

:mod:`telnetlib` --- Telnet client

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

Unknown directive type "module".

```
.. module:: telnetlib
   :synopsis: Telnet client class.
   :deprecated:
```

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

Unknown directive type "sectionauthor".

```
.. sectionauthor:: Skip Montanaro <skip@pobox.com>
```

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

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Unknown interpreted text role "source".

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Unknown directive type "index".

```
.. index:: single: protocol; Telnet
```

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Unknown directive type "deprecated".

```
.. deprecated:: 3.11
   The :mod:`telnetlib` module is deprecated (see :pep:`594` for details).
```

The `:mod:`telnetlib`` module provides a `:class:`Telnet`` class that implements the Telnet protocol. See [RFC 854](#) for details about the protocol. In addition, it provides symbolic constants for the protocol characters (see below), and for the telnet options. The symbolic names of the telnet options follow the definitions in `arpa/telnet.h`, with the leading `TELOPT_` removed. For symbolic names of options which are traditionally not included in `arpa/telnet.h`, see the module source itself.

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Unknown interpreted text role "mod".

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Unknown interpreted text role "class".

The symbolic constants for the telnet commands are: IAC, DONT, DO, WONT, WILL, SE (Subnegotiation End), NOP (No Operation), DM (Data Mark), BRK (Break), IP (Interrupt process), AO (Abort output), AYT (Are You There), EC (Erase

Character), EL (Erase Line), GA (Go Ahead), SB (Subnegotiation Begin).

`class:Telnet` represents a connection to a Telnet server. The instance is initially not connected by default; the `meth:~Telnet.open` method must be used to establish a connection. Alternatively, the host name and optional port number can be passed to the constructor too, in which case the connection to the server will be established before the constructor returns. The optional *timeout* parameter specifies a timeout in seconds for blocking operations like the connection attempt (if not specified, the global default timeout setting will be used).

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Unknown interpreted text role "class".

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Unknown interpreted text role "meth".

Do not reopen an already connected instance.

This class has many `meth:read_*` methods. Note that some of them raise `exc:EOFError` when the end of the connection is read, because they can return an empty string for other reasons. See the individual descriptions below.

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Unknown interpreted text role "meth".

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Unknown interpreted text role "exc".

A `class:Telnet` object is a context manager and can be used in a `keyword:with` statement. When the `keyword:!with` block ends, the `meth:close` method is called:

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Unknown interpreted text role "class".

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Unknown interpreted text role "keyword".

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Unknown interpreted text role "keyword".

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Unknown interpreted text role "meth".

```
>>> from telnetlib import Telnet
>>> with Telnet('localhost', 23) as tn:
...     tn.interact()
... 
```

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Unknown directive type "versionchanged".

```
.. versionchanged:: 3.6 Context manager support added
```

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Unknown directive type "seealso".

```
.. seealso::

   :rfc:`854` - Telnet Protocol Specification
      Definition of the Telnet protocol.
```

Telnet Objects

`:class:`Telnet`` instances have the following methods:

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Unknown interpreted text role "class".

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Unknown directive type "method".

```
.. method:: Telnet.read_until(expected, timeout=None)

   Read until a given byte string, *expected*, is encountered or until *timeout*
   seconds have passed.

   When no match is found, return whatever is available instead, possibly empty
   bytes. Raise :exc:`EOFError` if the connection is closed and no cooked data
   is available.
```

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Unknown directive type "method".

```
.. method:: Telnet.read_all()

   Read all data until EOF as bytes; block until connection closed.
```

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Unknown directive type "method".

```
.. method:: Telnet.read_some()

   Read at least one byte of cooked data unless EOF is hit. Return ``b''`` if
   EOF is hit. Block if no data is immediately available.
```

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Unknown directive type "method".

```
.. method:: Telnet.read_very_eager()

   Read everything that can be without blocking in I/O (eager).

   Raise :exc:`EOFError` if connection closed and no cooked data available.
   Return ``b''`` if no cooked data available otherwise. Do not block unless in
   the midst of an IAC sequence.
```

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Unknown directive type "method".

```
.. method:: Telnet.read_eager()

    Read readily available data.

    Raise :exc:`EOFError` if connection closed and no cooked data available.
    Return ``b''`` if no cooked data available otherwise. Do not block unless in
    the midst of an IAC sequence.
```

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Unknown directive type "method".

```
.. method:: Telnet.read_lazy()

    Process and return data already in the queues (lazy).

    Raise :exc:`EOFError` if connection closed and no data available. Return
    ``b''`` if no cooked data available otherwise. Do not block unless in the
    midst of an IAC sequence.
```

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Unknown directive type "method".

```
.. method:: Telnet.read_very_lazy()

    Return any data available in the cooked queue (very lazy).

    Raise :exc:`EOFError` if connection closed and no data available. Return
    ``b''`` if no cooked data available otherwise. This method never blocks.
```

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Unknown directive type "method".

```
.. method:: Telnet.read_sb_data()

    Return the data collected between a SB/SE pair (suboption begin/end). The
    callback should access these data when it was invoked with a ``SE`` command.
    This method never blocks.
```

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Unknown directive type "method".

```
.. method:: Telnet.open(host, port=0[, timeout])

    Connect to a host. The optional second argument is the port number, which
    defaults to the standard Telnet port (23). The optional *timeout* parameter
    specifies a timeout in seconds for blocking operations like the connection
    attempt (if not specified, the global default timeout setting will be used).

    Do not try to reopen an already connected instance.

    .. audit-event:: telnetlib.Telnet.open self,host,port telnetlib.Telnet.open
```

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main\Doc\library\ (cpython-main) (Doc) (library) telnetlib.rst, line 151)

Unknown directive type "method".

```
.. method:: Telnet.msg(msg, *args)
```

Print a debug message when the debug level is ``>`` 0. If extra arguments are present, they are substituted in the message using the standard string formatting operator.

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Unknown directive type "method".

```
.. method:: Telnet.set_debuglevel(debuglevel)
```

Set the debug level. The higher the value of *debuglevel*, the more debug output you get (on ``sys.stdout``).

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Unknown directive type "method".

```
.. method:: Telnet.close()
```

Close the connection.

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Unknown directive type "method".

```
.. method:: Telnet.get_socket()
```

Return the socket object used internally.

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Unknown directive type "method".

```
.. method:: Telnet.fileno()
```

Return the file descriptor of the socket object used internally.

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Unknown directive type "method".

```
.. method:: Telnet.write(buffer)
```

Write a byte string to the socket, doubling any IAC characters. This can block if the connection is blocked. May raise :exc:`OSError` if the connection is closed.

```
.. audit-event:: telnetlib.Telnet.write self,buffer telnetlib.Telnet.write
```

```
.. versionchanged:: 3.3
```

This method used to raise :exc:`socket.error`, which is now an alias of :exc:`OSError`.

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Unknown directive type "method".

```
.. method:: Telnet.interact()

    Interaction function, emulates a very dumb Telnet client.
```

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Unknown directive type "method".

```
.. method:: Telnet.mt_interact()

    Multithreaded version of :meth:`interact`.
```

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Unknown directive type "method".

```
.. method:: Telnet.expect(list, timeout=None)

    Read until one from a list of a regular expressions matches.

    The first argument is a list of regular expressions, either compiled
    (:ref:`regex objects <re-objects>`) or uncompiled (byte strings). The
    optional second argument is a timeout, in seconds; the default is to block
    indefinitely.

    Return a tuple of three items: the index in the list of the first regular
    expression that matches; the match object returned; and the bytes read up
    till and including the match.

    If end of file is found and no bytes were read, raise :exc:`EOFError`.
    Otherwise, when nothing matches, return ``(-1, None, data)`` where *data* is
    the bytes received so far (may be empty bytes if a timeout happened).

    If a regular expression ends with a greedy match (such as ``.*``) or if more
    than one expression can match the same input, the results are
    non-deterministic, and may depend on the I/O timing.
```

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Unknown directive type "method".

```
.. method:: Telnet.set_option_negotiation_callback(callback)

    Each time a telnet option is read on the input flow, this *callback* (if set) is
    called with the following parameters: callback(telnet socket, command
    (DO/DONT/WILL/WONT), option). No other action is done afterwards by telnetlib.
```

Telnet Example

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Unknown directive type "sectionauthor".

```
.. sectionauthor:: Peter Funk <pf@artcom-gmbh.de>
```

A simple example illustrating typical use:

```
import getpass
import telnetlib

HOST = "localhost"
user = input("Enter your remote account: ")
password = getpass.getpass()

tn = telnetlib.Telnet(HOST)

tn.read_until(b"login: ")
tn.write(user.encode('ascii') + b"\n")
if password:
    tn.read_until(b"Password: ")
    tn.write(password.encode('ascii') + b"\n")

tn.write(b"ls\n")
tn.write(b"exit\n")

print(tn.read_all().decode('ascii'))
```