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Titolo	Applications of Graph Transformations with Industrial Relevance : Second International Workshop, AGTIVE 2003, Charlottesville, VA, USA, September 27 - October 1, 2003, Revised Selected and Invited Papers / / edited by John L. Pfaltz, Manfred Nagl, Boris Böhlen
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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 3062
Disciplina	004
Soggetti	Discrete mathematics Software engineering Computer logic Mathematical logic Data structures (Computer science) Algorithms Discrete Mathematics Software Engineering Logics and Meanings of Programs Mathematical Logic and Formal Languages Data Structures Algorithm Analysis and Problem Complexity
Lingua di pubblicazione	Inglese
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Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Web Applications -- Graph Transformation for Merging User Navigation Histories -- Towards Validation of Session Management in Web Applications based on Graph Transformation -- Data Structures and Data Bases -- Specifying Pointer Structures by Graph Reduction -- Specific Graph Models and Their Mappings to a Common Model --

Engineering Applications -- Transforming Graph Based Scenarios into Graph Transformation Based JUnit Tests -- On Graphs in Conceptual Engineering Design -- Parameterized Specification of Conceptual Design Tools in Civil Engineering -- Agent-Oriented and Functional Programs, Distribution -- Design of an Agent-Oriented Modeling Language Based on Graph Transformation -- Specification and Analysis of Fault Behaviours Using Graph Grammars -- Object and Aspect-Oriented Systems -- Integrating Graph Rewriting and Standard Software Tools -- Expressing Component-Relating Aspects with Graph Transformations -- Natural Languages: Processing and Structuring -- Modeling Discontinuous Constituents with Hypergraph Grammars -- Authoring Support Based on User-Serviceable Graph Transformation -- Re-engineering -- Re-engineering a Medical Imaging System Using Graph Transformations -- Behavioral Analysis of Telecommunication Systems by Graph Transformations -- Reuse and Integration -- Specifying Integrated Refactoring with Distributed Graph Transformations -- A Domain Specific Architecture Tool: Rapid Prototyping with Graph Grammars -- Modelling Languages -- Graph Transformations in OMG's Model-Driven Architecture -- Computing Reading Trees for Constraint Diagrams -- UML Interaction Diagrams: Correct Translation of Sequence Diagrams into Collaboration Diagrams -- Meta-Modelling, Graph Transformation and Model Checking for the Analysis of Hybrid Systems -- Bioinformatics -- Proper Down-Coloring Simple Acyclic Digraphs -- Local Specification of Surface Subdivision Algorithms -- Transforming Toric Digraphs -- Management of Development and Processes -- Graph-Based Specification of a Management System for Evolving Development Processes -- Graph-Based Tools for Distributed Cooperation in Dynamic Development Processes -- Multimedia, Picture, and Visual Languages -- MPEG-7 Semantic Descriptions: Graph Transformations, Graph Grammars, and the Description of Multimedia -- Collage Grammars for Collision-Free Growing of Objects in 3D Scenes -- VisualDiaGen – A Tool for Visually Specifying and Generating Visual Editors -- Demos -- GenGED – A Visual Definition Tool for Visual Modeling Environments -- CHASID – A Graph-Based Authoring Support System -- Interorganizational Management of Development Processes -- Conceptual Design Tools for Civil Engineering -- E-CARES – Telecommunication Re- and Reverse Engineering Tools -- AGG: A Graph Transformation Environment for Modeling and Validation of Software -- Process Evolution Support in the AHEAD System -- Fire3: Architecture Refinement for A-posteriori Integration -- A Demo of OptimixJ -- Visual Specification of Visual Editors with VisualDiaGen -- The GROOVE Simulator: A Tool for State Space Generation -- Summaries of the Workshop -- AGTIVE'03: Summary from the Outside In -- AGTIVE'03: Summary from the Theoretical Point of View -- AGTIVE'03: Summary from the Viewpoint of Graph Transformation Specifications -- AGTIVE'03: Summary from a Tool Builder's Viewpoint -- Best Presentation and Demonstration Awards.

Sommario/riassunto

This volume consists of papers selected from the presentations given at the International Workshop and Symposium on "Applications of Graph Transformation with Industrial Relevance" (AGTIVE 2003). The papers underwent up to two additional reviews. This volume contains the revised versions of these papers. AGTIVE2003 was the second event of the Graph Transformation community. The aim of AGTIVE is to unite people from research and industry interested in the application of Graph Transformation to practical problems. The first workshop took place at Kerkrade, The Netherlands. The proceedings appeared as vol. 1779 of Springer-Verlags's Lecture Notes in Computer Science series.

This second workshop, AGTIVE 2003, was held in historic Charlottesville, Virginia, USA. Graphs constitute well-known, well-understood, and frequently used means to depict networks of related items in different application domains. Various types of graph transformation approaches— also called graph grammars or graph rewriting systems – have been proposed to specify, recognize, inspect, modify, and display certain classes of graphs representing structures of different domains. Research activities based on Graph Transformations (GT for short) constitute a well-established scientific discipline within Computer Science. The international GT research community is quite active and has organized international workshops and the conference ICGT 2002. The proceedings of these events, a three volume handbook on GT, and books on specific approaches as well as big application projects give a good documentation about research in the GT field (see the list at the end of the proceedings). The intention of all these activities has been (1) to bring together the international community in a viable scientific discussion, (2) to integrate different approaches, and (3) to build a bridge between theory and practice.
