

WRF4G Tutorial part 2

In this second part of WRF4G tutorial we are going to see how to manage WRF4G errors. In order to do that,

```
[user@mycomputer~]$ cd $WRF4G_LOCATION/experiments

[user@mycomputer~]$ ls
single_test  wrfuc_physics  wrfuc_single_serial

[user@mycomputer~]$ cp -r single_test single_test_1

[user@mycomputer~]$ cd single_test_1

[user@mycomputer~]$ cat experiment.wrf4g | grep experiment_name
experiment_name = "test"

[user@mycomputer~]$ cat experiment.wrf4g | grep "end_date "
end_date       = "2011-08-30_00:00:00"

[user@mycomputer~] cat experiment.wrf4g | grep experiment_name
experiment_name = "test_2"

[user@mycomputer~]$ cat experiment.wrf4g | grep "end_date "
end_date       = "2011-08-30_12:00:00"

[user@mycomputer~]$ wrf4g_prepare
Warning: You are using resources.wrf4g located in the /home/user/WRF4G/experiments/single_test_1 directory.
Preparing namelist...
WRFV3/run/namelist.input
WRF Check Warning: CAM radiation selected but paerlev/levsiz/cam_abs_dim1/cam_abs_dim2 was not set. Fixing...
WRF Check Warning: radt is shorter than dx (0.500000)

---> Single params run
---> Continuous run
    ---> cycle_chunks: test_1 2011-08-28_12:00:00 2011-08-30_12:00:00
        ---> chunks 1: test_1 2011-08-28_12:00:00 2011-08-29_00:00:00
        ---> chunks 2: test_1 2011-08-29_00:00:00 2011-08-29_12:00:00
        ---> chunks 3: test_1 2011-08-29_12:00:00 2011-08-30_00:00:00
        ---> chunks 4: test_1 2011-08-30_00:00:00 2011-08-30_12:00:00

[user@mycomputer~]$ wrf4g_status --long
Realization      GW  Stat Chunks Comp.Res  WN      Run.Sta      ext  %
test             2   D  3/3   mycomputer ciclon   Finished    0 100.00
test_1          -   P  0/4   -          -        Prepared     -  0.00

[user@mycomputer~]$ wrf4g_submit
Submitting realization: "test_1"
    Submitting Chunk 1:    2011-08-28_12:00:00    2011-08-29_00:00:00
    Submitting Chunk 2:    2011-08-29_00:00:00    2011-08-29_12:00:00
    Submitting Chunk 3:    2011-08-29_12:00:00    2011-08-30_00:00:00
    Submitting Chunk 4:    2011-08-30_00:00:00    2011-08-30_12:00:00

[user@mycomputer~]$ wrf4g_status --long
Realization      GW  Stat Chunks Comp.Res  WN      Run.Sta      ext  %
test             2   D  3/3   mycomputer ciclon   Finished    0 100.00
test_1          4   R  2/4   mycomputer ciclon   WRF         -  25.00

[user@mycomputer~]$ wrf4g_status --long
Realization      GW  Stat Chunks Comp.Res  WN      Run.Sta      ext  %
test             2   D  3/3   mycomputer ciclon   Finished    0 100.00
test_1          5   W  3/4   -          -        Submitted   -  50.00
```

```
[user@mycomputer~]$ wrf4g_status --long
Realization      GW  Stat Chunks Comp.Res  WN      Run.Sta  ext  %
test             2   D  3/3   mycomputer ciclon  Finished  0 100.00
test_1           6   W  4/4   -          -        Submitted - 75.00

[user@mycomputer~]$ wrf4g_status --long
Realization      GW  Stat Chunks Comp.Res  WN      Run.Sta  ext  %
test             2   D  3/3   mycomputer ciclon  Finished  0 100.00
test_1           6   W  4/4   -          -        Submitted - 75.00

[user@mycomputer~]$ wrf4g_status --long
Realization      GW  Stat Chunks Comp.Res  WN      Run.Sta  ext  %
test             2   D  3/3   mycomputer ciclon  Finished  0 100.00
test_1           6   F  4/4   mycomputer ciclon  Failed    62 75.00
```

```
[user@mycomputer~]$ cat $WRF4G_LOCATION/etc/resources.wrf4g | grep WRF4G_BASEPATH=
WRF4G_BASEPATH="/home/user/WRF4G/repository/output"
[user@mycomputer~]$ cd $WRF4G_LOCATION/repository/output/test_1/test_1/log/

[user@mycomputer~]$ ls
log_1_4.tar.gz log_2_5.tar.gz log_3_6.tar.gz log_4_7.tar.gz

[user@mycomputer~]$ tar xzfv log_4_7.tar.gz
WRF4G.log
configure.wps
ls.wps
ls.wrf
ungrib_GFS_2011083000.out

[user@mycomputer~]$ cat WRF4G.log
* Mon Oct 1 17:27:45 CEST 2012: Creating WRF4G structure ...
~/home/user/WRF4G/repository/apps/WRFbin-3.1.1_r832INTEL_OMPI.tar.gz' -> ~/home/user/.gw_user_6/WRFbin-3.1.1_r832INTEL_OMPI
~/home/user/WRF4G/repository/output/test_1/test_1/namelist.input' -> ~/home/user/.gw_user_6/WRFV3/run/namelist.input'
* Mon Oct 1 17:27:46 CEST 2012: Preparing WRF4G binaries ...
* Mon Oct 1 17:27:46 CEST 2012: Creating parallel environment ...
* Mon Oct 1 17:27:46 CEST 2012: Using default configuration ...
* Mon Oct 1 17:27:46 CEST 2012: Checking restart information ...
WRFGEL(download_file)> START: ['rst', '20110830T000000Z']
WRFGEL(download_file)> END: ['rst', '20110830T000000Z']
* Mon Oct 1 17:27:46 CEST 2012: The boundaries and initial conditions are not available ...
* Mon Oct 1 17:27:46 CEST 2012: Downloading geo_em files and namelist.wps ...
/home/user/.gw_user_6/WRFGEL/vcp -v /home/user/WRF4G/repository/domains/Santander_50km/* .
cp -v -R /home/user/WRF4G/repository/domains/Santander_50km/* /home/user/.gw_user_6/WPS
~/home/user/WRF4G/repository/domains/Santander_50km/geo_em.d01.nc' -> ~/home/user/.gw_user_6/WPS/geo_em.d01.nc'
~/home/user/WRF4G/repository/domains/Santander_50km/namelist.wps' -> ~/home/user/.gw_user_6/WPS/namelist.wps'
* Mon Oct 1 17:27:46 CEST 2012: Modifying namelist ...
Updating parameter start_date in file: namelist.wps
Updating parameter end_date in file: namelist.wps
Updating parameter max_dom in file: namelist.wps
Updating parameter prefix in file: namelist.wps
Updating parameter interval_seconds in file: namelist.wps
* Mon Oct 1 17:27:46 CEST 2012: About to run preprocessor and Ungrib ...
* Mon Oct 1 17:27:46 CEST 2012: Running preprocessor.default ...
Linking global data from: /home/user/WRF4G/repository/input/NCEP/GFS
~/home/user/.gw_user_6/WPS/grbData/gfs2011082812_00.grb' -> ~/home/user/WRF4G/repository/input/NCEP/GFS/2011/gfs2011082812
~/home/user/.gw_user_6/WPS/grbData/gfs2011082812_06.grb' -> ~/home/user/WRF4G/repository/input/NCEP/GFS/2011/gfs2011082812
~/home/user/.gw_user_6/WPS/grbData/gfs2011082812_12.grb' -> ~/home/user/WRF4G/repository/input/NCEP/GFS/2011/gfs2011082812
~/home/user/.gw_user_6/WPS/grbData/gfs2011082812_18.grb' -> ~/home/user/WRF4G/repository/input/NCEP/GFS/2011/gfs2011082812
~/home/user/.gw_user_6/WPS/grbData/gfs2011082812_24.grb' -> ~/home/user/WRF4G/repository/input/NCEP/GFS/2011/gfs2011082812
~/home/user/.gw_user_6/WPS/grbData/gfs2011082812_30.grb' -> ~/home/user/WRF4G/repository/input/NCEP/GFS/2011/gfs2011082812
```

```

`/home/user/.gw_user_6/WPS/grbData/gfs2011082812_36.grb' -> `/home/user/WRF4G/repository/input/NCEP/GFS/2011/gfs2011082812
* Mon Oct 1 17:27:47 CEST 2012: Running ungrib ...
*****
WRF4G was deployed in ...
  /home/user/.gw_user_6
and it ran in ...
  /home/user/.gw_user_6
*****

[user@mycomputer~]$ tail ungrib_GFS_2011083000.out
100.0 X      X      X      X      X
 70.0 X      X      X      X      X
 50.0 X      X      X      X      X
Looking for data at time 2011-08-30_00
Found file:      GFS:2011-08-30_00
Looking for data at time 2011-08-30_06
ERROR: Data not found: 2011-08-30_06:00:00.0000
Begin rrpr

-----
[user@mycomputer~]$ cat $WRF4G_LOCATION/etc/resources.wrf4g | grep WRF4G_INPUT=
WRF4G_INPUT="/home/user/WRF4G/repository/input"

```