TOPCASED

Current status
Current tasks & facts

• Definition of quality assurance & Control by the Quality Group
• Build the maintenance infrastructure for the already developed software:
  – To fund architecture evolutions like merge Topcased and GMF graphical editors generators
  – To fund common facilities like user support on the mailing list, GForge administration, etc.
  – Discussions are in progress with other teams with the same needs (French competitiveness clusters Minalogic and System@tics)
• Restart of Open Source Licenses studies
• Relations with Eclipse foundation and projects
• Prepare Topcased 1.0.0 (July 2007)
• A lot of contacts with new potential partners...
• About 15000 downloads and 60000 visitors in 2006
# Quality group status

<table>
<thead>
<tr>
<th>Product</th>
<th>Progress</th>
<th>Initial target</th>
<th>Updated target</th>
<th>Workable objective</th>
<th>Possible lever</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topcased SDP</td>
<td>30%</td>
<td>15/12/2006</td>
<td>31/01/2007</td>
<td></td>
<td></td>
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<tr>
<td>Topcased SQP</td>
<td>20%</td>
<td>15/12/2006</td>
<td>31/01/2007</td>
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<td>Topcased SCP</td>
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<td>15/12/2006</td>
<td>23/02/2007</td>
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<tr>
<td>Quality Tool Kit</td>
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<td>15/01/2007</td>
<td>30/01/2007</td>
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<tr>
<td>Training Tool Kit</td>
<td>0%</td>
<td>15/01/2007</td>
<td>31/01/2007</td>
<td></td>
<td></td>
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<tr>
<td>Implementation on 2 Tools</td>
<td>0%</td>
<td>15/02/2007</td>
<td>15/02/2007</td>
<td></td>
<td></td>
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<tr>
<td>Implementation on all Tools</td>
<td>0%</td>
<td>15/05/2007</td>
<td>15/05/2007</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Workable objective**
- **Partly workable objective or reduction of the initial objective**
- **Unreachable objective for TOPCASED V1.0**

- Nb of QG meetings: 4
- Nb of Trainings: 0
- Nb of compliant components: 0
**Roadmap**

**TOPCASED Releases**

- 0.11.0: nov, 6th 2006
- 1.0.0M1: dec, 15th 2006
- 1.0.0M2: feb, 15th 2007
- 1.0.0M3: mar, 30th 2007
- 1.0.0M4: may, 15th 2007
- 1.0.0: jul, 5th 2007

**TOPCASED Quality Group Milestones**

- QG meeting: nov, 9th 2006
- T1: dec, 15th 2006
- T2: jan, 15th 2007
- T3: feb, 15th 2007
- T4: mar, 30th 2007
- T5: may, 15th 2007
- T6: jul, 5th 2007

**Topcased process and plans**

- Topcased quality kit
- Quality kit generalization
- Evaluation & Process improvement

**TOPCASED Quality Group Milestones**

- T1: First draft of Topcased Plans & first integration controls
- T2: Quality Kit and the training slides
- T3: Check of the Quality Kit implementation on 2 tools
- T4: Complete description of Topcased plans
- T5: Quality Kit implemented on all the contributions
- T6: V1.0.0 totally compliant with Topcased Quality Policy
New features and tools

- Tramway: a requirement traceability tool in open source (https://gforge.enseeiht.fr/projects/topcased-topreq/)
- Code generators: based on www.acceleo.org
  - UML > C, UML > ADA, UML > Java, UML > Python
  - dedicated to prototyping and low criticity developments because of the acceleo architecture.
  - AADL > C for OSEK, ATL based.
- Doc generators based on well-known technologies
  - docbook, Dita, etc. TBD
  - EMF
- First elements of team work support (splitting up of models)
- Test cases generator for Mealy machines is in test
- Polychrony/SIGNAL graphical editor is to be released.
- Generic change management tool (GPM)
TOPCASED and Eclipse

• Contact taken with EMP people at EclipseSummit2006
• Merging the 2 approaches will take some time and effort, but can not be delayed due to the Eclipse foundation marketing strength...
• Light involvement in the EMF Compare initiative
• Participation to the proposal of a SysML editor
• A short talk and a demo session have been proposed for EclipseCon2007.
• ATLAS team (new Topcased member) gives us a far better view of the EMP internals.
Simulation

- The goal is to develop a simulation engine independent of the modeling language.
- It will include a generic graphical animator.
- Cover only discret needs. Continuous and hybrid simulation are currently not targeted.
- Follows a pragmatic approach, as graphical editors generators: very specific needs will still be coded by hand.
- Studies managed by Marc Pantel, ENSEEIHT.
- First step (July 2007?): prototype for UML statecharts.
- Imply to define behavioral information at the meta model level.
- AADL behavioural annex is not enough for that purpose: need also some runtime information: current state, signals exchanged at a precise step, etc.
• Welcome to SEI as a new Topcased member 😊
• Simplified graphical editor based on HOOD + AADL concepts (SPICES development taken in charge by P. Dissaux for Airbus) definition stage has begun.
• Ready to work on more AADL code / doc generators
• Ready to define OCL rules for AADL thanks to the latest OCL engine improvements (now support split up metamodels).
• Need to synchronize OSATE work and release 1.0.0