

QUAMET – Qualification Methodology

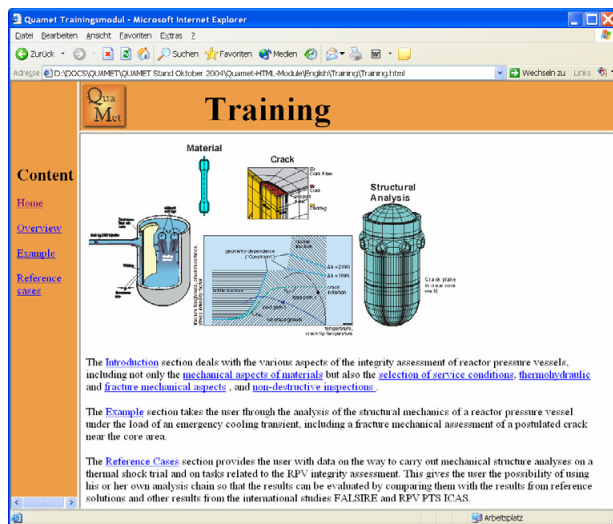
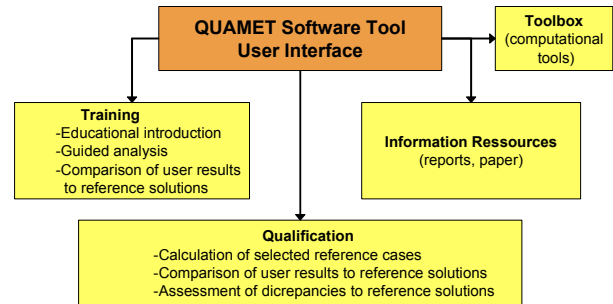
(J. Sievers, T. Schimpfke)

QUAMET is a tool for **Qualification of Analysis Methods and User Training** to perform **Structural Mechanics Analyses on Reactor Pressure Vessel (RPV) Integrity Assessment**".

QUAMET was developed by GRS in the framework of the research project RS 1138 sponsored by the German Ministry of Economics and Labor.

> General options of the QUAMET Tool

The tool guides the analyst through specific analysis procedures that can be applied within RPV integrity assessment. Reference problems and solutions are drawn from international activities on simulation of large scale experiments as well as an RPV benchmark. User results can be qualified based on statistical evaluation of benchmark results.



> Qualification of User Results

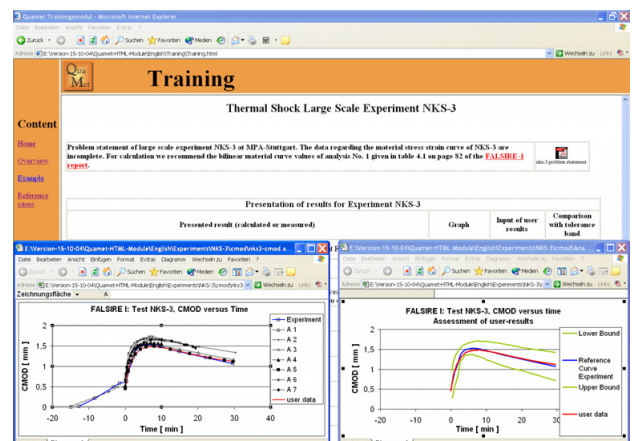
For the assessment of user results the QUAMET tool includes reference solutions and tolerance bands based on statistical evaluations of built-in acceptable benchmark results.

> Aspects on Knowledge Management

The QUAMET tool is a contribution to Knowledge Management. As a Qualification Method it is part of the knowledge base on safety of pressurized components, which further includes R&D results, Analysis Methods, Conference Proceedings, Design & Material Data, Codes & Standards, Operational Experience. - The QUAMET procedure can be applied to other working fields, in which experimental data as well as analysis results should be used for the qualification of analysis methods and the training of users.

> Options of the Training Module

- **Introduction**
Comprehensive overview on the different aspects of RPV integrity assessment
- **Learning Example**
Guided analysis example from the task matrix of RPV PTS ICAS (task C1T1)
- **Reference Cases**
Description of 15 large scale experiments as problem statements with input data and analysis results summarized in 248 comparative plots from international activities (FALSIRE, TSRR)
Description of 15 tasks from the benchmark RPV PTS ICAS with input data and analysis results summarized in 78 comparative plots
- Links to **Information Ressources** including relevant reports



Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) mbH
Schwertnergasse 1, 50667 Köln
Dr. Jürgen Sievers +49 (0)221-2068 747 / siv@grs.de
Dr. Thomas Schimpfke +49 (0)221-2068 743 / sit@grs.de