How to build a model

**Dependencies:**

* MATLAB R2013a
* Supported compiler (For windows VS 2010, VS 2012, Win SDK 7)
* ACADO (<http://acado.github.io/matlab_overview.html)>
* MSS toolbox (http://marinecontrol.org/download.html)

**Steps:**

* Make the simulink diagram
* Make a initialization file (example init.m)
* Run updateDiagram(‘newModel’,thursters, generators); where newModel.slx is the filename of the Simulink model.
* Open folder “Model/Files/ThrusterAllocation/src”
* Edit the file “make.m” to point to the acado library (lines lines 31, 37 or 41)
* Run make('path to init file','file name', 'path to save the compiled files'), where 'path to init file' is where your initialization files are, 'file name' is the initialization file name and 'path to save the compiled files' is where the output files should be saved
* Go and grab a coffee while waiting!
* Open folder “../../PowerManagementSystem”
* Run “make”
* Go back to root folder
* Open Simulink diagram
* Set solver to variable-step ode15s, set “Sover Jacobian method” to “Full perturbation”.
* Turn three times around yourself, through some salt over your shoulder and press play!