The Network of Centers for Very Small Entities (VSEs)

Paris, France
May 26th, 2011
ISO/IEC JTC 1/SC 7- Working Group 24
Agenda

1. Overview of activities
   • Brazil, Czech Republic, Columbia, France, Ireland, Japan, Mexico, Peru, Thailand, Canada.

2. Publications and Communications

3. Varia

4. Next Steps
ISO/IEC 29110 in Brazil

By Gisele Villas Boas
Accomplishments since last meeting

• Pilot projects
  – 2 VSEs starting implementation of Basic Profile

• Publications

<table>
<thead>
<tr>
<th>Part</th>
<th>Translation</th>
<th>Public Consultation</th>
<th>Adoption (National Standart)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part 2</td>
<td></td>
<td>On revision 06/2011</td>
<td>10/2011</td>
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<td>Part 4</td>
<td>✓</td>
<td>On revision 06/2011</td>
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<tr>
<td>Part 5</td>
<td>On going</td>
<td>On revision 06/2011</td>
<td>10/2011</td>
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• Other accomplishments
  – National body participation
    • Coordination: WG 24
    • Participation and alignment: WG 07, WG 10, WG 25

• Other accomplishments (cont.)
  – Network Center participation: Brazil x Portugal (Planning Agreement)
Future work

- Pilot projects
  - 2/3 VSEs starting implementation of Basic Profile
- Publications
  - All Parts and some DPs
- Courses (Education)
  - MBA in IT Management
  - Post Graduate in Software Engineer
- Other accomplishments
  - Network Center participation
  - NetCenter Website
  - Brazil x Portugal (Planning Agreement)
  - Partners to NetCenter (29110 and 20000)
    - Training
    - Mentoring
    - Implementing
Accomplishments since last meeting

Paris, May 2011
Two study groups (ISO/IEC DTR 29110-5) as master thesis:
  - Project Administration - PMI
  - Software Implementation - XCRUM

They develop Generic DPs for both processes: Sw requirements management and development.

Two VSEs were selected and started the pilot project: Illustrato (web), Enigma (mobile tech).

For each VSE they defined and establish their own reqs management and development methodology and project plan and control methodology.

They’re now writing their experiences
  - As a feedback for other VSEs at ParqueSoft
  - A pair of papers to be publish as a experience
- Generic DP for Sw requirements management and development
- Two VSEs start the pilot project: Ilustrato, Enigma.
- For each VSE they define and establish a reqs management and development
## Actividades Proceso

<table>
<thead>
<tr>
<th>Activid</th>
<th>ISO 29110</th>
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<tbody>
<tr>
<td>1) Especificación y priorización de requerimientos</td>
<td>SI.2.2 Document or update the Requirements Specification.</td>
</tr>
<tr>
<td>2) Recepción de Requerimientos</td>
<td>SI.2.2 Document or update the Requirements Specification.</td>
</tr>
<tr>
<td>3) Seguimiento Trabajo</td>
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</tr>
<tr>
<td>4) Especificación de Requerimientos Técnicos</td>
<td>SI.2.2 Document or update the Requirements Specification.</td>
</tr>
<tr>
<td>5) Establecimiento/Actualización del valor de negocio</td>
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<tr>
<td>(6) Establecimiento/Actualización del valor de Esfuerzo</td>
<td></td>
</tr>
<tr>
<td>7) Refinamiento de Requerimientos</td>
<td>SI.2.2 Document or update the Requirements Specification.</td>
</tr>
<tr>
<td>8) Aceptación y Verificación de Requerimientos</td>
<td>SI.2.3 Verification of the Requirements Specification.</td>
</tr>
<tr>
<td>9) Definición de requerimientos a incluir en la Iteración</td>
<td>SI.2.1 Assign tasks to the Work Team members in accordance with their role, based on the current Project Plan.</td>
</tr>
<tr>
<td>10) Refinamiento del Producto Backlog</td>
<td>SI.2.2 Document or update the Requirements Specification.</td>
</tr>
<tr>
<td>(A) Ejecución de la Iteración</td>
<td>SI.2.5 Document the preliminary version of the Software User Documentation or update the present manual. (optional)</td>
</tr>
<tr>
<td>(B) Entrega del Producto de Trabajo de la Iteración al cliente</td>
<td>SI.2.4 Validation of the Requirements Specification \nSI.2.6 Verification of the Software User Documentation</td>
</tr>
</tbody>
</table>

Actividad genérica transversal que se hace a cada uno de los productos de trabajo del proceso (Product BackLog, Sprint BackLog, User Stories, Matriz de Trazabilidad) | SI.2.7 Incorporate the Requirements Specification, and *Software User Documentation to the Software Configuration in the baseline. *(optional) |
Testing Products Certification
practice established

4 years
57 products

http://www.parquesoft.com
29110 – POTENCIAL USE IN COLOMBIA

Opportunity
- Actually approx. 250 VSEs in PSs
- 40% has more than 3 years
- Rate of starting = 3-5 e/month
- 18 are ISO9001 certified
- 12 had use PSP practices
  
  + More than 100 VSEs out of PS.
  - 52 companies are CMMI
  - Founding available
  - National body aligned

Next steps
- Courses for VSEs?
- Entity recognition.
- Assessors training/recognition
- Pilots for I,A profile?
- Market sensibility

Some Risks
- CMMI adoption increasing
- Market pressure
- A lots a consultant companies
- Easy founding access for imp

http://www.etakanola.com/descargas/ParqueSoft.m4v
29110 – FUTURE WORK
COOPERATION

Government

National Body

Universities

Colciencias

ICO-NTec

Universidad del Valle

 Universidad ICESI

Ilustrato

Enigma

VSE

n VSE
ISO/IEC 29110 in the Czech Republic

By Alena Buchalcevova

Note: The Czech Republic is not a member of the VSE Network yet but wants to become
Accomplishments since last meeting

- Pilot projects
  - Pilot Project for Deployment Package Software Testing
    - Implemented during 2010 in the frame of master thesis
    - Deployment Package Software Testing was localized into Czech
    - Project Pilot Report and Evaluation form were sent to Claude
    - Some improvements to DP were recommended

- Publications
  - 3 papers on conferences in the Czech Republic
  - 1 master thesis
  - 29110 is mentioned in a book published in 2009 in Czech - IS development methodologies
  - One paper submitted to the Information system development 2011 conference in Edinburgh
Future work

• Pilot projects  
  – Are supposed

• Communications  
  – Web site building

• Courses  
  – New master course Software Process Improvement will be taught next semester September – December 2011

• Other work  
  – Localisation other deployment packages into Czech  
  – Survey of using standards by small entities in the Czech Republic

• Publications  
  – Results of the survey will be published
ISO/IEC 29110 in France

By Vincent Ribaud
Accomplishments since last meeting

• Publications
Future work

• Other work
  – The European e-Competence Framework (e-CF) is a reference framework of 36 ICT competences (4 levels each).
  – e.g. B.3. Testing
    • Level 1 : Performs simple tests in strict compliance with detailed instructions
    • Level 2 : Organises test programmes and builds scripts to stress test potential vulnerabilities. Records and reports outcomes providing analysis of results
  – Work-in-progress : relating the Basic Profile SI Process with competences of the Build dimension :
    • B.1. Design and development
    • B.2. Systems integration
    • B.3. Testing
    • B.4. Solution deployment
    • B.5. Documentation Production
ISO/IEC 29110 in Ireland

By Rory O’Connor
Accomplishments since last meeting

• Pilot projects
  – One was cancelled by VSE

• Publications

• Courses
  – Delivered (internally in University) 29110 module
Future work

• Pilot projects
  – With Marty, pilot project with startups

• Publications
  – Journal to be submitted
  – Others planned

• Courses
  – Planned: Internal DCU

• Other work
  – Trying to get funding for pilot projects from government
Report on VSE Center Japan

Kazunori SHIOYA
Consultant
Researcher at VSE Center Japan
2011/05/26 at Louveciennes meeting
VSE Center established in Japan

• By Keio SDM and SRA
  – 2011/3/24 startup forum postponed to 6/15 because of the tragedy happened on 3/11.
  – SDM (http://www.sdm.keio.ac.jp/)
    • The Graduate School of System Design and Management of Keio University (Keio SDM)
  – Software Research Associates, Inc. (http://www.sra.co.jp/)

• VSE Center Lab. at SDM

• VSE Center Web (http://www.vse.jp)
  – Joined to the Network of VSE Centers at ETS
VSE Center in Japan at SDM

- **VSE Center in Japan** [http://www.vse.jp/](http://www.vse.jp/)
  - VSE Center is established in order to strengthen global competitiveness of IT companies by promoting business process improvement focusing on system development of Very Small Entities using ISO/IEC29110.
  - Establishment of continuous process improvement in system development is achievable by efficient process diagnosis using limited resources.
  - VSE centers are established in European countries such as France, Belgium, Finland, Ireland, and Canada, Thailand, Columbia. As the base in Japan, this center will collaborate with these overseas VSE centers.
Experience report at Euro-SPI

• Trial mini-assessments phase 1 is performed for in-house projects in SRA.

• 8 various projects are assessed using IS-29110-5 task list & WPs with IS-15504 framework.

• Cost with two IS-15504 assessors + WG24 expert
  – 1 hour briefing + half day document review by assessors + 1.5 hour interview + 1 hour reporting

• Phase 2 assessment is planning in this year at SRA
  – May use self-assessment by project its-self at the beginning with followed by assessors review.
Activities for VSE in Japan

- A committee for Japan Industrial Standard (JIS) for VSE is started on April.
- Cooperation with the network of VSE Centers are considering.
- Forum on VSE web site is planning.
- Etc…
ISO/IEC 29110 in Mexico

By Hanna Oktaba
Blanca Gil, Claudia González, Ana Vázquez
Accomplishments since last meeting

Webinar

Introduction to ISO/IEC 29110 Basic Profile guide, the first son of MoProSoft (in Spanish)

Hanna Oktaba

May 17, 2011, SGCampus

http://www.sgcampus.com.mx
Accomplishments since last meeting

Tutorial

• *Introduction to ISO/IEC29110 basic Profile standard – guide of software processes for VSEs*

Blanca Gil & Hanna Oktaba

Accomplishments since last meeting

Master thesis

- Javier Flores (UNAM) – *Improvement of Construction Deployment Package*
  Dir: Hanna Oktaba, Ana Vázquez, Claude Laporte
  5 months stay in ETS, Montreal, Canada

- Sergio Cárdenas (UNAM) – *Basic Profile guide interpretation using User Stories (Cohn)*
  Dir: Guadalupe Ibargüengoitia
  5 month stay in Alarcos Mario Piattini Group, Universidad Castilla La Mancha, España
ISO/IEC 29110 in Thailand

By Thai Delegates
Accomplishments since last meeting

- More than **124 VSEs** join in Implementation Project in 2010.
- We have **75 VSEs** in waiting list for Implementation Project in 2011.
- The Ministry of ICT (MICT) have been support to set up the VSE Center for organizing and supporting VSEs.
- Collaboration with Nation Accreditation Council (NAC) for Certification Scheme of ISO/IEC 29110.
- Certify Body for ISO/IEC 29110: in-progress
- Project Management Tool according to ISO/IEC 29110 Basic profile: under construction.
Future work

We have 5 keys of Success Factor for Supporting Center.

VSE Supporting Center

Government Support
- MICT's support
- Nation Standard support
- Software Industry Promotion Agency (SIPA) support

VSEs Awareness
- More 200 VSEs participate
- And more on waiting list

Certification Scheme
- Certify Body
- Certification Authority

Marketing Encourage
- Promote to government agencies
- Collaboration with other countries

Resources and Tools
- 17 Certified Assessors of ISO15504
- Data Center for Assessment
- Center Website Support
- Deployment Tool
ISO/IEC 29110 in Canada

By Claude Y Laporte
Accomplishments since last meeting

• **Telecommunication Research Chair**
  – Implementation of 29110 Draft Entry Profile process for Master and PhD students
  – Most projects are conducted by 1 graduate student

• **Research Laboratory in Medical Imagery and Orthopedic**
  – Implementation of 29110 Draft Entry process for Master and PhD students
  – Most projects are conducted by 1 graduate student
Publications - Communications

- Elements of ISO/IEC 29110 are introduced in many chapters of 2 French textbooks on Software Quality Assurance
  - e.g. Chapter about standards, risks, reviews, etc.
- INCOSE Workshop (Phoenix, Arizona, Feb. 2011)
  - Presentation to Systems Engineers
- Project Management Institute (Montréal, April 2011)
  - Presentation to Project Managers
- French Association of Systems Engineers (Paris, May 24th)
- Book (Fall 2011)
Future work

• College teaching Software Development
  – Deployment of 29110 to the professors
  – Development of Entry/Basic profile teaching material

• Undergraduate students in Software Engineering of ETS
  – Use the Entry profile to do their Capstone project

• Undergraduate students of Scientific Clubs
  – Use of Draft Entry profile to develop their software
Miscellaneous
29110 Public Web Sites

- **Belgium**: *in construction*
- **Brazil**: *in construction*
- **Canada**: [www.iso29110.ca](http://www.iso29110.ca) (*in construction*)
- **Finland**: [https://wiki.tut.fi/CoSE/VSE](https://wiki.tut.fi/CoSE/VSE)
- **Ireland**: [http://www.lero.ie/project/iso29110](http://www.lero.ie/project/iso29110)
- **Japan**: [www.vse.jp](http://www.vse.jp)
- **Thailand**: [http://www.center4vse.net/](http://www.center4vse.net/)
- **Other Public Sites?**
  - Columbia, France, …
- **Google Analytics**
  - Gives you insights about the ‘traffic’ of your web site
  - Free tool
    - [http://www.google.com/analytics/](http://www.google.com/analytics/)

One web site in operation since 2006 at ÉTS
[http://profs.logti.etsmtl.ca/claporte/English/VSE/index.html](http://profs.logti.etsmtl.ca/claporte/English/VSE/index.html)
Google Analytics

Apr 15, 2011 - May 15, 2011
Comparing to: Site

- **Visits**: 530
- **Pageviews**: 2,008
- **Pages/Visit**: 3.79

**Bounce Rate**: 19.43%
**Avg. Time on Site**: 00:03:03
**% New Visits**: 66.60%

**Content Overview**

<table>
<thead>
<tr>
<th>Pages</th>
<th>Pageviews</th>
<th>% Pageviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>/claporte/English/VSE/VSE.html</td>
<td>420</td>
<td>20.92%</td>
</tr>
<tr>
<td>/claporte/English/VSE/menu.ht</td>
<td>380</td>
<td>18.92%</td>
</tr>
<tr>
<td>/claporte/Accueil/main.shtml</td>
<td>142</td>
<td>7.07%</td>
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<tr>
<td>/claporte/Publications/publicatio</td>
<td>103</td>
<td>5.13%</td>
</tr>
<tr>
<td>/claporte/VSE/Groupe24.html</td>
<td>92</td>
<td>4.58%</td>
</tr>
</tbody>
</table>

**Traffic Sources Overview**

- **Direct Traffic**: 425.00 (60.19%)
- **Search Engines**: 55.00 (16.33%)
- **Referring Sites**: 55.00 (9.43%)
Publications - Communications

• IEEE 730 Standard – Software Quality Assurance
  • An annex was written about ISO 29110 standard
    • Description of VSE, needs.
    • Overview ISO 29110, profiles, processes.
    • Coverage of ISO 12207 SQA activities to 29110 Basic profile

• 29110 on Wikipedia
  • English version
  • Planned versions
    • French, Spanish, Portuguese

• Development of video clips
  • Director of Communications of ISO is interested by ISO 29110 videos and offers us to post them on the ISO’s You Tube Channel
    • http://www.youtube.com/PlanetISO
      • You can subscribe to the ISO channel
Entry Profile (Draft Version) to Review

• Deployment Packages (English and French versions)
  – Project Management (English)
    • [URL]
  – Software Implementation (English)
    • [URL]

• Plug-in (English)
  – One plug-in covers the 2 DPs
    • [URL]
Entry Profile (Draft) – Plug-in

http://profs.etsmtl.ca/claporte/English/VSE/Deploy%20Pack/EntryProfile.zip
Systems Engineering for VSEs

- Project done under sponsorship of INCOSE/AFIS
  - INCOSE: International Council on Systems Engineering
  - AFIS: Association Française d’ingénierie système

- Goals
  - To improve or make product development efficient by using Systems Engineering methodology
  - To elaborate tailored practical guidance to apply to VSEs in the context of prime or subcontractor, of commercial products
  - To contribute to standardization
Systems Engineering for VSEs

• Initial idea was to use INCOSE Systems Engineering (SE) Handbook as the framework for an ISO standard for VSEs involved in SE

• It was proposed, in December 2010, to ‘switch’ from the INCOSE Handbook to the ISO 15288 standard (keep the Handbook for DPs)
  – Based on an international standard instead of a Handbook
  – ISO 15288 and ISO 12207 are within the same ‘family’

• Accomplishments
  – Survey was performed *
  – February 2011 INCOSE Workshop (Phoenix)
    • ISO 29110 has been presented and discussed
    • Systems engineers reviewed Part 5-1-2 to propose SE Activities, tasks, documents, etc. to the Project Management Process and Implementation process
    • Draft document has been sent for reviews and updated
  – NMI and Draft Profile have been tabled at AG meeting Sunday
    • To develop a Basic profile (i.e. Part 4 and Part 5) to match the ISO 29110 Basic profile
Charter of a Working Group

A Working Group (WG) mandated by INCOSE (International Council on Systems Engineering) and AFIS (Association Française d’Ingénierie Systèmes), the Systems Engineering for Very Small and Micro Enterprises (SE for VSMEs) WG, is to assist in the application of systems engineering for product development in very small micro enterprises or small projects.

VSMEs stands for Very Small and Micro Enterprises where a small enterprise is defined as an enterprise which normally employs fewer than 50 persons and a micro enterprise is defined as an enterprise which normally employs fewer than 10 persons.

The goals of this WG are:

- To improve and make product development within VSMEs and small projects more efficient by using Systems Engineering concepts
- To elaborate tailored guidance for VSMEs to apply, in the context of either a prime or subcontractor role
- To elaborate tailored guidance to apply to small projects
- To contribute to standardization in the context of Systems Engineering

Goals of this survey:

- Identify strengths and weaknesses of product development processes in VSMEs and small projects in various domains
- Characterize the state of practice of product development in this context
- Identify areas where the practice of systems engineering can better assist product development in this context

Why Should You Participate to this survey:

- Access to Proven Engineering Expertise
- Feedback on Engineering Best Practices
- Improve Your Product Development Processes
- Improve Your Engineering Capabilities
- Enhance Your Customer/Supplier Relationship

Please note that all data will be kept confidential, only summary results and project data that cannot be traced to a specific VSME will be included in published results.

If you would like to send us any comments on the survey you are welcome to send them to IncoseSurvey@SigmaConsulting.ca.

We recommend using Internet Explorer or Mozilla Firefox to complete the survey.

Please, select a language:

- English
- Español
- Français
- Deutsch
- Italiano
Future Works

• Recognition Vehicle Deployment Package (DP)
  – Working together to develop a Draft ‘DP’

• Development of self-learning/video modules
  – e.g. Overview of ISO/IEC 29110
  – Agile implementation
  – Produce a “GUIDE” that describes an Agile implementation of Part 5
  – Provide an Agile view of PM and SI

• Other Ideas?
Varia

• Using the new ISO Economic benefits of standards Methodology Handbook in pilot projects
  – Draft DP (in French) has been developed
  – Should be piloted in a few weeks