|  |  |
| --- | --- |
|  |  |

EPTF CLL NameService, User Guide

Contents

[1 Introduction 2](#_Toc211150386)

[1.1 Revision history 2](#_Toc211150387)

[1.2 About this Document 2](#_Toc211150388)

[1.2.1 How to Read this Document 2](#_Toc211150389)

[1.2.2 References 2](#_Toc211150390)

[1.2.3 Abbreviations 3](#_Toc211150391)

[1.2.4 Terminology 3](#_Toc211150392)

[1.3 System Requirements 3](#_Toc211150393)

[2 NameService 3](#_Toc211150394)

[2.1 Overview 3](#_Toc211150395)

[2.2 Description of files in this feature 3](#_Toc211150396)

[2.3 Description of required files from other features 4](#_Toc211150397)

[2.4 Installation 4](#_Toc211150398)

[2.5 Configuration 4](#_Toc211150399)

[2.6 Usage 4](#_Toc211150400)

[3 Error messages 5](#_Toc211150401)

[4 Warning messages 5](#_Toc211150402)

[5 Examples 5](#_Toc211150403)

[5.1 Configuration file 6](#_Toc211150404)

[5.2 Demo Module 6](#_Toc211150405)

# Introduction

## Revision history

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Rev | Characteristics | Prepared |
| 2007-12-03 | PA1 | First draft version | ETHJGI |
| 2007-12-05 | PA1 | Updated after review | ETHJGI |
|  |  |  |  |
|  |  |  |  |

## About this Document

### How to Read this Document

This is the User Guide for the NameService of the Ericsson Performance Test Framework (TitanSim), Core Load Library (CLL). TitanSim CLL is developed for the TTCN-3 ‎[1] Toolset with TITAN ‎[2]. This document should be read together with the Function Description of the NameService feature ‎[6]. For more information on the TitanSim CLL please consult the Product Revision Information ‎[3], the Users Guide ‎[4] and the Function Specification ‎[5] of the TitanSim.

### References

1. ETSI ES 201 873-1 v3.2.1 (2007-02)  
   The Testing and Test Control Notation version 3. Part 1: Core Language
2. 1/198 17-CRL 113 200 Uen  
   User Guide for the TITAN TTCN-3 Test Executor
3. 109 21-CNL 113 512-2 Uen   
   TitanSim CLL for TTCN-3 toolset with TITAN, Product Revision Information
4. 155 17-CNL 113 512 Uen   
   TitanSim CLL for TTCN-3 toolset with TITAN, Function Specification
5. 198 17-CNL 113 512 Uen  
   TitanSim CLL for TTCN-3 toolset with TITAN, User Guide
6. 10/155 16-CNL 113 512  
   EPTF CLL NameService Function Description
7. TitanSim CLL for TTCN-3 toolset with TITAN, Reference Guide  
   <http://ttcn.ericsson.se/products/libraries.shtml>

### Abbreviations

CLL Core Load Library

EPTF Ericsson Load Test Framework, formerly TITAN Load Test Framework

TitanSim Ericsson Load Test Framework, formerly TITAN Load Test Framework

TTCN-3 Testing and Test Control Notation version 3 ‎[1]

### Terminology

*TitanSim Core (Load) Library(CLL)* is that part of the TitanSim software that is totally project independent. (I.e., which is not protocol-, or application-dependent). The TitanSim CLL is to be supplied and supported by the TCC organization. Any TitanSim CLL development is to be funded centrally by Ericsson

## System Requirements

In order to use the NameService feature the system requirements listed in TitanSim CLL User Guide ‎[5] should be fulfilled.

# NameService

## Overview

The EPTF CLL NameService component is a fundamental component providing an implementation for name services in TTCN-3 environment. Such name services can be used to query values by name, for example, to query that which component stores what resource.

## Description of files in this feature

The EPTF CLL NameService API includes the following files:

* NameService
  + EPTF\_CLL\_NameService\_Definitions.ttcnpp: This TTCN-3 module contains common type definitions that should be used in all NameService Components.
  + EPTF\_CLL\_NameService\_Functions.ttcnpp: This TTCN-3 module contains the implementation of NameService main functions.
  + EPTF\_CLL\_NameService\_Client\_Functions.ttcnpp: This TTCN-3 module contains the implementation of NameService client functions.
  + EPTF\_CLL\_NameService\_ExternalFunctions.cc: This TTCN-3 module contains the c++ implementation of external functions of NameService.

## Description of required files from other features

The NameService feature is part of the TitanSim EPTF Core Load Library (CLL). It relies on several features of the CLL. The user has to obtain the products/files to be found under the respective feature names:

* Base

## Installation

Since EPTF CLL NameService is used as a part of the TTCN-3 test environment this requires TTCN-3 Test Executor to be installed before any operation of these functions. For more details on the installation of TTCN-3 Test Executor see the relevant section of ‎[2].

If not otherwise noted in the respective sections, the following are needed to use EPTF CLL NameService:

* Copy the files listed in section [‎2.2, ‎2.3] to the directory of the test suite or create symbolic links to them.
* Import the NameService demo or write your own application using NameService.
* Create Makefile or modify the existing one. For more details see the relevant section of ‎[2].
* Edit the config file according to your needs, see following section [‎2.5].

## Configuration

The executable test program behaviour is determined via the run-time configuration file. This is a simple text file, which contains various sections. The usual suffix of configuration files is .cfg. For further information on the configuration file see ‎[2].

This set of features defines TTCN-3 module parameters as defined in ‎[2] clause 4. Actual values of these parameters – when there is no default value or a different from the default actual value to be used – shall be given in the [MODULE\_PARAMETERS] section of the configuration file.

The EPTF NameService feature does not define any module parameters.

## Usage

To use the EPTF NameService feature

* Extend one of your component with the EPTF\_NS\_CT component and initialize it.
* Extend your component with EPTF\_NS\_Client\_CT.
* call the init function of the NameService Client to initialize the feature
* use its public functions to register/query names

Note, that the init function activates the main altstep of the NameService, so it is not necessary to call it explicitly in any of your altsteps.

Do not access the component variables in EPTF\_NS\_CT and EPTF\_NS\_Client\_CT directly! Use the API functions instead.

# Error messages

Please note, that besides the below described error messages, error messages shown in ‎[2] or those of other used features or product may also appear.

**Unexpected message received from <senderComp>: <msg data>**

Unexpected message received on the NameService internal interface.

# Warning messages

Please note, that besides the below described warning messages, warning messages shown in ‎[2] or those of other used features or product may also appear.

**The name already registered in msg: <msg> Original item is at <idx>: <registeredItem>**

The name already registered.

**The name is not registered in msg: <message>**

The name to be deregistered or queried does not exist.

**Registration failed for <registerNAck>**

The given name cannot be registered

**Query failed for name <name>**

The name was not found.

**--CLEANUP TIMEOUT-- Not all responses received for bye messages.**

The cleanup not properly performed. The main NameService component does not respond. The execution of the current component is forced to terminate. This may result in errors in other components afterwards.

# Examples

The “demo” directory of the deliverable contains the following examples:

* main.cfg
* EPTF\_NameService\_test.ttcn

## Configuration file

The used configuration file (main.cfg) sets only the parameters in the [LOGGING] section. No special configuration is needed.

## Demo Module

The demo module EPTF\_NameService\_test.ttcn illustrates a typical usage of the NameService feature.

The usage of register/deregister/query functions are shown.