

Proceedings of the IEEE Virtual Reality 2010 Workshop

3rd Workshop on Software Engineering and Architectures for Realtime Interactive Systems (SEARIS@VR2010)

March 21, 2010

Waltham, MA, USA

Workshop Chairs

Marc Erich Latoschik (*Universität Bayreuth, Germany*)

Dirk Reiners (*University of Louisiana, Lafayette, USA*)

Roland Blach (*CC Virtual Environments Fraunhofer IAO Stuttgart, Germany*)

Pablo Figueroa (*Universidad de los Andes, Bogota, Colombia*)

Raimund Dachzelt (*Otto-von-Guericke-Universität Magdeburg, Germany*)

**Marc Erich Latoschik, Dirk Reiners, Roland Blach,
Pablo Figueroa, Raimund Dachsel (Eds.)**

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Internet: www.shaker.de • e-mail: info@shaker.de

Welcome to the Proceedings of the Third Workshop on Software Engineering and Architectures for Realtime Interactive Systems at IEEE VR 2010 (SEARIS@VR2010)

Welcome to SEARIS 2010! We are delighted to rerun this workshop at IEEE VR in Waltham, Massachusetts for the third time, really making it an annual event. We hope this continues to be a place for discussing the state of the art on Software Engineering in our field.

Several approaches have been developed and utilized in the field of Real-time Interactive Systems (RIS) in the past two decades. Virtual, Augmented, Virtualized, in general Mixed Realities, as well as real-time simulation and computer games led to manifold inspiring solutions for RIS developments in research and production. However, it is an ongoing challenge to identify and separate both, novel results and well known solutions in any new system. The goal of this workshop is to analyze and structure the current state-of-the-art in RIS software engineering and architectures. We want to identify common as well as novel paradigms, concepts, methods, and techniques that support technical developments required in this field. A unified presentation of systems will allow us to support research and development in a more efficient way, and will provide a valuable source of information for future developments. The workshop series is an integrated attempt to address the complex issue of RIS development and to summarize the work our community is doing.

SEARIS provides a forum for researchers and practitioners working on the design, development, and support of real-time interactive systems which span from VR, AR, and MR environments to novel Human-Computer-Interaction systems and entertainment applications. After successful SEARIS workshops in 2008 and 2009, the follow-up proceeds to establish a sustainable community shaping a common understanding, deriving common paradigms, developing useful and necessary methods and techniques, and fostering new ideas.

This year's proceedings contain 14 accepted contributions, which add to the ideas and discussions of the community from the past SEARIS Workshop's in 2008 and 2009. All contributions are also available online (<http://www.searis.net>).

Various hot-topics have been identified from the current scientific discussion and have been presented and discussed in different sessions. The contributions could be grouped according to several aspects. In fact, it is one of the workshop's goals to identify such key aspects and many authors are shedding light onto several key issues. We grouped the papers into four main sections:

- Concepts, Methods and Techniques
- Frameworks & Specific Architectures
- Behavior & Dataflow
- Distribution

The target audience for the SEARIS workshop series and its publications are researchers and developers from VR/AR as well as from technically close fields like ambient or pervasive computing and - of course - the computer games community.

We would like to thank all people who made this workshop a reality. First, to the workshop chairs at IEEE VR for their support and willingness to accept our proposal. Next, to all people who submitted papers to this track, either accepted or not. They are the heart and soul of this workshop and the starting point to the discussion we would like to foster. Finally, we also like to thank the attendees of the workshop for their active interest in this research area.

Marc Erich Latoschik (Universität Bayreuth, Germany)

Dirk Reiners (University of Louisiana, Lafayette, USA)

Roland Blach (CC Virtual Environments Fraunhofer IAO Stuttgart, Germany)

Pablo Figueroa (Universidad de los Andes, Bogota, Colombia)

Raimund Dachsel (Otto-von-Guericke-Universität Magdeburg, Germany)

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