

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 Tessellation
- `_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

```

.
|-- release
|   |-- bin
|   |-- include
|   `-- lib
|       |-- python
|           |-- _cbdsm.so
|           `-- bdsm
|               |-- image.py
|               |
|-- src
|   `-- BDSM
|       |-- doc
|       |-- implement
library and executables
|   |-- bdsm
|   |-- minpack
|   |-- port3
|   `-- pybdsm
`-- scripts
.. $LOFARSOFT
.. $PATH
.. $PYTHONPATH
.. Installation location of Python scripts
.. Documentation directory
.. contains source code compiled into
.. original Fortran BDSM
.. C-based Boost.Python wrappers
.. 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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Last update: **2011-10-17 16:47**

