

Intro _____

Unit Testing Plan

Public Transportation System

김용현 201011320
김준호 201111346
박정민 201111354

C

ontents _____

A. Modification

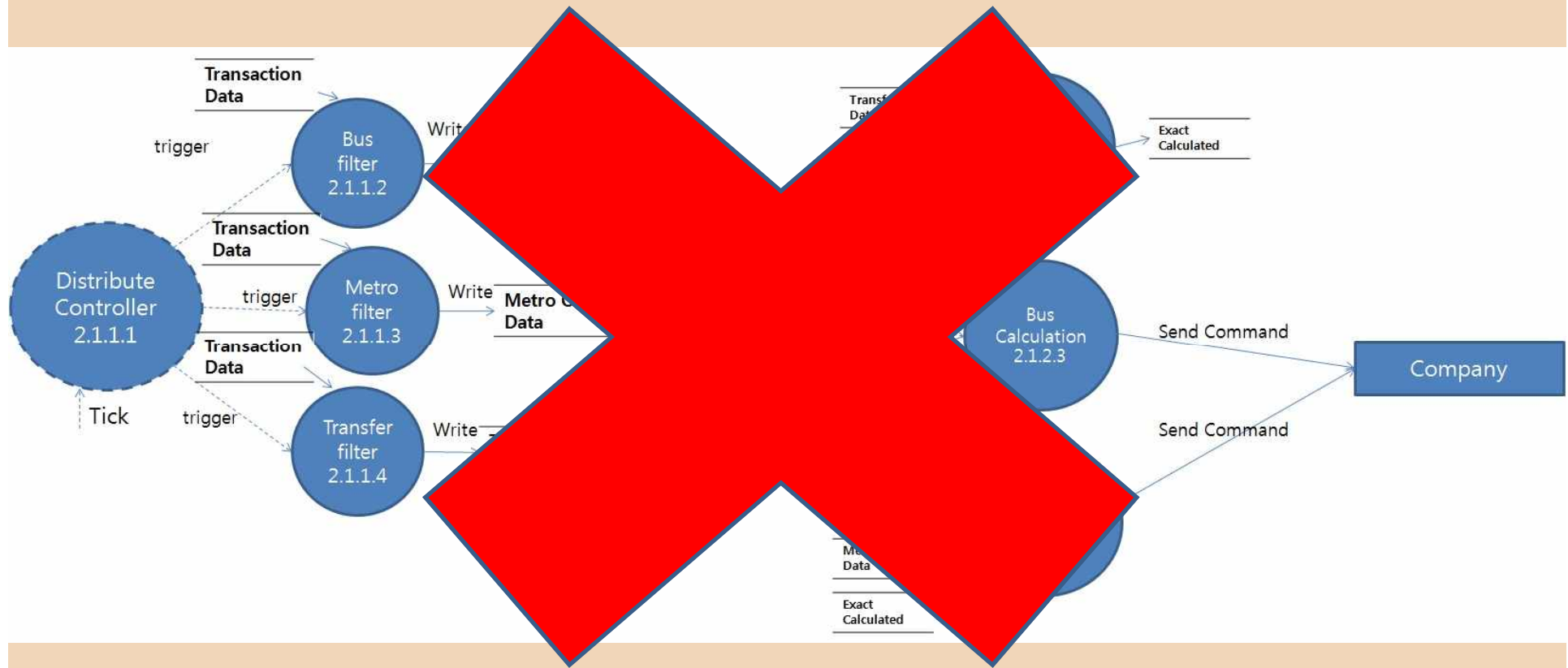
B. Criteria

- Features not to be tested
- Features to be tested

C. Unit Testing Plan

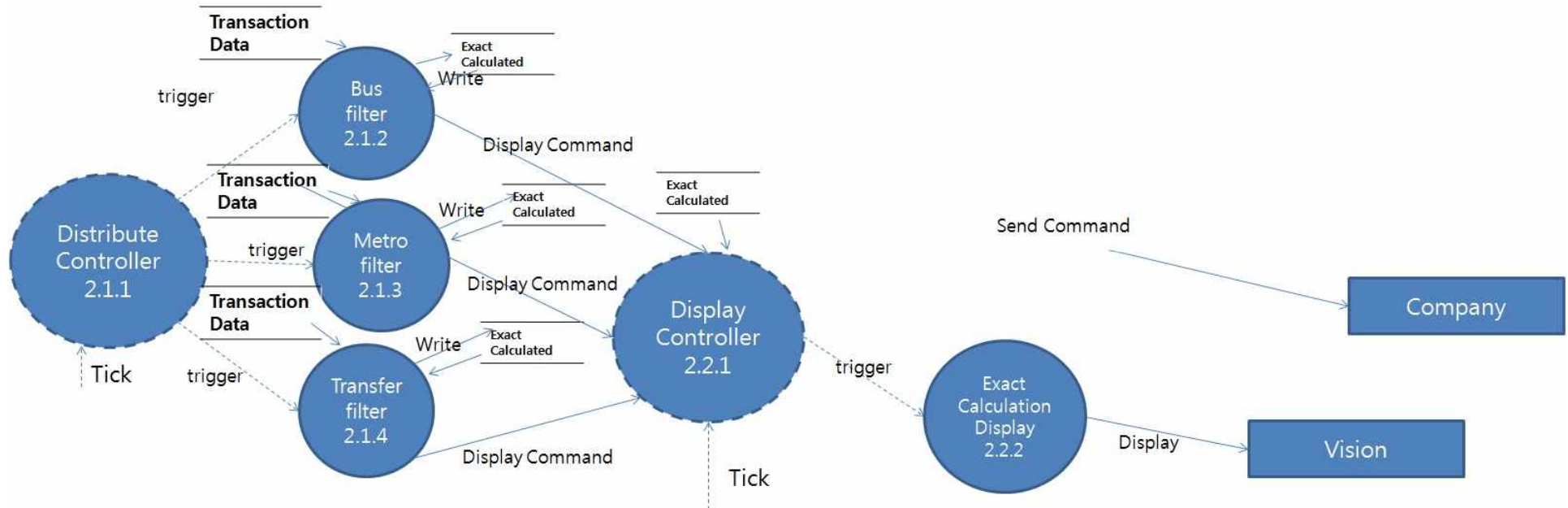
- Test Identification
- Test Case Specification

A Modification



데이터 처리가 중복 된다!

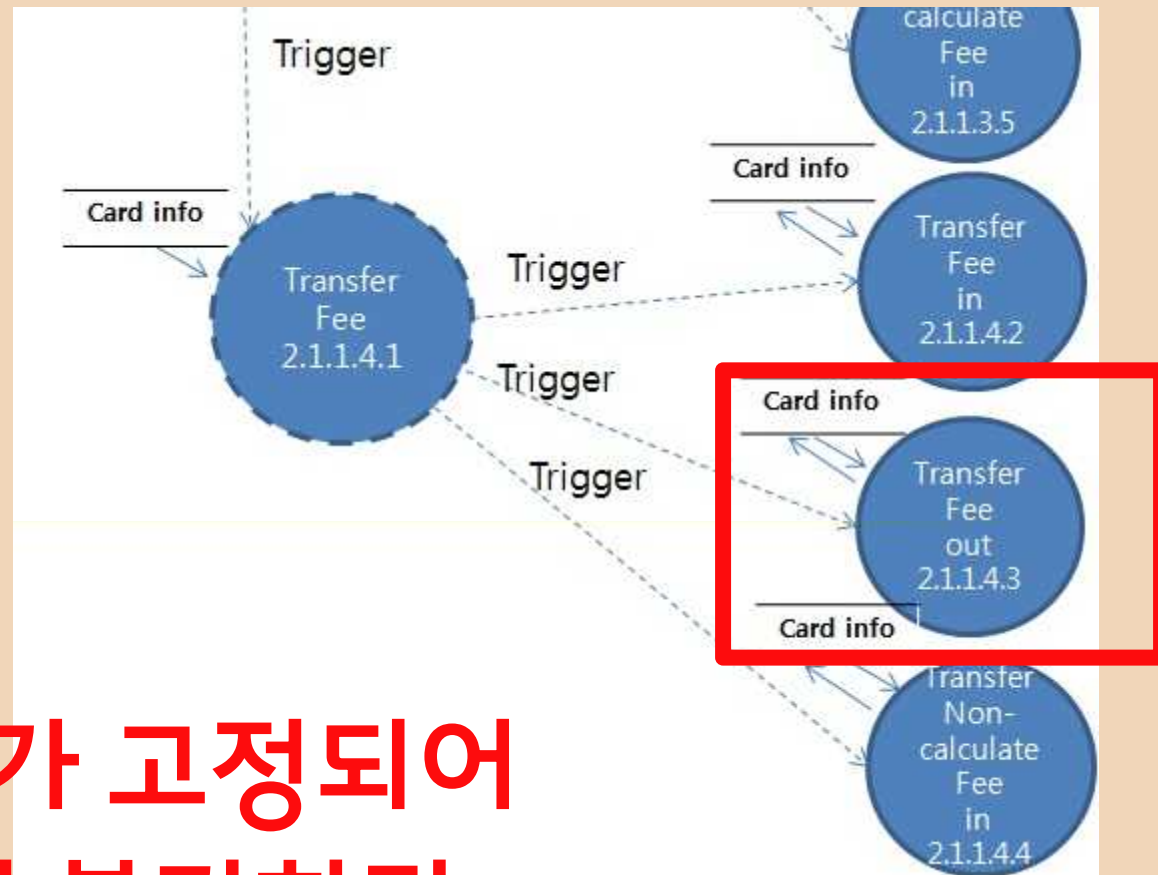
A Modification



그래서 하나로 합쳤습니다!

B Features not to be tested

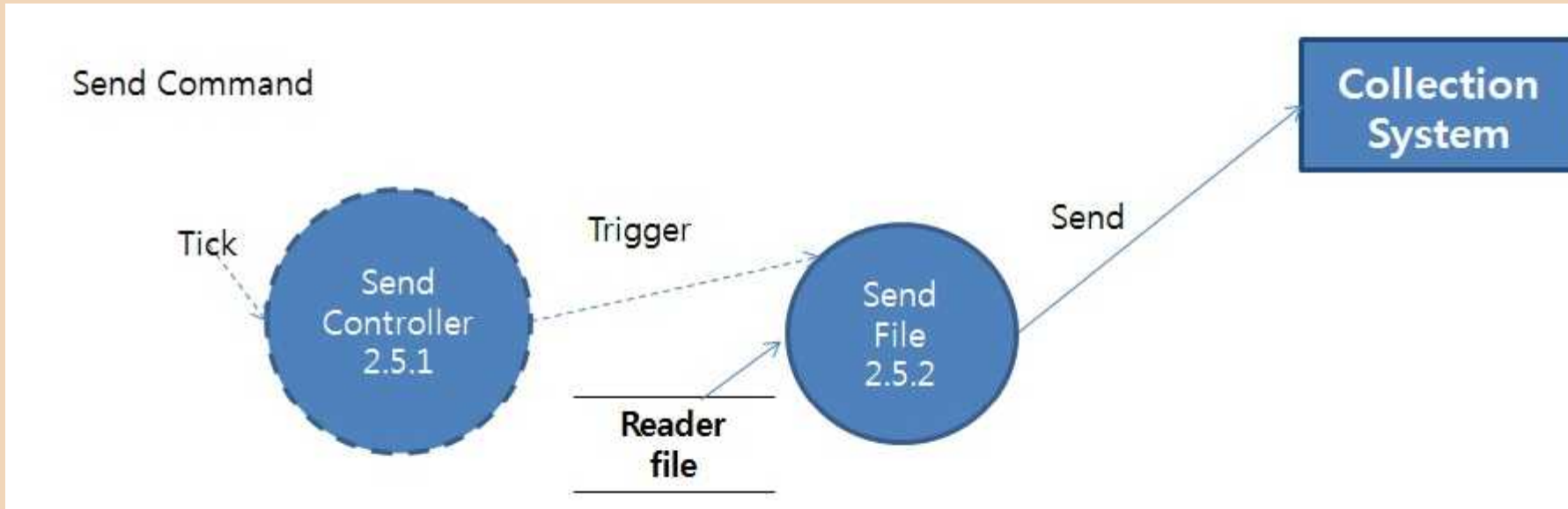
Metro



환승 시 ID가 고정되어
거리계산이 불가능하다.

→ 보류 !!

B Features not to be tested



**프로그램 간 통신을 하지 않아
큰 의미가 없다!**

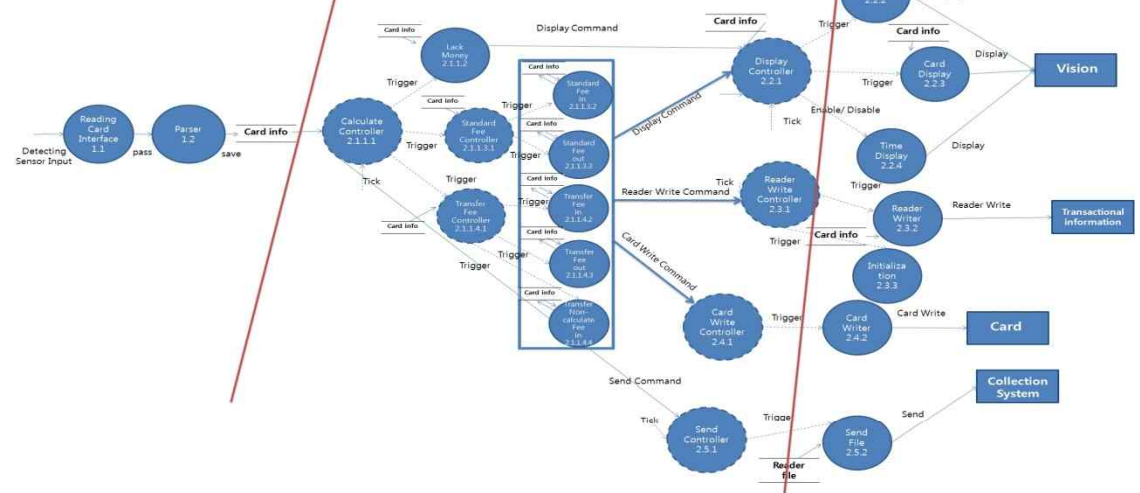
B Features to be tested

**2가지를 제외한
모든 부분!**

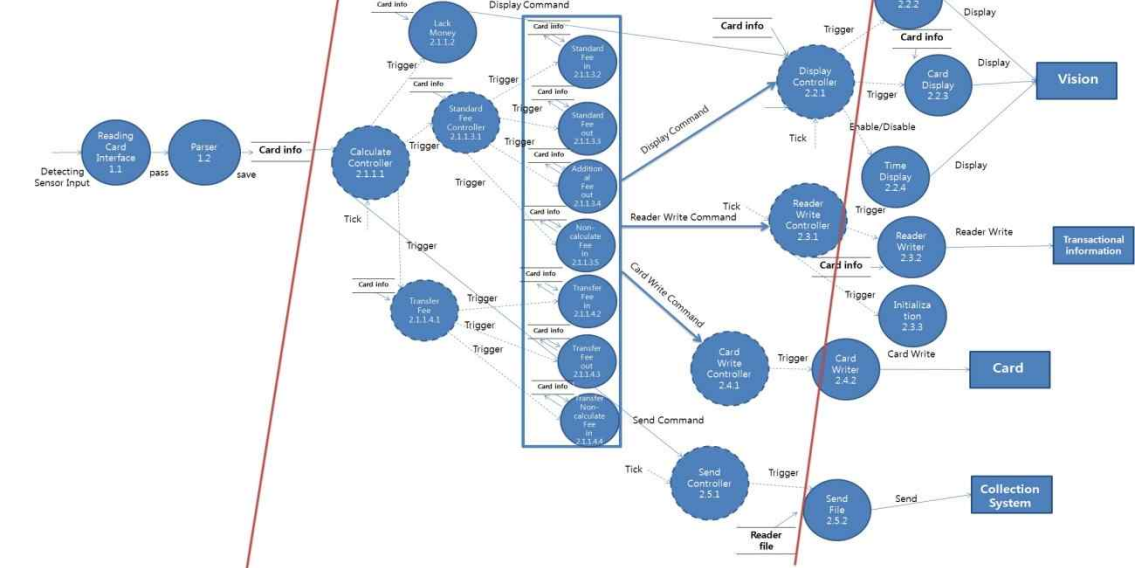
B Features to be tested

ID	Name
1.1	Reading Card Interface
1.2	Parser
2.1.1.1	Calculate Controller
2.1.1.2	Lack Money
2.1.1.3	Standard Fee
2.1.1.4	Transfer Fee
2.2.1	Display Controller
2.2.2	Lack Display
2.2.3	Card Display
2.2.4	Time Display
2.3.1	Reader Write Controller
2.3.2	Reader Writer
2.3.3	Initialization
2.4.1	Card Write Controller
2.4.2	Card Writer

Bus DFD Overall

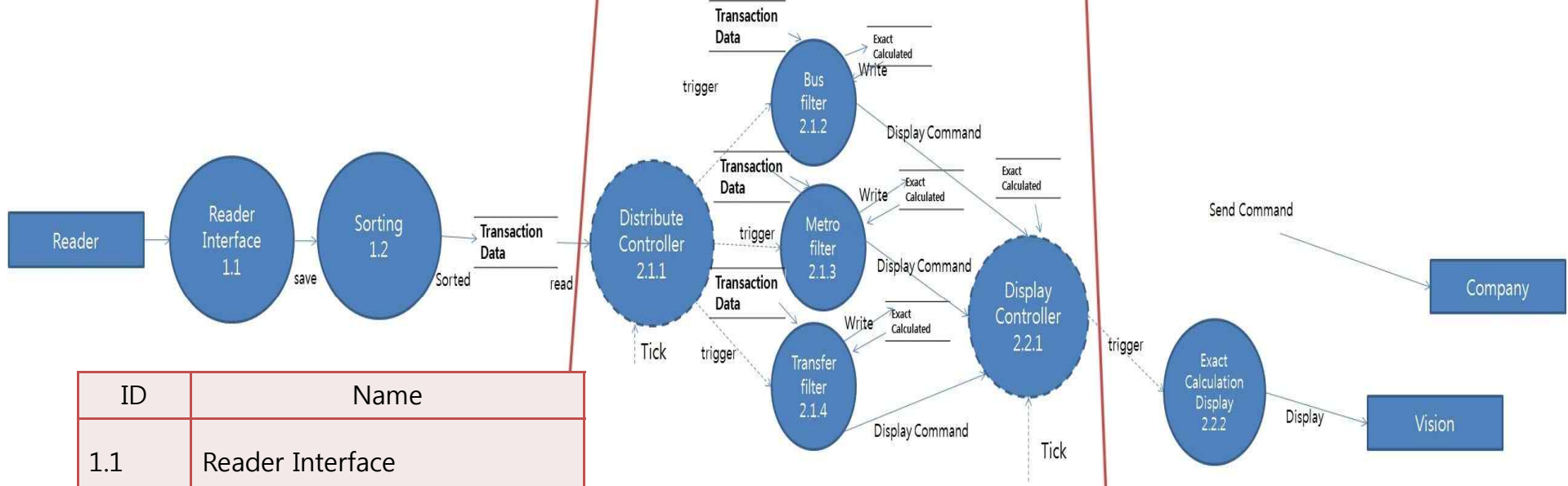


Metro DFD Overall



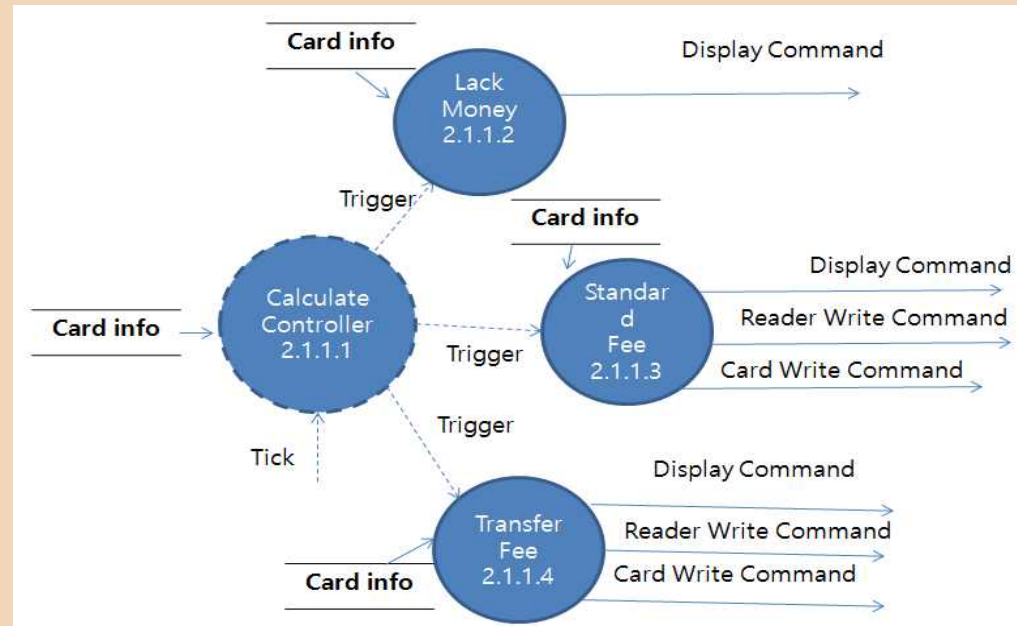
B Features to be tested

Exact Calculation DFD Overall



ID	Name
1.1	Reader Interface
1.2	Sorting
2.1.1	Distribute Controller
2.1.2	Exact Calculation Controller
2.2.1	Exact Calculation Display

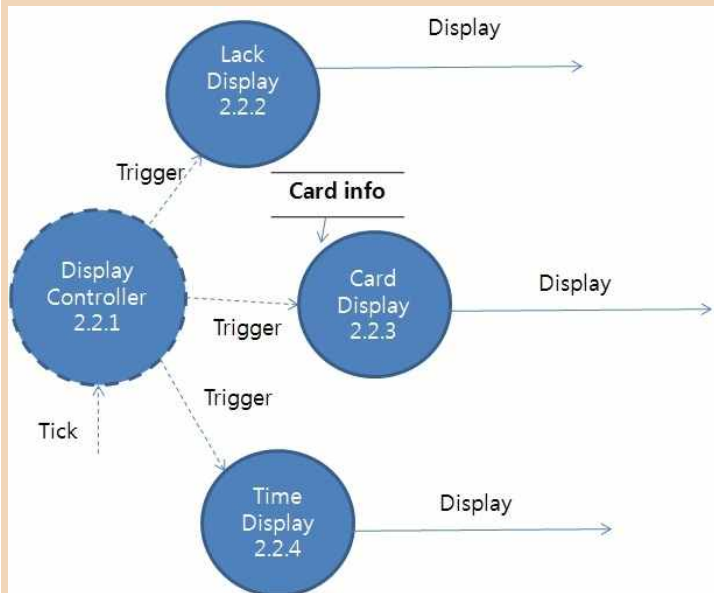
C Test Identification (Calculate Control)



Identifier	Feature	Valid/Invalid value
PTS.UTC_2111_000	2.1.1.1 Calculate Controller	201411210115,BUS,5000,OUT,60
PTS.UTC_2111_001	2.1.1.1 Calculate Controller	201411210115,METRO,50000,IN,00
PTS.UTC_2111_002	2.1.1.1 Calculate Controller	201411456070,METRO,20000,IN,61
PTS.UTC_2111_003	2.1.1.1 Calculate Controller	201411190301,MEMO,2000000000000000,IN,61
PTS.UTC_2111_004	2.1.1.1 Calculate Controller	201411190301,METRO,1950,OUT,711
PTS.UTC_2112_000	2.1.1.2 Lack Money	Trigger IN
PTS.UTC_2113_000	2.1.1.3 Standard Fee	201411210115,BUS,5000,OUT,60
PTS.UTC_2113_001	2.1.1.3 Standard Fee	201411210115,METRO,-10000,IN,60
PTS.UTC_2114_000	2.1.1.4 Transfer Fee	201411210115,METRO,50000,IN,00
PTS.UTC_2114_001	2.1.1.4 Transfer Fee	201411210115,METRO,50000,IN,6-1

C Test Identification

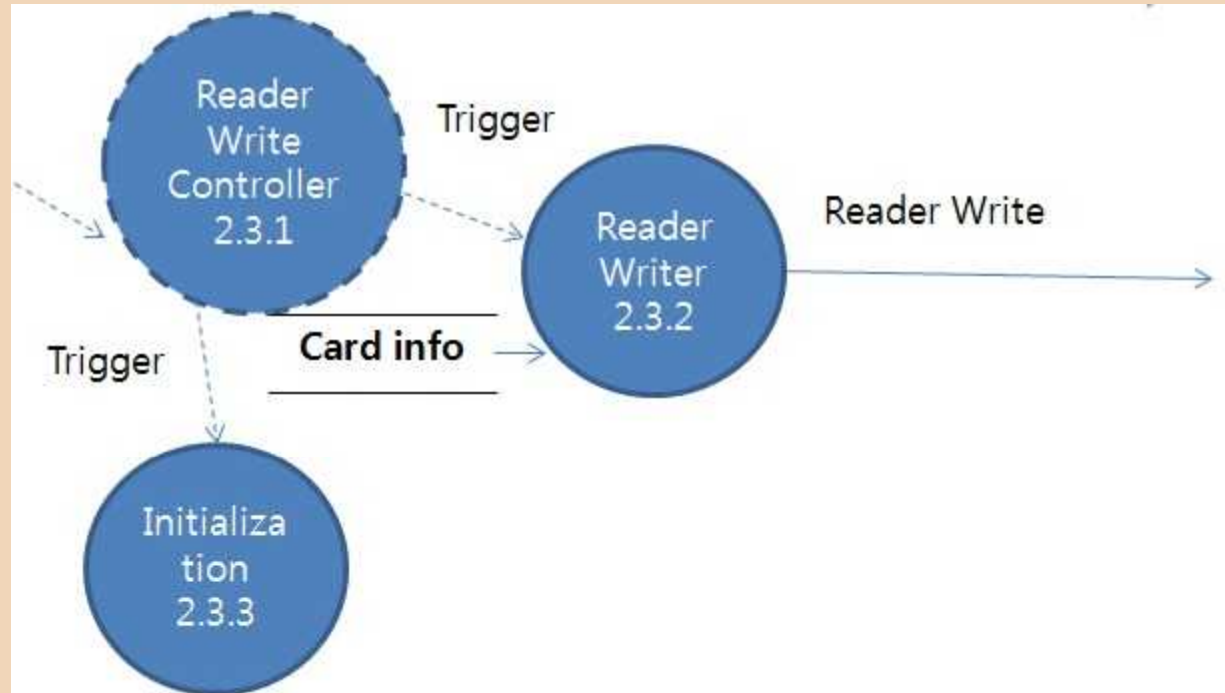
(Display Control)



Identifier	Feature	Valid/Invalid value
PTS.UTC_221_000	2.2.1 Display Controller	time.year= "2014" month="11" day="21" hour = "00" min= "00" Card Info.fee = 500 / Cardinfo.balance =10 000
PTS.UTC_221_001	2.2.1 Display Controller	time.year= "2014" month="11" day="21" hour = "00" min= "70" Card Info.fee = 500 / Cardinfo.balance =10 000
PTS.UTC_221_002	2.2.1 Display Controller	time.year= "2014" month="11" day="21" hour = "00" min= "10" Card Info.fee = -11 / Cardinfo.balance =-2 22
PTS.UTC_222_000	2.2.2 Lack Display	Trigger IN
PTS.UTC_223_000	2.2.3 Card Display	Card Info.fee = 500 / Cardinfo.balance =10 000
PTS.UTC_223_001	2.2.3 Card Display	Card Info.fee = -40 / Cardinfo.balance =0
PTS.UTC_224_000	2.2.4 Time Display	time.year= "2014" month="11" day="21" hour = "00" min= "00"
PTS.UTC_224_001	2.2.4 Time Display	time.year= "-2222" month="11" day="21" hour = "00" min= "00"

C Test Identification

(Reader Write Control)



Identifier	Feature	Valid/Invalid value
PTS.UTC_231_000	2.3.1 Reader Write Controller	readerWriteCommand == 1
PTS.UTC_231_001	2.3.1 Reader Write Controller	readerWriteCommand == 0
PTS.UTC_232_000	2.3.2 Reader Writer	CardInfo.fee = 1050
PTS.UTC_232_001	2.3.2 Reader Writer	CardInfo.fee = -5999
PTS.UTC_233_000	2.3.3 Initialization	Tick, Trigger IN

C Test Identification

(Card Write Control)

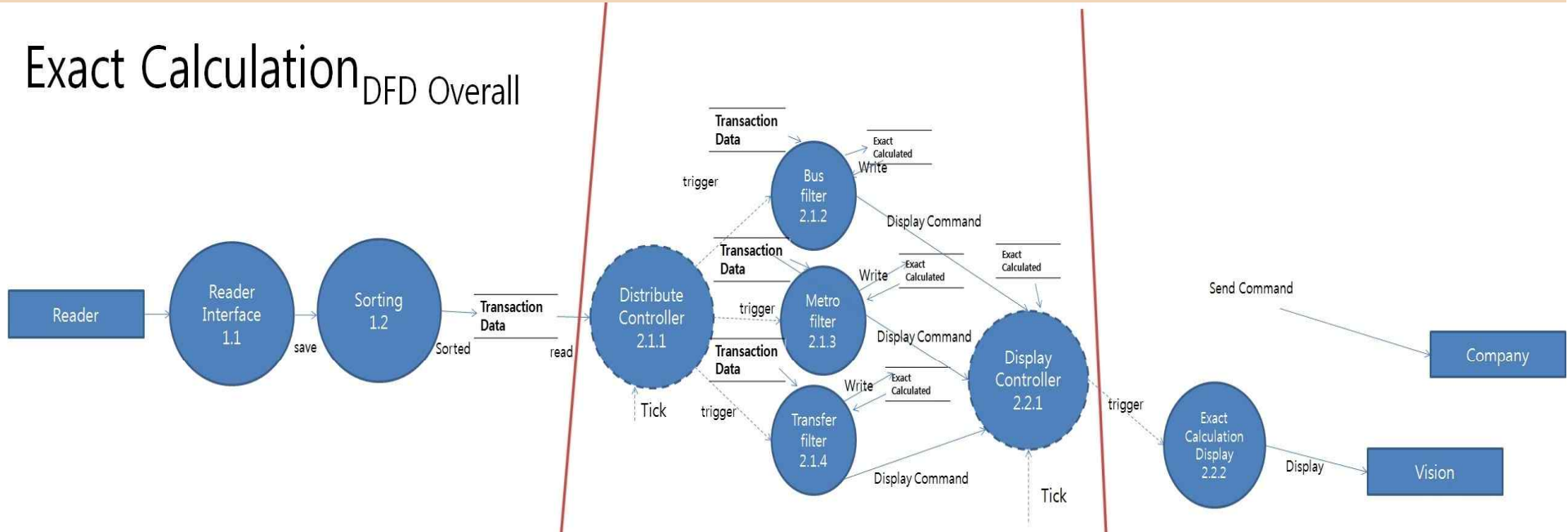


Identifier	Feature	Valid/Invalid value
PTS.UTC_241_000	2.4.1 Card Write Controller	cardWriteCommand == 1
PTS.UTC_241_001	2.4.1 Card Write Controller	cardWriteCommand == 0
PTS.UTC_242_000	2.4.2 Card Writer	time.year= "2014" month="11" day="21" hour = "00" min= "00" CardInfo.balance = 10000 CardInfo.filename = "abc.txt" CardInfo.IDcount = 60 CardInfo.traffic = "METRO" CardInfo.inout= 0
PTS.UTC_242_001	2.4.2 Card Writer	time.year= "-2222" month="11" day="21" hour = "00" min= "00" CardInfo.balance = 10000 CardInfo.filename ="abc.txt" CardInfo.IDcount = 60 CardInfo.traffic ="TAXI" CardInfo.inout= 0

C Test Identification

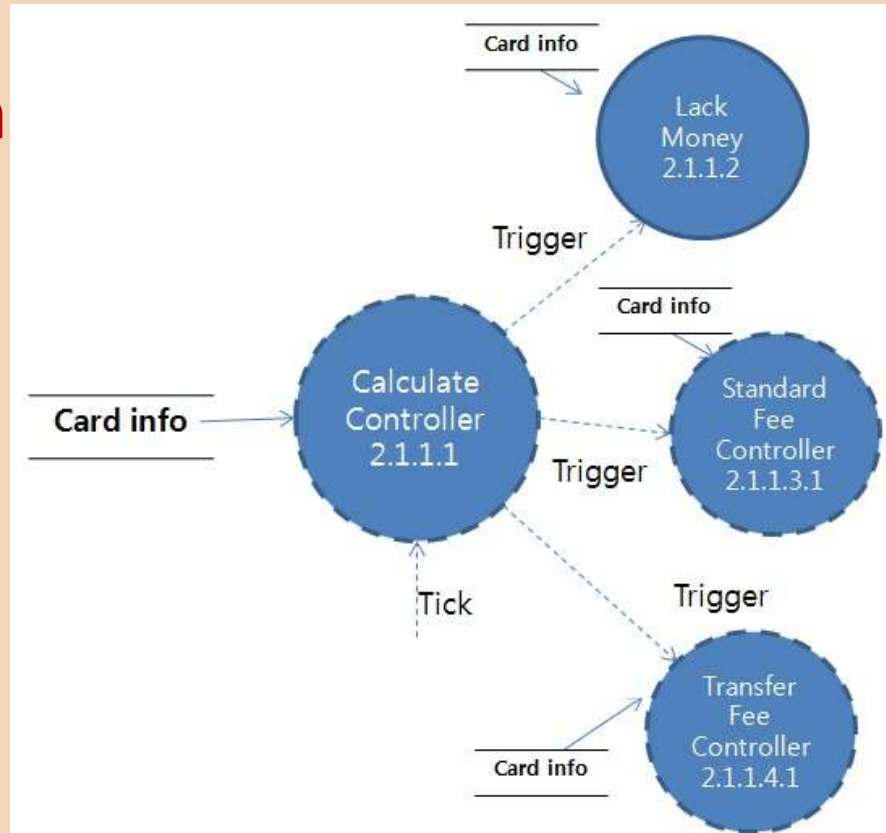
(Exact Calculation)

Exact Calculation DFD Overall



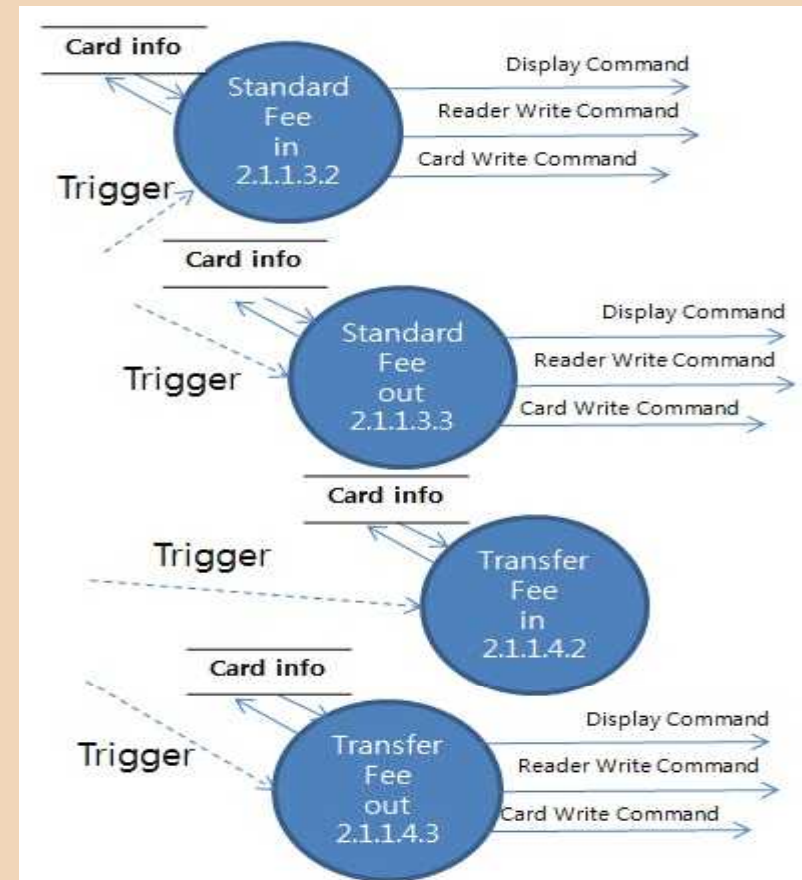
Identifier	Feature	Valid/Invalid value
PTS.UTC_11_000	Reader Interface	reader file names.
PTS.UTC_12_000	Sorting	file의 한 줄과 그 줄의 시간.
PTS.UTC_211_000	Distribute Controller	sorted Linked List
PTS.UTC_221_000	Exact Calculation Display	displaycommand==1
PTS.UTC_221_001	Exact Calculation Display	displaycommand==0

C Test Case Specification (Calculate Control)



Test Case Identifier	Input specification	Output specification
PTS.UTC_2111_000	201411210115,BUS,5000,OUT,60	Trigger to Standard Fee
PTS.UTC_2111_001	201411210115,METRO,50000,IN,00	Trigger to Standard Fee
PTS.UTC_2111_002	201411456070,METRO,20000,IN,61	Trigger to Transfer Fee
PTS.UTC_2111_003	201411190301,MEMO,2000000000000000,IN,61	Trigger to Lack Money
PTS.UTC_2111_004	201411190301,METRO,1950,OUT,711	Trigger to Standard Fee

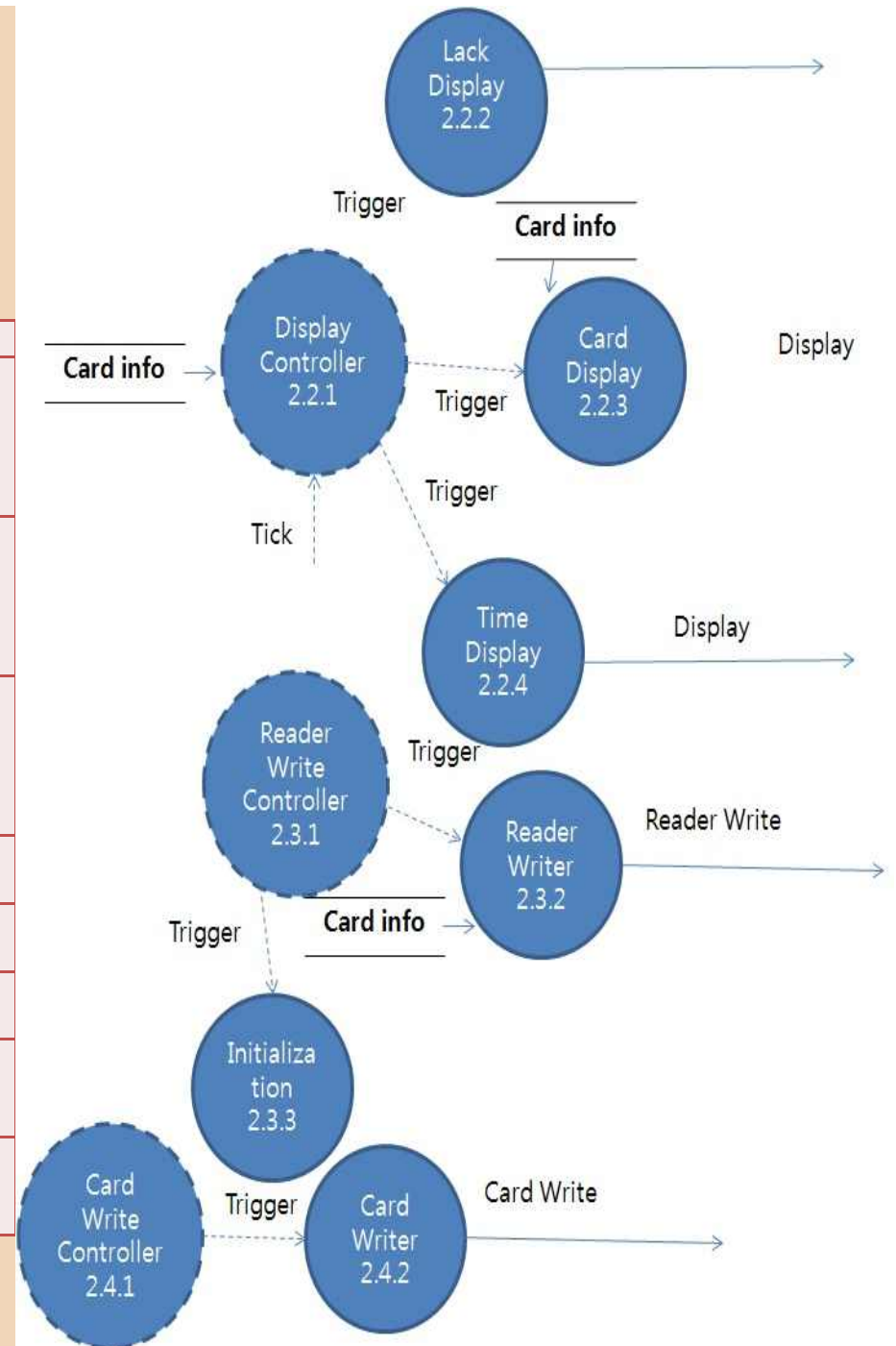
C Test Case Specification (Calculate Control)



Test Case Identifier	Input specification	Output specification
PTS.UTC_2112_000	Trigger IN	Display Command == 0
PTS.UTC_2113_000	201411210115,BUS,5000,OUT,60	Trigger to Standard fee out
PTS.UTC_2113_001	201411210115,METRO,-10000,IN,60	Trigger to Standard fee in
PTS.UTC_2114_000	201411210115,METRO,50000,IN,60	Trigger to Transfer fee in
PTS.UTC_2114_001	201411210115,METRO,50000,IN,6-1	Trigger to Transfer fee in

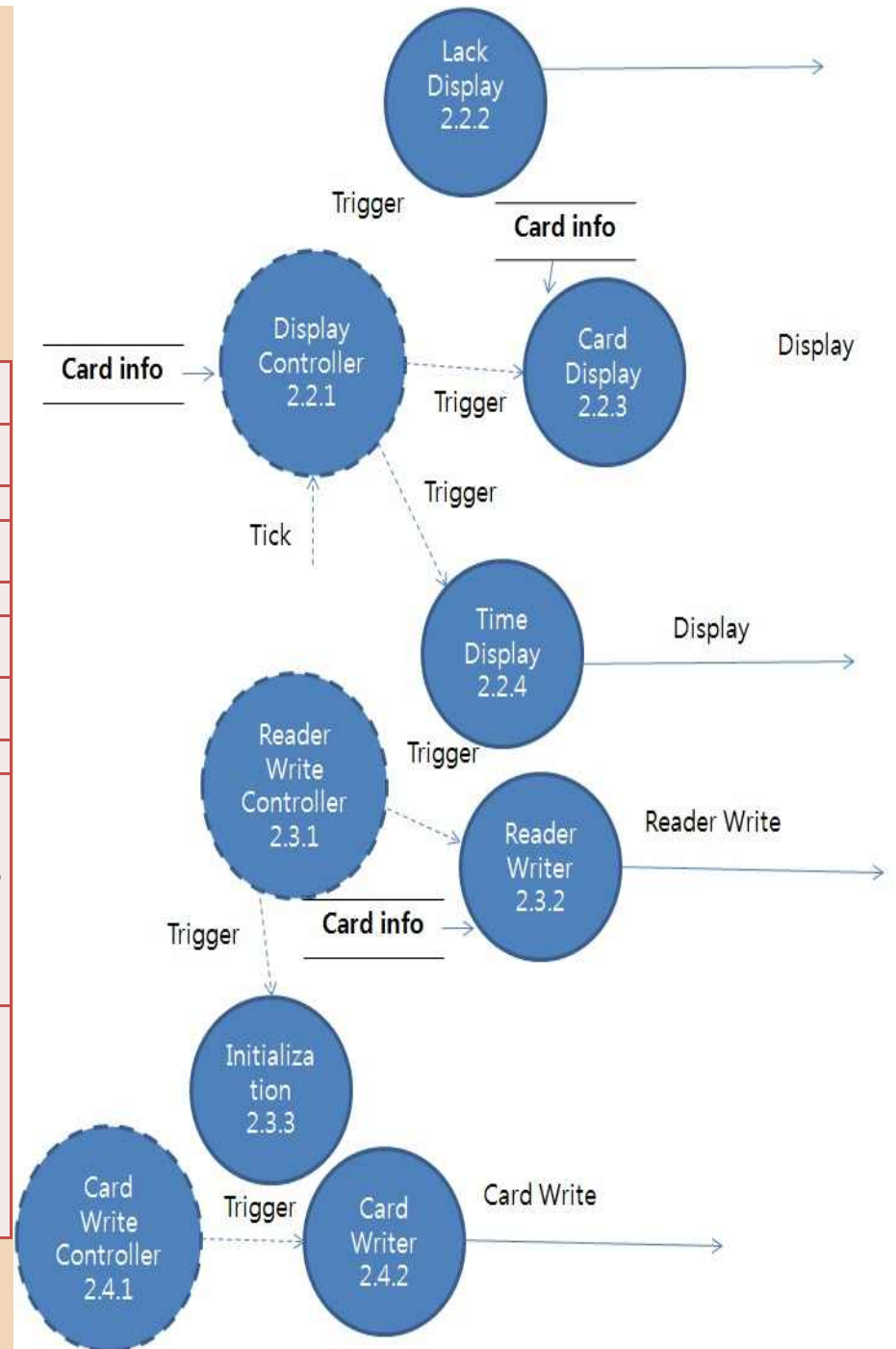
C Test Case Specification (Display Control)

Test Case Identifier	Input specification	Output specification
PTS.UTC_221_000	time.year= "2014" month="11" day="21" hour = "00" min=00" Card Info.fee = 500 / Cardinfo. balance =10000	display
PTS.UTC_221_001	time.year= "2014" month="11" day="21" hour = "00" min=70" Card Info.fee = 500 / Cardinfo. balance =10000	display
PTS.UTC_221_002	time.year= "2014" month="11" day="21" hour = "00" min=10" Card Info.fee = -11 / Cardinfo. balance =-222	display
PTS.UTC_222_000	Trigger IN	display Lack Money Message
PTS.UTC_223_000	Card Info.fee = 500 / Cardinfo. balance =10000	display fee= 500/ balance = 100000
PTS.UTC_223_001	Card Info.fee = -40 / Cardinfo. balance =0	display fee = -40/ balance = 0
PTS.UTC_224_000	time.year= "2014" month="11" day="21" hour = "00" min=00"	Time : 201411210000
PTS.UTC_224_001	time.year= "-2222" month="11" day="21" hour = "00" min=00"	Time : -222211210000



C Test Case Specification (Display Control)

Test Case Identifier	Input specification	Output specification
PTS.UTC_231_000	readerWriteCommand == 1	Trigger to readerFileWrite
PTS.UTC_231_001	readerWriteCommand ==0	NONE.
PTS.UTC_232_000	CardInfo.fee =1050	ex>201411210115,METRO,1050,IN,60
PTS.UTC_232_001	CardInfo.fee =-5999	ex>201411210115,METRO,-5999,IN,60
PTS.UTC_233_000	Tick, Trigger IN	delete reader file.
PTS.UTC_241_000	cardWriteCommand ==1	Trigger to cardFileWrite
PTS.UTC_241_001	cardWriteCommand ==0	NONE
PTS.UTC_242_000	time.year= "2014" month="11" " day="21" hour = "00" min=00" CardInfo.balance =10000 CardInfo.filename ="abc.txt" CardInfo.IDcount = 60 CardInfo.traffic ="METRO" CardInfo.inout=0	abc.txt0 201411210000,METRO,OUT,10000,60
PTS.UTC_242_001	time.year= "-2222" month="11" " day="21" hour = "00" min=00" CardInfo.balance =10000 CardInfo.filename ="abc.txt" CardInfo.IDcount = 60 CardInfo.traffic ="TAXI" CardInfo.inout=0	abc.txt0 -222211210000,TAXI,OUT,10000,60



Outro _____

Q & A