

ARPEGE MEMORANDUM

From:

GCO

Date: July 02, 2013

Subject:

New cycle CY40

A new cycle CY40 has been created. This is a common cycle with the ECMWF. The different contributions for this cycle are described in the following pages.

ClearCase label:

CY40

Contributors:

BOCHENEK Bogdan

CCase branch:bochenek_CY39T1_modules2

CCase branch:bochenek_CY39T1_yemlap

BOGATCHEV Andrey

CCase branch:mrpe702_CY39T1_modnam

BROUSSEAU Pierre

CCase branch:mrpm613_CY39T1_PB_assim_3D-4DVar

EL KHATIB Ryad

CCase branch:mrpm602_CY39T1_fposfixto40

CCase branch:mrpm602_CY39T1_rgrid

GCO

CCase branch:marp001_CY39_r1v01bf

CCase branch:marp003_CY39T1_frodo

CCase branch:marp003_CY39T1_mary_geom1aldtypes2

CCase branch:marp003_CY39T1_r1_nam_func

CCase branch:marp003_CY39T1_r1ald

CCase branch:marp003_CY39T1_r1cepfix

CCase branch:marp003_CY39T1_r1fix*

| | |
|--|---|
| JIDANE Mohamed | CCase branch:mrpe731_CY39T1_public |
| MOENE Toon | CCase branch:mrpe737_CY39T1_moene_v04_contrib |
| PAYAN Christophe | CCase branch:mrpa642_CY39T1_38op6-8_to_39r104 |
| SAEZ Patrick | CCase branch:mrpm608_CY39T1_c901 |
| SALMOND Deborah | CCase branch:marp001_CY39T1_r1cep2 |
| SALMOND Deborah & FOUILLOUX Anne & GCO | CCase branch:marp003_CY39T1_odb |
| SPANIEL Oida | CCase branch:mrpe693_CY39T1_39ol |
| TAILLEFER Françoise | CCase branch:mrpa647_CY39T1_dbcan |
| YESSAD Karim | CCase branch:mrpm603_CY39T1_pre39t1r1bf2 |
| | CCase branch:mrpm603_CY39T1_pre39t1r1bf4 |
| | CCase branch:mrpm603_CY39T1_pre39t1r1bf7 |
| | CCase branch:mrpm603_CY39T1_pre39t1r1bf8 |

BOCHENEK Bogdan

Doc:

ALADIN phasing on pre-cycle CY40. Fixes of routines to satisfy changes in modules.

Project: aladin

ClearCase branch: bochenek_CY39T1_modules2

Modified:

| | | | |
|---------------|---------------------|---------------------|------------------|
| ald/adiab | espcsi.F90 | | |
| ald/dia | espnormb.F90 | | |
| ald/parallel | ecommjbbal.F90 | ecommjbbalbeta.F90 | egathereigmd.F90 |
| ald/setup | suegem1b.F90 | suelap.F90 | sueldynb.F90 |
| | suempvar.F90 | | |
| ald/sinvect | echnorm.F90 | erdtllcz.F90 | esptrlcz.F90 |
| | ewrtllcz.F90 | suelcz.F90 | |
| ald/transform | etransdir_mdl.F90 | etransdir_mdlad.F90 | etransinvh.F90 |
| ald/utility | deello.F90 | | |
| ald/var | ebalbeta.F90 | ebalbetaad.F90 | ebalnonlin.F90 |
| | ebalnonlinad.F90 | ebalnonlintl.F90 | ebalomega.F90 |
| | ebalomegaad.F90 | ebalomegatl.F90 | ebalstat.F90 |
| | ebalstatad.F90 | ebalvert.F90 | ebalvertad.F90 |
| | ebalverti.F90 | ebalvertiad.F90 | ecosjr.F90 |
| | ecvaru2i.F90 | ecvaru2iad.F90 | edog.F90 |
| | efill_isotropic.F90 | ejghcor.F90 | ejghcori.F90 |
| | escaljgs.F90 | evarjk.F90 | evarjkini.F90 |
| | ewrlsgrad.F90 | suejbbal.F90 | suejbbalbeta.F90 |
| | suejbcor.F90 | suejbcosu.F90 | suejbcov.F90 |

| | | | |
|-------------|-------------------------|-------------------------|-------------------------|
| | suejdat96.F90 | suejstd.F90 | suejbtst.F90 |
| | suejk.F90 | suejknorm.F90 | suelges.F90 |
| | suelljk.F90 | suemodjk.F90 | suescal.F90 |
| | suevargp.F90 | | |
| ald/wavelet | ejbwav_cv2wav.F90 | ejbwav_gp2wav.F90 | ejbwav_h2v.F90 |
| | ejbwav_v2h.F90 | ejbwav_vcori.F90 | ejbwav_wav2cv.F90 |
| | ejbwav_wav2gp.F90 | suejwav_read_eigval.F90 | suejwav_read_eigvec.F90 |
| | suejwav_read_siglab.F90 | suejwavalloc.F90 | suejwavelet.F90 |

Doc:

Corrections of routines to satisfy changes in modules YEMLAP and YOMLAP.

Project: aladin,ifs

ClearCase branch: bochenek_CY39T1_yemlap

Modified:

| | | | |
|-------------|-----------------------------|------------------|---------------------|
| ald/adiab | espchor.F90 | espchorad.F90 | espcsi.F90 |
| | espcsiad.F90 | espnhsi.F90 | espnhsi_geogw.F90 |
| ald/control | espcm.F90 | espcmad.F90 | |
| ald/sinvect | ewrtllcz.F90 | | |
| ald/var | ebalbeta.F90 | ebalbetaad.F90 | ebalnonlin.F90 |
| | ebalnonlinad.F90 | ebalnonlintl.F90 | ebalomega.F90 |
| | ebalomegaad.F90 | ebalomegatl.F90 | ebalstat.F90 |
| | ebalstatad.F90 | ebalvert.F90 | ebalvertad.F90 |
| | ebalverti.F90 | ebalvertiad.F90 | efill_isotropic.F90 |
| | ejghcor.F90 | ejghcori.F90 | suejbbal.F90 |
| | suejbbalbeta.F90 | suejbcor.F90 | suejbcosu.F90 |
| arp/control | stepo.F90 | stepoad.F90 | stepotl.F90 |
| arp/oops | error_covariance_3d_mod.F90 | | |
| arp/var | cvar2.F90 | cvar2ad.F90 | cvar2in.F90 |

| | | |
|---------------|---------------|--------------|
| cvar2inad.F90 | cvar3.F90 | cvar3ad.F90 |
| cvar3in.F90 | cvar3inad.F90 | jgcor.F90 |
| jgcorad.F90 | jgcori.F90 | jgcoriad.F90 |
| jgvcor.F90 | sqrtb.F90 | sqrtbad.F90 |
| sqrtbin.F90 | sqrtbinad.F90 | |

BOGATCHEV Andrey

Doc:

ALADIN phasing on pre-cycle CY40.

Project: aladin

ClearCase branch: mrpe702_CY39T1_modnam

Modified:

| | | | |
|--------------|---------------|---------------|-------------------|
| ald/adiab | espchor.F90 | espchorad.F90 | espcsiad.F90 |
| | espectr.F90 | espnhsi.F90 | espnhsi_geogw.F90 |
| ald/c9xx | ecoptra.F90 | eincli1.F90 | eincli10.F90 |
| | eincli3.F90 | | |
| ald/control | espcm.F90 | espcmad.F90 | |
| ald/coupling | ecoupl1.F90 | ecoupl1ad.F90 | elswa3.F90 |
| | erlbc.F90 | eseimpls.F90 | eseimplsad.F90 |
| | etenc.F90 | | |
| ald/dia | ewmovph.F90 | | |
| ald/fullpos | ebipos.F90 | fpezzone.F90 | sufpezo.F90 |
| | sufpmove.F90 | | |
| ald/interpol | eslextpol.F90 | | |
| ald/programs | holo.F90 | unholo.F90 | |
| ald/setup | elsac.F90 | esp2Insp.F90 | suect0.F90 |

| | | | |
|---------------|-------------------|---------------------|---------------------|
| | suedim.F90 | suedyn.F90 | suegem1b.F90 |
| | suegem_naml.F90 | suehdf.F90 | suehdvnpn.F90 |
| | sueheg.F90 | suelap.F90 | suemp.F90 |
| | suenhheg.F90 | sueorog.F90 | sueqlimsat.F90 |
| | suetrans.F90 | suezone.F90 | |
| ald/transform | ereespe.F90 | esperad.F90 | esperee.F90 |
| | espeuv.F90 | etransdir_mdl.F90 | etransdir_mdlad.F90 |
| | etransinv_mdl.F90 | etransinv_mdlad.F90 | etransinvh.F90 |
| | etransinvhad.F90 | euvgeovd.F90 | evduvgeo.F90 |
| ald/utility | cchien.F90 | deello.F90 | espsconvert.F90 |
| | euvcopy.F90 | sp3to7.F90 | sp7to3.F90 |

BROUSSEAU Pierre

Doc:

- 1) *Modifications for variational validation.*
- 2) *Remove of some useless SURFEX prints in the output listing.*

Project: ifs,surfex

ClearCase branch: mrpm613_CY39T1_PB_assim_3D-4DVar

Modified:

| | | |
|-----------------|------------------------|------------------|
| arp/interpol | laiddiobsad.F90 | laidliobsad.F90 |
| arp/module | iospeca_mod.F90 | varbc_rad.F90 |
| arp/obs_preproc | cloud_detect_setup.F90 | |
| arp/var | jbtomodel.F90 | sujbwavtrans.F90 |
| surfex/SURFEX | read_pgd_isba_parn.F90 | |

EL KHATIB Ryad

Doc:

Bugfixes in Fullpos

cnt4.F90 :

Bugfix (remove old post-processing code called inside STEPO)

iofpos.F90,sufpmapf.F90 :

Bugfix (correct map factor for Mercator projection)

suafn1.F90 :

Bugfix (Coupling Update Frequency field in gridpoint)

endpos.F90 :

Bugfix (post-processing on surface-dependent levels not using physical fields)

facond_compact.F90, prepacka.F90 :

Cleaning (memory savings, compliancy with f90 standards)

Project: aladin,ifs

ClearCase branch: mrpm602_CY39T1_fposfixto40

Modified:

| | | | |
|----------------------|--------------------|--------------|--------------|
| ald/fullpos | sufpezo.F90 | | |
| arp/ald_inc/namelist | nemfpezo.nam.h | | |
| arp/control | cnt4.F90 | | |
| arp/fullpos | endpos.F90 | iofpos.F90 | sufpmapf.F90 |
| arp/module | yomfpezo.F90 | | |
| arp/setup | suafn1.F90 | | |
| arp/utility | facond_compact.F90 | prepacka.F90 | |

Doc:

1) Merge and optimization of the programs computing the Gaussian reduced grids at ECMWF and Meteo-France

2) Optimization of the setup of the spectral transforms

EXPECTED IMPACT:

The modification might lead to a slight change of gridpoints distribution (still optimal anyway).

Project: aladin transforms,transform,ifsaux

ClearCase branch: mrpm602_CY39T1_rgrid

Added:

xrd/include sufftp.h

Modified:

tal/module suestaonl_mod.F90
tfl/module supol_mod.F90 sustaonl_mod.F90
tfl/programs rgrid.F90
xrd include
xrd/include sufftp.h
xrd/support sufftp.F90

GCO

Doc:

1) Merge between cycles CY39T1 & CY39R1 (part 1), including miscellaneous portability fixes.

2) Other miscellaneous fixes:

- control_vectors_data_mix.F90: set pointers attributes to NULL() in declaration of type CONTROL_VECTOR_DATA_STRUCT ;
- yomcva.F90: set pointer attribute NGRBVAR to NULL() in declaration of type CVA_DATA_TYPE ;
- su0phy.F90: add missing commas in formatted-write statements.
- mxmaop.F90: replace direct calls to OMP_GET_MAX_THREADS & OMP_IN_PARALLEL by calls to OML_MAX_THREADS & OML_IN_PARALLEL

(from module OML_MOD) ;

- *tm5_chem_ini.F90: rename subroutine INI_BUDGET to IFS_INI_BUDGET (NB: duplicated routine in local project).*

Project: ifs,algor,cope,odb,satrad,ifsaux,scat,surf

ClearCase branch: marp001_CY39_r1v01bf

Doc:

Fix some output formats.

Project: utilities

ClearCase branch: marp003_CY39T1_frodo

Modified:

uti/pinuts/module fa_cadre_mod.F90

Doc:

Pre-phasing for CY40. Counterparts of ECMWF's geometry modules refactoring on Aladin modules YEMMP,YEMDIM,YEMLAP. For YEMLAP, the introduction of a new type YRLEP gathering the variables is spread in a number of routines. (NB: modset from Alexandre Mary)

Project: aladin,ifs

ClearCase branch: marp003_CY39T1_mary_geom1aldtypes2

Modified:

| | | | |
|-------------|--------------|---------------|-------------------|
| ald/adiab | espchor.F90 | espchorad.F90 | espcsi.F90 |
| | espcsiad.F90 | espnhsi.F90 | espnhsi_geogw.F90 |
| ald/control | espcm.F90 | | |
| ald/dia | espnormb.F90 | | |

| | | | |
|--------------|-------------------------|-------------------|---------------------|
| ald/programs | holo.F90 | unholo.F90 | |
| ald/setup | elsac.F90 | suehdf.F90 | sueheg.F90 |
| | suelap.F90 | suello.F90 | suemetric.F90 |
| | suemp.F90 | suenhheg.F90 | |
| ald/sinvect | echnorm.F90 | esptrlcz.F90 | ewrtllcz.F90 |
| ald/utility | deello.F90 | espareord.F90 | |
| ald/var | ebalbeta.F90 | ebalbetaad.F90 | ebalnonlin.F90 |
| | ebalnonlinad.F90 | ebalnonlintl.F90 | ebalomega.F90 |
| | ebalomegaad.F90 | ebalomegatl.F90 | ebalstat.F90 |
| | ebalstatad.F90 | ebalvert.F90 | ebalvertad.F90 |
| | ebalverti.F90 | ebalvertiad.F90 | ecosjr.F90 |
| | ecvaru2i.F90 | ecvaru2iad.F90 | efill_isotropic.F90 |
| | ejghcor.F90 | ejghcori.F90 | escaljgs.F90 |
| | evark.F90 | suejbbal.F90 | suejbbalbeta.F90 |
| | suejbcor.F90 | suejbcosu.F90 | suejbstd.F90 |
| | suejbttest.F90 | suescal.F90 | |
| arp/c9xx | inirp.F90 | simrel.F90 | |
| arp/canari | caisse.F90 | | |
| arp/dfi | dolfil.F90 | smpfil.F90 | |
| arp/dia | wrspeca_compress_mt.F90 | | |
| arp/io_serv | io_serv_suiosctmpl.F90 | | |
| arp/module | diwrspec_mod.F90 | yemdim.F90 | yemlap.F90 |
| | yemmp.F90 | | |
| arp/parallel | disspec0.F90 | | |
| arp/setup | su0yoma.F90 | | |
| arp/utility | copy_spa2spec.F90 | copy_spec2spa.F90 | specimzero.F90 |
| arp/var | cvar3.F90 | cvar3ad.F90 | cvar3in.F90 |
| | cvar3inad.F90 | evjcdfi.F90 | jgvcor.F90 |
| | suqnorm.F90 | | |

Doc:

- 1) nam*.h: fix phasing issues in namelists (NB: modifications in cycle CY39T1 were lost...) ;
2) sudim1.F90: add variable LMCC01_MSE in USE of YOMMCC (NB: LMCC01_MSE is now include in "nammcc.nam.h").

Project: ifs
ClearCase branch: marp003_CY39T1_r1_nam_func

Added:

arp/namelist namfpdyf.nam.h namphmse.nam.h

Modified:

| | | | |
|--------------|--------------------|----------------|----------------|
| arp | namelist | | |
| arp/namelist | nacveg.nam.h | namafn.nam.h | namct0.nam.h |
| | namemis_conf.nam.h | namfpdyf.nam.h | namgfl.nam.h |
| | nammcc.nam.h | namobs.nam.h | namparar.nam.h |
| | namphmse.nam.h | namphy.nam.h | namphy0.nam.h |
| | namppvi.nam.h | namsccl.nam.h | namvar.nam.h |
| arp/setup | sudim1.F90 | | |

Doc:

Phasing of some ALADIN routines on pre-cycle CY40, in order to solve all compilation problems in projects ARPEGE & MSE .

Project: aladin,ifs
ClearCase branch: marp003_CY39T1_r1ald

Modified:

| | | | |
|-------------|------------------------|--------------|---------------|
| ald/adiab | elarmes.F90 | elarmes5.F90 | elarmesad.F90 |
| | elarmestl.F90 | espcsi.F90 | gpspng.F90 |
| ald/control | espcm.F90 | | |
| ald/module | eshrinkstretch_mod.F90 | | |

| | | | |
|---------------|--------------------------|---------------------------|----------------------|
| ald/parallel | ecommspnorm.F90 | | |
| ald/transform | etransdir_jb.F90 | etransdir_jbad.F90 | etransdir_nhconv.F90 |
| | etransdir_nhconvprhs.F90 | etransinv_jb.F90 | etransinv_jbad.F90 |
| | etransinv_jbtomodel.F90 | etransinv_jbtomodelad.F90 | etransinv_nhconv.F90 |
| | etransinv_nhconvprhs.F90 | | |
| ald/var | ebalbeta.F90 | ebalbetaad.F90 | ebalnonlin.F90 |
| | ebalnonlinad.F90 | ebalnonlintl.F90 | ebalomega.F90 |
| | ebalomegaad.F90 | ebalomegatl.F90 | ebalstat.F90 |
| | ebalstatad.F90 | ebalvert.F90 | ebalvertad.F90 |
| | ebalverti.F90 | ebalvertiad.F90 | ejgnrgg.F90 |
| | ejgnrggad.F90 | ejgnrggi.F90 | ejgnrggiad.F90 |
| arp/var | sualctv.F90 | sujbwavgen.F90 | |

Doc:

- 1) (d) arp/setup/cpledna.F90
- (d) arp/setup/gawla.F90
- (d) arp/setup/sugawa.F90:

Remove obsolete routines.

- 2) (d) odb/ddl*/obsort_update_10.sql
- (d) odb/ddl*/obsort_update_4.sql
- (d) odb/ddl*/obsort_update_5.sql
- (d) odb/ddl*/obsort_update_6.sql
- (d) odb/ddl*/obsort_update_7.sql
- (d) odb/ddl*/obsort_update_8.sql
- (d) odb/ddl*/obsort_update_9.sql

Remove useless SQL request obsort_update_N.sql (N=4 to 10).

- 3) (d) arp/fullpos/rdclimosfx.F90
- (a) mse/externals/rdclimosfx.F90
- (a) mse/interface/rdclimosfx.h

(m) mse/externals/fp2sx1fa.F90

Move "rdclimosfx.F90" from IFS to "mse" project.

- 4) (m) ald/*
- (m) bip/*
- (m) coupling/*
- (m) tal/*
- (m) uti/*

Remove INTERFACE/END INTERFACE statements from *.F90, and insert them into *.h.

- 5) (m) xrd/module/grib_api_interface.F90
- (m) arp/module/iostream_mix.F90
- (m) arp/dia/wrbudg.F90

Compatibility with version 1.9.* of GRIB_API.

- 6) (m) arp/phys_ec/local_arrays_ini.F90
- (m) arp/climate/updclie.F90
- (m) arp/dia/wroutspgb.F90
- (m) arp/op_obs/hretr.F90
- (m) arp/phys_ec/accnemoflux_layer.F90
- (m) arp/phys_ec/ec_phys_ad.F90
- (m) arp/phys_ec/radlswr.F90
- (m) arp/phys_ec/suclopn.F90
- (m) arp/setup/suemis_conf.F90
- (m) arp/utility/gstats_label_ifs.F90
- (m) arp/utility/verint.F90
- (m) arp/var/sujbwavgen.F90
- (m) obt/src/iniitemloc.F90
- (m) obt/src/odb2read.F90
- (m) xrd/support/iswap8.c

Bugfixes for CY39R1 and/or CY40 from ECMWF and/or L.F.Meunier .

7) (m) arp/namelist/nammcc.nam.h

Add missing variables.

8) (m) arp/phys_ec/cloud_layer.F90
(m) arp/phys_ec/local_arrays_ini.F90
(m) arp/phys_ec/convection_layer.F90
(m) arp/phys_ec/convection_s_layer.F90

NEC/SX compiler compatibility: remove INTENT attribute from pointer arguments .

9) (m) mse/externals/fp2sx1.F90
(m) mse/externals/fp2sx1fa.F90
(m) mse/externals/suphmse_surface.F90

Change include "namphmse.h" to include "namphmse.nam.h" .

Project: aladin,ifs,biper,coupling,mse,obstat,odb,aladin transforms,utilities,ifsaux
ClearCase branch: marp003_CY39T1_r1cepfix

Added:

mse/externals rdclimosfx.F90
mse/interface rdclimosfx.h

Deleted:

| | | | |
|--------------|----------------------|---------------------|---------------------|
| arp/setup | cpledna.F90 | gawla.F90 | sugawa.F90 |
| odb/ddl.ECMA | obsort_update_10.sql | obsort_update_4.sql | obsort_update_5.sql |
| | obsort_update_6.sql | obsort_update_7.sql | obsort_update_8.sql |
| | obsort_update_9.sql | | |
| odb/ddl | obsort_update_10.sql | obsort_update_4.sql | obsort_update_5.sql |
| | obsort_update_6.sql | obsort_update_7.sql | obsort_update_8.sql |

obsort_update_9.sql

Modified:

| | | | |
|---------------|---|---|---|
| ald/adiab | espcsi.F90 espnhsi.F90 | espcsiad.F90 espnhsi_geogw.F90 | espectr.F90 gpspng.F90 |
| ald/control | espcm.F90 | | |
| ald/coupling | ecoupl1.F90 etenc.F90 | ecoupl1ad.F90 | elswa3.F90 |
| ald/fullpos | ebipos.F90 sufpezo.F90 | esppf.F90 | fpezzone.F90 |
| ald/programs | blend.F90 holo.F90 | blendsur.F90 unholo.F90 | check_limits.F90 |
| ald/setup | esp2Insp.F90 suemapf.F90 suetrans.F90 | suegem2.F90 suemp.F90 | suelap.F90 sueorog.F90 |
| ald/sinvect | ewrtllcz.F90 | | |
| ald/transform | edir_trans_px.F90 esperad.F90 etransdir_jb.F90 etransdir_mdlad.F90 etransinv_jbtomodel.F90 etransinv_mdlad.F90 | einv_trans_px.F90 esperee.F90 etransdir_jbad.F90 etransinv_jb.F90 etransinv_jbtomodelad.F90 euvgeo.F90 | erespe.F90 espeuv.F90 etransdir_mdI.F90 etransinv_jbad.F90 etransinv_mdI.F90 evdudvgeo.F90 |
| ald/utility | cchien.F90 | | |
| ald/var | ebalnonlin.F90 ebalomega.F90 ebalvert.F90 ebalvertiad.F90 ewrlsgrad.F90 | ebalnonlinad.F90 ebalomegaad.F90 ebalvertad.F90 ecvaru2i.F90 suejbcosu.F90 | ebalnonlintI.F90 ebalomegatI.F90 ebalverti.F90 ecvaru2iad.F90 |
| ald/wavelet | ejbwav_wav2gp.F90 | | |
| arp/climate | updclie.F90 | | |
| arp/dia | wrbudg.F90 | wroutspgb.F90 | |

| | | | |
|---------------------|------------------------|------------------|----------------------|
| arp/module | iostream_mix.F90 | | |
| arp/namelist | nammcc.nam.h | | |
| arp/op_obs | hretr.F90 | | |
| arp/phys_ec | accnemoflux_layer.F90 | cloud_layer.F90 | convection_layer.F90 |
| | convection_s_layer.F90 | ec_phys_ad.F90 | local_arrays_ini.F90 |
| | radlswr.F90 | suclopn.F90 | |
| arp/setup | suemis_conf.F90 | | |
| arp/utility | gstats_label_ifs.F90 | verint.F90 | |
| arp/var | sujbwavgen.F90 | | |
| bip/interface | etibihie.h | fpbipere.h | horiz_field.h |
| bip/programs | test_Biper.F90 | test_Ezones.F90 | test_TwoTrunc.F90 |
| coupling/interface | epak3w.h | epak3wsp.h | esc2r.h |
| | esc2rad.h | espcpl.h | espsc2r.h |
| | esrlxt1.h | esrlxt1ad.h | |
| coupling/programs | tester_gpcou.F90 | | |
| mse/externals | fp2sx1.F90 | fp2sx1fa.F90 | rdclimosfx.F90 |
| | suphmse_surface.F90 | | |
| mse/interface | rdclimosfx.h | | |
| obt/src | iniitemloc.F90 | odb2read.F90 | |
| tal/interface | edir_trans.h | edir_transad.h | edist_grid.h |
| | edist_spec.h | egath_grid.h | egath_spec.h |
| | egpnorm_trans.h | einv_trans.h | einv_transad.h |
| | esetup_trans.h | especnorm.h | etrans_end.h |
| | etrans_inq.h | | |
| tal/programs | aatestprog.F90 | test_adjoint.F90 | |
| uti/combi | combi_pert.F90 | | |
| uti/ctpini/module | fonctions_tfl.F90 | | |
| uti/ctpini/programs | inversion_master.F90 | | |
| uti/rdc/include | dilat.h | dilatb.h | suadmi.h |
| | sudil.h | sudil_io.h | sugaw36.h |
| | sump_dila.h | sump_dilb.h | suncet13.h |

| | | | |
|------------------|------------------------|---------------|-------------|
| | suncmax.h | suplic.h | suplis.h |
| | supol35.h | trltom_dil.h | |
| uti/rdc/programs | master911.F90 | | |
| uti/rdc/src | dilat.F90 | dilatb.F90 | sudil.F90 |
| | sudil_io.F90 | sump_dilb.F90 | suncmax.F90 |
| | suplic.F90 | suplis.F90 | |
| xrd/module | grib_api_interface.F90 | | |
| xrd/support | iswap8.c | | |

Doc:

1) *ifs/control/cnt4.F90:*

[Line 1324] Call to NEMOGCMCOUP_FINAL is not protected under CPP key WITH_NEMO, so this line should be replaced by:

```
#ifdef WITH_NEMO
IF (LMCC04.AND.LNEMOCOUP) CALL NEMOGCMCOUP_FINAL
#endif
```

2) *ifs/nemo/getnemo.F90:*

Line "#define WITH_NEMO" has been added at the top of the routine: it should be removed!! (NB: all calls to NEMO coupling are already protected under CPP key WITH_NEMO in GETNEMO).

3) *ifs/utility/verint.F90 & ifs/utility/verint.F90:*

OpenMP routines OMP_GET_MAX_THREADS & OMP_IN_PARALLEL should not be called directly! So:

- the calls to those routines must be replaced by calls to OML_MAX_THREADS & OML_IN_PARALLEL ;*
- the declaration of OMP_GET_MAX_THREADS & OMP_IN_PARALLEL must be removed ;*
- the use module OML_MOD must be added to the USE list .*

4) *ALADIN phasing on pre-cycle CY40.*

5) *Portability fixes for PGI .*

6) Remove content of interface "oi_control.h" (NB: obsolete, to be removed).

7) (a) arp/phys_ec/phys_arrays_fin.F90
(m) arp/phys_ec/phys_arrays_ini.F90
(m) arp/phys_ec/ec_phys.F90

- Replace pointer assignments in PHYS_ARRAYS_INI by pointer allocations, and add a new deallocation routine PHYS_ARRAYS_FIN.
- Add call to PHYS_ARRAYS_FIN in EC_PHYS .

8) (a) arp/phys_ec/local_arrays_fin.F90
(m) arp/phys_ec/local_arrays_ini.F90
(m) arp/phys_ec/callpar.F90

- Replace pointer assignments in LOCAL_ARRAYS_INI by pointer allocations, and add a new deallocation routine LOCAL_ARRAYS_FIN.
- Add call to LOCAL_ARRAYS_FIN in CALLPAR .

9) (m) ald/sinvect/ewrtllcz.F90

- Remove useless variables & USE statements.
- gfortran compatibility: fix WRITE statements.

10) (m) ald/sinvect/erdtllcz.F90

Temporarily dismiss the content of this routine (or maybe forever ?), in the same way of what was done for "ewrtllcz.F90".

11) (m) arp/phys_ec/ec_phys_drv.F90

NEC/SX compiler compatibility: fix some pointer assignments.

12) (m) arp/phys_ec/local_state_ini.F90
(m) arp/phys_ec/phys_dim_ini.F90
(m) arp/var/suscal.F90

NEC/SX compiler compatibility: remove INTENT attribute from pointer arguments.

13) (m) arp/setup/sudim1.F90

Add missing variables in USE of module YOMCC .

14) (m) arp/var/cvar3ad.F90

Fix call to EBALBETAAD.

15) (m) arp/var/jgcor.F90

Fix call to JGVCOR.

16) (m) odb/cma2odb/shuffle_odb.F90

Fix from Anne Fouilloux & Dominique Puech.

*- (m) arp/mwave/mwave_emis.F90
(m) arp/phys_ec/ec_phys_drv.F90:*

Fixes from ECMWF .

*- (m) arp/dia/wrbudg.F90
(m) arp/setup/su_grib_api.F90:*

Protect use of template "budg.tmpl" outside CPP macro GRIB_API_1 .

17) Remove obsolete routines.

Project: ifs,aladin,surfex,odb,ifsaux

ClearCase branch: marp003_CY39T1_r1fix*

Added:

arp/phys_ec local_arrays_fin.F90 phys_arrays_fin.F90

Deleted:

ald/setup suello.F90
arp/adiab lapineb_setup.F90
arp/interpol laqmlimiter.F90
surfex/OFFLIN oi_control.h

Modified:

| | | | |
|---------------|----------------------|----------------------|---------------------|
| ald/programs | blendsur.F90 | check_limits.F90 | |
| ald/sinvect | erdtllcz.F90 | ewrtllcz.F90 | |
| arp/control | cnt4.F90 | | |
| arp/dia | wrbudg.F90 | | |
| arp/mwave | mwave_emis.F90 | | |
| arp/nemo | getnemo.F90 | | |
| arp/phys_ec | callpar.F90 | ec_phys.F90 | ec_phys_drv.F90 |
| | local_arrays_fin.F90 | local_arrays_ini.F90 | local_state_ini.F90 |
| | phys_arrays_fin.F90 | phys_arrays_ini.F90 | phys_dim_ini.F90 |
| arp/setup | su_grib_api.F90 | sudim1.F90 | |
| arp/utility | verint.F90 | verintad.F90 | |
| arp/var | cvar3ad.F90 | jgcor.F90 | suscal.F90 |
| odb/cma2odb | shuffle_odb.F90 | | |
| surfex/OFFLIN | oi_control.h | | |
| xrd/fa | decf10.F90 | | |
| xrd/utilities | ismax_1.F90 | ismin_1.F90 | |

JIDANE Mohamed

Doc:

- *Fix issues in SULAP & deallocations.*

- *(m) arp/module/yemlap.F90:*

Nullify pointers in attributes definition of type TYPE_LEP .

- *(m) xla/module/control_vectors_data_mix.F90:*

Remove NULLIFY statement in definition of pointer CTLVEC_STRUCT .

Project: ifs,algor

ClearCase branch: mrpe731_CY39T1_public

Modified:

ald/utility deello.F90

arp/module yemlap.F90 yomlap.F90

arp/setup sulap.F90

xla/module control_vectors_base_mix.F90 control_vectors_data_mix.F90

MOENE Toon

Doc:

Fix compilation issues when using CPP macro "-DUSE_SAMIO" .

Project: ifsaux

ClearCase branch: mrpe737_CY39T1_moene_v04_contrib

Modified:

xrd/lfi lfiicc.F90 lfiedo.F90 lfifer.F90
lfilcc.F90 lfildo.F90 lfiouv.F90

PAYAN Christophe

Doc:

Catch up from current parallel suite (from version CY38T1_op1.06 to CY38T1_op1.08).

Project: ifs,black_list,mse,odb,surfex

ClearCase branch: mrpa642_CY39T1_38op6-8_to_39r104

Modified:

| | | |
|-------------------|-------------------------|--------------------|
| arp/dia | inifaoutinfo.F90 | suppdate.F90 |
| arp/obs_preproc | defrun.F90 | |
| arp/op_obs | hretr.F90 | |
| bla | mf_blacklist.b | |
| mse/externals | canari_sx_ics.F90 | |
| odb/pandor/module | bator_decodbufr_mod.F90 | bator_init_mod.F90 |
| surfex/OFFLIN | oi_control.F90 | |
| surfex/SURFEX | isba_fluxes.F90 | prep_ver_isba.F90 |

SAEZ Patrick

Doc:

Fix for configuration 901 .

Project: ifs

ClearCase branch: mrpm608_CY39T1_c901

Modified:

arp/setup sudim1.F90

SALMOND Deborah

Doc:

- 1) *Small fixes found during CY39R1 testing, mostly relating to making the screening (black) more safe.*
- 2) *Remove obsolete SQL requests.*
- 3) *Clean the OOPS C++ code, according to the outcome of the working group.*
- 4) *odb/ddl/cma.h: fix an ECMWF-issue with ODB compilation system.*
- 5) *Fix an ECMWF-issue with ODB compilation system.*
- 6) *Remove useless arguments & allocations in "local_arrays_ini.F90" .*

Project: ifs,odb

ClearCase branch: marp001_CY39T1_r1cep2

Added:

arp/oops localization_mod.F90 mtraj_mod.F90

Deleted:

| | | | |
|--------------|--------------------|-----------------|-----------------|
| odb/ddl.ECMA | black_allsky.sql | black_atovs.sql | black_gpsro.sql |
| | black_roboty_5.sql | black_satob.sql | black_scatt.sql |
| odb/ddl | black_allsky.sql | black_atovs.sql | black_gpsro.sql |
| | black_roboty_5.sql | black_satob.sql | black_scatt.sql |

Modified:

| | | | |
|-----------------|----------------------------|-----------------------------|--------------------|
| arp/control | negfixer.F90 | | |
| arp/dia | grib_code_message.F90 | wrmlppg.F90 | |
| arp/module | iostream_mix.F90 | | |
| arp/obs_preproc | black.F90 | blackhat.F90 | |
| arp/oops | allobs_mod.F90 | error_covariance_3d_mod.F90 | fields_mod.F90 |
| | geometry_mod.F90 | gom_setup.F90 | ifs_constants.F90 |
| | ifs_init.F90 | localization_mod.F90 | model_mod.F90 |
| | mtraj_mod.F90 | obsvec_mod.F90 | |
| arp/op_obs | hop.F90 | hopad.F90 | hoptl.F90 |
| arp/phys_ec | callpar.F90 | local_arrays_ini.F90 | |
| arp/setup | suarg.F90 | sugfl3.F90 | |
| arp/var | rtsetup.F90 | | |
| odb/bufr2odb | bufr2odb_cris.F90 | | |
| odb/cma2odb | create_averaged_values.F90 | ctxinitdb.F90 | getdb.F90 |
| odb/ddl | black_robhdr_10.sql | black_robhdr_2.sql | black_robhdr_3.sql |
| | black_robhdr_4.sql | black_robhdr_6.sql | black_robhdr_8.sql |
| | black_roboty_10.sql | cma.h | |
| sat/programs | bufr_screen_cris.F90 | screen_1c.F90 | |

SALMOND Deborah & FOUILLOUX Anne & GCO

Doc:

- 1) Fix ODB compilation issue (*CMA_T_ensemble.c) on NEC/SX .
- 2) odb/lib/version.c: set VERSION_MAJOR to 40 .

Project: odb

ClearCase branch: marp003_CY39T1_odb

Modified:

| | | | |
|---------|-----------------------|-----------------------|-----------------------|
| odb/ddl | cma.h | global_enkf_1.sql | global_enkf_10.sql |
| | global_enkf_100.sql | global_enkf_105.sql | global_enkf_110.sql |
| | global_enkf_115.sql | global_enkf_120.sql | global_enkf_15.sql |
| | global_enkf_2.sql | global_enkf_20.sql | global_enkf_25.sql |
| | global_enkf_3.sql | global_enkf_30.sql | global_enkf_35.sql |
| | global_enkf_4.sql | global_enkf_40.sql | global_enkf_45.sql |
| | global_enkf_5.sql | global_enkf_50.sql | global_enkf_55.sql |
| | global_enkf_60.sql | global_enkf_65.sql | global_enkf_70.sql |
| | global_enkf_75.sql | global_enkf_80.sql | global_enkf_85.sql |
| | global_enkf_90.sql | global_enkf_95.sql | update_hprior_1.sql |
| | update_hprior_10.sql | update_hprior_100.sql | update_hprior_101.sql |
| | update_hprior_102.sql | update_hprior_103.sql | update_hprior_104.sql |
| | update_hprior_105.sql | update_hprior_106.sql | update_hprior_107.sql |
| | update_hprior_108.sql | update_hprior_109.sql | update_hprior_11.sql |
| | update_hprior_110.sql | update_hprior_111.sql | update_hprior_112.sql |
| | update_hprior_113.sql | update_hprior_114.sql | update_hprior_115.sql |
| | update_hprior_116.sql | update_hprior_117.sql | update_hprior_118.sql |
| | update_hprior_119.sql | update_hprior_12.sql | update_hprior_120.sql |

| | | |
|----------------------|----------------------|----------------------|
| update_hprior_13.sql | update_hprior_14.sql | update_hprior_15.sql |
| update_hprior_16.sql | update_hprior_17.sql | update_hprior_18.sql |
| update_hprior_19.sql | update_hprior_2.sql | update_hprior_20.sql |
| update_hprior_21.sql | update_hprior_22.sql | update_hprior_23.sql |
| update_hprior_24.sql | update_hprior_25.sql | update_hprior_26.sql |
| update_hprior_27.sql | update_hprior_28.sql | update_hprior_29.sql |
| update_hprior_3.sql | update_hprior_30.sql | update_hprior_31.sql |
| update_hprior_32.sql | update_hprior_33.sql | update_hprior_34.sql |
| update_hprior_35.sql | update_hprior_36.sql | update_hprior_37.sql |
| update_hprior_38.sql | update_hprior_39.sql | update_hprior_4.sql |
| update_hprior_40.sql | update_hprior_41.sql | update_hprior_42.sql |
| update_hprior_43.sql | update_hprior_44.sql | update_hprior_45.sql |
| update_hprior_46.sql | update_hprior_47.sql | update_hprior_48.sql |
| update_hprior_49.sql | update_hprior_5.sql | update_hprior_50.sql |
| update_hprior_51.sql | update_hprior_52.sql | update_hprior_53.sql |
| update_hprior_54.sql | update_hprior_55.sql | update_hprior_56.sql |
| update_hprior_57.sql | update_hprior_58.sql | update_hprior_59.sql |
| update_hprior_6.sql | update_hprior_60.sql | update_hprior_61.sql |
| update_hprior_62.sql | update_hprior_63.sql | update_hprior_64.sql |
| update_hprior_65.sql | update_hprior_66.sql | update_hprior_67.sql |
| update_hprior_68.sql | update_hprior_69.sql | update_hprior_7.sql |
| update_hprior_70.sql | update_hprior_71.sql | update_hprior_72.sql |
| update_hprior_73.sql | update_hprior_74.sql | update_hprior_75.sql |
| update_hprior_76.sql | update_hprior_77.sql | update_hprior_78.sql |
| update_hprior_79.sql | update_hprior_8.sql | update_hprior_80.sql |
| update_hprior_81.sql | update_hprior_82.sql | update_hprior_83.sql |
| update_hprior_84.sql | update_hprior_85.sql | update_hprior_86.sql |
| update_hprior_87.sql | update_hprior_88.sql | update_hprior_89.sql |
| update_hprior_9.sql | update_hprior_90.sql | update_hprior_91.sql |
| update_hprior_92.sql | update_hprior_93.sql | update_hprior_94.sql |
| update_hprior_95.sql | update_hprior_96.sql | update_hprior_97.sql |

update_hprior_98.sql update_hprior_99.sql
odb/lib version.c
odb/scripts create_global_enkf_sql.ksh create_hprior_sql.ksh

SPANIEL Oida

Doc:

Fixes for modification "J.Hague : OCT 2012: Parallelise call to DGEMM if not in parallel region" in LAM case. Avoiding incorrect calling in LAM case of computation in C zone.

Project: ifs

ClearCase branch: mrpe693_CY39T1_39ol

Modified:

arp/adiab sitnu.F90
arp/dia inifaout.F90
arp/utility verint.F90

TAILLEFER Francoise

Doc:

Some developments have been implemented in CANARI to improve the correlation functions (orography and land-sea mask new constraints for example), in the frame of the EURO4M project. This is not used in operations for the time being. The developments were based on CY36T1 and introduced in CY38T1 after phasing. A CY37 ODB modification has been forgotten so there is an incoherence between some data and the corresponding table.

Project: ifs,odb
ClearCase branch: mrpa647_CY39T1_dbcan

Modified:

arp/obs_preproc obadat.F90
odb/cma2odb shuffle_odb.F90

YESSAD Karim

Doc:

Miscellaneous fixes;

- fix phasing bugs ;*
- use GPHPRE in new routines ;*
- remove CDCONF argument when useless ;*
- remove norms violations ;*
- other bugfixes.*

The routines arp/adiab/lapineb_setup.F90 & arp/interpol/laqmlimiter.F90 are now obsolete and will be removed.

Project: ifs,ifsaux
ClearCase branch: mrpm603_CY39T1_pre39t1r1bf2

Modified:

| | | | |
|-------------|--------------|-------------------|--------------|
| arp/adiab | call_sl.F90 | lapineb_setup.F90 | |
| arp/control | cgr1.F90 | gp_model.F90 | jmgfixer.F90 |
| | negfixer.F90 | qmfixer.F90 | qmfixer2.F90 |
| | stepo.F90 | trmfixers.F90 | |
| arp/dia | inifaout.F90 | wrgpa.F90 | wrmlppa.F90 |
| | wrspeca.F90 | | |
| arp/fullpos | sufpwide.F90 | | |

| | | | |
|-----------------|--------------------|------------------------------|------------------|
| arp/interpol | laqmlimiter.F90 | | |
| arp/module | yemwavelet.F90 | yomjbcvar.F90 | yomjg.F90 |
| | yomwavelet.F90 | | |
| arp/namelist | namct0.nam.h | namgfl.nam.h | |
| arp/obs_preproc | land_seviri.F90 | | |
| arp/op_obs | emis_ir_atlas.F90 | mw_screen_cloud_and_rain.F90 | |
| arp/parallel | fptrdtoa.F90 | rdpxfa.F90 | |
| arp/phys_dmn | apl_arome.F90 | | |
| arp/phys_ec | cumastrn.F90 | | |
| arp/setup | sudim1.F90 | suemis_conf.F90 | sugfl3.F90 |
| | sugrclia.F90 | sugridua.F90 | suhdf_ec.F90 |
| | sumcc.F90 | | |
| arp/transform | relaxgp.F90 | | |
| arp/utility | dealges.F90 | prepacka1.F90 | prepacka1_mt.F90 |
| arp/var | inflation_pert.F90 | rdfpinc.F90 | |
| xrd/utilities | chien.F90 | | |

Doc:

Miscellaneous bugfixes.

Project: aladin,ifs,aladin transforms
ClearCase branch: mrpm603_CY39T1_pre39t1r1bf4

Modified:

| | | |
|-------------|-----------------------------|------------|
| ald/setup | suelap.F90 | suemp.F90 |
| ald/sinvect | suelcz.F90 | |
| ald/var | suescal.F90 | |
| arp/control | tesadj.F90 | |
| arp/oops | error_covariance_3d_mod.F90 | |
| arp/setup | su0yomb.F90 | suafn1.F90 |
| | sudim1.F90 | suct0.F90 |
| | | sump.F90 |

arp/sinvect sulcz.F90
tal/external edir_trans.F90

Doc:

Remove an ABOR1 in SUDYN.

Project: ifs

ClearCase branch: mrpm603_CY39T1_pre39t1r1bf7

Modified:

arp/setup sudyn.F90

Doc:

Remove useless variables in USE statements.

Project: ifs

ClearCase branch: mrpm603_CY39T1_pre39t1r1bf8

Modified:

arp/setup sump.F90