

User Software :: pyBDSM

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
2. Run the bootstrap script in the build directory:

```
cd build  
./bootstrap
```

3. Build and install *pyBDSM*:

```
make bdsm
```

This will also go through the list of required packages and check whether they are installed.

Components to be build

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

For David

- Does he want to write stuff (varybeta etc) in C and take it in thro boost ?

Preferred structure

```
.                                .. $LOFARSOFT
|-- release
|   |-- bin                      .. $PATH
|   |-- include
`-- lib
    '-- python                  .. $PYTHONPATH
        |-- _cbdsm.so
        '-- bdsm                   .. Installation location of Python scripts
            '-- image.py
            |
`-- src
    '-- BDSM
        |-- doc                  .. Documentation directory
        |-- implement             .. contains 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*
- 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)
```

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