NS (V7.3.0) Protocol Modules for TTCN-3 Toolset with TITAN, User Guide

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# Introduction

## Revision history

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| --- | --- | --- | --- |
| Date | Rev | Characteristics | Prepared |
| 2008-01-22 | PA1 | First draft version | ETHEKR |
| 2008-01-23 | PA2 | Updated after inspection | ETHEKR |
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## About this Document

### How to Read this Document

This is the User Guide for the NS v7.3.0 protocol module. The NS v7.3.0 protocol module is developed for the TTCN-3 Toolset with TITAN. This document should be read together with Product Revision Information ‎[3] and Function Specification ‎[4].

### Presumed Knowledge

To use this protocol module the knowledge of the TTCN-3 language ‎[1] and TITAN Test Executor ‎[2] is essential.

### References

1. ETSI ES 201 873-1 v.3.2.1 (2007-02)  
   The Testing and Test Control Nota­tion version 3. Part 1: Core Language
2. 1/198 17-CRL 113 200/3 Uen  
   User Guide for the TITAN TTCN-3 Test Executor
3. 109 21-CNL 113 578-1 Uen  
   NS (V7.3.0) Protocol Modules for TTCN-3 Toolset with TITAN, Product Revision Information
4. 155 17- CNL 113 578 Uen  
   NS (V7.3.0) Protocol Modules for TTCN-3 Toolset with TITAN, Function Specification
5. 2/198 17-CRL 113 200/3 Uen  
   Programmer’s Technical Reference for the TITAN TTCN-3 Test Executor
6. 1/1531-CRL 113 200/3 Uen  
   Installation Guide for the TITAN TTCN-3 Test Executor

### Abbreviations

NS Network Service

TTCN-3 Testing and Test Control Notation version 3

### Terminology

No specific terminology is used.

## System Requirements

Protocol modules are a set of TTCN-3 source code files that can be used as part of TTCN-3 test suites only. Hence, protocol modules alone do not put specific requirements on the system used. However in order to compile and execute a TTCN-3 test suite using the set of protocol modules the following system requirements must be satisfied:

* TITAN TTCN-3 Test Executor R7A (1.7.pl0) or higher installed. For installation guide see ‎[6]. Please note: This version of the protocol module is not compatible with TITAN releases earlier than R7A.

Protocol modules implement the message structures of the related protocol in a formalized way, using the standard specification language TTCN-3. This allows defining of test data (templates) in the TTCN-3 language ‎[1] and correctly encoding/decoding messages when executing test suites using the Titan TTCN-3 test environment ‎[2].

Protocol modules are using Titan’s RAW encoding attributes ‎[5] and hence are usable with the Titan test toolset only.

## Installation

The set of protocol modules can be used in developing TTCN-3 test suites using any text editor. However to make the work more efficient a TTCN-3-enabled text editor is recommended (e.g. nedit, xemacs). Since the NS protocol is used as a part of a TTCN-3 test suite, this requires TTCN-3 Test Executor be installed before the module can be compiled and executed together with other parts of the test suite. For more details on the installation of TTCN-3 Test Executor see the relevant section of [‎[6]](#ref_Titan_IG).

## Configuration

None.