes[] NOTES notes in bar

**NOTES**

stringID integer String number 1-4 (GDAE)

fret integer Fret position, 0 = open

length integer note length in centiBeats (e.g. one beat == 100)