

C:\₩소프트웨어공학개론 Team_Presentation_#1>

C:\₩Watch_Back조> ls

201711376_김경진 201810568_박용준 201811263_백종원

C:\W\Contents\W\목차>

- About Digital Watch System
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- Data Flow Diagram
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C:\DWS>About_Digital_Watch_System>

- Digital Watch System(이하 DWS)는 실제 손목시계에 사용될 수 있는 제품이 될 수 있다.
- 시계 Hardware(이하HW)는4개의 버튼과 LCD 화면을 가진 것으로 한다.
- 실제 HW에 의한 입력과 동작은 Software 및console화면으로 처리하여 보여준다.

C:\W\DWS\W>About_Digital_Watch_System>

1. Date-Time

화면에 일자와 시간을 표시한다. 오후 시간은 24시로 표현한다.

2. Stopwatch

시간의 경과를 알려주고, 특정 순간의 시간을 알려준다. 1/100 초 단위로 측정이 가능하다. Lap time 기록이 가능하다.

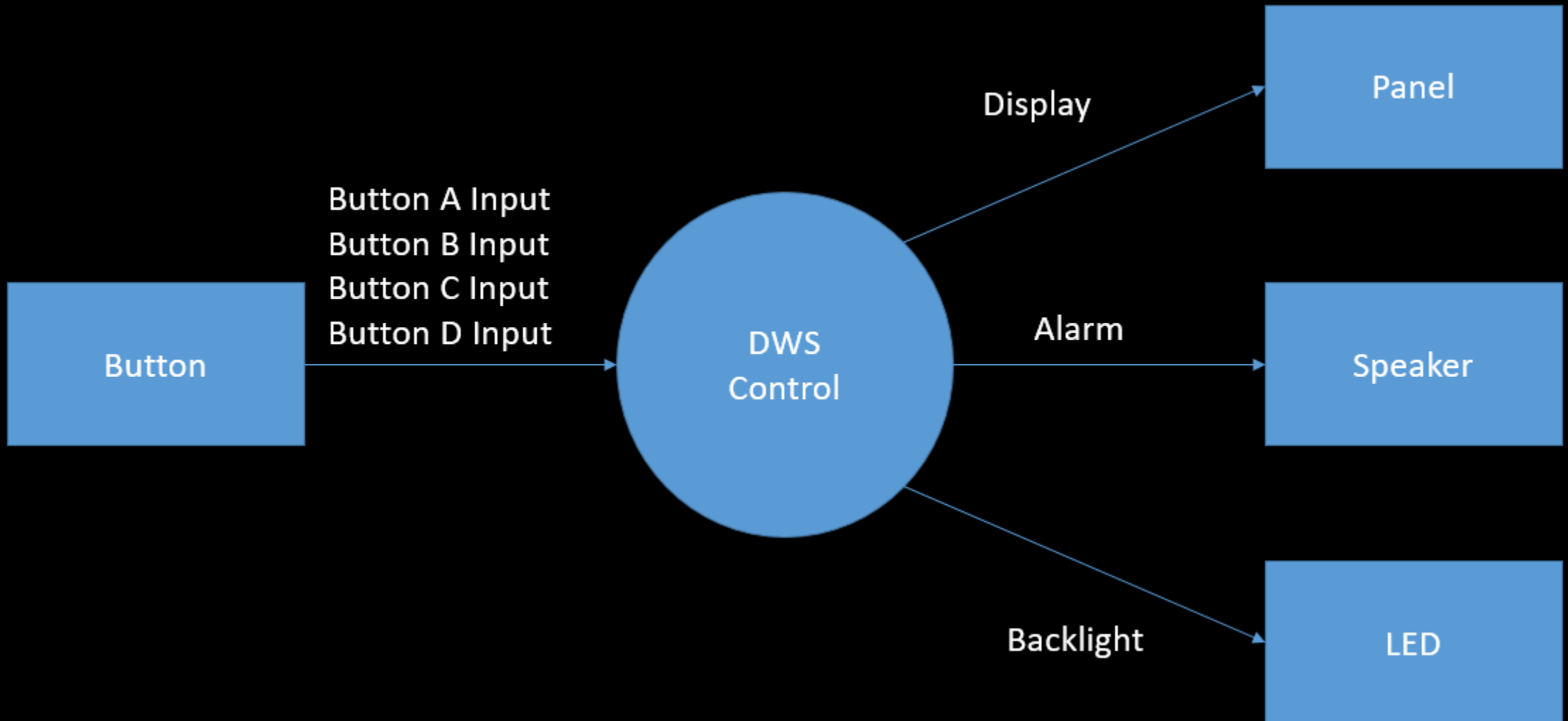
3. Backlight

출력하는 문자의 색깔을 노란색으로 표시한다.

4. Alarm

Alarm이 설정되면 alarm indicator가 켜진다. 정해놓은 시간에 소리(beep 음)로 알려준다. 알람은 5초간 울린다. 알람이 울릴 때 a,b,c,d중 아무 버튼을 누르면 소리가 꺼진다.

C:\W\System_Context_Diagram>

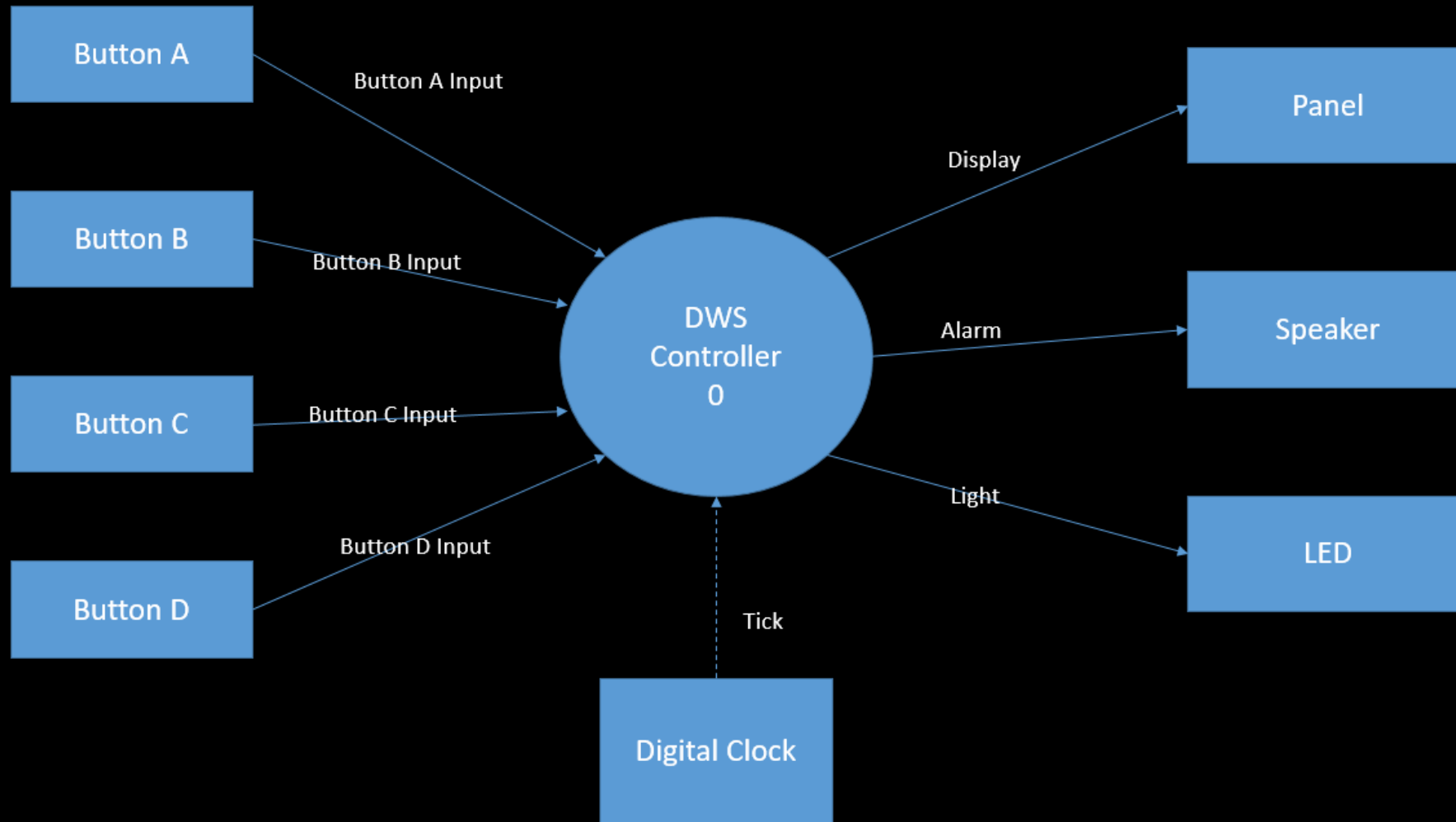


C:\System_Context_Diagram\Event_list>

Input / Output Event	Description
Button A Input	Detects whether button a is pressed
Button B Input	Detects whether button b is pressed
Button C Input	Detects whether button c is pressed
Button D Input	Detects whether button d is pressed
Display	Displays current information
Alarm	Rings alarm
Backlight	Changes font color

C:\Data_Flow_Diagram>

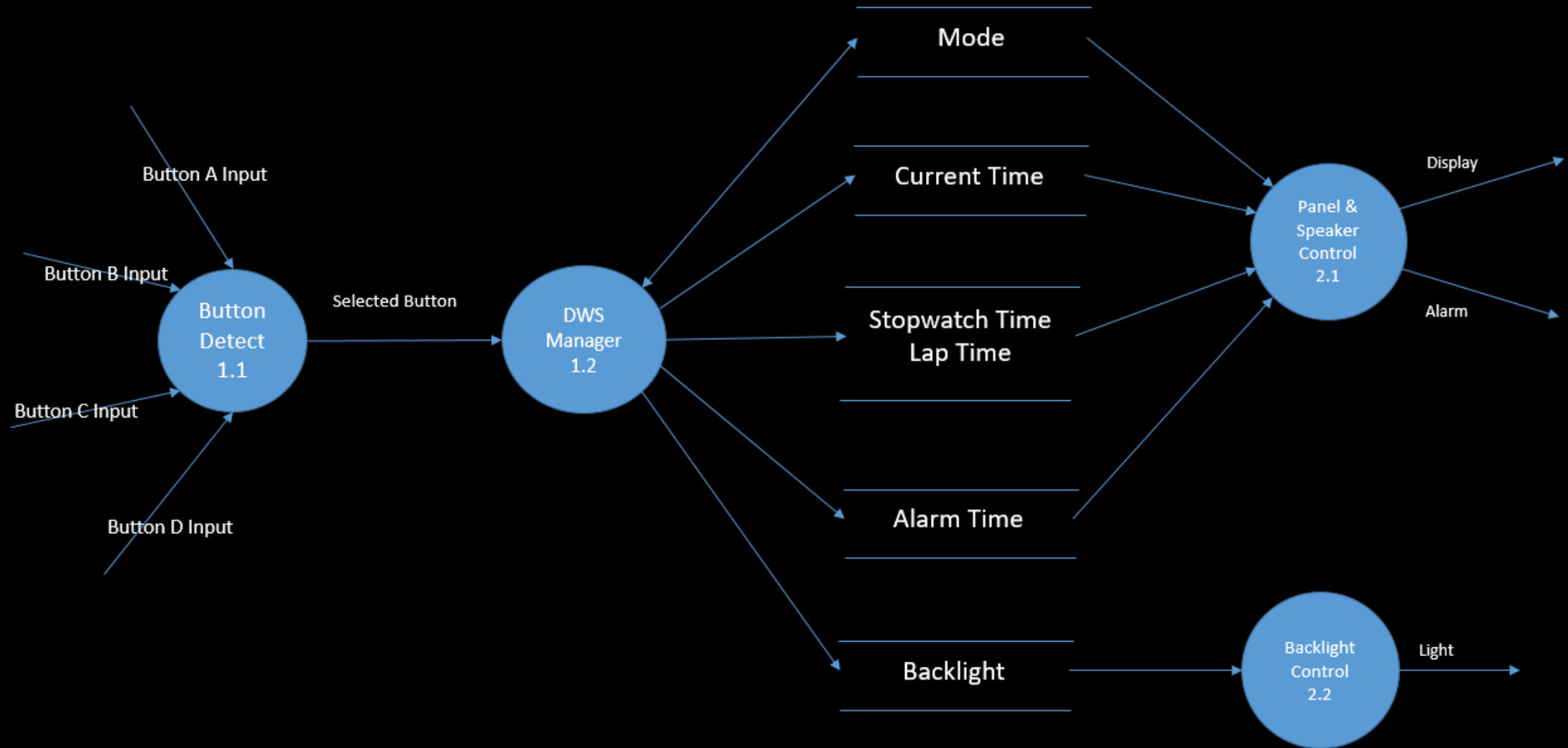
C:\Data_Flow_Diagram\DFD0>



C:\WDFD0\WData_Dictionary>

Input / Output Event	Description	Format / Type
Button A Input	Detects whether button a is pressed	Boolean
Button B Input	Detects whether button b is pressed	Boolean
Button C Input	Detects whether button c is pressed	Boolean
Button D Input	Detects whether button d is pressed	Boolean
Display	Displays Current Information on Panel	Modified Data for 8 parts of panel
Alarm	Rings Alarm with Speaker	On/Off
Light	Changes Text Color with LED	On/Off

C:\Data_Flow_Diagram\DFD1>



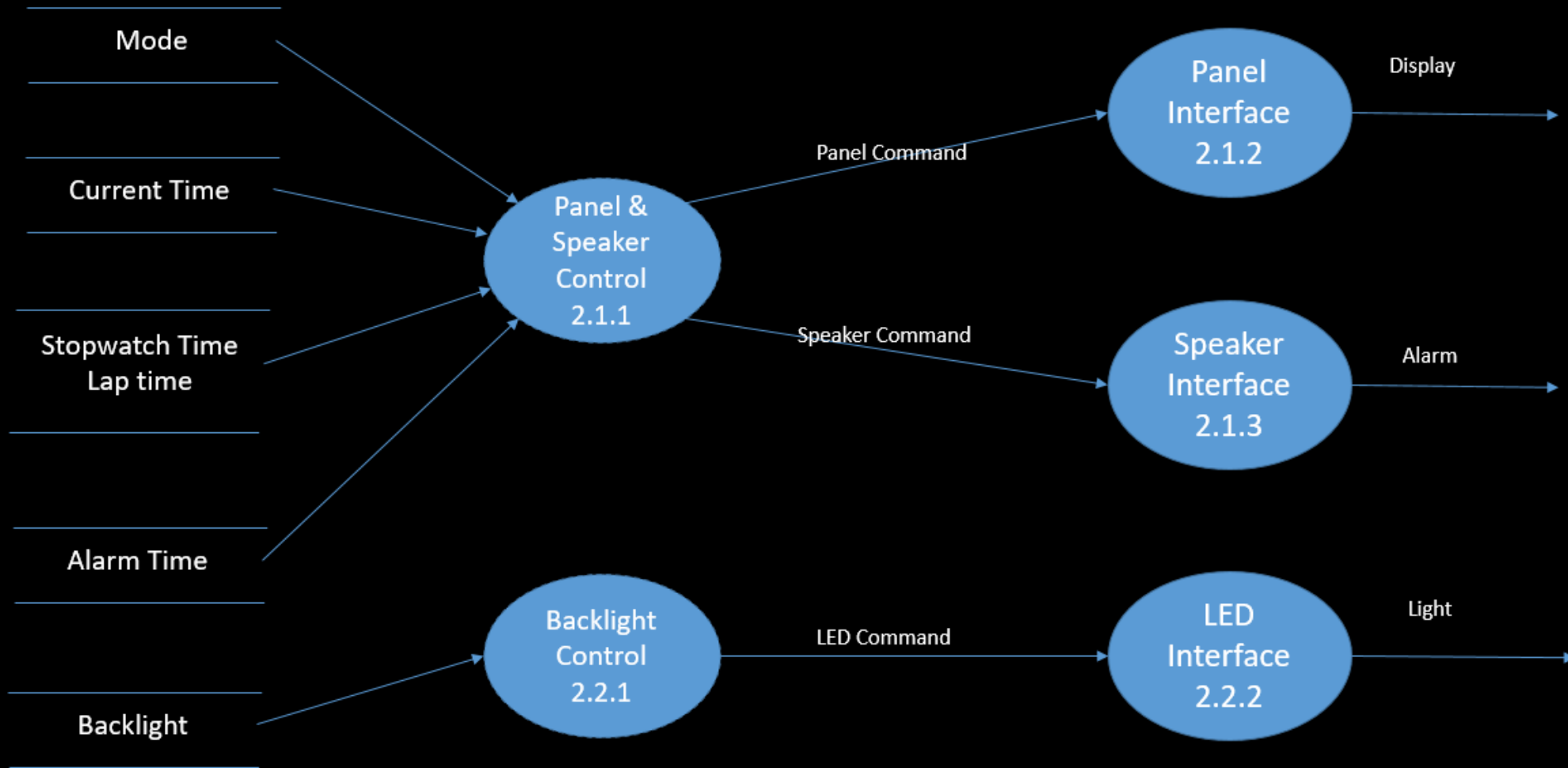
C:\WDFD1\WData_Dictionary>

Input / Output Event	Description	Format / Type
Selected Button	Returns One Button or No Button if there were no pressed buttons.	Button A, Button B, Button C, Button D, No Button
Mode	Current Mode	Timekeeping / Stopwatch/ Alarm
Current Time	Current Time	Time(Day of Week / Month / Date / Hour / Minute / Second)
Stopwatch Time	Beginning Time of when Stopwatch has been activated	Time
Lap Time	Lap time	Time
Backlight	Text Color	Color

C:\Data_Flow_Diagram\DFD2-1>



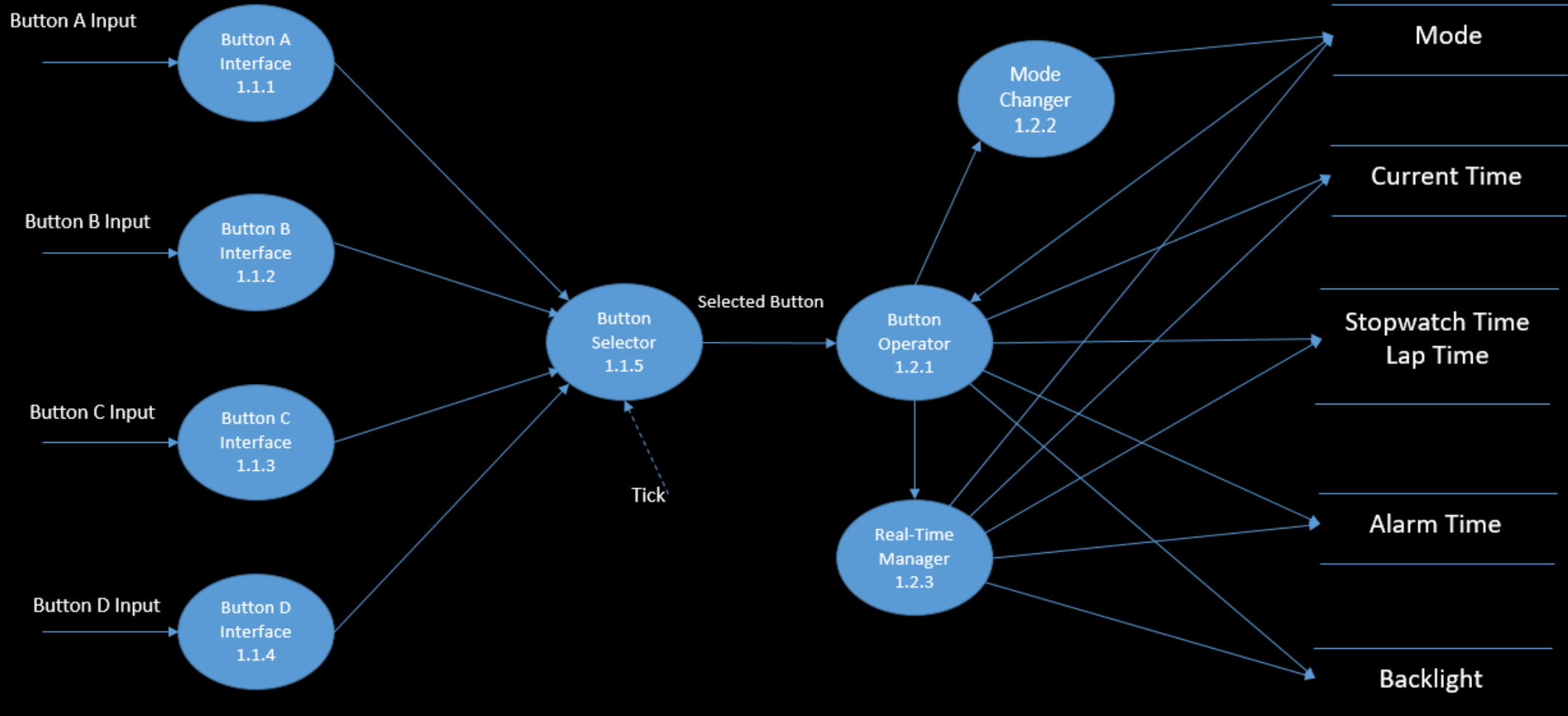
C:\Data_Flow_Diagram\DFD2-2>



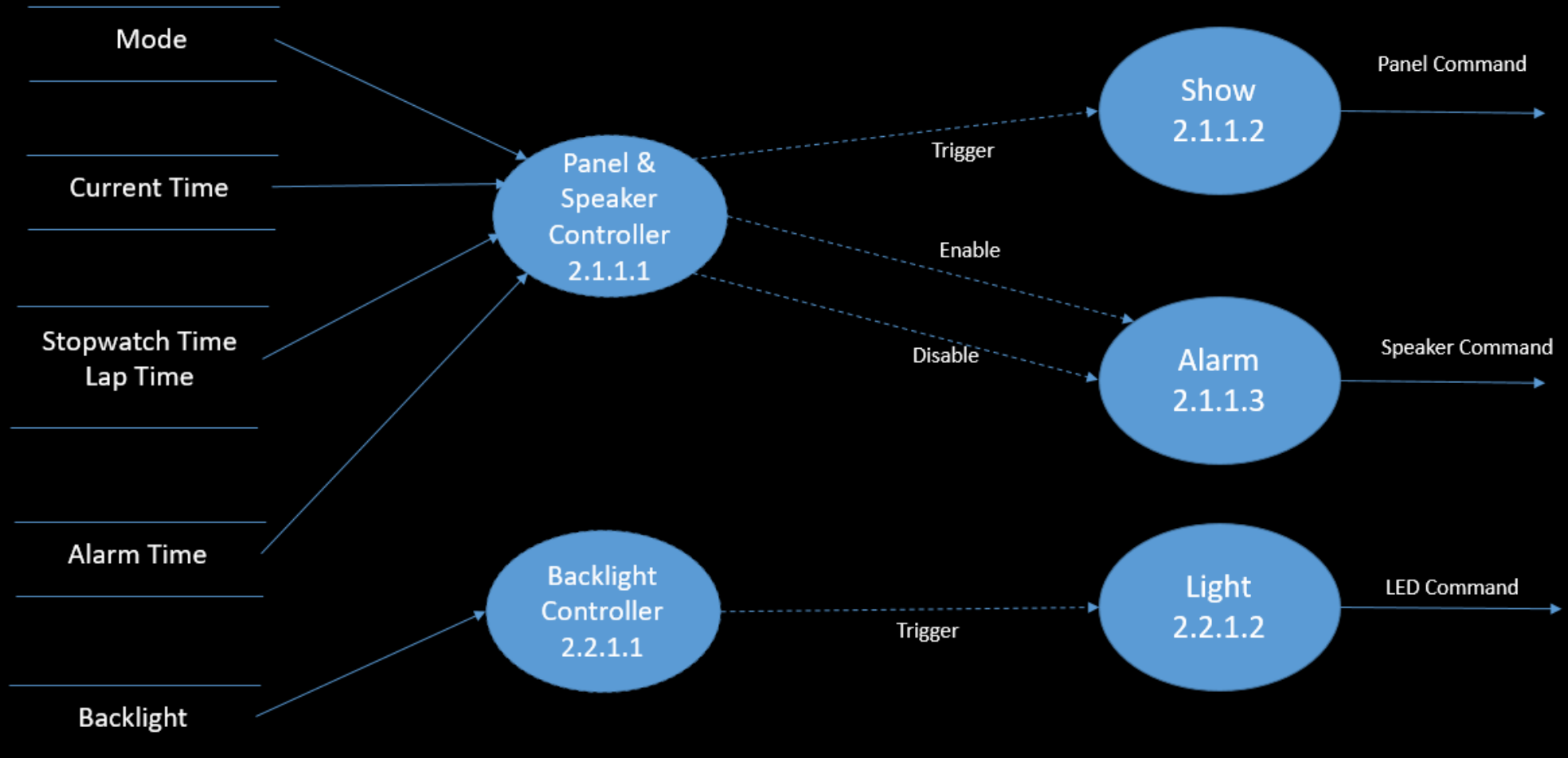
C:\WDFD2\WData_Dictionary>

Input / Output Event	Description	Format / Type
Panel Command	Current Information	Data for 8 Parts of Panel
Speaker Command	Alarm Information	On/Off
LED Command	Text Color Information	On/Off

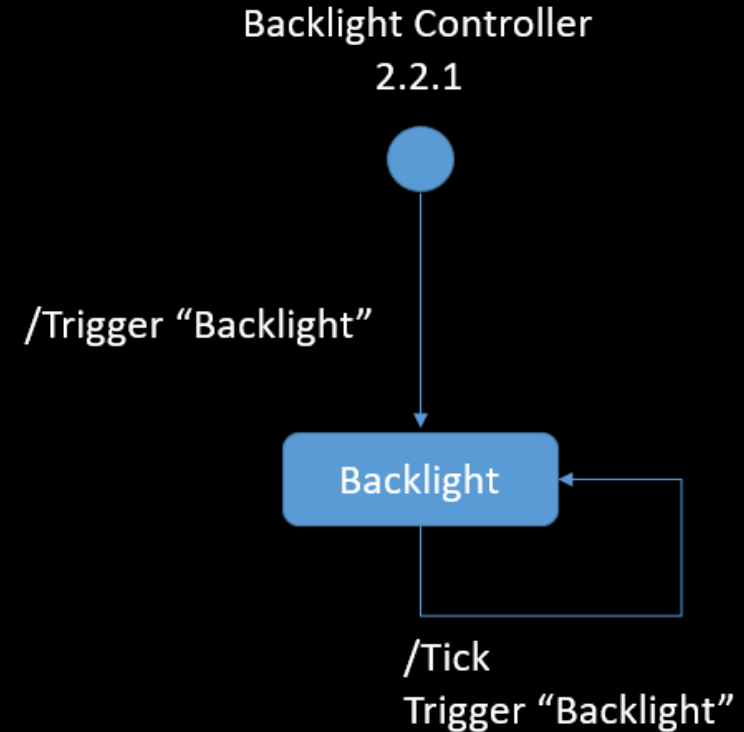
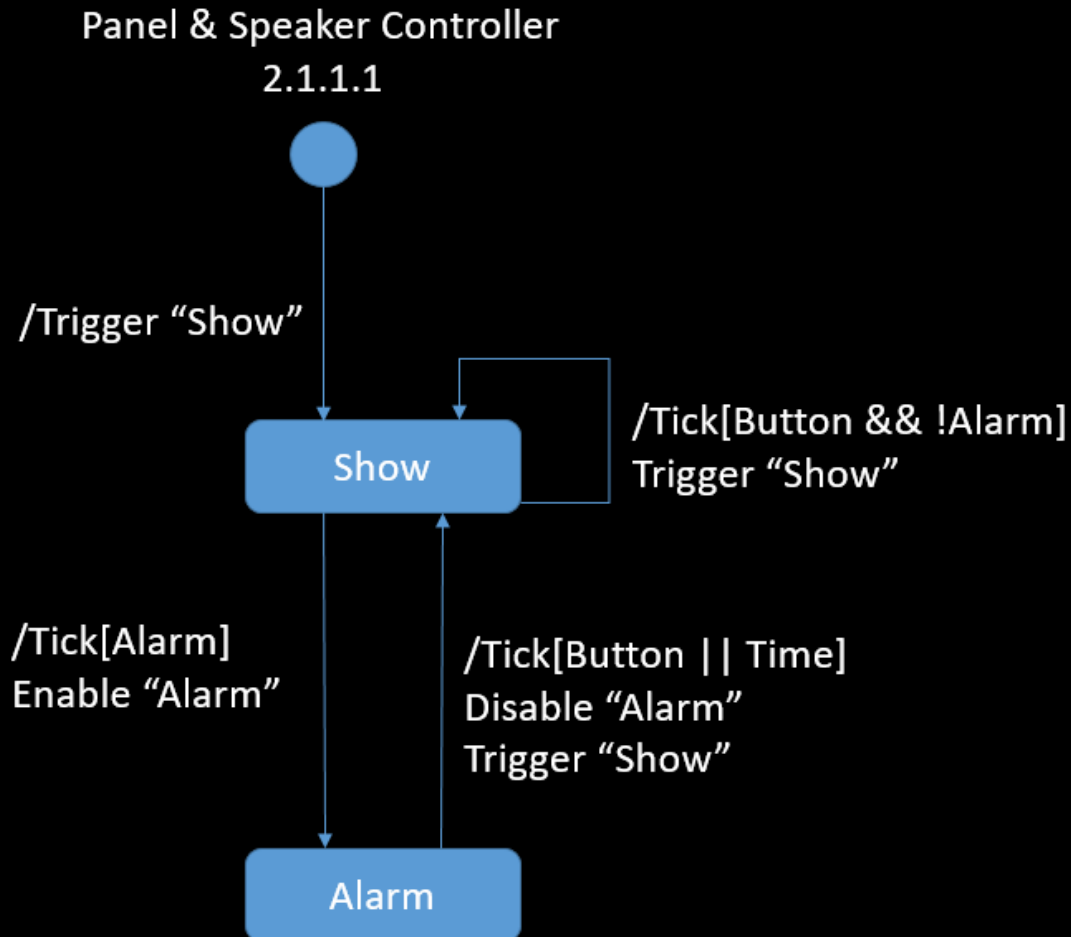
C:\Data_Flow_Diagram\DFD3-1>



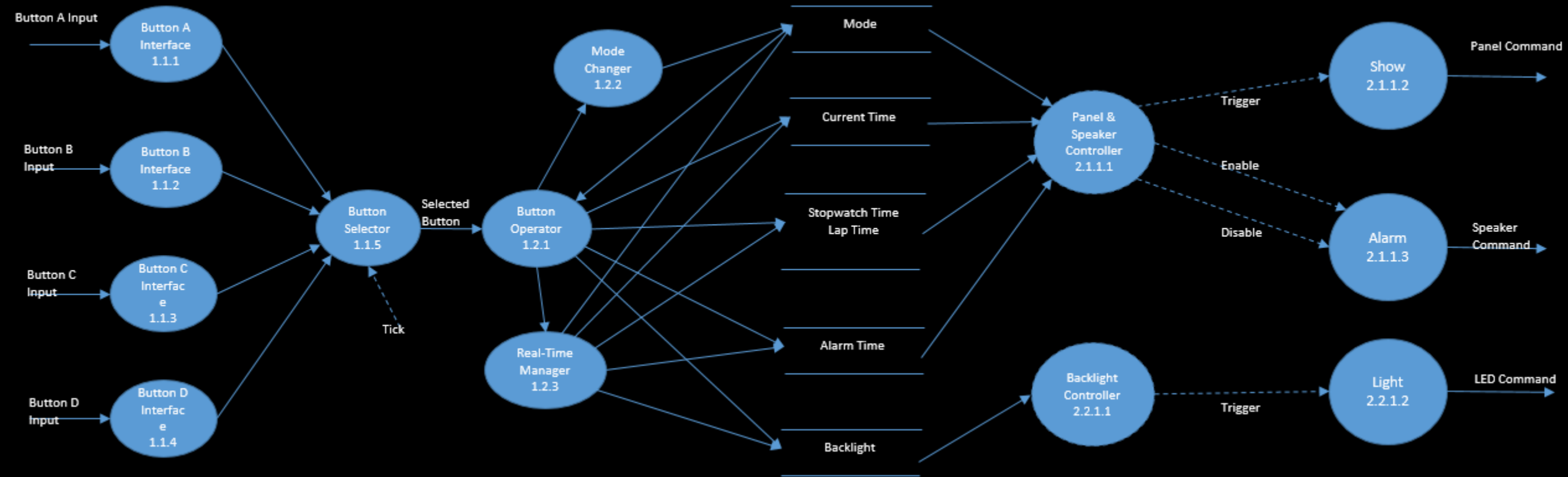
C:\Data_Flow_Diagram\DFD3-2>



C:\WDFD4\State_Transition_Diagram>



C:\Data_Flow_Diagram\OverallDFD>



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