

BUILD SEQUENCE FOR ASPECT on SCIENT 24TH OCTOBER 2016

setup a folder p4est first and put all this stuff in it.

```
mkdir p4est
```

#put all the p4est information into p4est.

```
sh ./p4est-setup.sh p4est-1.1.tar.gz /home/r/russ/phaeron/p4est
```

```
git clone --recursive https://github.com/geodynamics/aspect.git
```

```
module load gcc/4.8.1 cmake/3.4.0 intel/15.0.2 openmpi/intel/1.6.4 cxxlibraries/boost/  
1.55.0-intel trilinos/12.6.1 nano python/2.7.5 extras/64_6.4 paraview/4.1.0
```

Local build directory in DEAL.II Source

```
mkdir dealii-8.4.1/build
```

```
cd dealii-8.4.1/build
```

For Deal II to pickup Trilinos

```
export TRILINOS_DIR=/scinet/gpc/Libraries/trilinos-12.6.1-openmpi/
```

```
export TRILINOS_INC=/scinet/gpc/Libraries/trilinos-12.6.1-openmpi//include
```

```
export TRILINOS_LIB=/scinet/gpc/Libraries/trilinos-12.6.1-openmpi//lib
```

```
export CC=mpicc
```

```
export CXX=mpicxx
```

```
export FC=mpif90
```

```
export F77=mpif77
```

```
cmake -DDEAL_II_WITH_MPI=ON \
```

```
-DCMAKE_INSTALL_PREFIX=/home/r/russ/phaeron/dealii-8.4.1/build/ \
```

```
-DTRILINOS_DIR= ${SCINET_TRILINOS_BASE} \
```

```
-DP4EST_DIR=/home/r/russ/phaeron/p4est/ \
```

```
-DDEAL_II_WITH_P4EST=ON \
```

```
-DDEAL_II_WITH_TRILINOS=ON \
```

```
/home/r/russ/phaeron//dealii-8.4.1/
```

```
make -j8 install
```

```
make -j8 test
```

Test with

```
# cd install/examples/step-32
```

```
# cmake .
```

```
# make
```

```
# mpirun -n 2./step-32.
```

```
git clone --recursive https://github.com/geodynamics/aspect.git
```

```
export DEAL_II_DIR=/home/r/russ/phaeron/dealii-8.4.1/build/
```

```
cmake -D CMAKE_C_COMPILER="icc" -D ASPECT_USE_FP_EXCEPTIONS=OFF .
```

```
make -j8
```

```
make -j8 test
```