



STF 476: TD-LTE Phase 2

Status Report

Document History

- 2014-09-29: Document submitted for MTS #63
- 2014-05-10: Document submitted for MTS #62
 - long form for SG #3 / Technical Session
 - short form for MTS #62
- 2014-03-19: Document submitted for SG #2

From the Terms of Reference...

TDL Phase 2: Goal and Objectives

- Goal
 - Supporting ETSI and industrial users in using TDL
- Objectives
 - Extended TDL meta-model for supporting test automation
 - Standardised concrete syntaxes
 - Graphical syntax for end-users
 - Textual exchange syntax for tool interoperability
 - Analysis on the needs for a concrete syntax to support ETSI use cases

TDL Phase 2: Deliverables

Del.	Work Item Code / Standard Number	Working Title / Scope
D1	RES/ES 203 119-1 V1.2.1	Test Description Language; Meta-Model and Semantics Scope: common concepts, meta-model, semantics
D2	DES/ ES 203 119-2 V1.1.1	Test Description Language; Graphical Syntax Scope: TDL graphical concrete syntax for end users
D3	DES/ ES 203 119-3 V1.1.1	Test Description Language; Exchange Format Scope: TDL exchange format for tool interoperability

Optionally: ES Part 4 on TDL textual concrete syntax (no WI created yet)

TDL Phase 2: Organisation of Work

- Start: 02/2014
 - Task 0: Project management
 - Task 1: Extension of TDL meta-model (02-12/2014)
 - Task 2: Graphical concrete syntax (02-12/2014)
 - Task 3: Exchange syntax (06-12/2014)
 - Task 4a: Analysis on ETSI concrete syntax (02-05/2014)
- Potential STF extension: 06/2014 (decision at MTS#62)
 - Task 4b: ETSI concrete syntax (06-12/2014)
- End: 12/2014
 - WI: updated meta-model description + semantics
 - WI: concrete syntax + meta-model mapping
 - WI: exchange syntax + meta-model mapping

TDL Phase 2: Milestones

- M0: 02/2014
 - Start of work of Tasks 0, 1, 2, 4
- M1: 05/2014 <- Discussion at MTS#62 (05/2014)
 - (T1) Early draft: updated meta-model, (T2) Early draft: graphical syntax,
 - (T4) Decision paper on textual syntax
 - (T3) Start of Task 3
- M2: 09/2014 <- Discussion at MTS#63 (10/2014)
 - (T1) Stable draft: updated meta-model, (T2) Stable draft: graphical syntax, (T3) Early draft: exchange syntax
- M3: 12/2014 <- Approval at MTS#64 (02/2015)
 - (T1) Final draft: updated meta-model, (T2) Final draft: graphical syntax, (T3) Final draft: exchange syntax

Status Report

Session and Milestone Planning

Session Planning

- 6 sessions in total
- 2 sessions per milestone
 - 1 preparatory / debriefing
 - 1 finalising
- Homework and remote coordinated work in between

Session Overview

- WK09 Feb 24-28 - Session 1 @ETSI
- WK15 Apr 07-11 - Session 2 @ETSI
- WK23 Jun 02-06 - Session 3 @FOKUS
- WK36 Sep 01-05 - Session 4 @ETSI
- WK42 Oct 13-17 - Session 5 @Siemens
- WK49 Dec 01-05 - Session 6 @ETSI

Milestone 1 Timeline

- WK09 Feb 24-28 - Session 1 @ETSI
 - 4 experts, 16 days, define roadmaps, prepare early drafts
- WK15 Apr 07-11 - Session 2 @ETSI
 - 4 experts, 16 days, finalise early drafts, analysis report, ToR if applicable
 - deadline for requests to move sessions, contracts extension
- WK18 Apr 28-May 01 - Deliverables **submitted**
- WK20 May 14-15 - MTS #62 @Siemens

Milestone 2 Timeline

- WK23 Jun 02-06 - Session 3 @FOKUS
 - 5 experts, **25 days**, review feedback, define roadmaps, prep. stable drafts
- WK36 Sep 01-05 - Session 4 @ETSI
 - 5 experts, **25 days**, finalise stable drafts
 - feature freeze, new features added only if absolutely critical
- WK37 Sep 08-12 - Deliverables **submitted**
- WK39 Oct 01-02 - MTS #63 @TestingTech

Milestone 3 Timeline

- WK42 Oct 13-17 - Session 5 @Siemens
 - 5 experts, 25 days, define roadmaps, prepare final drafts
- WK49 Dec 01-05 - Session 6 @ETSI
 - 5 experts, 25 days, finalise final drafts
- WK50 Dec 15-19 - Deliverables ready
- WKXX Jan/Feb 2015 - MTS #64 TBD

Milestone Resources

- ~15 days/expert per milestone
 - assuming roughly equal resource allocation per expert
 - 2x4 days sessions, ~7 days homework
- Milestone 1: ~60 days planned, 44.5 used (4 experts)
- Milestone 2: ~75 days planned, 73/77.5 used* (5 experts)
- Milestone 3: ~75 days planned, 90.5/106 available** (5 experts)

* 4.5 from extension for Part 4

** 15.5 from extension for Part 4, 50 already days allocated for two working sessions

Session Summaries

Session 1 Summary

- Goal: Prepare and define roadmaps for Milestone 1
 - created initial pool of tasks
 - selected targets for Milestone 1
 - performed first analysis tasks
 - proposed conceptual solutions for analysed targets
- Targeted for Session 2
 - implementation and validation of analysed targets, progress on remaining targets

Session 2 Summary (1/2)

- Goal: Implement targets for Milestone 1
 - Task 1: Meta-model
 - implemented sub-configurations
 - conceptualised data and action refinements (WIP)
 - Task 2: Graphical syntax
 - laid out document foundations and structure
 - drafted graphical symbols proposals for selected elements

Session 2 Summary (2/2)

- Goal: Implement targets for Milestone 1
 - Task 4: Concrete syntax for ETSI
 - outlined different mapping and formalisation options
 - prepared examples for syntax
 - discussed preliminary results with CTI
 - clarified role of proposed syntax
 - finalised analysis report

Session 3 Summary

- Goals
 - review feedback from Milestone 1
 - define roadmaps for Milestone 2
 - have technical discussions on data concepts and graphical syntax
 - lay down foundations for exchange format
- Notes
 - technical issues with the mailing list interfered with the organisation

Session 4 Summary

- Goals
 - Part 1: thorough technical review and improvement
 - Part 2: review and formalisation, notational conventions update
 - Part 3: discussion of related input, draft preparation
 - Part 4: discussion with CTI, draft preparation
 - discussion of tutorial preparation for UCAAT
 - discussion of ideas and proposals for Phase 3

Document Status Summaries

Part 1 Status

- M2
 - data concepts update
 - time and time labels update (including predefined functions)
 - move gate instances and variables to component types
 - assertions and setting verdicts

Part 1 Status

- M3
 - adaptations to behaviour
 - integrating feedback, validation, proof-reading, finalisation, polish
 - annex update (examples, BNF) ?
 - no further features unless absolutely critical

Part 2 Summary

- M2
 - shape updates to match current state of meta-model (no arg. spec. yet)
 - formalisation - constraints and label derivation rules
 - updates to notational conventions and document structure
- M3
 - add missing shapes and descriptions, harmonisation with meta-model
 - integrate feedback, validation, proof-reading, finalisation, polish

Part 3 Summary

- M2
 - current XSD and derivation rules
 - raised concerns regarding the usefulness of XSD and its limitations
 - XMI derivation, examples
- M3
 - updates related to changes in the meta-model, additional examples
 - integrate feedback, validation, proof-reading, finalisation, polish

Part 4 Summary

- M2
 - meta-model extensions (near complete, time constraints to be added)
 - concrete-syntax proposal
- M3
 - validation, decision on “inline” data, examples, 3GPP applicability
 - integrate feedback, proof-reading, finalisation, polish

Phase 3 Proposals

Phase 3

- Tier 0
 - Continuous maintenance, stabilisation, consolidation, and cleanup of the standards, addressing open issues
- Tier 1
 - Harmonisation with UML: TDL profile for UML in addition to standalone
 - integration with other profiles as a side benefit resulting in a broader language
 - tool support
 - transformation specification between standalone and profile needs to be provided

Phase 3

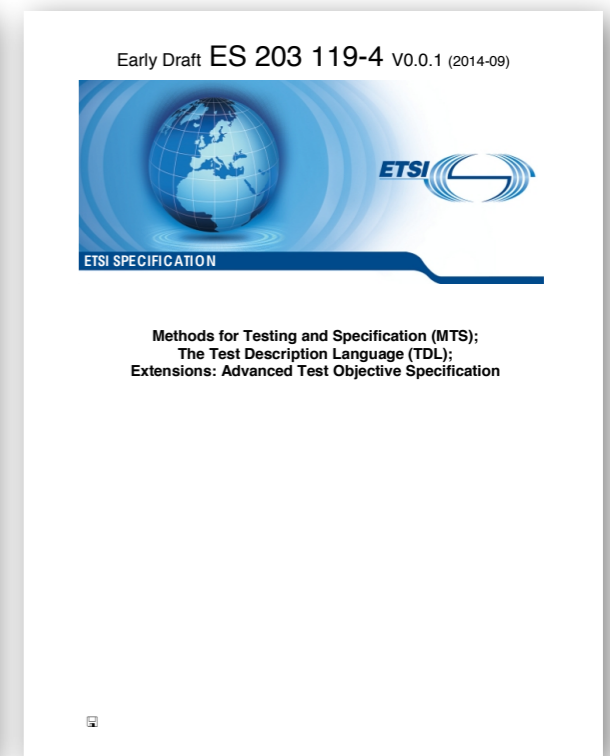
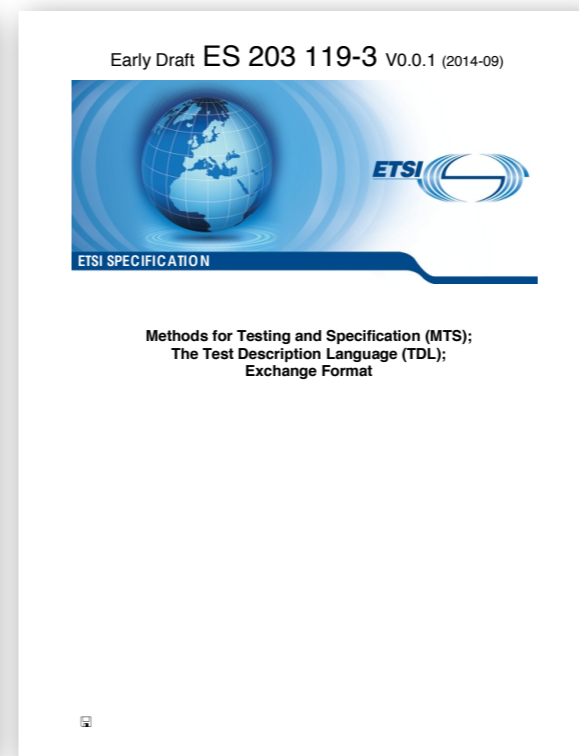
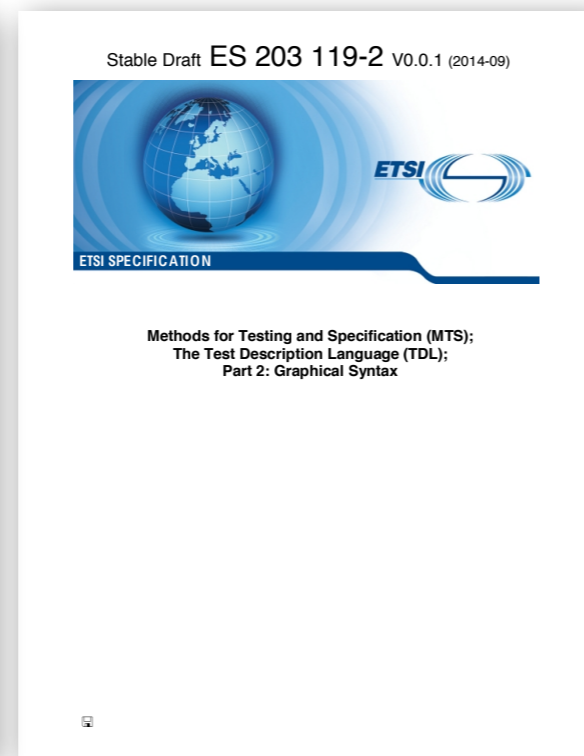
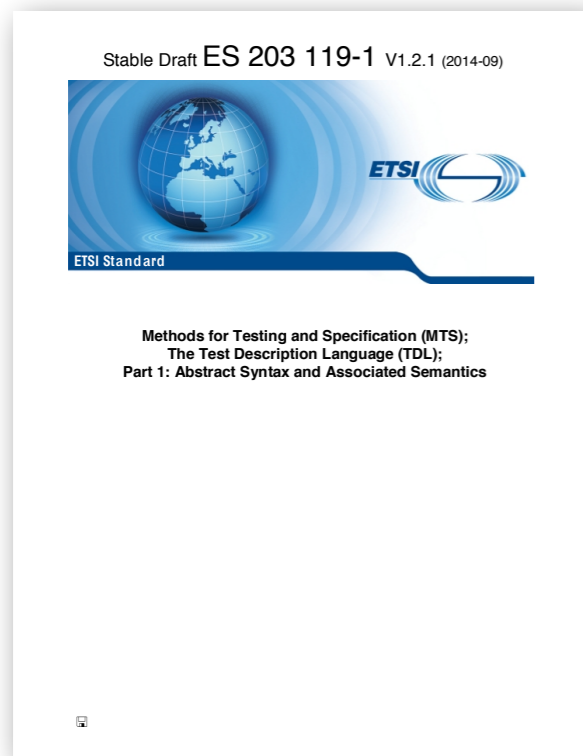
- Tier 1
 - Test generation and test management capabilities
 - e.g. as input for MBT tools
 - support for e.g. data pools, behaviour non-determinism, test orchestration
 - specification of test design/generation/coverage strategies and criteria
 - ability to describe state machines may need to be provided as well
 - Expand support of ETSI syntax for 3GPP and other TBs
 - go beyond test objective specification

Phase 3

- Tier 2
 - Support for property-based testing
 - Conformance test suite for TDL tool compliance (in TDL)
 - Mapping to and from TTCN-3
 - Reference / standardised textual syntax

Documents Review

To the documents...



Further Activities

Specialist Task Force Procedures
Open Call for Experts

Active STF's (summary information)
STF full list
STF Terms of Reference

STF statistics
STF dashboard

Specialist Task Force 476:
TDL Phase 2: Adaptation to Users

Who we are:

Team Leader: Philip Makdonaki, makdonaki@informa.uni-greiflingen.de
Team Members: Guztav Adams, Mari Kärnk, Andros Ulrich, Marc-Florian Wendland

What we do:

TC MTS laid the foundation of the Test Description Language (TDL) with pnr use in 2013 in terms of the basic concepts and their semantics. Phase 2 of the TDL development builds upon the work of STF 454, by adding the necessary language functionality to integrate TDL test descriptions into test automation frameworks. It will also elaborate a standardised concrete graphical syntax for end-users and a TDL exchange format to be used by tools to foster tool interoperability.

For more details, see our [Terms of Reference](#)

Why we do it:

TDL bridges the gap between declarative test purpose specifications (what shall be tested?) and imperative test case specifications (how shall it be tested?) by offering a standardised language for the specification of test descriptions. TDL also contributes to the ongoing activities in MTS to establish model based testing (MBT) technologies within ETSI.

It is expected that test descriptions in a standardised language will ease the development of executable tests as well as make test specifications easier to review by non-testing experts, thus improving the general productivity and quality of test development in industry as well as in the standardisation process by relieving test engineers from working on details of test implementations. An extension to TDL is planned to address advanced test objective specification based on TPLan to bring test purpose specifications and test descriptions even closer and streamline the test specification process even further, especially in the standardisation processes at ETSI.

How we do it:

The activities of the STF are coordinated on a regular basis with a dedicated steering group assembled by TC MTS to ensure that the work of the STF is aligned with expectations and requirements from the different stakeholders. The steering group is also supporting the work of the STF by providing technical guidance on key technical issues.

The STF will host a tutorial session on TDL at the UCAAT 2014 to showcase ongoing work on TDL and different application scenarios in a hands-on manner. During an associated special session on MTS activities, a brief introduction to TDL is also planned. Ongoing dissemination activities from STF members from research institutions include raising awareness and promoting TDL on their respective websites and within teaching and research activities. A dedicated project has been created on the online issue reporting portal for ETSI ("ETSI's Bug Tracker") where change requests for TDL can be submitted and managed in an open and transparent manner.

Deliverables:

The deliverables for the STF comprise an update to ES 203 119, as well as two new parts, encompassing:

ES 203 119-1 V1.2.1 - Part 1: An extension of the current TDL meta-model covering the design of new features to support automation of the generation of concrete (e.g. TTCN-3) tests;

ES 203 119-2 V1.1.1 - Part 2: The description of a graphical TDL default syntax that provides full coverage of the extended meta-model, i.e. it describes a concrete syntax for all elements of the meta-model;

ES 203 119-3 V1.1.1 - Part 3: The description of a TDL exchange format that represents a TDL specification in an unambiguous format used to exchange specifications between tools.

Time plan:


The work of the STF is organised around three intermediate milestones, due for approval on May 2014, September 2014, and January 2015, respectively, in conjunction with MTS plenary sessions. The final drafts of the three deliverables will be submitted for approval to the 64th MTS plenary.

How to contact us:

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This information is based upon STF working assumptions.
The views expressed do not necessarily represent the position of ETSI in this context.
Last updated: 2014-07-18 14:29:15

jUCMNav: Juice up your modelling!

 **jUCMNav v6.0.0**
(Latest stable, August 7, 2014)

- **NEW** Support for feature modeling (FM) and analysis based on goal model semantics
- **NEW** Automated export of UCM models with scenario definitions to a test suite in ETSI's Test Description Language (TDL).
- **NEW** Support for align and distribute capabilities in UCM, GRL, and FM diagrams
- **NEW** Reports now include indicator descriptions in GRL models.
- **NEW** Creation of GRL diagrams by expanding individual intentional elements into entire models.
- **NEW** New jUCMNav metamodel for feature modeling, and supporting an alpha version of Concern-Oriented REuse (CORE) and an alpha version of Actor Theory concepts.
- **NEW** New version of the scenario metamodel, which now supports metadata.
- **NEW** Our repository has now been updated to a p2 composite repository and compatible with p2-dependent tools such as Tycho
- **NOTE:** Releases 6.0.0 requires* Eclipse 4.x. For a version compatible with Eclipse 3.x, please use jUCMNav v5.4.0

jUCMNav - Eclipse plugin for the User Requirements Notation

jUCMNav is a **free**, Eclipse-based graphical editor and an analysis and transformation tool for the User Requirements Notation (URN). URN is intended for the elicitation, analysis, specification, and validation of requirements. It provides several complementary views: one for goals provided by the Goal-oriented Requirement Language (GRL) notation, one for use cases provided by the Use Case Map (UCM) notation. In addition, jUCMNav supports Feature Modeling scenarios with Message Sequence Charts [[More...](#)]



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