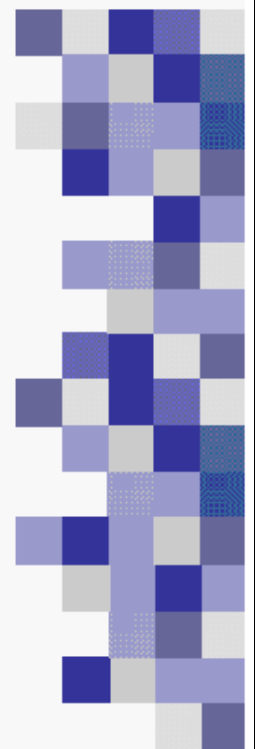
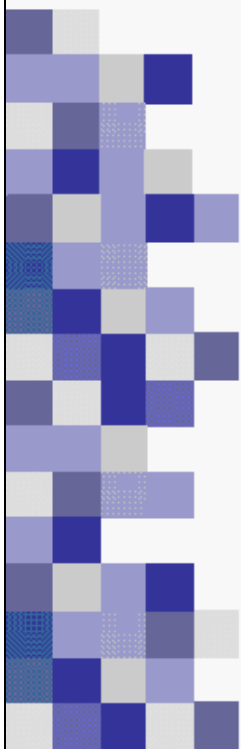


+++ Preliminary Program RE'02+++

IEEE JOINT INTERNATIONAL

REQUIREMENTS ENGINEERING CONFERENCE



September 09–13, 2002

UNIVERSITY OF ESSEN, GERMANY



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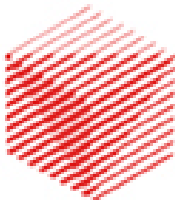
Cooperating Societies



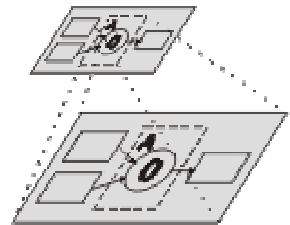
IFIP Working Group 2.9



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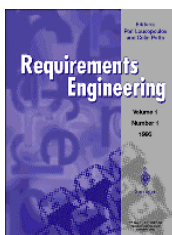
Fraunhofer Institut Experimentelles Software Engineering



GI-FG 2.1.6 Requirements Engineering



British Computer Society



Springer Verlag: RE Journal



University of Namur

Welcome to RE'02

With RE '02 we celebrate the foundation of the flagship conference in the area of requirements engineering, the IEEE Intl. Requirements Engineering Conference (RE) resulting from the “unification” of the former IEEE Intl. Conference on RE (ICRE) and the IEEE Intl. Symposium on RE (RE). The main conference runs from Wednesday, 11th September till Friday, 13th September.

Prior to the main programme, there are two days of tutorial and workshops. Four full-day tutorials and six half days tutorials teach important RE topics. Five RE-related workshops and a doctoral symposium provide a forum for discussing research results and novel ideas.

Program Highlights

The keynote speakers cover three different facets of requirements engineering :

- On Wednesday morning, Wojtek Kozaczynski will explore the software engineering facet by discussing dependencies between architectures, requirements and risks.
- On Wednesday afternoon, Frank Schönthaler will tackle the business process facet emphasizing the importance of risk management in business requirements engineering.
- On Thursday morning, John Carroll will address the HCI facet and discuss the most appropriate circumstances under which scenarios are effective in design.

The research paper track includes 24 papers grouped in 8 different sessions. The following topics are covered: use cases, goals, product lines, RE processes, validation, change management, component reuse, RE and design.

The experience paper track comprises three sessions where 9 papers are presented. Those papers will report on case reports, success and failure stories and empirical studies. These presentations will be of interest for a broad audience of researchers and practitioners.

The industrial presentations track complements the experience paper track with industrial talks dealing with descriptions, exploitation, deployment, comparisons, and evaluations of different RE solutions applied in different fields 15 industrial presentations are grouped in 5 sessions that stimulate the exchange between industry and research

The vision paper session is a new type of session in the RE program that will help in the exploration of the RE future. This session will take place on Thursday afternoon. It includes 3 paper presentations, each followed by a controversy statement by an assigned discussant.

Research demos track on Thursday includes presentations by the research presenters as well as an research demo exhibition running Thursday afternoon.

The tool vendor and publisher exhibition is open all day on Wednesday and Thursday and features 14 companies with tools, services and books related to RE. In addition, exhibitors will give tool presentations in two sessions held on Wednesday.

On Thursday, the program will start with prizes for the Best Research and Experience Papers.

All vision, research and experience papers are printed in full in the conference proceedings, published by IEEE Computer Society Press. These proceedings also include a one page abstract for industrial presentations. Separate proceedings include the copy of presented slides of industrial talks.

The Venue

The conference is being held on the main campus of the University of Essen (see detail plans in the back of this program). All lecture halls and seminar rooms used for the conference are clearly signposted. Coffee breaks will be served in the new lecture hall building (Audimax) in the exhibition area. Lunches will be served in the student cafeteria (mensa). The registration and information desk, located in the lower floor of the new lecture hall building, will be opened from Monday till Friday from 8.30 – 17.00.

Social Events

Welcome Reception: On Tuesday an informal reception will be held in exhibition area. Besides enjoying the refreshments provided, you will have a opportunity to browse through the exhibitions and to informally meet conference and pre-conference participants.

Conference Dinner and Guided Tour at Zeche Zollverein: On Wednesday the Conference Dinner will be held at “Zeche Zollverein” which was a large coal mining and coal processing plant. The dinner will be served in the hall where the raw coal was sorted according quality and size. Prior to the conference dinner, a guided tour is offered especially for conference participants, which will show and explain the various facilities of this large plant.

The tour is highly recommended since a hands on experience of the coal industry is given which is impossible in a running plant. The tour will have English speaking guides and will last for ca 1,5 hours. Zeche Zollverein started operations in 1932. It has a special architecture and had the most up to date equipment of that time. In this period Zollverein in Essen was the largest coal mining and processing plant in the world. The plant finished its operations in the coal business in 1986 and while some of the machinery was dismantled, the entire area was reconstructed as an industrial monument. Most of the buildings and the remaining machines are still in place and can be visited. Due to the unique typical architecture and its size and also due to its significance for coal industry in general, Zeche Zollverein was awarded UNESCO World Heritage beginning this year.

Organization: Note, you have to register for the conference and for the guided tour. Bus services will be provided after the last session on Wednesday (around 17.00) to Zeche Zollverein, starting from the parking area behind the Audimax. Busses will also bring you back to your hotel after the conference dinner. If you want to leave earlier, a tram is running in front of Zeche Zollverein to the city center of Essen.

“Party” at Stauder Brewery: On Thursday an informal get together with music and buffet will be held in the rooms and halls of the Stauder Brewery. This is close to the actual beer production! The Stauder Brewery, founded in 1867, is one of the last breweries in private ownership and offers a scenic flavor of the way beer is produced for the regional market. Enjoy the local beer and the buffet provided while talking to each other or listening to the music.

Again, bus transfer will be provided to the Stauder Brewery and back to the City Center. Bus transfer will start at 19:30 from the parking area behind the Audimax.

We hope you'll enjoy the conference, and have at least a little time to explore the “*Ruhrgebiet*”

PC Co-Chair

Klaus Pohl,
University of Essen, Germany

Organization Chair

Michael Goedicke,
University of Essen, Germany

Keynote Addresses

Wojtec Kozaczynski, Rational Inc., USA Requirements,

Architectures and Risks (Wed. 9:00 – 10:30)

Even experienced teams often find it difficult to identify and isolate the architecturally significant requirements, accurately pinpoint key risk and address both with a good architectural design.



Wojtek (Voytek) Kozaczynski, Ph.D. is the Director of Architectures & Application Frameworks at Rational where he is leading development of software frameworks. He has over 20 years of software development experience including work in architectures, software composition, large-scale software reuse and software tools and processes

Frank Schönthaler, PROMATIS AG, Germany

Risk Management in Challenging Business Software Projects (Wed. 14:00 – 15:30)

Today's business processes are dealing with sophisticated business-to-business relationships and complex software integrations leading to a high risk of project failure. Experience shows that a significant risk reduction if Risk Management is systematically applied.



Dr. Frank Schönthaler worked in Information Systems and Business Engineering with special emphasis (PhD word) on information system development based on rapid prototyping. In 1990 he founded PROMAIS and worked as a senior consultant, trainer and project manager for PROMATIS early customer projects. Now as President and CEO he keeps all team members focused on the PROMATIS vision of delivering best-in-class software products and solutions.

John Carroll, Virginia Tech, USA

Scenarios and Design Cognition (Thu. 9:00 – 10:30)

Scenarios of human activity are widely used in the design of computer systems and software. This can be understood in terms of design cognition: Scenarios support and enhance the solution-first strategy, typical of expert problem-solving in planning and design



John Carroll is Professor of Computer Science, Education, and Psychology, and Director of the Center for Human-Computer Interaction all at Virginia Tech. His research is in methods and theory for human-computer interaction, particularly as applied to tools for collaborative learning and problem solving. His books include *Making use* (MIT Press, 2000), *HCI in the New Millennium* (Addison-Wesley, 2002), and *Usability Engineering* (Morgan-Kaufman, 2002). He received the Rigo Award from ACM, the Silver Core Award from IFIP, and was elected to the CHI Academy

Monday Program

Workshops

09:00 – 17:30

Workshop 1: REFSQ

Requirements Engineering: Foundation for Software Quality

Camille Salinesi, Université Paris, Panthéon Sorbonne, France

Björn Regnell, Lund University, Sweden

Workshop 2: RELP

Requirements Engineering for Product Lines

Birgit Geppert, Avaya Labs, New Jersey, USA

Klaus Schmid, Fraunhofer IESE, Kaiserslautern, Germany

Workshop 3: RHAS

Requirements for High Assurance Systems

Connie Heitmeyer, Naval Research Labs, USA

Nancy R. Mead, Software Engineering Institute, Carnegie Mellon University, USA

Workshop 4: TCRE

Time-Constrained Requirements Engineering

Armin Eberlein, University of Calgary, Canada

Sol Greenspan, Consultant, USA

Julio Leite, Pontificia Universidade Católica do Rio de Janeiro, Brazil

Workshop 5: RE für Auftraggeber /-nehmer Mgmt.

Requirements Engineering für Auftraggeber- / Auftragnehmer-Management

Barbara Paech, Fraunhofer IESE, Kaiserslautern, Germany

Full Day Tutorials

09:00 – 17:30

T1 - Full Day Tutorial: JERM

Just Enough Requirements Management

Al Davis, University of Colorado and Omni-Vista, Inc

T2 - Full Day Tutorial: Security

Security Risk Management and Requirements Engineering

Jonathan Moffett, York University, England

Tuesday Program

Workshops

09:00 – 17:30

Workshop 1: REFSQ, ctn.

Camille Salinesi, Université Paris, Panthéon Sorbonne, France

Björn Regnell, Lund University, Sweden

Full Day Tutorials

09:00 – 17:30

T3 - Full Day Tutorial: Agile RE

Agile Requirements Engineering

Petra Becker-Pechau, Holger Breitling, University of Hamburg

Stefan Roock, Apcon Workplace Solutions GmbH, Germany

T4 - Full Day Tutorial: User Driven Design

USER DRIVEN DESIGN

Donald Gause, State University of New York/Binghamton, USA

Half Day Tutorials

09:00 – 12:30

T5 - Half Day Tutorial: Use Cases and OO-Mod.

Reconciling Requirements, Use Cases and Object-Oriented Modeling

Hermann Kaindl, Siemens AG Österreich, PSE, Austria

T6 - Half Day Tutorial: The “Right” Req. Elicitation

Learn How to Select the "Right" Requirements Elicitation Technique

Al Davis, Ann Hickey, University of Colorado, USA

T7 - Half Day Tutorial: EasyWinWin

A Groupware-Supported Methodology For Requirements Negotiation

Paul Grünbacher, Johannes Kepler University Linz, Austria

Robert O. Briggs, University of Arizona & GroupSystem.com, USA

14:00 – 17:30

T8 - Half Day Tutorial: Creativity in RE

Creativity, the Path to Innovative Requirements

Suzanne Robertson, Atlantic Systems Guild, USA

Neil Maiden, City University London, England

T9 - Half Day Tutorial: Non-functional Req.

Non-functional requirements: from elicitation to modeling

Julio Leite, PUC-Rio de Janeiro, Brazil

T10 - Half Day Tutorial: Formal Modeling

Introduction to Formal Modeling

Steve Easterbrook, University of Toronto, Canada

Wednesday Program

08:30 – 09:00

BERLIN

Welcome to RE'02

Opening Remarks from the Chair

09:00 – 10:30

BERLIN

Keynote address 1: Rational Inc.

Session Chair: Eric Dubois

Requirements, Architectures and Risks

W. Kozaczynski, Rational Inc., USA

11:00 – 12:30

BERLIN

Paper Session 1: Goals in RE

Session Chair : Suzanne Robertson

AGORA: Attributed Goal-Oriented Requirements Analysis Method

H. Kaiya, H. Horai, and M. Saeki

Analyzing Website Privacy Requirements Using a Privacy Goal Taxonomy

A. Antón, J. Earp, and A. Reese

Deriving Use Cases from Organizational Modeling

V. Santander and J. Castro

Experience Session 1: RE Process

Session Chair: Björn Regnell

Introducing Requirements Engineering: How to Make a Cultural Change Happen in Practice

M. Kauppinen, S. Kujala, T. Aaltio, and L. Lehtola

Improving the Requirements Engineering Process for An Electronic Clearinghouse

M. Fecko and C. Lott

Initial Industrial Experience of Misuse Cases in Trade-Off Analysis

I. Alexander

PARIS

LONDON

Tool Presentation 1

Session Chair: Roel Wieringa

QA Systems – Collaborative Requirements Management using CaliberRM™

M. Amann

Telelogic –

N.N.

SOPHIST Technologies – C.A.R.E. 3.0 - Taking Requirements Engineering and Management a step further

M. Wolfstetter

11:00 – 12:30

LONDON

Tool Presentation 1, ctn.

QualityPark GmbH – Managing Variant Requirements

Dr. Laurence James

TCP Sistemas e Ingeniería – IrqA: the New Generation in Requirements Engineering

Baldo Rincon

SteelTrace – Requirements driven software development, a practical approach

Fergal McGovern

14:00 – 15:30

BERLIN

Keynote address 2: PROMATIS AG

Session Chair: Michael Goedicke

Risk Management in Challenging Business Software Projects

F. Schönthaler, PROMATIS AG, Germany

16:00 – 17:00

BERLIN

Paper Session 2: Validation

Session Chair: Connie Heitmeyer

On the Use of Visualization in Formal Requirements Specification.

N. Dulac, T. Viguier, N. Leveson, and M.-A. Storey

Visual Requirements Validation: Case Study in a Corba-Supported Environment

P. Fenkam, H. Gall, and M. Jazayeri

Industrial Talks 1: Embedded Systems

Session Chair: Betty Cheng

Managing (Requirements) Evolutions of High Assurance Systems

M. Lemoine and J. Foisseau

Model Based Requirements Engineering for Embedded Software

C. Schröder, M. Rappl, P. Braun, and M. von der Beeck

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Tool Presentation 2

Session Chair: Roel Wieringa

Rational Software - Reducing errors in release planning by automating Rational RequisitePro

R. Menke

PROMATIS - The Key to successful Requirements Engineering – Business Process Management

P. Jaeschke

CEDITI - Grail tool: Turn your Needs into Goal-oriented Requirements Models

Robert Darimont

Thursday Program

08:30 – 09:00

BERLIN

Paper Award

Introduction into the Paper Award

09:00 – 10:30

BERLIN

Keynote address 3: Virginia Tech.

Session Chair: Klaus Pohl

Scenarios and Design Cognition

John Carroll, Virginia Tech, USA

11:00 – 12:30

BERLIN

Paper Session 3 : Component Reuse

Session Chair: Anthony Finkelstein

Legal Requirements Reuse: A Critical Success Factor for Requirements Quality and Personal Data Protection

A. Toval, A. Olmos, and M. Piattini

A Quality-Model-Based Approach for Describing and Evaluating Software Packages

X. Franch and J.P. Carvallo

Multi-faceted Requirements Modeling

C. Kong and P. Alexander

Industrial Talks 2: Product Management

Session Chair : Pericles Loucopoulos

PARIS

Requirements Management In a Product Line Scenario

C. Ebert, France

Product Management Assessment - A New Approach to Optimize the Early Phases

T. Fritzmanns and F. Kuderfer

LONDON

Paper Session 4: RE and Design

Session Chair: Andy Schürr

Requirements Patterns for Embedded Systems

S. Konrad and B. Cheng

Relating Software Requirements and Architectures Using Problem Frames

J. Hall, M. Jackson, R. Laney, B. Nuseibeh, and L. Rapanotti

Are Their Design Specifications Consistent with our Requirements?

A. Kozlenkov and A. Zisman

14:00 – 16:00

Paper Session 5: Use Cases

Session Chair: Neil Maiden

BERLIN

Application of Linguistic Techniques for Use Case Analysis

A. Fantechi, S. Gnesi, G. Lami, and A. Maccari

Supporting Requirements Verification Using XSLT

A. Durán, A. Ruiz-Cortés, R. Corchuelo, and M. Toro

Reuse of Scenario Specifications Using an Automated Relational Learner: A Lightweight Approach

H. Woo and W. Robinson

Validating Functional System Requirements with Scenarios

A. Sutcliffe and A. Gregoriades

Industrial Talks 3: Requirements Management

Session Chair: Nancy Mead

PARIS

REDEST – 14 Best Practice SME Experiments with Innovative Requirements Gathering Techniques

S. Hardiman

Tool-Based Risk Management Made Practical

H. Doernemann

The Reference Point Method: Requirements-Based ICT Convergence Solution Development

W. Groß, T. Meyer, F. Zimmer, and C. Herrmann

Requirements Engineering: How Do You Know How Good You Are?

A. Vickers, A. Mavin, and H. May

Research Demo Presentation

Session Chair: Steve Easterbrook

LONDON

RETH: Requirements engineering through hypertext

Hermann Kaindl

REM: a Free, XML-based Requirements Management Tool

Amador Durán Toro

xlinkit: check, link, report, repair

Anthony Finkelstein

The SeeMe editor: a modelling tool supporting the design of sociotechnical systems

Gabriele Kunau

Contextual visualization of graphical requirement models

Christian Seybold & Martin Glinz

The NIBA Workflow: From textual requirements specification to UML-Shemata

Christian Kop

Thursday Program, ctn.

16:30 – 18:00

RE-Visions

Session Chair: Martin Feather

Early Aspects: A Model for Aspect-Oriented Requirements Engineering

A. Rashid, P. Sawyer, A. Moreira, and J. Araújo

Discussant: Anthony Finkelstein

BERLIN

Security Requirements Engineering: When Anti-requirements Hit the Fan

R. Crook, D. Ince, L. Lin, and B. Nuseibeh

Discussant: Colin Potts

Requirements Interdependencies and Stakeholders Preferences

J. Giesen and A. Völker

Discussant: Kevin Ryan

Industrial Talks 4: NL and UML

Session Chair: Chris Rupp

Ambiguity and What to Do about It

B. Kovitz

PARIS

A Process Model for Distributed Development of Networked Mechatronic Components in Motor Vehicles

K. Knorr, A. Lapp, P. Flores, J. Schirmer, D. Kraft, J. Petersen, M. Bourhaleb, and T. Bertram

Analysis beyond UML

C. Stutz, J. Siedersleben, D. Kretschmer, and W. Krug

Research Demo Discussions

LONDON

During this period the presenters of the previous Research Demo will give interested people the opportunity for questions and discussions on their Research.

The room will be open – that people can wander around

Friday Program

09 :00 – 10:30

Paper Session 6: RE for Product Lines

Session Chair: *Didar Zowghi*

BERLIN

The Product Line Mapping Approach to Defining and Structuring Product Portfolios

K. Schmid

Integrating ECUs in Vehicles – Requirements Engineering in Series Development

M. Hardt, R. Mackenthun, and J. Bielefeld

Efficient and Systematic Software Evolution through Domain Analysis

I. John, D. Muthig, P. Sody, and E. Tolzmann

Experience Session 2: Requirements Selection

Session Chair: *Martin Glinz*

PARIS

Exploring the Relationship between Project Selection and Requirements Analysis: An Empirical Study of the New Millennium Program

M. Bergman and G. Mark

Using Maturity Assessments to Understand the ERP Requirements Engineering Process

M. Daneva

Converging on the Optimal Attainment of Requirements

M.S. Feather and T. Menzies

11:00 – 12:30

Paper Session 7: Change Management

Session Chair : *Michel Lemoine*

BERLIN

Systematic Requirements Recycling through Abstraction and Traceability

A. von Knethen, B. Paech, F. Kiedaisch, and F. Houdek

An Analysis-Revision Cycle to Evolve Requirements Specifications by Using the SCTL-MUS Methodology

J. García-Duque, J. Pazos-Arias, and B. Barragáns-Martínez

Automating Speculative Queries through Event-Based Requirements Traceability

J. Cleland-Huang, C. Chang, G. Sethi, K. Javvaji, H. Hu, and J. Xia

Industrial Talks 5: Goals and Use Cases

Session Chair: *Alistair Sutcliffe*

PARIS

Requirements Engineering with Grail/Kaos : Tell the Requirements, All the Requirements, and Nothing Else but the Requirements

R. Darimont, E. Delor, J.-L. Roussel, and A. Rifaut

Requirements Engineering – Applying Theory to Reality

S. Dusire, M. Flynn, and N. Dardenne

Friday Program, ctn.

14:00 – 15:30

Paper Session 8: RE Process

Session Chair: Bill Robinson

Extreme Programming Modified: Embrace Requirements Engineering Practices

J. Nawrocki, M. Jasinski, B. Walter, and A. Wojciechowski

Effectiveness of Elicitation Techniques in Distributed Requirements Engineering

W. Lloyd, M. Rosson, and J. Arthur

The Impact of Stakeholders' Geographical Distribution on Managing Requirements in a Multi-Site Organization

D. Damian and D. Zowghi

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Experience Session 3: Application Challenges

Session Chair : Jawed Siddiqi

Requirements Engineering in Automotive Development - Experiences and Challenges

M. Weber and J. Weisbrod

Managing Product Requirements for Medical IT Products

S. Higgins, M. de Laat, P.M.C. Gieles, and E. Geurts

Requirements Engineering in the Health Care Domain

L. Cysneiros

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15:30 – 16:00

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Closing RE'02

Closing Remarks on RE' 02

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