

Prior requirements

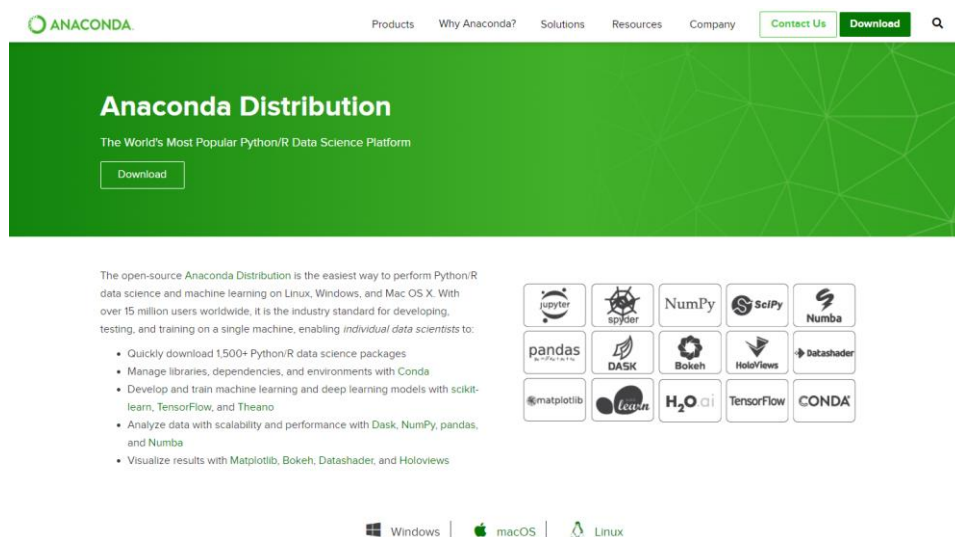
Python and Pyomo

Before running the script, you must make sure that you have installed Python 3.7 on your PC and that you have all following libraries:

- numpy
- pandas
- random
- math
- matplotlib
- pyomo
- sys

We recommend installing the latests version of Anaconda that can be found in:

<https://www.anaconda.com/distribution/>



The screenshot shows the Anaconda Distribution website. The header includes the Anaconda logo and navigation links: Products, Why Anaconda?, Solutions, Resources, Company, Contact Us, and Download. The main section is titled "Anaconda Distribution" with the subtitle "The World's Most Popular Python/R Data Science Platform" and a "Download" button. Below this, a paragraph states: "The open-source Anaconda Distribution is the easiest way to perform Python/R data science and machine learning on Linux, Windows, and Mac OS X. With over 15 million users worldwide, it is the industry standard for developing, testing, and training on a single machine, enabling individual data scientists to:" followed by a bulleted list of features. To the right of the text is a grid of logos for various data science libraries and tools. At the bottom, there are icons for Windows, macOS, and Linux.

Anaconda Distribution
The World's Most Popular Python/R Data Science Platform
[Download](#)

The open-source Anaconda Distribution is the easiest way to perform Python/R data science and machine learning on Linux, Windows, and Mac OS X. With over 15 million users worldwide, it is the industry standard for developing, testing, and training on a single machine, enabling individual data scientists to:

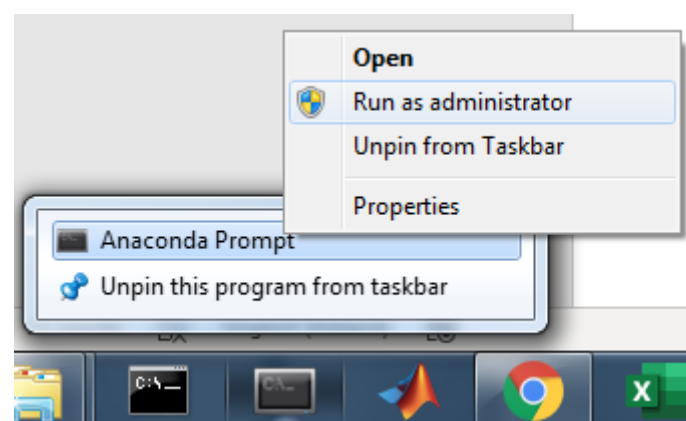
- Quickly download 1500+ Python/R data science packages
- Manage libraries, dependencies, and environments with Conda
- Develop and train machine learning and deep learning models with scikit-learn, TensorFlow, and Theano
- Analyze data with scalability and performance with Dask, NumPy, pandas, and Numba
- Visualize results with Matplotlib, Bokeh, Dash, and Holoviews

Logos displayed: Jupyter, Spyder, NumPy, SciPy, Numba, pandas, DASK, Bokeh, Holoviews, Dash, matplotlib, tensorflow, H2O, TensorFlow, CONDA.

Windows | macOS | Linux


If installing Anaconda, you only need to install the pyomo library, this can be done from the Anaconda prompt using the command described in Anaconda Cloud

The screenshot shows the Anaconda Cloud interface for the **conda-forge / packages / pyomo 5.6.6** package. The page includes a search bar, navigation links (Gallery, About, Anaconda, Help, Download Anaconda, Sign In), and a header with home, star, and count icons. The main content area has tabs for Conda, Files, Labels, and Badges. Under the Conda tab, it lists package details: License: BSD 3-Clause, Home: <http://pyomo.org>, 123417 total downloads, and Last upload: 4 months and 8 days ago. Below this is the 'Installers' section, which includes an info box stating 'This package contains files in non-standard labels.' and a list of installers for different operating systems: Linux-64 v5.6.6, Win-32 v5.5.0, OSX-64 v5.6.6, and Win-64 v5.6.6. At the bottom, it provides the command to install the package: `conda install -c conda-forge pyomo` and `conda install -c conda-forge/label/cf201901 pyomo`.



Remember to run
as administrator

It is recommended to also install the pyomo.extras package:

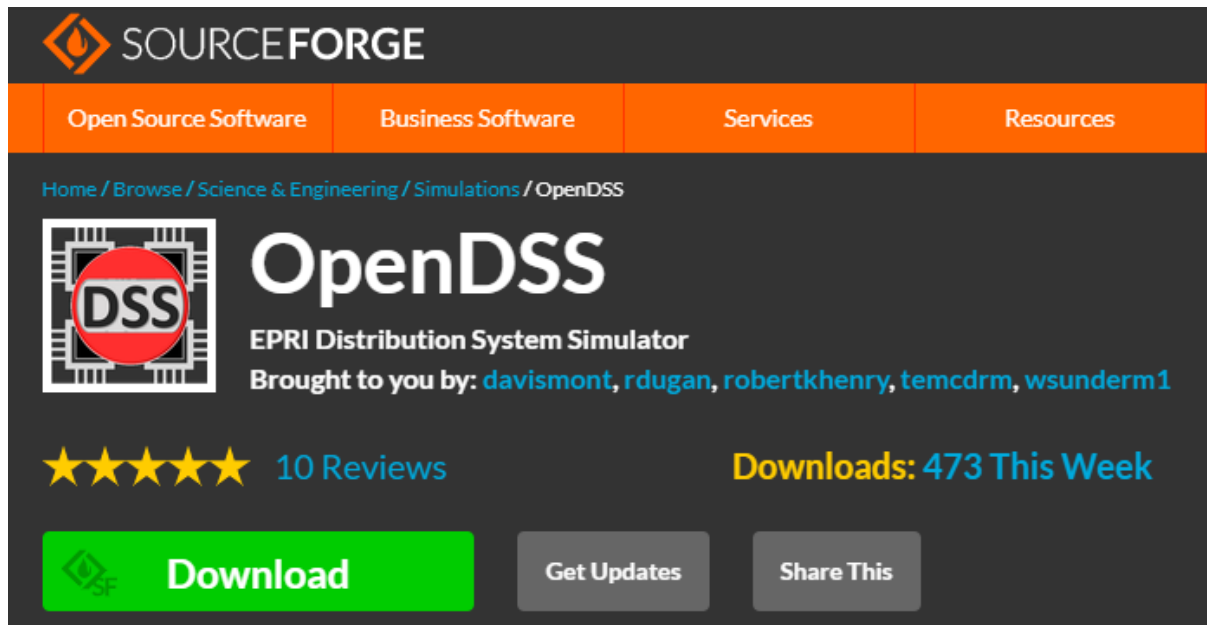
 **conda-forge / pyomo.extras 3.3**
Extra Python packages that enhance the functionality of Pyomo

Solvers

You can try using IPOPT to solve simple problems (a few constraints and time steps). However, IPOPT will struggle with large problems. To install IPOPT, look for the command in Anaconda Cloud as for the pyomo library

OpenDSS

OpenDSS can be download from Sourceforce



The screenshot shows the SourceForge project page for OpenDSS. At the top is the SourceForge logo and navigation tabs for Open Source Software, Business Software, Services, and Resources. The breadcrumb trail reads: Home / Browse / Science & Engineering / Simulations / OpenDSS. The main section features the OpenDSS logo (a circuit board with a red circle and 'DSS' text), the title 'OpenDSS', and the subtitle 'EPRI Distribution System Simulator'. Below this, it says 'Brought to you by: davismont, rdugan, robertkhenry, temcdm, wsunderm1'. There are five yellow stars and '10 Reviews' on the left, and 'Downloads: 473 This Week' on the right. At the bottom are three buttons: a green 'Download' button with the SourceForge logo, a grey 'Get Updates' button, and a grey 'Share This' button.

Important!

The python script automatically identifies the path of all folders in the script. Therefore, the complete package can be included in any folder of your PC. However, there cannot be spaces in the path. Example:

C:\Projects\OpenDSS_OPF_tool\ver_02 **RIGHT**

C:\Projects\OpenDSS OPF tool\ver 02 **WRONG**