# SOFTWARE REQUIREMENTS SPECIFICATION

## for

## <Project>

**Version 1.24.8 approved**

**Prepared by <author>**

**<Organization>**

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# Revision History

| Name | Date | Reason For Changes | Version |
|---|---|---|---|
| J.-M. Bruel | 2021-01-22 | First Draft | 1.0 |
| J.-M. Bruel | 2023-01-28 | Check after publication of the Handbook | 1.23 |
| J.-M. Bruel | 2023-06-12 | Add reqs automated numbering | 1.23.1 |
| J.-M. Bruel | 2023-08-25 | Add Minimum Requirements Outcome Principle | 1.23.8 |
| J.-M. Bruel | 2023-12-22 | Remove section numbers | 1.23.12 |
| J.-M. Bruel | 2024-08-01 | Add warning about non empty chapters | 1.24.8 |

This document follows the requirements documentation structure presented in the Handbook of requirements and business analysis, by Bertrand Meyer.

# Contents

# Goals

## Contents



**Comment:** *Goals are "needs of the target organization, which the system will address". While the development team is the principal user of the other books, the Goals book addresses a wider audience: essentially, all stakeholders.*

## G.1 Context and overall objective

**Comment:** *High-level view of the project: organizational context and reason for building a system.*
**Comment:** *This chapter should not be empty!*

**Goal 1.** This is a goal example. If you need explicit (and automatic) numbering, you can use the definitions in the `.tex` template. Is is refined by 3

**Requirement 2.** *This is a requirement example. It illustrates how numbering is continuous and cross-types (if this is what you need).*

## G.2 Current situation

**Comment:** *Current state of processes to be addressed by the project and the resulting system.*

**Requirement 3.** *This is a requirement example. It refines 1*

## G.3 Expected benefits

**Comment:** *New processes, or improvement to existing processes, made possible by the project's results.* **Comment:** *This chapter should not be empty!*

## G.4 Functionality overview

**Comment:** *Overview of the functions (behavior) of the system. Principal properties only (details are in the System book).*

## G.5 High-level usage scenarios

**Comment:** *Fundamental usage paths through the system.*

## G.6 Limitations and exclusions

**Comment:** *Aspects that the system need not address.*

## G.7 Stakeholders and requirements sources

**Comment:** *Groups of people who can affect the project or be affected by it, and other places to consider for information about the project and system.* **Comment:** *This chapter should not be empty!*

# Environment

Contents



**Comment:** *The Environment book describes the application domain and external context, physical or virtual (or a mix), in which the system will operate.*

## E.1 Glossary

**Comment:** *Clear and precise definitions of all the vocabulary specific to the application domain, including technical terms, words from ordinary language used in a special meaning, and acronyms. This chapter should not be empty!*

## E.2 Components

**Comment:** *List of elements of the environment that may affect or be affected by the system and project. Includes other systems to which the system must be interfaced.*

## E.3 Constraints

**Comment:** *Obligations and limits imposed on the project and system by the environment.* **Comment:** *This chapter should not be empty!*

## E.4 Assumptions

**Comment:** *Properties of the environment that may be assumed, with the goal of facilitating the project and simplifying the system.*

## E.5 Effects

**Comment:** *Elements and properties of the environment that the system will affect.*

## E.6 Invariants

**Comment:** *Properties of the environment that the system's operation must preserve.*

# System

Contents



**Comment:** *The System book refines the Goal one by focusing on more detailed requirements about the system under development, mainly its constituents, behaviors and properties.*

## S.1 Components

**Comment:** *Overall structure expressed by the list of major software and, if applicable, hardware parts.*
**Comment:** *This chapter should not be empty!*

## S.2 Functionality

**Comment:** *One section, S.2.n, for each of the components identified in S.2, describing the corresponding behaviors (functional and non-functional properties).* **Comment:** *This chapter should not be empty!*

## S.3 Interfaces

**Comment:** *How the system makes the functionality of S.2 available to the rest of the world, particularly user interfaces and program interfaces (APIs).*

## S.4 Detailed usage scenarios

**Comment:** *Examples of interaction between the environment (or human users) and the system: use cases, user stories.*

## S.5 Prioritization

**Comment:** *Classification of the behaviors, interfaces and scenarios (S.2, S.3 and S.4) by their degree of criticality.*

## S.6 Verification and acceptance criteria

**Comment:** *Specification of the conditions under which an implementation will be deemed satisfactory.*

# Project

Contents



**Comment:** *The Project book describes all the constraints and expectations not about the system itself, but about how to develop and produce it.*

## P.1 Roles and personnel

**Comment:** *Main responsibilities in the project; required project staff and their needed qualifications.*

## P.2 Imposed technical choices

**Comment:** *Any a priori choices binding the project to specific tools, hardware, languages or other technical parameters.*

## P.3 Schedule and milestones

**Comment:** *List of tasks to be carried out and their scheduling.* **Comment:** *This chapter should not be empty!*

## P.4 Tasks and deliverables

**Comment:** *Details of individual tasks listed under P.3 and their expected outcomes.* **Comment:** *This chapter should not be empty!*

## P.5 Required technology elements

**Comment:** *External systems, hardware and software, expected to be necessary for building the system.*

## P.6 Risks and mitigation analysis

**Comment:** *Potential obstacles to meeting the schedule of P.4, and measures for adapting the plan if they do arise.*

## P.7 Requirements process and report

**Comment:** *Initially, description of what the requirements process will be; later, report on its steps.*