



# pySerial-asyncio Documentation

*Release 0.4*

pySerial-team

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Async I/O extension for the [Python Serial Port](#) package for OSX, Linux, BSD

It depends on pySerial and is compatible with Python 3.4 and later.

Other pages (online)

- [project page on GitHub](#)
- [Download Page with releases](#)
- This page, when viewed online is at <https://pyserial-asyncio.readthedocs.io/en/latest/> or <http://pythonhosted.org/pyserial-asyncio/> .

Contents:



Example:

```
import asyncio
import serial_asyncio

class Output(asyncio.Protocol):
    def connection_made(self, transport):
        self.transport = transport
        print('port opened', transport)
        transport.serial.rts = False # You can manipulate Serial object via transport
        transport.write(b'Hello, World!\n') # Write serial data via transport

    def data_received(self, data):
        print('data received', repr(data))
        if b'\n' in data:
            self.transport.close()

    def connection_lost(self, exc):
        print('port closed')
        self.transport.loop.stop()

    def pause_writing(self):
        print('pause writing')
        print(self.transport.get_write_buffer_size())

    def resume_writing(self):
        print(self.transport.get_write_buffer_size())
        print('resume writing')

loop = asyncio.get_event_loop()
coro = serial_asyncio.create_serial_connection(loop, Output, '/dev/ttyUSB0',
↳baudrate=115200)
loop.run_until_complete(coro)
loop.run_forever()
loop.close()
```





## 2.1 asyncio

**Warning:** This implementation is currently in an experimental state. Use at your own risk.

Experimental asyncio support is available for Python 3.4 and newer. The module `serial_asyncio` provides a `asyncio.Transport: SerialTransport`.

A factory function (`asyncio.coroutine`) is provided:

```
serial_asyncio.create_serial_connection(loop, protocol_factory, *args, **kwargs)
```

### Parameters

- **loop** – The event handler
- **protocol\_factory** – Factory function for a `asyncio.Protocol`
- **args** – Passed to the `serial.Serial` init function
- **kwargs** – Passed to the `serial.Serial` init function

### Platform Posix

Get a connection making coroutine.

Example:

```
import asyncio
import serial_asyncio

class Output(asyncio.Protocol):
    def connection_made(self, transport):
        self.transport = transport
```

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```
print('port opened', transport)
transport.serial.rts = False
transport.write(b'hello world\n')

def data_received(self, data):
    print('data received', repr(data))
    self.transport.close()

def connection_lost(self, exc):
    print('port closed')
    asyncio.get_event_loop().stop()

loop = asyncio.get_event_loop()
coro = serial_asyncio.create_serial_connection(loop, Output, '/dev/ttyUSB0',
↳baudrate=115200)
loop.run_until_complete(coro)
loop.run_forever()
loop.close()
```

### 3.1 License

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## CHAPTER 4

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