

# Proceedings of VISSOFT 2013

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First IEEE Working Conference on Software Visualization (VISSOFT)

September 27-28, 2013 — Eindhoven, the Netherlands

**Editors**

**Alexandru Telea, Andreas Kerren, Andrian Marcus**

**Sponsored by**

IEEE Computer Society  
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## **2013 First IEEE Working Conference on Software Visualization (VISSOFT)**

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## Message from the Chairs

Welcome to the 1<sup>st</sup> IEEE International Working Conference on Software Visualization (VISOFT 2013) in Eindhoven, The Netherlands. This conference resulted from the recent merger of the ACM Symposium on Software Visualization (Softvis) and the IEEE International Workshop on Visualizing Software for Understanding and Analysis (VISOFT). As such, VISOFT 2013 carries and refines the tradition of its predecessors by focusing specifically on visualization techniques that draw on aspects of software maintenance, software evolution, program comprehension, reverse engineering, and reengineering. For its first year, VISOFT is collocating with the 29<sup>th</sup> IEEE International Conference on Software Maintenance (ICSM). Both events are hosted by the Eindhoven University of Technology, the Netherlands. We hope you will enjoy the location as much as the conference.

VISOFT 2013 is the result of a long effort undertaken by many people. The Organizing Committee includes: Alexandru Telea (general chair); Andreas Kerren and Andrian Marcus (program co-chairs); Stephan Diehl and James Jones (NIER and tool demo track co-chairs); and Jonas Trümper (publicity and web chair). The Program Committees for the tracks include 31 people and 21 additional reviewers who contributed to the review process. The names of these volunteers are listed on the following pages. We want to thank all of them for their great work, constructive reviews, and contributions. VISOFT would not exist without the effort of such people.

We also thank the technical sponsors of the conference, the IEEE Computer Society and the IEEE Technical Council on Software Engineering, for their sustained help and support. We extend our thanks to Alexander Serebrenik, the general chair of ICSM 2013, for his invaluable support that made the co-location of VISOFT with ICSM possible. We believe that this co-location will strongly foster the exchange of novel ideas, use-cases, and solutions related to software visualization between their producers (visualization researchers) and consumers (software professionals).

Last but not least, we thank the VISOFT steering committee for their help and advice with the organization of the conference.

The VISOFT 2013 program includes nine full-length research papers. These were selected from 20 submissions, submitted by 62 authors from 15 countries. Each paper was reviewed by at least four members of the Program Committee that consisted of 24 members from six countries. Additionally, 11 external reviewers helped the PC with the reviews. The reviews were lively discussed online for one week and final decisions were made based on the reviews and discussions.

The New Ideas and Emerging Results (NIER) Track features 15 papers that present novel, promising ideas in software visualization. The Tool Demo Track includes seven tool demonstration papers. We also feature a tool demo session, during which tool papers will be formally demonstrated to the public. Along

these, tools and techniques presented in the other papers accepted at VISSOFT are informally demonstrated.

We are pleased to announce a keynote talk by a high-profile researcher in information visualization - Prof. Jarke J. van Wijk from the Eindhoven University of Technology, who will discuss the grand open challenges in information visualization that also affect our software visualization application field.

We hope you will have a great time and an unforgettable experience at VISSOFT 2013.

**Alexandru C. Telea**

VISSOFT 2013 General Chair  
University of Groningen, The Netherlands

**Andreas Kerren**

VISSOFT 2013 Program Co-Chair  
Linnaeus University, Växjö, Sweden

**Andrian Marcus**

VISSOFT 2013 Program Co-Chair  
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## **Additional Reviewers**

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# Keynote Talk: Information Visualization: Experiences and lessons learned

**Jarke J. van Wijk**

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## Abstract

The visualization group of TU/e has worked on information visualization since 1998. In this talk I will give an overview of our work on tree, graph, and multivariate visualization, for a variety of applications, including software visualization. Techniques like cushion treemaps, squarified treemaps, hierarchical edge bundles, and flexible linked axes will be illustrated with demos. Furthermore, I will reflect on approaches for the development of new presentations and dealing with evaluation, based on our experience and lessons we learned.

## Presenter Biography

Jarke van Wijk is professor in visualization at the Eindhoven University of Technology (TU/e), the Netherlands. His research focuses on information visualization, visual analytics, and mathematical visualization. His background is in computer graphics and geometric modeling. He holds a MSc degree in industrial design engineering and a Ph.D. in Computer Science from Delft University, the Netherlands. Before joining TU/e, he has worked at the Netherlands Energy Research Foundation ECN. He is cofounder and VP Scientific Affairs of MagnaView BV. Jarke has been paper co-chair for IEEE Visualization (2003, 2004), IEEE InfoVis (2006, 2007), IEEE VAST 2009, IEEE PacificVis 2010 and EG/IEEE EuroVis 2011. He received the IEEE Visualization Technical Achievement Award in 2007 and the Eurographics Outstanding Technical Contributions Award in 2013.