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Nota di contenuto	Validation of Communications Systems with SDL; Contents; Preface; Foreword; 1 Introduction; 1.1 Validation of Communications Systems; 1.2 SDL, Language to Master Complex Systems Development; 1.2.1 Overview of SDL; 1.2.2 Benefits provided by SDL; 1.3 Simulation Life Cycle; 1.4 Contents of the Book; 1.5 Tools and Platforms Used; 2 Quick Tutorial on SDL; 2.1 Structure of an SDL Model; 2.1.1 System, block and process; 2.1.2 Scope of declarations; 2.1.3 Process; 2.1.4 Procedure; 2.2 Communication; 2.2.1 Signals; 2.2.2 Channel; 2.2.3 Signal route; 2.3 Behavior; 2.3.1 Structure of a transition 2.3.2 Start 2.3.3 States 2.3.4 Input 2.3.5 Save 2.3.6 Variables 2.3.7 Stop 2.3.8 Task 2.3.9 Create 2.3.10 Output 2.3.11 Decision 2.3.12 Timers 2.4 Data Types 2.4.1 Predefined data 2.4.2 Array 2.4.3

Synonym and sytype; 2.4.4 Newtype; 2.5 Constructs for Better Modularity and Genericity; 2.5.1 Package; 2.5.2 Types, instances and gates; 2.5.3 Specialization; 3 The V.76 Protocol Case Study; 3.1 Presentation; 3.2 Specification of the V.76 Protocol; 3.2.1 Abbreviations used; 3.2.2 Exchange identification procedures (XID); 3.2.3 Establishment of a data link connection

3.2.4 Information transfer modes3.2.5 Release of a DLC; 3.3 Analysis MSCs for the V.76 Protocol; 3.4 The SDL Model of V.76; 3.4.1 The simulation configuration of V.76; 3.4.2 The package V76; 3.4.3 The block dataLink; 4 Interactive Simulation; 4.1 Principles; 4.2 Case Study with Tau SDL Suite; 4.2.1 Prepare the Simulator; 4.2.2 Validate against the main scenarios; 4.2.3 Detect a bug in the SDL model; 4.2.4 Detect nonsimulated parts; 4.2.5 Validate against more scenarios; 4.2.6 Write a script for automatic validation; 4.2.7 Other Simulator features; 4.3 Case Study with ObjectGeode

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5.3.6 More details on GOAL observers

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## Sommario/riassunto

Validation of Communications Systems with SDL provides a clear practical guide to validating, by simulation, a telecom system modelled in SDL. SDL, the Specification and Description Language standardised by the International Telecommunication Union (ITU-T), is used to specify and develop complex systems such as GSM, GPRS, UMTS, IEEE 802.11 or Hiperlan. Since the downturn in the telecom industry, validating a system before its implementation has become mandatory to reduce costs. This volume guides you step by step through the validation of a simplified protocol layer, from interactive

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