WICSA 2008 Keynote Speakers

Andrew Brownsword  
*Chief Architect, Electronic Arts*

Joining Electronic Arts in 1990 he was responsible for core runtime libraries and tools to support multi-platform game development throughout the rapidly growing studio. This work included 2D/3D graphics software, communications, asynchronous systems, authoring tools, early 3D hardware drivers, and platform support for multiple platforms. In 1998 Andrew joined the Need For Speed franchise team to lead the transition from C to C++ and to object-oriented data-driven design. Andrew was responsible for key components and architecture, delivered on multiple platforms. In 2004 he transitioned to the new EA BlackBox studio in downtown Vancouver and has been leading an internal shared technology team. As part of this role he has been guiding the transition to the highly concurrent next generation PlayStation3, XBox360 and PC platforms. Andrew has a B.Sc. in Computing Science from UBC.

**Software Architecture in Game Development**

Video games have now existed in various forms for over 30 years, and have evolved from humble beginnings into remarkably complex software projects. The ever present emphasis on an immersive audio/visual experience has put game developers in the position of being on the bleeding edge of exploring the performance of modern consumer hardware. This talk will discuss the elements that make up a contemporary video game, the software processes that are involved in development, key challenges, and look at some important design patterns that form the architectural basis.

Ian Gorton  
*Senior Research Scientist, Pacific Northwest Regional Laboratory*

Dr. Ian Gorton is a senior research scientist in computational and information sciences at the U.S. Department of Energy's Pacific Northwest National Laboratory (PNNL) and is chief architect for PNNL's Data Intensive Computing Initiative. Previously, he was Chief Architect in Information Sciences and Engineering at PNNL and led the software architecture R&D at National ICT Australia (NICTA) in Sydney, Australia. He has also held R&D and consulting positions in Australia at Australian Commonwealth Scientific and Industrial Research Organization (CSIRO), IBM, and Microsoft and consulted on software architecture issues to many large organizations including Fujitsu, Borland, the Australian Stock Exchange, and the Australian Defense Science and Technology Organization.

Ian has published over 100 international journal and conference papers on various aspects of software architecture and component technology. He has recently served as program chair for the International Symposium on Component-Based Software Engineering and the Working International Conference on Software Architecture. He has also written two books; his latest one, Essential Software Architecture, was published by Springer in 2006.