
DUO I

FOR SOPRANO AND LOUDSPEAKER

Dedicated to Jessica Wagner

Nicolás Arnáez

www.nicolas-arnaez.com

Commissioned by the *Society for New Music Edmonton*



Thanks to the support of the *Edmonton Arts Council*



DUO I - For Soprano and Loudspeaker

Dedicated to Jessica Wagner

Duration: 3 minutes 51 seconds

This piece has been commissioned by the Society for New Music Edmonton, with the support of the Edmonton Arts Council. Written between October 2020 and February 2021.

Special thanks to George Andrix, Ian Crutchley, Chenoa Anderson, Allison Balcetis, and all the New Music Edmonton board of directors.

Nicolás Arnáez © 2020-2021

www.nicolas-arnaez.com

DUO I - For Soprano and Loudspeaker

PROGRAM NOTES:

Duo I, starts a series of compositions for solo instrument and live interactive electronics. Each piece of the series will be dedicated to the performer who premieres the work, since its composition is developed following instrumentalist's musicality, preferences, most enjoyed technics, and such. It has been a real honor to work on this inaugural work with Jessica!

On this collaboration, human and computer play a crucial role when working together to build their own interpretation of the written work. The piece's soul is based on the given artistic capability of the computer, a software that listens, waits, and interpret it musical lines in conjunction with the performer, as is traditionally done in a duo of two human performers.

DUO I - For Soprano and Loudspeaker

INTRODUCTION

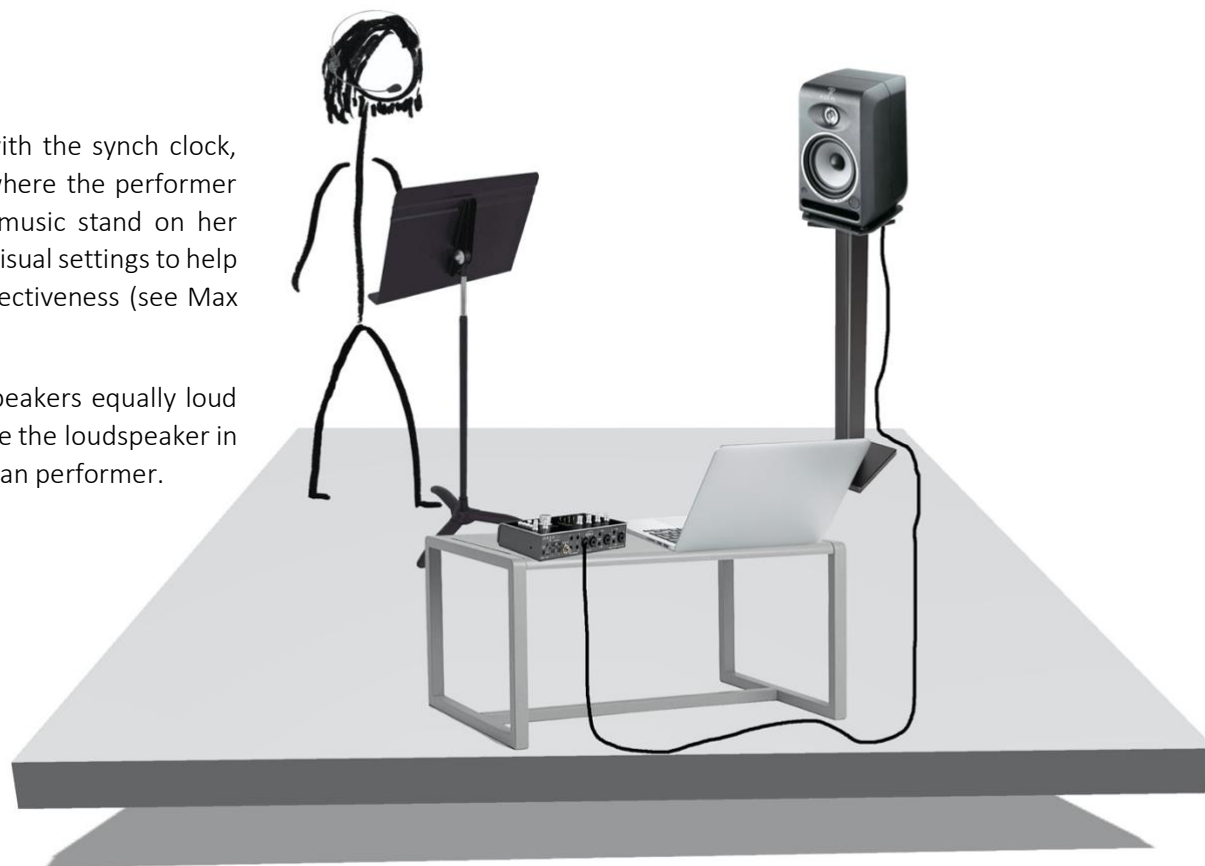
Duo I, is a piece of music were a loudspeaker and a soprano have specific fully notated sheets of music to play. Then, there is a necessity of synchronization. This is achieved by a clock counter created by the computer that has to be seen by the singer, clock number marks are added to musician's score (as BEAT staff), the performer must synch her parts with the computer clock while singing.

The attached Max patch requires an audio interface, this interface should have one a (preferably wireless or wired headset) microphone input connected on channel 1, and one output (channel 1) connected to the speaker (Focal and Genelec brands are preferred). The computer to be used should have a Processor of 2.2 GHz Inter core i7, 16GB 1600 MHz DD3, or anything more powerful, ideally using macOS High Sierra (10.13.6), or higher.

STAGING

The Max patch that creates a flying window with the synch clock, then a computer should be placed on stage, where the performer can see it's monitor, somewhere behind her music stand on her visual sight's background. The clock has several visual settings to help adapting its look with the goal of improving effectiveness (see Max Patch sections for details).

It is crucial to keep the intensity level of the speakers equally loud than the human player. Also, it'll be ideal to place the loudspeaker in a stand, set up at the same height than the human performer.



DUO I - For Soprano and Loudspeaker

MAX PATCH interface

The following is the user interface for running the piece. The Max Patch is color coded, everything inside blue square is clickable, the rest is not.

The interface is divided into several functional areas:

- Top Left:** Patch On/OFF control with a green 'X' icon, Windows zoom (0.8), and input/output device selection (Built-in Microphone and Built-in Output).
- Top Right:** Title area for "Duo I For Soprano and Loudspeaker", dedicated to Jessica Wagner, with copyright information for Nicolás Arnáez © 2020-2021.
- Left Side:**
 - BEAT control:** Displays "You are at: 00:00" and includes options for "Blink ON/OFF", "Blink in all first beats", "Blink in all beats", "185 ms Blink lenght", "Flying window", and "Full Screen (Key: `)".
 - Metronome:** Includes a "Click On-Off" button and a "Metronome level" slider.
- Center:**
 - ReDo:** A MIDI input section with a "MIDI IN" button and a piano roll.
 - AUDIO IN:** A section for audio input with a "Take Sample" button and a "yAO" button.
 - AMPLITUDE MODULATION:** Controls for CARRIER and MODULATOR, including "Fundamental" and "Spectrum" sliders, and "Original" and "More Partials" options.
 - AMPLITUDE:** A graph showing the amplitude envelope over time.
 - MODULATOR 1, 2, 3:** Three sections for modulating the sound, each with "Rate", "Depth", and "Shape" controls.
 - VIBRATO and TREMOLO:** Controls for vibrato and tremolo, each with "Rate", "Depth", and "Shape" parameters.
 - MASTER:** A master volume control.
- Right Side:**
 - Transport:** Includes "PLAY" and "STOP" buttons, a "START at..." field, a piano keyboard (A-N), a "GO" button, a "READY" button, and a "change BPM" section with a "60 BPM" display and a "reset" button.
- Bottom:**
 - AUDIO Output:** A section for audio output with a "Main volume" slider and a "Verb" button.
 - Footer:** Logos for "nme new music edmonton" and "edmonton arts council", with text: "Commissioned by the Society for New Music Edmonton" and "Thanks to the support of the Edmonton Arts Council".

DUO I - For Soprano and Loudspeaker

MAX PATCH reference

Top left corner

- **Patch On/Off** turns the piece software on and off
- **Windows Zoom** numbers between 0. and 1. Zoom in and out the interface
- **Rst:** Reset user interface back to default (0.8)
- **Input/output device** Choose your audio interface

Audio Input

- **White dial** controls input level

BEAT control

- **You are at** currently displays the location of the Transport in the score. The timer ultimately mirrors what is shown in the flying windows; when numbers are red no music is to be performed (pre-count, or loading data), yellow numbers indicate the patch is ready to start, and white numbers appear when the performance is running
- **Blink ON/OFF** If Blink is on, the flying window's background will blink white on specific beats to create a visual signal for the performers. If Blink is off, numbers will run with a permanent black background
- **Blink option:** The user may choose if the blinking happens on every beat or at the first beat of each measure
- **Blink length** Controls how long the background holds white on the selected beats (the range is from 70ms until 600ms)
- **Flying window** Makes the flying windows appear or disappear
- **Full screen** The user can change the appearance of the timer to occupy the full screen by clicking this option (or by using the shortcut, which is pressing the key “ ` ”)

- **Metronome** activates a built-in click sound which adjusts intensity. The sounding click is heard in channels 1 and 2. This is just for rehearsals

Transport

- **Transport** “PLAY” for starting and pausing sequences, “STOP” for stopping and rewinding sequences to the beginning
- **START at...** sets the performance at the beginning of any rehearsal letter shown in the score
- **Clock** sets the score to begin from any beat in the score (the user can type in minutes and seconds using the computer keyboard)
- **GO** sets the starting point (either chosen as a rehearsal letter or beat position). The Transport will load the requested data while the legend “WAIT” appears (no other command can be entered while this legend is shown). Once it finishes loading it will display “READY.” For starting from that specific point, PLAY must be triggered
- **Change BPM** using the arrows performer can change the default tempo for rehearsing, all electronic data will adapt to the new value entered
- **reset** if for any reason the Transport freezes, this button will reset all Transport controls back to normal
- **Transport** “PLAY” for starting and pausing sequences, “STOP” for stopping and rewinding sequences to the beginning

Audio output

- **Main Volume** controls the main output intensity
- **Verb** controls the amount of reverb of the entire electronic voice

DUO I - For Soprano and Loudspeaker

MAX PATCH installation options


To install and run the Max Patch you need a Mac computer, running OSX 10.5 (Catalina) or later. A Windows version can be arranged by contacting the composer by visiting www.nicolas-arnaez.com or by emailing arnaez@ualberta.ca.


There are two options or running the patch:


1. By installing the Application:
 - a. Download and unzip the **Duoi** file on your Desktop (do not download anywhere else).
 - b. Open the **DUOI** folder and double click the file called **DUO I - For Soprano and Loudspeaker**
 - c. Your computer will probably warn you about not opening because is not from an Apple Identifier developer, you can click "Open Anyway".
 - d. If you don't see that option you should open the file several times until it shows it.
2. By installing Max and run the patch within it.
 - a. Download Max from <https://cycling74.com> (trial version will run the patch, no need to purchase any license).
 - b. Install Max in a Mac computer (you must use Max version 8.0.6, or later).
 - c. Unzip the **Duoi** folder on the computer's desktop.
 - d. Open Max, and set up *DUOI* folder, as follow: Options > File Preferences > + > choose > (find **DUOI** on your desktop).
 - e. Quit Max.
 - f. Open **DUOI** folder from your desktop, open the FOR MAX folder, double click on *DUO I - For Soprano and Loudspeaker.maxpat*


DUO I - For Soprano and Loudspeaker


NOTATION REFERENCE


 = Sprechgesang


 = Spoken voice

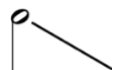
 = Vocal fry


 = Screaming


 = Inhale loudly


 = Exhale loudly

 = Chromatic glissandi

 = Slide glissandi

4"
 = Timed fermata

 = Normal fermata
performer decides how long,
computer will wait for performer action
to continuing

 = Tremolo, slow to fast

timeless = This font indicates English pronunciation

Párense = This font indicates Spanish pronunciation

concerned = Singing mood

(purposeless)--> = Word to base pronunciation upon,
bold indicates which syllables
will be used

Interact with the computer by freely doubling pitches
Copy timbre, notes, dynamics, or not.
Use previous words and syllables at your discretion.

Improvisation boxes, follow instructions
inside for the length of the box

B
00:20 00:21 00:22

-----+-----+-----

Letter in frames are rehearsal indications. The software will automatically match the shown time below when pressed. Please refer to the Max Patch sections to know more on how to use them

m-----me-----el-----e-----

Slowly modulate articulation from one syllable to the next one during the dashes.

Performer notes are beamed to quarter notes to facilitate reading. Computer notes are not beamed to the quarter note but per phrases.

Principal goal of lyrics is not to be understood but to achieve a particular timbre and sound impact.

Accidentals are placed note per note, sometimes cautionary. Accidentals are just for the octave shown.

Duo I

Commissioned by the Society for New Music Edmonton.
Supported by The Edmonton Arts Council.

For Soprano and Loudspeaker

Nicolás Arnáez

October 2020

Dedicated to Jessica Wagner

♩ = 60

A

BEAT -4 -3 -2 -1 00:01 00:02 00:03 00:04 00:05 00:06 00:07 00:08 00:09 00:10 00:11 00:12 00:13 00:14 00:15 00:16 00:17 00:18 00:19

Soprano
4"
concerned (timeless)
m-me-el-e
p

Loudspeaker
4"
mp

Freely choose syllables from the word **Intercéptelos** for each sung notes. Same from **Empujalo** sprechgesang notes
angry
ff p

all pizz. mf

B

BEAT 00:20 00:21 00:22 00:23 00:24 00:25 00:26 00:27 00:28 00:29 00:30 00:31 00:32 00:33 00:34 00:35 00:36 00:37 00:38 00:39

Sop.
dolce
Bus qué mos lo s
mf

L.S.
mf

concerned (pointless)-->
tl-el-e-ss
timeless
p

C

BEAT 00:40 00:41 00:42 00:43 00:44 00:45 00:46 00:47 00:48 00:49 00:50 00:51 00:52 00:53 00:54 00:55 00:56 00:57 00:58 00:59

Sop.
lyrically
Some one E pren ve ry dan me one Whos e ce lo ver
mf

L.S.
mf

laughing -->
ha ha ha ha
mp

concerned (purposeless)-->
poin- tless se
mf f p

phaser on -->
f

01:00 01:01 01:02 01:03 01:04 01:05 01:06 01:07 01:08 01:09 01:10 01:11 01:12 01:13 01:14 01:15 01:16 01:17

BEAT

Sop. *concerned*
(endless)-->
le dl le e
p *mf* *p*
espressivo
vib. San ti
p *mf* *f*

L.S. phaser off
p *mf* *p* *mf* *pp* *p* *mf*

01:18 01:19 01:20 01:21 01:22 01:23 01:24 01:25 01:26 01:27 01:28 01:29 01:30 01:31

BEAT

Sop. *f* *mf* *f* *sffz* *f* *mf* *p*
fi qué mos lo San? San! En less U - - seless

L.S. *f* *sffz* *pizz.* *ff* *mf*

01:32 01:33 01:34 01:35 01:36 01:37 01:38 01:39 01:40 01:41 01:42 01:43 01:44 01:45

BEAT

Sop. *lyrically* *mf* *(Successful)-->*
Youth ful Ruth ful Cheer ful Joy - - ful Fru it ful Fru it ful ful cess Suc cess ful cess Suc

L.S. *mf* *3* *6* *6*

01:46 01:47 01:48 01:49 01:50 01:51 01:52 01:53 01:54 01:55 01:56 01:57 01:58 01:59 02:00 02:01

BEAT

Sop. *f* cess ful Suc cess *mp* ful *mf* *imitate computer sound*

L.S. *f* *mf*

02:02 02:03 02:04 02:05 02:06 02:07 02:08 02:09 02:10 02:11 02:12 02:13 02:14 02:15

BEAT

Sop. *p* *concerned*
(useless)->
e- less!

L.S. *p*

02:16 02:17 02:18 02:19 02:20 02:21 02:22 02:23 02:24 02:25 02:26 02:27 02:28 02:29 02:30 02:31 02:32 02:33

BEAT

Sop. *espressivo* *nervous*
Re a len ta lo Down Shut Down down Up town Down Run down Break down Down

L.S. *mf*

02:34 02:35 02:36 02:37 02:38 02:39 02:40 02:41 02:42 02:43 02:44

BEAT

Sop. *worthless* *concerned*
(meaningless)-->

Down hear ted Throw a way Down No one Non stop stop Pa ren - - se Down! *p*

L.S.

02:45 02:46 02:47 02:48 02:49 02:50 02:51 02:52

BEAT

Sop. *very angry* *concerned*
(worthless)-->

--s! meaningless! th e el e

f *mp*

L.S.

02:53 02:54 02:55 02:56 02:57 02:58 02:59 03:00

BEAT

Sop. *f* *mp*

From 02:52 to 3:00, choose an articulation and a word, play it. Repeat process as fast as you can.

- Sprechgesang	- Vocal Fry	Párense	Directionless	Busquémoslos	Everyplace
- Wisper	- Sung (any note)	Santifiquémoslas	Somewhere	Intercéptelos	Wherever
- Screaming	- Talk	Realentalo	Unending	Empujalo	Anything
				Sorpréndanme	Laidback

L.S. *f*

L.S. *fff*

N

03:01 03:02 03:03 03:04 03:05 03:06 03:07 03:08 03:09 03:10 03:11 03:12 03:13 03:14 03:15 03:16 03:17 03:18 03:19 03:20 03:21 03:22 03:23 03:24 03:25

BEAT

Sop.

Interact with the computer by freely doubling pitches, responding to it's material with countermaterial.
Copy timbre, notes, dynamics, or not.
Use previous words and syllables at your discretion.

L.S.

Improvise an atmosphere using the pitches C, Eb, F#, B, C#, Eb, G
mp

L.S.

f

Detailed description: This system contains three staves. The top staff is for Soprano (Sop.) and contains a large rectangular box with performance instructions. The middle staff is for Left Saxophone (L.S.) and contains a large rectangular box with instructions to improvise an atmosphere using specific pitches and a dynamic marking of *mp*. The bottom staff is for another L.S. part, starting with a dynamic marking of *f*. Above the staves is a 'BEAT' line with a dashed line and vertical tick marks for each second from 03:01 to 03:25. A box labeled 'N' is positioned above the 03:01 mark. A double bar line is located at the end of the system.

03:26 03:27 03:28 03:29 03:30 03:31 03:32 03:33 03:34 03:35 03:36 03:37 03:38 03:39 03:40 03:41 03:42 03:43 03:44 03:45 03:46 03:47 03:48 03:49 03:50

BEAT

Sop.

L.S.

L.S.

mp

p

Detailed description: This system contains three staves. The top staff is for Soprano (Sop.) and the middle staff is for Left Saxophone (L.S.). Both of these staves have a large rectangular box covering most of the system, with a horizontal line and a fermata-like symbol at the end of the line. The bottom staff is for another L.S. part, starting with a dynamic marking of *mp*. Above the staves is a 'BEAT' line with a dashed line and vertical tick marks for each second from 03:26 to 03:50. A thick vertical bar is located at the end of the system.