# SRS and CA Checklist

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- Follows the template, all parts present

  - ☐ Table of contents
  - ☐ Pages are numbered
  - ☐ Revision history included for major revisions
  - ☐ Sections from template are all present
  - ☐ Values of auxiliary constants are given (constants are used to improve maintainability and to increase understandability)

- Grammar, spelling, presentation

  - ☐ No spelling mistakes (use a spell checker!)
  - ☐ No grammar mistakes (review, ask someone else to review (at least a few sections))
  - ☐ Paragraphs are structured well (clear topic sentence, cohesive)
  - ☐ Paragraphs are concise (not wordy)
  - ☐ No Low Information Content (LIC) phrases (List of LIC phrases)
  - ☐ All hyperlinks work
  - ☐ Every figure has a caption
  - ☐ Every table has a heading
  - ☐ Symbolic names are used for quantities, rather than literal values

- LaTeX

- ☐ Template comments (plt) do not show in the pdf version, either by removing them, or by turning them off.
- ☐ References and labels are used so that maintenance is feasible

- Overall qualities of documentation

  - ☐ No statement is repeated at the same level of abstraction (for instance the scope should be more abstract than the assumptions, the goal statements should be more abstract than the requirements, etc.)
  - ☐ Someone that meets the characteristics of the intended reader could learn what they need to know
  - ☐ Someone that meets the characteristics of the intended reader could verify all of the statement made in the SRS. That is, they do not have to trust the SRS authors on any information.
  - ☐ Terminology, definitions, symbols, TMs and DDs can be given without derivation, except possibly for a source (citation), but all GDs and IMs should be derived/justified. At least check a representative sample for this criteria.
  - ☐ SRS is unambiguous. At least check a representative sample.
  - ☐ SRS is consistent. At least check a representative sample.
  - ☐ SRS is validatable. At least check a representative sample.
  - ☐ SRS is abstract. At least check a representative sample.
  - ☐ SRS is traceable. At least check a representative sample.
  - ☐ Literal symbols (like numbers) do not appear, instead being represented by SYMBOLIC_CONSTANTS (constants are given in a table in the Appendix)

- Reference Material

  - ☐ All units introduced are listed (searching the document can help look for other units that may be present, but not listed)
  - ☐ Units listed are each used at least once (manually searching the document is a quick way to check this)
  - ☐ The names of units named after people are in lower-case

- ☐ All symbols used in the document are listed in the table of symbols
- ☐ All symbols listed in the table of symbols are used in the document
- ☐ All abbreviations/acronyms used in the document are listed in the table of abbreviations/acronyms
- ☐ All abbreviations/acronyms listed in the table of abbreviations/acronyms are used in the document

- Introduction

  - ☐ Introductory blurb focuses on the problem domain
  - ☐ Introductory blurb Includes a "roadmap"
  - ☐ "Purpose of the Document" discusses the documentation's purpose, not the program's purpose
  - ☐ Scope of the requirements is an abstract version of the assumptions
  - ☐ Characteristics of the intended reader are not confused with the user characteristics
  - ☐ Characteristics of the intended reader are unambiguous

- General System Description

  - ☐ System context includes a figure showing the relation between the software system and external entities
  - ☐ User characteristics are unambiguous
  - ☐ User characteristics are specific
  - ☐ System constraints have an appropriate rationale (a constraint without a reason for that constraint is likely making the SRS less abstract than it should be)

- Problem Description

  - ☐ Each item of the physical system is identified and labelled
  - ☐ Goal statements are abstract
  - ☐ Goal statements use a minimal amount of technical language, understandable by non-domain experts

- Solution Characteristics Specification

- ☐ Each assumption is "atomic" (no explicit or implicit "ands")
- ☐ Assumptions are a refinement of the scope
- ☐ Each assumption is referenced at least once
- ☐ A link exists between each chunk and anything that references it
- ☐ The rationale is given for assumptions that require justification
- ☐ The derivation of all GDs as refinements from other models is clear
- ☐ The derivation of all IMs as refinements from other models is clear
- ☐ All DD are used (referenced) by at least one other model
- ☐ The IMs remain abstract
- ☐ Input data constraints are given, with a rationale where appropriate
- ☐ Properties of a correct solution are given

- Functional Requirements

  - ☐ IMs and (possibly) TMs and GMs are referenced as appropriate by the requirements.
  - ☐ All requirements are validatable
  - ☐ All requirements are abstract
  - ☐ Requirements are traceable to where the required details are found in the document

- Nonfunctional Requirements

  - ☐ NFRs are verifiable

- Likely and Unlikely changes

  - ☐ Likely changes are feasible to hide in the design

- Traceability Matrices

  - ☐ Traceability matrix is complete