



STF 492: TD-LTE Phase 3

Status Report

Document History

- 2016-03-02: Revised for SG#4
- 2016-01-27: Revised for MTS#67
 - long form for TDL Technical Session
 - revised short form for MTS#67
- 2015-09-15: Revised for MTS#66
 - long form for TDL Technical Session
 - revised long form for MTS#66
- 2015-09-15: Revised for SG#3
- 2015-07-15: Revised for SG#2
- 2015-06-02: Document submitted for MTS#65
 - long form for TDL Technical Session
 - short form to be submitted for MTS #65

Status Update

Task 0: Milestones and Resources

- Milestone 4: Mar 01 2016
 - Stable Drafts: Part 2, Part 4
 - The ETSI portal states otherwise:
 - Final: Part 1, Part 2, Part 3; Stable: Part 4, TR
- Milestone 5: Mar 31 2016
 - Final Drafts: Part 1, Part 2, Part 3, Part 4, TR
- Resources
 - ~40 days for homework in March (February not yet complete in TAM)

Task 1

GR Viewer Implementation Tasks (until UCAAT 2015)	Effort (days)	Actual (days)	Difference	Pending (days)	Color Codes
1. Mappings for elements with simple shapes: Comment, AnnotationType, SimpleDataType, Time, SimpleDataInstance, GateType, GateInstance, ComponentInstance, Connection, TestObjective	0.5	1	0.5	0	Done
2. Composite shapes - rectangles inside rectangles laid out according to custom algorithm specified in GR.	1	1	0	0	Partially Done
2.1. Mappings for elements with composite shapes: Package, Annotation, TestObjective, StructuredDataType, StructuredDataInstance, Action, DataResourceMapping, DataElementMapping, TestConfiguration, ComponentType, TestDescription	0.5	1.5	1	0	Already provided
3. Sequence diagram	2	2.5	0.5	0	Next target
3.1. Viewer specific ViewerMM extensions needed to represent lifelines	0.5	0.5	0	0	
3.2. Viewer specific ViewerMM extensions needed to represent both begin and end of blocks	0.5	1	0.5	0	
3.3. Mappings: Interaction	1	1	0	0	
4. Action shapes across all lifelines - by default, actions are placed on a single life-line, but TDL GR specifies that actions should cover all life-lines	1	0.5	-0.5	0	
4.1. left aligned icons in actions shapes - need custom layout policy	0.5	0.5	0	0	
4.2. Mappings: Wait, Quiescence, TimerStart, TimeOut, TimerStop, Break, Stop, VerdictAssignment, Assertion, ActionReference, InlineAction, Assignment, TestDescriptionReference	0.5	1	0.5	0	
5. Block shapes (combined fragments)	1	1	0	0	
5.1. Floating labels in blocks (guard, period)	0.5	0.5	0	0	
5.2. Mappings: CombinedBehaviour, Block, CompoundBehaviour, BoundedLoopBehaviour, UnboundedLoopBehaviour, AlternativeBehaviour, ConditionalBehaviour, ParallelBehaviour, DefaultBehaviour, InterruptBehaviour, PeriodicBehaviour	0.5	1	0.5	0	
6. Data expressions in sequence diagram	1	1	0	0	
6.1. Integration with Xtext-based serializer	1	0.5	-0.5	0	
6.2. Mappings: DataUse and sub-classes	0.5	0.5	0	0	
7. Automation: diagram creation, image export	2		0	2	
8. Mixed font labels	0.5		0	0.5	
8.1. Mappings: Function	1	0.5	-0.5	0	
9. Nodes attached to lifelines in sequence diagrams	1		0	1	
9.1. Mappings: TimeLabel, TimeConstraint	1		0	1	
10. Nested block shapes	2	0	-2	0	
11. Coincident arrow shapes for multicast interactions	1.5	2	0.5	0	
12. Floating variable assignment labels for interactions (only required for multicast interactions)	0.5	1	0.5	0	
13. Layout inside multipart containers	2	2.5	0.5	0	
Additional features and issues			0	0	
Comment figures don't have auto-size enabled initially (resulting in oversized figures)	0.5		0	0.5	
Layout in test configuration	1.5		0	1.5	
Placement of bordered nodes and labels (gate instances)	1		0	1	
Implementing the original lifeline headers from the GR	1	1	0	0	
Fix width of Non-global actions (also affects quiescence, wait, timer operations)	1		0	1	
Layout refinement and triggering	2		0	2	
Optimistic total	27	21	1.5	7.5	
Pessimistic (+20%)	5.4				
Expected total	32.4			28.5	

Task 2

Task 2: Status

- Profile implementation
 - in testing, some mapping changes pending (DataElementMapping)
- Profile documentation
 - Annex C of Part 1, updated according to latest changes
 - ensure that Annex C is normative
- Future of profile
 - profile as a separate document TBD beyond the STF
 - distribution of profile only after it is finalised

Task 3

Task 3: Status

Clause	v1.2.1	v1.3.1	Formalised
Foundation	8	8	8
Data	19	17	17
(Data definition)	7	8	8
(Data use)	12	9	9
Time	9	7	7
Test Configuration	6	7	7
Test Behaviour	35	32	31
(Test Description)	0	0	
(Combined Behaviour)	14	11	10
(Atomic Behaviour)	21	21	21
Total # constraints	77	71	70

- All OCL constraints formalised and validated
- Some constraints removed, revised, or relocated
- MM refinements (design principles, constraint relocation, semantics)

Task 3: AnyValue Discussion

- v1.2.1 - no arguments allowed
 - message = ?
- v1.3.1 - optional arguments
 - message = ? (sessionID = 1)

Relevant Constraints:

Empty 'argument' and 'reduction' sets

The 'argument' and 'reduction' sets shall be empty.

Empty 'reduction' set

The 'reduction' sets shall be empty.

Relevant Semantics:

In case the specified or inferred 'DataType' is a 'StructuredDataType', the optional inherited 'argument' property may be used to express additional constraints on the acceptable 'StructuredDataInstance's with respect to the 'DataInstance's assigned to the 'Member's of the 'StructuredDataInstance'. In this case, only 'DataInstance's satisfying these constraints 'DataInstance' are acceptable. The semantics of 'AnyValue' still applies to the remaining 'Member's for which no 'ParameterBinding's are provided.

Task 3: AnyValue Discussion

//DATA TYPES

Type MESSAGE (sessionID of type NUMBER, content of type STRING);

Type CONTAINER (key of type STRING, message of type MESSAGE);

//DATA INSTANCES

MESSAGE ANY_SESSION_ANY_CONTENT (sessionID = ? , content = ?);

MESSAGE ANY_CONTENT_SESSION_ONE (sessionID = one , content = ?);

MESSAGE ANY_SESSION_CONTENT_OK (sessionID = ? , content = OK);

//ALL express the same semantics in different ways

//v1.2.1

CONTAINER c1 (key = SECRET, message = ?);

CONTAINER c2 (key = SECRET, message = ANY_SESSION_ANY_CONTENT);

CONTAINER c3 (key = SECRET, message = ANY_CONTENT_SESSION_ONE (sessionID = ?));

CONTAINER c4 (key = SECRET, message = ANY_SESSION_CONTENT_OK (content = ?));

//v1.3.1 semantically identical, for illustrative purposes

CONTAINER c5 (key = SECRET, message = ? (sessionID = ?, content = ?));

//ALL express the same semantics in different ways

//v1.2.1

CONTAINER c6 (key = SECRET, message = ANY_SESSION_ANY_CONTENT (sessionID = one));

CONTAINER c7 (key = SECRET, message = ANY_SESSION_ANY_CONTENT (sessionID = one, content = ?));

CONTAINER c8 (key = SECRET, message = ANY_CONTENT_SESSION_ONE);

//v1.3.1 NEW proposal

CONTAINER c9 (key = SECRET, message = ? (sessionID = one));

//v1.3.1 semantically identical, for illustrative purposes

CONTAINER c6 (key = SECRET, message = ? (sessionID = one, content = ?));

//... (similarly for content and any other member)

Task 3: AnyValue Discussion

//DATA TYPES

Type MESSAGE (sessionID of type NUMBER, content of type STRING);

Type CONTAINER (key of type STRING, message of type MESSAGE);

//DATA INSTANCES

MESSAGE ANY_SESSION_ANY_CONTENT (sessionID = ? , content = ?);

MESSAGE ANY_CONTENT_SESSION_ONE (sessionID = one , content = ?);

MESSAGE ANY_SESSION_CONTENT_OK (sessionID = ? , content = OK);

//ALL express the same semantics in different ways

//v1.2.1

CONTAINER c1 (key = SECRET, message = ?);

CONTAINER c2 (key = SECRET, message = ANY_SESSION_ANY_CONTENT);

CONTAINER c3 (key = SECRET, message = ANY_CONTENT_SESSION_ONE (sessionID = ?));

CONTAINER c4 (key = SECRET, message = ANY_SESSION_CONTENT_OK (content = ?));

//v1.3.1 semantically identical, for illustrative purposes

CONTAINER c5 (key = SECRET, message = ? (sessionID = ?, content = ?));

//ALL express the same semantics in different ways

//v1.2.1

CONTAINER c6 (key = SECRET, message = ANY_SESSION_ANY_CONTENT (sessionID = one));

CONTAINER c7 (key = SECRET, message = ANY_SESSION_ANY_CONTENT (sessionID = one, content = ?));

CONTAINER c8 (key = SECRET, message = ANY_CONTENT_SESSION_ONE);

//v1.3.1 NEW proposal

CONTAINER c9 (key = SECRET, message = ? (sessionID = one));

//v1.3.1 semantically identical, for illustrative purposes

CONTAINER c6 (key = SECRET, message = ? (sessionID = one, content = ?));

//... (similarly for content and any other member)

Task 4

Task 4: Status

- GR
 - alternative notation for lifelines added
 - various refinements (terminology, MM changes, notation)
- XF
 - schema and example updates
- TO
 - iterative and periodic behaviour, event templates (meta-model), syntax TBC
 - implementation: custom output formats can be selected for export to Word

Any other business?

- Future of TDL
 - see slides from Andreas
- ToR drafting timeline
 - input needed by Alberto in April
- Next SG meeting
 - TBD

