Linux Ubuntu 22.4.5 Manual Pages on command 'python2.1'

$ man python2.1

PYTHON(1)   General Commands Manual   PYTHON(1)

NAME

   python - an interpreted, interactive, object-oriented programming language

SYNOPSIS

   python [-B] [-d] [-E] [-h] [-i] [-m module-name]

      [-O] [-OO] [-R] [-Q argument] [-s] [-S] [-t] [-u]

      [-v] [-V] [-W argument] [-x] [-3] [-?]

      [-c command | script | -] [arguments]

DESCRIPTION

   Python is an interpreted, interactive, object-oriented programming language that

   combines remarkable power with very clear syntax. For an introduction to program?

   ming in Python, see the Python Tutorial. The Python Library Reference documents

   built-in and standard types, constants, functions and modules. Finally, the Python

   Reference Manual describes the syntax and semantics of the core language in (per?

   haps too) much detail. (These documents may be located via the INTERNET RESOURCES

   below; they may be installed on your system as well.)

   Python's basic power can be extended with your own modules written in C or C++. On

   most systems such modules may be dynamically loaded. Python is also adaptable as

   an extension language for existing applications. See the internal documentation

   for hints.

   Documentation for installed Python modules and packages can be viewed by running

   the pydoc program.

COMMAND LINE OPTIONS

-B   Don't write .py[co] files on import. See also PYTHONDONTWRITEBYTECODE.

-c command

    Specify the command to execute (see next section). This terminates the op?

    tion list (following options are passed as arguments to the command).

-d   Turn on parser debugging output (for wizards only, depending on compilation

    options).

-E   Ignore environment variables like PYTHONPATH and PYTHONHOME that modify the

    behavior of the interpreter.

-h , -? , --help

    Prints the usage for the interpreter executable and exits.

-i   When a script is passed as first argument or the -c option is used, enter

    interactive mode after executing the script or the command. It does not

    read the $PYTHONSTARTUP file. This can be useful to inspect global vari?

    ables or a stack trace when a script raises an exception.

-m module-name

    Searches sys.path for the named module and runs the corresponding .py file

    as a script.

-O   Turn on basic optimizations. This changes the filename extension for com?

    piled (bytecode) files from .pyc to .pyo. Given twice, causes docstrings to

    be discarded.

-OO   Discard docstrings in addition to the -O optimizations.

-R   Turn on "hash randomization", so that the hash() values of str, bytes and

    datetime objects are "salted" with an unpredictable pseudo-random value.

    Although they remain constant within an individual Python process, they are

    not predictable between repeated invocations of Python.

    This is intended to provide protection against a denial of service caused by

    carefully-chosen inputs that exploit the worst case performance of a dict

    construction,   O(n^2)   complexity.   See   http://www.ocert.org/advi?

    sories/ocert-2011-003.html for details.

-Q argument

    Division control; see PEP 238. The argument must be one of "old" (the de?

    fault, int/int and long/long return an int or long), "new" (new division se?

mantics, i.e. int/int and long/long returns a float), "warn" (old division

semantics with a warning for int/int and long/long), or "warnall" (old divi?

sion semantics with a warning for all use of the division operator). For a

use of "warnall", see the Tools/scripts/fixdiv.py script.

-s   Don't add user site directory to sys.path.

-S   Disable the import of the module site and the site-dependent manipulations

of sys.path that it entails.

-t   Issue a warning when a source file mixes tabs and spaces for indentation in

a way that makes it depend on the worth of a tab expressed in spaces. Issue

an error when the option is given twice.

-u   Force stdin, stdout and stderr to be totally unbuffered. On systems where

it matters, also put stdin, stdout and stderr in binary mode. Note that

there is internal buffering in xreadlines(), readlines() and file-object it?

erators ("for line in sys.stdin") which is not influenced by this option.

To work around this, you will want to use "sys.stdin.readline()" inside a

"while 1:" loop.

-v   Print a message each time a module is initialized, showing the place (file?

name or built-in module) from which it is loaded. When given twice, print a

message for each file that is checked for when searching for a module. Also

provides information on module cleanup at exit.

-V , --version

Prints the Python version number of the executable and exits.

-W argument

Warning control. Python sometimes prints warning message to sys.stderr.   A

typical warning message has the following form: file:line: category: mes?

sage. By default, each warning is printed once for each source line where

it occurs.   This option controls how often warnings are printed. Multiple

-W options may be given; when a warning matches more than one option, the

action for the last matching option is performed. Invalid -W options are

ignored (a warning message is printed about invalid options when the first

warning is issued).   Warnings can also be controlled from within a Python

program using the warnings module.

The simplest form of argument is one of the following action strings (or a

unique abbreviation): ignore to ignore all warnings; default to explicitly

request the default behavior (printing each warning once per source line);

all to print a warning each time it occurs (this may generate many messages

if a warning is triggered repeatedly for the same source line, such as in?

side a loop); module to print each warning only the first time it occurs in

each module; once to print each warning only the first time it occurs in the

program; or error to raise an exception instead of printing a warning mes?

sage.

The full form of argument is action:message:category:module:line. Here, ac?

tion is as explained above but only applies to messages that match the re?

maining fields. Empty fields match all values; trailing empty fields may be

omitted. The message field matches the start of the warning message

printed; this match is case-insensitive. The category field matches the

warning category. This must be a class name; the match test whether the ac?

tual warning category of the message is a subclass of the specified warning

category. The full class name must be given. The module field matches the

(fully-qualified) module name; this match is case-sensitive. The line field

matches the line number, where zero matches all line numbers and is thus

equivalent to an omitted line number.

-x   Skip the first line of the source. This is intended for a DOS specific hack

only. Warning: the line numbers in error messages will be off by one!

-3   Warn about Python 3.x incompatibilities that 2to3 cannot trivially fix.

INTERPRETER INTERFACE

The interpreter interface resembles that of the UNIX shell: when called with stan?

dard input connected to a tty device, it prompts for commands and executes them un?

til an EOF is read; when called with a file name argument or with a file as stan?

dard input, it reads and executes a script from that file; when called with -c com?

mand, it executes the Python statement(s) given as command. Here command may con?

tain multiple statements separated by newlines. Leading whitespace is significant

in Python statements! In non-interactive mode, the entire input is parsed before

it is executed.

If available, the script name and additional arguments thereafter are passed to the

script in the Python variable sys.argv, which is a list of strings (you must first

import sys to be able to access it). If no script name is given, sys.argv[0] is an

empty string; if -c is used, sys.argv[0] contains the string '-c'. Note that op?

tions interpreted by the Python interpreter itself are not placed in sys.argv.

In interactive mode, the primary prompt is `>>>'; the second prompt (which appears

when a command is not complete) is `...'. The prompts can be changed by assignment

to sys.ps1 or sys.ps2. The interpreter quits when it reads an EOF at a prompt.

When an unhandled exception occurs, a stack trace is printed and control returns to

the primary prompt; in non-interactive mode, the interpreter exits after printing

the stack trace.   The interrupt signal raises the KeyboardInterrupt exception;

other UNIX signals are not caught (except that SIGPIPE is sometimes ignored, in fa?

vor of the IOError exception). Error messages are written to stderr.

FILES AND DIRECTORIES

These are subject to difference depending on local installation conventions; ${pre?

fix} and ${exec_prefix} are installation-dependent and should be interpreted as for

GNU software; they may be the same. On Debian GNU/{Hurd,Linux} the default for

both is /usr.

${exec_prefix}/bin/python

Recommended location of the interpreter.

${prefix}/lib/python<version>

${exec_prefix}/lib/python<version>

Recommended locations of the directories containing the standard modules.

${prefix}/include/python<version>

${exec_prefix}/include/python<version>

Recommended locations of the directories containing the include files needed

for developing Python extensions and embedding the interpreter.

~/.pythonrc.py

User-specific initialization file loaded by the user module; not used by de?

fault or by most applications.

ENVIRONMENT VARIABLES

PYTHONHOME

Change the location of the standard Python libraries. By default, the li?

braries are searched in ${prefix}/lib/python<version> and ${exec_pre?

fix}/lib/python<version>, where ${prefix} and ${exec_prefix} are installa?

tion-dependent directories, both defaulting to /usr/local. When $PYTHONHOME

is set to a single directory, its value replaces both ${prefix} and

${exec_prefix}.   To specify different values for these, set $PYTHONHOME to

${prefix}:${exec_prefix}.

PYTHONPATH

Augments the default search path for module files. The format is the same

as the shell's $PATH: one or more directory pathnames separated by colons.

Non-existent directories are silently ignored. The default search path is

installation dependent, but generally begins with ${prefix}/lib/python<ver?

sion> (see PYTHONHOME above). The default search path is always appended to

$PYTHONPATH.   If a script argument is given, the directory containing the

script is inserted in the path in front of $PYTHONPATH. The search path can

be manipulated from within a Python program as the variable sys.path.

PYTHONSTARTUP

If this is the name of a readable file, the Python commands in that file are

executed before the first prompt is displayed in interactive mode. The file

is executed in the same name space where interactive commands are executed

so that objects defined or imported in it can be used without qualification

in the interactive session.   You can also change the prompts sys.ps1 and

sys.ps2 in this file.

PYTHONY2K

Set this to a non-empty string to cause the time module to require dates

specified as strings to include 4-digit years, otherwise 2-digit years are

converted based on rules described in the time module documentation.

PYTHONOPTIMIZE

If this is set to a non-empty string it is equivalent to specifying the -O

option. If set to an integer, it is equivalent to specifying -O multiple

times.

PYTHONDEBUG

If this is set to a non-empty string it is equivalent to specifying the -d

option. If set to an integer, it is equivalent to specifying -d multiple

times.

PYTHONDONTWRITEBYTECODE

If this is set to a non-empty string it is equivalent to specifying the -B

option (don't try to write .py[co] files).

PYTHONINSPECT

If this is set to a non-empty string it is equivalent to specifying the -i

option.

PYTHONIOENCODING

If this is set before running the interpreter, it overrides the encoding

used for stdin/stdout/stderr, in the syntax encodingname:errorhandler The

errorhandler part is optional and has the same meaning as in str.encode. For

stderr, the errorhandler

 part is ignored; the handler will always be ?backslashreplace?.

PYTHONNOUSERSITE

If this is set to a non-empty string it is equivalent to specifying the -s

option (Don't add the user site directory to sys.path).

PYTHONUNBUFFERED

If this is set to a non-empty string it is equivalent to specifying the -u

option.

PYTHONVERBOSE

If this is set to a non-empty string it is equivalent to specifying the -v

option. If set to an integer, it is equivalent to specifying -v multiple

times.

PYTHONWARNINGS

If this is set to a comma-separated string it is equivalent to specifying

the -W option for each separate value.

PYTHONHASHSEED

If this variable is set to "random", the effect is the same as specifying

the -R option: a random value is used to seed the hashes of str, bytes and

datetime objects.

If PYTHONHASHSEED is set to an integer value, it is used as a fixed seed for

generating the hash() of the types covered by the hash randomization. Its

purpose is to allow repeatable hashing, such as for selftests for the inter?

preter itself, or to allow a cluster of python processes to share hash val?

ues.

The integer must be a decimal number in the range [0,4294967295].   Specify?

ing the value 0 will lead to the same hash values as when hash randomization

is disabled.

AUTHOR

The Python Software Foundation: https://www.python.org/psf/

INTERNET RESOURCES

Main website: https://www.python.org/

Documentation: file:///usr/share/doc/python2.7/html/index.html (python-doc pack?

age) or https://docs.python.org/2/

Developer resources: https://docs.python.org/devguide/

Downloads: https://www.python.org/downloads/

Module repository: https://pypi.python.org/

Newsgroups: comp.lang.python, comp.lang.python.announce

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