# **SMAW Music Format**

## Version 1.0

- Includes:
  - Note pitch [Using scientific pitch notation]
    - → Letter (char)
    - → Octave (num)
    - → Accidental (num)
      - 0 for natural
      - 1 for sharp
      - -1 for flat
      - 2 for double sharp
      - -2 for double flat
  - Note length
    - → Base note (num)
      - 1 for whole note
      - 2 for half note
      - 4 for quarter note...
      - 256th note is the minimum in Noteflight
    - $\rightarrow$  Dotted (0 or 1)
      - 0 for not dotted
      - 1 for dotted

## Format for a single note

(string) letter pitch, (num) octave, (num) accidental, (num) note length, (0 or 1) dotted

# <u>Example</u>

Sheet Music	Comma Separated Value List
	4, 4 e,5,0,4,0 d,5,1,4,0 c,5,0,4,1 b,4,0,8,0 c,6,0,4,0 e,5,-1,4,0 c,4,2,2,0

## Pseudocode

Set default octave at  $g4 \Rightarrow$  set previous octave to be g4 (because that's how Noteflight is) Set default note length at quarter note  $\Rightarrow$  set previous note length to be quarter (no dot)

<sup>\*</sup> Each music note's information is on a separate line

Loop for every note (string, num, num, num, num)

- 1. Read note letter pitch ⇒ Press letter key
- 2. Read octave number, compare to previous
  - a.  $\Rightarrow$  determine if there needs to be a Ctrl + Up or Ctrl + Down (using math)
- 3. Read accidental
  - a. Natural 0: =
  - b. Sharp 1:+
  - c. Flat -1: -
  - d. Double sharp: \*
  - e. Double flat: \_
- 4. Read note length, compare to previous
  - a. ⇒ determine if there needs to be a [ or ] (using math)
- 5. Read dotted or not, compare to previous
  - a. ⇒ determine if needs to press . (if different)

# Final Music Sample Test (v1.0)

# (Lyricist) (Composer)

.csv file contents:

4,4

e,5,0,4,0

d,5,1,4,0

c,5,0,4,1

b,4,0,8,0

c,6,0,4,0

e,5,-1,4,0

c,4,2,2,0

3,4

d,4,0,16,0

d,4,0,16,0

d,5,0,8,0

a,4,0,8,0

a,4,-1,8,0

g,4,0,8,0

f,4,0,8,0

d,4,0,16,0

f,4,0,16,0

g,4,0,16,0

c,4,0,16,0

c,4,0,16,0

d,5,0,16,0

a,4,0,4,1

6,8

b,3,0,4,1

d,5,0,4,0

f,5,0,8,0

f,5,0,8,0

f,5,0,4,1

d,5,0,8,0

d,5,0,16,0

d,5,0,16,0

4,4

d,5,0,1,0