

Adam Maor  
*Les Mille Endormis*

Creation Aix en Provence  
2019



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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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## Table of Contents

Table of Contents	2
Work related information	3
Performance details	3
Realisation	3
Useful links on Brahms	3
Version related information	4
Documentalist	4
Realisation	4
Upgrade Motivation	4
Comment	4
No other version available	4
Electronic equipment list	5
Computer Music Equipment	5
Audio Equipment	5
Files	6
Instructions	7
Les Mille Endormis - Documentation (2019)	7
Audio Config	7
System installation	7
Software	7
Midi	7
Lemur	7
Spare	7
System calibration and tests	8
Initialization routine	8
Session presentation	9
Midi Interface	10
Performance notes	10

## Work related information

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### Performance details

- None,

### Realisation

- Augustin Muller

### Useful links on Brahms

- [Les Mille Endormis](#) opera for four voices, ensemble and live electronics (2019), 1h10mn
- [Adam Maor](#)

## Version related information

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First performance

Performance date: July 6, 2019

Documentation date: July 22, 2019

Version state: valid, validation date : Dec. 17, 2019, update : May 6, 2021, 3:09 p.m.

## Documentalist

Augustin Muller (Augustin.Muller@ircam.fr)

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

## Realisation

- Augustin Muller (Computer Music Designer)
- Adam Maor (Composer)
- Serge Lacourt (Sound engineer)

Version length: 60 s

Default work length: 1 h 10 mn

## Upgrade Motivation

Creation Version. Festival d'Aix en Provence - Théâtre du Jeu de Paume

## Comment

United Instruments of Lucilin. Cond. Elena Schwartz.

Keyboard Player : Pascal Meyer

tested and validated by Pascal Meyer

## No other version available

## Electronic equipment list

### Computer Music Equipment

- 1 Retina - *Apple Laptops* (Apple)  
With Live 10.1 & Max 8
- 1 iPad - *Tablets* (Apple)  
with lemur, for monitoring
- 1 Fireface 802 - *Sound Board* (RME)  
6 outputs
- 1 MIDI controller - *MIDI Controllers*  
Korg Nano Kontrol was used
- 1 MIDI Keyboard - *MIDI Keyboard*  
88 keys with pgm change, sustain, expression pedal, modwheel and pitchbend
- 1 MIDI interface - *MIDI Interfaces*  
to connext the keyboard and the controller

### Audio Equipment

- 6 Loudspeaker - *Loudspeakers*  
3 layers of stereo.

Files

File	Type	Author(s)	Comment
<a href="#">SL1000 checklist</a>	Readme	A Muller	quick checklist
<a href="#">SL1000_lemur</a>	Other		for ipad
<a href="#">SL1000_SESSION</a>	Ableton session	A Muller	Live 10.1 session with everything

## Instructions

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# Les Mille Endormis - Documentation (2019)

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## Audio Config

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- **6 audio outputs** : 1-2 stereo Pit, 3-4 stereo Front, 5-6 Stereo Backstage
- **0 audio inputs**

## System installation

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Les Mille Endormis electronic part consist in a Live 10.1 session using Max For Live devices. Max 8 is mandatory (mc.~ usage)

## Software

Just open the live session. Everything is there. Setting was FS: 44100, IO Buffer : 512. ( Should be ok @ 48k !)

## Midi

- Keyboard:
  - channel 1
  - Modwheel on Ctl 1
  - Expression Pedal on Ctl 7
- Nanokontrol
  - on channel 16

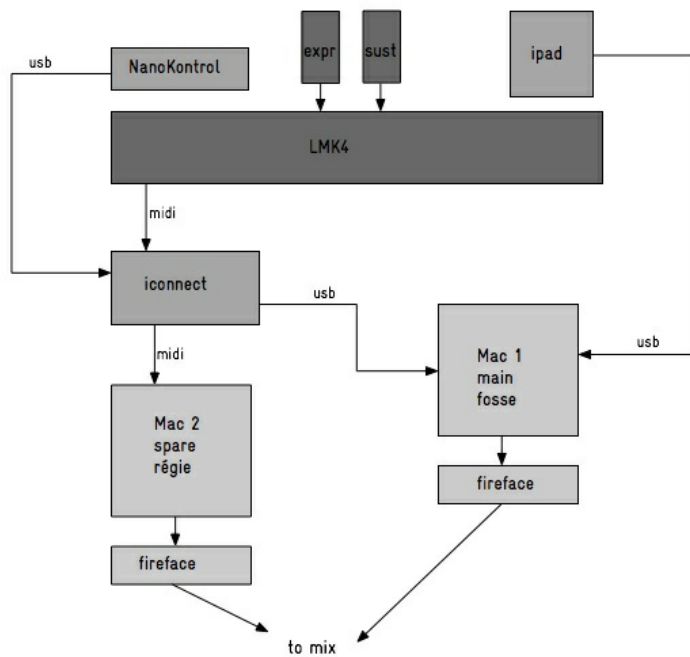
## Lemur

For Lemur, just install the provided project. Connexion in usb was used. The ipad is used for **monitoring only**.

## Spare

*For the spare, a special routing was made in the iconnect, to send both the keyboard and the nanokontrol out of the midi din 1*

## SL 1000 - ELECTRO SETUP



## System calibration and tests

Set the levels of the different pair of loudspeaker such as the presence in the pit is comparable to an instrument. The front (face) lvl should be balanced with the pit. For the backstage, try to find a position of speakers that renders an effect of depth but still with correct coverage. In *Jeu de Paume*, 2 pairs of speakers were used for this layer, one hanged from the top, the other on stands. Beware of the level as this is close to the singers.

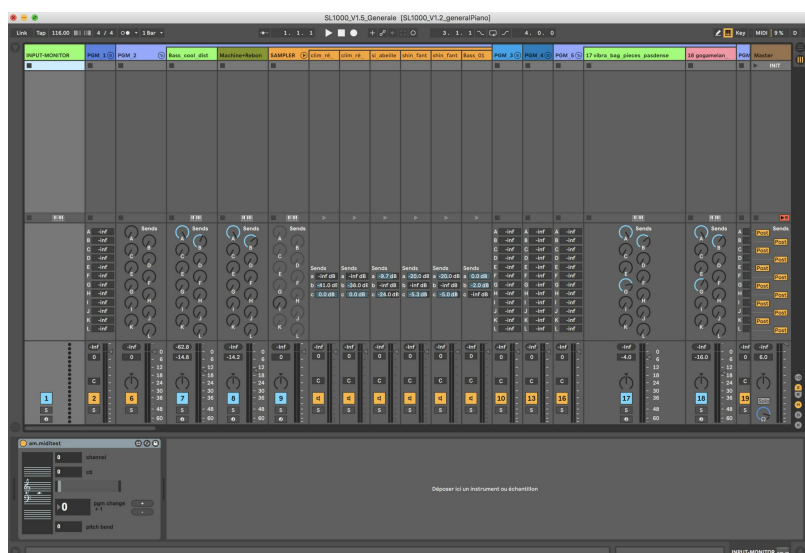
## Initialization routine

See quick checklist provided for the total setup. Once everything is connected :

- Check soundcard
- Launch Lemur Daemon and connect (i0/o0, o0/i0)
- Launch the live session
  - check preferences (IO devices & Midi)
  - check every pgm



## Session presentation



- The session is organized in the mixer view (no use of the time line)
- The physical midi input goes in the first track (Input-Monitor).
- The physical audio outputs come from the return tracks (no use of the master track)

The volume pedal of the keyboard controls the volume of the first 3 stereo outputs return tracks (A B C, keyboards). The files go in the same physical outputs but without volume control (D E F). G H I are used for effects. J K L are the last outputs for effects and optional direct outs. The order is always the same :

- 1-2 => Pit
- 3-4 => Face
- 5-6 => Backstage



Each group gathers the tracks composing a program. The levels of the tracks can be set by the player to adjust balance between programs.

The NanoKontrol provides access to effects applied to the outputs A B & C (keyboards) :

- filter (freq and reso)
- granulation (chance / freq /drywet)

It enables also some effect sends added to the outputs :

- reverb
- pitched delay
- freqshift (drywet)

# Midi Interface

- Keyboard:
  - channel 1
  - Modwheel on Ctl 1
  - Expression Pedal on Ctl 7
- Nanokontrol
  - on channel 16

In Live prefs, the keyboard, Nano Kontrol & Lemur must be enabled in “track” and “remote”. See checklist for an screenshit of the midi prefs.

Affectations MIDI					
C..	Note/Commande	Chemin d'accès	Nom	Min	Max
1	CC 1	Bass_cool_distort_m73   am.ads_lite	manual_mod	0.00	1.00
1	CC 1	grillons_synth   am.ads_lite	manual_mod	0.00	1.00
1	CC 1	grillons_synth_percant   am.ads_lite	filter_cutoff	1.50 kHz	5.00 kHz
1	CC 1	grillons_synth_percant   am.env	drywet	30.0 %	95.0 %
1	CC 1	grillons_synth_percant   am.env	freq1	7.00 Hz	18.0 Hz
1	CC 1	grillons_synth   am.ads_lite	manual_mod	0.00	1.00
1	CC 1	PGM13_BassMWheel   am.ads_lite	manual_mod	0.00	1.00
1	CC 1	PGM17_Strings   strings_ads	manual_mod	0.00	1.00
1	CC 7	A-SynthFosse   Mixer	Track Volume	-inf dB	6.0 dB
1	CC 7	B-SynthFace   Mixer	Track Volume	-inf dB	6.0 dB
1	CC 7	C-SynthFond   Mixer	Track Volume	-inf dB	6.0 dB
1	Note C7	Transport	Stop		
16	CC 0	DUMMY   Mixer	A-SynthFosse	-inf dB	0.0 dB
16	CC 0	A-SynthFosse   EQ Eight	4 Frequency A	100 Hz	22.0 kHz
16	CC 0	B-SynthFace   EQ Eight	4 Frequency A	100 Hz	22.0 kHz
16	CC 0	C-SynthFond   EQ Eight	4 Frequency A	100 Hz	22.0 kHz
16	CC 1	DUMMY   Mixer	B-SynthFace	-inf dB	0.0 dB
16	CC 2	A-SynthFosse   Mixer	I-pitchshift	-inf dB	0.0 dB
16	CC 2	B-SynthFace   EQ Eight	3 Frequency A	100 Hz	22.0 kHz
16	CC 2	B-SynthFace   Mixer	I-pitchshift	-inf dB	0.0 dB
16	CC 2	C-SynthFond   EQ Eight	3 Frequency A	100 Hz	22.0 kHz
16	CC 2	C-SynthFond   Mixer	I-pitchshift	-inf dB	0.0 dB
16	CC 3	A-SynthFosse   am.env	rand_proba	29.7 %	100 %
16	CC 3	B-SynthFace   am.env	rand_proba	25.0 %	100 %
16	CC 3	C-SynthFond   am.env	rand_proba	22.7 %	100 %
16	CC 4	A-SynthFosse   am.env	freq1	1.00 Hz	57.2 Hz
16	CC 4	A-SynthFosse   am.env	freq2	6.56 Hz	60.0 Hz
16	CC 4	B-SynthFace   am.env	freq1	1.00 Hz	53.0 Hz
16	CC 4	B-SynthFace   am.env	freq2	6.56 Hz	60.0 Hz
16	CC 4	C-SynthFond   am.env	freq1	1.00 Hz	60.0 Hz
16	CC 4	C-SynthFond   am.env	freq2	1.00 Hz	53.0 Hz
16	CC 5	A-SynthFosse   am.env	drywet	0.00 %	100 %
16	CC 5	B-SynthFace   am.env	drywet	0.00 %	100 %
16	CC 5	C-SynthFond   am.env	drywet	0.00 %	100 %
16	CC 6	DUMMY   Mixer	C-SynthFond	-inf dB	0.0 dB
16	CC 6	A-SynthFosse   Mixer	G-Reverb	-inf dB	0.0 dB
16	CC 6	B-SynthFace   Mixer	G-Reverb	-inf dB	0.0 dB
16	CC 6	C-SynthFond   Mixer	G-Reverb	-inf dB	0.0 dB
16	CC 7	A-SynthFosse   Mixer	H-DelGran	-inf dB	0.0 dB
16	CC 7	B-SynthFace   Mixer	H-DelGran	-inf dB	0.0 dB
16	CC 7	C-SynthFond   Mixer	H-DelGran	-inf dB	0.0 dB
16	CC 16	A-SynthFosse   EQ Eight	4 Resonance A	0.10	10.0
16	CC 16	B-SynthFace   EQ Eight	4 Resonance A	0.10	10.0
16	CC 16	C-SynthFond   EQ Eight	4 Resonance A	0.10	10.0
16	CC 18	DUMMY   Mixer	E-SampFace	-inf dB	0.0 dB
16	CC 43	INPUT-MONITOR   am.miditest	live.text[4]		
16	CC 44	INPUT-MONITOR   am.miditest	live.text[0]		

# Performance notes

**General :** Les Mille Endormis features 3 main strategies for electronics :

- Keyboard Sounds
  - Mostly play in the pit
  - quasi-instrumental sounds
  - mixed with the instruments
- Textures (shin\_fant, synth ...)
  - more diffuse in the space

- synthetic sounds
- modified with the nanokontrol (gran, filter ...)
- Soundfiles
  - more in the backstage
  - triggered with no live control on the volume or color

The levels of soundfiles have to be set in the test phase then are not modified during the performance.


See the score for details.

The Opera is lightly amplified. All singers and instruments are equipped with microphones.

As acoustic balance is achievable, light amplification of the instruments is necessary for effect and blending, and the voice of the bass singer must be at some times (sc 8 ...) reinforced in the backstage speakers to give a low, cavernous voice impression.

Here a view of the pit. Notice the placement of the Right speakers at the height of the keyboardist. The other one is on the floor next to the accordion.



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Version documentation creation date: July 22, 2019, 2:25 p.m., update date: May 6, 2021, 3:09 p.m.