

# Unit Test Report for EDLS System

- Test Cases Specification
- Test Summary Report

## Project Team

#3 : 5bps Team

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## 1 Introduction

### 1.1 Objectives

본 문서는 Electronic Door Lock System (EDLS)의 unit test 수행 결과를 보고하기 위한 문서이다.

### 1.2 References

DS.2013.EDLS.SRA-1.0

DS.2013.EDLS.SDS-1.0

DS.2013.EDLS.UTP-2.0

## 2 Unit test case specification

### 2.1 Test case specification identifier

**Table 1. Test Case Identification**

Test case identifier	Input specification	Output specification
EDLS_UTC_000_000	input!=0xFFFF	pass>>16!=0xFFFF
EDLS_UTC_000_001	SBFlags==0	SBFlags==(1<<DOS)  (1<<DB) (1<<KEY)
EDLS_UTC_000_002	input==0xFFFF	pass>>16==0xFFFF
EDLS_UTC_001_000	Pass>>16!=0xFFFF	Trigger loop
EDLS_UTC_002_000	fnAddr==PQManager .current	Func(fnAddr)
EDLS_UTC_003_000	PQ!=null	Trigger
EDLS_UTC_004_000	current.next!=null	current.next
EDLS_UTC_004_001	current.next==null	pq.list.tail
EDLS_UTC_005_000	fnAddr!=0/arg1/arg2	length>0 && last.addr==fnAddr
EDLS_UTC_006_000	필요 없음.	필요 없음.
EDLS_UTC_007_000	fnAddr!=0	find(fnAddr)==0
EDLS_UTC_008_000	SBFlags	Trigger
EDLS_UTC_009_000	SBFlags / index	SBFlags>>index&1
EDLS_UTC_010_000	Index / isOn	PQManager.length>0
EDLS_UTC_011_000	Comm==0xF	((SBFlags>>NB)&1==1) && ((SBFlags>>KS)&1==1)
EDLS_UTC_011_001	Comm>=1 && Comm<=9	Trigger

EDLS.UTC_012_000	In>=0&&In<=9 / i<4	Pass>>(i-3)&1==In
EDLS.UTC_013_000	pass&0xFFFF== (pass>>16&0xFFFF)	PQManager.find(DoorControl)>=0
EDLS.UTC_013_001	pass&0xFFFF!= (pass>>16&0xFFFF)	PQManager.find(DoorControl)<0 && pass&0xFFFF==0xFFFF
EDLS.UTC_014_000	Trigger in	PQManager.find(Timer)>=0
EDLS.UTC_015_000	Trigger in	timer_cnt==0
EDLS.UTC_016_000	Trigger in	PQManager.find(NumIn)<0
EDLS.UTC_017_000	Trigger in	PQManager.find(Auth)>=0
EDLS.UTC_018_000	Trigger in	(Pass>>16&0xFFFF !=0xFFFF)&&(Pass& 0xFFFF!=0xFFFF)
EDLS.UTC_019_000	Trigger in	(SBFlags>>NB&1==0)&& (SBFlags>>KS&1==0)
EDLS.UTC_020_000	Trigger in	(SBFlags>>NB&1==1)&& (SBFlags>>KS&1==1)
EDLS.UTC_020_001	fn==Timer	PQManager.find(fn)<0
EDLS.UTC_021_000	fn==Auth	PQManger.find(fn)<0
EDLS.UTC_022_000	fn==DoorControl	PQManager.find(fn)>=0
EDLS.UTC_023_000	Time>0&&TPAddr!=0	timer_cnt>0
EDLS.UTC_024_000	TPAddr!=0	timer_cnt==0 && PQManager.find(Timer)<0 && PQManager.find(TPAddr)>0
EDLS.UTC_025_000	Trigger in	PQManager.find(TPClose)<0
EDLS.UTC_026_000	closed==1	PQManager.find(TPTBO)<0

## 2.2 Test items

<Table 1. Test Case Identification> 참조

## 2.3 Input specifications

<Table 1. Test Case Identification> 참조

## 2.4 Output specifications

<Table 1. Test Case Identification> 참조

## 3 Environmental needs

EDLS의 unit test를 위한 환경적 요구사항은 다음과 같다.

(1) Hardware & Platform, Visual Studio IDE (Integrated Development Environment)

MSVC compiler / linker

(2) CTIP (Continuous Testing & Integration Platform) Environment

CI server

Git repository server

CI/Git server에 접근 가능한 단말 PC

Test tools

4 Unit test summary report

4.1 Test summary report identifier

<Table 1. Test Case Identification> 참조

1.1 Evaluation

**2 Table 2. Test Summary Report Identification**

Test case identifier	Input Evaluation	Output Evaluation	Failure cause
EDLS.UTC_000_000	Pass	Pass	
EDLS.UTC_000_001	Pass	Pass	
EDLS.UTC_000_002	Pass	Pass	
EDLS.UTC_001_000	Pass	Pass	
EDLS.UTC_002_000	Pass	Pass	
EDLS.UTC_003_000	Pass	Pass	
EDLS.UTC_004_000	Pass	Pass	
EDLS.UTC_004_001	Pass	Pass	
EDLS.UTC_005_000	Fail -> Pass	Pass	Duplicated process addition commands
EDLS.UTC_006_000	Pass	Pass	
EDLS.UTC_007_000	Pass	Pass	
EDLS.UTC_008_000	Pass	Pass	
EDLS.UTC_009_000	Fail -> Pass	Pass	UT logic fail/ PQ list tail node management fail
EDLS.UTC_010_000	Fail -> Pass	Pass	UT logic fail
EDLS.UTC_011_000	Fail -> Pass	Pass	UT logic fail
EDLS.UTC_011_001	Fail -> Pass	Pass	UT logic fail
EDLS.UTC_012_000	Pass	Pass	
EDLS.UTC_013_000	Fail -> Pass	Pass	Duplicated process addition commands

EDLS.UTC_013_001	Pass	Pass	
EDLS.UTC_014_000	Pass	Pass	
EDLS.UTC_015_000	Pass	Pass	
EDLS.UTC_016_000	Pass	Pass	
EDLS.UTC_017_000	Pass	Pass	
EDLS.UTC_018_000	Pass	Pass	
EDLS.UTC_019_000	Pass	Pass	
EDLS.UTC_020_000	Pass	Pass	
EDLS.UTC_020_001	Pass	Pass	
EDLS.UTC_021_000	Pass	Pass	
EDLS.UTC_022_000	Pass	Pass	
EDLS.UTC_023_000	Pass	Pass	
EDLS.UTC_024_000	Pass	Pass	
EDLS.UTC_025_000	Pass	Pass	
EDLS.UTC_026_000	Pass	Pass	