



Technical University of Łódź
Institute of Electronics

Algorithms and Data Structures

Useful links

Łódź 2012





python™

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Python Programming Language

Python is a programming language that lets you use English-like words to quickly and easily integrate your systems more effectively. You can learn to use Python and see almost immediate results, which can lead to higher productivity and lower maintenance costs.

Python runs on Windows, Linux/Unix, Mac OS X, and many other platforms. Python has been ported to the Java and .NET virtual machines so you can run Python code on any platform where Java or .NET is available.

Python is free to use, even for commercial purposes. It is released under its OSI-approved [open source license](#).

New to Python or choosing between Python 2 and Python 3? [Read Python 2 or Python 3](#).

The [Python Software Foundation](#) holds the copyright to Python and is responsible for the overall direction of the Python project. The PSF also funds many other projects in the Python community.

[Read more](#), -or- [download Python now](#)

» **Python 3.3.0 released**
Python 3.3.0 has been released.
Published: Sat, 29 September 2012, 18:00
» **Third rc for Python 3.3.0 released**

Python v2.7.3 documentation »

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The Python Tutorial

Release: 2.7
Date: October 06, 2012

Python is an easy to learn, powerful programming language. It has efficient high-level data structures and a simple but effective approach to object-oriented programming. Python's elegant syntax and dynamic typing, together with its interpreted nature, make it an ideal language for scripting and rapid application development in many areas on most platforms.

The Python interpreter and the extensive standard library are freely available in source or binary form for all major platforms from the Python Web site, <http://www.python.org/>, and may be freely distributed. The same site also contains distributions of and pointers to many free third party Python modules, programs and tools, and additional documentation.

The Python interpreter is easily extended with new functions and data types implemented in C or C++ (or other languages callable from C). Python is also suitable as an extension language for customizable applications.



pl.python.org

The screenshot shows the homepage of the Polish Python Coders Group (pl.python.org). The header features the Python logo and the text "python™ polish python coders group". Below the header is a banner with the words "speedy", "easy", "less code", "elasticity", and "powerful" surrounding a globe. The main navigation bar includes links for "Portal: pl.python.org", "Forum: pl.python.org/forum", "Dokumentacja: pl.python.org/docs", "Planeta: pl.python.org/planeta", "Paste: python.wklej.to", and "IRC: #python.pl".

Community

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Wiedza

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News

SciPy 0.11.0 wydane

Ponad 50-osobowy zespół składający się z programistów i naukowców, po 8-miesiącach ciężkiej pracy wydaje na światło dzienne kolejną wersję SciPy. Darmowa i wieloplatformowa biblioteka naukowa, oparta o język Python przeznaczona do zastosowań naukowych i inżynierskich, przeszła dogłębną liturgię.

SciPy 0.11.0 zapewnia wiele nowych funkcji, liczne poprawki błędów, zwiększyły się zakres testów i lepszą dokumentację. Skorzystaj z wersji 0.11.0!

- nowy moduł sparse.csgraph, dostarczający szereg szybkich algorytmów grafowych,
- nowy, jednoznaczny interfejs do nowoczesnych funkcji matematycznych poszukujących rozwiązań w drzewie.

Użycie SciPy 0.11.0 wiąże się z posiadanym Pythonem 2.4-3.2 i biblioteką NumPy 1.5.1

Więcej informacji: docs.scipy.org

Dodał: Piotr Tynecki, Kategorie: News Data: 2012-10-06 16:52:19, Komentarzy (0)

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- "Advanced Python" szkolenie...

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Kursy języka



Numpy/Scipy

The fundamental packages for engineering/scientific computing!

ENTHOUGHT

NumPy and SciPy

SciPy [Scientific Algorithms]

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special

maxentropy

io

fftpack

odr

ndimage

sparse

integrate

signal

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NumPy [Data Structure Core]

fft

random

linalg

NDArray
multi-dimensional
array object

UFunc
fast array
math operations



Numpy/Scipy

SciPy.org » Numpy and Scipy Documentation »

Numpy and Scipy Documentation

Welcome! This is the documentation for Numpy and Scipy .

For contributors:

- Write, review and proof the documentation
- Numpy developer guide

Latest releases

- Numpy Reference Guide**
[HTML+zip], [HTML-help (CHM)], [PDF]
- Numpy User Guide (DRAFT)**
[PDF]
- Scipy Reference Guide**
[HTML+zip], [CHM], [PDF]

Others:

- Numpy (development version) Reference Guide, [HTML+zip], [CHM], [PDF]
- Numpy (development version) User Guide (DRAFT), [PDF]

See also:

- SciPy.org**
all things NumPy/SciPy (bug reports, downloads, conferences, etc.)
- Additional documentation**
additional tutorials and other documentation resources
- Scipy Central**
code snippet and link sharing site for scientific Python programming
- Cookbook**
user-contributed examples and recipes for common tasks
- Mailing Lists**
main discussion channels

Download **Getting Started** **Documentation**

NumPy is the fundamental package things:

- a powerful N-dimensional
- sophisticated (broadcasting)
- tools for integrating C/C++
- useful linear algebra, Fourier

Besides its obvious scientific use container of generic data. Arbitrarily and speedily integrate with a wide

Numpy is licensed under the [BSL](#)

Getting Started

- [Getting Numpy](#)
- [Installing NumPy and SciPy](#)
- [NumPy and SciPy documentation](#)
- [NumPy Tutorial](#)
- [NumPy for MATLAB® Users](#)
- [NumPy functions by category](#)
- [NumPy Mailing List](#)

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Read the Blog

I, colleague, d away on s little more ite speaker at s of cancer errible illness. iend highlights our work and

and Clara, his d from John's r most to him. **Fund.**

ience, and rogramming ent and fast N- Py arrays, and es for perating



Numpy

http://www.scipy.org/Tentative_NumPy_Tutorial

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Numpy Example List With Doc

This is an auto-generated version of Numpy Example List with added doc and functions of Numpy 1.2.1.

Please do not edit this page directly. To update this page just follow the

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- 4. abs()
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- 8. alen()
- 9. all()
- 10. allclose()
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- 12. alterdot()
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- 18. apply_along_axis()
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Tentative NumPy Tutorial

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 4. Basic Operations
 5. Universal Functions
 6. Indexing, Slicing and Iterating
3. Shape Manipulation
 1. Changing the shape of an array
 2. Stacking together different arrays
 3. Splitting one array into several smaller ones
4. Copies and Views
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http://www.scipy.org/Numpy_Example_List_With_Doc



Scipy

» SciPy v0.11 Reference Guide (DRAFT) »

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SciPy

Release: 0.11

Date: September 30, 2012

SciPy (pronounced "Sigh Pie") is open-source software for mathematics, science, and engineering.

- [SciPy Tutorial](#)
 - [Introduction](#)
 - [Basic functions in Numpy \(and top-level scipy\)](#)
 - [Special functions \(`scipy.special`\)](#)
 - [Integration \(`scipy.integrate`\)](#)
 - [Optimization \(`scipy.optimize`\)](#)
 - [Interpolation \(`scipy.interpolate`\)](#)
 - [Fourier Transforms \(`scipy.fftpack`\)](#)
 - [Signal Processing \(`scipy.signal`\)](#)
 - [Linear Algebra \(`scipy.linalg`\)](#)
 - [Sparse Eigenvalue Problems with ARPACK](#)
 - [Compressed Sparse Graph Routines `scipy.sparse.csgraph`](#)
 - [Statistics \(`scipy.stats`\)](#)
 - [Multi-dimensional image processing \(`scipy.ndimage`\)](#)
 - [File IO \(`scipy.io`\)](#)
 - [Weave \(`scipy.weave`\)](#)
- [Contributing to SciPy](#)
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Reference

- [Clustering package \(`scipy.cluster`\)](#)
- [Constants \(`scipy.constants`\)](#)
- [Discrete Fourier transforms \(`scipy.fftpack`\)](#)
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Matplotlib - <http://matplotlib.org/>

home | search **examples | gallery** | docs »

John Hunter (1968–2012)

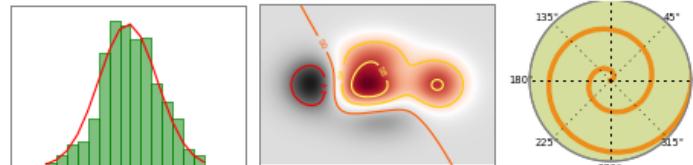


On August 28 2012, John D. Hunter, the creator of matplotlib, died from complications arising from cancer treatment, after a brief but intense battle with this terrible illness. John is survived by his wife Miriam, his three daughters Rahel, Ava and Clara, his sisters Layne and Mary, and his mother Sarah.

If you have benefited from John's many contributions, please say thanks in the way that would matter most to him. Please consider making a donation to the [John Hunter Memorial Fund](#).

Introduction

matplotlib is a python 2D plotting library which produces publication quality figures in a variety of hardcopy formats and interactive environments across platforms. matplotlib can be used in python scripts, the python and [ipython](#) shell (ala MATLAB® or Mathematica®), web application servers, and six graphical user interface toolkits.





To be continued...

- <http://www.enthought.com/>
- <http://docs.enthought.com/mayavi/mayavi/>
- <http://docs.enthought.com/mayavi/tvtk/>
- <http://code.enthought.com/projects/traits/>
- http://code.enthought.com/projects/traits_ui/
- <http://www.wxpython.org/>
- <http://wiki.wxpython.org/AnotherTutorial>
- <http://www.pythonware.com/library/index.htm>
- <http://www.pythonware.com/products/pil/>
- <http://www.pythonware.com/library/tkinter/introduction/index.htm>
- <http://www.pygame.org/news.html>