**MML To MIDI Language Specification**

**Introduction**

The music macro language is a music description language that has been in use since 1978, although this was an early version. There has never been an official specification, so each implementation varies slightly, and over the years the language has evolved. The MML to MIDI converter uses a version of the MML derrived from the “Modern MML” syntax, including new specific commands. It should be noted that every command is This document outlines this version of MML used by the program.

**Comments**

Comments are started with a hash character, “#”. This makes the remainder of the line a comment; any more hashes found on the line have no effect.

**Playing Notes**

Playing notes is done by starting a line with the word “play”, then writing the notes to be played after a space. Any spaces aside from this initial one are ignored, and the command is ended with a new line. An example of the play command is:

play c5e5g5

**Note Syntax**

Notes are written as the note name followed by the length of the note. A rest is represented by “r”. To play a sharp or flat note a “+” or “-”, respectively, is added after the note name.

A table equating the note length number to musical note length is below.

|  |  |  |
| --- | --- | --- |
| MML Note Value Number | Musical Note | |
| Relative Value | Name |
| 0 | 1/32 | Demisemiquaver |
| 1 | 1/16 | Semiquaver |
| 2 | 1/16 + 1/32 | Dotted semiquaver |
| 3 | 1/8 | Quaver |
| 4 | 1/8 + 1/16 | Dotted quaver |
| 5 | 1/4 | Crochet |
| 6 | 1/4 + 1/8 | Dotted crochet |
| 7 | 1/2 | Minim |
| 8 | 1/2 + 1/4 | Dotted minium |
| 9 | 1 | Semibreve |

**Note Commands**

There are a few commands that tell the converter how each note should be played. These are entered with the notes and affect each note following.

Each note is played in the same octave – to set this octave the letter “o” followed by the SPN1 number of the octave desired is used. To move an octave up the character “>” can be used. Similarly “<” moves an octave down. The character “v” trailed by a number representing loudness from 0 to 9 sets the volume of following notes, where 0 is almost silent (10%) and 9 is full volume (100%).

**Macros**

A macro in this version of MML is a statement that tells the converter to replace every instance of a string with another string in the remainder of the program. A macro is initalised by writing the string to be replaced as the first word on a line, then an equals character, “=”, and then the replacing string. An example macro definition is below:

MiddleA = o4a5

Spaces are ignored and the macro is ended with a new line.