Steps followed to run regression test against reference files created in local system

1) mkdir /bdd/CFMIP/workspace/rguzman/COSP_v2.1_ref

2) git clone https://github.com/CFMIP/COSPv2.0.git

3) modified the « Makefile » and « Makefile.conf » files to fit the local architecture

4) executed « make driver » in the « build » folder (compiles correctly)

5) executed « ./cosp2_test » in the « driver/run » folder (cosp2 runs correctly)

6) when performing the regression test in the « driver » folder with the command :

python test_cosp2Imp.py data/outputs/UKMO/cosp2_output_um.ref.nc data/outputs/UKMO/cosp2_output_um.nc

here is the result :

```
[rguzman@loholt2 driver]$ python test_cosp2Imp.py data/outputs/UKMO/cosp2_output_um.ref.nc data/outputs/UKMO/cosp2_output_um.nc
################################################################################
Treating relative differences less than 0.0010000000% as insignificant
  atb532_perp:         0.15 % of values differ, relative range:  -1.31e-05 to  1.84e-05
  atb532:              0.15 % of values differ, relative range:  -1.31e-05 to  1.82e-05
  lidarBetaMol532:     0.15 % of values differ, relative range:  -1.31e-05 to  1.82e-05
  lidarBetaMol532gr:     0.14 % of values differ, relative range:  -1.44e-05 to  1.37e-05
  atb532gr:            0.09 % of values differ, relative range:  -1.44e-05 to  1.54e-05
  lidarBetaMol355:     0.02 % of values differ, relative range:   2.16e-05 to  2.16e-05
  atb355:              0.02 % of values differ, relative range:   2.16e-05 to  2.16e-05
  dbze94:              0.17 % of values differ, relative range:  -1.77e-04 to  1.37e-04
  cltmodis:            0.65 % of values differ, relative range:   5.00e-01 to  5.00e-01
  tautmodis:           0.65 % of values differ, relative range:  -3.17e-01 to -3.17e-01
  tauimodis:           0.65 % of values differ, relative range:  -1.00e+00 to -1.00e+00
  tautlogmodis:        0.65 % of values differ, relative range:  -5.31e-01 to -5.31e-01
  tauilogmodis:        0.65 % of values differ, relative range:  -1.00e+00 to -1.00e+00
  reffclimodis:        0.65 % of values differ, relative range:  -1.00e+00 to -1.00e+00
  pctmodis:            0.65 % of values differ, relative range:  -1.93e-01 to -1.93e-01
  iwpmodis:            0.65 % of values differ, relative range:  -1.00e+00 to -1.00e+00
All other fields match.
```

7) copied this newly generated cosp2 output file to the « COSPv2.0 » branch where I am fixing the OPAQ bug as the reference output file:

cp /bdd/CFMIP/workspace/rguzman/COSP_v2.1_ref/COSPv2.0/driver/data/outputs/UKMO/cosp2_output_um.nc ./cosp2_output_um.ref.nc

8) in the « COSPv2.0 » branch where I am fixing the OPAQ bug, performing the regression test now gives :

[rguzman@loholt2 driver]$ python test_cosp2Imp.py data/outputs/UKMO/cosp2_output_um.ref.nc data/outputs/UKMO/cosp2_output_um.nc
##
############
Treating relative differences less than 0.0010000000% as insignificant
  clopaquecalipso: 22.22 % of values differ, relative range: 5.26e-02 to 2.00e+00
  clthincalipso: 36.60 % of values differ, relative range: -1.00e+00 to -5.56e-02
  clzopaquecalipso: 32.68 % of values differ, relative range: -1.00e+00 to 7.00e+00
  clcalipsoopaque: 1.18 % of values differ, relative range: 5.26e-02 to 1.00e+00
  clcalipsothin: 3.22 % of values differ, relative range: -1.00e+00 to -5.56e-02
  clcalipsozopaque: 1.49 % of values differ, relative range: -1.00e+00 to 6.00e-01
  clcalipsoopacity: 9.80 % of values differ, relative range: -1.00e+00 to 1.70e+00
  clopaquetemp: 33.33 % of values differ, relative range: -1.00e+00 to 1.12e-01
  clthintemp: 35.95 % of values differ, relative range: -4.56e+27 to 7.74e-02
  clzopaquetemp: 32.68 % of values differ, relative range: -1.00e+00 to 1.47e-01
  clopaquemeanz: 33.33 % of values differ, relative range: -1.00e+00 to 3.25e+00
  clthinmeanz: 35.95 % of values differ, relative range: -1.39e+27 to 1.29e+00
  clthinemis: 1.96 % of values differ, relative range: -1.46e+30 to -2.27e-01
  clopaquemeanzse: 33.33 % of values differ, relative range: -1.00e+00 to 3.25e+00
  clthinmeanzse: 35.95 % of values differ, relative range: -1.39e+27 to 1.29e+00
  clzopaquecalipsose: 32.68 % of values differ, relative range: -1.00e+00 to 7.00e+00
All other fields match.

9) The result is what we expected, now only the 16 OPAQ diagnostics show differences.