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ISO/IEC JTC1/SC7 /N3086, Meeting Minutes SC7/WG6-Evaluation and Metrics,
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ISO/IEC JTC1/SC7 /N3146, Meeting Minutes SC7/WG6-Evaluation and Metrics,
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INTRODUCTION

ISO/IEC JTC1 SC7 is fast tracking the American National Standard ANSI/INCITS 354 Common Industry Format (CIF) for Usability Test Reports to an ISO standard. The CIF specifies a format for reporting summative usability results, and is particularly intended for use as part of software procurement.

The CIF was originally developed by a group of 300+ software organizations in 24 countries, led by the National Institute for Standards and Technology in the US. There is now demand to have it available as an international standard.

SC7 decided to establish a study group to examine the CIF. The terms of reference of this study group are to investigate the implications of enlarging the scope of the CIF and how to harmonize it with the software quality standards of the ISO/IEC 25000 (SQuaRE) series documents. This study group, chaired by Ms. Mary Theofanos, will submit a report to the 2005 SC7 plenary meeting. Members were invited after the Brisbane meeting.

Background of CIF

ISO/IEC JTC1 SC7 is fast tracking the American National Standard ANSI/INCITS 354 Common Industry Format (CIF) for Usability Test Reports to an ISO standard. This resolution complements the SC7 Plenary chairman's presentation that identified the current stage of IT industry expansion as being in a customer-centric phase.

The purpose of the CIF is to provide visibility of product usability prior to purchase. The CIF focuses on quality in use attributes. It codifies best practice for describing a summative test and reporting the statistical results. It does not prescribe the experimental design, but defines objective measures of effectiveness, efficiency, and recommends the inclusion of subjective satisfaction data. The report format provides enough description of the test to allow replication including:

1. Portion of the product tested
2. Test participants sampled – number, key characteristics, demographics
3. Tasks – scenarios, reasons for selection, completion criteria
4. Context – computing environment, tester's tools
5. Metrics –Efficiency, effectiveness, satisfaction
6. Data scoring procedure
7. Statistical analysis

There are two target audiences:

- usability professionals; and
- Stakeholders within an organization.

Usability professionals develop a CIF. Stakeholders within an organisation use a CIF to:

- Make informed decisions concerning the release of software products
- Compare usability test results among products for the procurement of products.

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Study Group on Revision of ANSI NCITS 354-2001

790 JTC1/SC7 instructs its Secretariat to establish a study group to investigate the possibility of enlarging the scope of ANSI NCITS 354-2001, American National Standards for Information Technology - Common Industry Format for Usability Test Report.

The terms of reference of this Study Group is to:

- study to enlarge the scope as for Common Industry Format for Quality Test Report,
- review ANSI NCITS 354-2001, American National Standards for Information Technology - Common Industry Format for Usability Test Report from the view of harmonization with ISO/IEC 25000 (SQuaRE) series documents.

Its membership will consist of Nigel Bevan.

Additional members can be added until 2004-06-30. Nominations must be sent to the SC7 secretariat.

This study group will be chaired by Ms. Mary Theofanos and will submit a report by 2005-02-15.

The following plan was accepted until further discussion at the WG6 Granada.

- Member list to WG6 Secretariat by 06/30/04
- SG chair will generate initial draft by 08/30/04 and send to members
- Members send back opinion by 09/30/04
- Chair will update the draft and discuss at Granada
- Future plans will be addressed at the Granada meeting.

SG Members

The following members joined the meeting.

- Motoei AZUMA , Japan
- Nigel Bevan, UK
- Dean Barker, acting SG chair, US
- Vipula Godamunne, Australia
- Kwang-hae Oh, Korea

Schedule

The following plan was reported by the SG and approved by WG6.

- Send discussion notes from Granada to Chairperson
- Chairperson prepares report in consultation with study group
- Prepare and distribute 1st draft report to SC7 and WG6: December 15, 2004
- SC7/WG6 feedback: January 15, 2005
- Prepare and distribute 2nd draft report to SC7 and WG6: February 15, 2005
- SC7 and WG6 feedback: February 28, 2005
- Send report to SC7 and WG6 Secretariat: March 30, 2005

CIF Discussion Points

The following issues were discussed at the SG meeting that was held in connection with the WG6 Granada meeting.

CIF Scope Enlargement

The study group identified two ways to enlarge the scope of the CIF:

- CIF for other quality attributes (non-usability CIFs)
- CIFs for other usability views:
 - CIF for usability requirements
 - CIF for formative usability testing
 - CIF for reporting on usability testing of hardware and embedded software systems
 - Process for usability testing (i.e. to generate CIF for Usability Test Reports)

CIF for other quality attributes (Non-usability CIFs)

CIFs for documenting the test results of other quality attributes such as efficiency, reliability, functionality, maintainability, and portability were discussed. However, the study group members present in Granada have not identified market demand for this expansion and pursuing non-usability CIFs would require Technical Experts in those areas. The study group needs feedback from WG6 to pursue this direction.

CIF for other usability views

- CIF for usability requirements –Currently a CIF for usability requirements is being progressed by the Industry USability Reporting (IUSR) working group. A U.S. group with international participation supported by the U. S. National Institute of Standards and Technology (NIST). Comments are currently being disposed. The IUSR working group intends to propose for fast-track via U.S. body (e.g. NIST, UPA), directives require “Category A” liaison.
- CIF for formative usability testing – The current CIF is for summative testing and focuses on metrics. Formative testing is focused on improving the product and identifies a defect list and possibly recommendations to correct defects. CIF study group members present concluded that the formative aspects of usability testing should be considered. CIF for formative usability testing is being progressed by IUSR working group.
- CIF for hardware and embedded software systems -- CIF study group members present concluded that hardware and embedded software system usability testing should be considered. WG7 published software life cycle process and a possible solution includes extending the CIF once fast-track is complete. This would require a new work item proposal.

A potential model of the CIF reports was identified, Product Usability Requirements and Evaluation (PURE). This model would include:

- CIF for usability requirements
- CIF for formative usability testing
- Current CIF for Summative Usability Testing with extensions for hardware and embedded software systems.
- Method for Summative Usability Testing to codify how to perform testing.

CIF/SQuaRE Harmonization

Three alternatives were discussed.

1. Distinct CIF model containing related standards and technical reports
2. CIF within SQuaRE architecture
3. Extension to SQuaRE set of standards.

RECOMMENDATION

The SC7 CIF Study Group recommends that SC7 WG6:

- Extend the CIF for Usability Test Reports (when fast track completed) for hardware and embedded software systems
- Document PURE model and integrate with SQuaRE
- Monitor the IUSR working group and their activities on the CIF for Usability Requirements and their efforts on formative usability testing.