

# TTCN-3 v4.1.1

TTCN-3 2009 User Conference

Gyorgy Rethy, Ericsson, on behalf of TTCN-3 Maintenance Team © ETSI 2009. All rights reserved



## **TTCN-3 Maintenance in 2008**

□ STF 349: March 2008 – Dec. 2008 (83 days)

### ☐ Members:

- Gyorgy Rethy, Ericsson
- > Thomas Deiß, Nokia Siemens Networks
- > Jens Grabowski, University of Goettingen
- Ina Schieferdecker, FOKUS

### Two TTCN-3 Releases

- > 3GPP/LTE maintenance update in summer
- TTCN-3 extension by end of 2008



## TTCN-3 v3.4.1

#### Contains

- > (201 873-1) RES/MTS-00108-1: Core Language
- > (201 873-4) RES/MTS-00108-4: Operational Semantics
- > (201 873-6) RES/MTS-00108-6: Test Control Interfaces
- > (201 873-10) RES/MTS-00108-10: Documentation Tags
- □ Addressed mainly 3GPP/LTE CRs
- □ Membership vote procedure: 2008/07/01 2008/08/29
  - Final publication in Sept. 2008



## TTCN-3 v4.1.1

#### Contains

- > (201 873-1) RES/MTS-00107-1: Core Language
- > (201 873-4) RES/MTS-00107-4: Operational Semantics
- > (201 873-5) RES/MTS-00107-5: TTCN-3 Runtime Interfaces
- > (201 873-6) RES/MTS-00107-6: TTCN-3 Control Interfaces
- > (201 873-7) RES/MTS-00107-7: ASN.1 Mapping
- > (201 873-7) RES/MTS-00107-9: XSD Mapping
- □ Addressed 130 CRs plus 6 CRs during AbC
- □ Membership vote procedure: start in March
  - final publication in June 2009



## **CRs for v4.1.1**

□ Part 1 - Core > 79 CRs – 67 fixed, 8 rejected, 4 on extension packages □ Part 4 – Operational Semantics > 7 CRs – 7 fixed part 1 CRs had implications on part 4 Part 5 – TTCN-3 Runtime Interfaces  $\geq$  4 CRs – 4 fixed part 1 CRs had implications on part 5 Part 6 – TTCN-3 Control Interfaces  $\geq$  8 CRs – 8 fixed > part 1 CRs had implications on part 6 Part 7 – ASN.1 mapping > 3 CRs – 3 fixed □ Part 9 – XSD mapping > 34 CRs – 31 fixed, 2 rejected, 1 duplicate

→ Details see Mantis: <u>http://t-ort.etsi.org</u>



- □ Support for library development
  - Module interfaces (public, private and friend visibility declarations)
  - Formal parameters with default values and named actual parameters

#### Convenience features

- Access to message fields
- Referencing type definitions nested in record of & set of types
- Contained subtypes
- Several smaller items (standalone statement blocks, functions with inout & out parameters can be started etc.)
- □ Addition of C++ mapping in TRI and TCI
- □ Updates to ASN.1 to TTCN-3 mapping
- **Corrigenda and additions to the XSD to TTCN-3 mapping** 
  - e.g. handling namespaces and TTCN-3 module names
- Various clarifications



### □ What are the packages ?

- > Optional language features of similar character
- Published in self-containing ES documents
  - Contain changes to parts of the ES 201 873 standard or to other package standards

### Packages

- > Advanced Parameterization
  - Parameterization of types
  - Parameterization with types
- > Behavior Types
  - Types of and references to dynamic elements
- Configuration and Deployment Support
  - "Static" test configurations (created and destroyed independent of test cases)
  - Test cases are not allowed to modify (but may extend)

#### → drafts available



## **TTCN-3 Maintenance in 2009**

#### □ STF 380, Apr. – Dec. 2009, 118 person days

- Ina Schieferdecker, Fraunhofer FOKUS
- Jens Grabowski, University Goettingen
- Gyorgy Rethy, Ericsson
- Tibor Csöndes, Ericsson

#### Resolution of open CRs

> 21 open CRs

#### Cooperation with STF 160 on LTE testing

- □ Extensions for real-time and performance
  - Real-time concepts and semantics
  - Timing constraints
  - Support for simulated time
  - Support for performance tests and benchmarks
- □ Reference test suite

(voluntary, based on inputs from tool vendors)



## **Upcoming STF 380 sessions**

- □ April 20 23, 2009
- □ June 29 July 10, 2009
- □ Aug. 31 Sept. 11, 2009
- □ Nov. 23 Nov. 27, 2009
- $\rightarrow$  Please report your issues as CRs in Mantis beforehand
- → <u>http://t-ort.etsi.org</u>