## :mod:`stat` --- Interpreting :func:`~os.stat` results

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 1); backlink

Unknown interpreted text role "mod".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 1); backlink

Unknown interpreted text role "func".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 4)

Unknown directive type "module".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]stat.rst, line 8)

Unknown directive type "sectionauthor".

.. sectionauthor:: Skip Montanaro <skip@automatrix.com>

Source code: :source:`Lib/stat.py`

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]stat.rst, line 10); backlink

Unknown interpreted text role "source".

The mod: stat' module defines constants and functions for interpreting the results of :func: os.stat', :func: os.fstat' and :func: os.fstat' (if they exist). For complete details about the :c:func: stat', :c:func: fstat' and :c:func: lstat' calls, consult the documentation for your system.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]stat.rst, line 14); backlink

Unknown interpreted text role "mod".

 $System\,Message: ERROR/3 \ (\mbox{D:\nonlinear-resources}) sample-onboarding-resources \cpython-main\noc\library\cpython-main\clibrary\cpython-main\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrar$ 

Unknown interpreted text role "func".

 $System\,Message:\,ERROR/3\, (\mbox{D:\nonboarding-resources}\xspace) ample-onboarding-resources\xspace \xspace \xspace, line 14); \xspace \xspa$ 

Unknown interpreted text role "func".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 14); backlink

Unknown interpreted text role "func".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 14); backlink

Unknown interpreted text role "c:func".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 14); backlink

Unknown interpreted text role "c:func".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stat.rst, line 14); backlink

Unknown interpreted text role "c:func".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stat.rst, line 19)

Unknown directive type "versionchanged".

.. versionchanged:: 3.4

The stat module is backed by a C implementation.

The <u>mod:'stat'</u> module defines the following functions to test for specific file types:

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 22); backlink

Unknown interpreted text role "mod".

Unknown directive type "function".

.. function:: S\_ISDIR(mode)
Return non-zero if the mode is from a directory.

 $System\,Message: ERROR/3 \ (\mboarding-resources\spaces) convolved in System Message: ERROR/3 \ (\mboarding-resources) convolved in System Message: ERROR/3 \ (\mboarding-resources) c$ 

Unknown directive type "function".

.. function:: S\_ISCHR(mode)

Return non-zero if the mode is from a character special device file.

 $System\,Message: ERROR/3~(\texttt{D:}\onboarding-resources}\cpython-main\Doc\library\[cpython-main\] [Doc]~[library\] stat.rst, \ \ \ line~36)$ 

Unknown directive type "function".

.. function:: S\_ISBLK(mode)

Return non-zero if the mode is from a block special device file.

 $System\,Message: ERROR/3 \ (\mbox{D:\nonloarding-resources}\ \c) \ library \ [cpython-main] \ [Doc] \ [library] \ stat.rst, \ line \ 41)$ 

Unknown directive type "function".

.. function:: S\_ISREG(mode)

Return non-zero if the mode is from a regular file.

 $System\,Message: ERROR/3~(\mbox{D:\nonboarding-resources}\xspaces) ample-onboarding-resources \cpython-main\noc\library\cpython-main\clibrary\cpython-main\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\$ 

Unknown directive type "function".

```
.. function:: S_ISFIFO(mode)

Return non-zero if the mode is from a FIFO (named pipe).
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 51)

Unknown directive type "function".

```
.. function:: S_ISLNK(mode)
Return non-zero if the mode is from a symbolic link.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]stat.rst, line 56)

Unknown directive type "function".

```
.. function:: S_ISSOCK(mode)

Return non-zero if the mode is from a socket.
```

Unknown directive type "function".

```
.. function:: S_ISDOOR(mode)
Return non-zero if the mode is from a door.
.. versionadded:: 3.4
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 66)

Unknown directive type "function".

```
.. function:: S_ISPORT(mode)
Return non-zero if the mode is from an event port.
.. versionadded:: 3.4
```

 $System\,Message: ERROR/3 \ (\mboarding-resources\spaces) sample-onboarding-resources\spaces \cpython-main\boc\library\cpython-main\clibrary\cpython-main\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\clibrary\cl$ 

Unknown directive type "function".

```
.. function:: S_ISWHT(mode)
Return non-zero if the mode is from a whiteout.
.. versionadded:: 3.4
```

Two additional functions are defined for more general manipulation of the file's mode:

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 82)

Unknown directive type "function".

```
.. function:: S_IMODE(mode)

Return the portion of the file's mode that can be set by
:func:`os.chmod`\ ---that is, the file's permission bits, plus the sticky
bit, set-group-id, and set-user-id bits (on systems that support them).
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 89)

Unknown directive type "function".

```
.. function:: S_{IFMT} (mode)

Return the portion of the file's mode that describes the file type (used by the :func:`S_{IS}' functions above).
```

Normally, you would use the :func:`os.path.is\\*` functions for testing the type of a file; the functions here are useful when you are doing multiple tests of the same file and wish to avoid the overhead of the :c:func:`stat` system call for each test. These are also useful when checking for information about a file that isn't handled by :mod:`os.path`, like the tests for block and character devices.

```
System\,Message:\,ERROR/3\, (\mboarding-resources\spaces) sample-onboarding-resources\spaces \cpython-main\spaces \
```

Unknown interpreted text role "func".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 94); backlink

Unknown interpreted text role "c:func".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 94); backlink

Unknown interpreted text role "mod".

## Example:

```
import os, sys
from stat import *
def walktree(top, callback):
    '''recursively descend the directory tree rooted at top,
       calling the callback function for each regular file'
    for f in os.listdir(top):
        pathname = os.path.join(top, f)
        mode = os.lstat(pathname).st mode
        if S ISDIR (mode):
            \overline{\#} It's a directory, recurse into it
            walktree(pathname, callback)
        elif S ISREG(mode):
            # It's a file, call the callback function
            callback(pathname)
            # Unknown file type, print a message
            print('Skipping %s' % pathname)
def visitfile(file):
    print('visiting', file)
          == ' main ':
    name
    walktree(sys.argv[1], visitfile)
```

An additional utility function is provided to convert a file's mode in a human readable string:

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 132)
```

Unknown directive type "function".

```
.. function:: filemode(mode)
```

```
Convert a file's mode to a string of the form '-rwxrwxrwx'.

.. versionadded:: 3.3

.. versionchanged:: 3.4

The function supports :data:`S_IFDOOR`, :data:`S_IFPORT` and :data:`S_IFWHT`.
```

All the variables below are simply symbolic indexes into the 10-tuple returned by :func:'os.stat', :func:'os.fstat' or :func:'os.lstat'.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 143); backlink

Unknown interpreted text role "func".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 143); backlink

Unknown interpreted text role "func".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 143); backlink

Unknown interpreted text role "func".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 147)

Unknown directive type "data".

.. data:: ST\_MODE

Inode protection mode.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stat.rst, line 152)

Unknown directive type "data".

.. data:: ST\_INO
Inode number.

 $System\,Message:\,ERROR/3\, (\mbox{D:\noboarding-resources}\xspace) ample-onboarding-resources\xspace \xspace \xspace, line 157)$ 

Unknown directive type "data".

.. data:: ST\_DEV

Device inode resides on.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]stat.rst, line 162)

Unknown directive type "data".

.. data:: ST\_NLINK

Number of links to the inode.

 $System\,Message: ERROR/3~(\texttt{D:}\onboarding-resources}\cpython-main\Doc\library\[cpython-main\] [Doc]~[library\] stat.rst, \ \ line~167)$ 

Unknown directive type "data".

.. data:: ST\_UID

User id of the owner.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stat.rst, line 172)

Unknown directive type "data".

.. data:: ST\_GID
Group id of the owner.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 177)

Unknown directive type "data".

.. data:: ST\_SIZE

Size in bytes of a plain file; amount of data waiting on some special files.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 182)

Unknown directive type "data".

.. data:: ST\_ATIME

Time of last access.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 187)

Unknown directive type "data".

.. data:: ST\_MTIME

Time of last modification.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 192)

Unknown directive type "data".

.. data:: ST\_CTIME

The "ctime" as reported by the operating system. On some systems (like Unix) is the time of the last metadata change, and, on others (like Windows), is the creation time (see platform documentation for details).

The interpretation of "file size" changes according to the file type. For plain files this is the size of the file in bytes. For FIFOs and sockets under most flavors of Unix (including Linux in particular), the "size" is the number of bytes waiting to be read at the time of the call to :fine: os.fstat', :fine: os.fstat', or :fine: os.fstat'; this can sometimes be useful, especially for polling one of these special files after a non-blocking open. The meaning of the size field for other character and block devices varies more, depending on the implementation of the underlying system call.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 198); backlink

Unknown interpreted text role "func".

 $System\,Message:\,ERROR/3~(\texttt{D:}\conboarding-resources}\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboardin$ 

Unknown interpreted text role "func".

 $System\,Message:\,ERROR/3\, (\mbox{D:\nonlinear-resources}\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-resources\xsple-onboarding-$ 

Unknown interpreted text role "func".

The variables below define the flags used in the :data: ST MODE' field.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 207); backlink

Unknown interpreted text role "data".

Use of the functions above is more portable than use of the first set of flags:

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stat.rst, line 211)

Unknown directive type "data".

```
.. data:: S_IFSOCK
Socket.
```

 $System\,Message: ERROR/3~(\mbox{D:\nonlinear-resources}\xspace) ample-onboarding-resources\xspace courses \xspace and \xspace considering and \xspace considering considering$ 

Unknown directive type "data".

```
.. data:: S_IFLNK
Symbolic link.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]stat.rst, line 219)

Unknown directive type "data".

```
.. data:: S_IFREG

Regular file.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stat.rst, line 223)

Unknown directive type "data".

```
.. data:: S_IFBLK
Block device.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 227)

Unknown directive type "data".

```
.. data:: S_IFDIR
```

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]stat.rst, line 231)
```

Unknown directive type "data".

```
.. data:: S_IFCHR
Character device.
```

 $System\,Message: ERROR/3~(\texttt{D:}\onboarding-resources}\cpython-main\Doc\library\[cpython-main\] [Doc]~[library\] stat.rst, \ \ \ line~235)$ 

Unknown directive type "data".

```
.. data:: S_IFIFO FIFO.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stat.rst, line 239)

Unknown directive type "data".

```
.. data:: S_IFDOOR
Door.
.. versionadded:: 3.4
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 245)

Unknown directive type "data".

```
.. data:: S_IFPORT
    Event port.
    .. versionadded:: 3.4
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 251)

Unknown directive type "data".

```
.. data:: S_IFWHT
Whiteout.
.. versionadded:: 3.4
```

## Note

:data:'S\_IFDOOR', :data:'S\_IFPORT' or :data:'S\_IFWHT' are defined as 0 when the platform does not have support for the file types.

 $System \, Message: ERROR/3 \, (\mbox{D:\nonboarding-resources} \mbox{conboarding-resources}) \ [Doc] \ [library] \, stat.rst, \ line 259); \ backlink$ 

Unknown interpreted text role "data".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line

259); backlink

Unknown interpreted text role "data".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stat.rst, line 259); backlink

Unknown interpreted text role "data".

The following flags can also be used in the *mode* argument of :func:'os.chmod':

 $System\,Message:\,ERROR/3\, (\mbox{D:\nonlinear-resources}\xspace) ample-onboarding-resources\xspace \xspace \xspace, but the properties of the properties \xspace \xsp$ 

Unknown interpreted text role "func".

Unknown directive type "data".

.. data:: S\_ISUID

Set UID bit.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]stat.rst, line 268)

Unknown directive type "data".

.. data:: S\_ISGID

Set-group-ID bit. This bit has several special uses. For a directory it indicates that BSD semantics is to be used for that directory: files created there inherit their group ID from the directory, not from the effective group ID of the creating process, and directories created there will also get the :data:`S\_ISGID` bit set. For a file that does not have the group execution bit (:data:`S\_IXGRP`) set, the set-group-ID bit indicates mandatory file/record locking (see also :data:`S\_ENFMT`).

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 279)

Unknown directive type "data".

.. data:: S ISVTX

Sticky bit. When this bit is set on a directory it means that a file in that directory can be renamed or deleted only by the owner of the file, by the owner of the directory, or by a privileged process.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 285)

Unknown directive type "data".

.. data:: S\_IRWXU

Mask for file owner permissions.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 289)

Unknown directive type "data".

```
.. data:: S_IRUSR

Owner has read permission.
```

 $System\,Message: ERROR/3~(\texttt{D:}\onboarding-resources}\cpython-main\Doc\library\[cpython-main\] [Doc]~[library\] stat.rst, \ \ \ line~293)$ 

Unknown directive type "data".

.. data:: S\_IWUSR

Owner has write permission.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 297)

Unknown directive type "data".

.. data:: S\_IXUSR

Owner has execute permission.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 301)

Unknown directive type "data".

.. data:: S\_IRWXG

Mask for group permissions.

 $System\,Message:\,ERROR/3~(\mbox{D:\nonlinear-resources}\xspace) ample-onboarding-resources\xspace \xspace and \xspace \xspace. The control of the control o$ 

Unknown directive type "data".

.. data:: S\_IRGRP
Group has read permission.

 $System\,Message: ERROR/3~(\mbox{D:\nonlinear-resources}\xspace) ample-onboarding-resources\xspace (b) and the control of the$ 

Unknown directive type "data".

.. data:: S\_IWGRP
Group has write permission.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 313)

Unknown directive type "data".

.. data:: S\_IXGRP
Group has execute permission.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 317)

Unknown directive type "data".

.. data:: S\_IRWXO
 Mask for permissions for others (not in group).

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-
main\Doc\library\[cpython-main][Doc][library]stat.rst, line 321)
Unknown directive type "data".
   .. data:: S IROTH
      Others have read permission.
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-
main\Doc\library\[cpython-main][Doc][library]stat.rst, line 325)
Unknown directive type "data".
   .. data:: S IWOTH
      Others have write permission.
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-
main\Doc\library\[cpython-main][Doc][library]stat.rst, line 329)
Unknown directive type "data".
   .. data:: S_IXOTH
      Others have execute permission.
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-
main\Doc\library\[cpython-main][Doc][library]stat.rst, line 333)
Unknown directive type "data".
   .. data:: S_ENFMT
      System V file locking enforcement. This flag is shared with :data:`S ISGID`:
      file/record locking is enforced on files that do not have the group
      execution bit (:data:`S_IXGRP`) set.
main\Doc\library\[cpython-main][Doc][library]stat.rst, line 339)
Unknown directive type "data".
   .. data:: S_IREAD
      Unix V7 synonym for :data:`S_IRUSR`.
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-
main\Doc\library\[cpython-main][Doc][library]stat.rst, line 343)
Unknown directive type "data".
   .. data:: S IWRITE
      Unix V7 synonym for :data:`S IWUSR`.
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-
main\Doc\library\[cpython-main][Doc][library]stat.rst, line 347)
Unknown directive type "data".
   .. data:: S IEXEC
      Unix V7 synonym for :data:`S_IXUSR`.
```

The following flags can be used in the *flags* argument of :func:`os.chflags`:

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 351); backlink

Unknown interpreted text role "func".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]stat.rst, line 353)

Unknown directive type "data".

```
.. data:: UF_NODUMP

Do not dump the file.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]stat.rst, line 357)

Unknown directive type "data".

```
.. data:: UF_IMMUTABLE

The file may not be changed.
```

 $System\,Message: ERROR/3~(\texttt{D:}\conboarding-resources}\copython-main\coc\library\copython-main\coc\library\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-main\coc\copython-mai$ 

Unknown directive type "data".

```
.. data:: UF_APPEND

The file may only be appended to.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 365)

Unknown directive type "data".

```
.. data:: UF_OPAQUE

The directory is opaque when viewed through a union stack.
```

 $System\,Message:\,ERROR/3\, (\mbox{D:\nonlinear-resources}\xspace) ample-onboarding-resources\xspace (cpython-main) [Doc] [library] stat.rst, line 369)$ 

Unknown directive type "data".

```
.. data:: UF_NOUNLINK

The file may not be renamed or deleted.
```

 $System\,Message: ERROR/3~(\texttt{D:}\onboarding-resources}\cpython-main\Doc\library\[cpython-main\] [Doc]~[library\] stat.rst, \ \textit{line } 373)$ 

Unknown directive type "data".

```
.. data:: UF_COMPRESSED
The file is stored compressed (macOS 10.6+).
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 377)

Unknown directive type "data".

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]stat.rst, line 381)
Unknown directive type "data".
```

.. data:: SF\_ARCHIVED

The file may be archived.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stat.rst, line 385)

Unknown directive type "data".

.. data:: SF\_IMMUTABLE

The file may not be changed.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stat.rst, line 389)

Unknown directive type "data".

.. data:: SF\_APPEND

The file may only be appended to.

 $System\,Message: ERROR/3~(\texttt{D:}\conboarding-resources}\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboarding-resources\\conboardin$ 

Unknown directive type "data".

.. data:: SF\_NOUNLINK

The file may not be renamed or deleted.

 $System\,Message:\,ERROR/3\, (\mbox{D:\nonlinear-resources}\xspace) ample-onboarding-resources\xspace (cpython-main) [Doc] [library] stat.rst, line 397)$ 

Unknown directive type "data".

.. data:: SF\_SNAPSHOT
The file is a snapshot file.

See the \*BSD or macOS systems man page :manpage: chflags(2) for more information.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 401); backlink

Unknown interpreted text role "manpage".

On Windows, the following file attribute constants are available for use when testing bits in the st\_file\_attributes member returned by :func:`os.stat`. See the Windows API documentation for more detail on the meaning of these constants.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 403); backlink

Unknown interpreted text role "func".

 $System\,Message:\,ERROR/3\, (\mbox{D:\nonlinear-resources}\xspace) ample-onboarding-resources\xspace \xspace \xspace, line 409)$ 

Unknown directive type "data".

.. data:: FILE ATTRIBUTE ARCHIVE

```
FILE ATTRIBUTE COMPRESSED
      FILE ATTRIBUTE DEVICE
      FILE_ATTRIBUTE_DIRECTORY
      FILE ATTRIBUTE ENCRYPTED
      FILE_ATTRIBUTE_HIDDEN
      FILE ATTRIBUTE INTEGRITY STREAM
      FILE_ATTRIBUTE_NORMAL
      FILE ATTRIBUTE NOT CONTENT INDEXED
      FILE ATTRIBUTE NO SCRUB DATA
      FILE_ATTRIBUTE_OFFLINE
      FILE ATTRIBUTE READONLY
      FILE ATTRIBUTE REPARSE POINT
      FILE ATTRIBUTE SPARSE FILE
      FILE_ATTRIBUTE_SYSTEM
      FILE_ATTRIBUTE_TEMPORARY
      FILE ATTRIBUTE VIRTUAL
.. versionadded:: 3.5
```

On Windows, the following constants are available for comparing against the <code>st\_reparse\_tag</code> member returned by :func: 'os.lstat'. These are well-known constants, but are not an exhaustive list.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 429); backlink

Unknown interpreted text role "func".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] stat.rst, line 433)

Unknown directive type "data".

.. versionadded:: 3.8