Towards UML Testing Profile 2

OMG UTP Working Group

2nd UCAAT, 18th September, 2014, Munich
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Towards UML Testing Profile 2

UTP (2) in a nutshell

• First standardized language to support model-based testing released in 2005 (UTP 1)

• Provides means for test design, execution and evaluation activities – and management thereof

• Address needs for advanced testing approaches required/suitable for achieving a high degree of test automation

• Methodology- and technology agnostic
Towards UML Testing Profile 2

From UTP 1.2 to UTP 2

End UTP 1.2 Idea for UTP 2

UTP 2 RFI Responses

Draft UTP2 RFP

UTP2 Initial Submission

5 responses

8 partners
5 from industry, 3 from academics

Jun 2012
Sep 2012
Mar 2013
Jun 2013
Dec 2013
Jun 2014

UTP 1.x

UTP 2

Issuance UTP 2 RFI

Initiate UTP2 RFP

Issuance UTP2 RFP

Questionnaire, 45 questions

22 mandatory and 7 optional requirements

Jun 2012
Mar 2013
Sep 2013
Jun 2014

UML Testing Profile 2

UCAAT 2014
Towards UML Testing Profile 2

Terminological origins and concept space

<table>
<thead>
<tr>
<th>BS 7925-1 &amp; 2</th>
<th>JUnit</th>
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<td>IEEE:829</td>
<td>TTCN-3</td>
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<tr>
<th>ISO 29119</th>
<th>ISTQB</th>
<th>UTP 1</th>
<th>ES 202 951</th>
<th>UML</th>
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**UTP 2**

**Test Planning**
- Test Context
- Test Set
- Test Objective
- Test Requirement
- Test Type
- Test Level

**Test Analysis & Design**
- Test Case
- Test Design Strategy
- Test Design Model
- Test Configuration
- Test Data Specification
- Data Values
- Data Pools

**Test Implementation & Execution**
- Test Execution Schedule
- Arbitration Specification
- Test Component
- Test Item

**Test Evaluation**
- Test Log
- Test Log Structure
- Verdict

Terminological origins

Concepts
Towards UML Testing Profile 2

A brief example
Towards the revised and final submission

- Initial submission was accepted in June 2014 by OMG Analysis & Design Task Force
- Current work is the revision of the initial submission
- Development of a conformance test specification for UTP 2 tools with UTP 2
- Formal specification for mapping between UTP 1 to UTP 2 (QVT)
- The entire submission was specified and documents have been generated with the modeling environment KnowEnterprise®

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<tr>
<th>Milestone</th>
<th>Date</th>
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<tr>
<td>Preliminary revised submission</td>
<td>December 2014</td>
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<tr>
<td>Final revised submission</td>
<td>March 2015</td>
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<tr>
<td>Final adoption of UTP 2</td>
<td>December 2015</td>
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Background (left-right):
Andrey Sadovyk (Softeam),
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Zhen Ru Dai (HAW Hamburg),
Etienne Brosse (Softeam)

Missing: Jon D. Hagar (Grand Software Testing)
Thank you for your attention.

Questions, please!
References