



## Requirements Quality Analyzer

Requirements Quality Analyzer allows you to define, measure, improve and manage the quality of your requirements specifications.

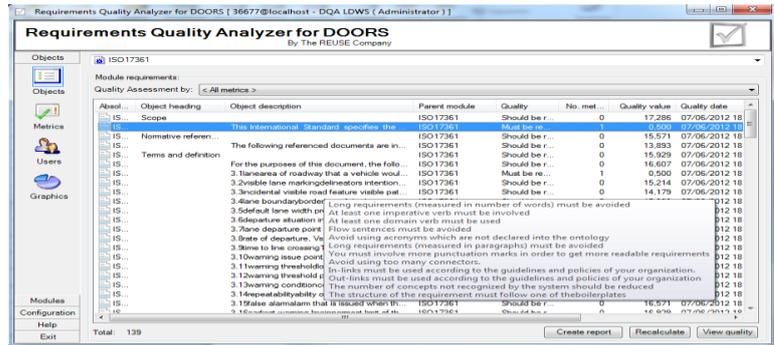
### The SMARTer way to manage requirements quality

Requirements Management is one of the most important processes in many engineering projects.

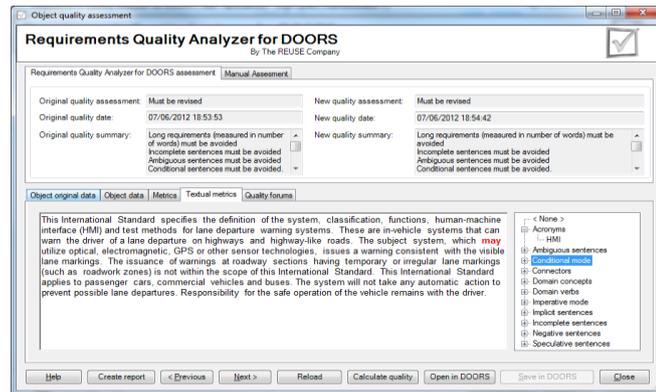
Focusing on quality from the very beginning pays a huge ROI in every organization.

Activities such as peer-reviewing, definition of checklists and policies; and processes such as Verification & Validation... are performed in every successful project.

Supporting those activities and processes with automatic tools doubtlessly reduces their effort and ensures that no single detail could remain overlook.



Requirements Quality Analyzer (RQA) uses a wide set of metrics in order to assess the quality of a requirement specification (Correctness, Consistency and Completeness). While individual metrics are suitable to assess the quality of a single requirement, global metrics can assess the quality of a global specification. The global metrics covered in the Requirements Quality Suite are: coupling, inconsistency and missing requirements.



### Benefits of the tool



**Quality:** The quality of your projects will boost by analyzing all of the agreed best practices, rules, checklists, policies... None of them will be overlook.



**Time:** Reduce the time of the overall RM process by automating some very time-consuming tasks.



**Money:** Save money by automating peer-reviewing and V&V processes. Furthermore, the most important way of cutting costs is achieved by reducing rework.

### RQA improved reporting

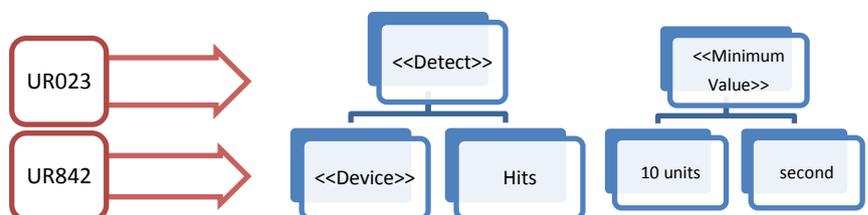
RQA version 4 includes a whole set of new reports suitable for different roles in the organization. Thus, on the one side the new reporting system covers the overall quality of a project, while it also covers the details dealing with the quality of a given individual requirement.

The new reporting system includes a very valuable tool for Quality Control teams: reports can be automatically generated and sent to the author of the requirements (or project manager) just by providing an email account in the setup process.

### Semantic capabilities

RQA is based on natural language processing and semantic techniques, thus allowing a comparison of the actual meaning of the requirements, and not the keywords finally used. For example, the following two requirements will be considered as sharing the same semantics:

- UR001: ....
- UR023: The Radar shall be able to detect hits at a minimum rate of 10 units per second.
- URxxx: ...
- UR842: The Detector must discern hits at a higher rate of 10 units per scnd.



## RQA supporting different roles in the projects

By using RQA, different roles in the RM process can easily perform their main activities:

### Quality Control Teams:

- Can define the quality standers to be used
- Can check that quality is evolving in the right way
- Can detect ways of improvement and training for the organization

### Project managers:

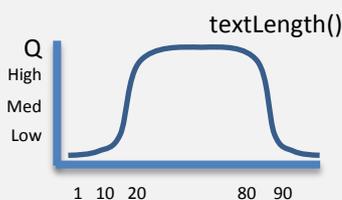
- Can check the quality of their projects (correctness)
- Can look for missing requirements (completeness)
- Can look for coupled requirements or incorrect measurement units (consistency)
- Can assess the performance of the team

### Requirements authors:

- Can check the quality of their requirements

## Customizable quality functions

RQA allows an easy customization of metrics and quality functions. You can decide what metrics will be involved, which will be the quality functions, different kinds of requirements using a different set of metrics and quality functions...



## Contact

**The REUSE Company**  
 16 Margarita Salas St., 2nd. Floor  
 Leganés Technology Park  
 28919-Leganés. Madrid (Spain)  
 +34 911 265 271  
 contact@reusecompany.com  
 www.reusecompany.com

RQA, as well as the improvement process, can be both customized according to a PDCA cycle:



### Plan:

- Identify projects and domains to be enhanced.
- Take initial measurements on real data.
- Identify the initial set of metrics and quality functions.
- Define the requirements knowledge model.

### Do:

- Operate the tools in the suite.
- Execute assessments for individual requirements and global specifications.

### Check:

- Is quality evolving as expected?
- Do our teams need additional training?
- How can metrics and quality functions be adjusted to carry on with the improvement process?

### Act:

- Adjust metrics and quality functions.
- Train requirements authors.
- Evolve the requirements knowledge model.

## RQA into the Requirements Quality Suite



RQA is fully integrated with:

- **Requirements Authoring Tool (RAT):** that allows to write requirements under the premise "right the first time"
- **knowledgeMANAGER:** that allows to manage the boilerplates used by authors as well as the requirements knowledge model and other semantic items needed by the core technology of the Requirements Quality Suite.

## RQA list of features

Completeness, consistency and correctness checking
Quality assessment for individual requirements
Customizable set of metrics and Quality Functions
Assessment of requirements for: ambiguous, non atomic, over-specified, unreadable, use of a wrong verb tense/voice/mode...
More than 25 metrics involved (out-of-the-box). Other metrics can be created by you
Quality assessment for a global project
Use of inconsistent set of units
Detection of coupled requirements
Detection of missing requirements
Enhanced reporting
New reporting system covering all of the quality information managed by the tool
Reports created and sent automatically by the Quality Batch Process
Integration with RM tools
RQA is currently integrated into IBM DOORS, Visure IRQA and MS Excel
Integration with the TRC's Requirements Quality Suite
Integration with RAT to assess the quality on the fly while writing the requirement
Integration with knowledgeMANAGER to customize your knowledge base

