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MIME 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 |
| 2004-02-20 | PA1 | First draft version | ETHGASZ |
| 2004-04-22 | A | Final revision | ETHGASZ |
| 2005-06-24 | PB1 | Generated parser sources added | ETHGASZ |
| 2006-12-19 | PC1 | Updated for TITAN R7 | ETHBAAT |

## About this Document

### How to Read this Document

This is the User Guide for the MIME protocol module. The MIME 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] is essential.

### References

[1] ETSI ES 201 873-1 v.2.2.1 (02/2003)  
The Testing and Test Control Nota­tion version 3. Part 1: Core Language

[2] 1/1553-CRL 113 200 Uen  
User Documentation for the TITAN TTCN-3 Test Executor

[3] 109 21-CNL 113 352-3  
MIME Protocol Modules for TTCN-3 Toolset with TITAN, Product Revision Information

[4] 155 17-CNL 113 352  
MIME Protocol Modules for TTCN-3 Toolset with TITAN, Function Specification

[5] IETF RFC 2045  
Multipurpose Internet Mail Extension (MIME) Part One:  
Format of Internet Message Body

[6] IETF RFC 2046  
Multipurpose Internet Mail Extension (MIME) Part Two:  
Media Types

### Abbreviations

ASP Abstract Service Primitive

IUT Implementation Under Test

MIME Multipurpose Internet Mail Extension

SUT System Under Test

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 [2]. Please note: This version of the protocol module is not compatible with TITAN releases earlier than R7A.

The protocol module contains the generated parser source files. The Bison and the Flex are not needed for the usage of the protocol module. They are needed for the development only.

# Protocol Modules

## Overview

Protocol modules implement the messages structure 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.

The MIME protocol module implements the following functions:

* f\_MIME\_Encode(in PDU\_MIME\_entity inent) return charstring
* f\_MIME\_Decode(in charstring inent) return PDU\_MIME\_entity

## 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 MIME 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 [2].

## Configuration

None.

# Examples

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