Python: How do I compile the Python3 fast bindings - ecCodes FAQ

This is an optional compilation step in addition to Installation of the Python3 bindings which makes the code as fast as the original ecCodes module.

Step-by-step guide

To test the much faster CFFI API level, out-of-line mode you need the ecCodes header files. Then you need to clone the repo in the same folder as your ecCodes source tree, make a pip development install and custom compile the binary bindings following these steps:

```
# Clone the repository to the same folder of your ecCodes source tree:
% git clone https://github.com/ecmwf/eccodes-python
% cd eccodes-python

# Make a pip development install:
% pip install -e .

# Copy ecCodes header files from ecCodes installation to Python3 include directory:
% cp {ECCODES_DIR}/include/*.h {PYTHON3_DIR}/include/python3.X/

# Compile the binary bindings:
% python3 builder.py
```

Related articles

- How do I decode messages from a byte stream - ecCodes FAQ
- How to install ecCodes with Python bindings in conda - ecCodes FAQ
- Python3: codes_write error: 'argument must be str, not bytes' - ecCodes FAQ
- How to loop over all the fields in my fieldset? - Magics FAQ
- HPC2020: Software stack