

Diva workshop 2013

Installation and tests

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Download and extract the code

Create directory and download Diva archive

```
[ctroupin@gher13 ~]$ mkdir DIVA  
[ctroupin@gher13 ~]$ cd DIVA/  
[ctroupin@gher13 DIVA]$ wget http://modb.oce.ulg.ac.be/  
mediawiki/upload/DIVA/releases/diva-4.6.2.tar.gz
```

Extract the archive and go in the main directory:

```
[ctroupin@gher13 DIVA]$ tar -xvf diva-4.6.2.tar.gz  
[ctroupin@gher13 DIVA]$ cd diva-4.6.2/
```

Compilation

Go to source directory

```
ctroupin@gher13 ~/DIVA/diva-4.6.2 $ cd DIVA3D/src/  
Fortran/
```

Run divacompileall ☕

```
ctroupin@gher13 ~/DIVA/diva-4.6.2/DIVA3D/src/Fortran $  
./divacompileall
```

You should get:

```
You have compiled 101 programs  
out of 101  
Writing log file...  
--> written in compilation.log  
...
```

Otherwise: edit `divacompile_options`

Tests: 2D

Go to directory `divastripped` (main directory for 2D runs)

```
ctroupin@gher13 ~/DIVA/diva-4.6.2/DIVA3D/src/Fortran $  
cd ../../divastripped/
```

Run `divatest0` ☕

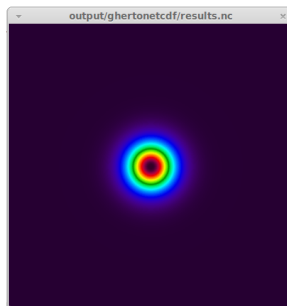
```
ctroupin@gher13 ~/DIVA/diva-4.6.2/DIVA3D/divastripped $  
./divatest0
```

You should get:

Check the results in
`./output/ghertonetcdf/results.nc` (netcdf)

Field value at origin = 0.49961258873206416

With `ncview`:



Tests: 2D

Run `divatest`

(test for pipes) ☕

```
ctroupin@gher13 ~/DIVA/diva-4.6.2/DIVA3D/divastripped $  
./divatest
```

If you get:

```
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!  
Pipe does not work  
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
```

then follow instructions on screen



Tests: 2D

Run `divabigtest`

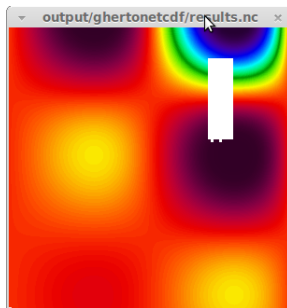
(test for large data files) ☕☕☕

```
ctroupin@gher13 ~/DIVA/diva-4.6.2/DIVA3D/divastripped $  
./divabigtest 100000
```

You should get:

```
...  
Check the results in  
./ouput/ghertonetcdf/results.nc (netcdf)  
Time for mesh creation: 0.830351 s  
Time for calculation: 87.1226 s  
Total time for analysis: 87.953 s
```

otherwise: decrease number of data



Tests: 4D

Go to directory **Climatology** (main directory for 4D runs)

```
ctroupin@gher13 ~/DIVA/diva-4.6.2/DIVA3D/divastripped $  
cd ../../JRA4/Climatology/
```

Copy the input files from the **Example4D**

```
ctroupin@gher13 ~/Software/diva-4.6.2/JRA4/Climatology $  
cp -r ../../Example4D/* .
```

Run **divadoall** ☕☕

```
ctroupin@gher13 ~/Software/diva-4.6.2/JRA4/Climatology $  
./divadoall > runtest.log
```

You should get:

```
...  
check-list of errors :  
no error, you are lucky  
divadoall: =====  
divadoall: Finished Salinity  
divadoall: =====
```

and results in **output/3Danalysis/**

