Transition from ISO/IEC 15504 to ISO/IEC 330xx

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FiSMA – ”For better Management”

- FiSMA supports its member organisations to improve their fact based management through measurement

History
- Started 1992 in TIEKE as LATURI user group
- Registered, non-profit, independent association ”FiSMA” 2004
  - S = Software, Systems, Services
  - M = Measurement, Metrics (and Management)

Current activities
- Standardisation in ISO/IEC JTC1 SC7 (=Software and Systems Engineering)
  - Knowledge and experience sharing about standards for member organisations in workgroups, forums, seminars etc.
  - The intention is to achieve improved quality by applying standards
- Research projects, method development and training
ISO/IEC JTC1 SC7 nykyinen rakenne – 12 työryhmää kun WG25 ja WG27 poistuivat joulukuussa 2013
Process assessment vs other approaches - multimodel concept – to get synergy benefits!

CMMI: DEV, SVC, ACQ
ISO/IEC 15504 New 330xx
ISO/IEC 25000, 27000 etc
ITIL, ISO/IEC 20000
Main current use cases of process assessment

Process

- Is subject to
  - Process assessment
    - Leads
      - Process Improvement
        - Identifies improvement needs and actions
      - Leads
        - Capability Determination
          - Assesses suitability
          - May lead to
ISO/IEC 15504 and 330xx, ”SPICE”

- **Nimi:** Process assessment
- **Käyttökohteet:**
  - Järjestelmän tai ohjelmiston laadun arviointi prosessin laadun kautta
  - Toimittajan kelpoistaminen etenkin vaativissa järjestelmähankkeissa
  - Sopii myös palveluprosessien arviointiin ja kehittämiseen
- **Tavoitteet ja hyödyt:**
  - Parempi hallittavuus ja ennakoitavuus (ohjelmisto)hankkeissa
  - Viranomaisvaatimusten ja standardinmukaisuuden arviointi jos sellaista vaaditaan
- **Käytön laajuus Suomessa:**
  - Ollut käytössä kymmenissä yrityksissä varsin pitkään
  - Tulossa lähes pakolliseksi joissakin vaativissa hankintatyypeissä (Nuclear SPICE)
- **Käytön laajuus maailmalla:**
  - Tuhansia käyttäjiä, laajinta autoteollisuuden piirissä (Automotive SPICE). Tulossa terveydenhuoltoon (Medi SPICE).
Some key concepts in SPICE

- PRM = Process Reference Model
- PAM = Process Assessment Model
- MF = Measurement Framework
- CL = Capability Level (currently levels 0 – 5 are defined)
Transition document

- Transition document explains the change from "old" SPICE to "new" SPICE (from ISO/IEC 15504 to ISO/IEC 330xx family)
- Change is quite big, a new generation, needs some explanation both for current experts and for newcomers
- It is a working document, to be regularly updated
  - Part of WG10 business planning
  - Can create awareness in assessment community
Current transition document, Table of Contents

1. Current ISO/IEC 15504
   Performing assessments
   Current status of ISO/IEC 15504
   Developing process models and assessment methods

2. Major Changes from 15504 to 330xx
   Assessing different Process Quality Characteristics
   Developing new Documented Assessment Processes and Models

3. Relationships: old - new (diagram)

4. Transition in some typical use cases
   Continuing as PRM or PAM user
   Continuing as PRM or PAM model developer
   Developing new MF´s
"Old" SPICE, ISO/IEC 15504, 10 parts

<table>
<thead>
<tr>
<th>ISO/IEC 15504 standard</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part 1 Concepts and vocabulary</td>
<td>Published (12 Nov 2004)</td>
</tr>
<tr>
<td>Part 2 Performing an assessment</td>
<td>Published (31 Oct 2003)</td>
</tr>
<tr>
<td>Part 3 Guidance on performing an assessment</td>
<td>Published (6 Jan 2004)</td>
</tr>
<tr>
<td>Part 4 Guidance on use for process improvement and process capability determination</td>
<td>Published (2 Jul 2004)</td>
</tr>
<tr>
<td>Part 7 Assessment of organizational maturity</td>
<td>Published (2008)</td>
</tr>
<tr>
<td>Part 8 An exemplar assessment model for IT service management processes</td>
<td>Published (2012)</td>
</tr>
<tr>
<td>Part 9 Target process profiles</td>
<td>Published (2011)</td>
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<tr>
<td>Part 10 Safety extension</td>
<td>Published (2011)</td>
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"New" SPICE, ISO/IEC 330xx family, main areas

- Terminology
- Overall Guide
- Principles
- Element Standards
- Application Guides and Supplements

Concepts and Terminology

Assessment Process
- Performing an Assessment

Measurement Framework
- Process Measurement Frameworks

Process Models
- Process Models

Bodies of Knowledge
- Guides for Application of Assessment Results
- Guide for Performing Assessment
- Guide for Developing Process Measurement Frameworks
- Guide for Constructing Process Models

Element Standards

33030-33039
- Documented Assessment Processes

33020-33029
- Frameworks for Measuring Process Quality Characteristics

Process Reference Models
- Process Assessment Models

33040-33059
- Process Reference Models

33060-33079
- Process Assessment Models

Maturity Models
- 33090-33099

33001-33009
## New SPICE 330xx, current status and next publications

<table>
<thead>
<tr>
<th>ISO/IEC 330xx standard</th>
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<tbody>
<tr>
<td>33001 Concepts and terminology</td>
<td>In publication.</td>
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<tr>
<td>33002 Requirements for assessment process</td>
<td>In publication.</td>
</tr>
<tr>
<td>33003 Requirements for measurement frameworks</td>
<td>In publication.</td>
</tr>
<tr>
<td>33004 Requirements for PRM and PAM</td>
<td>In publication.</td>
</tr>
<tr>
<td>33014 Guidance for process improvement</td>
<td>Published (2013)</td>
</tr>
<tr>
<td>33016 Lead assessor body of knowledge</td>
<td>NWIP prepared, Draft in preparation.</td>
</tr>
<tr>
<td>33020 Process measurement framework for assessment of process capability</td>
<td>In publication.</td>
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<tr>
<td>33063 PAM for software testing processes</td>
<td>DIS ballot completes July 2014</td>
</tr>
<tr>
<td>33080 Requirements for maturity models and exemplars for systems and software development</td>
<td>NWIP prepared, Draft in preparation. Partially based on ISO/IEC 15504-7</td>
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Transition – some typical use cases

- As user of new PRM or PAM
  - Easy, just learn the new model

- As PRM or PAM model developer
  - PRM: quite easy, no major changes
  - PAM: need to understand process quality characteristic and MF
  - If capability, then adopt first 33020
  - If maturity, then wait for one year!

- As a developer of new Measurement Framework
  - Challenging, needs support and acceptance from community
  - Some freedom for innovation, no need to follow current models
  - Some candidates: safety, security, agile
QUESTIONS? COMMENTS?
THANK YOU!