

Brice Pauset  
*Vertigo – Infinite Screen*  
2021

Vienna - nov21  
2023



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The setup and the execution of the electroacoustic part  
of this work requires a Computer Music Designer (Max expert).

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## Work related information

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### Performance details

- June 3, 2021, France, Paris, Centre Pompidou Grande salle, ManiFeste

Publisher : Edition Gravis

### Realisation

- Benjamin Lévy

### Useful links on Brahms

- [Vertigo – Infinite Screen](#) an intermediate composition based on Alfred Hitchcock's *Vertigo*, for ensemble in six groups, 18 image modules and electronics (2020-2021)
- [Brice Pauset](#)

## Version related information

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Performance date: June 3, 2021

Documentation date: July 6, 2023

Version state: valid, validation date : July 12, 2023, update : July 12, 2023, 8:14 p.m.

### Documentalist

Benjamin Levy (Benjamin.Levy@ircam.fr)

You noticed a mistake in this documentation or you were really happy to use it? Send us feedback!

### Realisation

- Benjamin Lévy (Computer Music Designer)
- Sylvain Cadars (Sound engineer)
- Arotin & Serghei (Video artist)
- Titus Engel (Conductor (orchestra))

Version length: 47 mn 54 s

### Comment

This version is not the creation version but the 1st repeat of the piece in Vienne, November 2021.

Creation was in Centre Georges Pompidou in Paris, June 2021.

A pre-version has also been broadcasted during Covid confinement.

### No other version available

## Electronic equipment list

### Computer Music Equipment

- 3 MacBook Pro - *Apple Laptops* (Apple)  
Audio Main / Audio Spare / Visual Click
- 2 Max 8 - *Max* (Cycling74)
- 1 antescofo~ - *External objects* (Ircam)
- 1 Ircam Spat - *Library* (Ircam)
- 2 Sound Board - *Sound Board*  
at least 13ch
- 1 MIDI Mixer - *MIDI Mixer*

### Audio Equipment

- 12 Loudspeaker - *Loudspeakers*

**Files**

| <b>File</b>                    | <b>Type</b>               | <b>Author(s)</b> | <b>Comment</b> |
|--------------------------------|---------------------------|------------------|----------------|
| <a href="#">Max Project</a>    | All-in-one                | B.Lévy           |                |
| <a href="#">Electro Levels</a> | Performance documentation | B.Lévy           |                |
| <a href="#">Tempo Map</a>      | Performance documentation | B.Lévy           |                |
| <a href="#">Enregistrement</a> | Recording(s)              |                  |                |

## Instructions

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# 1. General setup

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This piece is played with a clicktrack sent soundly and visually to the orchestra conductor. A tablet or a computer plugged on the same network as the main (and spare) computer is needed on stage to give visual feedback of the click to the conductor. Miraweb is used for this purpose.

The unrolling of the score is mostly automatic, however by default the score is unfolding section by section and you need to trigger by hand each section. This is useful mostly for rehearsal.

When playing the piece from the beginning to the end, and do not want to trigger each section by hand along the playing, you need to tick the `run_through` box in the patch. This way, the whole score is going to unfold automatically until the end.

# 2. Loudspeaker setup

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The loudspeaker setup is made of 12 speakers organised in 2 rings of 5 speakers around the audience, placed (or directed to) two different heights. And 2 speakers about the center of the room, in a zenital position, number 11 pointing downwards as “voice of god” and number 12 pointing upwards to the ceiling to have a diffuse canopy effect.

First speaker (#1) is above, in the center of the stage frame as usual “center cluster” while the classical left and right sides of the stage participate to the lower ring (left: #10, right: #2). In the back of the audience is #6 speaker which also should be rather low.

Here is an approximate diagram of the setup (with precise angles).



# 3. Midi setup

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MIDI is solely used to connect a nanoKontrol2 controller allowing to set and follow the volumes of the differents “instruments” of the electronic part. This can be replaced by any MIDI controller with faders (best with at least 9 faders) as a BCF2000.

A table is provided which indicates the level of each “instrument” of the electronic part for each section. This is based on the creation concert and has to be adapted to each venue and balance between the acoustic ensemble and the electronic setup.

# 4. Software installation

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## a) Max/MSP patches

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This piece is wrapped as a MaxMSP project containing all the elements needed to run it. However, it uses 3 external objects/packages from Ircam: Spat5, Antescofo and Sampler. The externals included are for Intel Macs (Silicon Macs did not exists at the time of this playing of the piece).

You will have to get the modern versions of those externals to match your hardware if needed.

Cycling'74 *Miraweb* package is also need for visual click feedback to the conductor.

When opening the file `Vertigo.maxproj`, the main patcher (file `_main_noadc.maxpat`) should automatically open as well. A small *do / check* list is written in the right side of patch. The *antescfofo* score to load is the file `_main_noadc.asco.txt` located in the `data` folder of the Max project.

## b) Routing in Max/MSP

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Routing is straightforward in this piece:

- there are no inputs
- outputs follow the previously included diagram (see 2. Loudspeaker setup)
- clicktrack is sent to the conductor through #13 output channel

## c) DSP Status Options (Fs, IO vs, S vs, Overdrive, Audio Interrupt, Vector Optimization)

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No specific setup is needed. By habit, I played the piece with Overdrive set ON and Audio Interrupt set OFF. And as information, the rest of the audio configuration is given in the `Audio_config.txt` file.


## d) Click - Audio & Miraweb

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The clicktrack of this piece is *not* a wavefile, it is generated in the subpatch `[bnl.antesclick]` of the main patch. This subpatch reacts to messages sent by an automatic process of the Antescofo score named `click()`.

As this version of the piece is played with a clicktrack given the conductor both soundly (with ear-monitor) and visually, you should use a computer or a tablet with any web browser (preferably Firefox or Chrome) on stage. All the computers (audio main, audio spare and stage) should be on the same local network for visual feedback to work – preferably a closed, cabled network **not** connected to the internet.

On the stage computer, open the web browser of your choice and type in the address and port shown in the subpatch `[p Mira]` of the main patch. Measures, tempo should be updated in real time and rounded-squares displayed should light in red following the time signature and beats of each measure giving the conductor the visual info *in sync* with the audio click.

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Version documentation creation date: July 6, 2023, 12:16 p.m., update date: July 12, 2023, 8:14 p.m.