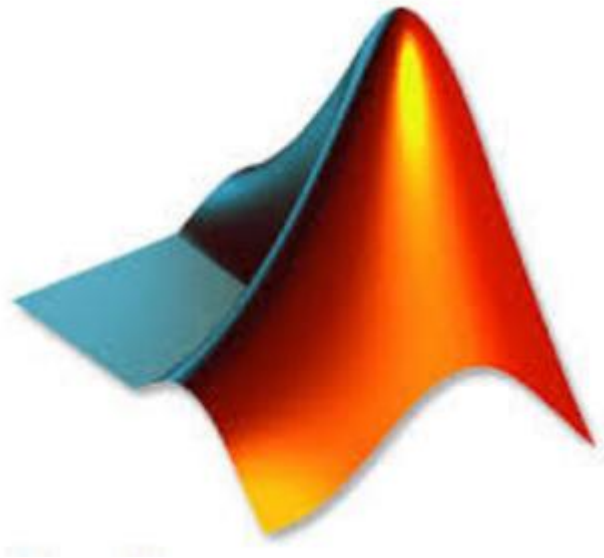
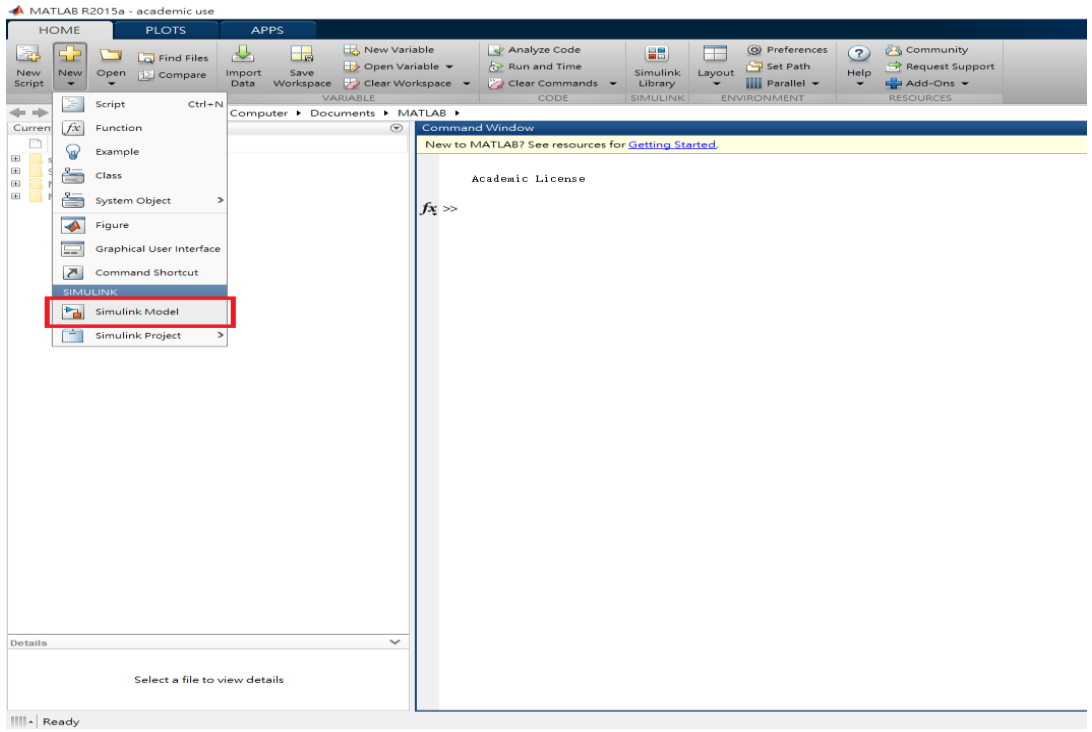
SIMULINK教學

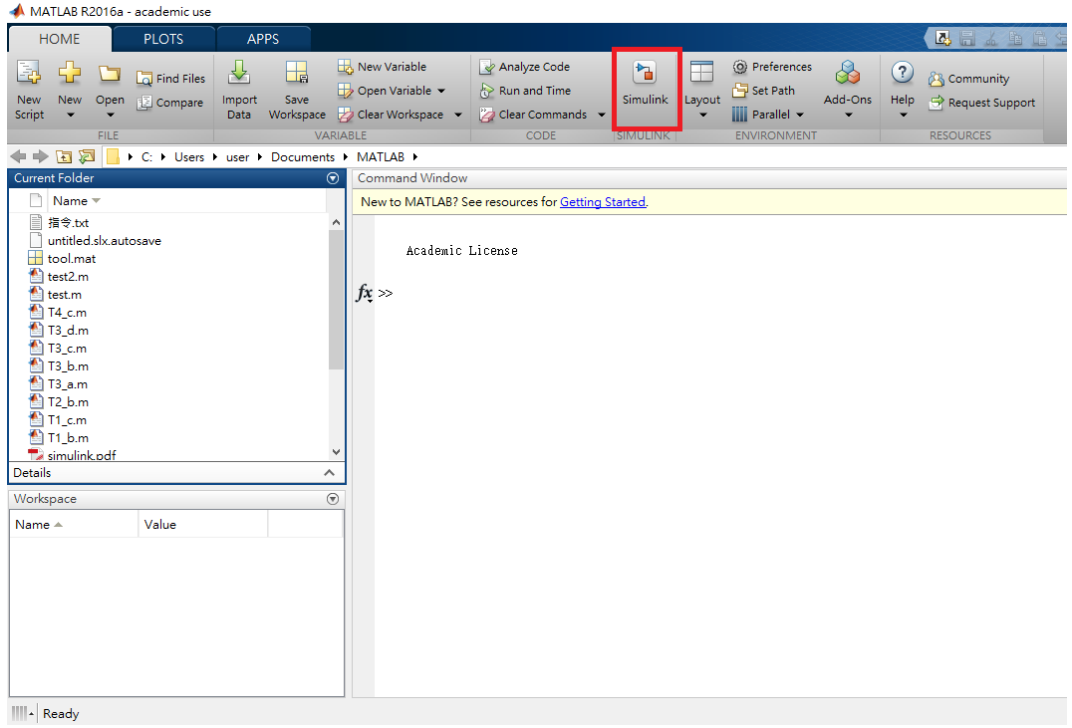
打開MATLAB

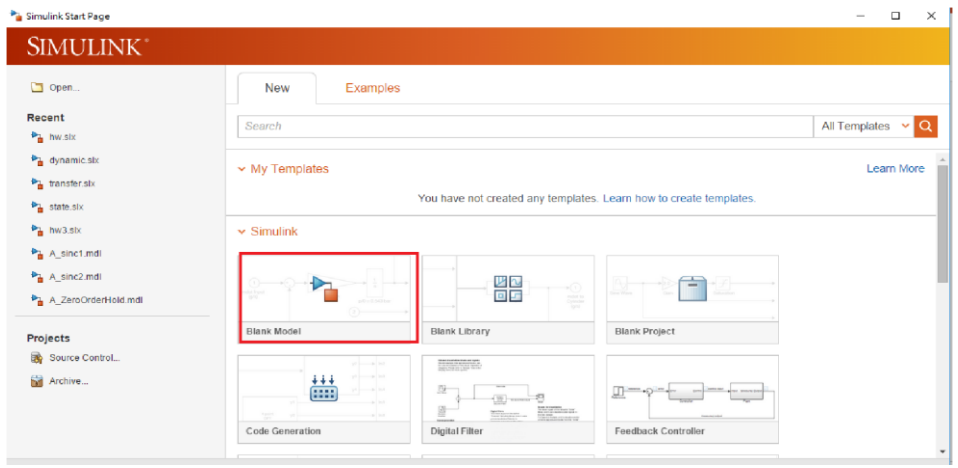


按下New後，選取Simulink Model



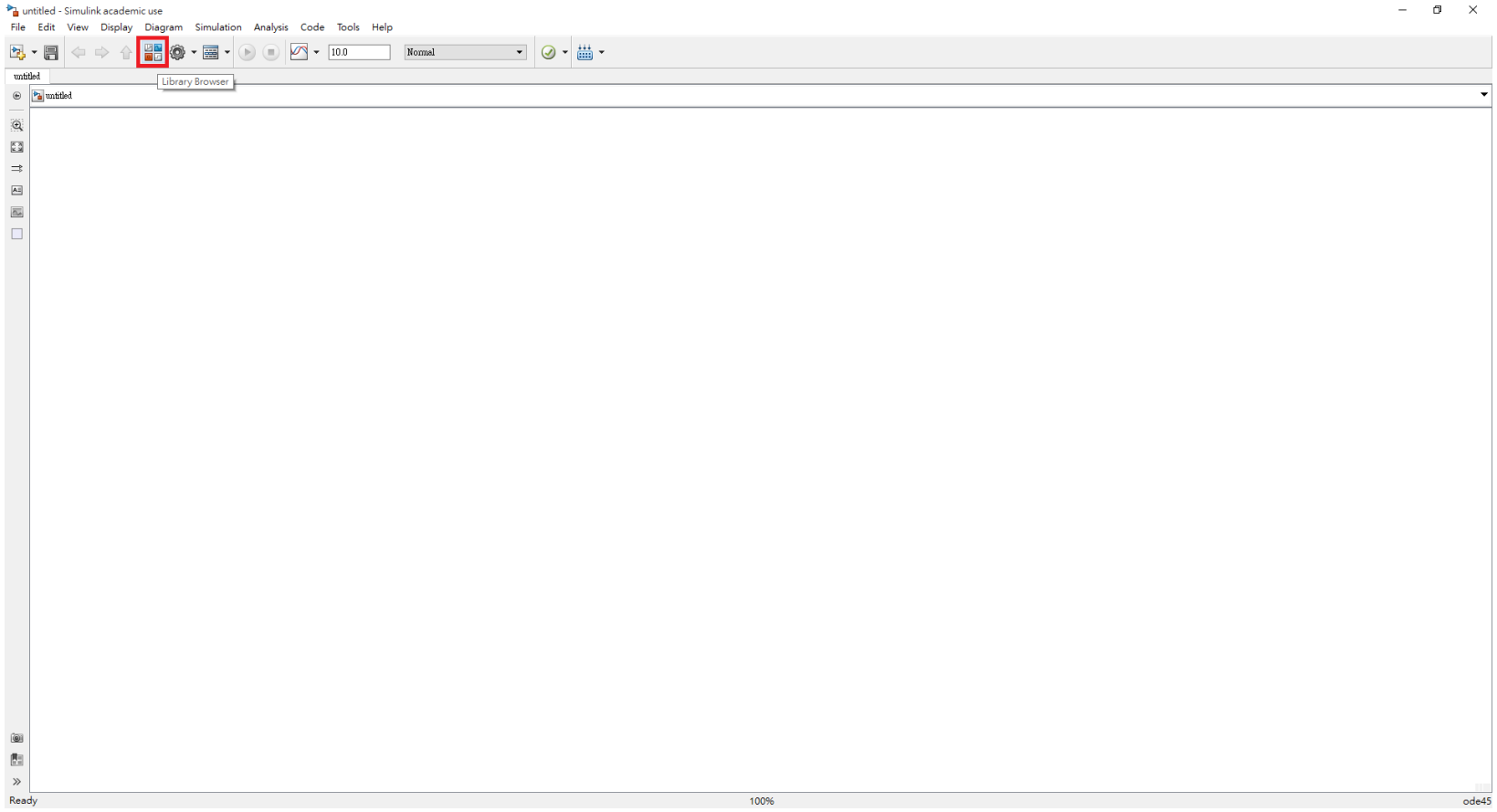
或



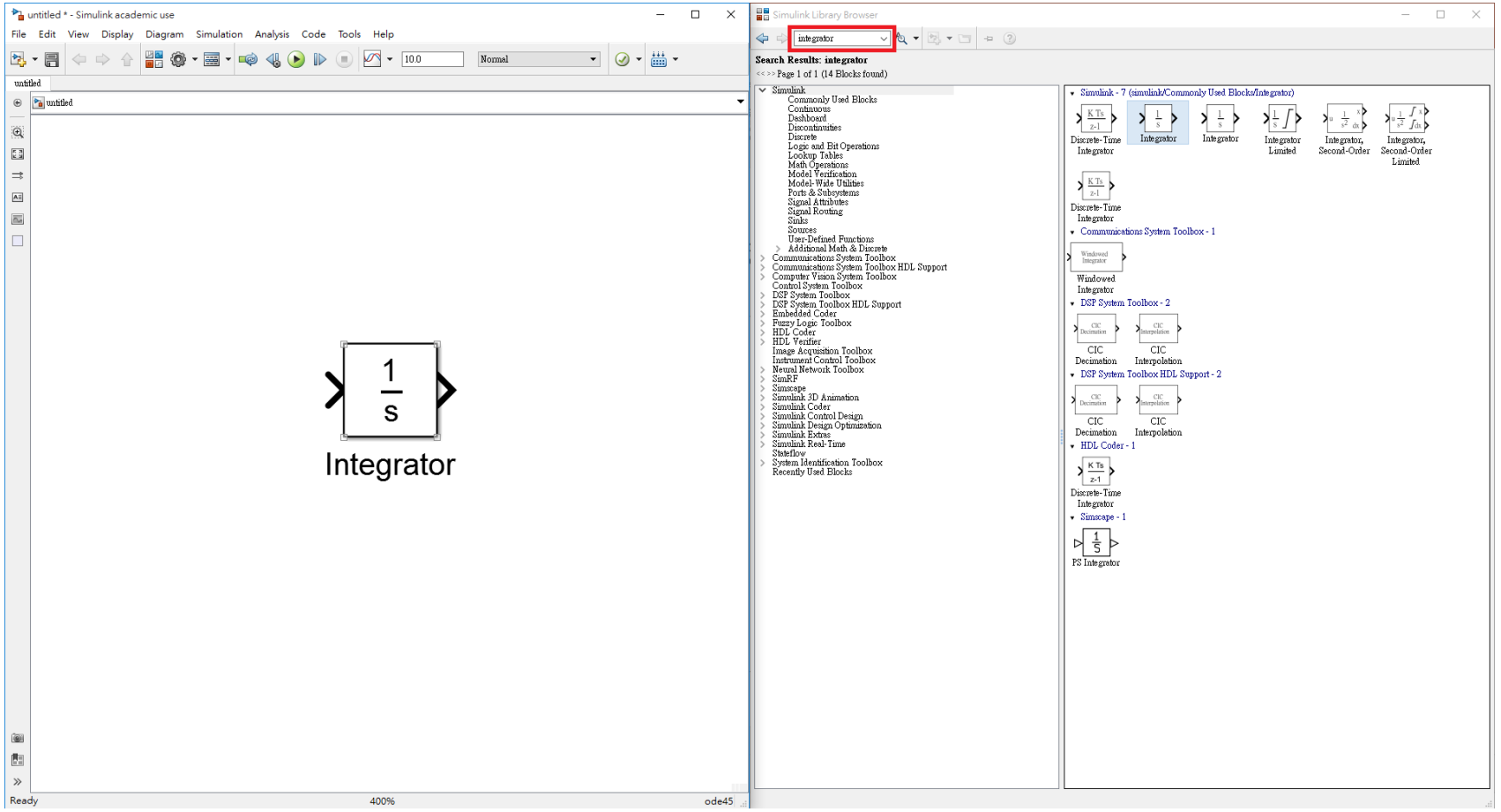


若MATLAB為新版，接著按Blank Model

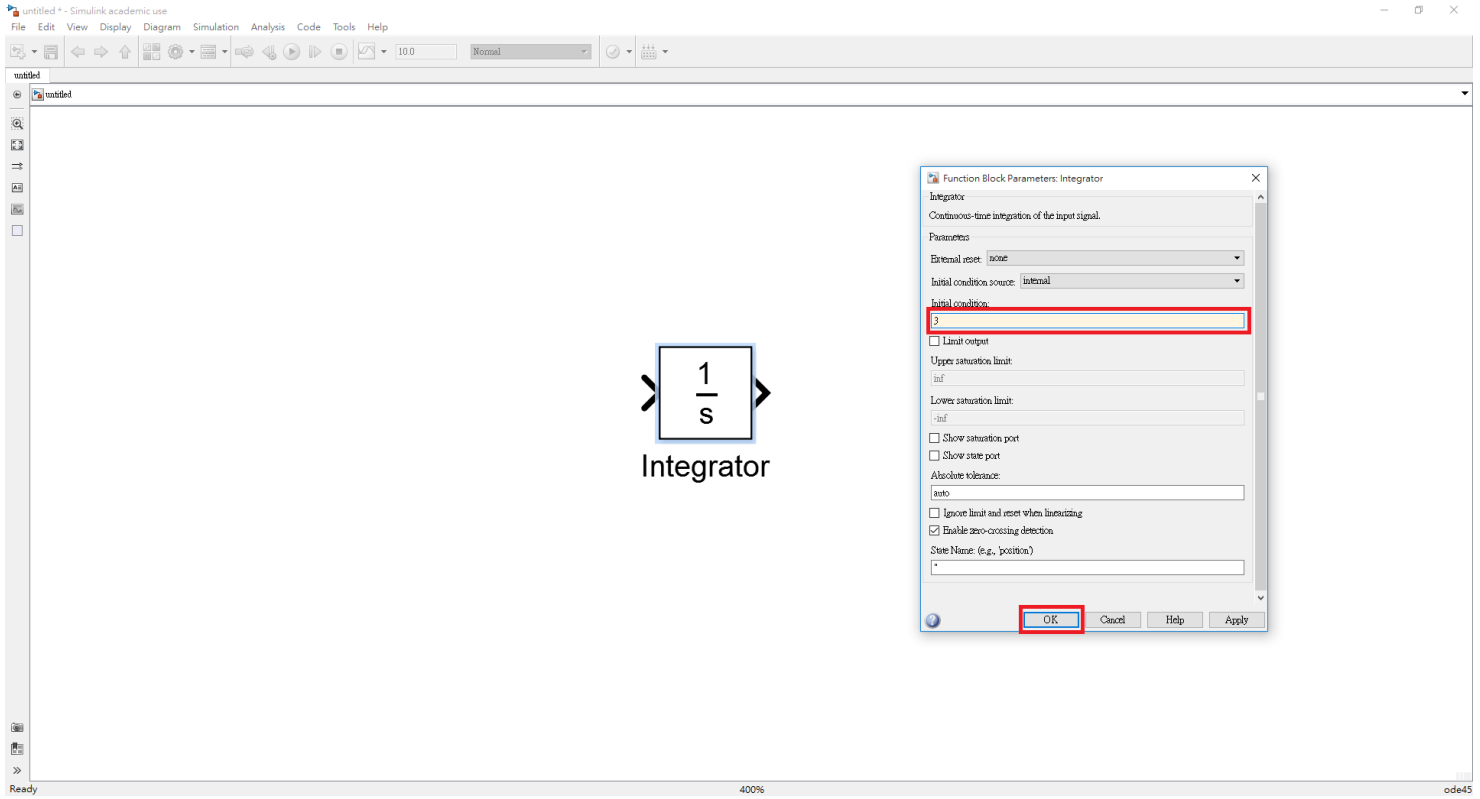
按下Library Browser



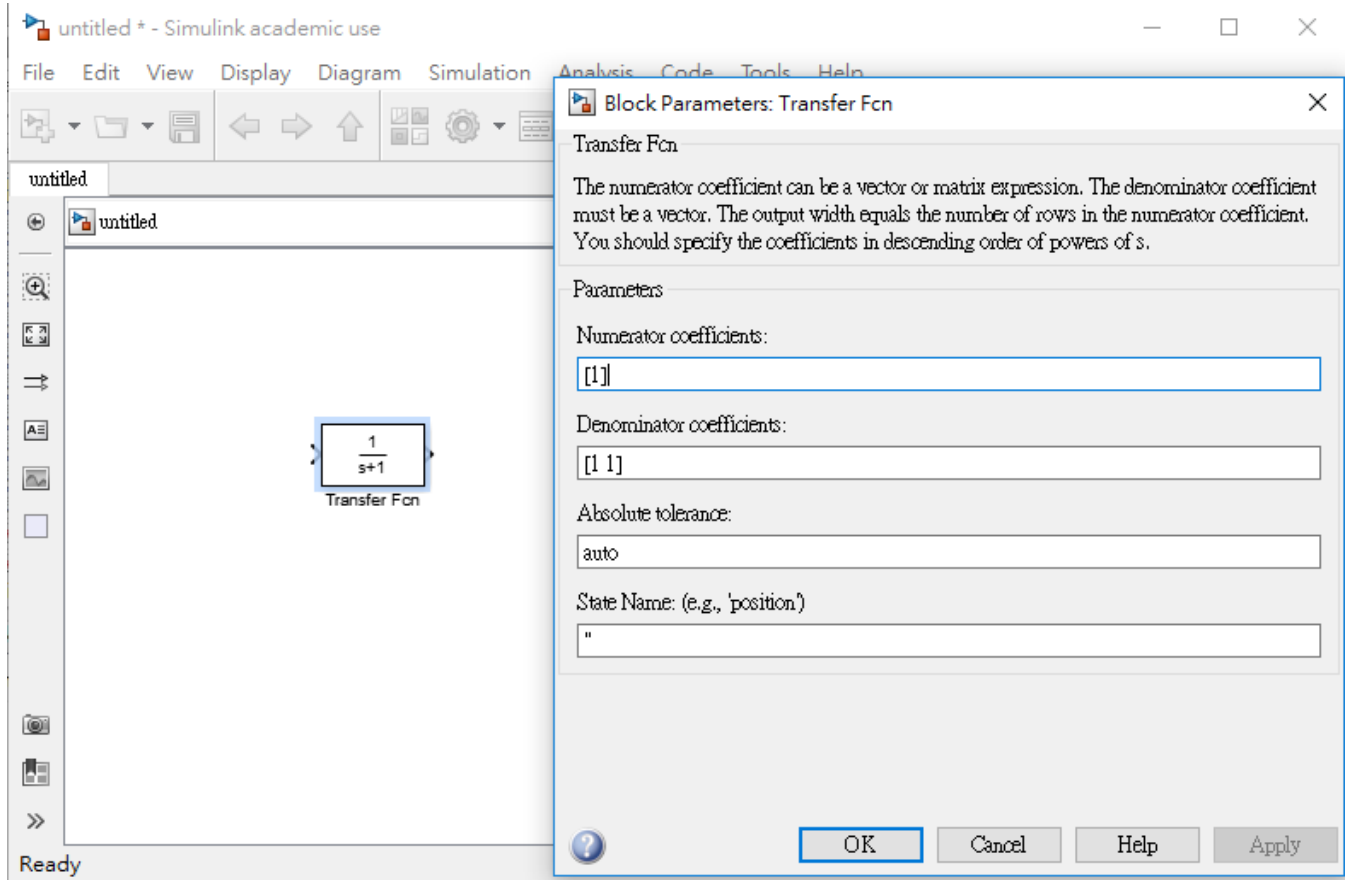
搜尋Integrator拉進Simulink Model



點擊兩下integrator會出現設定視窗，可設定Initial condition的值，按下OK



轉移函數(Transfer Fcn)



Numerator為分子係數

Denominator為分母係數

階數由高到低

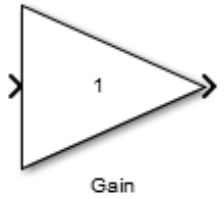
Ex: s/s+2

Num = [1 0]

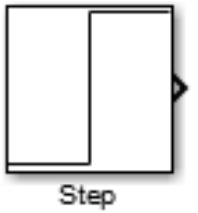
Den = [1 2]

常用功能

- 倍率是使用Gain元件

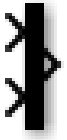


- 步階輸入為Step元件(預設是從1s後才有值，可以改成從0s開始)
  其他還有Sine Wave Function、Ramp

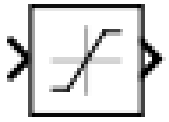


- 加減法是使用Sum/Add元件(點兩下後List of signs
  內的|++，可自行改成|+++擴充成三個相加)
  (改變|和+－順序可改變輸入角度)

- Mux元件可以重疊顯示輸出圖形

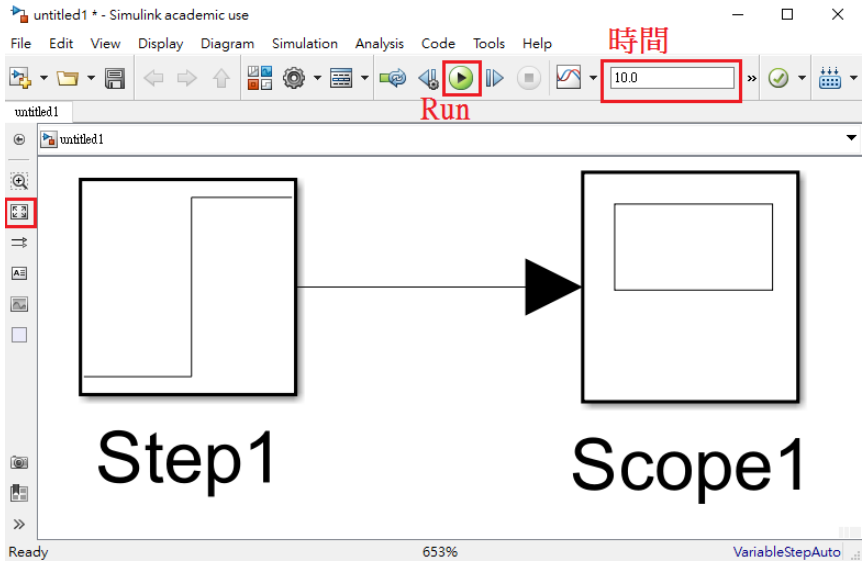


- Saturation

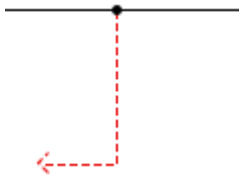


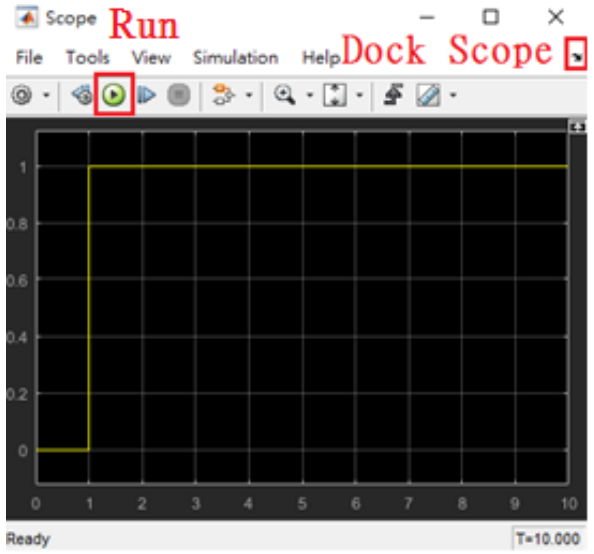
常用功能

- 輸出接到Scope，
  Run完後點兩下觀看輸出波形
  (右鍵Signal&Port可設定輸出數量)



- 按右鍵或Ctrl+左鍵拉分支線





- 欲旋轉元件方向，元件上按右鍵，Rotate&Flip

- 線點兩下可增加文字註解
  欲在輸出視窗顯示註解，在輸出視窗左上角
  View→Configuration Property→Display→Show Legend

更多資料可參考

- MATLAB官網
  https://www.mathworks.com/help/simulink/index.html

- 台大資工張智星教授
  http://mirlab.org/jang/