

## About ETSI

ETSI is one of the world's leading standards development organizations for Information and Communication Technologies (ICT). Founded initially to serve European needs, ETSI has grown rapidly to become highly-respected as a producer of technical standards for worldwide use.

ETSI membership is composed of manufacturers and network operators – all the “big names” and many smaller companies too – plus national administrations, ministries, regulators, universities, research groups, consultancies and user organizations. A powerful and dynamic mix of skills, resources and ambitions, all working together to bring the very best ICT solutions to the global marketplace. Geographically, our membership of over 700 companies and organizations is drawn from more than 60 countries on 5 continents.

ETSI is independent of all other organizations and structures, a key feature for ensuring neutrality and trustworthiness. That brings benefits not only in the acceptance of our standards and other publications, but also in our growing range of ancillary services, such as interoperability testing. And because standardization inevitably draws upon the bright ideas of our members, we have an Intellectual Property Rights (IPR) policy in place that has become the model for many other organizations.

Your company can be part of this dynamic organization. For more information, please visit and contact:

ETSI <http://www.etsi.org>  
ETSI Technical Committee MTS <http://portal.etsi.org/MTS>

### ETSI

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Test →

Description ←

Language →

## The ETSI Test Description Language

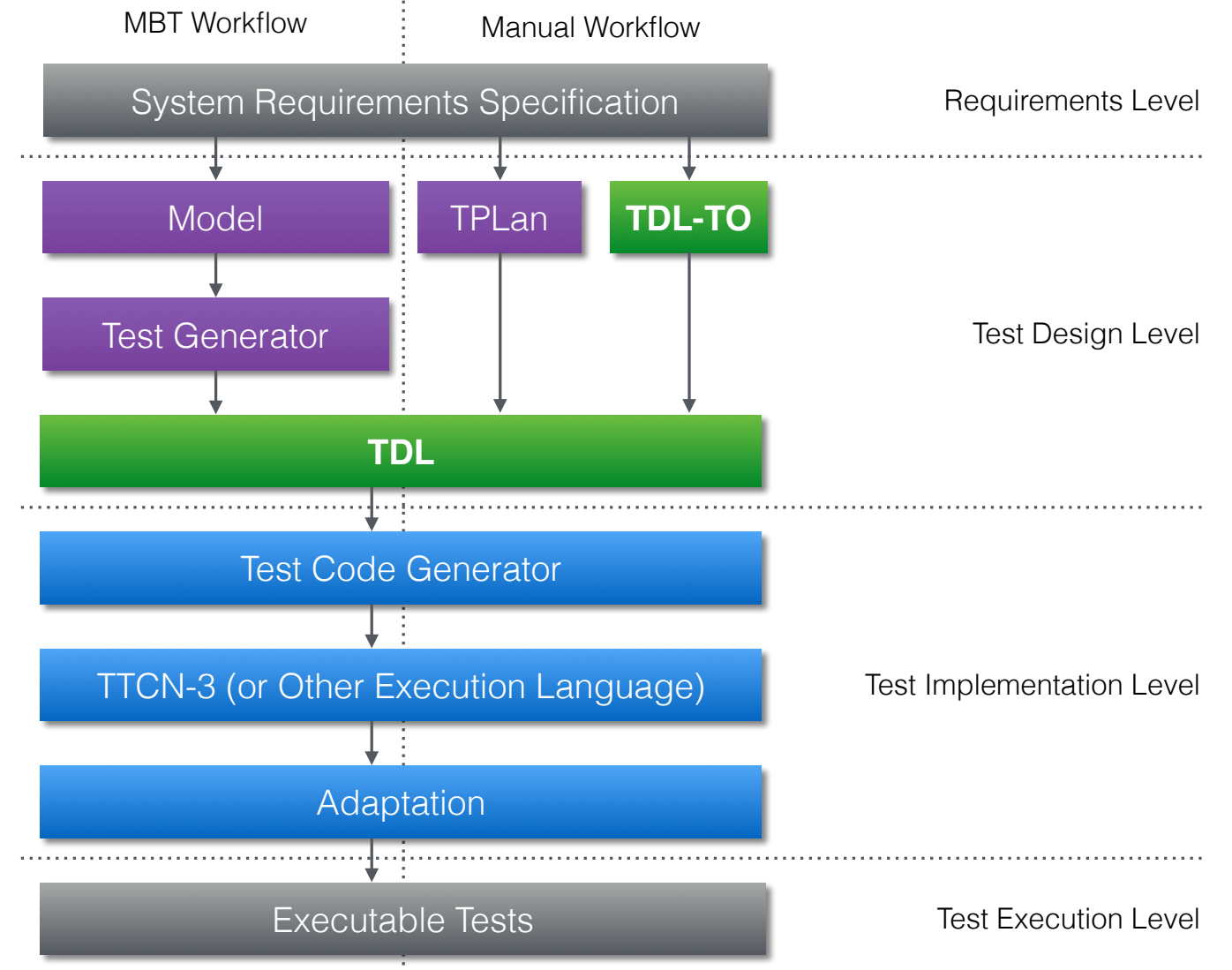
The process of stepwise development of tests from requirement specifications is well established and used in both, standardization and industry. Methods and languages produced by the Technical Committee Methods for Testing and Specification (TC MTS), such as the Testing and Test Control Notation version 3 (TTCN-3) and the Test Purpose Language (TPLan) have been designed to support this process.

The Test Description Language (TDL) is the newest addition to these methods and languages acting as an intermediary between TPLan for the specification of test purposes and TTCN-3 for the specification of test cases. TDL is designed to bridge the gap between declarative test purpose specifications (what shall be tested?) and imperative test case specifications (how shall it be tested?) by offering a standardized language for the specification of test descriptions. TDL is part of the ongoing activities by MTS related to establishing standardised Model-based Testing (MBT) technologies within ETSI and the industry for conducting functional, conformance and interoperability tests for a wide range of distributed real-time systems, such as telecommunications, Internet of Things (IoT), and Machine-to-Machine (M2M) systems.

TDL aims to ease the development of executable tests by enabling:

- Specification of easy-to-understand test case descriptions that can be presented in different representation formats suitable for different stakeholders (graphical, textual, user-specific)
- Development of test cases by testers lacking programming knowledge
- Iterative test development along all product development phases, from requirements clarification, via design, to system testing
- Independence from execution languages and platforms and hiding of test case implementation details
- Integration of automatically generated and manually developed test cases within a common information platform

To accelerate the adoption of TDL, MTS has commissioned an open-source reference implementation of TDL in order to lower the barrier to entry for both users and tool vendors in getting started with using TDL. The reference implementation comprises graphical and textual editors, as well as a UML profile for TDL to enable the application of TDL in UML-based working environments.



## List ETSI TDL Standards

- ES 203 119-1 TDL-MM: Abstract Syntax and Associated Semantics
- ES 203 119-2 TDL-GR: Graphical Syntax
- ES 203 119-3 TDL-XF: Exchange Format
- ES 203 119-4 TDL-TO: Structured Test Objective Specification

Further information and the change history of the standards are available at:

<http://tdl.etsi.org>