# Using the Serialization Examples

For all the libraries, they should be available using the usual *pip install* or *conda install* routes depending on your Python set up.

If required, these are the source websites

## Apache Avro

Website: <https://avro.apache.org/docs/1.11.1/getting-started-python/>

I have used the standard python package provided by Apache.

## ProtoBuf

Website: <https://protobuf.dev/getting-started/pythontutorial/>

To make the examples work, you will also need to download the *protoc* executable that makes the python class from the schema (that is then used to serialize the data). This comes from: <https://github.com/protocolbuffers/protobuf/releases/tag/v30.1>

Once installed, the directories in the write\_protobuf\_schema function may need to be updated to match your installation.

## CBOR/CDDL

Website (CBOR python): <https://github.com/agronholm/cbor2>

Website (CDDL Parser): https://gitlab.com/tahoe-lafs/pycddl

The CBOR website (https://cbor.io/spec.html) contains links to the relevant specifications, including CDDL.

Where I could discern it, the python modules I have chosen are the mostly commonly installed ones to provide the functionality. For CDDL there, wasn't a clear winner = I used the one that I could get working in the shortest time!

## Example Data

These example read in data from dump (new 6.txt) from a BOM AWS in the Bureau's in-house One Minute Data Format. The aim was to use some "real world" data for the examples, but the import/conversion process is not pretty!

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