

# Platform Support

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

Unknown directive type "currentmodule".

```
.. currentmodule:: asyncio
```

The `mod: 'asyncio'` module is designed to be portable, but some platforms have subtle differences and limitations due to the platforms' underlying architecture and capabilities.

**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] asyncio-platforms.rst, line 11); [backlink](#)

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## All Platforms

- `meth: 'loop.add_reader'` and `meth: 'loop.add_writer'` cannot be used to monitor file I/O.

**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] asyncio-platforms.rst, line 19); [backlink](#)

Unknown interpreted text role "meth".

**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] asyncio-platforms.rst, line 19); [backlink](#)

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## Windows

**Source code:** `source: 'Lib/asyncio/proactor_events.py'`, `source: 'Lib/asyncio/windows_events.py'`,  
`source: 'Lib/asyncio/windows_utils.py'`

**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] asyncio-platforms.rst, line 26); [backlink](#)

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**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] asyncio-platforms.rst, line 26); [backlink](#)

Unknown interpreted text role "source".

**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] asyncio-platforms.rst, line 26); [backlink](#)

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**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] asyncio-platforms.rst, line 32)

Unknown directive type "versionchanged".

```
.. versionchanged:: 3.8
```

On Windows, `:class: 'ProactorEventLoop'` is now the default event loop.

All event loops on Windows do not support the following methods:

- `meth:`loop.create_unix_connection`` and `meth:`loop.create_unix_server`` are not supported. The `data:`socket.AF_UNIX`` socket family is specific to Unix.

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**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] asyncio-platforms.rst, line 38); [backlink](#)

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**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] asyncio-platforms.rst, line 38); [backlink](#)

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- `meth:`loop.add_signal_handler`` and `meth:`loop.remove_signal_handler`` are not supported.

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**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] asyncio-platforms.rst, line 42); [backlink](#)

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`class:`SelectorEventLoop`` has the following limitations:

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- `class:`~selectors.SelectSelector`` is used to wait on socket events: it supports sockets and is limited to 512 sockets.

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- `meth:`loop.add_reader`` and `meth:`loop.add_writer`` only accept socket handles (e.g. pipe file descriptors are not supported).

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- Pipes are not supported, so the `meth:'loop.connect_read_pipe'` and `meth:'loop.connect_write_pipe'` methods are not implemented.

**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] asyncio-platforms.rst, line 53); [backlink](#)

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- `ref:'Subprocesses <asyncio-subprocess>'` are not supported, i.e. `meth:'loop.subprocess_exec'` and `meth:'loop.subprocess_shell'` methods are not implemented.

**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] asyncio-platforms.rst, line 56); [backlink](#)

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**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] asyncio-platforms.rst, line 56); [backlink](#)

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`class:'ProactorEventLoop'` has the following limitations:

**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] asyncio-platforms.rst, line 60); [backlink](#)

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- The `meth:'loop.add_reader'` and `meth:'loop.add_writer'` methods are not supported.

**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] asyncio-platforms.rst, line 62); [backlink](#)

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**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library] asyncio-platforms.rst, line 62); [backlink](#)

Unknown interpreted text role "meth".

The resolution of the monotonic clock on Windows is usually around 15.6 milliseconds. The best resolution is 0.5 milliseconds. The resolution depends on the hardware (availability of [HPET](#)) and on the Windows configuration.

## Subprocess Support on Windows

On Windows, the default event loop `class:'ProactorEventLoop'` supports subprocesses, whereas `class:'SelectorEventLoop'` does not.

**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]asyncio-platforms.rst, line 77); [backlink](#)

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**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]asyncio-platforms.rst, line 77); [backlink](#)

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The `meth:policy.set_child_watcher()` `<AbstractEventLoopPolicy.set_child_watcher>` function is also not supported, as `class:ProactorEventLoop` has a different mechanism to watch child processes.

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**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]asyncio-platforms.rst, line 80); [backlink](#)

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## macOS

Modern macOS versions are fully supported.

### macOS <= 10.8

On macOS 10.6, 10.7 and 10.8, the default event loop uses `class:selectors.KqueueSelector`, which does not support character devices on these versions. The `class:SelectorEventLoop` can be manually configured to use `class:~selectors.SelectSelector` or `class:~selectors.PollSelector` to support character devices on these older versions of macOS. Example:

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**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]asyncio-platforms.rst, line 93); [backlink](#)

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**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]asyncio-platforms.rst, line 93); [backlink](#)

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**System Message: ERROR/3** (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main] [Doc] [library]asyncio-platforms.rst, line 93); [backlink](#)

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```
import asyncio
import selectors
```

```
selector = selectors.SelectSelector()
loop = asyncio.SelectorEventLoop(selector)
asyncio.set_event_loop(loop)
```