

# Lithomop

## LithoMop

LithoMop Software Page

LithoMop is a finite element code for the solution of the visco-elastic/plastic deformation that was designed for lithospheric modeling problems.

(Image(images.png ) failed - File not found) LithoMop is obsolete and has been replaced by PyLith.

## LithoMop System Requirements

Lithomop3d should work on any UN\*X system. It requires the following language tools:

- A Fortran compiler. Both older Fortran-77 and modern Fortran-9x compilers will work.
- A C compiler.
- A C++ compiler.
- [Python 2.3 or later](#)

If you are using a modern UN\*X system, there is a good chance that all of the above tools are already installed.

In addition, Lithomop3d v0.7.2 requires the following software packages:

- (Optional) An MPI library. Lithomop3d itself is a serial code which does not use MPI. However, both PETSc and Pythia (detailed below) require MPI by default. A popular choice is [MPICH](#).

is recommended by the PETSc installation instructions; in fact, PETSc's configure.py can automatically download and install MPICH for you ('--download-mpich=yes').

decide to skip installing MPI, you will have to specially configure both PETSc and Pythia not to use MPI.

[PETSc version 2.3](#), available from the MCS web site at Argonne National Laboratory.

ot to install MPI, give PETSc's configure.py the '--with-mpi=0' option. See the PETSc installation details.

[version 0.8](#). The easiest way to install Pythia is to download the GNU-style pythia-0.8.tar.gz source from the CIG web site under 'Software ? Software Packages ? Pythia'

install MPI, give Pythia's configure the '-without-mpi' option. General information about Pythia can be [found on the Pythia project page](#).

Both PETSc and Pythia are generally not backwards-compatible with prior versions. Therefore, you must use Pythia v0.8 specifically; future versions of PETSc and Pythia would not be expected to work with