

User Software :: pyBDSM

<html> <div style="border:2px dashed red; padding: 2em;"><h2>WARNING:</h2> PyBDSM cannot be found in LUS repository any more (10-02-2014). The documentation of PyBDSM can be found <a href="<http://dl.dropboxusercontent.com/u/1948170/html/installation.html>">here</div> </html>

External dependencies

The following packages are required in order to build pyBDSM:

- Python
- NumPy
- WCSLIB
- CFITSIO
- port3 - this is part of pyBDSM now
- minpack - this is part of pyBDSM now

The following packages are required in order to run pyBDSM:

- SciPy
- [pyfits](#)
- **fortran stuff (to make faster)**
- f2py

Installation procedure

1. Check out source code from the LUS repository

```
svn co http://usg.lofar.org/svn/code/trunk lofarsoft
```

The components of the source code are organized as follows:

```
lofarsoft
`-- src
    `-- BDSM
        |-- doc          .. Documentation directory
        |-- implement     .. Source code compiled into library and
executables
        |   |-- bdsm       .. Original Fortran BDSM
        |   |-- minpack
        |   |-- port3
        |   '-- pybdsm     .. C-based Boost.Python wrappers
        '-- scripts      .. Python scripts
```

- fortran and c stuff to be compiled into libraries are in `implement/pybdsm`
- anaamika is in `implement/bdsm`
- port3 etc are in `implement`

2. Run the bootstrap script in the build directory:

```
cd build
./bootstrap
```

3. Build *pyBDSM*:

```
make bdsm
```

This will also go through the list of required external packages and check whether they are installed; if this is not the case, the dependencies will be resolved before continuing with *pyBDSM* itself.

The following components (libraries and application programs) will be build:

- *_py2fbdsm* – Write *pyBDSM* output to fBDSM format
- *_pytesselate* – Fortran implementation of Tesselation
- *_cbdsm* – Main python module to be imported

4. Installation of *pyBDSM*

Upon completion of the build, the generated components will be installed into the following locations:

```
.
          .. $LOFARSOFT
|-- release
|   |-- bin
|   |   .. $PATH
|   |-- include
|   |   ..
|   `-- lib
|       '-- python
|           |-- _cbdsm.so
|           '-- bdsm
|               .. Installation location of Python
scripts
|       |-- image.py
|       |
|       |
```

- executables are in *release/bin* and other stuff are in *release/lib*, *release/includes* and *release/lib/python* (pythonpath)
- doc is in *doc*

Troubleshooting

```
>>> import bdsm
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
  File "/home/lars/usg/code/trunk/release/lib/python/bdsm/__init__.py", line
9, in <module>
    from preprocess import Op_preprocess
  File "/home/lars/usg/code/trunk/release/lib/python/bdsm/preprocess.py",
line 8, in <module>
    import _cbdsm
```

ImportError: dynamic module does **not** define init function (**init_cbdsm**)

← User Software

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