To compile other projects, like e.g. non-linear flow in heterogenous media, we need to use GALOIS framework.

We need to recompile the code with -DUSE_GALOIS=ON flag

student@ubuntu:~/iga-ads2$ cd ~/iga-ads2

student@ubuntu:~/iga-ads2$ rm CMakeCache.txt

student@ubuntu:~/iga-ads2$ cmake -DUSE_GALOIS=ON .

student@ubuntu:~/iga-ads2$ make

student@ubuntu:~/iga-ads2$ ls

..

flow

..

student@ubuntu:~/iga-ads2$ ./flow

Step 0, energy: 0.0117953

Step 10, energy: 0.0116884

Step 20, energy: 0.01162

Step 30, energy: 0.0115657

We can stop the simulation after certain number of time steps Ctrl+C, collect out* files and generate ParaView movies.

student@ubuntu:~/iga-ads2$ ls -al

...

-rw-rw-r-- 1 student student 9683898 Jul 19 22:04 out_0.vti

-rw-rw-r-- 1 student student 9683898 Jul 19 22:07 out_1000.vti

-rw-rw-r-- 1 student student 9683898 Jul 19 22:04 out_100.vti

-rw-rw-r-- 1 student student 9683898 Jul 19 22:05 out_200.vti

-rw-rw-r-- 1 student student 9683898 Jul 19 22:05 out_300.vti

-rw-rw-r-- 1 student student 9683898 Jul 19 22:05 out_400.vti

-rw-rw-r-- 1 student student 9683898 Jul 19 22:06 out_500.vti

-rw-rw-r-- 1 student student 9683898 Jul 19 22:06 out_600.vti

-rw-rw-r-- 1 student student 9683898 Jul 19 22:06 out_700.vti

-rw-rw-r-- 1 student student 9683898 Jul 19 22:07 out_800.vti

-rw-rw-r-- 1 student student 9683898 Jul 19 22:07 out_900.vti

student@ubuntu:~/iga-ads2$ mkdir outputs

student@ubuntu:~/iga-ads2$ mv out* outputs/

mv: cannot move 'outputs' to a subdirectory of itself, 'outputs/outputs'

student@ubuntu:~/iga-ads2$ cd outputs/

student@ubuntu:~/iga-ads2/outputs$ tar -c . >> output.tar

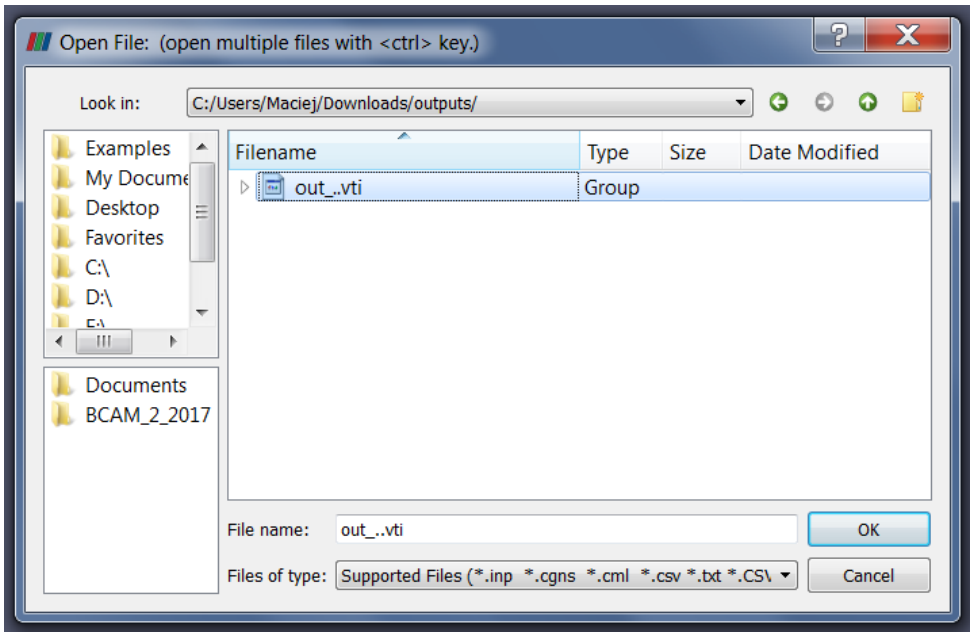
tar: ./output.tar: file is the archive; not dumped

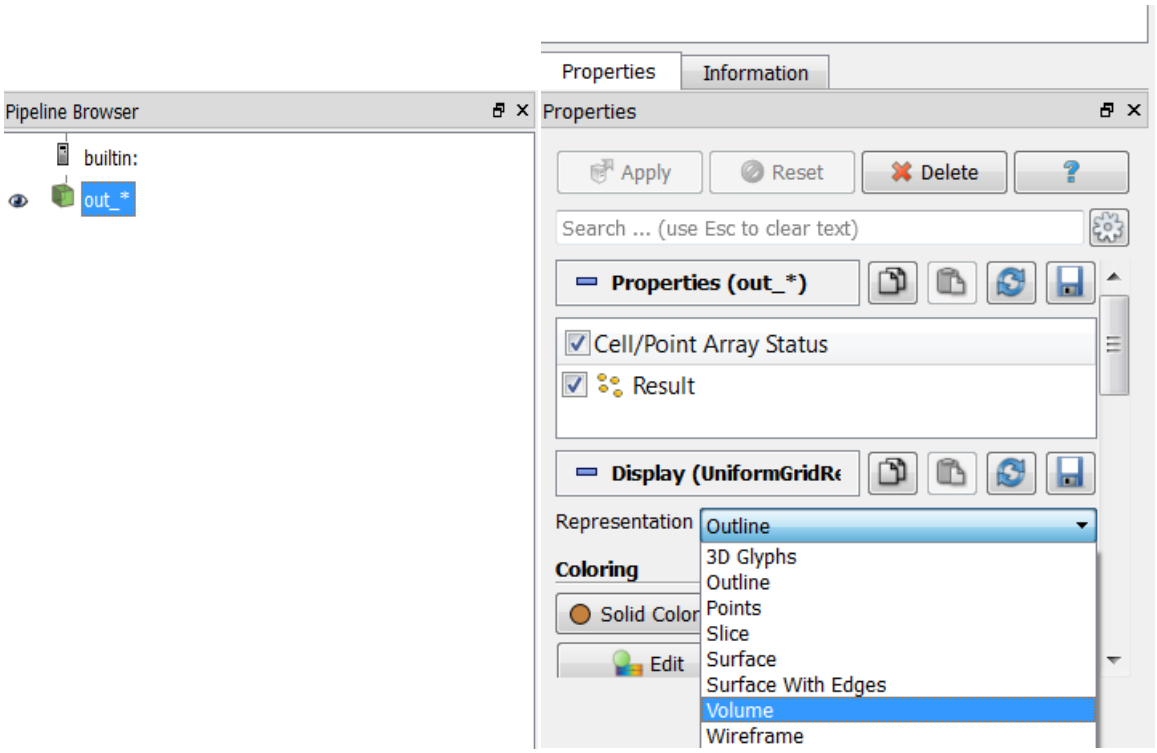
student@ubuntu:~/iga-ads2/outputs$ gzip output.tar

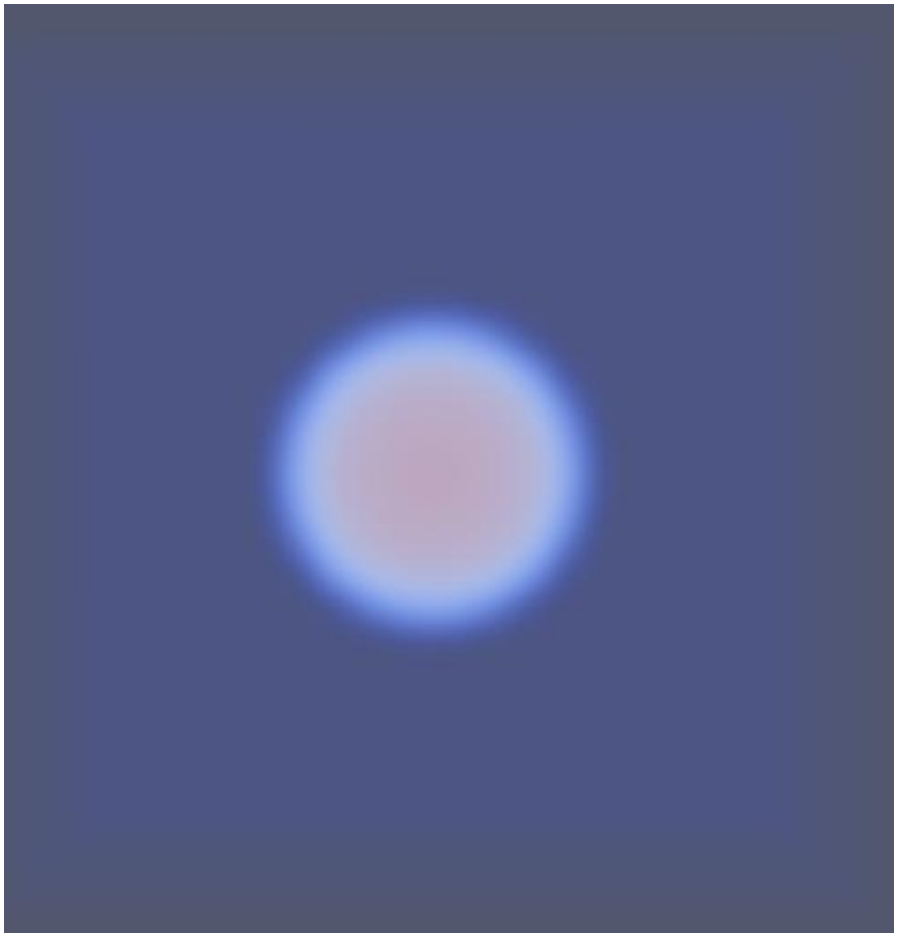
Now we can copy output.tar.gz to your laptop where you have the ParaView installed

Run the ParaView

Open the files in ParaView as a group File->Open







Now, you can play with the color scale (menu on the right)

as well as you can run animation using play button (on the top center)