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Nota di contenuto	Language Issues -- ULF-Ware -- An Open Framework for Integrated Tools for ITU-T Languages -- An Access Control Language for Dynamic Systems -- Model-Driven Development and Verification -- Non-deterministic Constructs in OCL -- What Does any() Mean -- Engineering Issues -- Integrating RT-CORBA in SDL -- Component Development: MDA Based Transformation from eODL to CIDL -- Service Discovery and Component Reuse with Semantic Interfaces -- ns+SDL -- The Network Simulator for SDL Systems -- Message Sequence Charts -- Semantics of Message Sequence Charts -- Compositional Semantics for UML 2.0

Sequence Diagrams Using Petri Nets -- Applications and Tools (Short Papers) -- SDL Design of OSPF Protocol for the Wireless Private Network -- ASM and SDL Models of Geographic Routing in Mobile Ad Hoc Networks -- Modeling Route Change in Soft-State Signaling Protocols Using SDL: A Case of RSVP -- Experiences in Using SDL to Support the Design and Implementation of a Logical Link Layer Protocol -- Modeling, Verifying and Testing Mobility Protocol from SDL Language -- Cinderella SLIPPER: An SDL to C-Code Generator -- Model Driven Architecture (Short Papers) -- Model-Driven Development of Reactive Systems with SDL -- A UML-Compatible Formal Language for System Architecture Description -- Test and Validation -- UCM-Driven Testing of Web Applications -- Network Element Testing Using TTCN-3: Benefits and Comparison -- A Compositional Approach to Service Validation -- Consistency Checking of Concurrent Models for Scenario-Based Specifications -- Code Generation -- SDL Code Generation for Open Systems -- SDL Versus C Equivalence Checking -- Synthesizing State-Machine Behaviour from UML Collaborations and Use Case Maps.

Sommario/riassunto

This volume contains the papers presented at the 12th SDL Forum, Grimstad, Norway. The SDL Forum was first held in 1982, and then every two years from 1985. Initially the Forum was concerned only with the Specification and Description Language that was first standardized in the 1976 Orange Book of the International Telecommunication Union (ITU). Since then, many developments took place and the language has undergone several changes. However, the main underlying paradigm has survived, and it is the reason for the success of the Specification and Description Language in many projects. This paradigm is based on the following important principles of distributed applications: Communication: large systems tend to be described using smaller parts that communicate with each other; State: the systems are described on the basis of an explicit notion of state; State change: the behavior of the system is described in terms of (local) changes of the state. The original language is not the only representative for this kind of paradigm, so the scope of the SDL Forum was extended quite soon after the first few events to also include other ITU standardized languages of the same family, such as MSC, ASN.1 and TTCN. This led to the current scope of System Design Languages covering all stages of the development process including in particular SDL, MSC, UML, ASN.1, eODL, TTCN, and URN. The focus is clearly on the advantages to users, and how to get from these languages the same advantage given by the ITU Specification and Description Language: code generation from high-level specifications.