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Nota di contenuto	Invited Talks -- E-Voting and the Need for Rigorous Software Engineering -- The Past, Present and Future -- Using B Machines for Model-Based Testing of Smartcard Software -- The Design of Spacecraft On-Board Software -- Regular Papers -- Interpreting Invariant Composition in the B Method Using the Spec# Ownership Relation: A Way to Explain and Relax B Restrictions -- Chorus Angelorum -- Augmenting B with Control Annotations -- Justifications for the Event-B Modelling Notation -- Automatic Translation from Combined B and CSP Specification to Java Programs -- Symmetry Reduction for B by Permutation Flooding -- Instantiation of Parameterized Data Structures for Model-Based Testing -- Verification of LTL on B Event Systems -- Patterns for B: Bridging Formal and Informal Development -- Time Constraint Patterns for Event B

Development -- Modelling and Proof Analysis of Interrupt Driven Scheduling -- Refinement of Statemachines Using Event B Semantics -- Formal Transformation of Platform Independent Models into Platform Specific Models -- Refinement of eb 3 Process Patterns into B Specifications -- Security Policy Enforcement Through Refinement Process -- Integration of Security Policy into System Modeling -- Industrial Papers -- Experiences in Using B and UML in Industrial Development -- B in Large-Scale Projects: The Canarsie Line CBTC Experience -- A Tool for Firewall Administration -- The B-Method for the Construction of Microkernel-Based Systems -- Hardware Verification and Beyond: Using B at AWE -- Tool Papers -- A JAG Extension for Verifying LTL Properties on B Event Systems -- A Generic Flash-Based Animation Engine for ProB -- BE4: The B Extensible Eclipse Editing Environment -- BRAMA: A New Graphic Animation Tool for B Models -- LEIRIOS Test Generator: Automated Test Generation from B Models.-Meca: A Tool for Access Control Models -- JML2B: Checking JML Specifications with B Machines -- Invited Talk -- Plug-and-Play Nondeterminacy.

Sommario/riassunto

These proceedings record the papers presented at the Seventh International Conference of B Users (B 2007), held in the city of Besançon in the east of France. This conference was built on the success of the previous six conferences in this series, B 1996, held at the University of Nantes, France; B 1998, held at the University of Montpellier, France; ZB 2000, held at the University of York, UK; ZB 2002, held at the University of Grenoble, France; ZB 2003, held at the University of Turku, Finland; ZB 2005 held at the University of Surrey, Guildford, UK. B 2007 was held in January at the University of Franche-Comté, Besançon, France, hosted by the Computer Science Department (LIFC). LIFC has always placed particular emphasis on the applicability of its research and its relationship with industrial partners. In this context, it created in 2003 a company called LEIRIOS Technologies, which produces an automatic test generator tool (LTG) from models described in the B specification language. Other members of LIFC work on extensions of the B method for specifying and verifying dynamic properties. All the submitted papers in these proceedings were peer reviewed by at least three reviewers drawn from the B committee, depending on the subject matter of the paper. The authors of the papers for B 2007 were from Australia, Canada, Finland, Germany, France, Switzerland, and the UK. The conference featured a range of contributions by distinguished invited speakers drawn from both industry and academia.