

Proceedings

AGILE 2006

23-28 July 2006 • Minneapolis, Minnesota

Conference presented by
Agile Alliance

Editors

Joseph Chao, Mike Cohn, Frank Maurer
Helen Sharp, James Shore

Event Sponsors

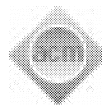
Rally Software (Title Sponsor), Valtech, Object Mentor, Inc.,
IBM, Microsoft, Net Objectives, Digital Focus,
Version One, Aito, Mountain Goat Software, Pyxis

Media Sponsors

Software Development, Better Software, IEEE Software

In cooperation with

Association for Computing Machinery, DSDM Consortium,
Agile Project Leadership Network, Scrum Alliance



Los Alamitos, California

Washington • Tokyo

Copyright © 2006 by The Institute of Electrical and Electronics Engineers, Inc.
All rights reserved.

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries may photocopy beyond the limits of US copyright law, for private use of patrons, those articles in this volume that carry a code at the bottom of the first page, provided that the per-copy fee indicated in the code is paid through the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

Other copying, reprint, or republication requests should be addressed to: IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, P.O. Box 133, Piscataway, NJ 08855-1331.

The papers in this book comprise the proceedings of the meeting mentioned on the cover and title page. They reflect the authors' opinions and, in the interests of timely dissemination, are published as presented and without change. Their inclusion in this publication does not necessarily constitute endorsement by the editors, the IEEE Computer Society, or the Institute of Electrical and Electronics Engineers, Inc.

IEEE Computer Society Order Number P2562
ISBN-13: 978-0-7695-2562-4
ISBN-10: 0-7695-2562-8
Library of Congress Number 2006920862

Additional copies may be ordered from:

IEEE Computer Society
Customer Service Center
10662 Los Vaqueros Circle
P.O. Box 3014
Los Alamitos, CA 90720-1314
Tel: + 1 800 272 6657
Fax: + 1 714 821 4641
<http://computer.org/cspress>
csbooks@computer.org

IEEE Service Center
445 Hoes Lane
P.O. Box 1331
Piscataway, NJ 08855-1331
Tel: + 1 732 981 0060
Fax: + 1 732 981 9667
[http://shop.ieee.org/store/
customer-service@ieee.org](http://shop.ieee.org/store/customer-service@ieee.org)

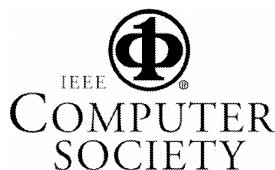
IEEE Computer Society
Asia/Pacific Office
Watanabe Bldg., 1-4-2
Minami-Aoyama
Minato-ku, Tokyo 107-0062
JAPAN
Tel: + 81 3 3408 3118
Fax: + 81 3 3408 3553
tokyo.ofc@computer.org

Individual paper REPRINTS may be ordered at: reprints@computer.org

Editorial production by Stephanie Kawada

Cover art production by Joe Daigle/Studio Productions

Printed in the United States of America by The Printing House



IEEE Computer Society
Conference Publishing Services

<http://www.computer.org/proceedings/>

Proceedings



AGILE 2006

Table of Contents

Message from the Program Committee Chairs	x
Research Papers Program Committee	xi
Additional Reviewers	xii
Experience Reports Committee	xiii
Educators' Symposium Committee	xiv

RESEARCH PAPERS

Introduction: Agile 2006 Research Papers	3
<i>Frank Maurer and Grigori Melnik</i>	

Agile Value and Estimation

AgileEVM—Earned Value Management in Scrum Projects	7
<i>Tamara Sulaiman, Brent Barton, and Thomas Blackburn</i>	

Earned Value and Agile Reporting	17
<i>Anthony Cabri and Mike Griffiths</i>	

An Empirical Study of Using Planning Poker for User Story Estimation	23
<i>Nils C. Haugen</i>	

Test-Based Specifications and Refactoring

Executable Acceptance Tests for Communicating Business Requirements: Customer Perspective	35
<i>Grigori Melnik, Frank Maurer, and Mike Chiasson</i>	

On Agile Performance Requirements Specification and Testing	47
<i>Chih-Wei Ho, Michael J. Johnson, Laurie Williams, and E. Michael Maximilien</i>	

Refactoring with Contracts	53
<i>Maayan Goldstein, Yishai A. Feldman, and Shmuel Tyszberowicz</i>	

Cognitive Aspects of Customer Communication

The Role of Story Cards and the Wall in XP Teams: A Distributed Cognition Perspective.....	65
<i>Helen Sharp, Hugh Robinson, Judith Segal, and Dominic Furniss</i>	

A Case Study on the Impact of Customer Communication on Defects in Agile Software Development	76
<i>Mikko Korkala, Pekka Abrahamsson, and Pekka Kyllönen</i>	

Reflections on Agile Approaches

Critical Personality Traits in Successful Pair Programming.....	89
<i>Joseph Chao and Gulgunes Atli</i>	

What Lessons Can the Agile Community Learn from a Maverick Fighter Pilot?	94
<i>Steve Adolph</i>	

Reflections on Reflection in Agile Software Development.....	100
<i>David Talby, Orit Hazzan, Yael Dubinsky, and Arie Keren</i>	

Agile Stories

The Deployment Production Line.....	113
<i>Jez Humble, Chris Read, and Dan North</i>	

The Cost of Code Quality	119
<i>Yuri Khramov</i>	

Appropriate Agile Measurement: Using Metrics and Diagnostics to Deliver Business Value	126
<i>Deborah Hartmann and Robin Dymond</i>	

EXPERIENCE REPORTS

Introduction: Experience Reports	135
<i>James Shore</i>	

Depth of Experience

The Agile Marathon.....	139
<i>Bob Schatz and Ibrahim Abdelshafi</i>	

Formalizing Agility, Part 2: How an Agile Organization Embraced the CMMI.....	147
<i>Steven W. Baker</i>	

A Tale of Two Projects.....	155
<i>Rod Coffin</i>	
Planning	
The Pairing Session as the Atomic Unit of Work.....	165
<i>Troy Frever and Paul Ingalls</i>	
Multiple Simultaneous Projects with One eXtreme Programming Team.....	170
<i>Jason Nocks</i>	
Value Based Extreme Programming.....	175
<i>Monica Yap</i>	
Large Companies	
Ssh! We Are Adding a Process....	185
<i>Mark Striebeck</i>	
Agile Coaching in British Telecom: Making Strawberry Jam.....	194
<i>Sean Hanly, Laura Waite, Linsley Meadows, and Roger Leaton</i>	
Something to Believe In	203
<i>Jeff Honious and Jonathan Clark</i>	
Change Agency	
What Are We Arguing About? A Framework for Defining Agile in Our Organization	213
<i>Kelly Weyrauch</i>	
Trouble in Paradise: The Open Source Project PyPy, EU-Funding and Agile Practices.....	221
<i>Beatrice Düring</i>	
Introducing Lean Principles with Agile Practices at a Fortune 500 Company	232
<i>Emma Parnell-Klabo</i>	
Guerilla Agile	
T3—Tool for Monitoring Agile Development	243
<i>Valerie Trapa and Santhpur Rao</i>	
Optimizing Major Release Frequency Using Agile Practices.....	249
<i>Mara Yale</i>	
Three-Way Cultural Change: Introducing Agile within Two Non-agile Companies and a Non-agile Methodology	255
<i>Richard Lawrence and Blas Yslas</i>	

Developer Practices

Adventures in Promiscuous Pairing: Seeking Beginner’s Mind.....	263
<i>Mitch Lacey</i>	
Automating Functional Tests Using Selenium	270
<i>Antawan Holmes and Marc Kellogg</i>	
Presenter First: Organizing Complex GUI Applications for Test-Driven Development.....	276
<i>Micah Alles, David Crosby, Carl Erickson, Brian Harleton, Michael Marsiglia, Greg Pattison, and Curt Stienstra</i>	

Whole Team

Adding Usability Testing to an Agile Project.....	289
<i>Gerard Meszaros and Janice Aston</i>	
A Tale of Two Writing Teams.....	295
<i>Stacia Heimgartner and Melody Locke</i>	
How Not to Do Agile Testing.....	305
<i>Michael Puleio</i>	

Distributing/Scaling

How BMC Is Scaling Agile Development	315
<i>Israel Gat</i>	
Lessons Learned from an eXtremely Distributed Project.....	321
<i>Ben Hogan</i>	
Offshore Agile Maintenance.....	327
<i>Naresh Jain</i>	

Learning Agile

Agile Project Initiation Techniques—The Inception Deck and Boot Camp.....	337
<i>Jonathan Rasmusson</i>	
A Self Funding Agile Transformation	342
<i>Daniel Poon</i>	
Embedded Agile Project by the Numbers with Newbies.....	351
<i>Nancy Van Schooenderwoert</i>	

Agile Value

Using an Agile Approach in a Large, Traditional Organization.....	367
<i>Dot Tudor and George A. Walter</i>	

Extreme Selling in the Early Stage Space	374
<i>Wade A. Lee and Gareth Powell</i>	

EDUCATORS' SYMPOSIUM

Introduction: Educators' Symposium Overview	383
<i>Joseph Chao</i>	
Extreme Construction: Making Agile Accessible.....	384
<i>Joseph Bergin and Fred Grossman</i>	
Forming Successful eXtreme Programming Teams	390
<i>Alan Gray, Andrew Jackson, Ioanna Stamouli, and Shiu Lun Tsang</i>	
The Impact of Agility on a Bachelor's Degree in Computer Science.....	400
<i>Carol Wellington, Thomas Briggs, and C. Dudley Girard</i>	
Using Agile Management to Share Course Projects among Multiple Classes	405
<i>Michael Wainer</i>	
Examining the Compatibility of Student Pair Programmers	411
<i>Laurie Williams, Lucas Layman, Jason Osborne, and Neha Katira</i>	
Teaching Agile—Agile Teaching: Creating a Holistic Learning Environment.....	421
<i>Fred Grossman, Joe Bergin, and Rinaldo DiGiorgio</i>	
Give It Your Best Shot: Favorite Lectures from Agile Teachers.....	423
<i>Moderators/Organizers: Joseph Chao and Gary Pollice</i>	
<i>Panelists: Robert C. Martin, Gary Pollice, Tom Reichlmayr, and Alan Shalloway</i>	
Author Index	425