Preface

This volume contains the papers presented at the Tenth SDL Forum, Copenhagen.

SDL is the Specification and Description Language first standardized by the world telecommunications body, the International Telecommunications Union (ITU), more than 20 years ago in 1976. While the original language and domain of application has evolved significantly, the foundations of SDL as a graphical, state-transition and process-communication language for real-time systems have remained. Today SDL has also grown to be one notation in the set of unified modelling languages recommended by the ITU (ASN.1, MSC, SDL, ODL, and TTCN) that can be used in methodology taking engineering of systems from requirements capture through to testing and operation.

The SDL Forum is held every two years and has become the most important event in the calendar for anyone involved in SDL and related languages and technology. The SDL Forum Society that runs the Forum is a non-profit organization whose aim it is to promote and develop these languages.

At the first SDL Forum in Florence in September 1982, few imagined that SDL would be an important real-time software engineering language with applications used outside the telecommunications industry in 2000. SDL was graphical before low cost supporting graphics computers existed. SDL was defined in terms of an abstract grammar (or meta-model) and concrete syntax in 1984, long before the currently fashionable UML collection of notations with similar formulation came into existence. The basic SDL part of the Telelogic Tau tool was shown at the second SDL Forum in 1985. Objects were introduced at the third SDL Forum in 1987. The idea of Message Sequence Charts (MSC) as a separate standard was introduced at the fourth Forum 1989. The fifth Forum focused on methods, and the sixth on the use of objects and introduced integration of ASN.1 and SDL. The seventh and eighth covered the use of SDL and the new MSC standard in computer aided software engineering (CASE) and testing. The ninth Forum showed how SDL-2000 and MSC-2000 provide object modelling and harmonization with OMG UML.

The SDL Forum has always been the primary event for the discussion of the evolution of SDL and MSC, and the event that demonstrates how the notations adapt to meet market requirements. The Tenth SDL Forum is no exception, and sees further unification between SDL and other languages, and in particular the meeting of SDL with UML in methods, notations, and tools. The programme covers a broad range of languages used from requirements capture to implementation: as well as SDL and MSC these include UML, ASN.1, TTCN, and new developments associated with these languages.

The content of this volume will be of interest to engineers and researchers who are applying or are considering using the languages mentioned above. While the Forum is essentially a technical conference, the selection of items for the

programme covers both theoretical topics and the practical application of the languages in real product development.

As an editor of this volume, I have read through every paper and have been pleased with the interesting and varied selection made by the Programme Committee. However, the papers show that perhaps the acronym *SDL* in the name of the Society should be re-assigned to stand for *System Design Languages*, as the real domain of concern of the Society and the participants of the conference is systems engineering.

April 2001   Rick Reed
                                                          `secretary@sdl-forum.org`

Organization

Each SDL is organized by the SDL Forum Society with the help of local organizers. The Organizing Committee consists of the Board of the SDL Forum Society plus the local organizers and others as needed depending on the actual event. For SDL 2001 the local local organizers were Cinderella and Telelogic, who need to be thanked for their effort to ensure that everything was in place for the papers in the book to presented.

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the authors who are thanked for their work.