|  |
| --- |
| PS2Win |
| Requirements Analysis Process |
| Keep Your Time |

|  |
| --- |
| Carla Machado  09-03-2013 |

Content

[1. Purpose 1](#_Toc350594971)

[2. Inputs and Outputs 1](#_Toc350594972)

[2.1. Inputs 1](#_Toc350594973)

[2.2. Outputs 1](#_Toc350594974)

[3. Activities 1](#_Toc350594975)

[3.1. Elicit Customer needs 1](#_Toc350594976)

[3.2. Define Assumptions and Restrains 2](#_Toc350594977)

[3.3. Definition of use cases or user stories 2](#_Toc350594978)

[3.4. Specification of System Requirements 2](#_Toc350594979)

[4. Tools 3](#_Toc350594980)

[5. Related Processes 3](#_Toc350594981)

[6. Measures 3](#_Toc350594982)

**Images**

**Não foi encontrada nenhuma entrada do índice de ilustrações.**

**Tables**

[Table 1: List of Contribuitors ii](#_Toc349382241)

[Table 2: Version history ii](#_Toc349382242)

|  |  |  |  |
| --- | --- | --- | --- |
| **Authors and Contributors** | | | |
| **Date** | **Name** | **Contacts** | **Contribution** |
| 09-03-2013 | Carla Machado | a21170460@alunos.isec.pt | Author |
| 09-03-2013 | João Girão | a21170831@alunos.isec.pt | Author |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Table 1: List of Contributors

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Revision History** | | | | | |
| **Date** | **Description** | **Author** | **Version** | **Approvers** | **State** |
| 09-03-2013 | Creation of first draft | Carla Machado &  João Girão | 0.1 |  | Draft |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Table 2: Version history

# Purpose

The purpose of the Requirements Analysis Process is the analysis and the detailing of client needs and requirements in order to be able to provide a system requirement specification.

The process also has the purpose of assuring that the customer needs and expectations are understood and the right solution is developed.

# Inputs and Outputs

In this chapter the inputs and outputs of the Requirements Analyzes Process will be described.

# Inputs

This process will be initiated by the opportunity of developing a software project.

The main inputs of the process will be the customer needs including any documentation and other forms of information provided by the customer and if possible users needs.

Another input to the process should be the input of the project team and any additional stakeholders.

# Outputs

The output of the process will be a word document specifying the system requirements, the System Requirements Specification, and also a number of complementary files such as the project file of the requirements management tool or use case tool.

# Activities

# Elicit Customer needs

The purpose of this activity will be de clarification of the customer needs as well as the gathering of information about the solution to develop.

In this stage there are a number of techniques that can be used. The ones to be used should be chosen according to the specific needs of the project.

Some of the techniques are:

* Brainstorming;
* Questionnaires, interviews and scenarios;
* Prototypes and models;
* Use cases drafts;
* Workshops with stakeholders;

The outputs of these activities will be used to the user case definition and requirements specification.

One of the mandatory outputs of this activity are the Business Rules that should be registered in the project file of Enterprise Architect and follow the naming convention BR-Number.

# Define Assumptions and Restrains

The purpose of this activity is the definition of the project assumptions and restrains. These assumptions and restrains can be of a technical order or related to the business rules.

The result of this activity will be registered in the project file of Enterprise Architect. Each assumption and restrain will be defined by a given name and description.

The naming of the items will follow the convention of ASS-Number for the assumptions and RST-Number for the restrains.

# Definition of use cases or user stories

The purpose of this activity is the definition the uses cases and the possible scenarios. The use cases will provides a set of scenarios that convey how the system should interact with a human user or another system.

The use cases will be registered in the project file of Enterprise Architect. For each use case will be defined a name, a description if necessary the preconditions and the paths.

Each use case must be related to the Business Rules or element that originated the use case.

# Specification of System Requirements

The purpose of this activity is the specification of the requirements.

## Requirements Analysis

The requirements must be classified by type such as functional or performance or others and also given a level of priority and complexity. The scale to be used is:

* High
* Medium
* Low

How to calculate the priority?

Furthermore each requirement must be SMART:

* Specific (scale 0-9)
* Measurable (scale 0-9)
* Attainable (scale 0-9)
* Realisable (scale 0-9)
* Traceable (scale 0-9)

**If there are requirements inconsistences and conflicting:**

* …
  + 1. **Requirements Organization**

The requirements should be properly identified and categorized: functional requirements, non-functional requirements and user requirements.

The requirements will be registered in the project file of Enterprise Architect and related to the elements that originated the requirement.

The nomination of each requirement must be consistent through them all and must be accorded project by project.

The output of this activity is the exportation of the project file in Enterprise architect to a document the Software Requirements Specification.

# Tools

The tools to be used in the activities of this process are a use case and a requirements management tool the Enterprise Architect. For documentation purposes Microsoft Office tools will be used.

# Related Processes

This process is related to the Document Management Process that should be followed when creating the Software Requirements Specification.

# Measures

Each for requirement estimate:

* Benefit:
  + 1 useless;
  + 9 very important;
* Penalization:
  + 1 it has no impact;
  + 9 very serious consequences;
* Cost:
  + 1 very fast and easy;
  + 9 very slow and complex;
* Risk:
  + 1 it not exist;
  + 9 significant risks;