

Windows/Linux Installation I

Install a scientific Python distribution

- ▶ Any “Scientific Python” should do, but it must include NumPy, SciPy, and matplotlib.
- ▶ For Windows, e.g., Python(x,y):
`https://code.google.com/p/pythonxy/`
- ▶ For Ubuntu/Debian, e.g., Spyder (an IDE):
`sudo apt-get install spyder`

Download CasADi(Version ≥ 2.4)

- ▶ Windows/Linux zip file available at
`http://sourceforge.net/projects/casadi/files/CasADi/`
- ▶ Unzip to a convenient location (e.g., `C:/Python2.7/casadi` for Windows or `/opt/casadi` for Casadi), or use Python install script (see installer folder)

Windows/Linux Installation II

Download our mpctools Python package

- ▶ Download Mercurial repo (zip link on left):
`https://hg.cae.wisc.edu/hg/mpc-tools-casadi`
- ▶ Unzip to a convenient location.
- ▶ Move the mpctools sub-folder to where you unzipped casadi or use the mpctoolssetup.py Python script; the remaining files (examples and documentation) can be left where they are.

Add CasADi and mpctools to your Python path

- ▶ Open a Python interpreter (run `python` from a terminal/command prompt)
- ▶ Run the commands `import site`; `print site.getsitepackages()` to see where your site packages are stored
- ▶ In one of the site package folders, make a text file called `casadi.pth`, and type the path to your CasADi installation directory

Mac Installation (Difficult)

Install Python, NumPy, SciPy, matplotlib

- ▶ E.g., via Homebrew: `brew install python`
- ▶ Packages via pip: `pip install ipython matplotlib numpy scipy`

Build and Install (Version ≥ 2.4)

- ▶ You'll have to build from sources.
- ▶ See <https://github.com/casadi/casadi/wiki/InstallationMac> for details.
- ▶ We can only provide minimal support for this option.

Our Python package

- ▶ Download Mercurial repo:
`https://hg.cae.wisc.edu/hg/mpc-tools-casadi`
- ▶ Unzip and move the `mpctools` folder to somewhere on your Python Path

Making Sure Everything Works

First, open a Python interpreter¹ and run `import casadi, mpctools`.

- ▶ If this doesn't work, make sure your CasADi folder shows up in `import sys; print sys.path`.
- ▶ If you have multiple Python distributions on your machine, don't (or at least make sure you're using the one you think you are).
- ▶ Make sure you are using Python 2.7 (not 3.x).

Then, try to run the examples in `mpc-tools-casadi`.

- ▶ In the Python interpreter, use `execfile("filename.py")`.
- ▶ `runall.py` will run everything and tell you if there are errors, but you won't see any plots.

¹Open a command prompt/terminal in the `mpc-tools-casadi` folder and enter `python`. You may also be able to right-click and choose "Open a Python console".

Software Relationships

