HPC Advisory Council Announces HPCmusic Subgroup

New subgroup devoted to enhance HPC usage in music creation and to develop HPC cluster solutions that further enable the future of music production

SUNNYVALE, CA. – Dec. 9, 2013 – The HPC Advisory Council, a leading organization for high-performance computing research, outreach and education, today announced the formation of the HPCmusic subgroup, an advanced research project that focuses on the usage of High-Performance Computing (HPC) to enable advancements in music production and creation. The new subgroup is chaired by Antonis Karalis, whom in 2012 received the prestigious HPC Advisory Council University Award for advanced research in the subject area of music in high-performance computing.

Through the advent of 3D and HDR, IMAX Cinema, Dolby Atmos, 6K Cinema and 4K TV with HDMI 2, the industry has created a roadmap for a quality aware audience. A true quality upgrade of the overall cinematic experience is on-going. As such, HPCmusic has created the HPC384 Spec to help keep music production on par with those innovations and to provide the necessary tools, specifications and revolutionary techniques so that music professionals will be able to produce and deliver high quality content to meet the demands and expectations of their audience. In addition, on a Cost per GFLOPS basis, as floating point operations are crucial for audio performance, solutions based off the HPC384 Spec have been shown to be up to 35X more cost-effective compared to industry standard solutions.

“Utilizing the HPC Advisory Council’s computational resources and expertise, we can create HPC solutions, such as the HPC384 Spec, that will better support music
production demands, optimize workflows, and create a set of guidelines that will give foresight on the future of music production and technological developments around it,” said Antonis Karalis, HPCmusic subgroup chairman at the HPC Advisory Council.

“Moreover, we are defining the ‘building blocks’ of the first true supercomputer for music production. The ultimate goal is to define a virtual environment based on a system that is completely transparent from the end-user, and is capable of creating the music of the 21st Century.”

“Using HPC technologies give musicians the necessary bandwidth to work with thousands of tracks, effects and unlimited polyphony in real time, as well as work with advanced physics to model plate reverbs, create evolving non-linear auditorium acoustics and emulate multi-microphone positions that will give sound endless possibilities,” said Gilad Shainer, chairman of the HPC Advisory Council. “Through the work the HPC Advisory Council’s HPCmusic subgroup, we are able to expand the usage and performance potential of HPC in more areas beyond the academic and scientific realm.”

HPCmusic joins the HPC Advisory Council’s large breadth of technology and market-specific subgroups: HPC Scale, HPC Cloud, HPC Works, HPC Storage, HPC GPU, HPC FSI.

Supporting Resources:

- [HPCmusic Subgroup](#)
- Connect with the HPC Advisory Council on [Twitter](#) and [Facebook](#)

About the HPC Advisory Council
The HPC Advisory Council’s mission is to bridge the gap between high-performance computing (HPC) use and its potential, bring the beneficial capabilities of HPC to new users for better research, education, innovation and product manufacturing, bring users the expertise needed to operate HPC systems, provide application designers with the tools needed to enable parallel computing, and to strengthen the qualification and integration of HPC system products. For more information about the HPC Advisory Council, please visit [www.hpcadvisorycouncil.com](http://www.hpcadvisorycouncil.com).

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