

**ISO/IEC JTC 1  
Information Technology**

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**Document Title:** NWIP, Software and Systems Engineering – Requirements for Process Measurement Frameworks

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**Reference:** N4352, Resolution 1164

**Document Status:** This document is circulated to JTC 1 National Bodies for concurrent review. If the JTC 1 Secretariat receives no objections to this proposal by the due date indicated, we will so inform the SC 7 Secretariat

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## ISO/IEC JTC1/SC7 N4403

2009-07-19

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<b>Source</b>	WG10
<b>Project</b>	31003
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## New Proposal

May 2009

### PROPOSAL FOR A NEW WORK ITEM

Date of presentation of proposal: 2009-05-29	Proposer: WG10
Secretariat: National Body	<b>ISO/IEC JTC 1 N XXXX</b> ISO/IEC JTC 1/SC 7 N XXX

**A proposal for a new work item** shall be submitted to the secretariat of the ISO/IEC joint technical committee concerned with a copy to the ISO Central Secretariat.

**Presentation of the proposal** - to be completed by the proposer.

<b>Title</b> Software and Systems Engineering – Requirements for Process Measurement Frameworks
<b>Scope</b> This new work item is a component of the revision of ISO/IEC 15504, Information technology – Process assessment. The scope of this work is to develop requirements for process measurement frameworks as described in the attached study group report.
<b>Purpose and justification</b> – The purpose and justification for this work is partly contained in sections 6.2 and 7.1.4 of the report of the Study Group on the revision of ISO/IEC 15504, 07N5352, and is summarised below.  Though measurement theory has a long history over 100 years, its application in software and systems engineering domain processes is relatively short, saying ISO/IEC 15504 measurement framework. Various reasons for assessing processes – measuring process capability/maturity, performance enhancement, efficiency, and others – may require different measurement frameworks including current ISO/IEC 15504 measurement framework.  Inappropriate use of a measurement framework increases the risks for (1) a false positive by declaring a significant relationship between process capability and performance improvements when it is really insignificant and (2) a false negative by declaring insignificance of the relationship when it is really significant. Requirements established by this standard reduce those risks by appropriate specification of process measurement frameworks in service, software, and systems engineering.
<b>Programme of work</b>  If the proposed new work item is approved, which of the following document(s) is (are) expected to be developed? <input checked="" type="checkbox"/> X a single International Standard <input type="checkbox"/> more than one International Standard (expected number: ..... ) <input type="checkbox"/> a multi-part International Standard consisting of ..... parts <input type="checkbox"/> an amendment or amendments to the following International Standard(s) ..... <input type="checkbox"/> a technical report , type .....  And which standard development track is recommended for the approved new work item? <input checked="" type="checkbox"/> X a. Default Timeframe <input type="checkbox"/> b. Accelerated Timeframe <input type="checkbox"/> c. Extended Timeframe

**Relevant documents to be considered**

- ISO/IEC JTC1/SC7 N4352 – Final Study Group Report on the Revision of ISO/IEC 15504
- ISO/IEC 15504-1:2004 Information technology -- Process assessment -- Part 1: Concepts and vocabulary.
- ISO/IEC 15504-2:2003 Software Engineering - Process Assessment - Part 2:Performing An Assessment
- ISO/IEC 14404-3: Information technology -- Process assessment -- Part 3: Guidance on performing an assessment
- ISO/IEC 15504-4:2004 Information technology -- Process assessment -- Part 4: Guidance on use for process improvement and process capability determination
- ISO/IEC 15504-5:2006 Information technology -- Process Assessment -- Part 5: An exemplar Process Assessment Model
- ISO/IEC 15504-6:2008 Information technology -- Process assessment -- Part 6: An exemplar system life cycle process assessment model
- ISO/IEC 15504-7:2008 Information technology -- Process assessment -- Part 7: Assessment of organizational maturity
- ISO/IEC WD 15504-8 Information technology – Process assessment – Part 8: An exemplar assessment model for IT Service Management
- ISO/IEC PDTR 15504-9 Information technology – Process assessment – Target process profiles
- NWIP – ISO/IEC 15504-10 Information technology – Process assessment – Safety extensions
- NWIP – ISO/IEC 29169 Information technology - The application of conformity assessment methodology to process capability and organizational maturity
- ISO/IEC 15939 Software Engineering - Software Measurement Process
- ISO/IEC 19770 Information Technologies - Software asset management processes
- W21 N081 SAM Microsoft SAM Optimization Model
- Ho-Won Jung, "A position paper on ISO/IEC 15504 Revision".

**Co-operation and liaison**

- ISO/IEC/JTC1/SC7/WG7 (Software and Systems Life Cycle Processes)
- ISO/IEC/JTC1/SC7/WG21 (Asset Management)
- ISO/IEC/JTC1/SC7/WG25 (Service Management)
- ISO/IEC JTC1/SC27/WG5 (Identity management and privacy technologies)

**Preparatory work offered with target date(s)**

Members from Australia, Finland, Germany, India, Japan, South Africa, UK, USA intend to work jointly to develop and submit an initial working draft following approval of the NP prior to a first meeting.

Support for this New Work Item Proposal has been offered by Australia, Finland, Germany, India, Japan, South Africa, UK, SPICE User Group.

Project co-editors have been offered by Korea, India and Finland,

**Signature:** A Dorling, WG10 Convener

Will the service of a maintenance agency or registration authority be required? No .....

- If yes, have you identified a potential candidate? .....

- If yes, indicate name .....

Are there any known requirements for coding? .....No

-If yes, please specify on a separate page

Does the proposed standard concern known patented items? .....No

- If yes, please provide full information in an annex

**Comments and recommendations of the JTC 1 or SC XXSecretariat** - attach a separate page as an annex, if necessary

**Comments with respect to the proposal in general, and recommendations thereon:**  
It is proposed to assign this new item to JTC 1/SC 7/WG10 and developed as ISO/IEC 31003.

**Voting on the proposal** - Each P-member of the ISO/IEC joint technical committee has an obligation to vote within the time limits laid down (normally three months after the date of circulation).

<b>Date of circulation:</b> YYYY-MM-DD	<b>Closing date for voting:</b> YYYY-MM-DD	<b>Signature of Secretary:</b>
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<b>NEW WORK ITEM PROPOSAL - PROJECT ACCEPTANCE CRITERIA</b>		
<b>Criterion</b>	<b>Validity</b>	<b>Explanation</b>
<b>A. Business Requirement</b>		
A.1 Market Requirement	Essential ____ Desirable <u>X</u> ____ Supportive ____	Refer to the attached Study Group Report
A.2 Regulatory Context	Essential ____ Desirable ____ Supportive ____ Not Relevant <u>X</u>	
<b>B. Related Work</b>		
B.1 Completion/Maintenance of current standards	Yes <u>X</u> ____ No ____	Refer to Section 1 of the attached Study Group Report
B.2 Commitment to other organisation	Yes ____ No <u>X</u> ____	
B.3 Other Source of standards	Yes ____ No <u>X</u> ____	
<b>C. Technical Status</b>		

C.1 Mature Technology	Yes ___X___ No___	Refer to Sections 1 and 5 of the attached Study Group Report
C.2 Prospective Technology	Yes ___X___ No___	
C.3 Models/Tools	Yes ___ No___X_	
<b>D. Conformity Assessment and Interoperability</b>		
D.1 Conformity Assessment	Yes ___ No___X_	
D.2 Interoperability	Yes ___ No___X_	
<b>E. Cultural and Linguistic Adaptability</b>	<b>Yes</b> _____ <b>No</b> ___X___	
<b>F. Other Justification</b>		

## **Notes to Proforma**

**A. Business Relevance.** That which identifies market place relevance in terms of what problem is being solved and or need being addressed.

A.1 Market Requirement. When submitting a NP, the proposer shall identify the nature of the Market Requirement, assessing the extent to which it is essential, desirable or merely supportive of some other project.

A.2 Technical Regulation. If a Regulatory requirement is deemed to exist - e.g. for an area of public concern e.g. Information Security, Data protection, potentially leading to regulatory/public interest action based on the use of this voluntary international standard - the proposer shall identify this here.

**B. Related Work.** Aspects of the relationship of this NP to other areas of standardisation work shall be identified in this section.

B.1 Competition/Maintenance. If this NP is concerned with completing or maintaining existing standards, those concerned shall be identified here.

B.2 External Commitment. Groups, bodies, or fora external to JTC 1 to which a commitment has been made by JTC for Co-operation and or collaboration on this NP shall be identified here.

B.3 External Std/Specification. If other activities creating standards or specifications in this topic area are known to exist or be planned, and which might be available to JTC 1 as PAS, they shall be identified here.

**C. Technical Status.** The proposer shall indicate here an assessment of the extent to which the proposed standard is supported by current technology.

C.1 Mature Technology. Indicate here the extent to which the technology is reasonably stable and ripe for standardisation.

C.2 Prospective Technology. If the NP is anticipatory in nature based on expected or forecasted need, this shall be indicated here.

C.3 Models/Tools. If the NP relates to the creation of supportive reference models or tools, this shall be indicated here.

## **D. Conformity Assessment and Interoperability**

D.1 Indicate here if Conformity Assessment is relevant to your project. If so, indicate how it is addressed in your project plan.

D.2 Indicate here if Interoperability is relevant to your project. If so, indicate how it is addressed in your project plan

**E. Cultural and Linguistic Adaptability** Indicate here if cultural and linguistic adaptability is applicable to your project. If so, indicate how it is addressed in your project plan.

**F. Other Justification** Any other aspects of background information justifying this NP shall be indicated here