MEETING NOTICE & INVITATION
Pacific Northwest Chapter • Society for Information Display

Scalable Smart Displays

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Abstract

 Ultra-large displays for data visualization remain something of a rarity due to expense and complexity. The standard approach to such installations is to drive multiple display modules, whether projectors or flat panels, with CPU/GPU clusters and large bundles of bulky cables. We have attempted to simplify such modular arrays by embedding a substantial amount display processing logic in the display module itself.

This re-partitioning of display processing forces us to examine the full scope of graphics and display technology including the closely related topics of representation, architecture, and interconnection. In this talk we describe our preliminary efforts to define functional representations of graphics primitives and processes for evaluating and composing such functions with logic suitable for modular displays. We also discuss the challenge of defining a scalable architecture that remains viable as display technology evolves.

Smart display modules are a component of Microsoft Research's vX project, an effort to rethink graphical interaction at all levels – from devices to systems to applications and means of interaction. The project's overall goal is to provide the richest possible interactive visual experience by exploiting local processing in rich clients.

Speaker Biography

As a researcher and former manager at Microsoft Research, Turner Whitted has explored topics in hardware devices, HCI, and computer graphics. He was a member of the computer science faculty at the University of North Carolina at Chapel Hill from 1983 until 2001 as well as a cofounder and director of Numerical Design Limited. Prior to that he was a member of the technical staff in Bell Labs' computer systems research laboratory where he introduced the notion of using recursive ray tracing to implement global illumination. He earned BSE and MS degrees from Duke University and a PhD from North Carolina State University, all in electrical engineering. In the past he has served on the editorial boards of IEEE Computer Graphics and Applications and ACM Transactions on Graphics, and was papers chair for SIGGRAPH 97. He is an ACM Fellow and a member of the National Academy of Engineering.

Seminar

The Seminar is free. Please join the speaker for a no-host dinner after the seminar. Directions to the restaurant will be provided at the seminar. Non-Members are welcome. RSVP to Gary Johnson at Gary.Johnson@tek.com or (503) 627-1985. Please indicate if you plan to participate in the dinner.

The Pacific Northwest Chapter of the Society for Information Display was established for the following purposes:

- To support the activities and purposes of SID.
- To encourage and contribute to the scientific and educational advancement in the field of information display and to promote its use.
- To provide forums for the exchange and dissemination of ideas and knowledge relating to the field of information display.

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Directions

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