13th IEEE INTERNATIONAL

Requirements
Engineering CONFERENCE

2005

RE

La Sorbonne, FRANCE

August 29th - September 2nd, 2005

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BIENVENUE À PARIS

Welcome to RE'05, the 13th in the series of International Conferences on Requirements Engineering. The two days preceding the main RE'05 conference are filled with tutorials, workshops, and the Doctoral Consortium. There are nine half-day tutorials on topics ranging from innovation in requirements, aligning requirements with business goals, requirements modeling, and requirements for domain-specific applications. In addition, RE'05 is hosting 13 workshops, including some well-established workshops, such as SREIS, RHAS, DiSD, CERE, as well as many new workshops on emerging topics, such as context-specific requirements processes and requirements for service-oriented systems. Two of the tutorials and three of the workshops are conducted in French. From Wednesday August 31st to Friday 2nd of September, you will have the unique opportunity to sit in the amphitheatres of Sorbonne and hear the presentations of 35 carefully selected research papers arranged in twelve sessions. Paper topics include Personalized Software, Product Lines, Aligning Requirements with Business Goals, Elicitation, Requirements Management, Policy-Oriented Requirements, Modeling, Domain-Specific Requirements, Requirements Analysis, Prioritizing and Merging Requirements, Constrained Natural-Language Notations, and Goals and Nonfunctional Requirements.

The program is organized in three parallel sessions. In addition to the research-paper sessions, a series of practitioner-track sessions will take place on Thursday and Friday. Filling out the program are two mini-tutorials, a poster session, and a session with research demonstrations. Each day will start with a keynote. On Wednesday, the conference will open with Daniel Jackson from MIT talking about "Dependable Software: An Oxymoron?". On Thursday, Jean Pierre Corniou (CIO at Renault group and President of CIGREF), will talk about "The Role of Information Systems within Corporate Strategy and Management Policies". Suzanne Robertson (Atlantic Systems Guild) will speak on Friday; her keynote is titled "Exemplars for Better Requirements - Tales from the Trenches". The conference dinner on Thursday evening is organized in a unique location: the "Musée des Arts Forains" at Les Pavillons de Bercy. Situated among in the old Parisian wine warehouses, this museum presents fairground attractions that have been patiently gathered and restored by an aficionado of fairground arts: roundabouts, coconut shy, swings. You will not only see, but be able to try and play with some very beautiful antique attractions that originate from as long as two centuries ago.

Having the RE'05 conference in Paris is a golden opportunity to discover or re-discover the wonders of Paris. A city of monuments, of culture, of romanticism, of gastronomy, of fashion and of creation, Paris lives and moves at a high pace. To help you experience Paris, we have included in your bag a visitor's kit composed of a map of the city, a copy of the *Carnet Gourmand* listing the addresses of a few restaurants that we recommend, and a booklet titled *Paris est à vous* containing essential information on sightseeing in Paris. We will be very glad to answer any of your questions on sightseeing in Paris, and we wish you a very rewarding conference and a pleasant week with us.

On behalf of the organizing committee of RE'05, we thank everyone who has supported RE'05 and who has worked hard to make this conference a success. Especially deserving of thanks are our sponsors: IEEE Computer Society, Université Paris 1 - Panthéon Sorbonne, IAE de Paris, CFA AFIA, Centre de Calcul El Khawarizmi, FUNDP Namur, University of Waterloo, UGS, Alcatel, SQLi, Hewlett Packard, INFORSID, IBM, Datus Rhone Alpes (DRA) and Borland.

Colette Rolland *(General Chair)*   **Joanne Atlee** *(Program Committee Chair)*

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Didar Zowghi, *University of Technology-Sydney, Australia*

Conference Program

Time	August 29th – Monday	August 30th – Tuesday	August 31st – Wednesday	September 1st – Thursday	September 2nd – Friday
9:00 – 10:30	**Tutorial 1** N. Maiden, J. Robertson — *Liard* [REBNITA, SREIS, CERE]; **Tutorial 2** C. Longépé, M. Dardet — *Descartes* [DiSD, REDECS]	**Tutorial 6** S. Gagnon — *Liard* [FRU, REBNITA, SREP, REProMan, SOCCER]; **Tutorial 9** D. Dori — *Descartes* [RHAS, DC, REET]	**Opening Ceremony**; **Keynote 1** Daniel Jackson — Ends at 11:00 — *Richelieu*	**Best Paper Awards**; **Keynote 2** Jean-Pierre Corniou — *Richelieu*	**Most Influential Paper Award**; **Keynote 3** Suzanne Robertson — *Richelieu*
10:30 – 11:00	Coffee Break	Coffee Break	Coffee Break (11:00-11:30)	Coffee Break	Coffee Break
11:00 – 12:30	**Tutorial 1** N. Maiden, J. Robertson — *Liard* [REBNITA, SREIS]; **Tutorial 2** C. Longépé, M. Dardet — *Descartes* [CERE, DiSD, REDECS]	**Tutorial 6** S. Gagnon — *Liard* [FRU, REBNITA, SREP, REProMan, SOCCER]; **Tutorial 9** D. Dori — *Descartes* [RHAS, DC, REET]	**Papers 1** Personalized Software (11:30-12:30) — *Richelieu*; **Papers 2** Product Lines (11:30-12:30) — *Descartes*; **Papers 3** Aligning Requirements with Business Goals (11:30-12:30) — *Liard*	**Practitioner Track 1** Quality Improvement — *Richelieu*; **Papers 6** Policy-Oriented Requirements — *Descartes*; **Papers 7** Modeling — *Liard*	**Practitioner Track 4** Case Studies and Lessons Learned — *Richelieu*; **Papers 10** Prioritizing and Merging Requirements — *Descartes*; **Papers 11** Constrained Natural-Language Notations — *Liard*
12:30 – 14:00	Lunch	Lunch	Lunch	Lunch	Lunch
14:00 – 15:30	**Tutorial 3** D. Firesmith — *Liard* [REBNITA, SREIS, CERE]; **Tutorial 4** S. Gagnon — *Descartes* [DiSD, REDECS]; **Tutorial 5** C. Ebert — *Turgot* [RHVU, SREP]	**Tutorial 7** D. Gause — *Descartes* [MEAP, REBNITA, SREP, REProMan, SOCCER]; **Tutorial 8** H. Kaindl, M. Mannion — *Liard* [RHAS, DC, REET]	**Papers 4** Elicitation (14:00-16:00) — *Richelieu*; **Papers 5** Requirements Management (14:00-16:00) — *Descartes*; **Panel 1** If the Requirements Engineering Payoff is so Good, Why Aren't More Companies Doing It? (14:00-16:00) — *Liard*	**Practitioner Track 2** Invited Talks on Industry Experience — *Richelieu*; **Papers 8** Domain-Specific Requirements Engineering — *Descartes*; **Mini-Tutorial 1** Alloy in 90 Minutes — *Liard*	**Papers 12** Goals and Nonfunctional Requirements — *Richelieu*; **Mini-Tutorial 2** Innovative Requirements – How to Make Your Products More Creative — *Descartes*; **Panel 2** Are Requirements Engineering Best Practices the Same for all Industries? — *Liard*
15:30 – 16:00	Coffee Break	Coffee Break	Coffee Break	Coffee Break	**Closing Ceremony** — *Richelieu*
16:00 – 17:30	**Tutorial 3** D. Firesmith — *Liard* [REBNITA, SREIS, CERE]; **Tutorial 4** S. Gagnon — *Descartes* [DiSD, REDECS]; **Tutorial 5** C. Ebert — *Turgot* [RHVU, SREP]	**Tutorial 7** D. Gause — *Descartes* [MEAP, REBNITA, SREP, REProMan, SOCCER]; **Tutorial 8** H. Kaindl, M. Mannion — *Liard* [RHAS, DC, REET]	**Poster Session & Coffee Break** — Salle des Autorités / Bourjac	**Practitioner Track 3** Processes and Models — *Richelieu*; **Papers 9** Requirements Analysis — *Descartes*; **Research Demos** (ends 18:00) — *Liard*	

KEYNOTES

Daniel Jackson, *Massachusetts Institute of Technology, USA*

Daniel Jackson is Professor of Computer Science at the Massachusetts Institute of Technology. He received an MA from Oxford University in Physics, and his PhD from MIT in Computer Science. He has been a software engineer for Logica UK Ltd., and an Assistant Professor of Computer Science at Carnegie Mellon University. He has been a member of the editorial boards of TOSEM, TOPLAS and STTT, and has served on program committees for FSE, ISSTA, CAV, OOPSLA and many other conferences. He has broad interests in many areas of software engineering, especially in specification and design, critical systems, formal methods, static analysis and model checking. Currently, he is chairing a National Academies study titled *"Sufficient Evidence? Building Certifiably Dependable Systems"*.

Keynote 2: Thursday September 1st, 2005, 09:00-10:30
The Role of Information Systems within Corporate Strategy and Management Policies: New Challenges

Jean-Pierre Corniou, *Groupe Renault, Président du CIGREF, France*

Mr. Corniou holds a graduate degree in Economics from the Université Paris 1 Panthéon Sorbonne, and he also studied at the Institut d'Etudes Politiques de Paris and the Ecole Nationale d'Administration. After holding different positions, including in the civil service, he was appointed Deputy General Manager of the ANPE (French national employment office), a position he held from 1983 to 1988. He subsequently became IT and Systems Manager at Sollac, a USINOR Group subsidiary, before being appointed CIO for the USINOR Group in 1998. In March 2000, Renault appointed Mr. Corniou Senior Vice-President, Chief Information Officer, and Member of the Management Board, and he has since led a major overhaul of the Group's IT departments. The organisation aims at giving the Group the means of rising to the new challenges at hand, through the development of new in-house IT skill centres and closer ties between IT projects and the strategic and organisational issues being faced by Renault and the Renault/Nissan Alliance. Mr. Corniou has been at the forefront of active research into the role of information systems within corporate strategy and management policies, as IT columnist for magazines. He received the 1999 *IT Manager of the Year* award from the French press. He is the author of *La société de la connaissance* (*The knowledge society*) (Ed. Hermès, 2002). He has presided over CIGREF (Club Informatique des Grandes Entreprises Françaises) since May 2000.

Keynote 3: Friday September 2nd, 2005, 09:00-10:30
Exemplars for Better Requirements – Tales from the Trenches

Suzanne Robertson, *Atlantic Systems Guild, UK*

Suzanne Robertson is co-author of *Mastering the Requirements Process* (Addison-Wesley 1999) a book that provides guidance on finding requirements and writing them so that all the stakeholders can understand them. Her latest book: *Requirements-Led Project Management* (Addison-Wesley 2005) focuses on how managers can use requirements analysis products as input to planning and monitoring projects. She is also co-author of the Volere (http://www.volere.co.uk) approach to requirements engineering. She has more than 30 years experience in systems specification and building. Her courses on requirements, systems analysis, design and problem solving are well known for their innovative workshops and practical applicability. Current work includes research and consulting on finding and involving the right stakeholders, the building of requirements knowledge models and running audits for assessing requirements specifications. She is a principal and founder of The Atlantic Systems Guild (http://www.systemsguild.com) and for four years, edited the first Requirements column in IEEE Software magazine.

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CONFERENCE PROGRAM

Wednesday August 31st, 2005

9:00-11:00	**Opening Ceremony (Richelieu)** **Keynote 1: Dependable Software: An Oxymoron?** Daniel Jackson, *Massachusetts Institute of Technology, USA* **(Richelieu)**
11:00-11:30	*Coffee Break (Salle des Autorités)*

	Track A (Richelieu)	**Track B (Descartes)**	**Track C (Liard)**
11:30-12:30	**Papers 1: Personalized Software** **Chair: Kevin Ryan** Configuring Common Personal Software: a Requirements-Driven Approach, S. Liaskos, A. Lapouchnian, Y. Wang, Y. Yu, S. Easterbrook, *U. of Toronto, Canada* Personal and Contextual Requirements Engineering, A. Sutcliffe, *U. of Manchester, UK*, S. Fickas, M. M. Sohlberg, *U. of Oregon, USA*	**Papers 2: Product Lines** **Chair: Robyn Lutz** An Approach to Constructing Feature Models Based on Requirements Clustering, K. Chen, W. Zhang, H. Zhao, H. Mei, *Peking U., China* Modelling Requirements Variability for a Set of Product Lines, S. Bühne, K. Lauenroth, K. Pohl, *U. Duisburg-Essen, Germany*	**Papers 3: Aligning Requirements with Business Goals** **Chair: Christof Ebert** Exploring Web Services from a Business Value Perspective, B. van der Raadt, J. Gordijn, *Vrije U. Amsterdam, Netherlands*, E. Yu, *U. of Toronto, Canada* Requirements Engineering for Cross-organizational ERP Implementation: Undocumented Assumptions and Potential Mismatches, M. Daneva, R. Wieringa, *U. of Twente, Netherlands*
12:30-14:00	*Lunch*		
14:00-16:00	**Papers 4: Elicitation** **Chair: Nazim Madhavji** The Role of User Involvement in Requirements Quality and Project Success, S. Kujala, M. Kauppinen, L. Lehtola, T. Kojo, *Helsinki U.of Technology, Finland* Persona-and-Scenario Based Requirements Engineering for Software Embedded in Digital Consumer Products, M. Aoyama, *Nanzan U., Japan* Contextual Risk Analysis for Interview Design, T. Cohene, S. Easterbrook, *U. of Toronto, Canada* Integrating Creativity into Requirements Processes: Experiences with an Air Traffic Management System, N. Maiden, *City U. London, UK*, S. Robertson, *Atlantic Systems Guild, UK*	**Papers 5: Requirements Management** **Chair: Olly Gotel** Requirements BEFORE the Requirements: Understanding the Upstream Impacts, C. Ebert, *Alcatel, France* Managing Requirements in a Co-evolution Context, A. Etien, C. Salinesi, *U. of Paris 1 – Panthéon Sorbonne, France* Utilizing Supporting Evidence to Improve Dynamic Requirements Traceability, J. Cleland-Huang, R. Settimi, C. Duan, X. Zou, *DePaul U., USA* The Role of Deferred Requirements in a Longitudinal Study of Emailing, S. Fickas, *U. of Oregon, USA*, W. Robinson, *Georgia State U., USA*, M. M. Sohlberg, *U. of Oregon, USA*	**Panel 1: To do or not to do: If the Requirements Engineering Payoff is so Good, Why Aren't More Companies Doing It?** **Chair: Daniel Berry** D. Berry, *U. of Waterloo, Canada* D. Damian, *U. of Victoria, Canada* D. Gause, *SUNY Binghampton & Savile Row LLC, USA* E. Simmons, *Intel Corp., USA*
16:00-17:30	**Coffee Break / Poster Session (Salle des Autorités / Bourjac)**		
18:00-20:00	**Welcome Cocktail**		

Thursday September 1st, 2005		
9:00-10:30	**Best Paper Awards (Richelieu)** **Keynote 2: The Role of Information Systems within Corporate Strategy and Management Policies: New Challenges** Jean-Pierre Corniou, *Groupe Renault, Président du CIGREF, France* **(Richelieu)**	
10:30-11:00	*Coffee Break (L'Ecritoire)*	
	Track A (Richelieu)	**Track B (Descartes)**	**Track C (Liard)**
11:00-12:30	**Practitioner Track 1: Quality Improvement** **Chair: Mikio Aoyama** Overcoming the Traceability Benefit Problem, P. Arkley, S. Riddle, *U. of Newcastle upon Tyne, UK.* Quality Analysis of NL Requirements: An Industrial Case Study, A. Bucchiarone, S. Gnesi, *ISTI-CNR, Italy,* P. Pierini, *Siemens, Italy* Business Process Requirements Oriented Requirement Engineering Process, T. Arao, E. Goto, T. Nagata, *Nomura Research Institute, Japan*	**Papers 6: Policy-Oriented Requirements** **Chair: Patrick Heymans** On Modelling Access Policies: Relating Roles to their Organisational Context, R. Crook, D. Ince, B. Nuseibeh, *Open U., UK* Modeling Security Requirements Through Ownership, Permission and Delegation, *P. Giorgini, F. Massacci, U. of Trento, Italy,* J. Mylopoulos, *U. of Toronto, Canada,* N. Zannone, *U. of Trento, Italy* Analyzing Goal Semantics for Rights, Permissions, and Obligations, T. Breaux, A. Antón, *North Carolina State U., USA*	**Papers 7: Modeling** **Chair: Martin Glinz** Concept Identification in Object-Oriented Domain Analysis: Why Some Students Just Don't Get It, D. Svetinovic, D. Berry, M. Godfrey, *U. of Waterloo, Canada* Do Viewpoints Lead to Better Conceptual Models?: An Exploratory Case Study, S. Easterbrook, E. Yu, J. Aranda, Y. Fan, J. Horkoff, M. Leica, R. A. Qadir, *U. of Toronto, Canada* Modeling Interactions using Role-Driven Patterns, I. Díaz, *U. Central de Venezuela, Venezuela,* O. Pastor, *U. Politécnica de Valencia, Spain,* A. Matteo, *U. Central de Venezuela, Venezuela*
12:30-14:00	*Lunch*		
14:00-15:30	**Practitioner Track 2: Invited Talks on Industry Experience** **Chair: Michel Lemoine** The Usage Model: A Structure for Richly Describing Product Usage during Design and Development, E. Simmons, *Intel Corp., USA* The Way from Requirements to Production, J-M. Barth, *Airbus, France*	**Papers 8: Domain-Specific Requirements Engineering** **Chair: Klaus Pohl** Shaping Requirements for Institutional Web Applications: Experience from an Industrial Project, V. Perrone, *Politecnico di Milano, Italy,* D. Bolchini, *U. of Lugano, Switzerland,* A. Rastellini, L. Dragone, *CM Sistemi s.p.a, Italy* Risk Mitigation of Design Requirements Using a Probabilistic Analysis, M. Robinson, S. Wallace, D. Woodward, *NSWCCD-Philadelphia, USA* Requirements Engineering and the Creative Process in the Video Game Industry, D. Callele, E. Neufeld, K. Schneider, *U. of Saskatchewan, Canada*	**Mini-Tutorial 1: Alloy in 90 Minutes** **Chair: Eric Dubois** D. Jackson, *Massachusetts Institute of Technology, USA*
15:30-16:00	*Coffee Break (L'Ecritoire)*		
16:00-17:30	**Practitioner Track 3: Processes and Models** **Chair: Mats Heimdahl** What Influences the Requirements Process in Industry?: A Report on Industrial Practice, I. Alexander, *Scenario Plus, Ltd., UK,* S. Robertson, *Atlantic Systems Guild, UK,* N. Maiden, *City U. London, UK* S-RaP: A Concurrent Prototyping Process for Refining Workflow-Oriented Requirements, X. Song, G. Matos, B. Hwong, A. Rudorfer, C. Nelson, *Siemens Corporate Research, USA* Model-Driven Visual Requirements Engineering, H. G. Solheim, F. Lillehagen, *Troux Technologies, Norway,* S. A. Petersen *Norwegian U. of Science and Technology, Norway,* M. Anastasiou, *Intracom, Greece,* H. Jørgensen, *Troux Technologies, Norway*	**Papers 9: Requirements Analysis** **Chair: Nancy Day** Using Occurrence Properties of Defect Report Data to Improve Requirements, K. Wasson, *U. of Virginia, USA,* K. Schmid, R. Lutz, *Iowa State U., USA,* J. Knight, *U. of Virginia, USA* Identifying Contingency Requirements Using Obstacle Analysis, R. Lutz, *Jet Propulsion Lab and Iowa State U., USA,* S. Nelson, *Nelson Consulting/QSS, USA,* A. Patterson-Hine, C. Frost, D. Tal, *NASA Ames Research Center, USA* A Feature-Oriented Approach to Modeling Requirements Dependencies, W. Zhang, H. Mei, H. Zhao, *Peking U., China*	**Research Demos: (ends 18:00)** **Chair: Sebastian Uchitel** ST-Tool: A CASE Tool for Security Requirements Engineering, P. Giorgini, *U. of Trento., Italy,* F. Massacci, *U. of Trento, Italy,* J. Mylopoulos, *U. of Toronto, Canada,* N. Zannone, *U. of Trento, Italy* iVuBlender: A Tool For Merging Incomplete and Inconsistent Views, M. Sabetzadeh, S. Easterbrook, *U. of Toronto, Canada* REDEPEND-REACT: An Architecture Analysis Tool, G. Grau, *U. Politècnica de Catalunya, Spain,* X. Franch, *U. Politècnica de Catalunya, Spain,* N. Maiden, *City U. London, UK* DesCOTS-EV: A Tool for the Evaluation of COTS components, C. Quer, X. Franch, X. Lopez-Pelegryn, *U. Politècnica de Catalunya, Spain*
19:30-24:00	**Banquet (Musée des Arts Forains)**		

Friday September 2nd, 2005		
9:00-10:30	**Most Influential Paper Award** (Richelieu) **Keynote 3**: Exemplars for Better Requirements – Tales from the Trenches *Suzanne Robertson, Atlantic Systems Guild, UK* (Richelieu)		
10:30-11:00	*Coffee Break (Salle des Autorités)*		
	Track A (Richelieu)	**Track B (Descartes)**	**Track C (Liard)**
11:00-12:30	**Practitioner Track 4: Case Studies and Lessons Learned** **Chair: Erik Simmons** Initial Lessons Learned from the Definition and Implementation of a Platform Requirements Engineering Process at Intel Corporation, S. Nesland, *Intel Corp., USA* The Extravehicular Mobility Unit: Case Study in Requirements Evolution, N. Jordan, J. Saleh, D. Newman, *Massachusetts Institute of Technology, USA* Linking Business View to Requirements Engineering: Long-Term Product Planning by Roadmapping, L. Lehtola, M. Kauppinen, S. Kujala, *Helsinki U. of Technology, Finland*	**Papers 10: Prioritizing and Merging Requirements** **Chair: Marsha Chechik** Multi-dimensional Separation of Concerns in Requirements Engineering, A. Moreira, *U. Nova de Lisboa, Portugal*, A. Rashid, *Lancaster U., UK*, J. Araújo, *U. Nova de Lisboa, Portugal* Facing Scalability Issues in Requirements Prioritization with Machine Learning Techniques, P. Avesani, C. Bazzanella, A. Perini, A. Susi, *ITC-IRST, Italy* An Algebraic Framework for Merging Incomplete and Inconsistent Views, M. Sabetzadeh, S. Easterbrook, *U. of Toronto, Canada*	**Papers 11: Constrained Natural-Language Notations** **Chair: Vicenzo Gervasi** Rule-based Verification of Scenarios with Pre-conditions and Post-conditions, T. Toyama, A. Ohnishi, *Ritsumeikan U., Japan* Facilitating the Construction of Specification Pattern-based Properties, S. Konrad, B. Cheng, *Michigan State U., USA* Measuring the Expressiveness of a Constrained Natural Language: An Empirical Study, S. Boyd, *ADI Limited, Australia*, D. Zowghi, *U. of Technology-Sydney, Australia*, A. Farroukh, *ADI Limited, Australia*
12:30-14:00	*Lunch*		
14:00-15:30	**Papers 12: Goals and Nonfunctional Requirements** **Chair: Alistair Sutcliffe** Where do Goals Come From: the Underlying Principles of Goal-Oriented Requirements Engineering, G. Regev, A. Wegmann, *Ecole Polytechnique Fédérale de Lausanne, Switzerland* Reverse Engineering Goal Models from Legacy Code, Y. Yu, Y. Wang, J. Mylopoulos, S. Liaskos, A. Lapouchnian, *U. of Toronto, Canada*, J. Cesar, S. do Prado, J.C.S.P. Leite, *PUC-Rio, Brazil* Non-Functional Requirements in Industry-- Three Case Studies Adopting an Experience-based NFR Method, J. Doerr, D. Kerkow, T. Koenig, T. Olsson, *Fraunhofer IESE, Germany*, T. Suzuki, *RicohCo, Limited, Japan*	**Mini-Tutorial 2: Innovative Requirements – How to Make Your Products More Creative** **Chair: Neil Maiden** N. Maiden, *City U. London, UK* D. Berry, *U. of Waterloo, Canada* D. Gause, *SUNY Binghampton & Savile Row LLC, USA* J. Robertson, *Atlantic Systems Guild, UK* S. Robertson, *Atlantic Systems Guild, UK*	**Panel 2: Are Requirements Engineering Best Practices the Same for all Industries?** **Chair: Gauthier Fanmuy** G. Fanmuy, *PSA Peugeot Citroën, France* F. Populus, *Airbus, France* S. Brinkkemper, *Institute of Information and Computing Sciences, Netherlands* J. Ruault, *DGA, France* M. Weber, *DaimlerChrysler AG Germany* J. Dick, *Telelogic, UK* P. Baron, *ADN, France*
15:30-16:00	**Closing Ceremony and Invitation to RE'06** (Richelieu)		

TUTORIALS

RE'05 offers nine tutorials on Monday August 29th and Tuesday August 30th on a variety of Requirements Engineering (RE) subjects by world-renowned experts in RE. Most of the tutorials are offered in English, one is offered in French, and one is offered in both languages. Each tutorial occupies three hours in a single half day. In the two days, one could register for as many as four tutorials. Since workshops are happening during the same two days, one may wish to combine a workshop with two half-day tutorials. The topics range from how-to-do specific RE activities to broad overviews of RE-related subject areas.

▪ T1: Creative Requirements: Invention and its Role in Requirements Engineering

N. Maiden*, City U. London, UK*, J. Robertson, *Atlantic Systems Guild, UK*

What is creativity and why we want it, creativity workshop techniques, working with external experts, using storyboards, creative triggers, and how to plan creativity workshops. A running example will help attendees to practice the creativity techniques described.

▪ T2: Les Basics de l'Urbanisme et de la Cartographie des Systèmes d'Information

C. Longépé*, Société Générale, France,* M. Dardet, *ORESYS, France*

Contexte, enjeux, finalités; Principes fondateurs de l'urbanisme; Questions ouvertes; Professionnalisation de l'urbanisme: les projets en cours du Club Urba SI.

▪ T3: Engineering Safety-Related Requirements for Software-Intensive Systems

D. Firesmith, *Software Engineering Institute, USA*

Importance of safety-related requirements, basic concepts of safety engineering, the four major kinds of safety-related requirements, RE techniques for safety-related requirements, and an extended example.

▪ T4: L'Architecture Model Driven (l'AMD)

S. Gagnon, *New Jersey Institute of Technology (NJIT), USA*

Définition de l'AMD, démonstration d'un outil de développement pour l'AMD, discussion de divers cas mettant en application l'AMD.

▪ T5: Requirements Engineering - A Product Management Perspective

C. Ebert, *Alcatel, France*

Best practices around strategy building, translating strategy into a project vision, portfolio management, requirements elicitation, creating and managing the project business case, prioritizing requirements, uncertainty management and requirements change management.

▪ T6: Model Driven Architecture (MDA)

S. Gagnon, *New Jersey Institute of Technology (NJIT), USA*

Definition of MDA, demonstration of an MDA development tool, discussion of various cases of applying MDA.

▪ T7: Requirements Driven Innovation: Thinking the Unthinkable on the Way to Realizing the Gee Whiz

D. Gause, *SUNY Binghamton & Savile Row LLC, USA*

Synthesis to inductively create unthinkable possibilities; analysis, metaphorical thinking, and refinement leading to imaginative, but useful, product concepts.

▪ T8: Requirements-Based Product Line Engineering

H. Kaindl*, Vienna U. of Technology, Austria,* M. Mannion, *Glasgow Caledonian U., UK*

Establishing a pool of reusable requirements, constructing the requirements for a new system by making a selection from the pool, efficient and clean selection of a consistent combination of requirements, MRAM (Method for Requirements Authoring and Management), TRAM (Tool for Requirements Authoring and Management).

▪ T9: Object-Process Methodology (OPM): a Formal, User-Oriented Graphic-Textual Requirements Engineering Platform

D. Dori, *Technion, Israel Institute of Technology, Israel*

Case studies and examples of requirements elicitation and engineering processes using OPCAT - OPM's Integrated Systems Engineering Environment.

▪ Mini-Tutorial 1: Alloy in 90 Minutes

D. Jackson*, Massachusetts Institute of Technology, USA*

Alloy is a language for modelling and analyzing software abstractions. It is based on a small but expressive relational logic, similar to the logic underlying Z. The purpose of this tutorial is to help researchers and educators evaluate Alloy to see where it might fit into their work, and to give them a basis to start using it productively.

▪ Mini-Tutorial 2: Innovative Requirements How to Make Your Products More Creative

N. Maiden*, City U. London*, *UK*, Dan Berry*, U. of Waterloo, Canada,* D. Gause*, SUNY Binghampton & Savile Row LLC, USA,* J. Robertson*, Atlantic Systems Guild, UK,* S. Robertson*, Atlantic Systems Guild, UK.*

The practice of requirements engineering has explored and adopted a plethora of techniques for inventing stakeholder requirements. This mini-tutorial brings together leading practitioners who have developed techniques that encourage more creative thinking about requirements.

WORKSHOPS

The series of workshops at this year's RE conference is more extensive than ever and covers a broad range of novel and maturing aspects in the ground-breaking frontier of RE research and best practices. The list of workshops includes as many as 10 international workshops (WS1-WS10) and three co-located workshops held in French (WS11-WS13). On Monday and Tuesday the 29th and 30th of August, you may choose from a way smorgasbord of topics ranging from methodological and process issues to specific domains and particular viewpoints. Some workshops have a long history and a solid quality reputation, while others, representing exciting new sub-disciplines, are meeting for the very first time at this conference. Whether you look for future research trends or the cutting edge of best practice, we are sure you will find many interesting ideas, solutions and discussions. Welcome to the RE'05 workshops!!

▪ WS1: (REET) Requirements Engineering Education and Training

This workshop focuses on curriculum development and pedagogical techniques for teaching and training RE skills, including elicitation, modeling, analysis, negotiation, specification, interviewing, and reviewing skills.

▪ WS2: (SREP) Situational Requirements Engineering Processes – Methods, Techniques and Tools to Support Situation-Specific RE Processes

This workshop focuses on how to select, adapt, construct, and manage requirements for RE methods that best suit the situation of the project at hand.

▪ WS3: (REProMan) Interplay of Requirements Engineering and Project Management in Software Projects

RE usually is regarded as a technical discipline and project management as a managerial activity. They are often treated separately, but in real software projects they are interrelated in many ways. This workshop focuses on benefits and risks in the interplay of RE and project management.

▪ WS4: (REBNITA) Requirements Engineering for Business Needs and IT Alignment

It is no longer possible to consider IT separate from the business organization it supports. The goal of this workshop is to provide a specific forum for RE research that encompasses organizational business needs of an organization.

▪ WS5: (DiSD) Distributed Software Development

This workshop focuses on effective RE in the increased globalization of software development and the challenges due to the impact of temporal, geographical and cultural differences.

▪ **WS6: (SREIS) Symposium on Requirements Engineering for Information Security**

The symposium is intended to provide researchers and practitioners from various disciplines with a highly interactive forum to discuss security and privacy-related requirements.

▪ **WS7: (SOCCER) Service-Oriented Computing: Consequences for Engineering Requirements**

The service-oriented approach is becoming more and more popular to integrate highly heterogeneous systems. The workshop intends to provide an opportunity to share knowledge to set appropriate theoretical foundations, define special-purpose methodologies for requirements specification, and develop supporting technology.

▪ **WS8: (CERE) Comparative Evaluation in Requirements Engineering**

This workshop explicitly considers how to assess the contributions and validation of different types of RE research. The goal is to produce a roadmap from theory to application.

▪ **WS9: (REDECS) Requirements Engineering Decision Support**

This workshop promotes the role of decision support in RE. Topics include identification of problems and challenges, directions for future research, and collaboration with management sciences and decision theory.

▪ **WS10: (RHAS) Requirements Engineering for High-Availability Systems**

This workshop addresses the special challenges of software-intensive systems where performance and dependability are mission-critical. Topics include defensibility, operational availability, predictability, reliability, robustness, safety, security, stability, and survivability.

▪ **WS11: (FRU) How to Model Firms' Requirements and Make Them Understandable by Business Directors, Information Systems & Process Owners and IT Managers**

Il est notoire que le SI se trouve au cœur des processus de production de l'entreprise ainsi que de l'élaboration des décisions. N'est-il pas paradoxal qu'un tel pivot échappe, en pratique, à la perception comme à la compréhension? Il est possible de procurer à chaque catégorie d'acteurs de l'entreprise une "vue" sur le SI adaptée à ses besoins et capacités, fidèle au SI qu'elle représente et cohérente avec les autres "vues".

▪ **WS12: (MEAP) Managing Enterprise Architecture Projects**

Les projets d'urbanisme des SI cherchent à concrétiser les relations synergiques entre SI et business, en associant modèles du business et modèles du SI. Cependant, représenter cet alignement, bien que nécessaire, n'est pas suffisant. Pour évaluer le degré de conformité avec la stratégie de l'entreprise, une métrique est souhaitable. Cette représentation et cette métrique sont d'autant plus utiles que le SI comme les enjeux stratégiques évoluent, créant ainsi le besoin de maintenir, préserver et améliorer l'alignement.

▪ **WS13: (RHVU) Des exigences d'humanité pour les divers utilisateurs du SI (*Requirements of Humaneness for the Various IS Users*)**

Les humains s'approprient les outils et les détournent selon leurs propres buts, ils se créent leurs propres règles. L'urbanité est un sous-ensemble de cette pratique. Elle est un mode d'échange permettant un enrichissement mutuel. Cet atelier vise à donner la parole à ceux que l'on n'entend jamais, des informaticiens qui mettent en place des logiciels, des utilisateurs qui se servent des outils dans leurs activités.

DOCTORAL CONSORTIUM

▪ Development of a Requirements Engineering Method for Pervasive Services, L. Kolos-Mazuryk, *U. of Twente, The Netherlands*

▪ Towards automation in Requirements Elicitation: mapping natural language and object-oriented concepts, K. Li, *Heriot-Watt U., UK*

▪ Requirements Analysis Framework for Alignment of IT with Competitive Strategy of Business Organizations, S. Bleistein, *U. of New South Wales/National ICT Australia, Australia*

▪ Methodological Support for Engineering Strategic Requirements for Commercial Products using Goals, S. Fricker, *ABB Switzerland Ltd. Corporate Research/U. of Zurich, Switzerland*

▪ Managing Security IT Risk: a Goal-Based Requirements Engineering Approach, N. Mayer, *Public Research Centre Henri Tudor, Luxembourg*

▪ Task-Driven Tools for Requirements Engineering, P. Campos, *U. of Madeira, Portugal*

▪ An Aspect-Oriented Approach to Model Requirements, L. F. da Silva, *Catholic U. of Rio de Janeiro, Brazil*

▪ Improving the Consistency of the Conceptual Models Through the Activity-Purpose Analysis, D. Svetinovic, *U. of Waterloo, Canada*

POSTER PRESENTATIONS

The Poster program complements the main-conference program by offering an opportunity to attendees to see late-breaking or as-yet incomplete research results, or significant work-in-progress in Requirements Engineering. This year's posters cover a wide spectrum of Requirements Engineering topics. So there is something of interest to everyone.

▪ Sharing Methodological Knowledge with REGAL: "Requirements Engineering Guide for All", L. H. Jean-Baptiste, *U. Paris 1 / BNP Paribas, France*, G. Fanmuy, *PSA Peugeot-Citroën, France*, C. Salinesi, *U. Paris 1, France*

▪ Reusable Knowledge for Satisficing Usability Requirements, L. M. Cysneiros, V. Werneck, A. Kushniruk, *York U., Canada*

▪ Use Cases based Requirements Validation with Scenarios, S. S. Somé, *U. of Ottawa, Canada*

▪ An ASM Operational Semantics for Use Case Maps, J. Hassine, J. Rilling, R. Dssouli *Concordia U., Canada*

▪ Managing Variability and Reuse of Features and Requirements for Large and Complex Organizational Structures, M. Bittner, *Technische U. Berlin, Germany*, A. Botorabi, *DaimlerChrysler AG, Germany*, A. Poth, *MB-Technology GmbH, Germany*, M. O. Reiser, *DaimlerChrysler AG / Technische U. Berlin, Germany*, M. Weber, *DaimlerChrysler AG, Germany*

▪ Modelling Assumptions and Requirements in the Context of Project Risk, A. Miranskyy, N. Madhavji, M. Davison, M. Reesor, *U. of Western Ontario, Canada*

▪ A Requirements Engineering Methodology Based on Natural Language Syntax and Semantics, M. Georgiades, A. S. Andreou, C. S. Pattichis, *U. of Cyprus, Cyprus*

▪ CoCA: A Composition-Centric Approach to Requirements Engineering, R. Chitchyan, I. Sommerville, A. Rashid, *Lancaster U., UK*

▪ Eliciting User Requirements for Ambient Intelligent Systems: A Case Study, A. Ivanovic, A. Matysiak, K. Sikkel, R. Wieringa, *U. of Twente, Netherlands*

▪ Computer-Assisted and Customer-Oriented Requirements Elicitation, K. Li, R. G. Dewar, R. J. Pooley, *Heriot-Watt U., UK*

▪ Exploring the Role of Requirements Engineering in Improving Risk Management, J. Chisan, D. Damian, *U. of Victoria, Canada*

▪ Prototype of the Evaluation Framework for Functional Requirements of RE-tools, R. Matulevicius, *Norwegian U. of Science and Technology, Norway*

▪ Analysis of Project Management Reports of 49 System Integration Projects, T. Nakamura, *Tokyo U. of Technology, Japan*

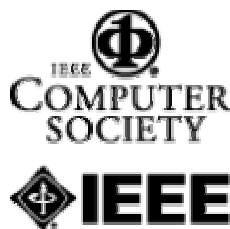- Early-AIM: An Approach for Identifying Aspects in Requirements, A. Sampaio, A. Rashid, P. Rayson, *Lancaster U., UK*
- REPARE: The Requirements Engineering Patterns Repository, L. Hagge, K. Lappe, T. Schmidt, *Deutsches Elektronen-Synchrotron, Germany*
- Using Cognitive Modeling for Requirements Engineering in Anesthesiology, C. Pott, J. le Feber, *Rijksuniversiteit Groningen, Netherlands*
- Finding Competitive Advantage in Requirements Analysis Education, T. Fuji, *Hokkaido Information U., Japan*
- Mobile Tools for Context-Aware Requirements Elicitation and Negotiation, N. Seyff, J. Kepler, *U. Linz, Austria*

SOCIAL EVENTS AND SERVICES

- ***Workshops and Tutorials Reception, August 30th, 2005 – Tuesday, 18:00-20:00.***

- ***Welcome Cocktail, August 31st, 2005 – Wednesday, 18:00-20:00.***

- ***Banquet, September 1st, 2005 –Thursday, 19:30-24:00:*** We have set up a nice social program at some special Paris venues. Our conference dinner will be held on Thursday night at the "Musée des Arts Forains", where we will view and use some old historical carousels and fair attractions.

  Address: 53, Avenue des Terroirs de France, 75012 Paris.

  How to reach "Le Musée des Arts Forains" by Metro and Bus from La Sorbonne:

  (M) Metro Line **14** Stop at **Cour Saint-Emilion**

  (BUS) Bus Lines **24, 109, 111** Stop at **TERROIRS DE FRANCE**

- ***Lunches*** are provided in different restaurants every day.

- ***How to reach La Sorbonne from IAE:***
  Bus Line **27** Stop at **'Monge-Claude Bernard'** for IAE
  Bus Line **27** Stop at **'Les écoles'** for La Sorbonne

La Sorbonne

- ***Useful addresses :***

- **La Sorbonne**: 17, rue de La Sorbonne, 75005, Paris

  (M) Metro Line **4** stop at **SAINT-MICHEL** or **ODEON** and Line **10** stop at **CLUNY LA SORBONNE**

  (BUS) Bus Lines **63, 86, 87** stop at **CLUNY**
  Lines **21, 27, 38, 85** stop at **LES ECOLES**
  Lines **38, 84,82, 89** stop at **LUXEMBOURG**
  Lines **84** stop at **PLACE DU PANTHEON**

  (RER) RER **B** stop at **LUXEMBOURG** or **SAINT-MICHEL-NOTRE-DAME**
  RER **C** stop at **SAINT-MICHEL- NOTRE-DAME**

- **IAE**: 21, rue Broca, 75005, Paris

  (M) Metro Line 7 Stop at **CENSIER-DAUBENTON**

  (BUS) Bus Line **91** Stop at **PORT ROYAL - BERTHOLLET**
  Line **83** Stop at **PORT ROYAL - BERTHOLLET**
  Line **27** Stop at **MONGE - CLAUDE BERNARD**

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