

Proceedings

2008 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)

VL/HCC 2008

15-19 September 2008
Herrsching am Ammersee
Germany



ISBN: 978-1-4244-2528-0

IEEE Catalog Number: CFP08060-PRT

Proceedings

VL/HCC 2008

Table of Contents

Foreword	viii
Conference Committees	x
Extra Reviewers	xii
Sponsors	xiii

Workshops

Layout of (Software) Engineering Diagrams	3
<i>Andrew Fish, Harald Störrle</i>	
Sketch Tools for Diagramming	4
<i>Beryl Plimmer, Tracy Hammond</i>	

Keynotes

Visualization for Information Exploration and Analysis	7
<i>John Stasko</i>	
Model Driven Development with Mechatronic UML	9
<i>Wilhelm Schäfer</i>	

Visualization and Animation

Exploring the Evolution of Software Quality with Animated Visualization	13
<i>Guillaume Langelier, Houari Sahraoui, Pierre Poulin</i>	
Flexible Visualization of Automatic Simulation based on Structured Graph Transformation	21
<i>Enrico Biermann, Claudia Ermel, Jonas Hurrelmann, Karsten Ehrig</i>	

End-User Programming I

What's in a mashup? And why? Studying the perceptions of web-active end users	31
<i>Nan Zang, Mary Beth Rosson</i>	
End-User Programming in the Wild: A Field Study of CoScripter Scripts	39
<i>Christopher Bogart, Margaret Burnett, Allen Cypher, Christopher Scaffidi</i>	
Using Scalable Game Design to Promote 3D Fluency: Assessing the AgentCubes Incremental 3D End-User Development Framework	47
<i>Andri Ioannidou, Alexander Repenning, David Webb</i>	

Supporting Professional Programmers

Can Information Foraging Pick the Fix? A Field Study	57
<i>Joseph Lawrance, Rachel Bellamy, Margaret Burnett, Kyle Rector</i>	
Codetrail: Connecting Source Code and Web Resources	65
<i>Max Goldman, Robert C. Miller</i>	
Tool Support for Working with Sets of Source Code Entities	73
<i>Curtis Fraser, Chris Luce, Jamie Starke, Jonathan Sillito</i>	
Analyzing a Socio-Technical Visualization Tool Using Usability Inspection Methods	78
<i>Erik Trainer, Stephen Quirk, Cleidson de Souza, David Redmiles</i>	
Towards the Next Generation of Bug Tracking Systems	82
<i>Sascha Just, Rahul Premraj, Thomas Zimmermann</i>	
The Design and Experimental Evaluation of a Tool to Support the Construction and Wizard-of-Oz Testing of Low Fidelity Prototypes	86
<i>Christopher Hundhausen, Stephen Trent, Anzor Balkar, Mohamed Nuur</i>	

Domain-Specific Languages

EulerView: article organisation within the ACM Classification	93
<i>Rosario De Chiara, Andrew Fish</i>	
A Visual Language for Representing and Explaining Strategies in Game Theory	101
<i>Martin Erwig, Eric Walkingshaw</i>	
A Domain Specific Visual Language for Design and Coordination of Supply Networks	109
<i>John Hosking, Nikolay Mehandjiev, John Grundy</i>	
Visual Programming Language for Bit-Level Concurrent Programming: APECbits	113
<i>Takashi Ajiro, Kensei Tsuchida</i>	
FlatCAD and FlatLang: Kits by Code	117
<i>Gabe Johnson</i>	

Visual Programming Tools

Dimension Inference in Spreadsheets	123
<i>Chris Chambers, Martin Erwig</i>	
Test-Driven Goal-Directed Debugging in Spreadsheets	131
<i>Robin Abraham, Martin Erwig</i>	
Unobtrusive Data Acquisition for Spreadsheet Research	139
<i>Brian Bishop, Kevin McDaid</i>	
Mashing up Visual Languages and Web Mash-ups	143
<i>M. Cameron Jones, Elizabeth F. Churchill, Michael B. Twidale</i>	

End-User Programming II

Can Feature Design Reduce the Gender Gap in End-User Software Development Environments?	149
<i>Valentina Grigoreanu, Jill Cao, Todd Kulesza, Christopher Bogart, Kyle Rector, Margaret Burnett, Susan Wiedenbeck</i>	
Enabling End-User Driven Business Process Composition through Programming by Example in a Collaborative Task Management System	157
<i>Todor Stoitsev, Stefan Scheidl, Felix Flentge, Max Mühlhäuser</i>	
End-User Development for Task Management: Survey of Attitudes and Practices	166
<i>Nikolay Mehandjiev, Todor Stoitsev, Olaf Grebner, Stefan Scheidl, Uwe Riss</i>	

Understanding and Supporting Designers

How Designers Design and Program Interactive Behaviors	177
<i>Brad Myers, Sun Young Park, Yoko Nakano, Greg Mueller, Andrew Ko</i>	
Designers' Natural Descriptions of Interactive Behaviors	185
<i>Sun Young Park, Brad Myers, Andrew Ko</i>	
A Case Study of API Redesign for Improved Usability	189
<i>Jeffrey Stylos, Benjamin Graf, Daniela K. Busse, Carsten Ziegler, Ralf Ehret, Jan Karstens</i>	
Usability Challenges for Enterprise Service-Oriented Architecture APIs	193
<i>Jack Beaton, Sae Young Jeong, Yingyu Xie, Jeffrey Stylos, Brad Myers</i>	
Coordinated Queries: A Domain Specific Language for Exploratory Development of Multiview Visualizations	197
<i>Chris Weaver</i>	

Modeling and Graphs

A model-driven approach for the visual specification of Role-Based Access Control policies in web systems	203
<i>Paloma Díaz, Ignacio Aedo, Daniel Sanz, Alessio Malizia</i>	

Generic and Reflective Graph Transformations for the Checking and Enforcement of Modeling Guidelines . . .	211
<i>Carsten Amelunxen, Elodie Legros, Andy Schürr</i>	
Design-time Simulation of Domain-Specific Models by Incremental Pattern Matching	219
<i>István Ráth, Dávid Vágó, Dániel Varró</i>	

Tools for Interaction Design

The Design of Khmer Word-based Predictive Non-QWERTY Soft Keyboard for Stylus-based Devices	225
<i>Phavy Ouk, Ye Kyaw Thu, Mitsuji Matsumoto, Yoshiyori Urano</i>	
SpeechGraph - A Visual Programming Toolkit for speech-enabled Applications	233
<i>Ednaldo B. Pizzolato, Agostinho Barone Ribeiro da Silva</i>	
Collaborative End-User Development on Handheld Devices	237
<i>Navid Ahmadi, Alexander Repenning, Andri Ioannidou</i>	
Auto-completion for Diagram Editors based on Graph Grammars	242
<i>Steffen Mazanek, Sonja Maier, Mark Minas</i>	
How Can Diagramming Tools Help Support Programming Activities?	246
<i>Seonah Lee, Gail C. Murphy, Thomas Fritz, Meghan Allen</i>	

Graduate Student Consortium

Expanding the Benefits of Computational Thinking to Diverse Populations: Graduate Student Consortium	253
<i>John F. Pane, Susan Wiedenbeck</i>	
The Design of an Asynchronous Web-Based Project Review System to Support Studio-Based Learning in Computing Education	254
<i>Anukrati Agrawal, Christopher D. Hundhausen</i>	
Towards End-User Web Software Visualization	256
<i>Craig Anslow, James Noble, Stuart Marshall, Ewan Tempero</i>	
Development of Techniques for Sketched Diagram Recognition	258
<i>Rachel Blagojevic, Beryl Plimmer, John Grundy, Yong Wang</i>	
Rhetorical End-User Programming	260
<i>Christopher Bogart</i>	
Diagrams and Intuitive Formal Specifications	262
<i>James Burton</i>	
Improving Experiences of Computation	264
<i>Luke Church</i>	
Developing Drawing and Visual Thinking Strategies to Enhance Computer Programming for People with Dyslexia	266
<i>Peter Coppin</i>	
Augmenting Spatial Information Processing for 3-D Visualization	268
<i>Peter Khooshabeh</i>	

End-User Programming to Support Classroom Activities on Small Devices	270
<i>Craig Prince</i>	
Connecting the Social and Technical Aspects of Computing with Visualization	272
<i>Erik H. Trainer</i>	
Designing Explanation-Oriented Languages	274
<i>Eric Walkingshaw</i>	
Mashups for the web-active user	276
<i>Nan Zang</i>	
Author Index	279