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MIME Protocol Modules for TTCN-3 Toolset with TITAN, Function Specification

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# Introduction

## Revision history

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| --- | --- | --- | --- |
| Date | Rev | Characteristics | Prepared |
| 2004-02-18 | PA1 | First draft version | ETHGASZ |
| 2004-04-22 | A | Final revision | ETHGASZ |
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## How to Read this Document

This is the Function Specification for the set of MIME protocol modules. MIME protocol modules is developed for the TTCN-3 Toolset with TITAN. This document should be read together with Product Revision Information [3].

## Scope

The purpose of this document is to specify the content of the MIME protocol modules.

## 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 113 352-1  
MIME Protocol Modules for TTCN-3 Toolset with TITAN, Product Revision Information

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

[5] 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.

# General

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.

# Functional specification

## Protocol version implemented

This set of protocol modules implements protocol messages and constants of the MIME protocol (see [5] [6]) with the modifications specified in 3.2.

## Modifications/deviations related to the protocol specification

### Implemented Messages, Content types, Content encodings and Constants

The following Content encodings are implemented from [5], [6]: Base64, binary, 7bit and 8bit. The quoted-printable encoding is not implemented.

### Protocol Modifications/Deviations

The quoted-printable encoding is not implemented.

## Encoding/Decoding and Other Related Functions

This product also contains encoding/decoding functions, which assure correct encoding of messages when sent from Titan and correct decoding of messages when received by Titan. Implemented encoding/decoding functions:  
Name Type of formal parameters Type of return value  
f\_MIME\_Encode (in PDU\_MIME\_entity) returns charstring

f\_MIME\_Decode(in charstring ) return PDU\_MIME\_entity;