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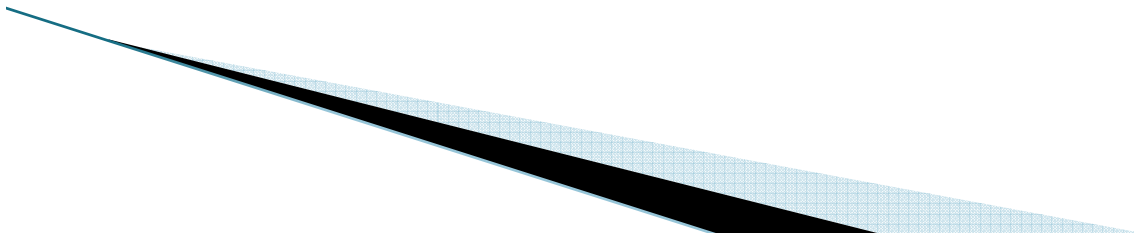
2016 Software Engineering  
**Coffee Machine System**

Demo & Summary



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- ▶ System Test 결과 대응
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- ▶ Demo



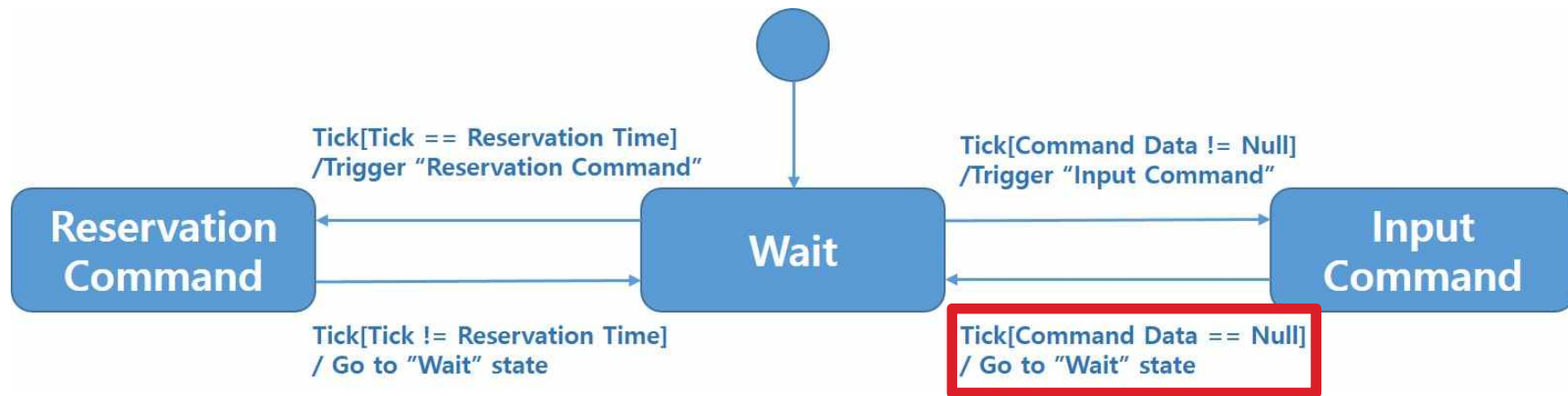
# System Test 결과 대응



# System Test 결과 대응

- ▶ Add Cancel Input

Command Selector Control



# System Test 결과 대응

## ▶ Add Cancel Input

```
MAIN CONSOLE
COMMAND LIST
1 : 커피 추출
2 : 예약
3 : 청소
4 : 농도 변경
tog : 온도 변경
@ : 전원 OFF
clp : 커피 가루 청소
chrq : 재료 보충
Press ENTER
```

```
MAIN CONSOLE
COMMAND LIST
1 : 커피 추출
2 : 예약
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tog : 온도 변경
@ : 전원 OFF
clp : 커피 가루 청소
chrq : 재료 보충
x : Cancel|
Press ENTER
```

# System Test 결과 대응

- ▶ Default Setting for Server Time

```
$ ./server 7 30 32
```



```
$ ./server
```



# System Test 결과 대응

## ▶ Display Visualizing

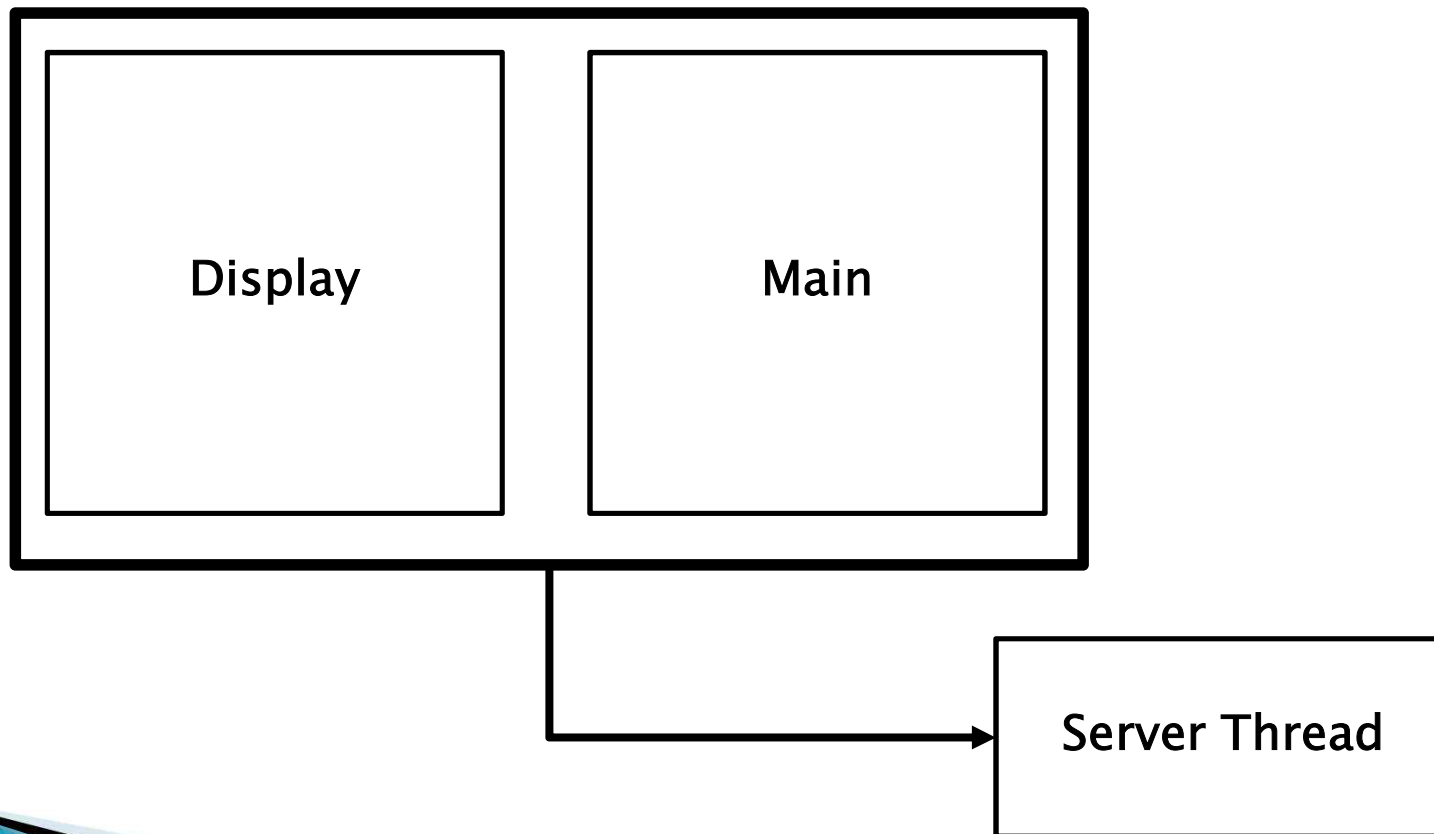
D I S P L A Y	
시간	01 : 02 : 46
상태	대기중
농도	진하게
온도	ICE
물 잔량	900 ml
커피(원두) 잔량	90 g
커피 가루 상태	Not Exist
커피 가루 청소 필요	NEED
커피 추출 예약 시간	-- : --
청소 예약 시간	-- : --

D I S P L A Y	
시간	01 : 02 : 51
상태	대기중
농도	진하게
온도	ICE
물 잔량	900 ml
커피(원두) 잔량	90 g
커피 가루 상태	Not Exist
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커피 추출 예약 시간	-- : --
청소 예약 시간	-- : --



# System Test 결과 대응

- ▶ Terminal Integration



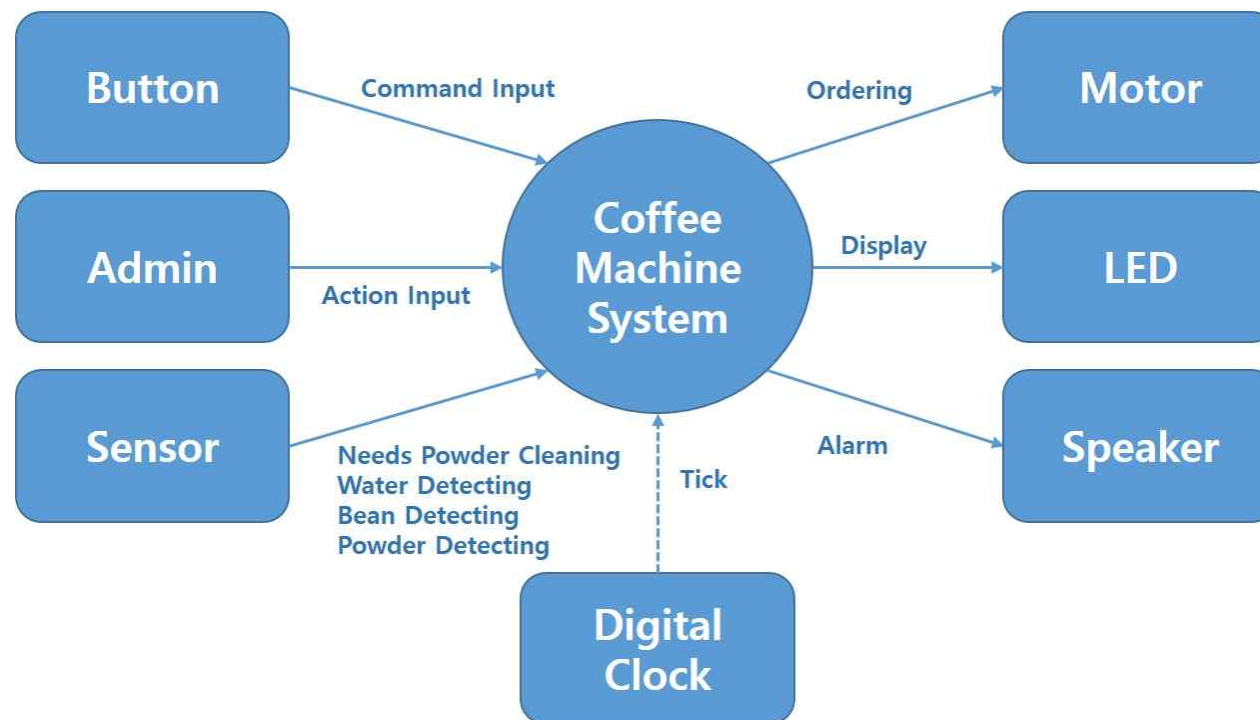


# Final Program Summary



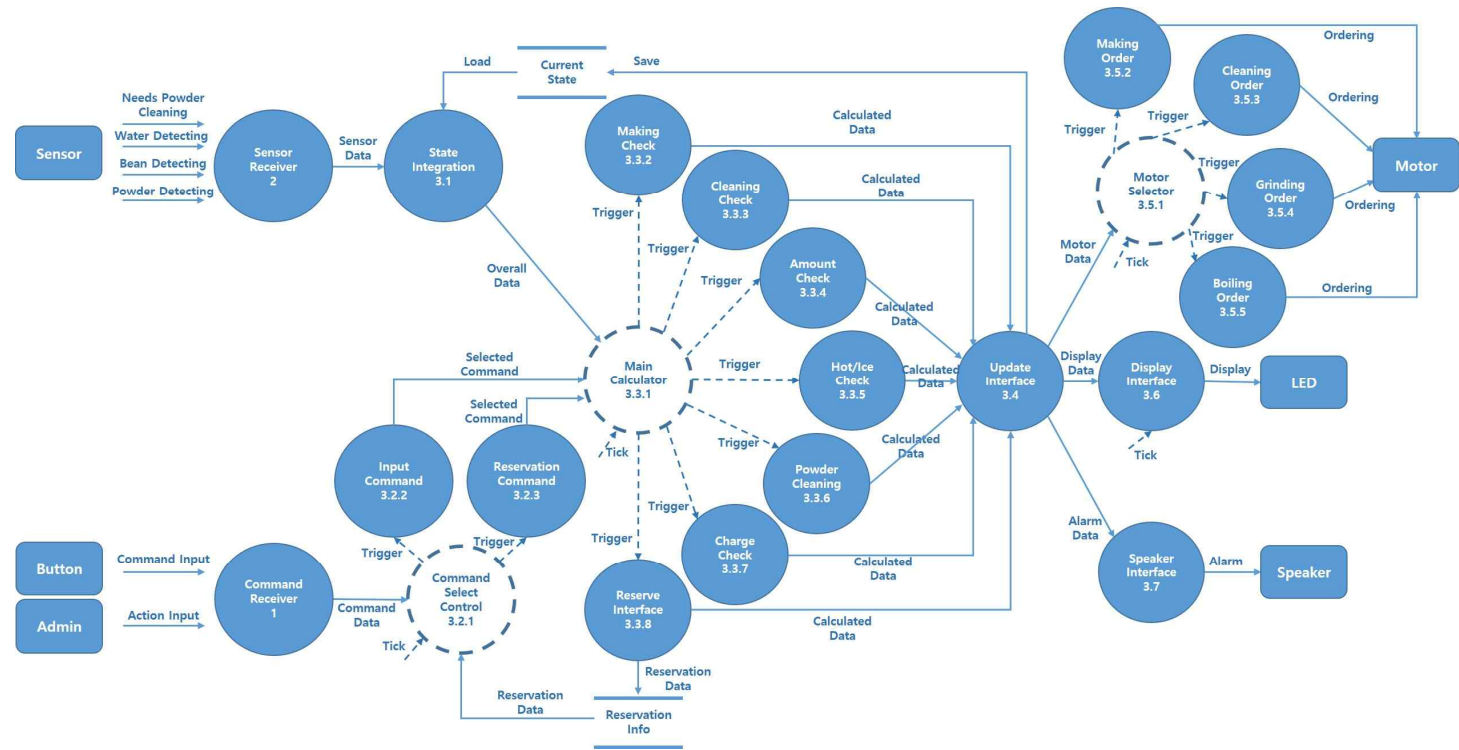
# Final Program Summary

## ▶ System Context Diagram



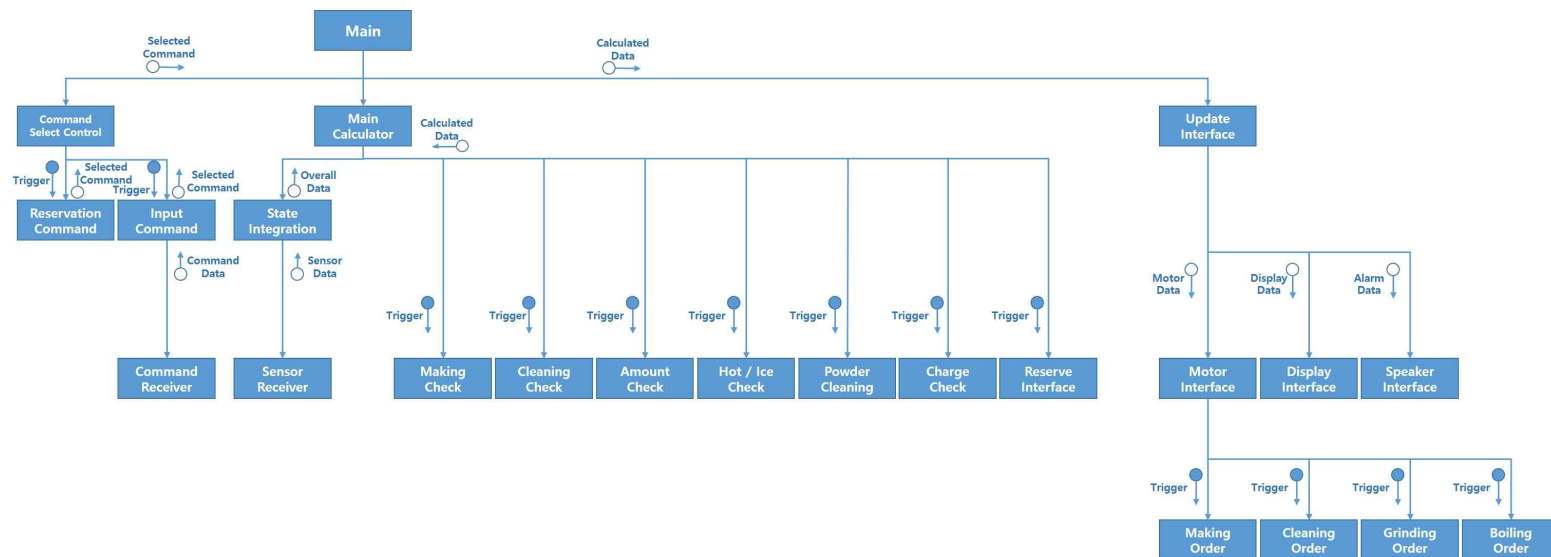
# Final Program Summary

## ► Overall Data Flow Diagram (DFD)



# Final Program Summary

## ► Structure Charts



# Final Program Summary

## ▶ Makefile

- Linux 명령어를 set으로 묶어 관리할 수 있다.
  - Ref ) <https://en.wikipedia.org/wiki/Makefile>

```
cm :  
    gcc -o Tick Tick.c  
    gcc -o cmd_sel cmd_sel.c  
    gcc -o server server.c  
    gcc -o Display Display.c  
    gcc -o Main Main.c
```

\$ make cm

```
cln :  
    rm current_state.dat  
    rm time_check_file.dat  
    rm sensor.dat  
    rm tick.dat  
    rm overall_data.dat  
    rm reserve.dat
```

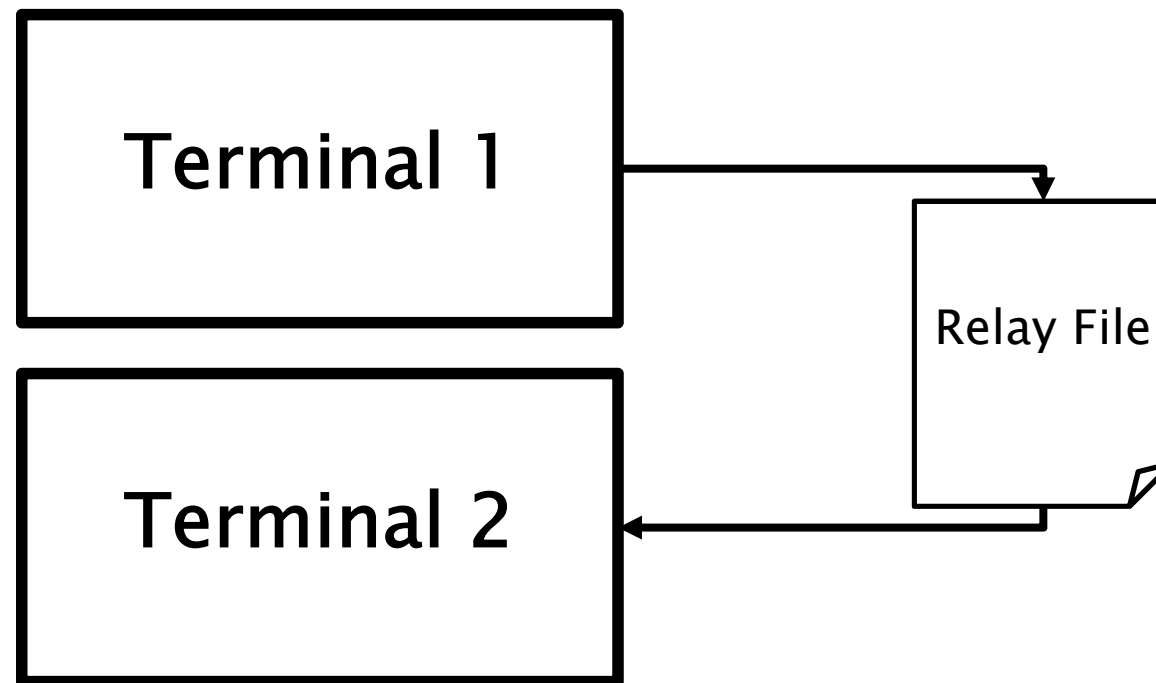
\$ make cln



# Final Program Summary

- ▶ Multi-Terminal

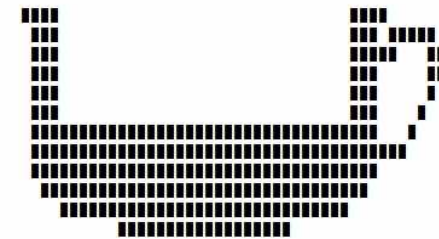
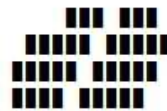
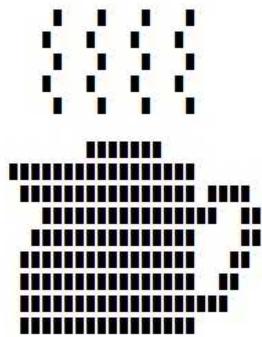
- 여러 개의 Cygwin Terminal 간의 통신 구현

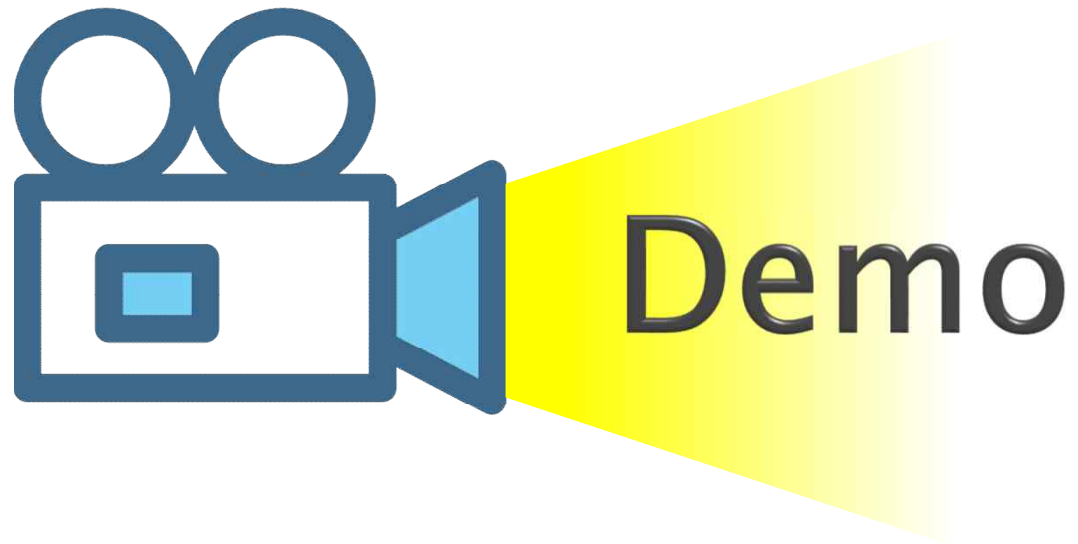


# Final Program Summary

## ▶ Graphic Display

- 가열, 커피 분쇄, 커피 추출 등의 작업에 Graphic 구현





Demo



Q & A

