

Installation I

Install Octave or Matlab.

- ▶ Octave must be version 4.0 or later
 - ▶ Older versions will not work
 - ▶ See <https://www.gnu.org/software/octave/#install>
- ▶ Matlab should be R2015b or later
 - ▶ Other versions may work but have not been tested
 - ▶ See <https://www.mathworks.com/help/install/index.html>

Optional: install Octave packages/Matlab toolboxes

- ▶ Although MPCTools itself does not require them, example scripts will use functions from the Control and Optimization packages/toolboxes
- ▶ On Octave, run `pkg install -forge struct control optim` and follow instructions
- ▶ On Matlab, use the add-on explorer (you will need a license for each toolbox)

Installation II

Download CasADi (Version ≥ 3.0)

- ▶ Windows/Linux/Mac zip file available at <http://files.casadi.org>
 - ▶ Choose 3.2.0, and pick OS
 - ▶ for Octave, choose `casadi-octave-*.zip`
 - ▶ For Matlab, choose `casadi-matlabR2014b-*.zip` (works with versions newer than R2014b as well)
- ▶ Create a folder called `casadi` and unzip everything there

Download MPCTools

- ▶ Download zipped package:
<https://bitbucket.org/rawlings-group/octave-mpctools>
 - ▶ Click “Downloads” (in menu on the left)
 - ▶ Choose `mpctools.zip`
- ▶ Unzip `mpctools` folder to a convenient location
 - ▶ Typically best to use the same directory where you created `casadi` in the previous step

Making Sure Everything Works

First, open Octave or Matlab and add the folders to your path

- ▶ Run `addpath('/path/to/casadi', '/path/to/mpctools')`
 - ▶ Windows Octave users must also run `setenv('CASADIPATH', '/path/to/casadi')`
- ▶ Note that the initial path components will depend on where you unzipped the files, but the final components should be `casadi` and `mpctools`
- ▶ Run `which('casadiMEX')` and `which('import_mpctools')` to make sure the paths are added
 - ▶ If you do not get output, Octave/Matlab can't find the necessary scripts

Then, try to run the examples in `<mpctools/examples-matlab>` or

`<mpctools/examples-octave>`

- ▶ In Octave or Matlab, `cd` to the appropriate directory
- ▶ Run the scripts as usual using the script name (without `.m` extension) or via `run('scriptname.m')`
- ▶ Entering `runall()` will run all of the example scripts and show all the plots at the end