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CtrlKey presentation

CtrlKey is a **library of digital tools** that can be used individually, in installations or collectively in groups. CtrlKey is a unique project, initiated, developed and constantly updated by Konnekt.

Through CtrlKey, Konnekt applies the latest digital technologies to innovative collective artistic creations that enable many art forms to interact with each other, while giving a poetic existence to non-artistic elements and practices. Thus CtrlKey serves as a framework and/or basis for many types of educational and artistic creations.

Thanks to the various instruments available from this constantly evolving library of tools, Konnekt hopes to reach a wide audience (including young people and people with special needs) while at the same time addressing the various artistic communities focused on research and innovation.

CtrlKey is capable of:

- 'Listening' to all kinds of input from many different sources (sound, computer data, data from measuring instruments, motion capture, etc.).
- Passing them through multiple specific analysis processes, then transforming them in a variety of ways.
- Generating new data to control virtual tools or physical machines such as audio synthesis, a 3D environment engine, lighting management, etc.
- Simultaneously transmitting and receiving this data via an audio-digital network, enabling complex control and interaction between users and machines/software/media.
- Allowing communication, dialogue and interaction within a wide range of sound and multi-disciplinary projects such as performances, interactive installations, concerts, exhibitions, initiation/awareness/education/discovery projects, and other forms yet to be invented.



Technical specs

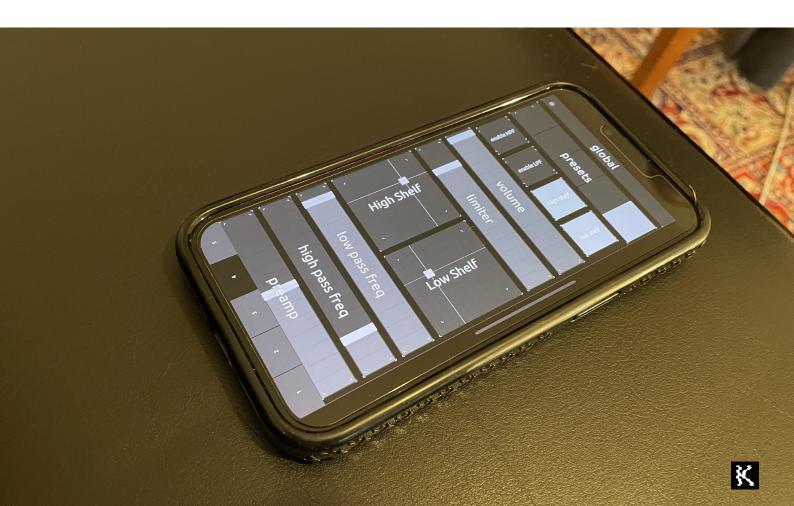
Developed on the Supercollider open source environment, CtrlKey is a scalable mapping tool designed to produce performance systems controlled by users, or by any other type of data.

CtrlKey can be extended across a digital audio network (RJ45) to create "electro-instruments" forming multiple nodes, incorporating different sources of control and output.

CtrlKey uses the capabilities of the DANTE (Digital Audio Network Through Ethernet) network, which allows audio and digital data to be transmitted over a single Ethernet cable, making it easy to link connected devices together.

Interfaces & controlers

CtrlKey can be controlled in many ways by the users. Konnekt has chosen to focus on a touch interface operating on smartphones and tablets, devices that are widely used by the general public (implementation of other types of more specific controllers is also possible). As a result, CtrlKey is easily accessible to as many people as possible. This choice reflects Konnekt's desire to offer a project as open as possible, using technological devices as a strength and not as a constraint (because of limited accessibility).



CtrlKey is frequently used as an electronic extension for acoustic instruments in many musical and sonic contexts. Musicians equipped with CtrlKey benefit from a new dimension of expressivity and dialogue thanks to this powerful yet easy-to-use technological tool.

Konnekt has already presented a whole series of creations and projects in Geneva and abroad using different variations of this tool. These include a commission from the Festival Archipel (Geneva), a performance by the legendary duo Matmos (USA), a presentation/masterclass at Tama Art University (Tokyo, Japan), and a performance at the HighZero Festival in Baltimore (USA). Numerous concerts have been presented in Geneva, at the Fonderie Kugler, the Groove, the Cavel2, the API, the AMR, and many others.

Fonderie Kugler, Geneva - Jeff Carey, Nicolas Field, Thomas Florin 05.2022



Le Groove, Geneva - Jeff Carey, Nicolas Field, Thomas Florin 05.2023



Le Groove, Geneva - Matmos (USA) 05.2023



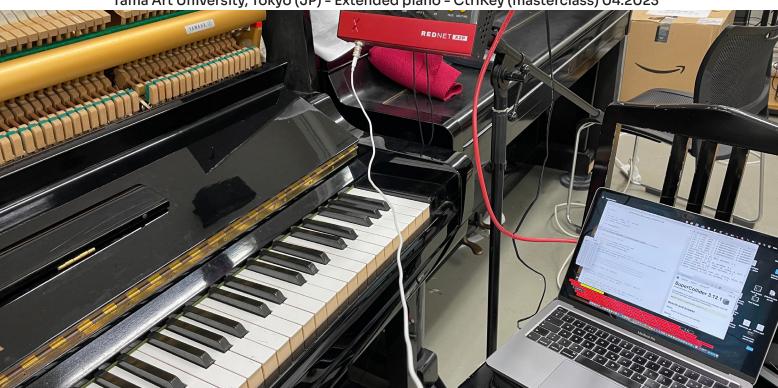
Fonderie Kugler, Geneva - Extended clavicord - CtrlKey 05.2022



Archipel Festival, Geneva- Creation with Re-Ghoster Extended 04.2023



Tama Art University, Tokyo (JP) - Extended piano - CtrlKey (masterclass) 04.2023



HighZero Festival, Baltimore (USA) - Nicolas Field 09.2023



Integration on an electric clavichord

Following initial experiments with the CtrlKey system on a conventional clavichord, Konnekt has acquired a special electric clavichord.

This reinterpreted, contemporary version of an old instrument was designed to be particularly well-suited to the integration of CtrlKey, thanks in part to its multiple modular audio outputs and fine management of its audio signal.

Thanks to this truly hybrid instrument (acoustic-electric-digital), Konnekt brings together ancient traditions and cutting-edge technologies. The instrument is regularly played in concerts and performances, and will shortly be the subject of dedicated compositions (including commissions from composers in the Geneva region).



Workshop on improvisation with electronic tools

In partnership with the HEM | Haute école de musique de Genève - Neuchâtel

Proposed date: October 2025

Over the course of a week's residency, students in the HEM's Concert Master's programme with a "performer-composer" option will work with Konnekt on improvisation practices using electronic tools. The students will have the opportunity to experiment and create with this tool thanks to coaching from Konnekt, and then to present the results of their work in public at the end of the residency. This research week will also be open to the public.

As well as sharing its know-how, Konnekt wants to distribute this creative tool for everyone to artists in training, so that they in turn become CtrlKey users. Konnekt is very enthusiastic about the idea of making CtrlKey a surprising and original basis for creation for as many artists as possible. In parallel, and for the future, Konnekt hopes to extend this collaboration with the HEM within the institution's research activities.



Carte blanche for two young musicians and improvisers from Geneva

In partnership with the HEM | Haute école de musique de Genève - Neuchâtel

Anticipated date: April 2026

Konnekt wants to highlight and give a voice to two inventive and proactive young musicians on the Geneva music scene: Ana Parejo (saxophone and voice) and Hortense Airault (cello). Konnekt is keen to offer Geneva audiences a project that demonstrates the vitality and inventiveness of the city's up-and-coming musicians.

Through a number of projects, including Duo Imminent, these two artists, students and alumni respectively of the Master Performer Composer programme at the Geneva Conservatory of Music, explore many forms of improvised and composed music, while incorporating elements of other artistic disciplines such as lighting and video.

As part of this carte blanche, Konnekt will be giving the two musicians the opportunity to integrate technological tools developed by Konnekt (CtrlKey) into a new creation. Konnekt's aim is both to encourage the younger generation of artists and to bring Genevan audiences closer to the innovative and ambitious practices of 21st-century musicians.



Educational project

Who's CtrlKey? CtrlKey! - A scalable installation project for young audiences

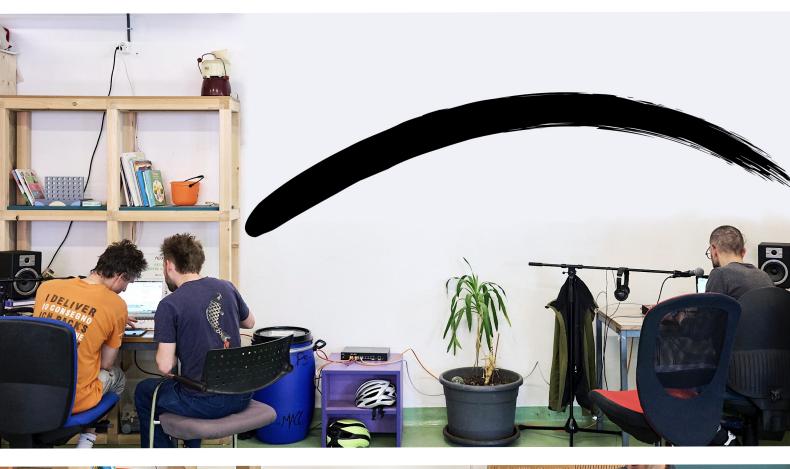
Konnekt has designed a project for a young audience using CtrlKey's network and tactile capabilities. "Who? CtrlKey!" is an installation comprising two to four linked stations, enabling young and old to play and experiment with the device. Several people can transform/transmit/reuse sounds in an interactive, playful loop.

Konnekt is currently working on a semi-permanent installation at the Maco for DIP school classes, as part of the school visits organised on the site. This fixed version of 'Qui?CtrlK-ey!' will enable pupils to generate, reuse and retransform sounds and then circulate them from station to station during their visit, extending the themes of recycling and reuse promoted by the Maco players.

Potential future partners: La Maco and Public Schools - DIP Genève Festival Archipel Festivals and public events in Geneva

Video link to the premiere, May 25 at La Maco - Geneva: https://youtu.be/vQDi9eOvWnw







Lights & multimedia

Luminiferous Aeather - immersive light and sound piece

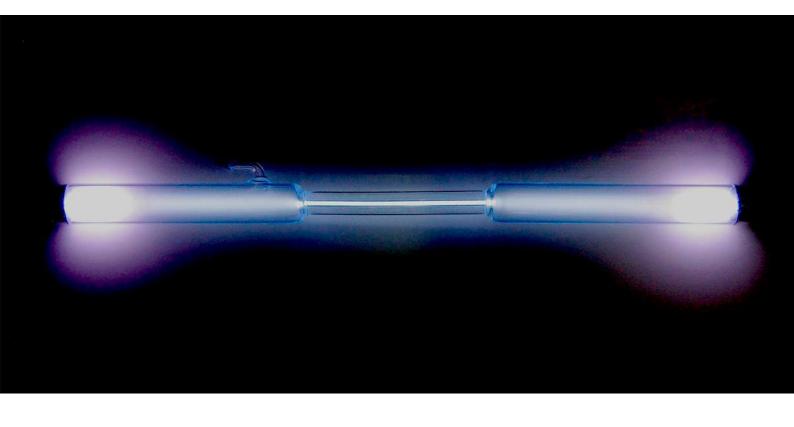
In the context of a light and sound piece, CtrlKey has made possible the immersive, multi-sensory piece Luminiferous Aether, combining the use of intense stroboscopic lighting, audio synthesis and sound spatialisation to create an immersive visual music.

It can be presented:

- as an installation, lasting around 30 minutes
- In concert form, with the participation of live musicians, lasting around 45 minutes.

The piece uses a large array of different types of lighting and a 10-channel sound system. A set of lights working in extreme dynamics (from very subtle to very intense) is complemented by a composition of spatialised music, including algorithmic elements, as well as live instrumental playing (for the concert version of the piece). Luminiferous Aether also uses certain lighting fixtures as sound sources (noises produced by xenon strobes) to further blur the sound/light separation in this immersive piece.







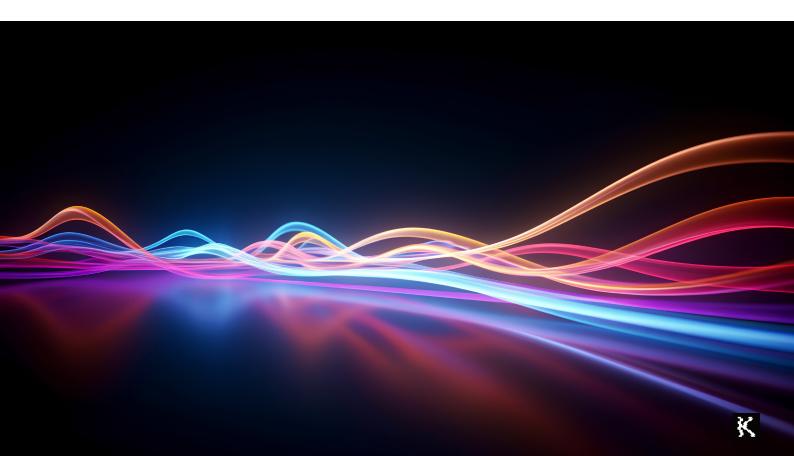
Pluridisciplinary projects

Finally, Konnekt is working on a multi-sensory creation project. "Shed some light on something to make it stand out, whether it's the computer on the table in front of you or the ideas conveyed in the words of the paragraphs of this text. This double meaning of lighting defines ideas and objects, where "light" serves as both a tool and a support.

Today, Konnekt is initiating the creation of the multi-sensory musical piece "Shed some light". CtrlKey's network connectivity capabilities will enable a graphics engine to be linked to the controlled lights and sound equipment. This complete device will allow work on light and shadow to hide, reveal, define and construct impressions of gesture, dimension, movement and objects in order to accompany and extend the existing visual and sound language (with sound and strobe lighting.) These three elements will "work" in a complementary way to create particular multisensory expressions.

Under the overall control of the CtrlKey electro-instrumental system, the piece will use:-Synthesised multi-channel sound,

- Controlled lighting
- And a 3D graphics engine



Partners

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La Maco, Geneva (CH)
     https://lamaco.ch/
HEM | Haute école de musique de Genève - Neuchâtel (CH)
     https://www.hesge.ch/hem/
Festival Archipel, Geneva (CH)
     https://archipel.org
La Becque - Artists residency, La Tour-de-Peilz (CH)
     https://labecque.ch/
Spaes Lab, Berlin (DE)
     https://spaes.org/
Knif Audio (FIN)
     https://www.knifaudio.com/
Reid School of Music, University of Edinburgh (UK)
     https://www.eca.ed.ac.uk/reid-school-music
Nymusikk (NO)
      https://nymusikk.no/home
Tama Art University, Toyko (JP)
     https://www.tamabi.ac.jp/en/
SupernaturalDeluxe, Kamogawa - Chiba (JP)
     https://super-deluxe.com/
High Zero Festival, Baltimore (USA)
     https://highzero.org/
Foundation - one, Baltimore (USA)
     https://jeffcarey.foundation-one.org/
Matmos (USA)
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http://vague-terrain.com/



For further information

Liens vidéo:

Première de "Qui?CtrlKey!" à la Maco, mai, 2025 https://www.youtube.com/watch?v=vQDi9e0vWnw

Pièce pour voix, piano et transformations sonores "I'm sitting on a network" https://vimeo.com/877770053

Pièce immersive, son spatialisé et lumières "Luminiferous Ether" https://vimeo.com/877771501

Vous trouverez davantage de vidéos, d'audios, d'exemples et de documentation technique du projet au lien suivant :

https://konnekt.co/fr/projects/ctrlkeydoc

Contact

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