

Unit Test Report for PTS System

- Test Cases Specification
- Test Summary Report

Project Team
Class B Team 3

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1 Introduction

1.1 Objectives

Public Transportation System(이하 PTS)의 최종적인 구현을 위해 각 함수별로 unit test를 실행한다. Unit test는 PTS의 버스단말기, 지하철단말기 및 정산시스템의 3가지 시스템에 대해 독립적으로 실행한다. 또한 unit test는 시스템 동작을 위해 필요한 활동과 기준에 대해 정의하고 테스트 도구들에 관한 세부사항을 명시한다.

1.2 References

T3.2014.PTS.SRA

T3.2014.PTS.SDS

2 Unit test case specification

2.1 Test case specification identifier

<BUS&SUBWAY> Test case Identification

Identifier	Input Specification	Output Specification
PTS.UTC_000_000	Unarranged_data[2] = {20141117195032, "BUS", "OUT", 5950, "B_1"}, {20141117195035, "BUS", "IN", 5950, "B_2"}	Arranged_data의 In == True
PTS.UTC_000_001	Unarranged_data[2] = {20141117195032, "BUS", "OUT", 5950, "B_1"}, {20141117195035, "BUS", "IN", 5950, "B_2"}	Arranged_data의 Bus == True
PTS.UTC_000_002	Unarranged_data[2] = {20141117195032, "SUBWAY", "IN", 5950, "S1_1"}, {20141117195035, "SUBWAY", "OUT", 5950, "S2_2"} (and 마지막 태그시간이 현재시간과 15초이내)	Arranged_data의 Trans == True
PTS.UTC_000_003	Unarranged_data[2] = {20141117195032, "SUBWAY", "OUT", 5950, "S1_1"}, {20141117195035, "BUS", "IN", 5950, "B_1"}	Arranged_data의 After == True
PTS.UTC_000_004	Unarranged_data[2] = {20141117195032, "SUBWAY", "OUT", 5950, "S1_1"}, {20141117195035, "BUS", "IN", 5950, "B_1"} 이고 하루(3분)가 지났을 때	Arranged_data의 Uncal_day == True
PTS.UTC_000_005	Unarranged_data[2] = {20141117195032, "SUBWAY", "OUT", 5950, "S1_1"},	Arranged_data의 Uncal_s == True

	{20141117195035, "SUBWAY", "IN", 5950, "S1_2"}	
PTS.UTC_000_006	Unarranged_data[2] = {20141117195032, "BUS", "OUT", 5950, "B_1"}, {20141117195035, "SUBWAY", "IN", 5950, "S1_2"}	Arranged_data의 Uncal_bs == True
PTS.UTC_000_007	Unarranged_data[2] = {20141117195032, "SUBWAY", "OUT", 5950, "B_1"}, {20141117195035, "BUS", "IN", 5950, "S1_2"}	Arranged_data의 Uncal_sb == True
PTS.UTC_000_008	Unarranged_data[2] = {20141117195032, "BUS", "OUT", 5950, "B_1"}, {20141117195035, "SUBWAY", "IN", 5950, "S1_2"}	Arranged_data의 Uncal == True
PTS.UTC_000_009	Unarranged_data[2] = {20141117195032, "BUS", "OUT", 5950, "B_1"}, {20141117195035, "SUBWAY", "IN", 5950, "S1_2"}	Arranged_data의 Time == 20141117195035
PTS.UTC_000_010	Unarranged_data[2] = {20141117195032, "BUS", "OUT", 5950, "B_1"}, {20141117195035, "SUBWAY", "IN", 5950, "S1_2"}	Arranged_data의 Lo == 5950
PTS.UTC_000_011	Unarranged_data[2] = {20141117195032, "BUS", "OUT", 5950, "B_1"}, {20141117195035, "SUBWAY", "IN", 5950, "S1_2"}	Arranged_data의 Info == S1_2
PTS.UTC_001_000	Unarranged_data[2] = {20141119133000, "SUBWAY", "IN", 10000, "S1_1"}, {20141119133010, "SUBWAY", "OUT", 10000, "S2_1"}	RidingEnable함수 호출
PTS.UTC_001_001	Unarranged_data[2] = {20141119133000, "SUBWAY", "IN", 10000, "S1_1"}, {20141119133010, "SUBWAY", "OUT", 200, "S2_1"}	ridingDisable함수 호출
PTS.UTC_001_002	Unarranged_data[2] = {20141119133000, "SUBWAY", "IN", 10000, "S1_1"}, {20141119133010, "SUBWAY", "OUT", 10000, "S2_1"} (and 마지막 태그시간과 현재시간이 15초 이내)	transferEnable함수 호출
PTS.UTC_001_003	Unarranged_data[2] = { 20141119133000, "SUBWAY", "IN", 10000, "S1_1"}, { 20141119133010, "SUBWAY", "OUT", 100, "S2_1"}	transferDisable함수 호출
PTS.UTC_001_004	Unarranged_data[2] = {20141119133000, "BUS", "OUT", 10000, "B_1"}, {20141119133010, "BUS", "IN", 10000, "B_2"}	normalExit함수 호출
PTS.UTC_001_005	Unarranged_data[2] = {20141119133000, "SUBWAY", "OUT", 10000, "S1_1"}, {20141119133010, "BUS", "IN", 10000, "B_2"}	afterTransExit함수 호출

PTS.UTC_001_006	Unarranged_data[2] = {20141119133000, "BUS", "OUT", 10000, "B_1"}, {20141119133110, "SUBWAY" "IN", 10000, "S1_2"}	afterSub_E함수 호출
PTS.UTC_001_007	Unarranged_data[2] = {20141119133000, "BUS", "OUT", 10000, "B_1"}, {20141119133110, "SUBWAY" "IN", 100, "S1_2"}	afterSub_D함수 호출
PTS.UTC_001_008	Unarranged_data[2] = {20141119133000, "SUBWAY", "OUT", 10000, "S1_1"}, {20141119133010, "BUS" "IN", 10000, "B_2"}	afterSubus_E함수 호출
PTS.UTC_001_009	Unarranged_data[2] = {20141119133000, "SUBWAY", "OUT", 10000, "S1_1"}, {20141119133010, "BUS" "IN", 100, "B_2"}	afterSubus_D함수 호출
PTS.UTC_001_010	Unarranged_data[2] = {20141119133000, "BUS", "OUT", 10000, "B_1"}, {20141119133010, "SUBWAY" "IN", 10000, "S1_2"}	afterBusub_E함수 호출
PTS.UTC_001_011	Unarranged_data[2] = {20141119133000, "BUS", "OUT", 10000, "B_1"}, {20141119133010, "SUBWAY" "IN", 100, "S1_2"}	afterBusub_D함수 호출
PTS.UTC_001_012	Unarranged_data[2] = {20141119133000, "BUS", "OUT", 10000, "B_1"}, {20141119133110, "SUBWAY" "IN", 10000, "S3_2"}	addFee함수 호출
PTS.UTC_001_013	Unarranged_data[2] = {20141119133000, "BUS", "OUT", 10000, "B_1"}, {20141119133110, "SUBWAY" "IN", 10000, "S4_2"}	noAddFee_N함수 호출
PTS.UTC_001_014	Unarranged_data[2] = {20141119133000, "BUS", "OUT", 10000, "B_1"}, {20141119133010, "SUBWAY" "IN", 10000, "S4_2"}	addFeeOne함수 호출
PTS.UTC_001_015	Unarranged_data[2] = {20141119133000, "BUS", "OUT", 10000, "B_1"}, {20141119133010, "SUBWAY" "IN", 10000, "S3_2"}	addFeeTwo함수 호출
PTS.UTC_001_016	Unarranged_data[2] = {20141119133000, "BUS", "OUT", 10000, "B_1"}, {20141119133010, "SUBWAY" "IN", 10000, "S5_2"}	noAddFee_T함수 호출
PTS.UTC_002_000	Arranged_data {cname[20]="input.txt", time=20141117195035, info[10]=B_2, lo=5950, in=0, bus=1, trans=0, after=0, uncal_day=0, uncal_s=0 uncal_bs=0 uncal_sb=0 uncal=0, sta=0}	Display_command (fee=1050, lo=4900) Writing command {fee=1050, time=20141117195

	위에 ad는 밑에 있는 경우의 ud임 {20141117195032, "BUS", "IN", 5950, "B_1"}, {20141117195035, "BUS", "OUT", 5950, "B_2"}	035, vehicle="BUS", inout="IN", lo=4900, readerInfo="B_1", cardInfo="B_1", name="input.txt"}
PTS.UTC_003_000	임의의 카드정보가 담긴 텍스트파일	unarranged_data(텍스트파일의 가장 밑의 두줄)

<Calculator> Test case Identification

Identifier	Input Specification	Output Specification
PTS.UTC_004_000	Bus.txt, subway1.txt, subway2.txt, subway3.txt, subway4.txt, subway5.txt	Inputdata.txt
PTS.UTC_005_000	Inputdata.txt	un_trans.txt, un_bus.txt, un_sub.txt

2.2 Test items

- 2.1의 Test case Identification 참조

2.3 Input specifications

- 2.1의 Test case Identification 참조

2.4 Output specifications

- 2.1의 Test case Identification 참조

3 Environmental needs

PTS의 unit test를 위한 환경적 요구사항은 다음과 같다

IDE : Visual Studio

4 Unit test summary report

4.1 Test summary report identifier

<BUS&SUBWAY>

Identifier	Result
PTS.UTC_000_000	Passed
PTS.UTC_000_001	Passed
PTS.UTC_000_002	Passed
PTS.UTC_000_003	Passed
PTS.UTC_000_004	Passed
PTS.UTC_000_005	Passed
PTS.UTC_000_006	Passed
PTS.UTC_000_007	Passed
PTS.UTC_000_008	Passed
PTS.UTC_000_009	Passed
PTS.UTC_000_010	Passed
PTS.UTC_000_011	Passed
PTS.UTC_001_000	Passed
PTS.UTC_001_001	Passed
PTS.UTC_001_002	Passed
PTS.UTC_001_003	Passed
PTS.UTC_001_004	Passed
PTS.UTC_001_005	Passed
PTS.UTC_001_006	Passed
PTS.UTC_001_007	Passed
PTS.UTC_001_008	Passed
PTS.UTC_001_009	Passed
PTS.UTC_001_010	Passed
PTS.UTC_001_011	Passed
PTS.UTC_001_012	Passed
PTS.UTC_001_013	Passed
PTS.UTC_001_014	Passed
PTS.UTC_001_015	Passed
PTS.UTC_001_016	Passed
PTS.UTC_002_000	Passed

PTS.UTC_003_000	Passed
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<Calculator>

Identifier	Result
PTS.UTC_004_000	Passed
PTS.UTC_005_000	Passed

4.2 Evaluation

Total test case : 33개

Passed : 33개

Failed : 0개