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Approved ETH/RZDC (Árpád Szakács)	Checked	Date 2006-12-19	Rev C	Reference GASK2

MIME Protocol Modules for TTCN-3 Toolset with TITAN, User Guide

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1 Introduction

1.1 Revision history

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

1.2 About this Document

1.2.1 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].

1.2.2 Presumed Knowledge

To use this protocol module the knowledge of the TTCN-3 language [1] is essential.

1.2.3 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

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1.2.4 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

1.2.5 Terminology

No specific terminology is used.

1.3 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.

2 Protocol Modules

2.1 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`

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2.2 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].

2.3 Configuration

None.

3 Examples

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