Introduction

This document is a literate Haskell program describing a (yet unnamed) piece for string orchestra. The file can be run interactively in a Haskell environment. It also contains playing instructions, which can be converted to a PDF file using Pandoc.

```
module Music.Projects.MusicaVitae
where

import Temporal.Media
```

Instrumentation and tuning

- Violin I-IV
- Viola I-II
- Cello I-II
- Double Bass

The orchestra is split into sections:

- Violin I, III, Viola I and Cello I tunes A4 to 442 Hz (A3 to 217 Hz)
- Violin II, IV, Viola II and Cello II tunes A4 to 437 Hz (A3 to 222 Hz)
- Double bass tunes A1 to 55 Hz

The other strings are tuned using the harmonics of the A-string.

All parts may be doubled. If several parts are doubled but not all, strive for a balance between the main tuning sections (for instance do not double all upper parts).

```
data Section = High | Low | Middle
    deriving (Eq, Show)

data Part
    = Violin Int
    | Viola Int
    | Cello Int
    | DoubleBass
```

```
    deriving (Eq, Show)

partSection (Violin 1)   = High
partSection (Violin 2)   = Low
partSection (Violin 3)   = High
partSection (Violin 4)   = Low
partSection (Viola 1)    = High
partSection (Viola 2)    = Low
partSection (Cello 1)    = High
partSection (Cello 2)    = Low
partSection DoubleBass   = Middle

sectionTuning Low    = 437
sectionTuning Middle = 440
sectionTuning High   = 442

partTuning = sectionTuning . partSection
```

Playing techniques

```
data OpenStringTechnique
    = NaturalHarmonic
    | NaturalHarmonicGliss
    | HalfHarmonicTrem
    | OpenStringNote
    | Jete
    | Pizz
    | Snap

data QuarterStringTechnique
    = OpenQuarterTrem
    | QuarterStoppedStringNote

data StoppedStringTechnique
    = StoppedStringNote
    | StoppedStringPhrase
```

Intonation

Many playing techiniques in the score calls for open strings. In this case intonation is determined solely by the tuning.

In some cases, open-string techniques are used with an above first-position stop. This should make the open string pitch rise about a quarter-tone step (or at

least less than a half-tone step).

Where stopped strings are used, intonation is determined by context:

- In solo passages, intonation is individual. No attempt should be made to synchronize intontation (on long notes et al) for overlapping solo cues.
- In unison passages, intonation should be synchronized.

Öppna strängar/Bakgrund

```
nat flageolett
nat flageolett gliss
trem (halvflageolett)
öppen sträng
```

Kvartsstoppade strängar

```
trem kvarsttopp/öppen
gliss + jete
pizz
snap
```

Stoppade strängar/Förgrund

```
Melodik (diatonisk, kromatisk?)
    Hur representera förhållandet till omgivningen?

Fördela mellan grupper
```