



Requirements Document Quality Checklist

Checks of the Document Structure

1. Is the template for the document up to date?
 - Do the boilerplate sections reflect our current procedures and best practices?
 - Is there a section that defines how imperatives and other standardized language shall be used and interpreted?
 - Are there any sections that need to be revised?
2. Does the document follow our agreed hierarchical structure?
3. Are requirements identifiers linked to the document structure?
 - Does the structure help users find requirements easily?

Checks of Each Written Requirement

4. Is the requirement tagged with a Project Unique Identifier?
5. Has the proper imperative been used for the requirement?
 - Has the imperative (*shall* or *must*) been used once and only once?
 - Has the imperative been used according to our standardization rules?
 - Are all other standardized words used according to our standardization rules?
6. Can an objective test be written for the requirement?
 - Are both a test method and a test case evident in the wording of the requirement?
 - Are all necessary reaction windows or other tolerances stated in the requirement?
7. If the requirement is functional, is it implementation-neutral?
 - Does the requirement clearly state **what** the system must do and **not how** the system must do it?
 - Is the requirement stated strictly in terms of its external interfaces, or behaviours that can be readily observed?
8. Has the rationale for the requirement been clearly stated?
 - Are there any associated requirements that might affect interpretation of this requirement and should therefore be referenced in the rationale statement?



Requirements Document Quality Checklist

- If no rationale statement has been included, is the rationale obvious in the requirement statement or from associated directives or references?
9. Does the requirement include a directive?
 - If so, does the reference clarify the requirement, and is it easy to locate?
 - If not, could the requirement be simplified or clarified through use of a directive?
 10. Is the requirement stated clearly and concisely?
 - Is it formatted according to our agreed best practices?
 11. Are the requirement's preconditions and triggers clearly defined within the requirement?
 12. Have exception scenarios been explored for this requirement?
 - Have the corresponding exception conditions been properly and clearly stated within the requirement or referenced via directive?
 13. Is the requirement stated in precise, measurable terms?
 - Is it free of weak words (like the following)

• efficient	• compatible	• quickly
• powerful	• normal	• timely
• fast	• user-	• strengthen
• easy	friendly	• enhance
• effective	• before	
• reliable	• after	
 14. Has the requirement been stated in active voice?
 - Has passive voice (shall *be*) been avoided?
 - If the requirement is non-functional, has it been stated using the imperative must?
 15. Does the requirement state what the system shall do, rather than what it shall not do?
 - If "shall not" has been used, is the use of the negative justified (for safety, etc.), and have double negatives been avoided?
 16. Where "compatibility" is required, has the nature of that compatibility been fully defined?



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17. Does the requirement contain any slashes (/) or other symbols that might cause misinterpretation?
 - Could the requirement be split or otherwise restated to remove any ambiguity?
18. Is the requirement specific, rather than vague?
 - Does it give the implementation team a clear, precise target to shoot for?

Final Quality Checks

19. Has each requirement been evaluated and vetted by all stakeholders who are impacted by it?
 - Which design and implementation groups are affected?
 - Which test and integration groups are affected?
 - Are any third-party equipment organizations affected?
 - Which maintenance and support organizations are affected?
 - Do safety specialists, human factors specialists or users need to evaluate it?
20. Are all the impacted stakeholders on the circulation list for final review of the requirements document?
 - Have we provided each of them a list of the requirements they need to review?