

SQUARE Software Product Quality

WG6 Jeju meeting results

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Content

- WG6 General Info
- ISO/IEC 25021: QME Quality Measure Elements
- ISO/IEC 25051: COTS
- ISO/IEC 25022: Quality in Use
- ISO/IEC 25023: System and Software Product Quality
- ISO/IEC 25024: Data Quality
- ISO/IEC 25000: Guide to SQuaRE

WG6 Members – ISO/IEC 250nn SQuaRE

23 members from **9 National Bodies** (countries) joined and contributed

National Body	Member
Canada	Witold Suryn, Jean-Marc Desharnais (By Webex)
China	Yuyu Yuan, Yangyang Zhang, Lizhi Cai, Jorgen Boegh, Chuanyi Liu
Finland	Markku Tukiainen
France	Jean-Louis Michel (By Webex)
India	S. Muralidharan, Vijay Shinkar
Italy	Domenico Natale, Andrea Trenta
Japan	Motoei Azuma, Toshihiro Komiyama, Jacky Takahashi (FSM), Yukio Tanitsu, Kazuhiro Esaki, Noriko Wada, Atsushi Yamada, Kenichi Sakamoto, Shinichi Ishikawa, Shigeru Takeda (FSM)
Korea	Seok-Kyoo Shin, Ju-Yeun Han, Won-Jun Cho, Su-Kyoung Shin, A-Yeon Kim
UK	Nigel Bevan

SQuaRE Architecture and Sub-projects

ISO/IEC 2503n: Quality Requirement Division

25030: Quality Requirements (IS)

ISO/IEC 2501n: Quality Model Division

25010: Quality Model (IS)

25012: Data Quality Model (IS)

ISO/IEC 2504n: Quality Evaluation Division

25040: Quality Evaluation Process (IS)

ISO/IEC 2500n: Product Quality General

25000: Guide to SQuaRE (IS)

25001: Planning and Management (IS)

25041: Evaluation Guide for Developers, Acquirers and Evaluators (FDIS)

25045: Evaluation Module for Recoverability (FDIS)

ISO/IEC 2502n: Quality Measurement Division

25020: Measurement Reference Model (IS)

25021: Quality Measure Elements (TR)

25021: Quality Measure Elements (2nd DIS)

25022: Measurement of Quality in Use (NP)

25023: Measurement of Sys & SWP Quality (NP)

25024: Measurement of Data Quality (NP)

ISO/IEC 25050 ~ 25099: SQuaRE Extension

Division
25051: Requirements for Quality of COTS (IS)

25051: Requirements for Quality of COTS (Revi.)

ISO/IEC 25060 ~ 25069:
Common Industry Format for Usability

JWG JTC1/SC7 and ISO/TC159/SC4

ISO/IEC 25000 ~: SQuaRE Project Summary (1/3)

Published Standards – Finished Projects

1. ISO/IEC **25000**: Guide to SQuaRE (2005/8) => Revision
2. ISO/IEC 25001: Planning & Management (2007/2)
3. ISO/IEC 25010: Quality model, (2011/03)
4. ISO/IEC 25012: Data quality Model (2008/12)
5. ISO/IEC 25020: Measurement RM&G (2007/5)
6. ISO/IEC TR **25021**: Quality Measure Element (2007/10) => Revision
7. ISO/IEC 25030: Quality Requirements (2007/6)
8. ISO/IEC 25040: Evaluation reference model and guide (2011/02)
9. ISO/IEC 25045: Evaluation module for recoverability (2010/08)
10. ISO/IEC **25051**: Requirements for Q of COTS software and Instructions for testing (2006/04) => Revision

ISO/IEC 25000 ~: SQuaRE Project Summary (2/3)

Developing Standards – Current Projects

- ISO/IEC **25021**: SQuaRE- Quality Measure Element - Revision of TR 25021 QME
 - 2nd DIS ballot closed 2012/05
 - To forward for **FDIS** ballot after Jeju meeting
- ISO/IEC **25041**: Evaluation guides for developers, acquirers and independent evaluators
 - FDIS ballot closed 2012/04
 - To forward for **publish** after Jeju meeting
- ISO/IEC **25051** Quality Requirements & Test for COTS
 - NP was closed and **approved**
 - To forward for **CD Ballot** after Jeju meeting

ISO/IEC 25000 ~: SQuaRE Series Summary (3/3)

New Work Items Plan

The following will be sent for NP Ballot

- **ISO/IEC 25000**: Guide to SQuaRE – (Revision)
- **ISO/IEC 25022**: Measurement of quality in use (Revision of 9126-4 Quality in use metrics)
- **ISO/IEC 25023**: Measurement of system and software product quality (Integration & revision of 9126-2 and -3)
- **ISO/IEC 25024** Measurement of data quality (New)
- **ISO/IEC TR12182**: Categorization of software (Revision)

Study Group – IT Service Quality

- WG6 agreed that IT Service Quality Model fits with Current SQuaRE series
- WG6 suggested that IT Service Quality Study group to draft a New Work Item Proposal on IT Service Quality Model and associated WD for NP Ballot.
- WG6 suggested that the NP will be assigned to WG6 when approved.

ISO/IEC 25021: Discussion points and resolutions (1/2)

- DIS.2 25021 ballot has just closed and approved by 17 National Bodies
 - 4NB Brazil, Japan, UK and UK provided comments and 3NB (Japan, UK and UK)have vote negative
- Most of resolutions are proposed to comments of DIS.2 ballot and have circulated in WG6.
- Most of reflections to resolve ballot comments have been done on 25021 documents and proposed resolution, although some parts of 25021 need to be still edited to be ready to the next stage.

ISO/IEC 25021: Discussion points and resolutions (2/2)

- All of US technical comments concerns on inconsistency to WG28 ISO/IEC 25063 that eliminated context coverage and context completeness. These are rejected, because 25021 refers 25010.
- Most of UK comments including technical comments are able to be covered by editorial corrections.
- Brazilian and Japanese comments are editorials and able to be resolved.
- 25021 Editor and Co-editors determined:
 - to resolve NB comments such as proposed;
 - to finalize main part of 25021 by editing to resolve NB comments of 2nd DIS ballots;
 - to revise A.1 and other annexes a little more to make up as informative annex text;
 - to remove Table A.2 from 25021 and move such QME list and cross references into 25022,23 and 24 respectively.

ISO/IEC 25021: Remaining issues

- We would like to propose WG6 to approve that 25021 goes forward to FDIS ballot as the next stage.
- Some clauses of 25021 need to be corrected for editorial changes and to be made up as the ready document to the next stage.
 - Normative main body, Table A.1 and other texts in Annexes.

Plan for next stage and milestones ISO/IEC 25021:

- in case of **FDIS** -

- **Revise the document and Distribute to WG6**
=> 2012/06/04
- **WG6 feedback**
=> 2012/06/18
- **Revise document and send it to WG6 Convener and Secretariat**
=> 2012/07/01
- **Revise document and send it to SC7 Secretariat**
=> 2012/07/06
- **SC7 secretariat send it for FDIS Ballot**
=> 2012/07/27
- **Ballot Closed**
=> 2012/09/27
- **Letter Ballot Summary**
=> 2012/10/18

ISO/IEC 25051

- Nominated as new co-editors
 - Lizhi Cai (China)
 - Michael Kress (US, To be confirmed)
- Revised
 - 5.Requirements for COTS software product
 - Revised them according to 25010
 - Divided the description of Quality in use from 1 paragraph to each characteristics
 - 6.Requirements for test documentation
 - Newly added following features into 6.2 Requirements for the test plan
 - Cost, Risk, Resource, Communication
- Discussed
 - The relationship between 29119 series and 25051
 - Some points in 29119-3(About test documantation9) are related, but we can't recommend it because 29119 is not strictly fit to 25051. Other documents 29119(1, 2, 4) are not strictly related to 25051, so we don't consider about it

ISO/IEC 25051: Remaining issues

- Definition of “COTS” needs to be discussed
 - Current definition of it does not strictly include the downloadable applications from web store. We should need to consider about the problem, and include them to 25051.
- Each description of newly added are not discussed and described
 - Each characteristics of quality in use in 5.1 and 5.3
- Newly added contents under 6.2
- Create a mapping table between 25051 and 29119 series as informative annex.
- Need review after 6.3

Plan for next stage and milestones ISO/IEC 25051: - CD -

- **Revise document and send it to WG6 Convener and Secretariat**
=> 2012/6/25
- **Review document and send it to SC7 Secretariat**
=> 2012/6/30
- **SC7 secretariat send it for CD Ballot**
=> 2012/7/11
- **Ballot Closed**
=> 2012/10/11
- **Letter Ballot Summary**
=> 2012/10/18

ISO/IEC 25022: Quality in Use

- Explain in Introduction to 25022 that QiU can be regarded as:
 - a stage of development
 - a measurement method
 - a property of a product in a context of use (measured by effectiveness, efficiency, satisfaction, risk and/or context completeness), or
- Explain the difference between a QiU measure and an external usability measure (with a diagram)
 - QiU measures can be scoped to any size of system (from a combined human-computer service, through the software application to a software function (e.g. menu manipulation or the help system)).
 - Some external quality measures have the same operational definition as quality in use measures (i.e. when QiU measures are applied to a function, they are ways of measuring external usability).

ISO/IEC 25022: Quality in Use

- Clarify that the context of use (types of users, types of tasks and usage environment including the communication network and computer) for QiU measures can be specified precisely as part of a contractual requirement, but for COTS products, assumptions have to be made (e.g. based on market research).

ISO/IEC 25023

- Discussed 25022/25023/25024 common issues on Quality Measure table format, and handling of survey reports done by China/Japan/Korea.
- No significant discussion specific to 25023 was made during this week, because WD of 25023 is already mature and ready for WD submission.

ISO/IEC 25023

- We do not find any significant issues on current version of WD other than below;
 - Harmonise the Introduction between 25022/3/4 (can be shortened in 25023)
 - Some text in the Introduction should be in the main body.
 - Delete the Conformance clause
 - Remove some references from the Normative references
 - Add terms and definitions that are needed to use this standard
 - Remove the concept of required measures, and instead use the categories:
 - High: General (should always use)
 - Medium: Specific (should use when appropriate)
 - Low: Other (may be useful sometimes)
 - Annexes B and C should be deleted for incorporation in a future revision of 25020

ISO/IEC 25023

- The document needs to be harmonized among 25022/25023/25024 from table format and other points of view, however we decided to submit NWIP with current WD for ballot. We expect to reflect such harmonization to the document by review comments.

Plan for next stage and milestones ISO/IEC 25023: - NP & WD -

- **Revise the document and Distribute to WG6**
=> done
- **WG6 feedback**
=> done
- **Revise document and send it to WG6 Convener and Secretariat**
=> 2012/06/15
- **Revise document and send it to SC7 Secretariat**
=> 2012/06/22
- **SC7 secretariat send it for NWIP Ballot**
=> 2012/06/29
- **Ballot Closed**
=> 2012/09/30
- **Letter Ballot Summary**
=> 2012/10/15

ISO/IEC 25024: Discussion points and resolutions

- SCOPE OF DATA QUALITY MEASUREMENT
- HARMONIZATION OF QM and QME REPRESENTATION SCHEMA
- FIG. 2 THAT INCLUDE ISO 25025 (?)
- REVISED DEFINITIONS OF MEASURES

Plan for next stage and milestones ISO/IEC 25024: - WD&CDR -

- **Revise the document and Distribute to WG6**
=> 2012/05/25
- **WG6 feedback**
=> 2012/06/10
- **Revise document and send it to WG6 Convener and Secretariat**
=> 2012/06/20
- **Revise document and send it to SC7 Secretariat**
=> 2012/07/06
- **SC7 secretariat send it for *** Ballot**
=> 2012/07/13
- **Ballot Closed**
=> 2012/10/18
- **Letter Ballot Summary**
=> 2012/11/01

Revision of 25000: Guide to SQuaRE

- Revision points are specified with marked-up and comments on the current ISO/IEC 25000: 2005 based on Japanese contribution
- Preparation of NP and PWD

Plan for next stage and milestones

25000: - NP -

- **Distribute initial PWD to WG6**
=> 2012/09/30
- **WG6 feedback**
=> 2012/10/31
- **Discuss based on the revised document in Buenos Aires**
=> 2012/11/19-23
- **Circulate NWI Proposal attached with PWD after Buenos Aires Meeting**

Further information about SC7 standards and SQUARE

- www.sfs.fi, IT standardisation at general level
- www.fisma.fi, Software, Systems, Services standards
- FiSMA: [risto.nevalainen \(at \) fisma.fi](mailto:risto.nevalainen@fisma.fi)
- SQUARE: [markku.tukiainen \(at \) uef.fi](mailto:markku.tukiainen@uef.fi)