

## LIVE PATCHING WITH KIWI AND FAUST : AN INTERCONTINENTAL EXPERIENCE

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### ABSTRACT

Our proposal aims to organise a live patching performance with Kiwi and Faust gathering the participants of the Second Faust Conference participants, the members of a research group based in different universities in Brazil and any guests. We propose collaborative and remote patching “from scratch”, with just a few rules. The Faust objects will be developed before and Kiwi will be used to patch during the live performance. The results of this experience will be deployed as part of an international research on live patching with Kiwi and Faust.

### 1. INTRODUCTION

The Kiwi software was developed as part of ANR MUSICOLL (2016-2018)<sup>1</sup>, in partnership with the CICM and the private company Ohm Force [1]. This research was centered on collaborative and portable real-time music. This tool was used mainly in pedagogical context [2]. Although some experiences with live patching showed an expressive promise, its potential in live patching was not yet approached. In 2019, two academic groups - the research project Live/Acc/Patch, based in two different Brazilian Federal Universities (Acre and Paraíba), and University Paris 8 – collaborated through several live patching sessions using Kiwi. Among other conclusions, we highlighted that Kiwi alone is quite restricted for a “from scratch” approach [3]. In this way, since the last version, a Faust compiler is embedded in Kiwi [4]. Thus, our proposal seeks to test the newest Kiwi version with Faust in a creative approach of live patching. All the guests of Faust Conference as well as any Kiwi users in the world are welcome to join the experience.

### 2. PATCHING “FROM SCRATCH”

Kiwi is defined as “a graphical programming environment dedicated to music and sound creation, but offering a real-time collaborative approach[1]. Thus this tool allows several distant users to work simultaneously on the same patch hosted online. Consequently, Kiwi has a faster learning curve for who is familiar with graphical modular software like Max and Pure Data. With the integration of Faust compiler, Kiwi is a suitable bridge for learning and applying Faust in graphical patching.

Our firsts experiences in intercontinental live patching with Kiwi showed that a “democratic” way of interacting different users is to patch “from scratch”. That is, the session starts with a completely empty document. Then, the participants build together the patch structure guided mainly by the local aural feedback. This practice provides that each participant can modify or even “steal” the partner’s structures. With the addition of Faust modules, this approach must change. As the Faust objects will be developed before and tested, the live patching must start

from the Faust objects. The great benefit is that advanced Faust users can modify the Faust code itself during the live patching.

### 3. THE LIVE PATCHING SESSION

First of all, some Faust objects will be developed. This work will be done mainly by University Paris 8 students. Then, the same material will be used to introduce Faust to University Federal Paraíba students. The objects will be tested by all the users before the Faust Conference (even those who are not yet familiar with Faust).

Then, during the workshop, all the groups will collaborate together in a unique Kiwi patch. During the Conference, only one computer will be connected with speakers’ systems, but all the participants will be able to interact with it<sup>2</sup>. The section will be filmed, including the patching evolution, and the aural results will be recorded. After the workshop, this material will be analyzed in order to investigate these practices as a *digital music making* approach.

### 4. EXPECTATIONS

The main object of this workshop is to develop an intercontinental live patching practice with Kiwi and Faust. By merging different users in a unique performance, different conceptions of music-making, with their own intrinsic know-hows, are also combined. Thus an unique compositional criteria can naturally emerge from the “from scratch” approach.

### 5. REFERENCES

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<sup>1</sup> <https://github.com/Musicoll/Kiwi/releases>

<sup>2</sup> Duration of the performance is about 60min.