

## Requirements

3 performers are required:

- 1) Violin
- 2) Marimba (range: F to C)
- 3) A player at the mixer who must be a trained musician, necessarily someone experienced in the diffusion of Electroacoustic music.

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The computer part of Tumblers was recorded in stereo on 2 tracks. A click track - which is used for synchronising the players with the computer part - was recorded on a third track (mono). These audio sound files were recorded at a SAMPLING RATE OF 48.000hrz and are available on CD ROM from [www.vinao.com](http://www.vinao.com). In concert the computer part and the click-track are played using any standard sequencer or recording programme such as ProTools, Digital Performer, Logic Audio, Cubase, etc.

## Equipment requirements:

- 1 computer with an audio card capable of playing 3 audio tracks
- 4 high quality directional microphones (3 for the marimba and 1 for the violin) to amplify the instruments.
- 1 reverberation unit for the instruments and computer.
- 1 mixer. At least 9 input channels are required: 3 for the marimba, 1 for the violin, 2 for the reverb unit, 2 for the computer part and 1 for the click-track. The players use headphones to listen to the click-track. (Some compression may be used on the marimba and the violin to achieve a better balance with the computer part but the computer part itself must not be compressed.)
- Speakers and amplifiers.
- headphones for the players to monitor the click-track.

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Please download the TUMBLERS Training Tracks in MP3 format from:  
[http://www.vinao.com/DOWNLOADS\\_TUMBLERS.html](http://www.vinao.com/DOWNLOADS_TUMBLERS.html)

## Performance

1. Tuning: A = 440 or A = 442 (the CD ROM contains two versions of the piece)
2. Synchronization between the players and the computer: a click-track is recorded on a separate audio track. In concert the players receive the click-track through headphones.
3. Balance: ultimately the overall balance between the instruments and the computer rests with the performer at the mixer. The performer at the mixer will sometimes need to bring the level of one instrument up to enhance a musical statement. It is essential that he/she studies the score thoroughly so that he/she is capable of making quick musical decision during performance and not simply follow settings arrived at during rehearsal. The performer at the mixer must be a musician.

## Notation

The notation of the computer part has been greatly simplified. It is fully notated only when it becomes a point of reference essential for performance and/or the understanding of the piece.

A line on a note ( - ) indicates an accent softer than the usual accent ( > ). The violinist MUST NOT interpret it as a tenuto mark.

Notes in brackets may be left out if this improves the flow of a passage. In this type of work where rhythm play a central role in the musical discourse, the accurate performance of the rhythms, articulations and dynamics is of paramount importance. Leaving out a note in brackets must not be considered as a second best solution. In many cases it may be the best solution. What may seem awkward or contrived to a player trained in a particular tradition, using one type of grip, etc, may seem more natural to another one with a different technique.

## Harmonic Structure

It may be useful to the players to have a basic understanding of the harmonic structure of the piece. Tumblers is based on 2 interconnected harmonic sequences. The first one (A) is a simple harmonic progression where chords and rhythms form a structure with a forward moving functionality. The second one (B) is more complex extension of the first one. Here the chords form a choral-like harmonic structure. Their functionality is intervallic with no specific rhythmic figure attached to each chord. (C) is an inversion of (B) where voice leading and resonance have been the main constructive criteria. Although I have also used other inversions of (B) they have been derived following the same criteria.

# TUMBLERS

Alejandro Viñao

1 ♩ = 105

vi.

mba.

comp.

Sample

6

vi.

mba.

comp.

10

vi.

mba.

comp.

*p* *mp* *f* *mf* *f* *mf*

*p* *mf* *f* *mf*

13

vi.

mba.

comp.

*f* *p* *mf*

*f* *mf*