



中山大学软件工程学院

SCHOOL OF SOFTWARE ENGINEERING

第4讲 软件需求规约(SRS)

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- 实验内容

- IEEE SRS 标准

- IEEE SRS 示例

■ 撰写软件需求规约文档

- 1. 整理分析建模的结果
- 2. 参照IEEE SRS标准, 撰写SRS文档

IEEE需求工程(RE)标准



■ ISO/IEC/IEEE 29148

- 系统与软件需求工程的IEEE国际标准, 涵盖了需求的**定义**、**表达**、**分类**、**获取**、**验证&确认**、**规约**及管理

INTERNATIONAL
STANDARD

ISO/IEC/
IEEE
29148

Second edition
2018-11

**Systems and software engineering —
Life cycle processes — Requirements
engineering**

*Ingénierie des systèmes et du logiciel — Processus du cycle de vie —
Ingénierie des exigences*

IEEE需求工程(RE)标准



External Environment

market trends
laws & regulations
legal liabilities
social responsibilities
technology base
labor pool
competing products
standards & specifications
public culture
Physical/natural environment

Organization Environment

policies & procedures
standards & specifications
guidelines
domain technologies
local culture

Business Requirement
(business management level)

Business Operation

business operational
processes
constraints
policies & rules
modes
quality
business structure

Stakeholder
Requirement
(business operational
Level)

System Operation

System

System Element

Software

System Element

Software
Requirement

System
Requirement

Figure 3 — Example of requirements scope in a business context

IEEE软件需求规约(SRS)

- There is no one optimal organization of the SRS for all systems.

For the details of each part, please refer to Section 9.6 of the ISO/IEC/IEEE 29148 standard.

1. Introduction

- 1.1 Purpose
- 1.2 Scope
- 1.3 Product overview
 - 1.3.1 Product perspective
 - 1.3.2 Product functions
 - 1.3.3 User characteristics
 - 1.3.4 Limitations
- 1.4 Definitions

2. References

3. Requirements

- 3.1 Functions
- 3.2 Performance requirements
- 3.3 Usability requirements
- 3.4 Interface requirements
- 3.5 Logical database requirements
- 3.6 Design constraints
- 3.7 Software system attributes
- 3.8 Supporting information

4. Verification

(parallel to subsections in Section 3)

5. Appendices

- 5.1 Assumptions and dependencies
- 5.2 Acronyms and abbreviations

Figure 8 — Example SRS Outline



Software requirements specification (SRS) -- 校园超速监控系统



SSE212课程实践系统-- 图书自助借还系统