<Calculator>

Version <1.0>

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Revision History

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# Introduction

[The introduction of the **Software Requirements Specification (SRS)** provides an overview of the entire **SRS**. It includes the purpose, scope, definitions, acronyms, abbreviations, references, and overview of the **SRS**.]

[Note: The **SRS** captures the complete software requirements for the system, or a portion of the system. Following is a typical **SRS** outline for a project **using use-case modeling**. This artifact consists of a package containing use cases of the use-case model and applicable Supplementary Specifications and other supporting information.]

[Many different arrangements of an **SRS** are possible. Refer to [IEEE830-1998] for further elaboration of these explanations, as well as other options for **SRS** organization.]

## Purpose

[Specify the purpose of this **SRS**. The **SRS** fully describes the external behavior of the application or subsystem identified. It also describes nonfunctional requirements, design constraints, and other factors necessary to provide a complete and comprehensive description of the requirements for the software.]

The purpose of this SRS is to explain the behavior of the calculator. It describes what the calculator needs as well as the intended users that it will be directed toward.

## Scope

[A brief description of the software application that the **SRS** applies to, the feature or other subsystem grouping, what Use-Case model(s) it is associated with, and anything else that is affected or influenced by this document.]

The SRS applies to the Calculator, which is made to parse, and calculate mathematical expressions. It provides the user with the ability to calculate basic arithmetic with operators using a user interface in the command line. The calculator is designed for users who want a simple and minimalistic calculator through a command line interface.

## Definitions, Acronyms, and Abbreviations

[This subsection provides the definitions of all terms, acronyms, and abbreviations required to properly interpret the **SRS**. This information may be provided by reference to the project’s Glossary.]

Calculator: The program itself

UI: User interface

IfN: Infix Notation

PN: Postfix Notation

EXPR: Expression

## References

[This subsection provides a complete list of all documents referenced elsewhere in the **SRS**. Identify each document by title, report number if applicable, date, and publishing organization. Specify the sources from which the references can be obtained. This information may be provided by reference to an appendix or to another document.]

N/A – no references at this moment

## Overview

[This subsection describes what the rest of the **SRS** contains and explains how the document is organized.]

The rest of the SRS will contain the overall description which will detail the general factors which affect the calculator software and its requirements. It will then go into detail about the specific requirements that are needed to create the calculator. It will then classify the functional requirements in a table format and categorize them by type. Lastly, the appendices are available for further reading.

# Overall Description

[This section of the **SRS** describes the general factors that affect the product and its requirements. This section does not state specific requirements. Instead, it provides a background for those requirements, which are defined in detail in Section 3, and makes them easier to understand. Include such items as:

## Product perspective

### System Interfaces

### User Interfaces

### Hardware Interfaces

### Software Interfaces

### Communication Interfaces

### Memory Constraints

### Operations

## Product functions

## User characteristics

## Constraints

## Assumptions and dependencies

## Requirements subsets

# Specific Requirements

[This section of the **SRS** contains all software requirements to a level of detail sufficient to enable designers to design a system to satisfy those requirements, and testers to test that the system satisfies those requirements. When using use-case modeling, these requirements are captured in the Use Cases and the applicable supplementary specifications. If use-case modeling is not used, the outline for supplementary specifications may be inserted directly into this section, as shown below.]

## Functionality

[This section describes the functional requirements of the system for those requirements that are expressed in the natural language style. For many applications, this may constitute the bulk of the **SRS** package and thought should be given to the organization of this section. This section is typically organized by feature, but alternative organization methods may also be appropriate; for example, organization by user or organization by subsystem. Functional requirements may include feature sets, capabilities, and security.

Where application development tools, such as requirements tools, modeling tools, and the like, are employed to capture the functionality, this section of the document would refer to the availability of that data, indicating the location and name of the tool used to capture the data.]

### <Functional Requirement One>

[The requirement description.]

## Use-Case Specifications

[In use-case modeling, the use cases often define the majority of the functional requirements of the system, along with some non-functional requirements.]

## Supplementary Requirements

[Supplementary Specifications capture other requirements, e.g., non-functional requirements and development constraints, that are not included in the use cases and non-functional requirements.]

# Classification of Functional Requirements

[List, usually in a table, all functional requirements and order them by Type (Essential, Desirable, and Optional) or by order of appearance in the document.]

|  |  |
| --- | --- |
| **Functionality** | **Type** |
| ... |  |
| ... |  |

# Appendices

[When appendices are included, the **SRS** should explicitly state whether or not the appendices are to be considered part of the requirements]