

# Spirent TTCN-3 Training Course

## Test Automation with TTCN-3

### Spirent services

Spirent Global Services provides a variety of professional services, support services and education services—all focused on helping customers meet their complex testing and service assurance requirements.

For more information, visit the Global Services website at [www.spirent.com](http://www.spirent.com) or contact your Spirent sales representative.

### Target audience & 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 Spirent's TTworkbench
- Discussions

### Services include

- Participation, 3 days total / 1 person
- Hardware and software equipment
- Documentation and handouts
- Book „An Introduction to TTCN-3“, 2nd Edition by Willcock et al., 2011
- Refreshments and lunch every day
- Social event

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

### Contact & registration

Ms. Andrea Gneist

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Please fill out the registration form and fax it **latest 2 weeks before the training**.

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## Instructors



Dirk Borowski, Vice President Customer Care, has been working in the area of testing private branch exchanges with Fraunhofer Institute FOKUS for many years. As testing expert, he is strongly involved in TTCN-3 standardization activities of 3GPP/ETSI working groups. Mr. Borowski possesses extensive experience in creating and maintaining VoIP-based test solutions, and was certified as TTCN-3 specialist by iSQI in 2007. He holds a Master in Electrical Engineering from Technical University Berlin.



Yuchuan Liu, Field Application Engineer, joined the Professional Services team of Testing Technologies (now Spirent) in 2010, bringing in expertise in telecommunication technique and international audience. Two weeks after his entry he achieved the TTCN-3 Certificate issued by iSQI and has been holding numerous training courses since then. Yuchuan holds a Master in Economic Engineering from Technical University Berlin.

## 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.

A 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.

## Price

- 1.600,00 € / 1.904,00 €  
(excl. / incl. VAT)

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