



# MATLAB & SIMULINK

Instructions

Version 1.5

# MATLAB & SIMULINK

## Using EIT's Remote Lab Instructions (the full software version)

MATLAB/Simulink is installed on EIT's **Remote Lab 8, 9, and 13**.  
(See: How to Connect to Remote Labs\_Electromet)

**Note: On the remote labs – you do not need to buy any add-ons.**

## Downloading Instructions –Student version

Students can download a trial version for 30 days or the full version for roughly \$55.00.

**\*If your practical states this**, you will however need to buy the add on “Physical Modelling and Simulation ->SimPowerSystems”.

**MATLAB/Simulink Free Trial:**

[http://mathworks.com/programs/trials/trial\\_request.html](http://mathworks.com/programs/trials/trial_request.html)

**Buying MATLAB/Simulink (Special Student offer):**

[http://mathworks.com/academia/student\\_version/](http://mathworks.com/academia/student_version/)

**Buying Add-on (if required)** (Simulink – Physical Modelling & Simulation -> SimPowerSystems)

<https://au.mathworks.com/store/link/products/student/ML,SL,SS,PS>

**MATLAB/Simulink HELP:**

YOUTUBE help videos for MATLAB

<https://www.youtube.com/user/MATLAB/videos>

<https://www.youtube.com/watch?v=jTS5ZmrrzMs>

<https://www.youtube.com/watch?v=7bnVx34yQf4>

The Matlab help file that has an example:

<http://au.mathworks.com/help/physmod/sps/powersys/ref/synchronized6pulsegenerator.html>.

Things to remember:

- Double clicking a block gives you a list of options relevant to that block.
- You can see the what's under the “mask” of a block, to help you understand how it works
- Always see if there is some info on your block / topic in the MATLAB help files – **they are spectacularly detailed.**

For more help go to:

<http://au.mathworks.com/help/matlab/getting-started-with-matlab.html>

OR <http://au.mathworks.com/help/index.html>

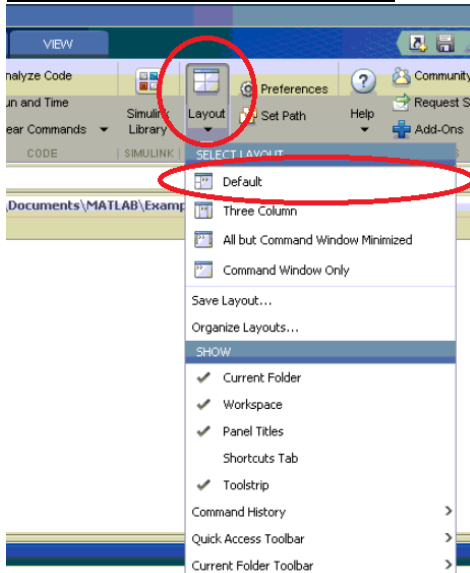
See a few screenshots below for clarification purposes:

# MATLAB:

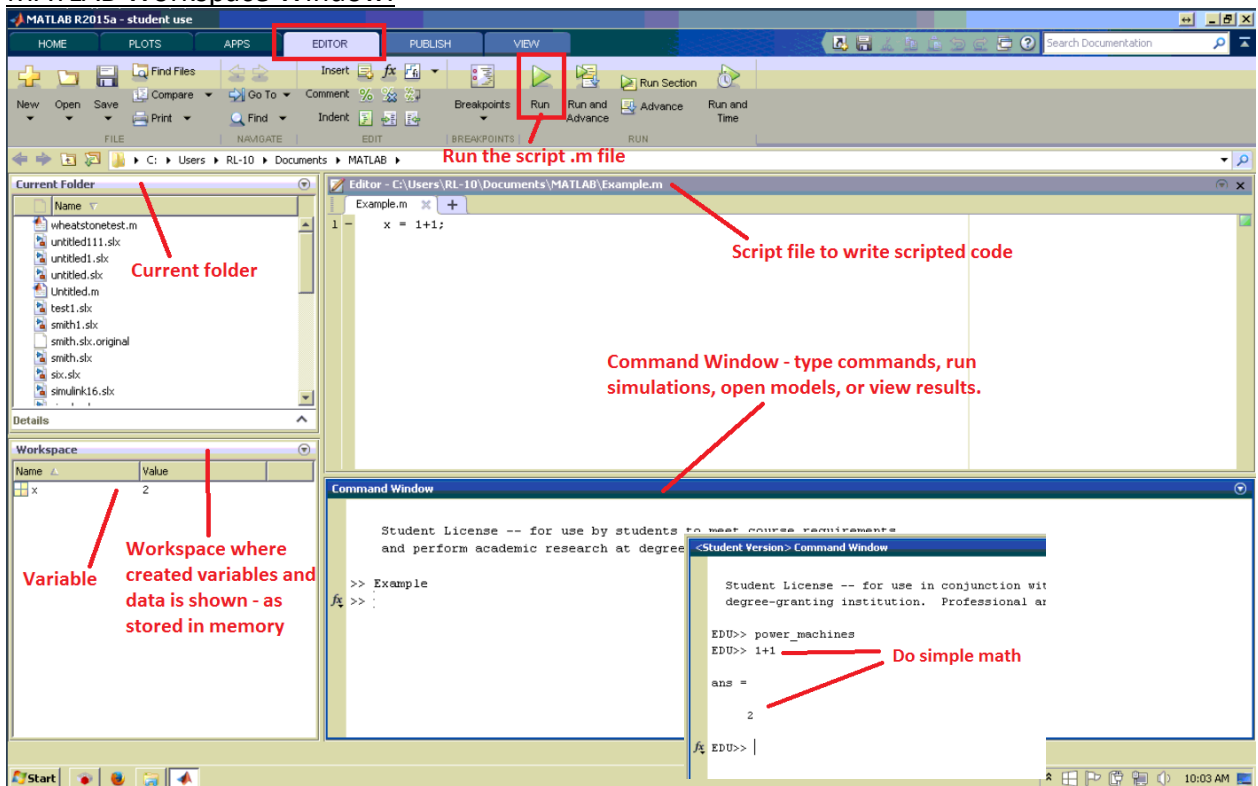
Open MATLAB:



Resetting to the Default view:

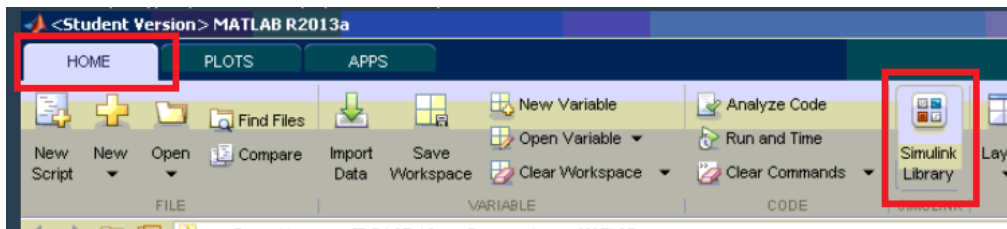


MATLAB Workspace Window:

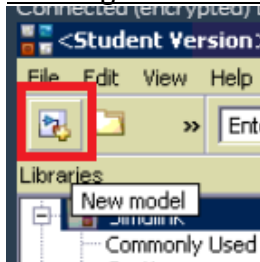


# SIMULINK:

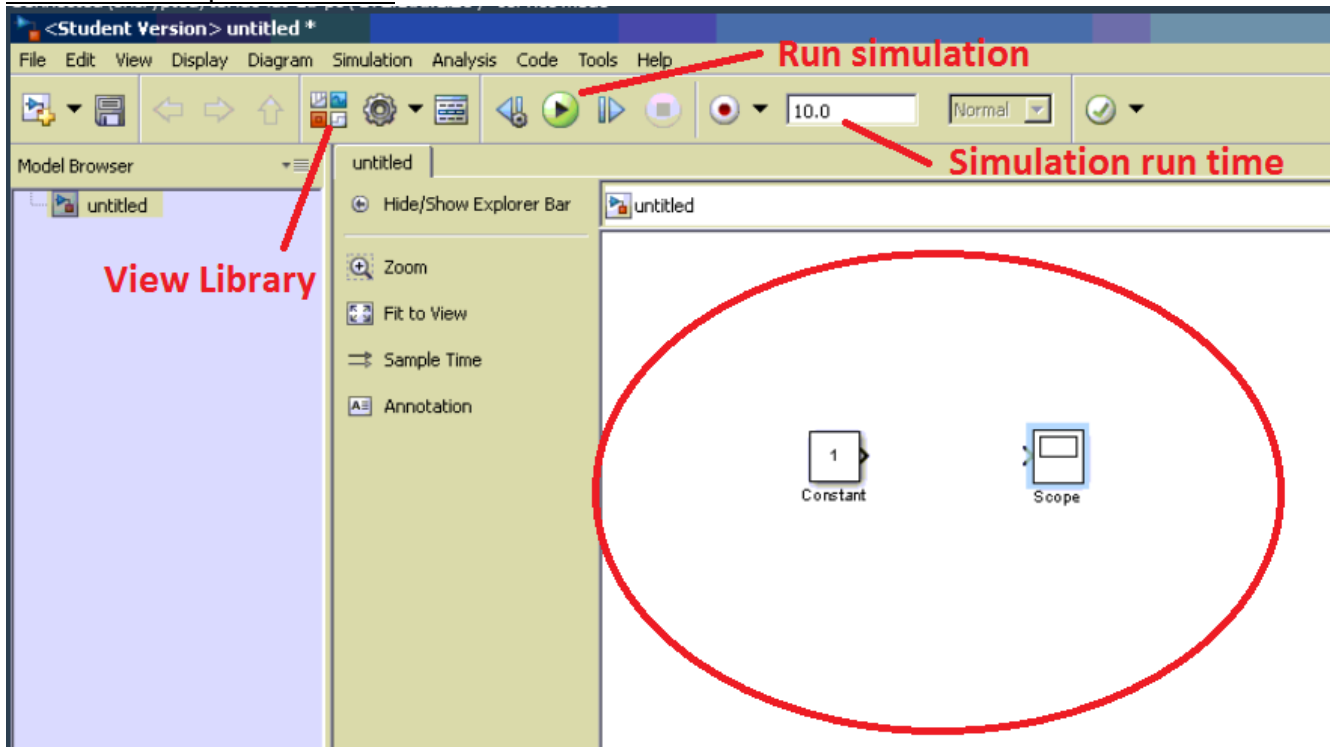
Opening Simulink Library:



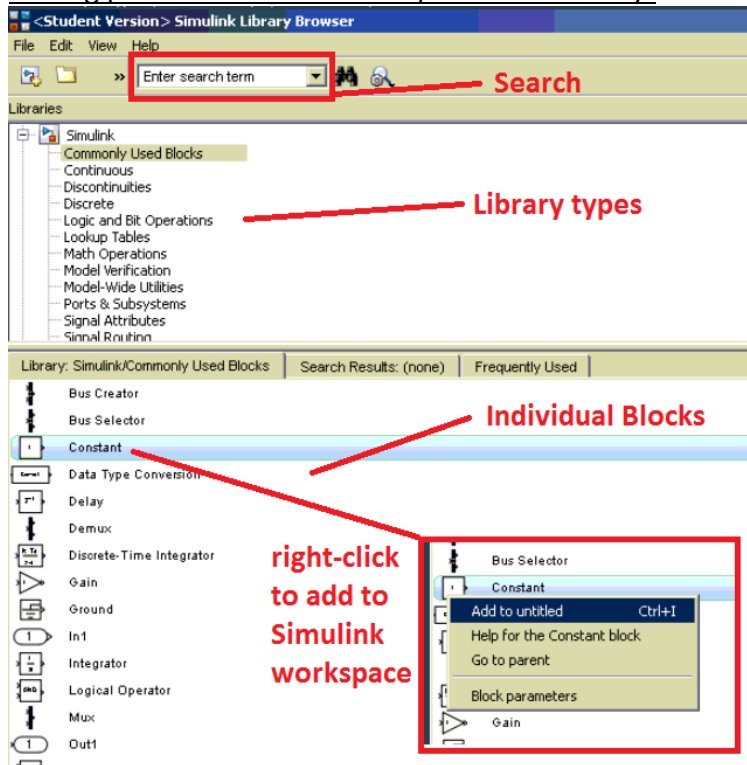
Creating Simulink Workspace Window:



Simulink Workspace Window:

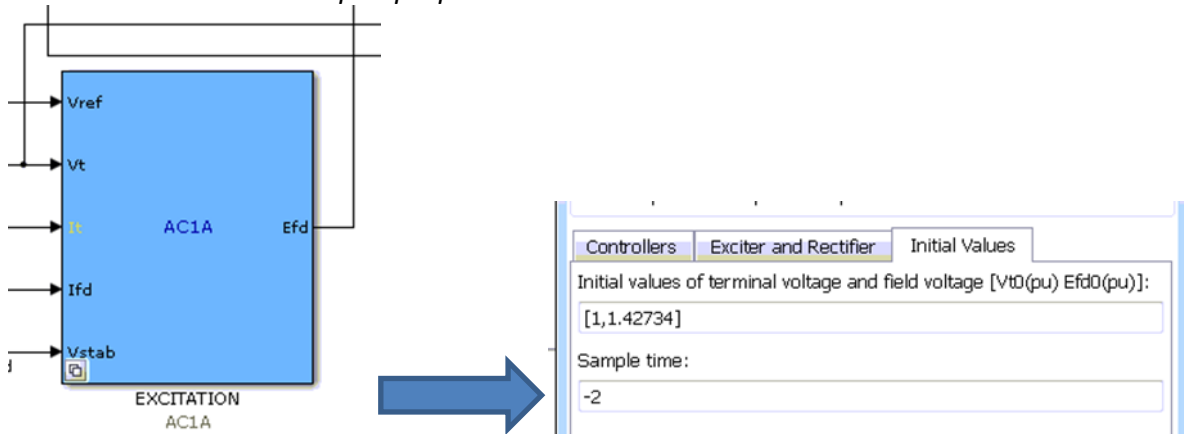


## Adding parts to Simulink Workspace from Library:



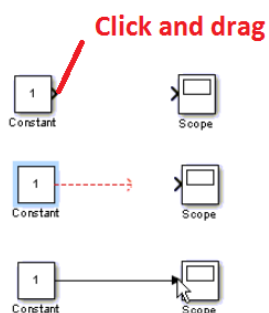
## Editing parts in Simulink:

Double-click on block to open properties.



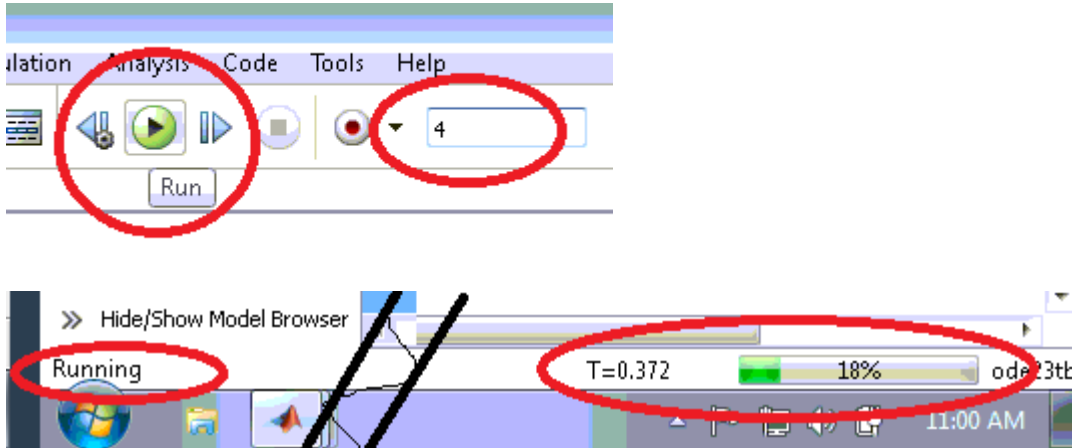
Some model blocks will open a sub-model when double-clicked – to expose the inner workings of the block.

## Connecting parts:



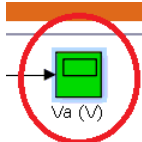
Running a Simulation:

Set the time for the simulation to run (in seconds). Click the "Play" button to run the simulation.



View results in a scope:

General: to open a scope, simply double click the required scope block



You can resize the scope, or "autoscale". You can zoom into a specific part of the scope by clicking the magnifying glass and click+drag a box around the area you wish to zoom into.

