

PHASING REPORT

CY43T2R3_CY44

Canberk KARADAVUT, November 2016

MODIFIED ROUTINES

- Modified for 'The type of the actual argument differs from the type of the dummy argument':

aladin/sinvect/echnorm.F90, aladin/sinvect/ewrtsv.F90, aladin/var/ewreini.F90,
arpifs/sinvect/nalan1.F90, arpifs/sinvect/opk.F90

- Modified for 'INTENT(INOUT) :: YDGEOMETRY':

aladin/var/suejbcov.F90

- SPA3 → YDSP / YDFIELDS%YRSPEC:

YDSP / YDFIELDS%YRSPEC add as a argumant and replace SPA3 to
YDSP / YDFIELDS%YRSPEC

aladin/sinvect/echnorm.F90, arpifs/control/forecast_error.F90, aladin/var/einflcalc.F90,
aladin/var/einflation_pert.F90, arpifs/canari/canari.F90, aladin/var/evarjkini.F90,
arpifs/control/cnt4.F90, aladin/var/evarjkad.F90, arpifs/control/cnt4ad.F90,
aladin/var/evarjk.F90, arpifs/control/cnt4tl.F90, aladin/var/ecosjr.F90,
aladin/var/ecoptra.F90, arpifs/control/iopack.F90, arpifs/control/stepo.F90,
arpifs/control/stepotl.F90, arpifs/control/stepoad.F90, aladin/utility/create_pert.F90,
arpifs/var/bgpert.F90, aladin/utility/sp3to7.F90, aladin/utility/sp7to3.F90,
aladin/utility/euvcopy.F90, arpifs/dia/wrspec.F90, arpifs/utility/rdspec.F90,
aladin/utility/espconvert.F90, arpifs/fullpos/spaconvert.F90,
aladin/transform/etransinv_nhconvprhs.F90, arpifs/adiab/spnh_conv_prhs.F90,
aladin/setup/sueinif.F90, arpifs/module/iospeca_mod.F90, arpifs/setup/suinif.F90,
arpifs/setup/sufpinif.F90, aladin/transform/etransinv_nhconv.F90,
arpifs/adiab/spnh_conv_nhvar.F90, aladin/transform/etransdir_nhconvprhs.F90,
aladin/transform/etransdir_nhconv.F90, aladin/setup/sueqlimsat.F90,
arpifs/control/cnt3_lam.F90, arpifs/var/rdfpinc.F90, aladin/setup/elsac.F90,
aladin/parallel/ecommspnorm.F90, arpifs/dia/spnorm.F90, aladin/coupling/erlbc.F90,
aladin/coupling/elswa3.F90, aladin/adiab/espiau.F90, aladin/adiab/espectr.F90,
arpifs/dfi/dfi2.F90, arpifs/setup/suiauinif.F90

MITRAILLE RESULTS

- Segmentation fault occurred multi jobs:

AH5E010, AH5T011, AH5T012, AH6E016, AH6T017, AH6T018, AH9E034, AH9E035,
AH9E036, AHFE037, AHFE038, AHFE039, AHFE040, AHFE041, AHFE042, AHFE043,
AHFE044, AR1T051, AR1T052, AR1T053, AR1T054, AR1T055

- mpl_allgatherv_mod.F90 line 242 error for multi jobs:

AH5T011, AH5T012 (test TL)

- stepo.F90 line 1 error for multi jobs:

AH6E016, AH6T017, AH6T018 (first SV computation)

- Line 1 stepo.F90 – error reading variable YDGOM5 and YDODB (Connot access memory at address 0x0)
- Line 92 ewrtsv.F90 – error reading variable YDVARBC (Connot access memory at address 0x0)
- Line 410 suescal.F90 – error reading variable YD_JB_STRUCT (Connot access memory at address 0x0)

- Jobs have numerical impact for multi jobs:

AGIT046 (IDFI test), AG1T047 (Conf 001 oper B-lev; DFI), AA1T048 (Conf 001 LACE-ALARO B-lev; DFI), AC1T049 (Conf 001 rotated Mercator domain GRANLMRT 12h B-lev), AC1U050 (Conf 001 NH rotated Mercator GRANLMRT domain 12h B-lev)

AGIT046 - NSTEP = 0

SPECTRAL NORMS

#####

DIVERGENCE --> identical up to 5 digits
 KINETIC ENERGY --> identical up to 2 digits
 LOG(PREHYDS) --> identical up to 10 digits
 OROGRAPHY --> =====
 TEMPERATURE --> identical up to 8 digits
 VORTICITY --> identical up to 5 digits

AG1T047 - NSTEP = 0

SPECTRAL NORMS

#####

DIVERGENCE --> identical up to 6 digits
 KINETIC ENERGY --> identical up to 6 digits
 LOG(PREHYDS) --> identical up to 9 digits
 TEMPERATURE --> identical up to 6 digits
 VORTICITY --> identical up to 4 digits

AG1T047 - NSTEP = 96

SPECTRAL NORMS

#####

DIVERGENCE --> identical up to 2 digits
 KINETIC ENERGY --> identical up to 4 digits
 LOG(PREHYDS) --> identical up to 6 digits
 TEMPERATURE --> identical up to 5 digits
 VORTICITY --> identical up to 4 digits

AA1T048 - NSTEP = 120

SPECTRAL NORMS

#####

DIVERGENCE --> identical up to 4 digits
 KINETIC ENERGY --> identical up to 5 digits
 LOG(PREHYDS) --> identical up to 7 digits
 TEMPERATURE --> identical up to 6 digits
 VORTICITY --> identical up to 4 digits

```
AC1T049 - NSTEP = 0
### SPECTRAL NORMS ###
#####
    DIVERGENCE --> identical up to 5 digits
    KINETIC ENERGY --> identical up to 6 digits
    LOG(PREHYDS) --> identical up to 9 digits
    TEMPERATURE --> identical up to 7 digits
    VORTICITY --> identical up to 5 digits
```

```
AC1T049 - NSTEP = 96
### SPECTRAL NORMS ###
#####
    DIVERGENCE --> identical up to 3 digits
    KINETIC ENERGY --> identical up to 4 digits
    LOG(PREHYDS) --> identical up to 7 digits
    TEMPERATURE --> identical up to 5 digits
    VORTICITY --> identical up to 5 digits
```

```
AC1U050 - NSTEP = 0 (PREDICTOR)
### SPECTRAL NORMS ###
#####
    DIVERGENCE --> identical up to 6 digits
    KINETIC ENERGY --> identical up to 5 digits
    LOG(PRE/PREHYD) --> identical up to 4 digits
    LOG(PREHYDS) --> identical up to 9 digits
    TEMPERATURE --> identical up to 6 digits
    VORTICITY --> identical up to 6 digits
    d4 = VERT DIV + X --> identical up to 5 digits
```

```
AC1U050 - NSTEP = 96 (PREDICTOR)
### SPECTRAL NORMS ###
#####
    DIVERGENCE --> identical up to 2 digits
    KINETIC ENERGY --> identical up to 3 digits
    LOG(PRE/PREHYD) --> identical up to 3 digits
    LOG(PREHYDS) --> identical up to 8 digits
    TEMPERATURE --> identical up to 4 digits
    VORTICITY --> identical up to 2 digits
    d4 = VERT DIV + X --> identical up to 3 digits
```

- mode_snow3l.F90 line 1149 error for mono jobs:

AHME008 (ARPEGE fullpos + E zone), the same error as the reference.

- suefft_mod.F90 line 82 error for mono jobs:

AXCX012 (test e923)

- There is no numerical impact for mono jobs.

Referance exe:

/home/gmap/mrpm/yessad/executable/cy43t2_master-main.01.IMPI500IFC1500_ref.2x.exe

Test exe:

/home/gmap/mrpe/karadavutc/pack/cy43t2_r3-merge2.03/bin/MASTERODB