



Impuls3

Requirements Classification

Requirements Classification



Some requirements are more useful than others. This part of the classification looks at the intrinsic characteristics of requirements. The meaning or content of requirements is not evaluated. This means that the classification can be done purely on what is visible of the requirements and its context.

To classify requirements, some criteria are used to determine if a requirement can be managed and / or verified.

1. Is the requirement recognized as a requirement? Is it marked as a requirement? Does it have a clear beginning and end?
2. Does the requirement have a unique identification?
3. Is the scope clear? Can the reader detect a clear subject of the requirement?
4. Is the requirement quantified? Can it be tested / verified?
5. Is the context of the requirement identified? Is it embedded in the requirement or is it linked to?

Requirements Classes



5 – contextual
4 – verifiable
3 – specific
2 – manageable
1 – unmanageable
0 – ignored

	0	1	2	3	4	5
Identified as requirement	Not clear if the text is intended as requirement	Text is marked as a requirement	Text is marked as a requirement	Text is marked as a requirement	Text is marked as a requirement	Text is marked as a requirement
ID	No unique identification	No unique identification	Unique identification	Unique identification	Unique identification	Unique identification
Scope clear	Not clear what the System-of-Interest is	Not clear what the System-of-Interest is	Not clear what the System-of-Interest is	Clear what the System-of-Interest is	Clear what the System-of-Interest is	Clear what the System-of-Interest is
Quantification	No quantification applied	No quantification applied	No quantification applied	No quantification applied	Requirement is quantified	Requirement is quantified
Context	Not clear if surrounding text is relevant	Not clear if surrounding text is relevant	Not clear if surrounding text is relevant	Not clear if surrounding text is relevant	Not clear if surrounding text is relevant	Context for the requirement is identified, embedded or linked to

Classification justification



Why do requirements need some characteristics?

Why does a requirement need to be recognized as a requirement?

- Otherwise, it is up to the reader to determine what part of a text or image, table or other type of information carrier, is relevant or not. Not all readers may interpret the information in the same manner, leading to different expectations.

Why does a requirement need to have a unique identification?

- To ensure that the requirement can be referred to (in contracts, baselines, test plans, commissioning specifications).

Why does a requirement need to state its subject explicitly?

- To ensure that the requirement is designed at the right abstraction level.

Why does a requirement need to be quantified?

- To ensure that the requirement can be verified and tested during design and build phases

Why does the reader need to understand if surrounding text is relevant?

- To ensure that the relevant circumstances and conditions for the requirement can be considered during design