

URTEX FRO: a collaborative, cross-disciplinary improvisation

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1 Program Notes

URTEX FRO is an audiovisual performance by an ensemble of acoustic, analogue, and digital improvisers, including members of the Free Range Orchestra, featuring video projections, experimental poetry, word art, and movement. This cross-disciplinary collaboration brings together concepts from free improvisation, live collage, layering, and abstraction to create a multisensory experience for performers and audience. At its core is **Unrealtime** [1], a gestural digital instrument for musical and visual improvisers, debuting at NIME. The software enables real-time navigation and resequencing of audiovisual material. URTEX FRO raises questions about the multimodal material emerging during improvisation that go beyond the well-known challenges of musical improvisation and performing with gestural DMIs. The performance probes how a hybrid ensemble processes, acts, and collaborates, as the simultaneous audio-visual triggering enabled by Unrealtime creates new challenges for interpretation and real-time response.



Fig. 1. Clips from live AV improvisations using the Unrealtime software.

2 Project Description

URTEX FRO is an improvisation piece featuring the developer-performers and authors (Ghikas & Herbert) of a novel digital instrument called **Unrealtime** [2]; and, as invited guests, a modular synth performer; acoustic instrumentalists; a poet; and a movement artist. The performance will include real-

time improvised video projection, incorporating prepared and live sampling of audiovisual material, amplified viola, saxophone, DIY electronics, voice, poetry, word art, and movement. The majority of the collaborators belong to a subgroup of the Free Range Orchestra, a Canterbury-based collective of musicians, dancers, and poets focused on improvisation, experimentation, and community collaboration.

URTEX FRO will be a continuation of a previous collaboration between the developers of Unrealttime and the Free Range Orchestra, in which performers explored modes of gestural and textural interaction between Unrealttime's sample-based improvising and acoustic instruments. In the words of the orchestra's co-director Sean Williams, "The collaboration [...] ultimately stimulated us to listen and play in different ways. The ability to experiment with the software during rehearsals enabled many players to gain insight into approaches the laptop performers might often take. Players were able to hear how their own sounds could be manipulated, and this fostered a greater degree of listening during the performance. [...] as a result, the playing style and ability of the orchestra in terms of rhythm and the ability to listen and react to ourselves, mediated through the software, have noticeably improved"

The URTEX FRO performance at NIME 2026 will explore how a hybrid ensemble creatively responds in real time to multimodal stimuli comprising complex layers of sound, video projections, voice, words, and movement. With backgrounds in free improvisation, digital and analogue performance, video art, experimental poetry, and dance, the performers will rehearse to create materials for a performance with an unknown outcome. At the centre of this process will be the Unrealttime digital instrument, which enables simultaneous triggering of audio and video samples.

Unrealttime is a gestural digital instrument for audiovisual performance. Its gesture mapping is engineered to use only a standard mouse-and-keyboard setup to control and manipulate audio and video samples. The software features a visual interface that enables performers to navigate timelines and resequence audiovisual gestures in real time. It provides gestural control with high immediacy and granularity, making it ideal for improvisation. Developed by a team of musicians and academics since 2012, Unrealttime is, in part, an aesthetic approach to improvising, a provocative musical partner, and a digital prosthetic that extends existing instrumental capabilities [3].

Unrealttime provides multimodal output through synchronous triggering of audio and video. Its current design does not support multimodal input via its gestural interface (although this expansion is part of future plans), as the focus has been on simplicity of gestural access, enabling the immediacy required for free improvisation. While Unrealttime's output might not respond to real-time input data from movement, video, and audio, this kind of gestural information has directly influenced the interface design. The authors of Unrealttime are cross-disciplinary artists, filmmakers, and primarily free improvisers, and this experience of working in real time across different modalities continually informs the design of the digital instrument. In academic contexts, Unrealttime could be described as an AV scrubber, re-sequencer, or sample navigator, but at the heart of its design lies experimentation informed by the embodied experience of improvising with acoustic/electric instruments and amplified objects, and by interacting with DIY scenes, where cross-modality is the default mode of performance. Beyond the Free Range Orchestra, artists in London and beyond who have informed the development of Unrealttime

by using or interacting with it include Lauren Hayes, Jennifer Walshe, Scanner, Wobbly, Louis Tabuenca, Nick Roth, Dan Hayhurst, Pavlos Antoniadis, The Chap, Alex Ward, Marina Gioti and Kat Peddie. Iklectik Art Lab and B.AIT WEST in London have provided a welcoming space for much risk-taking, with performances featuring Unrealtime [4].

The accompanying video demonstrates:

- Design concept evolution.
- Development from a complex Max patch with a range of gestural interfaces to a standalone application requiring only a mouse and keyboard.
- Audio improvisation concept and functions.
- Video improvisation functions.
- Extracts from collaborative performances, including those with the Free Range Orchestra.
- Extracts from broadcasts and releases featuring the software.

Unrealtime has also been utilised in educational workshops with participants of all ages.



Fig. 2. The Unrealtime software.

3 Technical Notes

The URTEX FRO ensemble has 6 members:

- 1- Laptop, projector and amplified objects – Dan Herbert
- 2- Laptop, projector and electric viola – Panos Ghikas
- 3- Modular synth – Sean Williams
- 4- Saxophone – Nick Roth
- 5- Word artist – Kat Peddie

6- Movement artist – Kristin Fredricksson

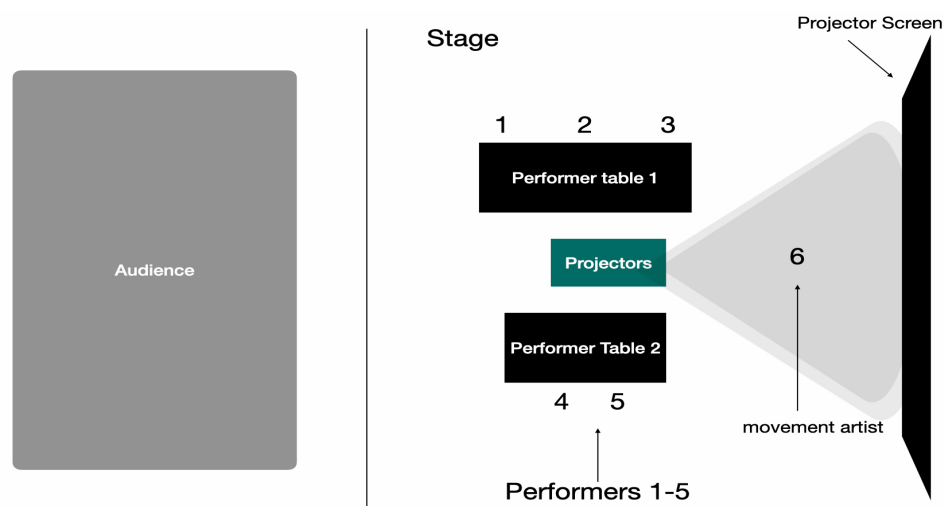


Fig. 3. Proposed stage plan.

4 Media Link

- Video: <https://youtu.be/I5LYlzPV26M?si=-J3DDc2X8nzTC4Fx>

Acknowledgments

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Ethical Standards

This performance complies fully with the NIME Principles and Code of Practice on Ethical Research. All performers participated voluntarily and with informed consent in the activities outlined in this paper. There is no audience participation involved in this work. No conflicts of interest, whether financial or non-financial, have been identified in relation to this project. The project was developed with the support of Canterbury Christ Church University. The Unrealtime software is designed to be accessible and inclusive, operating via a standard computer keyboard and mouse without the need for specialised peripheral hardware. This design facilitates engagement by individuals, schools, and communities across a wide range of socio-economic contexts. The system is also compatible with assistive hardware, enabling participation by partially sighted and blind users. Furthermore, Unrealtime supports environmental sustainability through its lightweight implementation, which runs on standard consumer-grade computers without requiring additional peripherals or high-end processing capabilities. A browser-based version is currently in development, further extending accessibility by enabling use on low-spec devices and in settings with limited financial and technological resources.

References

- [1] P. Ghikas, “Unreal-time improv,” in Collaborative and Distributed Processes in Contemporary Music-Making, L. Redhead and R. Glover, Eds. Newcastle upon Tyne, UK: Cambridge Scholars, pp. 1–9, 2018.
- [2] P. Ghikas and D. Herbert, “Unrealtime Expanded,” in Proceedings of the CHIME Music and HCI Workshop 2023, Milton Keynes, UK: The Open University, p. 14, 2023.
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- [4] P. Ghikas and D. Herbert, “URTEX.” Retrieved from: <https://www.urtex.net/watch> (Accessed: 13 May 2026), 2023.