Owego System Trade Routes: Round Trip

Shawn Lawson¹, Ryan Ross Smith¹, Frank Appio²

¹ Rensselaer Polytechnic Institute, Troy, USA
lawsos2@rpi.edu
ryanrosssmith@gmail.com
² Altamont, USA
frankappio@gmail.com

Abstract. This performance will highlight the AppiOSC, a live interface that enables wireless, bi-directional control between a live coding graphics interface (the_force)¹ and a modular synthesizer. Our intention with the AppiOSC in the context of Owego System Trade Routes: Round Trip is to extend beyond the typical, unidirectional manifestation of interactivity in audio-visual performance, in which the audio signal drives, or influences the graphics, while the graphics signal has little to no direct impact on the audio. With bidirectional control, both the visual and audio artist can explicitly impact the other’s outcome, enabling performative possibilities beyond a unidirectional system.

Keywords: live coding, OpenGL, fragment shader, modular synthesizer, Arduino, control voltage, Owego

Description

Owego System Trade Routes: Round Trip is an extension on the authors’ collection of work titled Owego System Trade Routes. The latter demonstrates the first iteration of the AppiOSC, a hardware and software communication interface that enables the transformation of text within the live coded graphics into musically-useful control voltages that can be sent to the modular synthesizer. The former completes the trip by sampling control voltages from the modular synthesizer, and transmitting these values wirelessly to the live coding interface for usage by the visual performer. Owego System Trade Routes: Round Trip is a performance that incorporates this live communication interface, and will demonstrate how each performer grapples with the unexpected, real-time changes to the functionality of their instrumentation, live coded text or modular synthesizer respectively. By tethering each performer to the other via a constant stream of malleable and often uncontrollable variables, the performers must react and respond in real-time. As each performer reacts with particular modifications to their respective performance device, those changes are immediately reflected back on their counterpart, creating a constantly evolving feedback loop of mediated influence.

¹ See http://shawnlawson.github.io/The_Force/
Biographies

Shawn Lawson

Shawn Lawson is a computational artist and researcher creating the computational sublime.\(^2\) As Obi-Wan Codenobi, he live-codes, real-time computer graphics with his open source software, The Force.

He has performed or exhibited in England, Scotland, Spain, Denmark, Netherlands, Russia, Italy, Korea, Portugal, Brazil, Turkey, Malaysia, Iran, Canada, and the USA. He received grants from NYSCA and the Experimental Television Center, and he has been in residence at CultureHub and Signal Culture.

Lawson studied at CMU and ÉNSBA. He received his MFA in Art and Technology Studies from SAIC. He is an Associate Professor in the Department of Art at RPI.

Ryan Ross Smith

Ryan Ross Smith is a composer and performer currently based in Fremont Center, NY.\(^3\) Smith has performed throughout the US, Europe and UK, including performances at MoMA and PS1 [NYC] and Le Centre Pompidou [Paris, FR], has had his music performed throughout North America, Iceland, Australia and the UK, has presented his work and research at conferences including NIME, ISEA, ICLI, the Deep Listening Conference and Tenor2015, and has lectured at various colleges and universities.

Smith earned his MFA in Electronic Music from Mills College in 2012, and is currently a PhD candidate in Electronic Arts at the Rensselaer Polytechnic Institute in Troy, NY.

Additional Information

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\(^2\) See http://www.shawnlawson.com
\(^3\) See http://www.ryanrosssmith.com
\(^4\) See http://signalculture.org