

Preface

Nowadays, software and systems engineers are facing many challenges when they develop new systems. Society is expecting those systems to have high quality, provide exciting functionalities, and be produced at low cost. To cope with the growing complexity and diversity of engineering problems, the adoption of systematic and disciplined approaches to deal with requirements is of paramount importance. Over the past years, researchers and practitioners, most notably from the software and information systems domain, have contributed to create an extensive body of knowledge related to the engineering and management of requirements.

Although requirements engineering has essentially grown in the software and information systems domain, this book aims to have a broader perspective, since the process of characterising, for instance, a building, automobile, boat, or house includes many similar issues to those found to construct a software-intensive system.

Many of the methods and techniques discussed in this book are not exclusive for the software and information systems domain and can thus be applied in any engineering project, whatever branch or field. Project stakeholders are increasingly realising that requirements must be correctly handled if the project is to be a success. However, there are still many engineering projects where requirements are not adequately addressed, since the teams are not prepared for the task, due to lack of training, coaching, or experience.

This book focuses on various topics related to engineering and management of requirements, in particular elicitation, negotiation, prioritisation, and documentation (whether with natural languages or with graphical models). The book provides the reader with methods and techniques that help to characterise, in a systematic manner, the requirements of the intended engineering system. It was written with the goal of being adopted as the main text for courses on requirements engineering, or as a strong reference to the topics of requirements in courses with a broader scope. It can also be used in vocational courses, for professionals interested in the software and information systems domain.

We hope that readers will find this book valuable, either for understanding the rationale behind the methods and techniques, or as a handbook to support the approaches to be adopted in their next engineering projects. Visit the “Requirements in engineering projects” companion website at www.springer.com/RequirementsEP to find valuable educational material for students, lecturers, and researchers. To contact us, the authors, please send an email to RequirementsEP@springer.com.

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