



# Accredited TTCN-3 Training Course

## Theory and Practice of TTCN-3

### Overview

The Testing and Test Control Notation TTCN-3 has been developed by ETSI to address testing needs of modern telecommunication and IT technologies. One of the objectives of TTCN-3 is to enable systematic, specification-based testing for software systems with the same success as for telecommunication systems.

TTCN-3 is a modern and powerful test specification and test implementation language. Typical areas of application are protocol and service testing, component and system testing, testing of embedded/ communication-based/distributed systems, etc.

The standardized test language has a similar look and feel to a typical programming language. However, besides typical programming constructs, TTCN-3 contains all the important features needed for specifying test procedures and campaigns for functional, conformance, interoperability, load and scalability tests. These test-specific features are unique compared to traditional scripting or programming languages, and above all technology independent.

TTCN-3 allows an easy and efficient description of complex distributed test behavior in terms of sequences, alternatives, loops and parallel stimuli and responses. TTCN-3 follows the concepts of black- and grey-box testing by exchanging stimuli and responses at the interfaces of the system under test. These interfaces are represented as a collection of TTCN-3 ports. The TTCN-3 based test system can use a number of test components to perform test procedures in parallel without the classical hazards found in traditional programming and/or scripting languages.

### Target Audience and Program

The training is targeted at an audience of system designers; system, software and test engineers; and project managers.

It is structured to present basics and technical concepts of TTCN-3 and its use within the test development process. The audience will develop their first TTCN-3 test suites from scratch, thus receive a solid overview and details related to systematic testing using TTCN-3.

### Modules

- Review on specification-based testing
- Basic concepts of TTCN-3
- Language features and use of the TTCN-3 Core Language (CL)
- Introduction of the Graphical Format of TTCN-3 (GFT)
- Test design and development
- The TTCN-3 Execution Interfaces (TRI and TCI) and their Java mapping
- Case study with example test cases
- Practical exercises with Testing Technologies' TWorkbench
- Discussions

### Instructor



#### Dirk Borowski

joined Testing Technologies as Vice President Customer Care by the end of 2000. He brought in many years of experience due to working in the area of testing private branch exchanges with Fraunhofer Institute FOKUS.

Prior to 1998, Mister Borowski was with the Automated Test Department of DeTeWe, a leading German phone manufacturer.

Currently he is involved as expert in the TTCN-3 testing standardization activities of 3GPP/ETSI working groups. His wide experience in creating and maintaining TTCN-3 VoIP-based test solutions gives him the profound expertise required for this task.

Mister Borowski holds a Master in Electrical Engineering from Technical University Berlin. He is certified TTCN-3 specialist, approved by the International Software Quality Institute (ISQI).

### Price

1.600,00 € (excl. VAT)

1.904,00 € (incl. VAT)

### The Training Includes

- Participation, 3 days total / one person
- Hardware and software equipment
- Training content according to certification criteria of the GTB
- Documentation and handouts
- Refreshments and lunch every day
- Social event
- Exam for certification on-site (optional)

### Contact & Registration

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Email [gneist@testingtech.com](mailto:gneist@testingtech.com)

Please fill out the registration form and fax it latest two weeks before the training.

Courses are usually being held in English language. Upon request, it is also possible to arrange trainings in German language. Please indicate the language you speak on your registration.