Preface

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Biographical notes: Marc Abrams serves as the Chief Technical Officer for Harmonia, Inc., providing technical and business leadership to the company. He was the chief visionary behind the company's original technology, UIML. Dr. Abrams taught at Virginia Tech, where he co-founded the Center for HCI. He also worked with HCI faculty in fields ranging from cognitive psychology to human factors. Dr. Abrams co-organised the 2004 workshop 'Developing User Interfaces with XML: Advances on User Interface Description Languages', held during the Advanced Visual Interfaces (AVI) 2004 conference in Gallipoli, Italy and attended by most of the world's researchers in user interfaces.

Quentin Limbourg has been active in the domain of HCI and software engineering for eight years. His research has been focused on the application of software engineering methods to user interfaces for building better information systems. His PhD thesis (Université Catholique de Louvain, Louvain's School of Management) sets the bases for USIXML description language. Limbourg was invited Researcher at OO-Method Group, Universidade Politecnica de Valencia (UPV); Research Consultant for Harmonia Inc. (USA); and IT

Consultant at the R&D unit of SMALS-MvM. He is now busy with process management projects in the domain of international banking and teaches computer-mediated communication at Université Libre de Louvain (ULB).

Kris Luyten is an Assistant Professor at Hasselt University (Belgium), where he is a member of the research institute Expertise Centre for Digital Media. His research interests are model-based user interface development, HCI engineering for ambient intelligence, user-centred design of complex systems and context-aware user interfaces. Since 2004, he has been a member of the UIML Technical Committee. He has been working on XML-based User Interface Description Languages for embedded and mobile systems since 2001. Luyten obtained both his MSc and PhD in Computer Science from Hasselt University in 2000 and 2004 respectively.

Guido Menkhaus is the Vice President for Product Management of SAF AG, responsible for the product portfolio and the development of SAF products. SAF AG produces forecasting software providing efficient supply chain support and realising optimisation potential along the entire production chain and logistical processes. To attain this goal, SAF combines science and innovative software solutions. In his research, Menkhaus developed methods for adaptive user interface generation in mobile computing environments based on hierarchies of graphs and segmentation techniques. He was involved in the work of investigating the location context in mobile and pervasive computing systems, including analysis of different location-detection strategies.

For many years, Human–Computer Interaction has witnessed a continual race for the ultimate User Interface Description Language (UIDL) that would ideally capture the essence of what a UI could be or should be. In the early 1980s, UI Management Systems (UIMS) were at the root of model-based UI development. UIMS were an important concept defining high-level abstractions on top of low-level concepts. As a result, low-level mechanisms and implementation details could be abstracted away. UIMSs enabled UI developers to write specifications with high-level specification languages. Subsequently, in the late 1990s, new classes of devices for accessing services on the web emerged. Because of this diversity of devices, model-based UI authoring gained importance and allowed designers to specify the different aspects of the UI separately. XML appeared as a natural choice to capture the specification of this wide variety of UIs. A new family of UIDLs was born, which seeks the achievement of the following goals:

- capturing UI requirements for an abstract definition that remains stable across different deployment contexts
- making a single UI design for multiple devices, modalities, platforms and appliances
- improving the reusability of UI design
- supporting evolution, extensibility and adaptability of the UI
- using a UI description to enable automated generation of UI code.

The UIDL research area has reached a degree of maturity demonstrating sound roots and extensive development. The proliferation of ideas, concepts and solutions proposed around UIDLs is a space that needs to be explored and debated. This special issue of the *International Journal of Web Engineering and Technology* provides the seed of such a space.

Programme Committee