OntarioTech
Engineering & Applied Science

SOFE-2720
Tutorial #2

Requirements Templates

What is a requirement?
(re-cap)

- A requirement is something that a product must do to support its stakeholders business, or a quality it must have to make it acceptable and attractive to the stakeholders.

- It exists because the type of product demands certain functions and qualities, or because the client justifiably asks for that requirement to be part of the delivered product.

Suzanne Robertson and James Robertson. 2012. Mastering the Requirements Process: Getting Requirements Right (3rd. ed.). Addison-Wesley Professional.

Software Requirements Specification

What is a Requirements Document?

A software requirements specification (SRS) or requirements document is a complete description of the behaviour of a system to be developed. It may include a set of use cases that describe the interaction between the system and the user/environment.

Requirements Document Templates

There are many different templates that are used by different groups for requirements documents

- Two most popular: IEEE and Volere

Volere Template

Contents

Requirement #: **75**   Requirement Type: **9**   Event/BUC/PUC #: **7, 9**

Description: **The product shall record all the roads that have been treated**

Rationale: **To be able to schedule untreated roads and highlight potential danger**

Originator: **Arnold Snow - Chief Engineer**

Fit Criterion: **The recorded treated roads shall agree with the drivers' road treatment logs and shall be up to date within 30 minutes of the completion of the road's treatment**

Customer Satisfaction: **3**   Customer Dissatisfaction: **5**

Dependencies: **All requirements using road and scheduling data**   Conflicts: **105**

Supporting Materials: **Work context diagram, terms definitions in section 5**

History: **Created February 29, 2010**

Volere
Copyright © Atlantic Systems Guild

IEEE/ISO/IEC 29148-2018

- The ISO/IEC/IEEE International Standard - Systems and software engineering -- Life cycle processes -- Requirements engineering

- https://ieeexplore.ieee.org/document/8559686
  - Access through Ontario Tech Library.

Contents

Key Sections

Introduction

- Provides an overview of the entire SRS.

- Should contain (at least) the following sections
  - Purpose
  - Scope
  - Definitions, Acronyms, and Abbreviations (*)
  - References
  - Overview

Overall Description

- This section describes the general factors that affect the product and its requirements.

- You do not state the specific requirements in this section. You provide a background for those requirements.
  - Product perspective
  - Product functions
  - User Characteristics
  - Constraints
  - Assumptions and Dependencies

Functional Requirements

- This section contains all of the software requirements to a fine level of detail.

- The functional requirements should at the very least include a description of every single input into the system, every output from the system, and all functions performed by the system in response to an input or in support of an output.

Non-Functional Requirements

- Look and Feel Requirements

- Usability and Humanity Requirements

- Performance Requirements

- Operational and Environmental Requirements

- Maintainability and Support Requirements

- Security Requirements

- Legal Requirements

Questions?