# System Test Report for PTS System 

Project Team

Team 2

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1 Introduction

### 1.1 Objectives

본 문서는 2014년 2학기 Software Engineering (2014SE) 수업에서 개발한 Public Transportation System (PTS)
1.2 References
2014.T2.PTS.STP-1.0

2 System test case specification

### 2.1 Test case specification identifier

<Table 1 Test Result>참조
2.2 Test items
<Table 1 Test Result>참조
2.3 Input specifications
<Table 1 Test Result>참조
2.4 Output specifications
<Table 1 Test Result>참조

3 Environmental needs

4 System test summary report
4.1 Test summary report identifier
4.2 Evaluation

테스트 결과 정산기를 실행하자마자 정산시간이 아니라도 정산이 실행되는 경우가 있다.

지하철에서 버스로 환승 후 30초마다 100 원씩 추가요금을 부과하는 과정이 잘못되어 계 속 같은 값을 부과한다.

전날 탑승 태그 후 다음날 하차 태그를 할 경우 정산이 제대로 되지 않는다.

탑승 시 필요요금이 잘못된 값으로 초기화 된 경우가 있다.
5. STR

| Test Case Identifier | Input specification | Output specification | Pass / Fail |
| :---: | :---: | :---: | :---: |
| PTS_ STC_000_000 | <프로그램 실행> |  |  |
| PTS_ STC_100_000 | (BT) j, (MT)k | 유효하지 않은 입력값 | P |
| PTS_ STC_200_000 | (환승) (BT)q, 10sec (BT)a, 20sec (BT)q | (BT) 0 원, 잔액 <br> (BT) 1050원, 잔액 | $\begin{aligned} & P \\ & P \end{aligned}$ |
| PTS_ STC_200_001 | (환승)(BT)q, 10sec(BT)a, 20sec (MT)q | (BT) 0 원, 잔액 <br> (MT) 1050원, 잔액 | P |
| PTS_ STC_200_002 | (환승) (BT)q, 40sec (BT)a, 20sec (BT)q | (BT) 100 원, 잔액 <br> (BT) 1050원, 잔액 | P |
| PTS_ STC_200_003 | (환승) (BT)q, 40sec (BT)a, 10sec (MT)q | (BT) 0원, 잔액 <br> (MT) 0원, 잔액 | $\begin{aligned} & P \\ & P \end{aligned}$ |
| PTS_ STC_200_004 | (환승) (BT)q, 40sec (BT)a, 10sec (MT)q | (BT) 100 원, 잔액 (MT) 0 원, 잔액 | P |
| PTS_ STC_200_005 | (BT)q, 10sec (BT)q, 10sec (BT)q | (BT) 1050 원, 잔액 <br> (BT) 1050 원, 잔액 | P |
| PTS_ STC_200_006 | (BT)q, 10sec (BT)q, 10sec (MT)q | (BT) 1050원, 잔액 (MT) 1050원, 잔액 | P |
| PTS_ STC_200_007 | (BT)q, 10sec (BT)q, 10sec (BT)a | (BT) 1050원, 잔액 (BT) 0원, 잔액 | $\begin{aligned} & P \\ & P \end{aligned}$ |
| PTS_ STC_200_008 | (BT)q, 10sec (MT)q, 10sec (BT)q | (MT) 1050원, 잔액 <br> (BT) 1250원, 잔액 | P |


| PTS_ STC_200_009 | (BT)q, 10sec (MT)q, 10sec (MT)q | (MT) 1050원, 잔액 <br> (MT) 1250원, 잔액 | $\begin{aligned} & P \\ & P \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| PTS_ STC_200_010 | (BT)q, 10sec (MT)q, 10sec (MT)a | (MT) 1050원, 잔액 (MT) 0 원, 잔액 | P |
| PTS_ STC_200_011 | (MT)q, 10sec (BT)q, 10sec (BT)q | (BT) 1250 원, 잔액 <br> (BT) 1050원, 잔액 | P |
| PTS_ STC_200_012 | (MT)q, 10sec (BT)q, 10sec (BT)a | (BT) 1250 원, 잔액 (BT) 0원, 잔액 | $\begin{aligned} & P \\ & P \end{aligned}$ |
| PTS_ STC_200_013 | (MT)q, 10sec (BT)q, 10sec (MT)q | (BT) 1250 원, 잔액 <br> (MT) 1050원, 잔액 | $\begin{aligned} & P \\ & P \end{aligned}$ |
| PTS_ STC_200_014 | (MT)q, 10sec (MT)q, 10sec (BT)q | (MT) 1250원, 잔액 <br> (BT) 1250 원, 잔액 | $\begin{aligned} & P \\ & P \end{aligned}$ |
| PTS_ STC_200_015 | (MT)q, 10sec (MT)q, 10sec (MT)q | (MT) 1250원, 잔액 (MT) 1250원, 잔액 | $\begin{aligned} & P \\ & P \end{aligned}$ |
| PTS_ STC_200_016 | (MT)q, 10sec (MT)q, 10sec (MT)s | (MT) 1250원, 잔액 (MT) 300원, 잔액 | P |
| PTS_ STC_200_017 | (MT)q, 10sec (MT)q, 10sec (MT)f | (MT) 1250원, 잔액 (MT) 600원, 잔액 | P |
| PTS_ STC_200_018 | (환승)(MT)q, 10sec (MT)s, 10sec(BT)q | (MT) 300 원, 잔액 (BT) 0원, 잔액 | $\begin{aligned} & P \\ & P \end{aligned}$ |
| PTS_ STC_200_019 | (환승)(MT)q, 10sec (MT)s, 10sec(MT)e | (MT) 300원, 잔액 (MT) 1050원, 잔액 | P |
| PTS_STC_200_020 | (환승)(MT)q, 10sec (MT)s, $20 \sec (\mathrm{BT}) \mathrm{q}$ | (MT) 300원, 잔액 | P |


|  |  | (BT) 1050원, 잔액 | P |
| :---: | :---: | :---: | :---: |
| PTS_ STC_200_021 | (환승)(MT)q, 10sec (MT)f, 10sec(BT)q | (MT) 600 원, 잔액 (BT) 0원, 잔액 | $\begin{aligned} & P \\ & P \end{aligned}$ |
| PTS_ STC_200_022 | (환승)(MT)q, 10sec (MT)f, 10sec(MT)q | (MT) 600 원, 잔액 (MT) 1050원, 잔액 | $\begin{aligned} & P \\ & P \end{aligned}$ |
| PTS_ STC_200_023 | (환승)(MT)q, 10sec (MT)f, 20sec(BT)q | (MT) 600원, 잔액 (BT) 1050원, 잔액 | $\begin{aligned} & P \\ & P \end{aligned}$ |
| PTS_STC_200_024 | (환승)(MT)q, 10sec (MT)f, $20 \sec (\mathrm{MT}) \mathrm{q}$ | (MT) 600원, 잔액 (MT) 1050원, 잔액 | $\begin{aligned} & P \\ & P \end{aligned}$ |
| PTS_ STC_300_000 | (BT)q, (BT)q | 1050원 필요 <br> (BT) $X, 1050$ 원 | P |
| PTS_ STC_300_001 | (BT)q, (BT)q | 1050원 필요 <br> (BT) $\mathrm{O}, 0$ 원 | P |
| PTS_ STC_300_002 | (BT)q, (BT)q | 1050원 필요 <br> (BT) $\mathrm{O}, 150$ 원 | P |
| PTS_ STC_300_003 | (BT)q, (MT)q | $\begin{gathered} 1250 \text { 원 필요 } \\ \text { (MT) X, } 1200 \text { 원 } \end{gathered}$ | P |
| PTS_ STC_300_004 | (BT)q, (MT)q | 1250 원 필요 <br> (MT) O, 0원 | P |
| PTS_ STC_300_005 | (BT)q, (MT)q | 1250 원 필요 <br> (MT) $\mathrm{O}, 50$ 원 | P |
| PTS_STC_300_006 | (BT)q, (BT)a, 10sec (MT)q | $\begin{aligned} & \text { 600원 필요 } \\ & \text { (MT) X, 500원 } \end{aligned}$ | P |
| PTS_ STC_300_007 | (BT)q, (BT)a, 10sec (MT)q | 600원 필요 <br> (MT) $\mathrm{O}, 0$ 원 | P |
| [텍스트 입력] | Team 2 |  |  |


| PTS_ STC_300_008 | (BT)q, (BT)a, 10sec (MT)q | 600원 필요 <br> (MT) $\mathrm{O}, 100$ 원 | P |
| :---: | :---: | :---: | :---: |
| PTS_ STC_300_009 | (BT)q, (BT)a, 20sec (MT)q | 1250원 필요 <br> (MT)X, 1200원 | P |
| PTS_ STC_300_010 | (BT)q, (BT)a, 20sec (MT)q | 1250원 필요 <br> (MT)O, 0원 | P |
| PTS_ STC_300_011 | (BT)q, (BT)a, 20sec (MT)q | 1250 원 필요 <br> (MT)O, 50원 | P |
| PTS_ STC_300_012 | (MT)q, (MT)a, 10sec (BT)q | 700원 필요 <br> (BT)X, 600원 | P |
| PTS_ STC_300_013 | (MT)q, (MT)a, 10sec (BT)q | 700원 필요 <br> (BT)O, 0원 | P |
| PTS_ STC_300_014 | (MT)q, (MT)a, 10sec (BT)q | 700원 필요 <br> (BT)O, 100원 | P |
| PTS_ STC_300_015 | (MT)q, (MT)a, 20sec (BT)q | 1050원 필요 <br> (BT)X, 1000원 | P |
| PTS_ STC_300_016 | (MT)q, (MT)a, 20sec (BT)q | 1050원 필요 <br> (BT)O, 0원 | P |
| PTS_ STC_300_017 | (MT)q, (MT)a, 20sec (BT)q | 1050원 필요 <br> (BT)O, 50원 | P |
| PTS_ STC_300_018 | (MT)q, (BT)q | 1050원 필요 <br> (BT)X, 1000원 | P |
| PTS_ STC_300_019 | (MT)q, (BT)q | 1050원 필요 <br> (BT)O, 0원 | P |
| PTS_ STC_300_020 | (MT)q, (BT)q | 1050원 필요 <br> (BT)O, 50원 | P |


| PTS_STC_400_000 | ( BT$) \mathrm{q}$, (정산 후)(BT)a | 변화없음 | P |
| :---: | :---: | :---: | :---: |
| PTS_ STC_400_001 | (BT)q, (정산 후)(BT)q | (BT) 1750원, 잔액 | P |
| PTS_STC_400_002 | (BT)q, (정산 후)(MT)q | (MT) 1750 원, 잔액 | P |
| PTS_ STC_400_003 | (MT)q, (정산 후)(MT)a | 변화없음 | P |
| PTS_STC_400_004 | (MT)q, (정산 후)(MT)q | (MT) 1650원, 잔액 | P |
| PTS_ STC_400_005 | (MT)q, (정산 후)(BT)q | (BT) 1650원, 잔액 | P |
| PTS_STC_500_000 |  | $0,0,0$ | P |
| PTS_ STC_500_001 | (BT)q, (BT)a, (BT)q, (BT)a | 2100, 2100, 0 | P |
| PTS_STC_500_002 | (BT)q, (BT)q, (BT)a | 2100, 2100, 0 | P |
| PTS_ STC_500_003 | (BT)q, (BT)a, (BT)q | 2100, 2100, 0 | P |
| PTS_STC_500_004 | (MT)q, (MT)a, (MT)q, (MT)a | 2100, 0, 2100 | P |
| PTS_ STC_500_005 | (MT)q, (MT)q, (MT)a | 2300, 0, 2300 | P |
| PTS_STC_500_006 | (MT)q, (MT)a, (MT) q | 2100, 0, 2100 | P |
| PTS_STC_500_007 | (BT)q, (BT)a, (MT)q, (MT)a | 2100, 1050, 1050 | P |
| PTS_STC_500_008 | (MT)q, (MT)a, (BT)q, (BT)a | 2100, 1050, 1050 | P |
| PTS_ STC_500_009 | (BT)q, (BT)a, (환승)(MT)q, (MT)a | 2100, 1050, 1050 | P |
| PTS_STC_500_010 | (BT)q, (BT)a, (MT)q, (MT)a, (환승)(BT)q, 10sec(BT)a | 2100, 2100, 0 | P |
| PTS_ STC_500_011 | (BT)q, (BT)a, (환승)(MT)q, (MT)a | 2200, 2200, 0 | P |
| PTS_STC_500_012 | $(\mathrm{BT}) \mathrm{q},(\mathrm{BT}) \mathrm{a}$, (환승)(MT)q, (MT)s | 2100, 1050, 1050 | P |
| PTS_ STC_500_013 | (BT) $\mathrm{q}, ~(\mathrm{BT}) \mathrm{a}$, (환승)(MT)q, (MT)a, (BT)q, (BT)a | 2400, 1641, 759 | P |
| PTS_STC_500_014 | $(\mathrm{BT}) \mathrm{q},(\mathrm{BT}) \mathrm{a},($ 환승 $)(\mathrm{MT}) \mathrm{q},(\mathrm{MT}) \mathrm{a},(\mathrm{MT}) \mathrm{q},(\mathrm{MT}) \mathrm{a}$ | 2400, 591, 1809 | P |


| PTS_ STC_500_015 | (MT)q, (MT) a , (환승)(BT)q, 10sec(BT)a |  | P |
| :---: | :---: | :---: | :---: |
| PTS_ STC_500_016 | (MT)q, (MT)a, (환승)(BT)q, 40sec(BT)a |  | P |
| PTS_ STC_500_017 | (MT)q, (MT)a, (환승)(BT)q, 10sec(BT)a, (BT)q, (BT)a |  | P |
| PTS_ STC_500_018 | (MT)q, (MT)a, (환승)(BT)q, 40sec(BT)a, (MT)q, (MT)a |  | P |
| PTS_ STC_500_019 | (BT)q, (BT)a, (환승)(MT)q, (MT)a, (BT)q, (환승)(MT)q, 10sec(BT)a |  | P |
| PTS_STC_500_020 | (BT)q, (BT)a, (환승)(MT)q, (MT)a, (BT)q, (환승)(MT)q, 40sec(BT)a |  | P |
| PTS_ STC_500_021 | (MT) $\mathrm{q},(\mathrm{MT}) \mathrm{a}$, (환승)(BT)q, 10sec(BT)a, (환승)(MT)q, (MT)a |  | P |
| PTS_ STC_500_022 | $(\mathrm{MT}) \mathrm{q},(\mathrm{MT}) \mathrm{a}$, (환승)(BT)q, 10sec(BT)a, (환승)(MT)q, (MT)s |  | P |
| PTS_ STC_500_023 | (BT)q, (BT)a, (환승)(MT)q, (MT)s, (BT)q, (환승)(MT)q, $10 \sec (\mathrm{BT}) \mathrm{a}$ |  | P |
| PTS_ STC_500_024 | (BT)q, (BT)a, (환승)(MT)q, (MT)s, (BT)q, (환승)(MT)q, 40sec(BT)a |  | P |
| PTS_ STC_500_025 | (MT)q, (MT)a, (환승)(BT)q, 40sec(BT)a, (환승)(MT)q, (MT)a |  | P |
| PTS_STC_500_026 | $(\mathrm{MT}) \mathrm{q},(\mathrm{MT}) \mathrm{a}$, (환승)(BT)q, 40sec(BT)a, (환승)(MT)q, (MT)s |  | P |
| PTS_ STC_500_027 | (BT)q, (MT)q, (MT)a |  | P |
| PTS_ STC_500_028 | (BT) $\mathrm{q}, ~(\mathrm{BT}) \mathrm{q}$ |  | P |
| PTS_STC_500_029 | (MT)q, (MT)a, (환승)(BT)q, (MT)q, (MT)a |  | P |
| PTS_STC_500_030 | (MT)q, (MT)a, (환승)(BT)q, (BT)q, (BT)a |  | P |
| PTS_ STC_500_031 | (MT)q, (MT)q, (MT)a | 2300,0,2300 | P |
| PTS_STC_500_032 | (MT)q, (BT)q, (BT)a | 2100,2100,0 | P |
| PTS_ STC_500_033 | $(\mathrm{BT}) \mathrm{q},(\mathrm{BT}) \mathrm{a}$, (환승)(MT)q, (MT)q, (MT)a |  | P |
| PTS_ STC_500_034 | $(\mathrm{BT}) \mathrm{q},(\mathrm{BT}) \mathrm{a}$, (환승)(MT)q, (BT)q, (BT)a |  | P |


| PTS_ STC_500_035 | (BT)q, (BT)a, (환승)(MT)q, (MT)a, (BT)q | P |
| :---: | :---: | :---: |
| PTS_ STC_500_036 | (MT) $\mathrm{q},(\mathrm{MT}) \mathrm{a}$, (환승)(BT)q, 10sec(BT)a, (BT)q | P |
| PTS_ STC_500_037 | (BT)q, (BT)a, (환승)(MT)q, (MT)s, (BT)q | P |
| PTS_STC_500_038 | (MT)q, (MT)a, (환승)(BT)q, 40sec(BT)a, (BT)q | P |
| PTS_ STC_500_039 | (BT)q, (BT)a, (환승)(MT)q, (MT)a, (MT)q | P |
| PTS_STC_500_040 | (MT)q, (MT)a, (환승)(BT)q, 10sec(BT)a, (MT) q | P |
| PTS_ STC_500_041 | $(\mathrm{BT}) \mathrm{q},(\mathrm{BT}) \mathrm{a},($ 환승)(MT)q, (MT)s, (MT)q | P |
| PTS_STC_500_042 | (MT)q, (MT)a, (환승)(BT)q, 40sec(BT)a, (MT)q | P |

