

SR Research
EyeLink

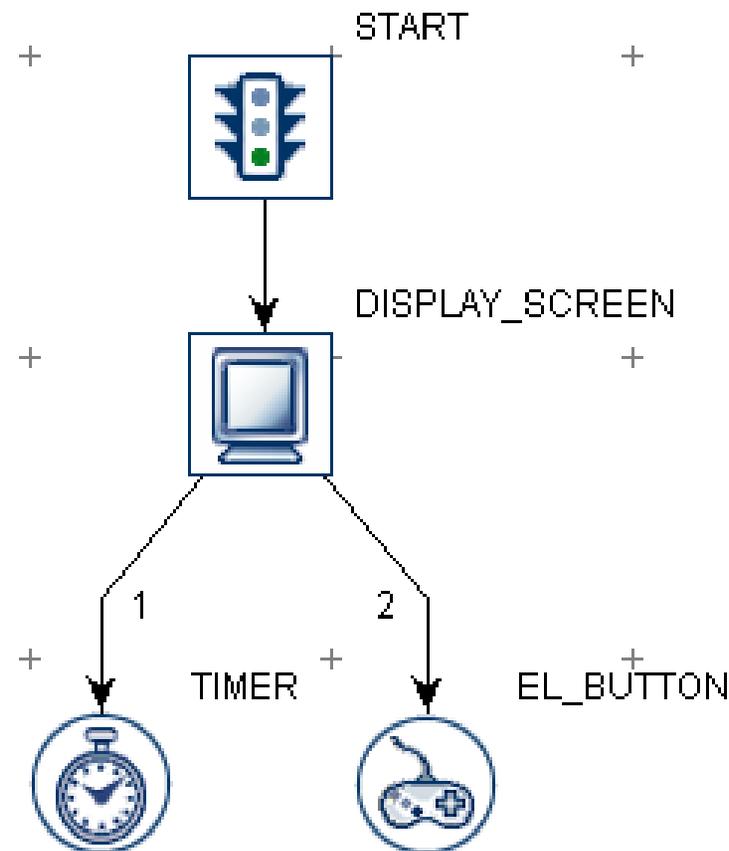
EyeLink®
**Experiment
Builder**

```
graph LR; A[ ] --> B(( )); B --> C[ ]; C --> D(( )); D --> E[ ]; D --> F[ ]
```

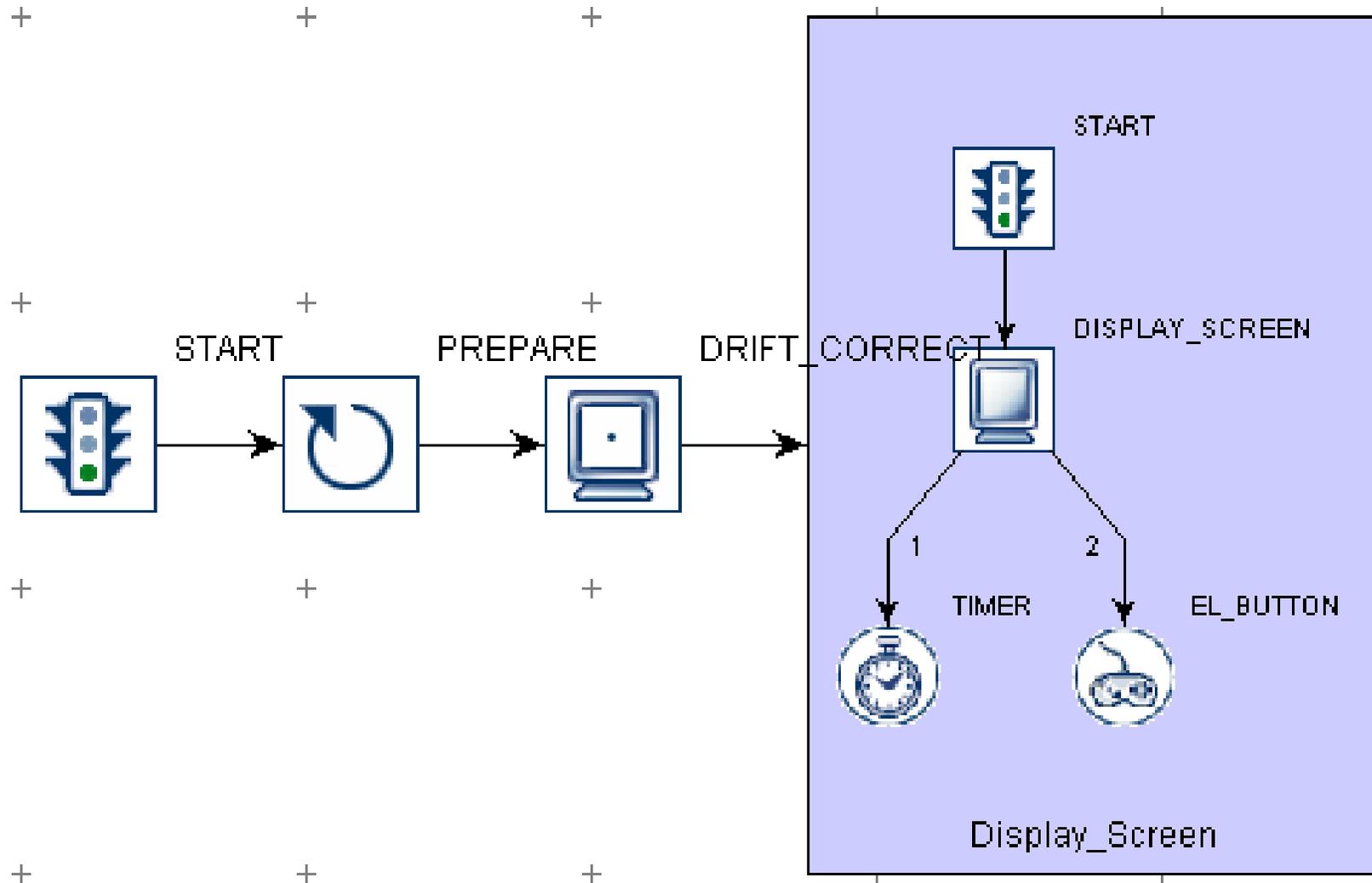
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Actions

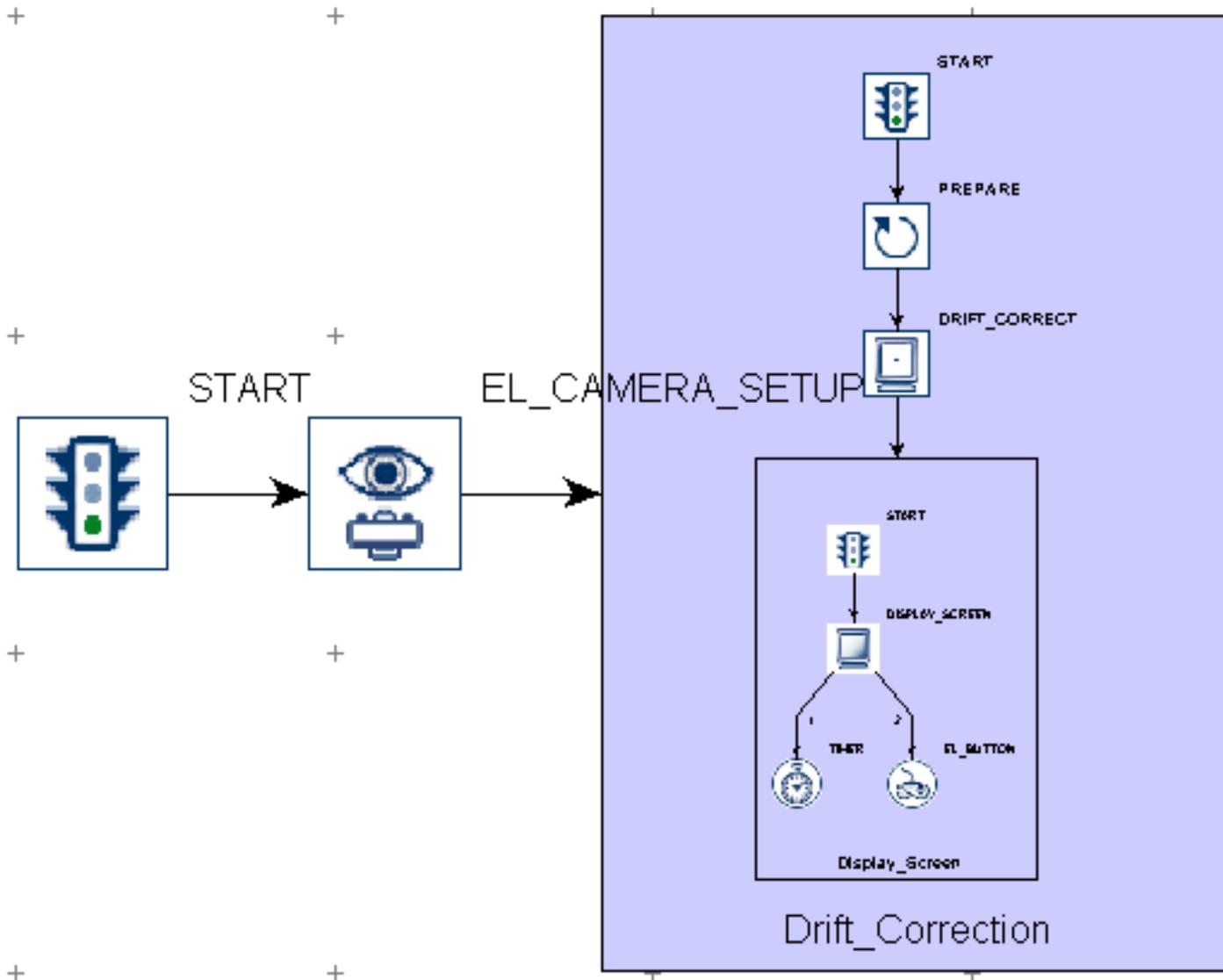
Display Screen



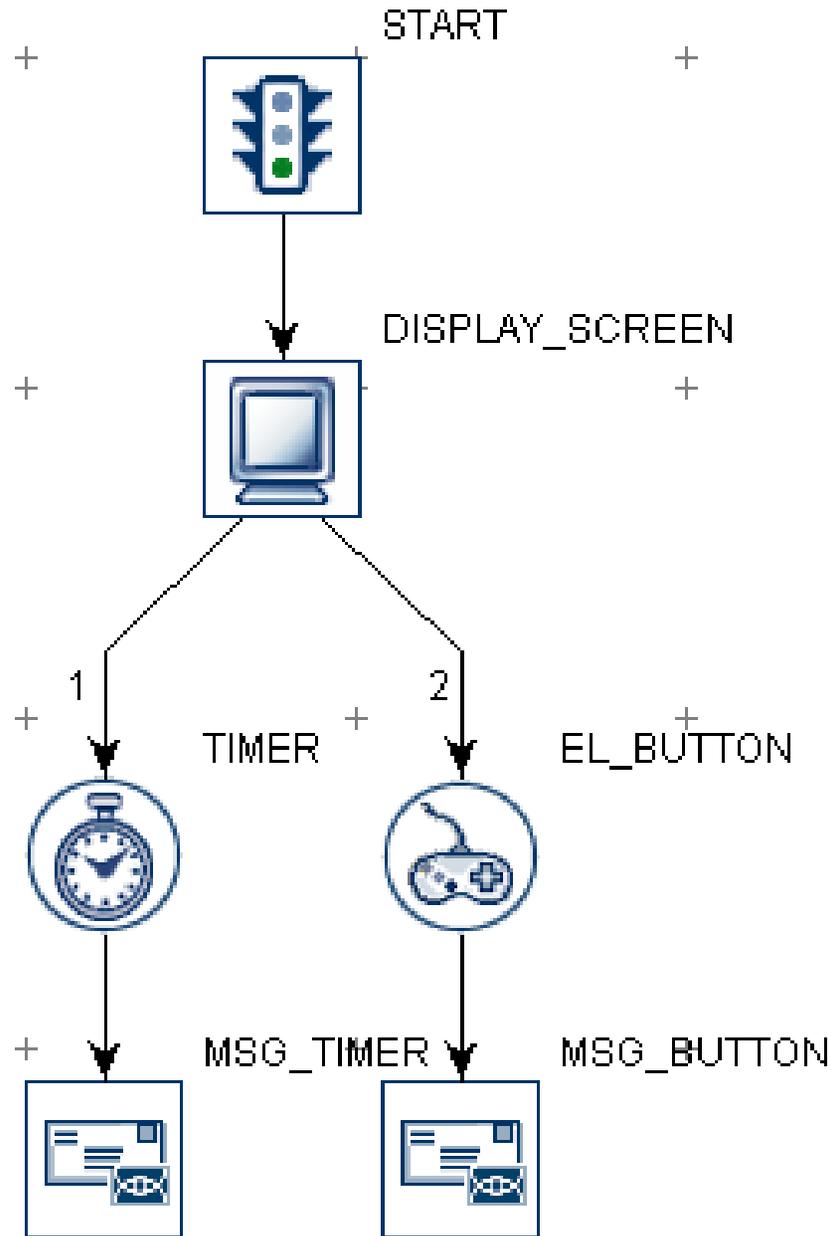
Drift Correction action



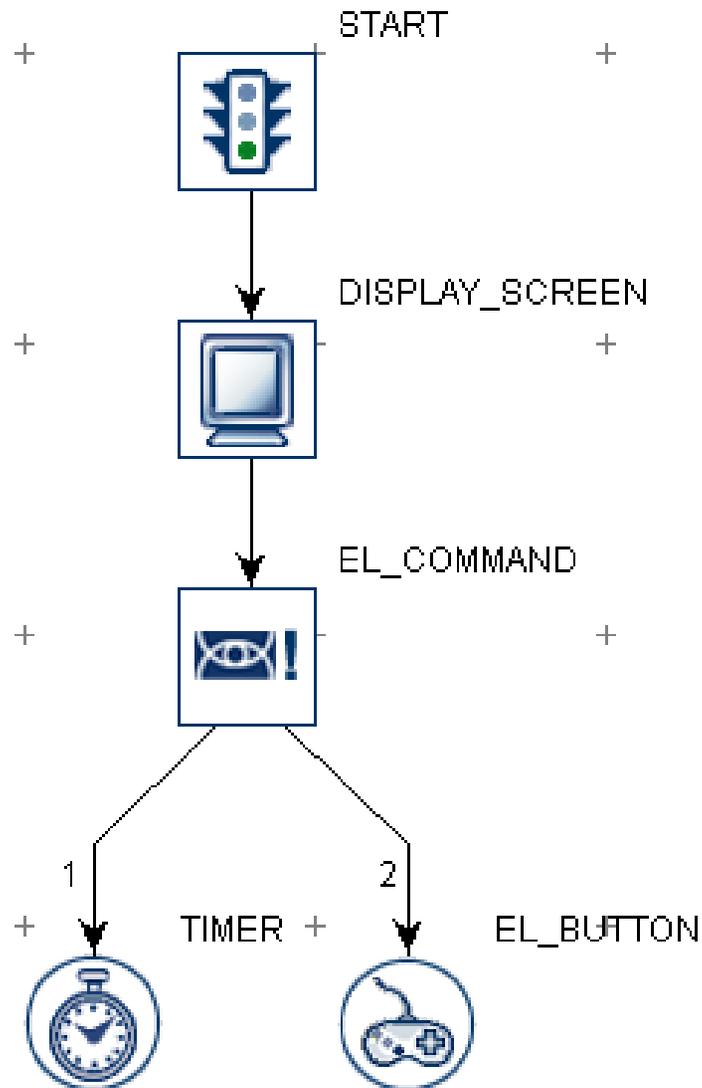
Performing Camera Setup and Calibration



Sending EyeLink Message



Sending EyeLink Command

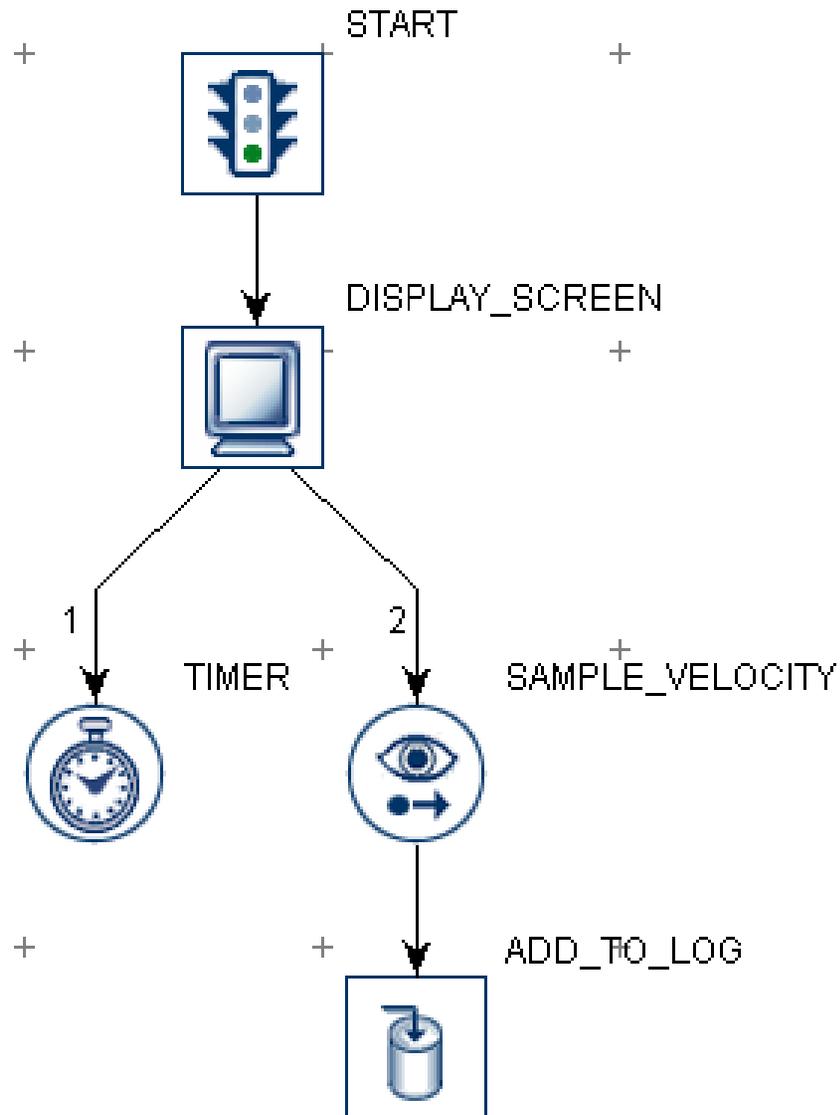


送出文字命令至眼動儀

可參考EyeLink檔案夾中的ini語法

左例為在螢幕左上角畫一個白色的方塊

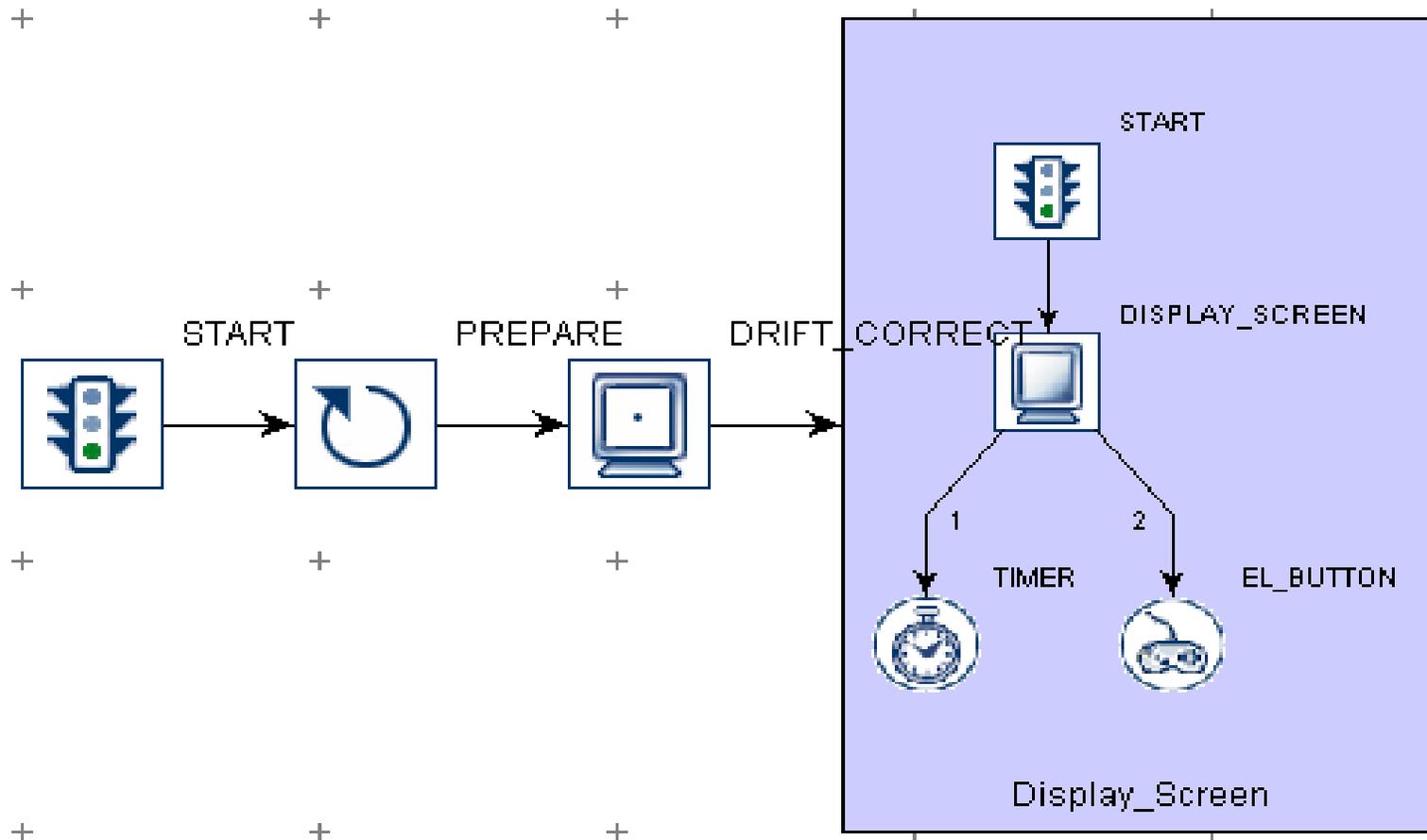
Adding to Experiment Log



允許輸入文字至log檔，
有助於實驗者除錯

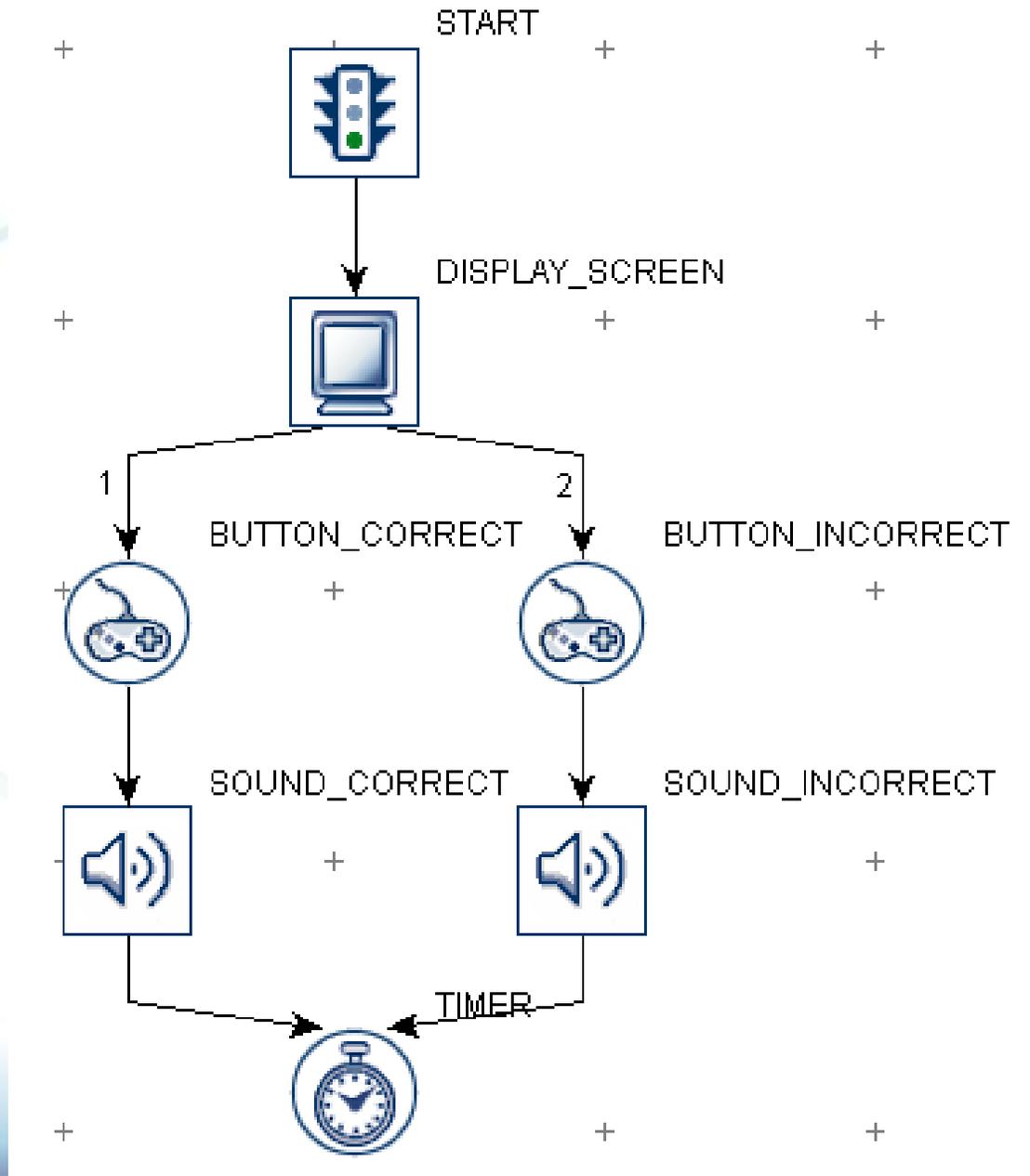
左例為眼球快速移動時會
送出訊息至log，以便確
認此事件是否被正確觸發

Preparing Sequence



為序列做準備工作，預先載入影像、聲音等訊息至host PC

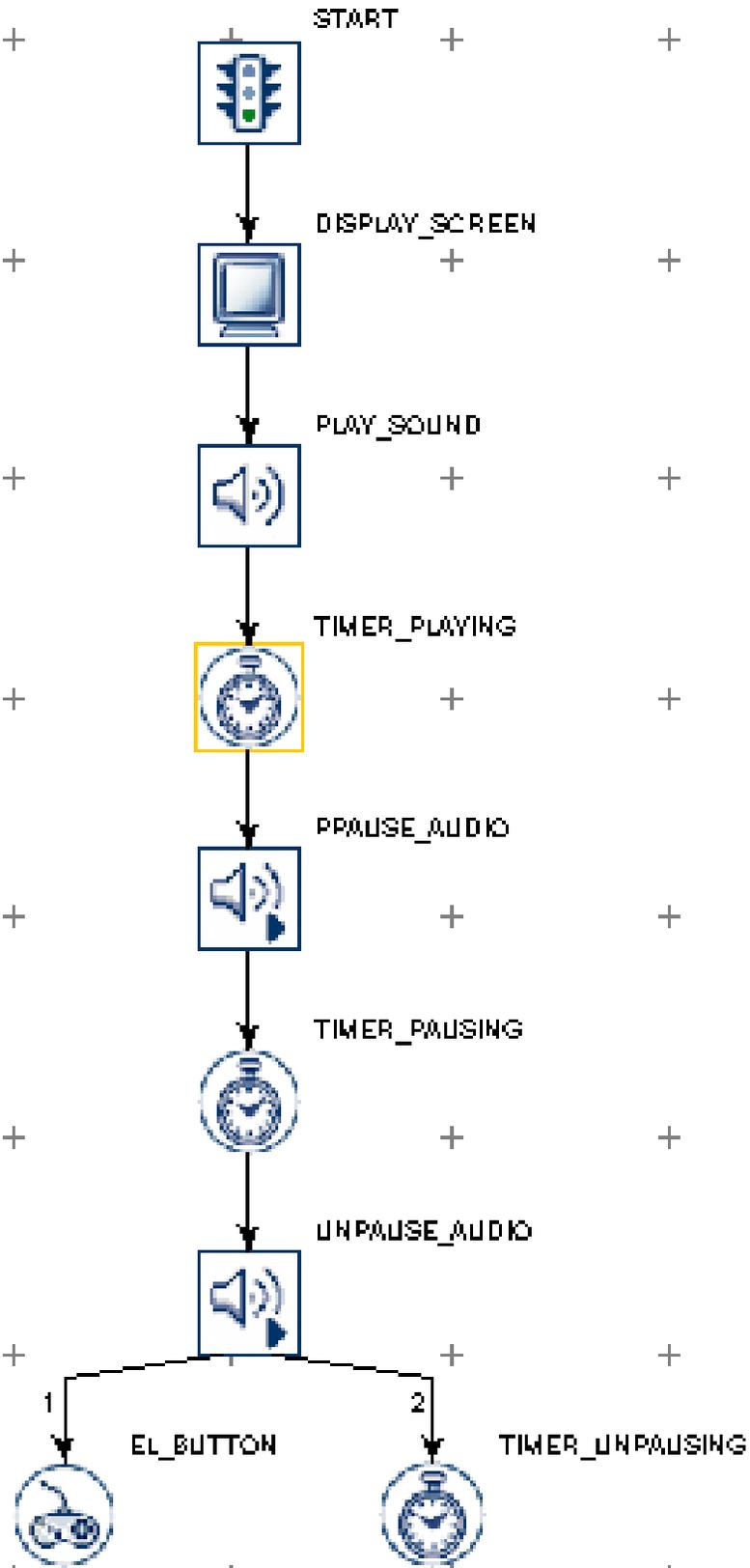
Playing Sound



Play Sound Control

音效撥放控制

左例為，撥放音樂一秒
停一秒 撥一秒
Subject做決定



Record Sound Record Sound Control

錄音 & 錄音控制

左例:

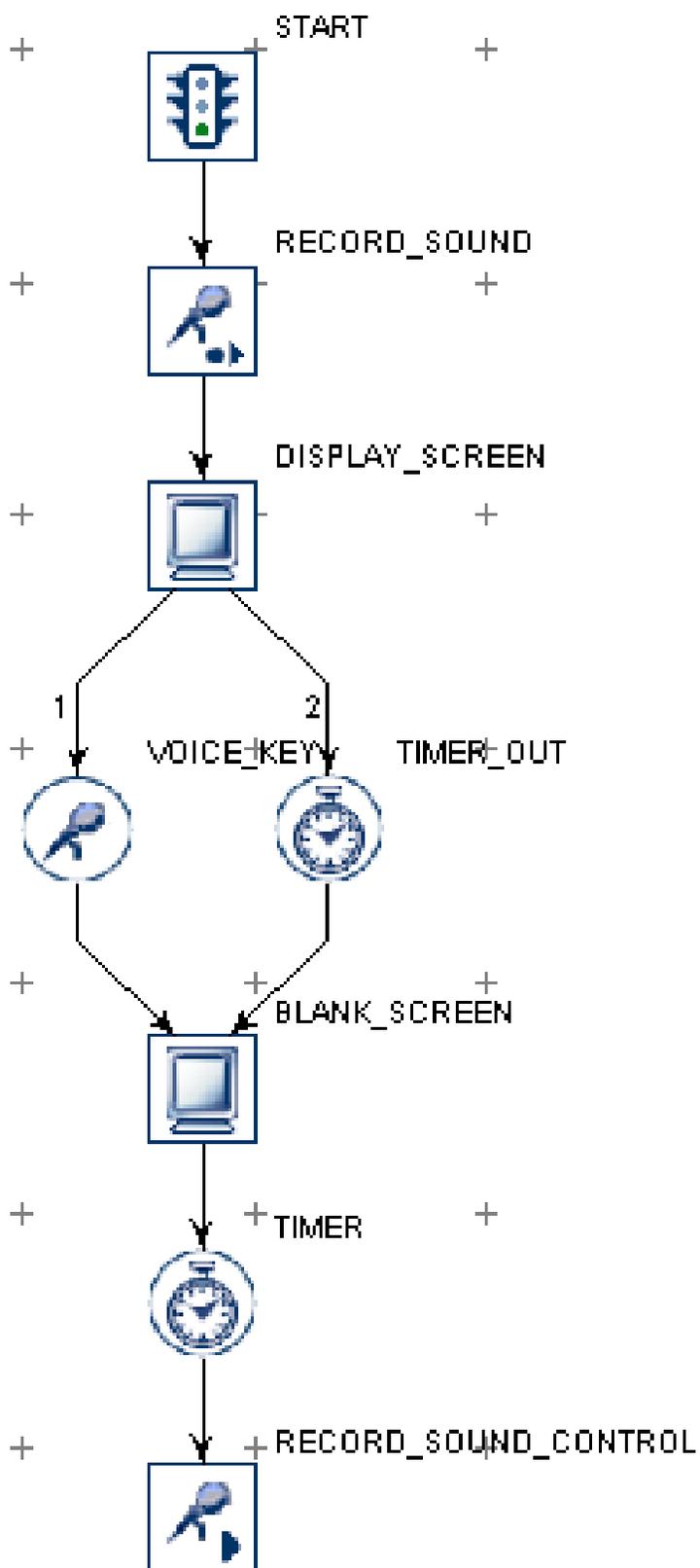
1. 開一個新的錄音檔

2. 呈現視覺刺激

3. 由聲音觸發事件或time out

4. 呈現blank screen

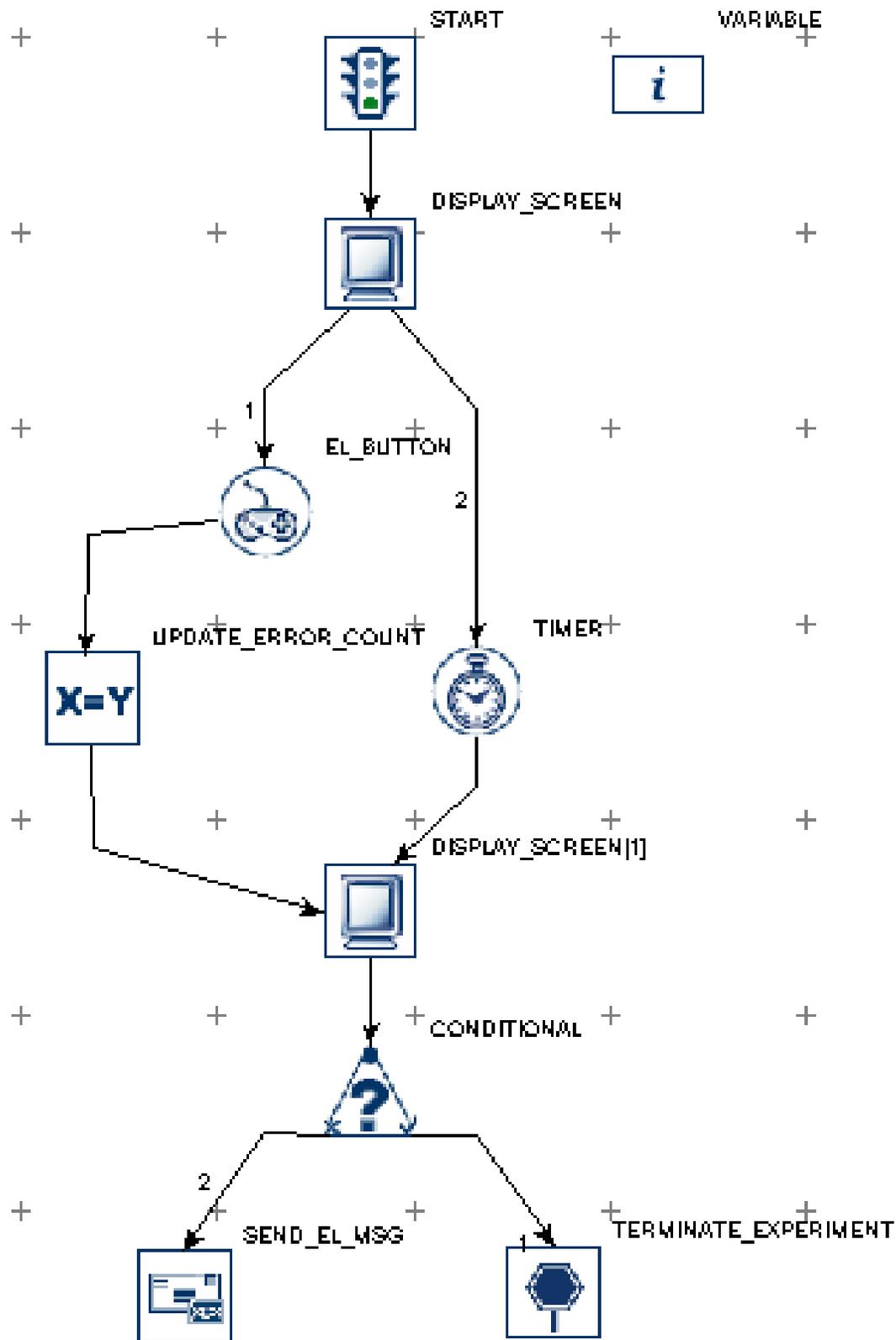
5. 終止錄音



Terminating an Experiment

強制停止實驗

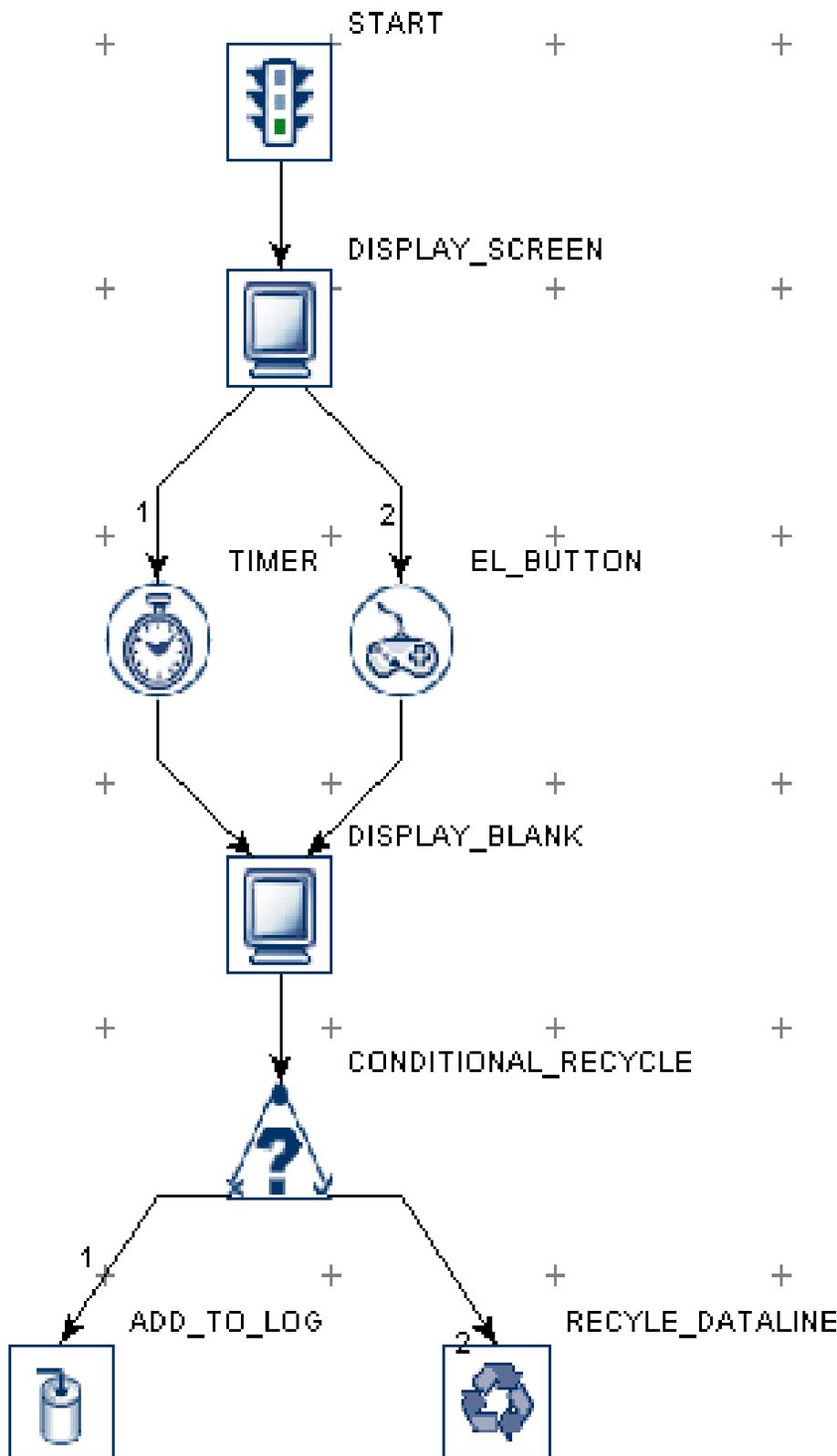
當按鍵符合某條件時，便強制停止實驗



Recycle Data Line

左例:

當subject按了5這個按鍵後，實驗便重複一次





Sequence : 實驗序列



Add to Accumulator : 加入一數字至累加器



Add to Result File : 輸出所選定數據至結果檔



Update Attribute : 更新實驗元件之設定值



Send TTL Signal : 送出電晶體邏輯訊號



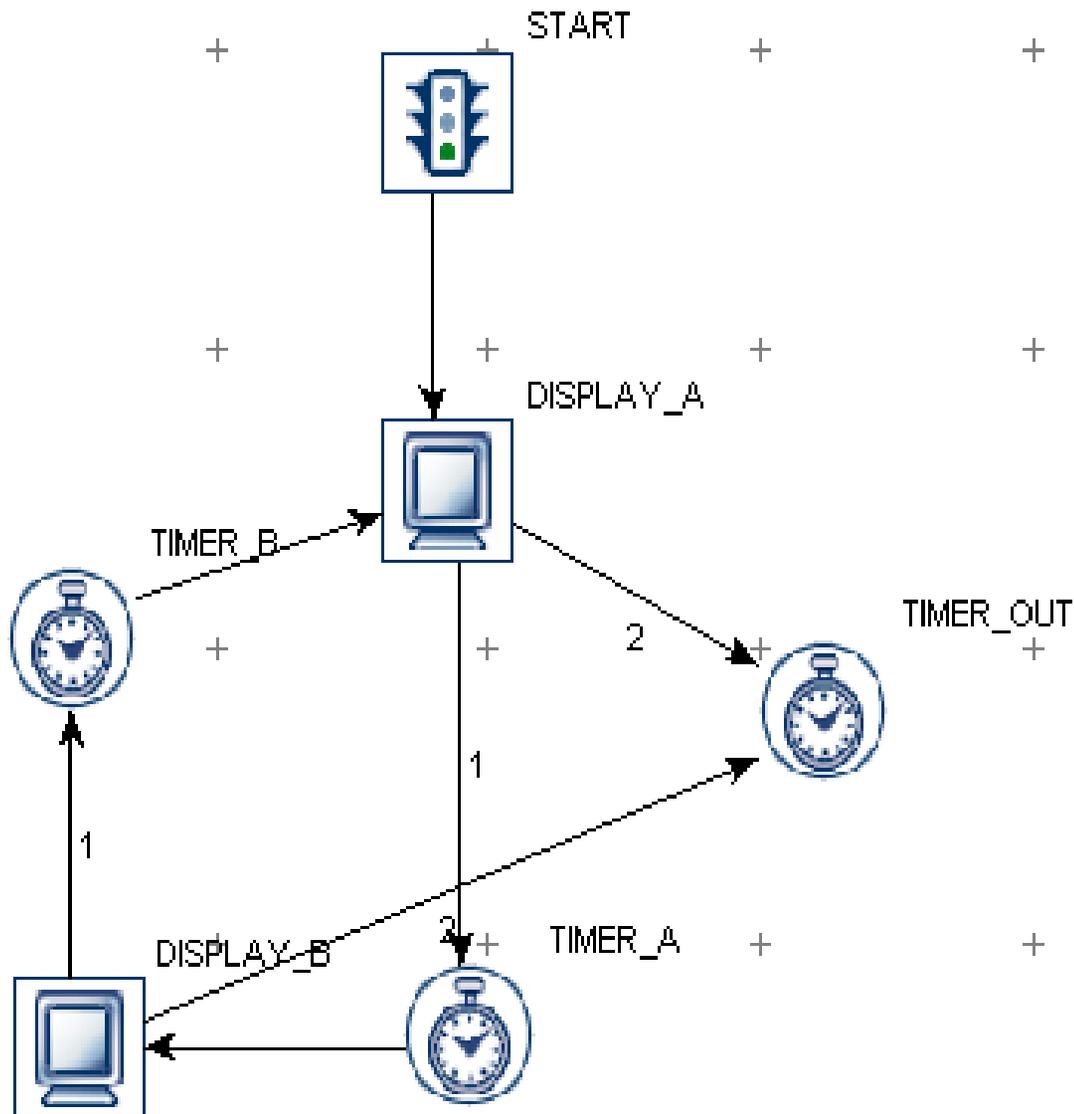
Reset Node : 重置節點的數據

Triggers

Timer Trigger

左例:

螢幕A撥五秒 螢幕
B撥五秒 螢幕A撥
五秒...不斷重複至總
時間40秒為止

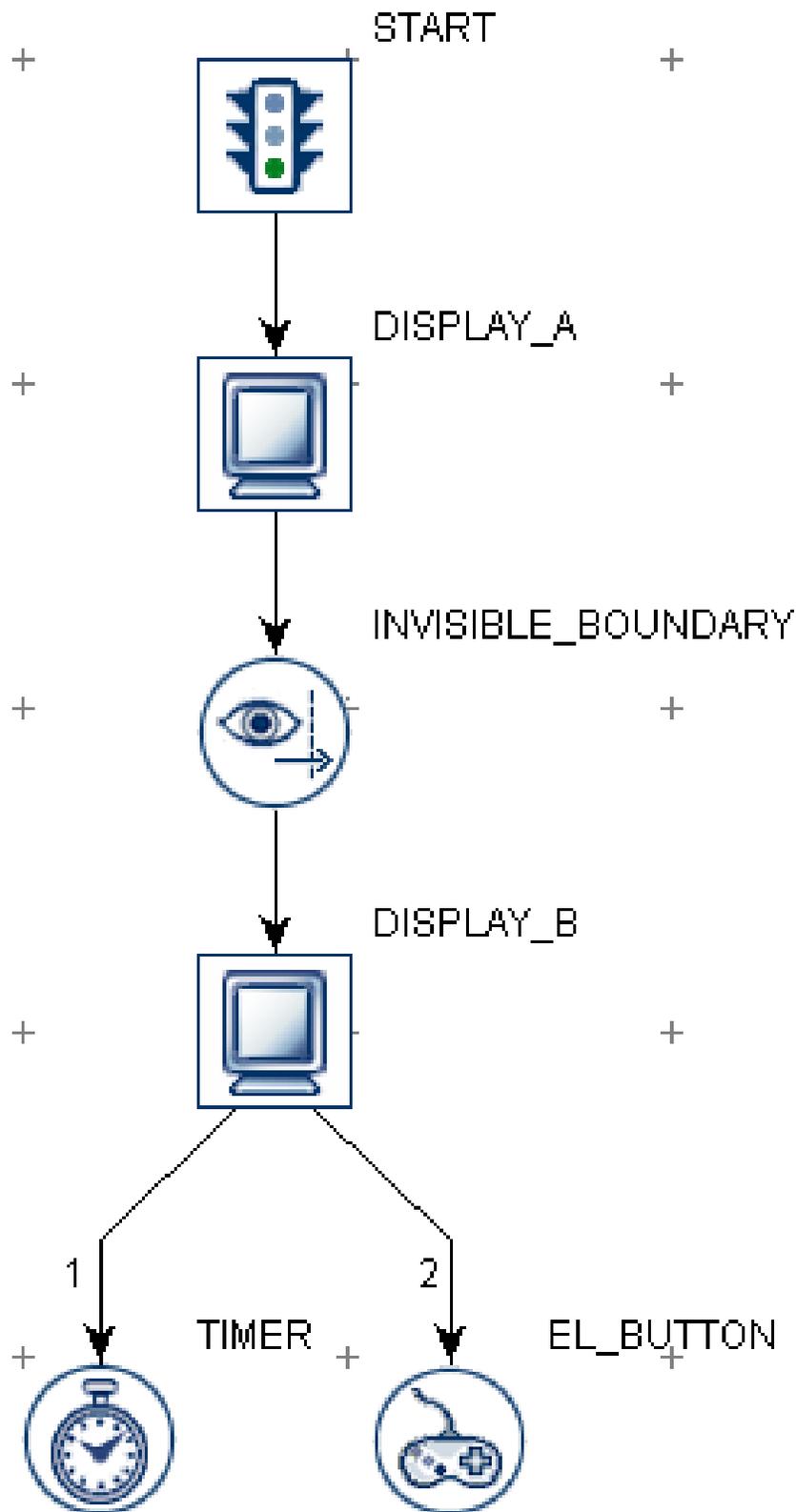


Visible Boundary Trigger

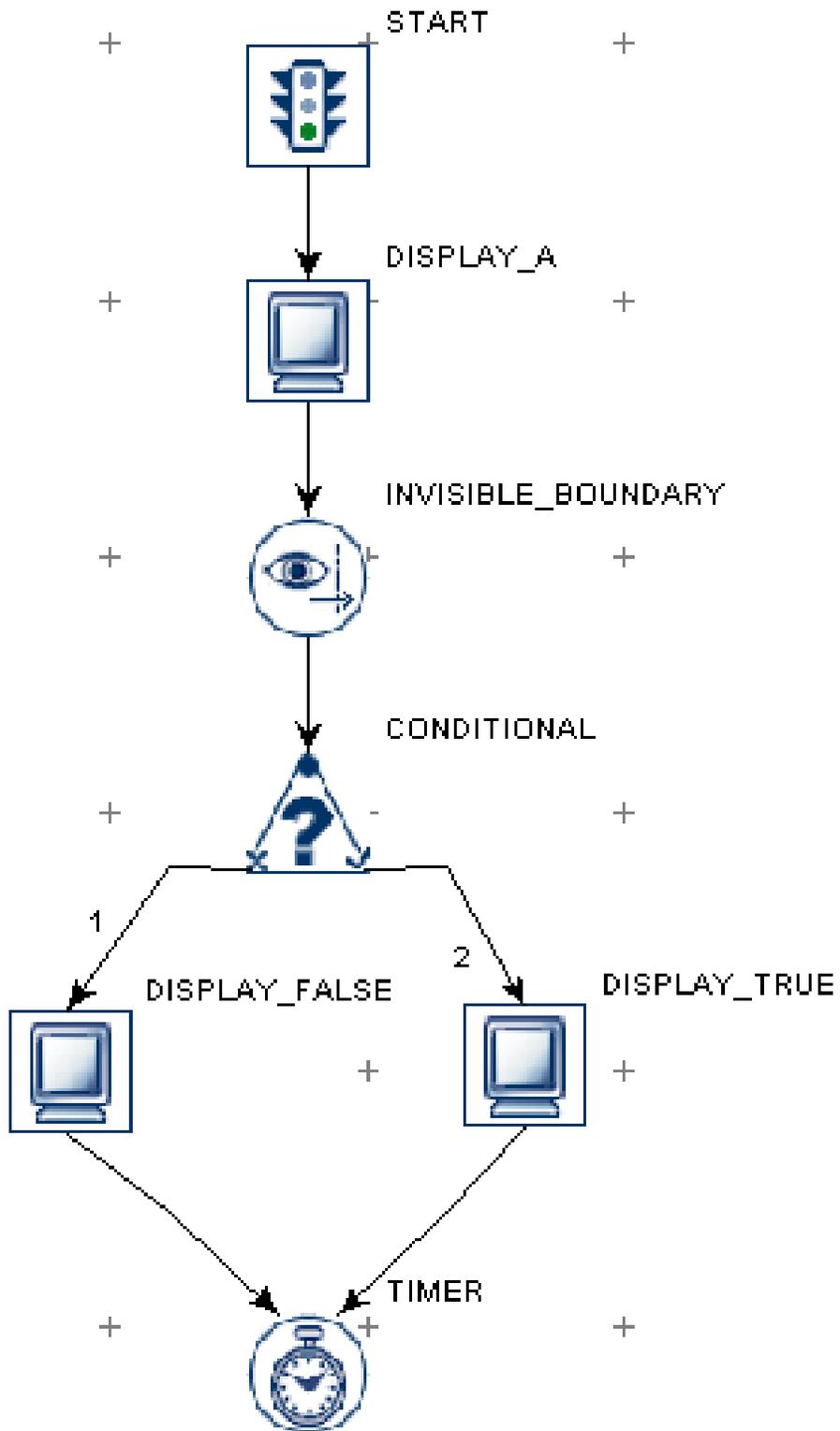
設定邊界元件

左例:

當subject的眼睛超過邊界時，便會撥放display B



al Trigger



條件元件



EyeLink button trigger：搖桿輸入訊號



Cedrus button trigger：由Cedrus裝置輸入訊號



Keyboard trigger：由鍵盤輸入訊號



Mouse trigger：由滑鼠輸入訊號



TTL trigger：由平行連接埠輸入TTL訊號



Fixation trigger : 眼球凝視特定區域或時間



Saccade trigger : 眼動



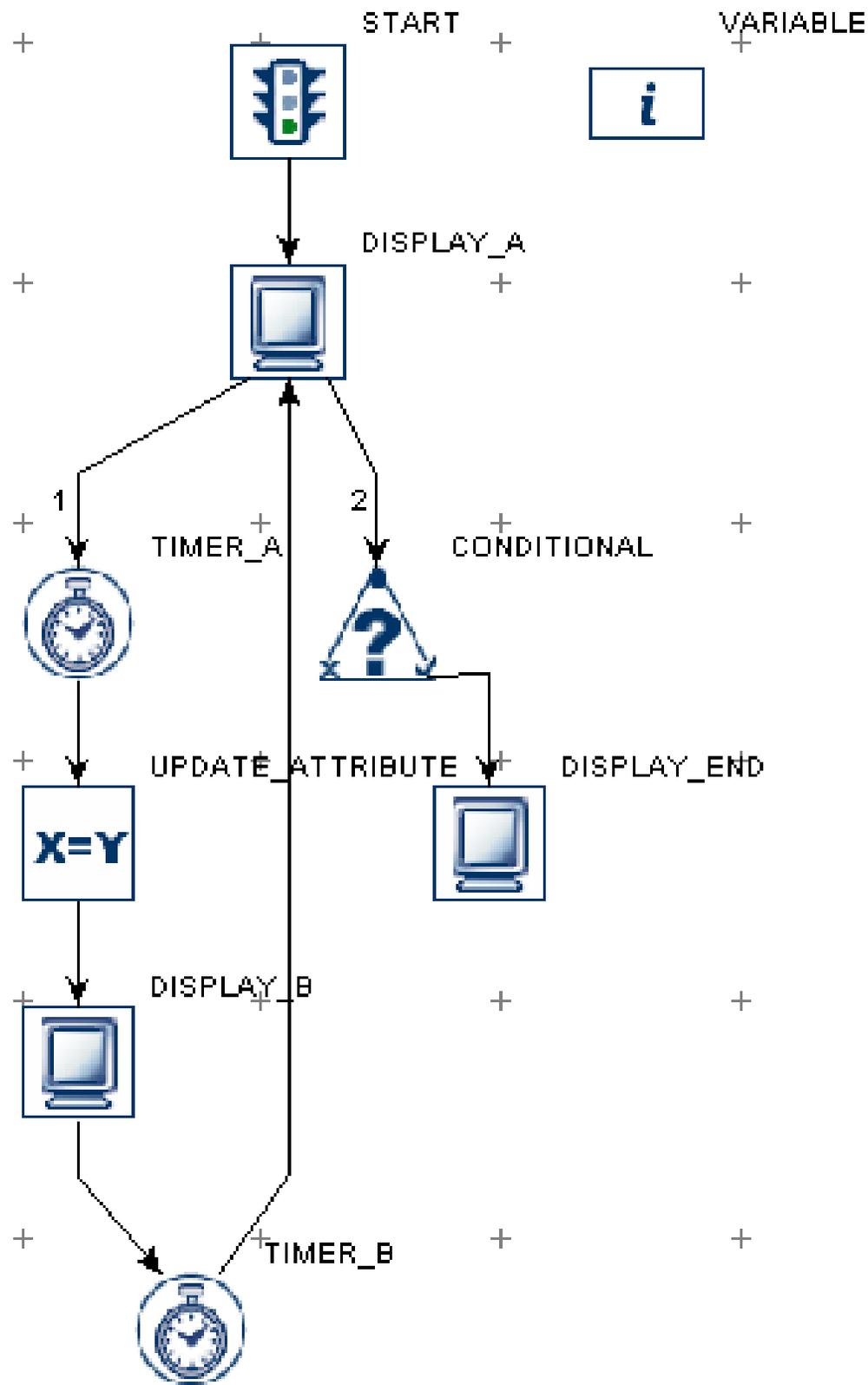
Sample velocity trigger : 眼球速動



ASIO Voicekey trigger : 聲音觸動元件，當受試
發出聲音時即觸發此條
件

A large, stylized graphic of an eye is centered on the page. The eye is composed of several overlapping, light blue curved lines that form the upper and lower eyelids and the iris. The word "Others" is written in a dark blue, serif font across the center of the eye's iris area.

Others



e

左例:

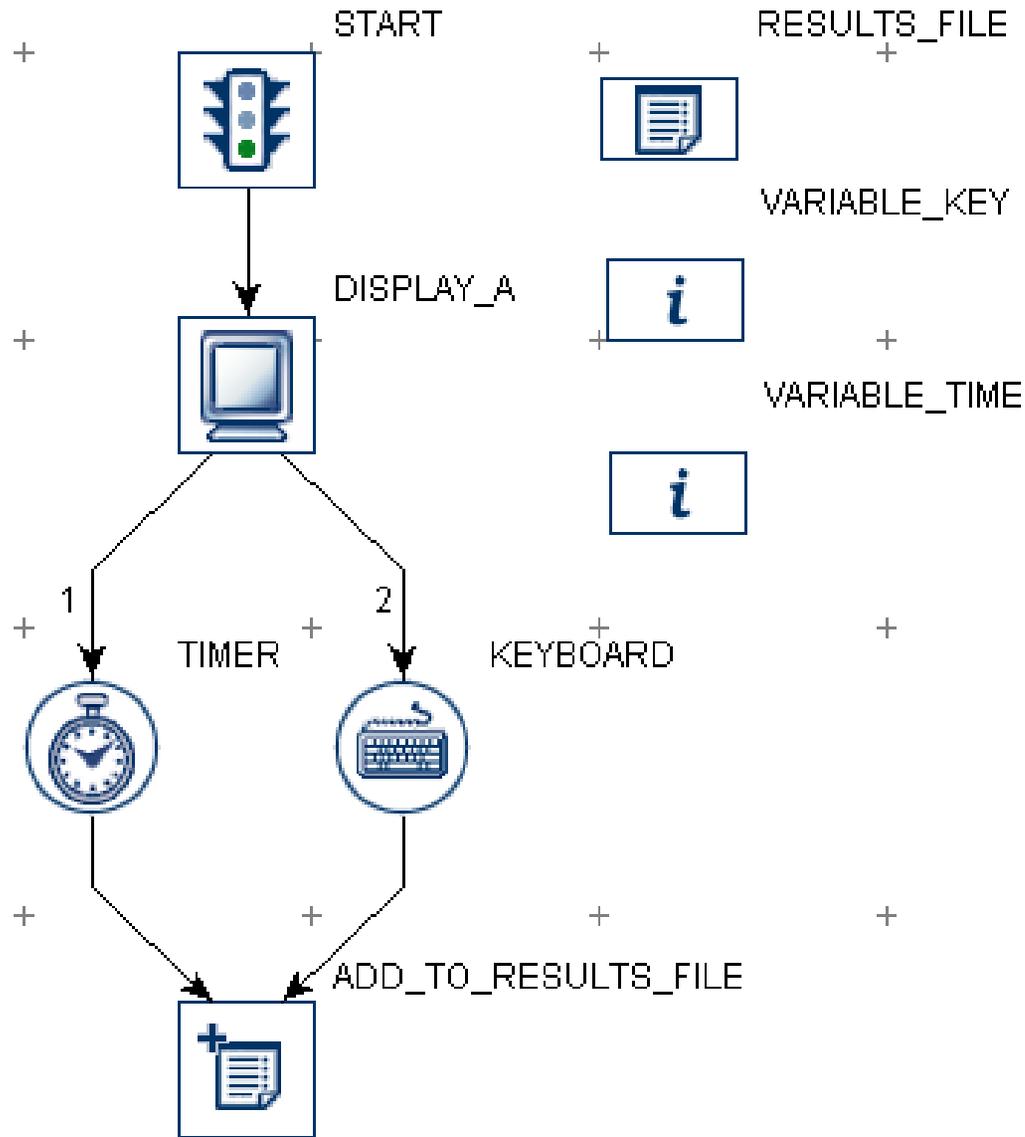
受試重複五次實驗後停止實驗。

Variable=0

X=Y @variable.value@+1

Conditional variable=5

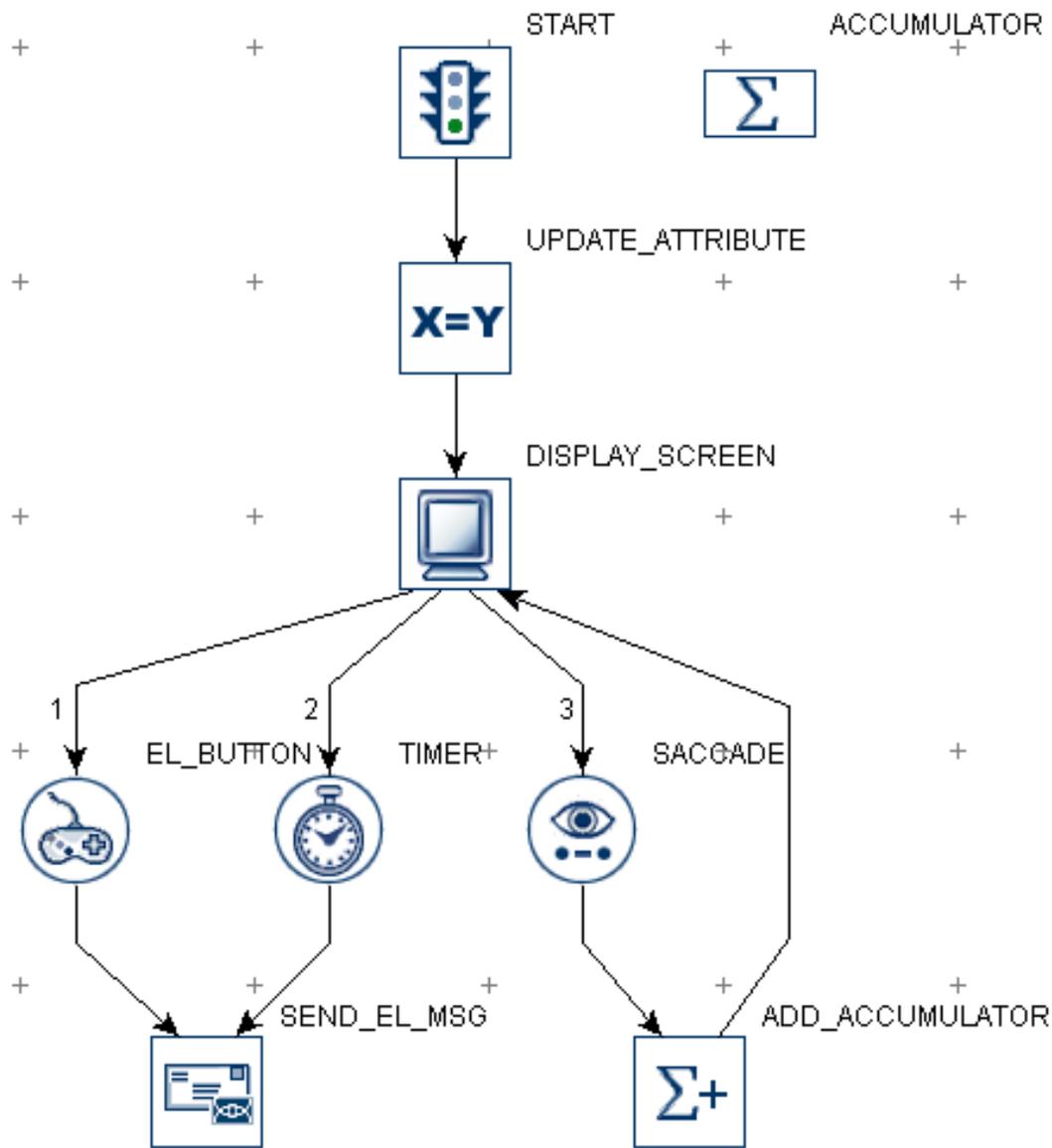
Result file



與  一起產生作用，
通常用於非eyelink的實
驗設計

左例:將鍵盤和計時器的
訊息記錄於結果檔

Accumulator



左例:每當受試saccade時便會將duration等訊息送至 $\Sigma+$ ，實驗結束後便可以分析max, min, mean等訊息

X=Y 清除記數器中的數據，也可用  重置data