

NumPy documentation

Version: 1.22

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NumPy is the fundamental package for scientific computing in Python. It is a Python library that provides a multidimensional array object, various derived objects (such as masked arrays and matrices), and an assortment of routines for fast operations on arrays, including mathematical, logical, shape manipulation, sorting, selecting, I/O, discrete Fourier transforms, basic linear algebra, basic statistical operations, random simulation and much more.



Getting Started

New to NumPy? Check out the Absolute Beginner's Guide. It contains an introduction to NumPy's main concepts and links to additional tutorials.

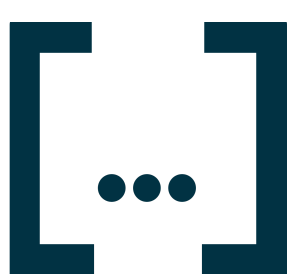
To the absolute beginner's guide



User Guide

The user guide provides in-depth information on the key concepts of NumPy with useful background information and explanation.

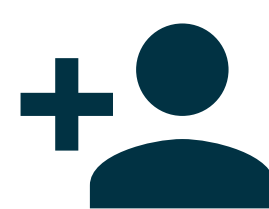
To the user guide



API Reference

The reference guide contains a detailed description of the functions, modules, and objects included in NumPy. The reference describes how the methods work and which parameters can be used. It assumes that you have an understanding of the key concepts.

To the reference guide



Contributor's Guide

Want to add to the codebase? Can help add translation or a flowchart to the documentation? The contributing guidelines will guide you through the process of improving NumPy.

To the contributor's guide

Next [NumPy user guide](#) 