ARPEGE MEMORANDUM

From: GCO Date: December 21, 2009

To: GMAP, COMPAS, GMGEC, GMME, DIR/RE/CRC, Mats Hamrud

Subject: New cycle CY36T1

A new cycle CY36T1 has been created. This is not a common cycle with the ECMWF. The different contributions for this cycle are described in the following pages.

ClearCase label: CY36T1

Modified libraries: aladin,arpege,aladin,auxiliaire,xla,transform,transform_ald,odb,black_list,obstat,satrad,mpa,mse,surfex,utilities

Contributors:

ALIAS Antoinette	Project:arpege	CCase branch:mrga589_CY36_gco
	Project:arpege	CCase branch:mrga589_CY36_gco2
AUGER Ludovic	Project:arpege	CCase branch:mrpa645_CY36_bugcy36
BROUSSEAU Pierre	Project:arpege	CCase branch:mrpm613_CY36_aro_errgrib
BROZKOVA Radmila	Project:arpege	CCase branch:mrpe684_CY36_alrrb
	Project:arpege	CCase branch:mrpe684_CY36_corr
	Project:arpege	CCase branch:mrpe684_CY36_rkfix
DESROZIERS Gerald	Project:arpege	CCase branch:marp001_CY36_mrpm611_error_statistics
EL KHATIB Ryad	Project:arpege	CCase branch:mrpm602_CY36_bf
	Project:arpege	CCase branch:mrpm602_CY36_rrtm

GCO	Project:arpege	CCase branch:marp001_CY35T2_op1
	Project:arpege	CCase branch:marp003_CY35T2_fcqop
	Project:arpege	CCase branch:marp003_CY36_dbl2
	Project:arpege	CCase branch:marp003_CY36_dbl3
	Project:arpege	CCase branch:marp003_CY36_dbl4
	Project:arpege	CCase branch:marp003_CY36_dbl6
	Project:arpege	CCase branch:marp003_CY36_dble
	Project:arpege	CCase branch:marp003_CY36_ext911
	Project:arpege	CCase branch:marp003_CY36_g95
	Project:arpege	CCase branch:marp003_CY36_obstat_deco_bufr
	Project:arpege	CCase branch:marp003_CY36_surfex
	Project:arpege	CCase branch:marp003_CY36_t1
	Project:arpege	CCase branch:marp003_CY36_t1bf
	Project:arpege	CCase branch:marp003_CY36_t1bf2
	Project:arpege	CCase branch:marp003_CY36_t1bf3
GRIL Jean-Daniel	Project:arpege	CCase branch:mrpe604_CY35T2_cleanpinuts
	Project:arpege	CCase branch:mrpe604_CY35T2_optimgeo
GUIDARD Vincent	Project:arpege	CCase branch:marp003_CY36_dbl5
	Project:arpege	CCase branch:mrpe710_CY36_norms
GUILLAUME Frank	Project:arpege	CCase branch:mrpa644_CY36_36t0_bator
	Project:arpege	CCase branch:mrpa644_CY36_cy36_bator_modis
PAYAN Christophe	Project:arpege	CCase branch:mrpa642_CY36_fixgw
	Project:arpege	CCase branch:mrpa642_CY36_modgwfrom35t2op1

RIVIERE Olivier	Project:arpege	CCase branch:mrpe601_CY35T2_newmp_op35t2
	Project:arpege	CCase branch:mrpe601_CY36_modif1d
	Project:arpege	CCase branch:mrpe601_CY36_newgwd
	Project:arpege	CCase branch:mrpe601_CY36_phase36t1
SAEZ Patrick	Project:arpege	CCase branch:mrpm608_CY36_c901
SEITY Yann	Project:arpege	CCase branch:mrpm637_CY36_arome
	Project:arpege	CCase branch:mrpm637_CY36_aromebfs
	Project:arpege	CCase branch:mrpm637_CY36_initcanopy
	Project:arpege	CCase branch:mrpm637_CY36_oimain
SPANIEL Olda	Project:arpege	CCase branch:mrpe693_CY36_ompbf1
VANA Filip	Project:arpege	CCase branch:mrpe706_CY36_fv
VIGNES Ole	Project:arpege	CCase branch:mrpe726_CY36_hirlam
VOITUS Fabrice	Project:arpege	CCase branch:mrpm630_CY36_ddhdyn4cy36t1
WATTRELOT Eric	Project:arpege	CCase branch:mrpa652_CY35T2_bfv05reflectiviteop
	Project:arpege	CCase branch:mrpa652_CY35T2_ewreflec
	Project:arpege	CCase branch:mrpa652_CY35T2_radarewv03
	Project:arpege	CCase branch:mrpa652_CY35T2_radarop1v05
YESSAD Karim	Project:arpege	CCase branch:mrpm603_CY36_dev36pour36t1

ALIAS Antoinette

Doc:

** Add logicals LDIFCEXP / LNCVPGY / LSQRML :*
LDIFCEXP : key activating explicit vertical diffusion on conservative variables ;
LNCVPGY : key for using convective clouds from ACCVIMPGY ;
LSQRML : key for using the square root mixing length .

** Humidity drag in Mesosphere is now fully set up .*

** Correction of negative humidity .*

** Correction of SST with the orography removed .*

** Nudging mask renamed from SURFAERO.NUD to SURFNUD.MASK and moved from VCLIA to VARSF surface group.*

** Fix a bug : no limit is set to the number of fields to be nudged*

** Add frequency of nudging (NFRNUDG) and bugfix (LNUDST=LNUDG) .*

** Bugfix : add the sulfates in RADAER*

** Change in UPDSST/UPDCPL to agree with external UPDCLI .*

** Introduction of time dependency of volcano aerosols GHG removed from NAMSCEN and use GHG defined in NAERAD .*

** Modifications to have SURFEX running with ARPEGE .*
SURFEX output writing has its own frequency :
KSHISTS/NSHISTS/NFSRHIS replaced by KSFXHISTS/NSFXHISTS/NFRSFXHIS
N1SFXHIS added
LCALLSFX added (default value .TRUE.) in NAMCT0
LCALLSFX=.F. to prevent SURFEX to be called twice at NSTEP=0 .

** Implement UCUR/VCUR for ARPEGE-Climat . Default value of the UCUR/VCUR fields is added .*

** Add ALADIN coupling to ocean model using OASIS .*

** Add fields to be exchanged with the ocean through OASIS .*

** Fix phasing of aro_surf_diag.f90 .*

Project: arpege,Meso-NH surface
ClearCase branch: mrga589_CY36_gco

Modified:

arp/adiab	cpg.F90	cpg_dia.F90	cpg_gp.F90
	cptend.F90		
arp/climate	updcpl.F90	updnud.F90	updsst.F90
arp/control	cnt3.F90	cnt4.F90	cnt4ad.F90
	cnt4tl.F90	monio.F90	
arp/dia	aro_surf_diagh.F90	cpnudg.F90	cumcpl.F90
	wrmlppa.F90		
arp/module	par_cou.F90	surface_fields_mix.F90	yomcpl.F90
	yomct0.F90	yomct1.F90	yommcc.F90
	yomnud.F90	yomphy.F90	
arp/namelist	namct0.h	namct1.h	nammcc.h
	namnud.h	namphy.h	namscen.h
arp/ocean	wrcpl.F90		
arp/phys_dmn	acdifus.F90	apl_arome.F90	aplpar.F90
	cpchet.F90	hl_aplpar.F90	initaplpar.F90
	mf_phys.F90	radaer.F90	radaer15.F90
	suparar.F90	surdi15.F90	
arp/setup	su0phy.F90	su1yom.F90	su_surf_flds.F90
	sucpl0.F90	sucst.F90	suct0.F90

	sudim1.F90	sumcc.F90	sumpini.F90
	sunud.F90		
arp/utility	deallo.F90	iopack.F90	updtim.F90
mse/externals	aro_surf_diag.f90	aro_surf_diag.mnh	
mse/interface	aro_surf_diag.h		

Doc:

1) Add ocean current names and use of LCURR for METEO FRANCE .
2) Add CNAME when empty (YSD_VH) .

Project: arpege
ClearCase branch: mrga589_CY36_gco2

Modified:

arp/setup su_surf_flds.F90

AUGER Ludovic

Doc:

Fix in order to avoid a possible compiler bug.
NB: compiler version has changed since this modification was done.

Project: satrad
ClearCase branch: mrpa645_CY36_bugcy36

Modified:

sat/rttov rttov_setpredictors_7_ad.F90

BROUSSEAU Pierre

Doc:

1) Fix a bug in LAM minimization with LSPFCE=.TRUE. (use of grid point sigma B) : initialization of variables were missing.

2) Increase VMAX2 from 280 to 320 to avoid "WIND TOO STRONG" aborts.

Project: aladin,arpege
ClearCase branch: mrpm613_CY36_aro_errgrib

Modified:

ald/transform	etransdir_jb.F90	etransdir_jbad.F90	etransinv_jb.F90
	etransinv_jbad.F90		
arp/setup	sudyn.F90		

BROZKOVA Radmila

Doc:

This modification set contains small developments and cleanings.
It is a merged contribution coming from LACE and HIRLAM colleagues:

- Lisa Bengtsson: Rasch-Kristjansson condensation scheme.
- Doina Banciu: corrections in historic entrainment (3MT) and terms needed for the Rasch-Kristjansson condensation scheme. Cleaning of the LUDEN option (special updraft environment).
- Radmila Brozkova: completing the 3MT cascade a moving it from aplpar to the updating routines after each main process.
- Tomas Kral: new aerosols in ACRANEB.
- Christoph Wittmann: geometry in cloudiness diagnostics for the output.
- Tomas Kral: fix in radiation setup due to SURFEX.

Added decks: none

Removed decks: none

Modified decks:

- New GFL fields needed for Rasch-Kristjansson condensation scheme:

arp/namelist/namafn.h
arp/namelist/namfa.h
arp/namelist/namgfl.h
arp/module/yomafn.F90
arp/module/yomfa.F90
arp/module/yom_ygfl.F90
arp/setup/suafn1.F90
arp/setup/suctrl_gflattr.F90
arp/setup/sudefo_gflattr.F90
arp/setup/sudim1.F90
arp/setup/sudyn_setgflattr.F90
arp/setup/sufa.F90
arp/setup/sugfl.F90
arp/adiab/cpg.F90
arp/control/scan2m.F90
arp/phys_dmn/mf_phys.F90
arp/phys_dmn/aplpar.F90

- Tuning constant (weight) to compute overlap geometry of the model output cloudiness:

arp/namelist/namphy0.h
arp/module/yomphy0.F90

- New declaration of aerosols arrays:

arp/module/yomphy3.F90

- Key activating new overlap geometry for the output cloudiness (LACPANMX);
key keeping standard aerosols (LRSTAER),
key for Rasch-Kristjansson condensation scheme (LRKCDEV);
removing LUDEN key:

arp/namelist/namphy.h
arp/module/yomphy.F90
arp/setup/su0phy.F90

- Rasch Kristjansson condensation scheme;
cascade cleanings;
historic entrainment:

arp/phys_dmn/accdev.F90
arp/phys_dmn/accvud.F90
arp/phys_dmn/acnebcond.F90
arp/phys_dmn/acupd.F90
arp/phys_dmn/acupm.F90
arp/phys_dmn/acupu.F90
arp/phys_dmn/aplpar.F90

- Output cloudiness geometry:

arp/phys_dmn/acnpart.F90

- New aerosols:

arp/phys_dmn/acradcoef.F90
arp/phys_dmn/acralu.F90
arp/phys_dmn/acraneb.F90
arp/phys_dmn/aplpar.F90

- Correction of radiation setup due to SURFEX:

arp/phys_ec/suphec.F90
arp/phys_radi/suecrad.F90

Validations:

These were done on yuki (SX9 machine) for the pack: ~mrpe684/pack/alrrb, based on cy36 main. Comparison of results neutrality were done with respect to cy36_master-main.01.SX20r400.x.exe, and for the namelist of ALADIN/FRANCE settings (ARPEGE like) and for the ALADIN/CZ settings (ALARO with 3MT).

In case of ALADIN/FRANCE settings the norms are bit identical.

In case of ALARO with 3MT, there are changes in the normes, which are expected. First change is due to the complete 3MT cascade (correction of negative values after downdraft). Second change is due to new computation arrangement due to aerosols.
Norms remain however correct meteorologically speaking (differences starting on the fifth or sixth place after decimal point within first 30 time-steps).

Remark: Option LRSTAER=.TRUE. represents the standard (old) situation for the aerosols; this is why it is a default.

Project: arpege
ClearCase branch: mrpe684_CY36_alrrb

Modified:

arp/adiab	cpg.F90		
arp/control	scan2m.F90		
arp/module	yom_ygfl.F90	yomafn.F90	yomfa.F90
	yomphy.F90	yomphy0.F90	yomphy2.F90
	yomphy3.F90		

arp/namelist	namafn.h	namfa.h	namgfl.h
	namphy.h	namphy0.h	namphy2.h
arp/phys_dmn	accdev.F90	accvud.F90	acnebcond.F90
	acnpart.F90	acradcoef.F90	acralu.F90
	acraneb.F90	acupd.F90	acupm.F90
	acupu.F90	aplpar.F90	mf_phys.F90
	suphy0.F90	suphy2.F90	suphy3.F90
arp/phys_ec	suphec.F90		
arp/phys_radi	suecrad.F90		
arp/setup	su0phy.F90	suafn1.F90	suafn2.F90
	suafn3.F90	suctrl_gflattr.F90	sudefo_gflattr.F90
	sudim1.F90	sudyn_setgflattr.F90	sufa.F90
	sugfl.F90		

Doc:
Fix call to APLPAR .
Project: arpege
ClearCase branch: mrpe684_CY36_corr

Modified:

arp/phys_dmn	mf_phys.F90

Doc:

arp/setup/sugfl.F90
Correction in definition of new GFLs for the Rasch-Kristjansson scheme:
YFAUNEBH was wrongly used (copy-paste error) instead of YFARKTH, YFARKTQV and YFARKTQC.

arp/setup/sudefo_gflattr.F90
Set-up of default values REFVALC was completed for all cases of new GFLs.

arp/phys_dmn/aplpar.F90

DO loops were missing - corrected.

arp/phys_dmn/acnpart.F90
Set of medium clouds for the new WMO option was corrected.

Project: arpege
ClearCase branch: mrpe684_CY36_rkfix

Modified:

arp/phys_dmn	acnpart.F90	aplpar.F90
arp/setup	sudefo_gflattr.F90	sugfl.F90

DESROZIERS Gerald

Doc:

1) sigmabs in grid-point in AROME assimilation (Pierre Brousseau).

2) Filtering of variances in ensemble assimilation (Laure Raynaud).

3) Add a global coefficient, used in sigmaos normalization (Gérald Desroziers).

Project: aladin,arpege,odb
ClearCase branch: marp001_CY36_mrpm611_error_statistics

Added:

arp/var	fltbgcalc.F90	fltbgvarens.F90	objtrunc.F90
	rdittrajm.F90	sujbcovnoise.F90	sujbcovsignal.F90
	sujbvarens.F90	writestd.F90	writtrajm.F90

Modified:

ald/transform	etransdir_jb.F90	etransdir_jbad.F90	etransinv_jb.F90
	etransinv_jbad.F90		
arp/control	forecast_error.F90		
arp/module	yomcosjo.F90	yomjg.F90	yomvar.F90
arp/namelist	namjg.h	namjo.h	namvar.h
arp/obs_preproc	defrun.F90	ers1if.F90	
arp/op_obs	gpsro_oberror.F90		
arp/var	fltbgcalc.F90	fltbgvarens.F90	objtrunc.F90
	sujb.F90	sujbcovnoise.F90	sujbcovsignal.F90
	sujbdat.F90	sujbvarens.F90	susepfce.F90
	suvar.F90	writestd.F90	
odb/pandor/module	bator_ecritures_mod.F90	bator_init_mod.F90	bator_module.F90
odb/pandor/namelist	bator_namelist.h		

EL KHATIB Ryad

Doc:

ald/adiab/elascaw.F90, arp/adiab/laitri.F90, arp/adiab/lascaw.F90, tal/external/egpnorm_trans.F90, tfl/external/gpnorm_trans.F90 :
Optimisation for NEC.

ald/setup/suemp.F90, arp/dfi/dfi3.F90 :
Bugfix for MPI distribution.

arp/adiab/laidditlad.F90, arp/adiab/laidditl.F90, arp/adiab/laitlitlad.F90, arp/adiab/laitlitl.F90, arp/adiab/laitritlad.F90, arp/adiab/laitritl.F90 :
Bugfix.

arp/dia/wrspeca.F90, arp/fullpos/pregpfpos.F90, arp/utility/pkspeca.F90 arp/utility/pksurfa.F90, xrd/fa/facdec.F, xrd/fa/facodx.F, xrd/fa/fadeco.F, xrd/fa/fadecx.F, xrd/fa/fainig.F :
Bugfix for GRIB1 encoding.

arp/fullpos/sufpd.F90, arp/phys_radi/rrtm_rtrn1a_140gp.F90 :
Cleanings.

obt/module/mod_sat_create_netcdf.F90, xrd/eclite/error.c, obt/bias_sat/cycle_history.F90,
obt/module/mod_sat_create_netcdf.F90, obt/satmon/get_dmsprainy_odb.F90, obt/satmon/get_gpsro_odb.F90,
obt/satmon/get_mwimg_odb.F90, obt/satmon/get_slmoist_odb.F90, obt/satmon/get_tcwv_odb.F90,
obt/satmon/sat_hist_plot.F90, obt/satmon/sat_hov_plot.F90, obt/satmon/sat_monitor.F90,
obt/satmon/sat_overview_hist_plot.F90, obt/src/iniitemloc.F90, obt/module/mod_rad_bias_1c.F90,
obt/bias_sat/cycle_biasprep_1c.F90, obt/bias_sat/cycle_biasprep_ssmi.F90,
obt/bias_sat/biasprep_fbcrack_geos.F90, obt/satmon/fbcrack_dmsp.F90, xla/external/linalg/syminv.F :
Portability fixes.

arp/module/sats_mix.F90, arp/module/yomtvrad.F90, arp/op_obs/bgobs.F90, arp/op_obs/co2cldairs.F90,
arp/op_obs/hopad.F90, arp/op_obs/hop.F90, arp/op_obs/hoptl.F90, arp/op_obs/hretr.F90, arp/op_obs/rad1cemis.F90,
arp/op_obs/radtrad.F90, arp/op_obs/radtr.F90, arp/op_obs/radtr_ml.F90, arp/op_obs/radtrtl.F90,
arp/phys_dmn/mts_phys.F90, arp/setup/su0yoma.F90, arp/var/getsatid.F90, arp/var/surad.F90,
sat/emiss/emiskf_estimate_emissivity.F90, sat/emiss/emiskf_write_sensor.F90, sat/module/mod_emiskf.F90 :
RTTOV bugfixing.

arp/fullpos/sufpf.F90 :
Change default value of LFPBED to .false. (gaussian shaping of filtering matrixes in fullpos).

xrd/fa/facomp.h :
Maximum supported triangular truncation : 1280

Project:	aladin,arpege,,odb,satrad,transformées aladin,transformées arpege,algebre linéaire,auxiliaire
ClearCase branch:	mrpm602_CY36_bf

Added:

arp/module sats_mix.F90 yomopf.F90 yomssg.F90
yomtit.F90

Modified:

ald/adiab	elascaw.F90		
ald/setup	suemp.F90		
arp/adiab	laidditl.F90	laidditlad.F90	laitlitl.F90
	laitlitlad.F90	laitri.F90	laitritl.F90
	laitritlad.F90	lascaw.F90	
arp/dfi	dfi3.F90		
arp/dia	wrspeca.F90		
arp/fullpos	pregpfpos.F90	sufpd.F90	sufpf.F90
arp/module	sats_mix.F90	yomtvrad.F90	
arp/op_obs	bgobs.F90	co2cldairs.F90	hop.F90
	hopad.F90	hoptl.F90	hretr.F90
	rad1cemis.F90	radtr.F90	radtr_ml.F90
	radtrad.F90	radtrtl.F90	
arp/phys_dmn	mts_phys.F90		
arp/phys_ec	suphec.F90		
arp/phys_radi	rrtm_rtrn1a_140gp.F90		
arp/setup	su0yoma.F90		
arp/utility	pkspeca.F90	pksurfa.F90	
arp/var	getsatid.F90	surad.F90	
obt/bias_sat	biasprep_fbcrack_geos.F90	cycle_biasprep_1c.F90	cycle_biasprep_ssmi.F90
	cycle_history.F90		
obt/module	mod_rad_bias_1c.F90	mod_sat_create_netcdf.F90	
obt/satmon	fbcrack_dmsp.F90	get_dmsprainy_odb.F90	get_gpsro_odb.F90
	get_mwimg_odb.F90	get_slmoist_odb.F90	get_tcwv_odb.F90
	sat_hist_plot.F90	sat_hov_plot.F90	sat_monitor.F90
	sat_overview_hist_plot.F90		
obt/src	iniitemloc.F90		
odb/cma2odb	addpoolsdb.F90		
sat/emiss	emiskf_estimate_emissivity.F90	emiskf_write_sensor.F90	

sat/module	mod_emiskf.F90		
tal/external	egpnorm_trans.F90		
tfl/external	gpnorm_trans.F90		
xla/external/linalg	syminv.F		
xrd/eclite	error.c		
xrd/fa	facdec.F	facodx.F	facomp.h
	fadeco.F	fadecx.F	fainig.F

Doc:
Optimisations.
Project: arpege
ClearCase branch: mrpm602_CY36_rrtm

Modified:

arp/phys_radi rrtm_gasabs1a_140gp.F90 rrtm_rrtm_140gp.F90 rrtm_rtrn1a_140gp.F90

GCO

Doc:

Catch-up from parallel suite.

Project: auxiliaire
ClearCase branch: marp001_CY35T2_op1

Added:

xrd/support isrchfltpv.F jfhc.c

Doc:

Add some compiler directives "NOVECTOR" to avoid hazardous vectorization.

Project: odb
ClearCase branch: marp003_CY35T2_fcqop

Modified:

odb/pandor/fcq fcqodb_pilot.F90 fcqodb_temp.F90 man_fcq_bdm_fus.F90
man_orders.F90

Doc:

Miscellaneous catch-up from parallel suite.

1) Jean-Marc Audoin - branch mrpe602_CY33T1_binunik :

Inversion of GIB CAPE numbers for field SURFCAPE.MOD.XFU: GRIB number becomes 154, local table 159 .

2) Yann Seity - branch mrpm637_CY35T2_bfraf :

This modset allows:
- to use the same gusts computation, based on TKE, in ALADIN and in AROME ;
- to use this gust field in fullpos inline .

3) François Bouyssel - branch mrpa649_CY35T2_kfbtke1 :

** Add a boundary on TKE values, used in the computation of vertical speed up to free condensation in the settings of shallow convection (KFB scheme) .*

** Remove this previously integrated modest:*
"Handle TKE in the computation of convective ascending in KFP scheme" .

4) Ryad El Khatib - branch mrpm602_CY35T2_rrtm :

Optimizations RRTM (NB: already integrated in version "00" of pre-cycle CY36T1) .

5) Eric Sevault - branch mrpm631_CY35T2_cparam :

Increase the maximal profiles number processed simultaneously, under cpp key NECSX .

Project: arpege,satrad,utilitaires
ClearCase branch: marp003_CY36_dbl2

Modified:

arp/control	gp_model.F90		
arp/dia	cpxfu.F90		
arp/module	ptrxfu.F90	yomafn.F90	yomphy0.F90
arp/namelist	namafn.h	namphy0.h	
arp/phys_dmn	acturb.F90	acvppkf.F90	suphy0.F90
arp/setup	suafn1.F90	suafn2.F90	suafn3.F90
	suxfu.F90		
sat/module	cparam.F90	mod_cparam.F90	
uti/progrid	procor2.F		

Doc:

Miscellaneous catch-up from parallel suite.

1) Frank Guillaume - branch mrpa644_CY35T2_bator_soprano :

Portability of tasks prescat/pregpssol/bator in SOPRANO environment.

2) Patrick Moll - branch mrpa646_CY35T2_cldetect :

Fix a problem of non-initialized variables in the call of cloud detection subroutine (for AIRS and IASI).

3) François Bouyssel - branch mrpa649_CY35T2_tke2 :

** TKE in surface boundary layer is now equal to the TKE at the lowest model level, and no more computed according to u* and w* (namelist parameter LECTREP=.TRUE. is ow default value).*

** Fix a problem in conversions flux/tendences of TKE .*

** Analysis values for TKE and hydrometeors (Ql,Qi,Qr,Qs) become those of 4D-Var final trajectory, in order to avoid negative values occurence which the actual incremental approach (Guess + filtered IncrANA) .*

4) Françoise Taillefer - branch mrpa647_CY35T2_can_noobs :

Modset allowing to run CANARI without observations file.

5) Françoise Taillefer - branch mrpa647_CY36_ftcan :

Modset allowing to avoid ODB-crash in CANARI .

6) Eric Sevault / Vincent Guidard - branch mrpm631_CY35T2_alloc :

Various optimizations for RTTOV9: move some allocations outside sat/rttov, transpose of some arrays and force some "external" loops on array manipulations.
These modifications are back-phased from an ECMWF branch on cy36r2.

7) GCO - branch marp003_CY35T2_eurat01 :

Introduce new post-processing domain EURAT01 .

Project: arpege,odb,satrad,scattt,utilitaires
ClearCase branch: marp003_CY36_dbl3

Added:

sat/module rttov_ec_temp.F90
sat/rttov rttov_ec_alloc.F90 rttov_ec_alloc_ad.F90 rttov_ec_alloc_k.F90
rttov_ec_alloc_tl.F90

Modified:

arp/canari	camelo.F90	can1.F90	canari.F90
	caredo.F90		
arp/control	gp_model.F90		
arp/dia	cpxfu.F90		
arp/fullpos	sufpd.F90		
arp/module	ptrxfu.F90	yomafn.F90	yomphy0.F90
arp/namelist	namafn.h	namphy0.h	
arp/obs_preproc	cloud_detect_setup.F90		
arp/op_obs	co2cldairs.F90	radtr.F90	radtrad.F90
	radtrk.F90	radtrtl.F90	
arp/phys_dmn	acevolet.F90	actke.F90	acturb.F90
	acvppkf.F90	aplpar.F90	mts_phys.F90
	suphy0.F90		
arp/setup	suafn1.F90	suafn2.F90	suafn3.F90
	suxfu.F90		
arp/var	rdfpinc.F90		
odb/ddl	camelo_robhdr.sql		
odb/pandor/module	bator_init_mod.F90	bator_module.F90	
sat/interface	rttov_alloc_temp.h	rttov_check_temp.h	rttov_ec.h
sat/module	rttov_ec_temp.F90		
sat/programs	gensatim.F90		
sat/rttov	rttov_ad.F90	rttov_alloc_temp.F90	rttov_check_temp.F90
	rttov_direct.F90	rttov_ec.F90	rttov_ec_ad.F90
	rttov_ec_alloc.F90	rttov_ec_alloc_ad.F90	rttov_ec_alloc_k.F90
	rttov_ec_alloc_tl.F90	rttov_ec_k.F90	rttov_ec_tl.F90
	rttov_k.F90	rttov_opdep.F90	rttov_opdep_9.F90
	rttov_opdep_9_ad.F90	rttov_opdep_9_k.F90	rttov_opdep_tl.F90
	rttov_tl.F90	rttov_transmit_9_solar_ad.F90	rttov_transmit_9_solar_k.F90
sct/programs	qsca_split.F	qscat25to50km.F	qscat_filter_bufr25km.F

	timesort.F		
sct/qretrieve	invert50.F	read_qscat25kmbufr.F	read_tb_rainflag.F
uti/pregpssol	get_tslot_gpssol.F90		
uti/progrid	prodom.F		

Doc:

Miscellaneous catch-up from parallel suite .

Gerald Desroziers/Loïk Berre/Laure Raynaud - branch mrpm611_CY35T2_nlwtl_rednmcq :

** Use tangent linear versions (instead of non-linear) of non-linear and omega balances, for the computation of non-balanced variables error variances.*

** Use a filtering truncation for the non-balanced surface pressure.*

** Remove the "over-inflations" of humidity variance in SUINFCE : this inflation is now a part of SUSEPFCE .*

Project: arpege
ClearCase branch: marp003_CY36_dbl4

Modified:

arp/var fltbgvarens.F90 suinfce.F90 sujbvarens.F90

Doc:

Miscellaneous catch-up of operational and parallel suite.

1) Karine Maynard - branch marp001_CY35T2_op1ctpini :

The aim of this modset is to avoid unexpected appearance of very high Z1.5 PVU air-locks . Actual routines describe the whole vertical, and they have detected a too high Z1.5 PVU at some time steps, because of very high negative values in high stratosphere.

The idea is to describe the vertical from the model level associated to 70hPa level, defined in namelist. All other modifications are kept.

2) Yves Bouteloup - branch mrpa648_CY35T2_b342 :

** Change lentgh of an array to run in T798 .*
** Add TKE in the list of fields.*

Project: arpege,utilitaires,auxiliaire
ClearCase branch: marp003_CY36_dbl6

Modified:

arp/pp_obs	pos.F90	ppltp.F90
uti/add_cloud_fields	add_cloud_fields.F90	
xrd/support	isrchfltpv.F	

Doc:

Miscellaneous catch-up from parallel suite:

1) Eric Bazile - branch mrpm604_CY35T2_chaine :

Changes for new gust computation in ARPEGE/ALADIN, and for shallow convection.

2) Eric Bazile - branch mrpm604_CY35T2_chaine2 :

** fgchk.F90 : optimisation (from Eric Sevault) ;*
** actke.F90 : evolution of TKE at the first model level, when it is passed to full levels;*
** rdfpinc.F90 : fix for CANARI, to avoid to double the TKE at each analysis.*

3) François Bouyssel - branch mrpa649_CY35T2_z0h1 :

Change in the formulation of the surface turbulent exchange coefficient for heat and moisture

in case of thermal mixing length without any contribution from subgrid-scale orography (case LZ0HSREL=T).

4) Pierre Brousseau - branch mrpm613_CY35T2_aromeassim :

Add spectral transforms for grid point humidity field, which were removed in cycle CY34, and which allows to switch from model fields to control variable (and vice-versa).

5) Ryad El Khatib - branch mrpm602_CY35T2_optiml :

Optimisations for minimization and AROME screening.

6) Ryad El Khatib - branch mrpm602_CY35T2_fixlag :

Bugfix an overflow of array. The bug was active in Aladin/Arome once NPROC was bigger that 1 (!): KGPTOT_CAP should not be used because it is a global variable. KGPTOT should be used instead, like for Arpege.

7) Vincent Guidard - branch mrpe710_CY35T2_obs_prodble :

** Modifications for IASI.*
** Modifications for AIRS clouds observations VarBC .*
** Monitoring NOAA19 .*
** Use AMSU-B datas on earth.*
** Bugfix (hjo.F90).*

8) Patrick Moll & Vincent Guidard - branch mrpa646_CY35T2_vincent_varbc :

Change predictor 10-1hPa to 10-2hPa, in order to avoid AROME numerical explosions at the top of the model.

9) Eric Sevault - branch mrpm631_CY35T2_optim :

arp/obs_preproc/decis.F90
The global barrier used to resorb load imbalance is not efficient in vector case so it is now optional on LECMWF.

arp/op_obs/hoptl.F90

arp/op_obs/hopad.F90
Explicit bit mask calculation instead of calling NGEDSTA in order to preserve vector loop performance.

arp/op_obs/radtrbtl.F90
arp/op_obs/radtrbad.F90
Re-ordering and rewriting of main calculations for vectorisation (without any array synthax or mask).
Should be specific to that cycle.

arp/op_obs/radtr.F90
Various optimisations (loop counting, divisions).

arp/adiab/laitli.F90
Optimisation directives (From NEC)

10) Françoise Taillefer - branch mrpa647_CY35T2_dbcan :

** Fix a previous contribution on radars in hdepart.F90 , which caused a violent crash in CANARI .*
** Little fix to make CANARI be reproductible again.*
** Remove a useless write instruction (rttov_direct.F90).*

11) Françoise Taillefer - branch mrpa647_CY35T2_ftop1 :

Use the extracted surface observation file for ALADINs instead of file CCMA_CAN built after the screening.

Project: aladin,arpege,black_list,Meso-NH physique altitude,odb,satrad,auxiliaire
ClearCase branch: marp003_CY36_dble

Added:

arp/canari	caredo.F90		
odb/ddl.ECMA	caredo_robhdr.sql	caredo_robody.sql	new_thinn_robhdr_11.sql
	new_thinn_robody_11.sql	pre_thinn_robhdr_11.sql	pre_thinn_robody_11.sql
odb/ddl	caredo_robhdr.sql	caredo_robody.sql	new_thinn_robhdr_11.sql
	new_thinn_robody_11.sql	pre_thinn_robhdr_11.sql	pre_thinn_robody_11.sql

Modified:

ald/setup	suemp.F90		
ald/utility	espareord.F90		
ald/var	ebalvert.F90	ebalvertad.F90	ejghcori.F90
arp/adiab	laitli.F90		
arp/canari	camelo.F90	canari.F90	caredo.F90
arp/control	cnt1.F90		
arp/fullpos	pregpfpos.F90		
arp/module	yomcvmnh.F90	yomphy.F90	yomphy2.F90
	yomvarbc.F90		
arp/namelist	namcvmnh.h	namphy.h	namphy2.h
arp/obs_preproc	black.F90	decis.F90	defrun.F90
	fgchk.F90	fgwnd.F90	flgdco.F90
	flgtst.F90	verco.F90	
arp/op_obs	dopplsim_tl.F90	emis_ir.F90	hdepart.F90
	hjo.F90	hopad.F90	hoptl.F90
	incvfilt.F90	obsv.F90	obsvad.F90
	obsvtl.F90	radtr.F90	
arp/parallel	dot_product_ctlvec.F90		
arp/phys_dmn	achmt.F90	actke.F90	acvppkf.F90
	apl_arome.F90	aplpar.F90	arocldia.F90
	sucvmnh.F90	suphy2.F90	
arp/setup	su0phy.F90		
arp/utility	pksurfa.F90	prtgom.F90	
arp/var	jbtomodelad.F90	rdfpinc.F90	setqccma.F90
	surad.F90		
bla	mf_blacklist.b		
mpa/conv/externals	aro_conv_mnh.f90	convection_shal.f90	
mpa/conv/interface	convection_shal.h		
mpa/conv/internals	convect_trigger_shal.f90	ini_convpar_shal.f90	shallow_convection.f90

mpa/conv/module	modd_convpar_shal.f90		
odb/cma2odb	ctxinitdb.F90		
odb/ddl.ECMA	ECMA.dep		
odb/ddl	camelo_robhdr.sql	caredo_robhdr.sql	caredo_robody.sql
sat/rttov	rttov_direct.F90		
xrd/fa	facodx.F	fadeco.F	fadecx.F

Doc:

Externalisation of configuration 911 .

Project: utilitaires
ClearCase branch: marp003_CY36_ext911

Added:

uti/rdc	include		
uti/rdc/include	dilat.h	dilatb.h	suadmi.h
	sudil.h	sugaw36.h	sump_dila.h
	sump_dilb.h	suncet13.h	suncmax.h
	suplis.h	supol35.h	trltom_dil.h
uti/rdc	programs		
uti/rdc/programs	master911.F90		
uti/rdc	src		
uti/rdc/src	dilat.F90	dilatb.F90	suadmi.F90
	sudil.F90	sugaw36.F90	sump_dila.F90
	sump_dilb.F90	suncet13.F90	suncmax.F90
	suplis.F90	supol35.F90	trltom_dil.F90

Doc:

Portability fixes for g95 compilers .

Project: aladin,,,utilitaires
ClearCase branch: marp003_CY36_g95

Modified:

ald/var	ejghcori.F90		
obt/satmon	sat_324_hist_plot.F90	sat_overview_hist_plot.F90	sat_summary_plot.F90
surfex/isba/phys	isba_flood_properties.f90	vegetation_update.f90	
surfex/offlin/io	read_surf_lfi.f90	write_surf_lfi.f90	
surfex/prep	prep_hor_snow_fields.f90		
surfex/sea/phys	coare30_seaflux.f90	coupling_seafluxn.f90	unitfp_seaflux.f90
uti/pinuts/module	string_lib_mod.F90		

Doc:

Portability fix for "gmkpack" .

Project:
ClearCase branch: marp003_CY36_obstat_deco_bufr

Modified:

obt/bias_sat	biasprep_fbcrack_geos.F90	cycle_biasprep_1c.F90	cycle_biasprep_ssmi.F90
obt/satmon	fbcrack_dmsp.F90		

Doc:

1) Introduction of "surfex" project, and cleaning of "mse" project .

2) Renaming of all "mnh" files in project "mpa" & "mse" to "f90" .

3) NB: The following described modification was introduced by Ryad El Khatib in cycle CY36 . Then, because of the split of "mse" project in two parts (introdiction of "surfex" project), this modification has disappeared, and need to be reintroduced.

In MODD_SURFMAX, JPMODELMAX is the maximum allowed number of surface models per MPI task ; consequently JPMODELMAX has been retuned to 2000, which is big enough to support large and dense geographical area on scalar machines.
The previous value (10000) was too big and leading the executable do exceed the limits of 2Gb of static data.
SURFEX dummies management: move all dummies from "surfex" project to "mse" project, and retrieve some other useless dummies, removed by mistake.

Project: Meso-NH physique altitude,Meso-NH surface, surfex
ClearCase branch: marp003_CY36_surfex

Added:

mse/dummy	close_file_mnh.f90	open_file_mnh.f90	read_surft1_mnh.f90
	write_surft1_mnh.f90		
mse/internals	aroclose_aux_io_surf.f90		
mse/programs	oi_main.f90		
surfex/aux	abor1_sfx.f90	close_aux_io_surf.f90	close_aux_io_surf_asc.f90
	close_aux_io_surf_fa.f90	close_file.f90	close_file_asc.f90
	close_file_fa.f90	close_namelist.f90	close_namelist_asc.f90
	close_namelist_fa.f90	dealloc_ideal_flux.f90	dealloc_sean.f90
	end_io_surf_ascn.f90	end_io_surf_fan.f90	end_io_surfn.f90
	get_1d_mask.f90	get_aosn.f90	get_coordn.f90
	get_default_namn.f90	get_dim_fulln.f90	get_fluxn.f90
	get_fracn.f90	get_lonlatn.f90	get_luout.f90
	get_size_fulln.f90	get_sson.f90	get_surf_grid_dimn.f90
	get_surf_maskn.f90	get_surf_sizen.f90	get_surf_undef.f90
	get_surf_varn.f90	get_type_dimn.f90	get_z0n.f90
	get_zsn.f90	init_io_surf_ascn.f90	init_io_surf_fan.f90
	init_io_surfn.f90	io_buff_cleann.f90	io_buffn.f90
	modd_io_buffn.f90	modd_io_surf_asc.f90	modd_io_surf_fa.f90
	modd_timing.f90	open_aux_io_surf.f90	open_aux_io_surf_asc.f90
	open_aux_io_surf_fa.f90	open_file.f90	open_file_asc.f90
	open_file_fa.f90	open_namelist.f90	open_namelist_asc.f90

	open_namelist_fa.f90	read_ascllv.f90	read_binllv.f90
	read_binllvfast.f90	read_buffer.f90	read_direct.f90
	read_dummyn.f90	read_eco2_irrig.f90	read_grib.f90
	read_grid.f90	read_lclim_lai.f90	read_lecoclimap.f90
	read_netcdf.f90	read_pre_surfa_dat_conf.f90	read_sson.f90
	read_surf.f90	read_surf_asc.f90	read_surf_atm_confn.f90
	read_surf_atm_date.f90	read_surf_fa.f90	readhead.f90
	readwrite_emis_fieldn.f90	second_sfx.f90	surf_version.f90
	write_header_fa.f90	write_surf.f90	write_surf_asc.f90
	write_surf_fa.f90		
surfex/canopy	canopy_evol.f90	canopy_evol_temp.f90	canopy_evol_tke.f90
	canopy_evol_wind.f90	canopy_grid.f90	canopy_grid_update.f90
	modd_canopy_turb.f90	mode_sbls.f90	
surfex/flake	init		
surfex/flake/init	default_prep_flake.f90	init_flaken.f90	modd_prep_flake.f90
	modn_prep_flake.f90	pgd_flake.f90	prep_ctrl_flake.f90
	prep_flake.f90	prep_flake_buffer.f90	prep_flake_extern.f90
	prep_flake_grib.f90	prep_flake_sbl.f90	prep_flake_unif.f90
	prep_hor_flake_field.f90	prep_ver_flake.f90	read_pgd_flaken.f90
	read_prep_flake_conf.f90	writesurf_pgd_flaken.f90	
surfex/flake	module		
surfex/flake/module	modd_diag_flaken.f90	modd_diag_misc_flaken.f90	modd_flake_gridn.f90
	modd_flake_sbln.f90	modd_flaken.f90	modn_flaken.f90
surfex/flake	phys		
surfex/flake/phys	SfcFlx.f90	coupling_flake_orographyn.f90	coupling_flake_sbln.f90
	coupling_flaken.f90	dealloc_flaken.f90	default_diag_flake.f90
	default_flake.f90	diag_flake_initn.f90	diag_flaken.f90
	diag_inline_flaken.f90	diag_misc_flaken.f90	flake.f90
	flake_albedo_ref.f90	flake_configure.f90	flake_derivedtypes.f90
	flake_interface.f90	flake_parameters.f90	flake_paramoptic_ref.f90
	goto_wrapper_flake.f90	read_default_flaken.f90	read_flake_confn.f90
	read_flake_date.f90	read_flake_sbln.f90	read_flaken.f90

	read_pre_flake_dat_conf.f90	write_diag_flaken.f90	write_diag_misc_flaken.f90
	write_diag_seb_flaken.f90	write_flaken.f90	writesurf_flake_confn.f90
	writesurf_flake_sbln.f90	writesurf_flaken.f90	
surfex/ideal	coupling_ideal_flux.f90	coupling_tsz0n.f90	default_diag_ideal.f90
	diag_ideal_initn.f90	diag_idealn.f90	goto_wrapper_ideal.f90
	init_ideal_flux.f90	modd_diag_idealn.f90	modd_ideal_flux.f90
	modd_idealn.f90	modn_idealn.f90	read_default_idealn.f90
	read_ideal_confn.f90	read_ideal_flux_conf.f90	tsz0.f90
surfex/include	consphy.h	impnone.h	netcdf.inc
	stabfunc2.h	surfcon.h	
surfex/isba	init		
surfex/isba/init	ch_init_dep_isban.f90	co2_initn.f90	cotwoinitn.f90
	default_prep_isba.f90	diag_isba_initn.f90	dst_init_modes.f90
	dst_init_names.f90	ini_csts.f90	ini_cturbs.f90
	init_dstn.f90	init_from_data_isban.f90	init_isban.f90
	init_naturen.f90	init_snow_lw.f90	init_top.f90
	pack_pgd_isba.f90	pgd_isba.f90	pgd_isba_par.f90
	pgd_nature.f90	prep_ctrl_isba.f90	prep_hor_isba_field.f90
	prep_isba.f90	prep_isba_ascllv.f90	prep_isba_buffer.f90
	prep_isba_canopy.f90	prep_isba_extern.f90	prep_isba_grib.f90
	prep_isba_unif.f90	prep_nature.f90	prep_ver_isba.f90
	read_nam_pgd_isba.f90	read_pgd_isba_parn.f90	read_pgd_isban.f90
	read_prep_isba_conf.f90	read_prep_isba_date_conf.f90	read_prep_isba_snow.f90
	write_diag_pgd_isban.f90	writesurf_pgd_isba_parn.f90	writesurf_pgd_isban.f90
surfex/isba	module		
surfex/isba/module	modd_agri.f90	modd_agrin.f90	modd_assim.f90
	modd_ch_isba.f90	modd_ch_isban.f90	modd_csts.f90
	modd_cturbs.f90	modd_data_isban.f90	modd_deepsoil.f90
	modd_diag_evap_isban.f90	modd_diag_isban.f90	modd_diag_misc_isban.f90
	modd_dst.f90	modd_dst_surf.f90	modd_dstn.f90
	modd_isba_canopyn.f90	modd_isba_gridn.f90	modd_isba_par.f90
	modd_isban.f90	modd_pack_ch_isba.f90	modd_pack_diag_isba.f90

	modd_pack_isba.f90	modd_prep_isba.f90	modd_sgh_par.f90
	modd_snow_par.f90	modd_type_snow.f90	modi_dgam.F
	modn_agri.f90	modn_assim.f90	modn_deepsoil.f90
	modn_dst.f90	modn_isban.f90	modn_prep_isba.f90
surfex/isba	phys		
surfex/isba/phys	albedo.f90	albedo_from_nir_vis.f90	albedo_ta96.f90
	allocate_gr_snow.f90	average_diag_evap_isban.f90	average_diag_isban.f90
	average_diag_misc_isban.f90	averaged_albedo_emis_isba.f90	ccetr.f90
	ch_dep_isba.f90	cls_2m.f90	cls_wind.f90
	convert_cover_ch_isba.f90	convert_cover_isba.f90	cotwo.f90
	cotwores.f90	cotworestress.f90	coupling_dstn.f90
	coupling_isba_canopyn.f90	coupling_isba_orographyn.f90	coupling_isba_svatn.f90
	coupling_isban.f90	dealloc_isban.f90	dealloc_naturen.f90
	deepsoil_update.f90	default_agri.f90	default_assim.f90
	default_deepsoil.f90	default_diag_isba.f90	default_dstn.f90
	default_isba.f90	dgam.F	diag_evap_isban.f90
	diag_inline_isban.f90	diag_isban.f90	diag_misc_isban.f90
	diag_naturen.f90	diag_surf_budget_isba.f90	dlga.F
	drag.f90	dry_wet_soil_albedos.f90	dst_dep.f90
	dst_velgrav1d.f90	e_budget.f90	emis_from_veg.f90
	exp_decay_soil.f90	flood_intercept.f90	gammad_inc.fx90
	gammas.f90	get_isba_confn.f90	get_var_naturen.f90
	get_vegtype_2_patch_mask.f90	goto_wrapper_isba.f90	green_from_lai.f90
	heatcapz.f90	hydro.f90	hydro_dt92.f90
	hydro_sgh.f90	hydro_snow.f90	hydro_soil.f90
	hydro_soildif.f90	hydro_veg.f90	ice_soildif.f90
	irrigation_update.f90	isba.f90	isba_canopy.f90
	isba_flood_properties.f90	isba_flood_updaten.f90	isba_fluxes.f90
	isba_sgh_update.f90	isba_snow_agr.f90	laigain.f90
	lailoss.f90	mkflag_snow.f90	mode_dst_surf.f90
	mode_dstmbl.f90	mode_dstmblutl.f90	mode_pos_surf.f90
	mode_snow3l.f90	mode_soil.f90	mode_surf_flood_frac.f90

	mode_surf_snow_frac.f90	mode_thermos.f90	nitro_decline.f90
	pack_ch_isba_patchn.f90	pack_diag_patchn.f90	pack_isba_patchn.f90
	param_cls.f90	put_on_all_vegtypes.f90	put_zs_naturen.f90
	read_default_dstn.f90	read_default_isban.f90	read_dst_confn.f90
	read_gr_snow.f90	read_isba_canopyn.f90	read_isba_confn.f90
	read_isba_date.f90	read_isban.f90	set_rough.f90
	snow3L_isba.f90	snow3l.f90	snow_heat_to_t_wliq.f90
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	read_prep_watflux_conf.f90	writesurf_pgd_watfluxn.f90	zoom_pgd_inland_water.f90
surfex/water	module		
surfex/water/module	modd_ch_watfluxn.f90	modd_diag_watfluxn.f90	modd_water_par.f90
	modd_watflux_gridn.f90	modd_watflux_sbln.f90	modd_watfluxn.f90
	modn_watfluxn.f90		
surfex/water	phys		
surfex/water/phys	ch_dep_water.f90	coupling_watflux_orographyn.f90	coupling_watflux_sbln.f90
	coupling_watfluxn.f90	dealloc_inland_watern.f90	dealloc_watfluxn.f90
	default_diag_watflux.f90	default_watflux.f90	diag_inland_watern.f90
	diag_inline_watfluxn.f90	diag_surf_budget_water.f90	diag_watflux_initn.f90
	diag_watfluxn.f90	get_var_watern.f90	goto_wrapper_watflux.f90
	mr98.f90	put_zs_inland_watern.f90	read_default_watfluxn.f90
	read_pre_watf_dat_conf.f90	read_watflux_confn.f90	read_watflux_date.f90
	read_watflux_sbln.f90	read_watfluxn.f90	water_flux.f90
	write_cover_tex_water.f90	write_diag_inland_watern.f90	write_diag_seb_watfluxn.f90
	write_diag_watfluxn.f90	write_inland_watern.f90	write_watfluxn.f90
	writesurf_watflux_confn.f90	writesurf_watflux_sbln.f90	writesurf_watfluxn.f90

Renamed:

mpa/chem/externals	aro_mnhc.mnh to mpa/chem/externals/aro_mnhc.f90
	aro_mnhdust.mnh to mpa/chem/externals/aro_mnhdust.f90
	aro_rainaero.mnh to mpa/chem/externals/aro_rainaero.f90
	aroini_mnhc.mnh to mpa/chem/externals/aroini_mnhc.f90
	aroini_nsv.mnh to mpa/chem/externals/aroini_nsv.f90
	aroini_nsv0.mnh to mpa/chem/externals/aroini_nsv0.f90
	ch_aer_init.mnh to mpa/chem/externals/ch_aer_init.f90
	ch_aer_mod_init.mnh to mpa/chem/externals/ch_aer_mod_init.f90
mpa/chem/internals	aer_effic.mnh to mpa/chem/internals/aer_effic.f90
	aer_velgrav.mnh to mpa/chem/internals/aer_velgrav.f90
	aer_wet_dep_kmt_warm.mnh to mpa/chem/internals/aer_wet_dep_kmt_warm.f90

ch_aer_coag.mnh to mpa/chem/internals/ch_aer_coag.f90
ch_aer_driver.mnh to mpa/chem/internals/ch_aer_driver.f90
ch_aer_eqm_cormass.mnh to mpa/chem/internals/ch_aer_eqm_cormass.f90
ch_aer_eqm_init0d.mnh to mpa/chem/internals/ch_aer_eqm_init0d.f90
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	troe_equil.mnh to mpa/chem/internals/troe_equil.f90
mpa/chem/module	modd_aunifacparam.mnh to mpa/chem/module/modd_aunifacparam.f90
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	convect_downdraft.mnh to mpa/conv/internals/convect_downdraft.f90
	convect_mixing_funct.mnh to mpa/conv/internals/convect_mixing_funct.f90
	convect_precip_adjust.mnh to mpa/conv/internals/convect_precip_adjust.f90
	convect_satmixratio.mnh to mpa/conv/internals/convect_satmixratio.f90
	convect_trigger_funct.mnh to mpa/conv/internals/convect_trigger_funct.f90
	convect_trigger_shal.mnh to mpa/conv/internals/convect_trigger_shal.f90
	convect_tstep_pref.mnh to mpa/conv/internals/convect_tstep_pref.f90
	convect_updraft.mnh to mpa/conv/internals/convect_updraft.f90
	convect_updraft_shal.mnh to mpa/conv/internals/convect_updraft_shal.f90
	deep_convection.mnh to mpa/conv/internals/deep_convection.f90
	ini_convpar.mnh to mpa/conv/internals/ini_convpar.f90
	ini_convpar_e1.mnh to mpa/conv/internals/ini_convpar_e1.f90
	ini_convpar_shal.mnh to mpa/conv/internals/ini_convpar_shal.f90

	shallow_convection.mnh to mpa/conv/internals/shallow_convection.f90
mpa/conv/module	modd_convpar.mnh to mpa/conv/module/modd_convpar.f90
	modd_convpar_shal.mnh to mpa/conv/module/modd_convpar_shal.f90
	modd_convparext.mnh to mpa/conv/module/modd_convparext.f90
mpa/dummy	mask_compress.mnh to mpa/dummy/mask_compress.f90
mpa/micro/externals	aro_adjust.mnh to mpa/micro/externals/aro_adjust.f90
	aro_buprocn.mnh to mpa/micro/externals/aro_buprocn.f90
	aro_convbu.mnh to mpa/micro/externals/aro_convbu.f90
	aro_rain_ice.mnh to mpa/micro/externals/aro_rain_ice.f90
	aro_startbu.mnh to mpa/micro/externals/aro_startbu.f90
	aro_subudget.mnh to mpa/micro/externals/aro_subudget.f90
	aro_suintbudget.mnh to mpa/micro/externals/aro_suintbudget.f90
	aroend_budget.mnh to mpa/micro/externals/aroend_budget.f90
	aroini_budget.mnh to mpa/micro/externals/aroini_budget.f90
	aroini_cstmnh.mnh to mpa/micro/externals/aroini_cstmnh.f90
	aroini_micro.mnh to mpa/micro/externals/aroini_micro.f90
	invert_vlev.mnh to mpa/micro/externals/invert_vlev.f90
mpa/micro/internals	budget.mnh to mpa/micro/internals/budget.f90
	cart_compress.mnh to mpa/micro/internals/cart_compress.f90
	condensation.mnh to mpa/micro/internals/condensation.f90
	gamma.mnh to mpa/micro/internals/gamma.f90
	gamma_inc.mnh to mpa/micro/internals/gamma_inc.f90
	general_gamma.mnh to mpa/micro/internals/general_gamma.f90
	ice_adjust.mnh to mpa/micro/internals/ice_adjust.f90
	ini_budget.mnh to mpa/micro/internals/ini_budget.f90
	ini_cst.mnh to mpa/micro/internals/ini_cst.f90
	ini_rain_ice.mnh to mpa/micro/internals/ini_rain_ice.f90
	rain_ice.mnh to mpa/micro/internals/rain_ice.f90
	read_xker_gweth.mnh to mpa/micro/internals/read_xker_gweth.f90
	read_xker_raccs.mnh to mpa/micro/internals/read_xker_raccs.f90
	read_xker_rdryg.mnh to mpa/micro/internals/read_xker_rdryg.f90
	read_xker_sdryg.mnh to mpa/micro/internals/read_xker_sdryg.f90

	read_xker_sweth.mnh to mpa/micro/internals/read_xker_sweth.f90
	rrcolss.mnh to mpa/micro/internals/rrcolss.f90
	rscolrg.mnh to mpa/micro/internals/rscolrg.f90
	rzcolx.mnh to mpa/micro/internals/rzcolx.f90
mpa/micro/module	modd_blank.mnh to mpa/micro/module/modd_blank.f90
	modd_budget.mnh to mpa/micro/module/modd_budget.f90
	modd_conf.mnh to mpa/micro/module/modd_conf.f90
	modd_conf1.mnh to mpa/micro/module/modd_conf1.f90
	modd_conf_n.mnh to mpa/micro/module/modd_conf_n.f90
	modd_cst.mnh to mpa/micro/module/modd_cst.f90
	modd_dyn.mnh to mpa/micro/module/modd_dyn.f90
	modd_les.mnh to mpa/micro/module/modd_les.f90
	modd_lunit.mnh to mpa/micro/module/modd_lunit.f90
	modd_nsv.mnh to mpa/micro/module/modd_nsv.f90
	modd_param_c1r3.mnh to mpa/micro/module/modd_param_c1r3.f90
	modd_param_c2r2.mnh to mpa/micro/module/modd_param_c2r2.f90
	modd_param_ice.mnh to mpa/micro/module/modd_param_ice.f90
	modd_parameters.mnh to mpa/micro/module/modd_parameters.f90
	modd_rain_ice_descr.mnh to mpa/micro/module/modd_rain_ice_descr.f90
	modd_rain_ice_param.mnh to mpa/micro/module/modd_rain_ice_param.f90
	modd_refaro.mnh to mpa/micro/module/modd_refaro.f90
	moddb_budget.mnh to mpa/micro/module/moddb_budget.f90
	moddb_intbudget.mnh to mpa/micro/module/moddb_intbudget.f90
	mode_fmbidon.mnh to mpa/micro/module/mode_fmbidon.f90
	mode_fmwritbidon.mnh to mpa/micro/module/mode_fmwritbidon.f90
	modi_budget.mnh to mpa/micro/module/modi_budget.f90
	modi_cart_compress.mnh to mpa/micro/module/modi_cart_compress.f90
	modi_condensation.mnh to mpa/micro/module/modi_condensation.f90
	modi_gamma.mnh to mpa/micro/module/modi_gamma.f90
	modi_gamma_inc.mnh to mpa/micro/module/modi_gamma_inc.f90
	modi_general_gamma.mnh to mpa/micro/module/modi_general_gamma.f90
	modi_ice_adjust.mnh to mpa/micro/module/modi_ice_adjust.f90

	modi_ini_budget.mnh to mpa/micro/module/modi_ini_budget.f90
	modi_ini_cst.mnh to mpa/micro/module/modi_ini_cst.f90
	modi_ini_rain_ice.mnh to mpa/micro/module/modi_ini_rain_ice.f90
	modi_mask_compress.mnh to mpa/micro/module/modi_mask_compress.f90
	modi_rain_ice.mnh to mpa/micro/module/modi_rain_ice.f90
	modi_read_xker_gweth.mnh to mpa/micro/module/modi_read_xker_gweth.f90
	modi_read_xker_raccs.mnh to mpa/micro/module/modi_read_xker_raccs.f90
	modi_read_xker_rdryg.mnh to mpa/micro/module/modi_read_xker_rdryg.f90
	modi_read_xker_sdryg.mnh to mpa/micro/module/modi_read_xker_sdryg.f90
	modi_read_xker_sweth.mnh to mpa/micro/module/modi_read_xker_sweth.f90
	modi_rrcolss.mnh to mpa/micro/module/modi_rrcolss.f90
	modi_rscolrg.mnh to mpa/micro/module/modi_rscolrg.f90
	modi_rzcolx.mnh to mpa/micro/module/modi_rzcolx.f90
mpa/programs	ch_make_lookup.mnh to mpa/programs/ch_make_lookup.f90
mpa/turb/externals	aro_shallow_mf.mnh to mpa/turb/externals/aro_shallow_mf.f90
	aro_turb_mnh.mnh to mpa/turb/externals/aro_turb_mnh.f90
	aroini_mfshal.mnh to mpa/turb/externals/aroini_mfshal.f90
	aroini_turb.mnh to mpa/turb/externals/aroini_turb.f90
mpa/turb/internals	bl89.mnh to mpa/turb/internals/bl89.f90
	bl_depth_diag_1d.mnh to mpa/turb/internals/bl_depth_diag_1d.f90
	bl_depth_diag_3d.mnh to mpa/turb/internals/bl_depth_diag_3d.f90
	compute_bl89_ml.mnh to mpa/turb/internals/compute_bl89_ml.f90
	compute_entr_detr.mnh to mpa/turb/internals/compute_entr_detr.f90
	compute_frac_ice1d.mnh to mpa/turb/internals/compute_frac_ice1d.f90
	compute_frac_ice2d.mnh to mpa/turb/internals/compute_frac_ice2d.f90
	compute_frac_ice3d.mnh to mpa/turb/internals/compute_frac_ice3d.f90
	compute_function_thermo_mf.mnh to mpa/turb/internals/compute_function_thermo_mf.f90
	compute_mf_cloud.mnh to mpa/turb/internals/compute_mf_cloud.f90
	compute_updraft.mnh to mpa/turb/internals/compute_updraft.f90
	emoist.mnh to mpa/turb/internals/emoist.f90
	etheta.mnh to mpa/turb/internals/etheta.f90

gx_m_m.mnh to mpa/turb/internals/gx_m_m.f90
gx_m_u.mnh to mpa/turb/internals/gx_m_u.f90
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gx_v_uv.mnh to mpa/turb/internals/gx_v_uv.f90
gx_w_uw.mnh to mpa/turb/internals/gx_w_uw.f90
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gz_w_m.mnh to mpa/turb/internals/gz_w_m.f90
ini_cmfshall.mnh to mpa/turb/internals/ini_cmfshall.f90
ini_cturb.mnh to mpa/turb/internals/ini_cturb.f90
mf_turb.mnh to mpa/turb/internals/mf_turb.f90
prandtl.mnh to mpa/turb/internals/prandtl.f90
rmc01.mnh to mpa/turb/internals/rmc01.f90
sbl_depth.mnh to mpa/turb/internals/sbl_depth.f90
shallow_mf.mnh to mpa/turb/internals/shallow_mf.f90
shumanaro.mnh to mpa/turb/internals/shumanaro.f90
th_r_from_thl_rt_1d.mnh to mpa/turb/internals/th_r_from_thl_rt_1d.f90
th_r_from_thl_rt_2d.mnh to mpa/turb/internals/th_r_from_thl_rt_2d.f90
thl_rt_from_th_r_mf.mnh to mpa/turb/internals/thl_rt_from_th_r_mf.f90
tke_eps_sources.mnh to mpa/turb/internals/tke_eps_sources.f90
tm06.mnh to mpa/turb/internals/tm06.f90
tm06_h.mnh to mpa/turb/internals/tm06_h.f90
tridiag.mnh to mpa/turb/internals/tridiag.f90
tridiag_massflux.mnh to mpa/turb/internals/tridiag_massflux.f90
tridiag_thermo.mnh to mpa/turb/internals/tridiag_thermo.f90

	tridiag_tke.mnh to mpa/turb/internals/tridiag_tke.f90
	tridiag_wind.mnh to mpa/turb/internals/tridiag_wind.f90
	turb.mnh to mpa/turb/internals/turb.f90
	turb_ver.mnh to mpa/turb/internals/turb_ver.f90
	turb_ver_dyn_flux.mnh to mpa/turb/internals/turb_ver_dyn_flux.f90
	turb_ver_sv_corr.mnh to mpa/turb/internals/turb_ver_sv_corr.f90
	turb_ver_sv_flux.mnh to mpa/turb/internals/turb_ver_sv_flux.f90
	turb_ver_thermo_corr.mnh to mpa/turb/internals/turb_ver_thermo_corr.f90
	turb_ver_thermo_flux.mnh to mpa/turb/internals/turb_ver_thermo_flux.f90
	updraft_sope.mnh to mpa/turb/internals/updraft_sope.f90
mpa/turb/module	modd_cmfshall.mnh to mpa/turb/module/modd_cmfshall.f90
	modd_cturb.mnh to mpa/turb/module/modd_cturb.f90
	modd_diag_in_run.mnh to mpa/turb/module/modd_diag_in_run.f90
	mode_prandtl.mnh to mpa/turb/module/mode_prandtl.f90
	mode_sbl.mnh to mpa/turb/module/mode_sbl.f90
	mode_thermo_mono.mnh to mpa/turb/module/mode_thermo_mono.f90
	modi_bl89.mnh to mpa/turb/module/modi_bl89.f90
	modi_bl_depth_diag.mnh to mpa/turb/module/modi_bl_depth_diag.f90
	modi_bl_depth_diag_3d.mnh to mpa/turb/module/modi_bl_depth_diag_3d.f90
	modi_compute_bl89_ml.mnh to mpa/turb/module/modi_compute_bl89_ml.f90
	modi_compute_entr_detr.mnh to mpa/turb/module/modi_compute_entr_detr.f90
	modi_compute_frac_ice.mnh to mpa/turb/module/modi_compute_frac_ice.f90
	modi_compute_frac_ice3d.mnh to mpa/turb/module/modi_compute_frac_ice3d.f90
	modi_compute_function_thermo_mf.mnh to mpa/turb/module/modi_compute_function_thermo_mf.f90
	modi_compute_mf_cloud.mnh to mpa/turb/module/modi_compute_mf_cloud.f90
	modi_compute_updraft.mnh to mpa/turb/module/modi_compute_updraft.f90
	modi_emoist.mnh to mpa/turb/module/modi_emoist.f90
	modi_etheta.mnh to mpa/turb/module/modi_etheta.f90
	modi_gradient_m.mnh to mpa/turb/module/modi_gradient_m.f90
	modi_gradient_u.mnh to mpa/turb/module/modi_gradient_u.f90

modi_gradient_v.mnh to mpa/turb/module/modi_gradient_v.f90
modi_gradient_w.mnh to mpa/turb/module/modi_gradient_w.f90
modi_ini_cmfshall.mnh to mpa/turb/module/modi_ini_cmfshall.f90
modi_ini_cturb.mnh to mpa/turb/module/modi_ini_cturb.f90
modi_les_mean_subgrid.mnh to mpa/turb/module/modi_les_mean_subgrid.f90
modi_mf_turb.mnh to mpa/turb/module/modi_mf_turb.f90
modi_prandtl.mnh to mpa/turb/module/modi_prandtl.f90
modi_rmc01.mnh to mpa/turb/module/modi_rmc01.f90
modi_sbl_depth.mnh to mpa/turb/module/modi_sbl_depth.f90
modi_shallow_mf.mnh to mpa/turb/module/modi_shallow_mf.f90
modi_shumanaro.mnh to mpa/turb/module/modi_shumanaro.f90
modi_th_r_from_thl_rt_1d.mnh to
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modi_th_r_from_thl_rt_2d.mnh to
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modi_thl_rt_from_th_r_mf.mnh to
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modi_tm06.mnh to mpa/turb/module/modi_tm06.f90
modi_tm06_h.mnh to mpa/turb/module/modi_tm06_h.f90
modi_tridiag.mnh to mpa/turb/module/modi_tridiag.f90
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modi_turb_ver.mnh to mpa/turb/module/modi_turb_ver.f90
modi_turb_ver_dyn_flux.mnh to mpa/turb/module/modi_turb_ver_dyn_flux.f90
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modi_turb_ver_sv_flux.mnh to mpa/turb/module/modi_turb_ver_sv_flux.f90
modi_turb_ver_thermo_corr.mnh to
mpa/turb/module/modi_turb_ver_thermo_corr.f90

	modi_turb_ver_thermo_flux.mnh to mpa/turb/module/modi_turb_ver_thermo_flux.f90
	modi_update_lm.mnh to mpa/turb/module/modi_update_lm.f90
	modi_updraft_sope.mnh to mpa/turb/module/modi_updraft_sope.f90
	modn_turb.mnh to mpa/turb/module/modn_turb.f90
mse/dummy	default_grid_mnh.mnh to mse/dummy/default_grid_mnh.f90
	default_schemes_mnh.mnh to mse/dummy/default_schemes_mnh.f90
	detect_field_mnh.mnh to mse/dummy/detect_field_mnh.f90
	fmlook_ll.mnh to mse/dummy/fmlook_ll.f90
	fmwrit.mnh to mse/dummy/fmwrit.f90
	les_mean_subgrid_3d.mnh to mse/dummy/les_mean_subgrid_3d.f90
	les_mean_subgrid_surf.mnh to mse/dummy/les_mean_subgrid_surf.f90
	mnhclose_aux_io_surf.mnh to mse/dummy/mnhclose_aux_io_surf.f90
	mnhclose_namelist.mnh to mse/dummy/mnhclose_namelist.f90
	mnhclose_write_cover_tex.mnh to mse/dummy/mnhclose_write_cover_tex.f90
	mnhend_io_surf_n.mnh to mse/dummy/mnhend_io_surf_n.f90
	mnhget_desfm_n.mnh to mse/dummy/mnhget_desfm_n.f90
	mnhget_luout.mnh to mse/dummy/mnhget_luout.f90
	mnhget_size_full_n.mnh to mse/dummy/mnhget_size_full_n.f90
	mnhinit_io_surf_n.mnh to mse/dummy/mnhinit_io_surf_n.f90
	mnhopen_aux_io_surf.mnh to mse/dummy/mnhopen_aux_io_surf.f90
	mnhopen_namelist.mnh to mse/dummy/mnhopen_namelist.f90
	mnhopen_write_cover_tex.mnh to mse/dummy/mnhopen_write_cover_tex.f90
	pgd_grid_io_init_mnh.mnh to mse/dummy/pgd_grid_io_init_mnh.f90
	read_surfc0_mnh.mnh to mse/dummy/read_surfc0_mnh.f90
	read_surfl0_mnh.mnh to mse/dummy/read_surfl0_mnh.f90
	read_surfl1_mnh.mnh to mse/dummy/read_surfl1_mnh.f90
	read_surfn0_mnh.mnh to mse/dummy/read_surfn0_mnh.f90
	read_surfn1_mnh.mnh to mse/dummy/read_surfn1_mnh.f90
	read_surft0_mnh.mnh to mse/dummy/read_surft0_mnh.f90
	read_surfx0_mnh.mnh to mse/dummy/read_surfx0_mnh.f90
	read_surfx1_mnh.mnh to mse/dummy/read_surfx1_mnh.f90

	read_surfx2_mnh.mnh to mse/dummy/read_surfx2_mnh.f90
	second_mnh.mnh to mse/dummy/second_mnh.f90
	write_surfc0_mnh.mnh to mse/dummy/write_surfc0_mnh.f90
	write_surfl0_mnh.mnh to mse/dummy/write_surfl0_mnh.f90
	write_surfl1_mnh.mnh to mse/dummy/write_surfl1_mnh.f90
	write_surfn0_mnh.mnh to mse/dummy/write_surfn0_mnh.f90
	write_surfn1_mnh.mnh to mse/dummy/write_surfn1_mnh.f90
	write_surft0_mnh.mnh to mse/dummy/write_surft0_mnh.f90
	write_surfx0_mnh.mnh to mse/dummy/write_surfx0_mnh.f90
	write_surfx1_mnh.mnh to mse/dummy/write_surfx1_mnh.f90
	write_surfx2_mnh.mnh to mse/dummy/write_surfx2_mnh.f90
mse/externals	aro_ground_diag.mnh to mse/externals/aro_ground_diag.f90
	aro_ground_param.mnh to mse/externals/aro_ground_param.f90
	aro_put_zs.mnh to mse/externals/aro_put_zs.f90
	aro_surf_diag.mnh to mse/externals/aro_surf_diag.f90
	aroini_surf.mnh to mse/externals/aroini_surf.f90
	atm2sx_env.mnh to mse/externals/atm2sx_env.f90
	atm2sx_field.mnh to mse/externals/atm2sx_field.f90
	close_buffer_surfex.mnh to mse/externals/close_buffer_surfex.f90
	close_prep_surfex_aro.mnh to mse/externals/close_prep_surfex_aro.f90
	get_bufc0.mnh to mse/externals/get_bufc0.f90
	get_bufn0.mnh to mse/externals/get_bufn0.f90
	get_bufn1.mnh to mse/externals/get_bufn1.f90
	get_bufx0.mnh to mse/externals/get_bufx0.f90
	get_bufx1.mnh to mse/externals/get_bufx1.f90
	ini_prep_surfex_aro.mnh to mse/externals/ini_prep_surfex_aro.f90
	prep_surf_aro.mnh to mse/externals/prep_surf_aro.f90
	put_bufc0.mnh to mse/externals/put_bufc0.f90
	put_bufn0.mnh to mse/externals/put_bufn0.f90
	put_bufn1.mnh to mse/externals/put_bufn1.f90
	put_bufx0.mnh to mse/externals/put_bufx0.f90
	put_bufx1.mnh to mse/externals/put_bufx1.f90

mse/internals	aroclose_namelist.mnh to mse/internals/aroclose_namelist.f90
	aroclose_write_cover_tex.mnh to mse/internals/aroclose_write_cover_tex.f90
	aroend_io_surf_n.mnh to mse/internals/aroend_io_surf_n.f90
	aroget_desfm_n.mnh to mse/internals/aroget_desfm_n.f90
	aroget_luout.mnh to mse/internals/aroget_luout.f90
	aroget_size_full_n.mnh to mse/internals/aroget_size_full_n.f90
	aroinit_io_surf_n.mnh to mse/internals/aroinit_io_surf_n.f90
	aroopen_aux_io_surf.mnh to mse/internals/aroopen_aux_io_surf.f90
	aroopen_namelist.mnh to mse/internals/aroopen_namelist.f90
	aroopen_write_cover_tex.mnh to mse/internals/aroopen_write_cover_tex.f90
	detect_field_aro.mnh to mse/internals/detect_field_aro.f90
	error_read.mnh to mse/internals/error_read.f90
	error_read_surf_asc.mnh to mse/internals/error_read_surf_asc.f90
	error_write.mnh to mse/internals/error_write.f90
	error_write_surf_asc.mnh to mse/internals/error_write_surf_asc.f90
	error_write_surf_txt.mnh to mse/internals/error_write_surf_txt.f90
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	fm_writ.mnh to mse/internals/fm_writ.f90
	fmattr.mnh to mse/internals/fmattr.f90
	fmclos.mnh to mse/internals/fmclos.f90
	fmfree.mnh to mse/internals/fmfree.f90
	fminit.mnh to mse/internals/fminit.f90
	fmlook.mnh to mse/internals/fmlook.f90
	fmopen.mnh to mse/internals/fmopen.f90
	fmreadc0.mnh to mse/internals/fmreadc0.f90
	fmreadl0.mnh to mse/internals/fmreadl0.f90
	fmreadl1.mnh to mse/internals/fmreadl1.f90
	fmreadn0.mnh to mse/internals/fmreadn0.f90
	fmreadn1.mnh to mse/internals/fmreadn1.f90
	fmreadn2.mnh to mse/internals/fmreadn2.f90
	fmreadt0.mnh to mse/internals/fmreadt0.f90
	fmreadx0.mnh to mse/internals/fmreadx0.f90

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fmreadx4.mnh to mse/internals/fmreadx4.f90
fmreadx5.mnh to mse/internals/fmreadx5.f90
fmreadx6.mnh to mse/internals/fmreadx6.f90
fmwritc0.mnh to mse/internals/fmwritc0.f90
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	read_in_lfi_x2.mnh to mse/internals/read_in_lfi_x2.f90
	read_in_lfi_x3.mnh to mse/internals/read_in_lfi_x3.f90
	read_surfc0_aro.mnh to mse/internals/read_surfc0_aro.f90
	read_surfl0_aro.mnh to mse/internals/read_surfl0_aro.f90
	read_surfl1_aro.mnh to mse/internals/read_surfl1_aro.f90
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	read_surfx1_aro.mnh to mse/internals/read_surfx1_aro.f90
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	unpack_1d_2d_from2d.mnh to mse/internals/unpack_1d_2d_from2d.f90
	unpack_1d_2d_from3d.mnh to mse/internals/unpack_1d_2d_from3d.f90
	unpack_1d_2d_from4d.mnh to mse/internals/unpack_1d_2d_from4d.f90
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	write_in_lfi_x1.mnh to mse/internals/write_in_lfi_x1.f90
	write_in_lfi_x2.mnh to mse/internals/write_in_lfi_x2.f90
	write_in_lfi_x3.mnh to mse/internals/write_in_lfi_x3.f90
	write_surfc0_aro.mnh to mse/internals/write_surfc0_aro.f90
	write_surfl0_aro.mnh to mse/internals/write_surfl0_aro.f90
	write_surfl1_aro.mnh to mse/internals/write_surfl1_aro.f90
	write_surfn0_aro.mnh to mse/internals/write_surfn0_aro.f90
	write_surfn1_aro.mnh to mse/internals/write_surfn1_aro.f90
	write_surft0_aro.mnh to mse/internals/write_surft0_aro.f90
	write_surfx0_aro.mnh to mse/internals/write_surfx0_aro.f90
	write_surfx1_aro.mnh to mse/internals/write_surfx1_aro.f90
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mse/module	modd_aro_ini_surf.mnh to mse/module/modd_aro_ini_surf.f90

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	modd_bufn0.mnh to mse/module/modd_bufn0.f90
	modd_bufn1.mnh to mse/module/modd_bufn1.f90
	modd_bufx0.mnh to mse/module/modd_bufx0.f90
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	modd_fmdeclar.mnh to mse/module/modd_fmdeclar.f90
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	modd_io_nam.mnh to mse/module/modd_io_nam.f90
	modd_io_surf_aro.mnh to mse/module/modd_io_surf_aro.f90
	modi_aroget_size_full_n.mnh to mse/module/modi_aroget_size_full_n.f90
	modi_aroopen_aux_io_surf.mnh to mse/module/modi_aroopen_aux_io_surf.f90
	modi_fmread.mnh to mse/module/modi_fmread.f90
	modi_fmwrit.mnh to mse/module/modi_fmwrit.f90
	modi_ini_sun_aro.mnh to mse/module/modi_ini_sun_aro.f90
	modi_ini_sw_setup.mnh to mse/module/modi_ini_sw_setup.f90
	modi_pack_1d_1d.mnh to mse/module/modi_pack_1d_1d.f90
	modi_pack_2d_1d.mnh to mse/module/modi_pack_2d_1d.f90
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mse/programs	pgd.mnh to mse/programs/pgd.f90
	prep.mnh to mse/programs/prep.f90
	sxpost.mnh to mse/programs/sxpost.f90

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mse/dummy	aroclose_aux_io_surf.mnh	close_aux_io_surf_asc.mnh	close_aux_io_surf_ol.mnh
	close_file_ol.mnh	close_namelist_ol.mnh	create_file.mnh
	def_var_netcdf.mnh	end_io_surf_ol_n.mnh	get_dimlen_netcdf.mnh
	handle_err.mnh	init_io_surf_ol_n.mnh	init_outfn_isba_n.mnh
	init_outfn_sea_n.mnh	init_outfn_surf_atm_n.mnh	init_outfn_teb_n.mnh
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	ol_read_atm.mnh	ol_read_atm_conf.mnh	ol_read_prescribed_veg.mnh

	ol_time_interp_atm.mnh	open_aux_io_surf_asc.mnh	open_aux_io_surf_ol.mnh
	open_file_ol.mnh	open_namelist_ol.mnh	read_netcdf.mnh
	read_surfc0_ol.mnh	read_surfl0_ol.mnh	read_surfl1_ol.mnh
	read_surfn0_ol.mnh	read_surfn1_ol.mnh	read_surft0_ol.mnh
	read_surfx0_ol.mnh	read_surfx1_ol.mnh	read_surfx2_ol.mnh
	read_surfx3_ol.mnh	write_surfc0_ol.mnh	write_surfl0_ol.mnh
	write_surfl1_ol.mnh	write_surfn0_ol.mnh	write_surfn1_ol.mnh
	write_surft0_ol.mnh	write_surfx0_ol.mnh	write_surfx1_ol.mnh
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mse/internals	abor1_sfx.mnh	adapt_horibl_surf.mnh	add_forecast_to_date_surf.mnh
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	average1_cover2.mnh	average1_mesh.mnh	average1_orography.mnh
	average2_cover.mnh	average2_mesh.mnh	average2_orography.mnh
	average_diag.mnh	average_diag_evap_isba_n.mnh	average_diag_isba_n.mnh
	average_diag_misc_isba_n.mnh	average_flux.mnh	average_rad.mnh
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	canopy_evol_tke.mnh	canopy_evol_wind.mnh	canopy_grid.mnh
	canopy_grid_update.mnh	ccetr.mnh	ch_aer_dep.mnh
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	ch_buildpronos_n.mnh	ch_bvocem_n.mnh	ch_dep_isba.mnh
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	ch_init_names.mnh	ch_open_inputb.mnh	clean_prep_output_grid.mnh
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modi_road_wall_layer_e_budget.mnh
modi_roof_layer_e_budget.mnh
modi_slt_dep.mnh
modi_slt_init_modes.mnh
modi_slt_init_names.mnh
modi_slt_velgrav1d.mnh
modi_snow3l.mnh
modi_snow3l_isba.mnh
modi_snow_cover_1layer.mnh
modi_snow_heat_to_t_wliq.mnh
modi_snow_t_wliq_to_heat.mnh
modi_soil.mnh
modi_soil_albedo.mnh
modi_soil_heatdif.mnh
modi_soildif.mnh
modi_soilgrid.mnh
modi_soilstress.mnh
modi_sso.mnh
modi_sst_update.mnh
modi_subscale_aos.mnh
modi_subscale_z0eff.mnh
modi_sunpos.mnh
modi_surf_patch.mnh
modi_surface_aero_cond.mnh
modi_surface_cd.mnh
modi_surface_cdch_1darp.mnh
modi_surface_ri.mnh
modi_teb.mnh
modi_teb_canopy.mnh
modi_temporal_dists.mnh
modi_temporal_lts.mnh
modi_test_nam_var_surf.mnh
modi_thrmcondz.mnh
modi_treat_bathyfield.mnh
modi_treat_field.mnh
modi_tridiag_ground.mnh
modi_tridiag_surf.mnh

modi_trip.mnh
modi_trip_floodplain.mnh
modi_trip_ground_water.mnh
modi_trip_surface_water.mnh
modi_tsz0.mnh
modi_unitfp_flux.mnh
modi_unitfp_seaflux.mnh
modi_unpack_ch_isba_patch_n.mnh
modi_unpack_diag_patch_n.mnh
modi_unpack_isba_patch_n.mnh
modi_unpack_same_rank.mnh
modi_update_data_cover.mnh
modi_urban_drag.mnh
modi_urban_fluxes.mnh
modi_urban_hydro.mnh
modi_urban_lw_coef.mnh
modi_urban_snow_evol.mnh
modi_urban_solar_abs.mnh
modi_veg.mnh
modi_veg_from_lai.mnh
modi_vegetation_evol.mnh
modi_vegetation_update.mnh
modi_vegtype_grid_to_patch_grid.mnh
modi_vegtype_to_patch.mnh
modi_ver_interp_lin3d_surf.mnh
modi_ver_interp_lin_surf.mnh
modi_water_flux.mnh
modi_wet_leaves_frac.mnh
modi_wind_threshold.mnh
modi_write_cover_tex_end.mnh
modi_write_cover_tex_isba.mnh
modi_write_cover_tex_isba_par.mnh
modi_write_cover_tex_start.mnh
modi_write_diag_flake_n.mnh
modi_write_diag_inland_water_n.mnh
modi_write_diag_isba_n.mnh
modi_write_diag_misc_flake_n.mnh
modi_write_diag_misc_isba_n.mnh
modi_write_diag_misc_teb_n.mnh
modi_write_diag_nature_n.mnh
modi_write_diag_pgd_isba_n.mnh
modi_write_diag_sea_n.mnh
modi_write_diag_seaflux_n.mnh
modi_write_diag_seb_flake_n.mnh
modi_write_diag_seb_isba_n.mnh
modi_write_diag_seb_ocean_n.mnh
modi_write_diag_seb_seaflux_n.mnh
modi_write_diag_seb_surf_atm_n.mnh
modi_write_diag_seb_teb_n.mnh
modi_write_diag_seb_watflux_n.mnh
modi_write_diag_teb_n.mnh
modi_write_diag_town_n.mnh
modi_write_diag_watflux_n.mnh
modi_write_dst_conf.mnh
modi_write_dst_conf_n.mnh
modi_write_flake_n.mnh
modi_write_grid.mnh
modi_write_inland_water_n.mnh
modi_write_isba_n.mnh
modi_write_nature_n.mnh
modi_write_sea_n.mnh
modi_write_seaflux_n.mnh
modi_write_surf.mnh
modi_write_teb_n.mnh
modi_write_town_n.mnh
modi_write_watflux_n.mnh
modi_writesurf_atm_conf_n.mnh
modi_writesurf_ch_emis_n.mnh
modi_writesurf_cover_n.mnh
modi_writesurf_dummy_n.mnh
modi_writesurf_flake_conf_n.mnh
modi_writesurf_flake_n.mnh
modi_writesurf_flake_sbl_n.mnh
modi_writesurf_gr_snow.mnh
modi_writesurf_isba_canopy_n.mnh
modi_writesurf_isba_conf_n.mnh
modi_writesurf_isba_n.mnh
modi_writesurf_ocean_n.mnh
modi_writesurf_pgd_flake_n.mnh
modi_writesurf_pgd_isba_n.mnh
modi_writesurf_pgd_isba_par_n.mnh
modi_writesurf_pgd_seaf_par_n.mnh
modi_writesurf_pgd_seaflux_n.mnh
modi_writesurf_pgd_teb_n.mnh
modi_writesurf_pgd_teb_par_n.mnh
modi_writesurf_pgd_watflux_n.mnh
modi_writesurf_seaflux_conf_n.mnh
modi_writesurf_seaflux_n.mnh
modi_writesurf_seaflux_sbl_n.mnh
modi_writesurf_sso_n.mnh
modi_writesurf_teb_canopy_n.mnh
modi_writesurf_teb_conf_n.mnh
modi_writesurf_teb_n.mnh
modi_writesurf_watflux_conf_n.mnh
modi_writesurf_watflux_n.mnh
modi_writesurf_watflux_sbl_n.mnh

modi_z0eff.mnh	modi_z0v_from_lai.mnh	modi_zoom_pgd_cover.mnh
modi_zoom_pgd_orography.mnh	modi_zoom_pgd_seaflux.mnh	modi_zsfilter.mnh
modn_agri.mnh	modn_assim.mnh	modn_chs_orilam.mnh
modn_deepsoil.mnh	modn_dst.mnh	modn_dst_n.mnh
modn_flake_n.mnh	modn_isba_n.mnh	modn_pgd_grid.mnh
modn_pgd_schemes.mnh	modn_prep_flake.mnh	modn_prep_isba.mnh
modn_prep_seaflux.mnh	modn_prep_surf_atm.mnh	modn_prep_teb.mnh
modn_prep_watflux.mnh	modn_seaflux_n.mnh	modn_slt.mnh
modn_surf_atm.mnh	modn_surf_atm_n.mnh	modn_teb_n.mnh
modn_trip_n.mnh	modn_watflux_n.mnh	modn_write_surf_atm.mnh
sfcflx.mnh		

Modified:

mpa/turb/internals	compute_updraft.f90		
mse/dummy	close_file_mnh.f90	default_grid_mnh.f90	default_schemes_mnh.f90
	open_file_mnh.f90	pgd_grid_io_init_mnh.f90	read_surft1_mnh.f90
	write_surft1_mnh.f90		
mse/internals	aroclose_aux_io_surf.f90		
mse/programs	oi_main.f90	pgd.f90	prep.f90
	sxpost.f90		

Doc:

Remove obsolete routines/directories.

Project: arpege,auxiliaire
ClearCase branch: marp003_CY36_t1

Deleted:

arp/adiab	gpverdia.F90	lattex5.F90	lattex_dnt5.F90
	tricsi.F90		

arp/dfi	gee.F90	optfil.F90	optfilb.F90
	recfil.F90	remez.F90	
arp/fullpos	fpinvtrcuf.F90		
arp/module	yomopf.F90	yomssg.F90	yomtit.F90
arp/parallel	ircvgpf.F90	isndgpf.F90	orcvgpf.F90
	osndgpf.F90	phcset.F90	phrset.F90
	rdrset.F90	trltom_dil.F90	trmton.F90
	trntom.F90		
arp/pp_obs	aval.F90	bob.F90	ppgeop_old.F90
	ppgeopad_old.F90	ppgeoptl_old.F90	ppuv_old.F90
	ppuvad_old.F90	ppuvtl_old.F90	
arp/setup	dilat.F90	dilatb.F90	rotat.F90
	suadmi.F90	sudil.F90	sufrag.F90
	sump_dila.F90	sump_dilb.F90	suncet13.F90
	suncmax.F90	suplis.F90	supola.F90
	surot.F90	sutric.F90	
arp/sinvect	morthodm.F90		
arp/transform	spdico.F90	spdicoad.F90	spodts.F90
	spodtsad.F90	spolts.F90	sports.F90
	sportsad.F90	sprota.F90	sprotaad.F90
	sprotlon.F90	trageo.F90	trageoad.F90
arp/utility	deallocuf.F90	suallocuf.F90	
arp/var	rdittrajm.F90	writtrajm.F90	
xrd/not_used	ismax.F	ismin.F	minv.vpp.F
	sgemmx.vpp.F		

Doc:

1) Fix phasing bugs.
2) Phasing of sujbcovsignal.F90 on pre-cycle CY36T1 .

Project: arpege,odb

ClearCase branch: marp003_CY36_t1bf

Modified:

arp/adiab	cpg_gp.F90		
arp/control	cnt1.F90		
arp/fullpos	endpos_prepgfl.F90		
arp/namelist	namphy.h	namsimphl.h	
arp/obs_preproc	flgtst.F90		
arp/op_obs	co2cldairs.F90	hdepart.F90	reflsim_2dop.F90
arp/phys_dmn	acdrag.F90	acdraglad.F90	acdragltl.F90
	achmt.F90	acupd.F90	acupm.F90
arp/utility	pksurfa.F90	prtgom.F90	
arp/var	sujbcovsignal.F90	sujbvarens.F90	surad.F90
odb/cma2odb	ctxinitdb.F90		

Doc:
1) Fix phasing bugs.
2) Fix a strange compilation error with pgcc version 6.1.2 (result.c).
3) Portability fixes for gfortran .
Project: aladin,arpege,Meso-NH surface,odb,auxiliaire
ClearCase branch: marp003_CY36_t1bf2

Modified:

ald/transform	etransinv_mdl.F90		
arp/adiab	spchor.F90		
arp/control	spcm.F90		
arp/dia	aro_surf_diagh.F90	cpdyddh.F90	sunddh.F90
arp/obs_preproc	new_thinn_radar.F90		
arp/phys_dmn	aplpar.F90	suphy2.F90	
arp/transform	transinv_mdl.F90		
arp/var	fltbgvarens.F90		

mse/externals	aro_surf_diag.f90	
odb/aux	result.c	
odb/tools	Bator.F90	
xrd/utilities	ifc_smax.F	ifc_smin.F

Doc:

1) Function IFC_SMIN and IFC_SMAX were declared twice as integer...
2) Remove useless dummies. All of them are now real subroutines inside "surfex/offlin/io" directory.
3) Portability fixes for gfortran .
4) Specification of the proper "kind" of a constant in a MIN statement (acvppkf.F90) .

Project: arpege,,auxiliaire
ClearCase branch: marp003_CY36_t1bf3

Deleted:

surfex/dummy	read_surfn0_ol.f90	read_surfn1_ol.f90	read_surfx0_ol.f90
	read_surfx2_ol.f90	write_surfc0_txt.f90	write_surfl0_bin.f90
	write_surfl0_txt.f90	write_surfl1_txt.f90	write_surfn0_txt.f90
	write_surft0_txt.f90	write_surft2_txt.f90	write_surfx0_txt.f90
	write_surfx1_txt.f90	write_surfx2_txt.f90	

Modified:

arp/phys_dmn	acvppkf.F90	
xrd/utilities	ifc_smax.F	ifc_smin.F

GRIL Jean-Daniel

Doc:
Fix norm violations.

Project: utilitaires
ClearCase branch: mrpe604_CY35T2_cleanpinuts

Modified:

uti/pinuts/include	mykind.h		
uti/pinuts/module	add_op_mod.F90	array_lib_mod.F90	coneo_prg_mod.F90
	const_standart_mod.F90	debugtools_mod.F90	domain_mod.F90
	domolalo_prg_mod.F90	ectoplasm_prg_mod.F90	editfield_prg_mod.F90
	egg_tools_mod.F90	fa_cadre_mod.F90	fa_datas_mod.F90
	frodo_prg_mod.F90	makdo_prg_mod.F90	namlist_mod.F90
	newtype_mod.F90	pseudo_prg_mod.F90	string_lib_mod.F90
	subdo_prg_mod.F90		
uti/pinuts/programs	alto.F90		

Doc:

1) Optimisations when vector datas are used.
2) Fix norm violations.

Project: auxiliaire
ClearCase branch: mrpe604_CY35T2_optimgeo

Modified:

xrd/module eggangles.F90 eggmrt.F90 eggpack.F90

GUIDARD Vincent

Doc:

Use AIRS cloudy radiances in cost function properly :

arp/op_obs/hop.F90
arp/op_obs/hoptl.F90
arp/op_obs/radtrtl.F90

Set correct cloud parameters for computation of AIRS cloudy radiances in direct obs. operator :
arp/op_obs/radtr.F90

Set correct shape for arrays PRADOV and ZPRADOV :
arp/op_obs/co2cldairs.F90

Modify the selection of predictors for monitored SEVIRI CSR in ARPEGE:
arp/var/suvarbc.F90

Project: arpege
ClearCase branch: marp003_CY36_dbl5

Modified:

arp/op_obs	co2cldairs.F90	hop.F90	hoptl.F90
	radtr.F90	radtrtl.F90	

Doc:

Fix norm violations.

Project: arpege
ClearCase branch: mrpe710_CY36_norms

Modified:

arp/module	varbc_to3.F90		
arp/op_obs	co2cldairs.F90	gpscalc_alpharkm2.F90	gpscalc_alpharkm2ad.F90
	gpscalc_alpharkm2tl.F90	gpspderivs.F90	gpspderivsad.F90
	gpspderivstl.F90		

GUILLAUME Frank

Doc:

1) Control dynamic memory allocations.

2) Reorganization and standardization of extraction routines.

3) Mandatory setting of BUFR reading by the way of the file 'param.cfg'. This setting is full for datas AMSUA, AMSUB, HIRS, IASI, GEOWIND, SSMI, AIRS, SEVIRI, QSCAT, SSMIS . A partial use is done for other data types.

4) Change selection mode for datas GEOWIND & AIRS .

4) Fix miscellaneous bugs.

Project: odb
ClearCase branch: mrpa644_CY36_36t0_bator

Modified:

odb/pandor/module	bator_decodbufr_mod.F90	bator_decodgrib_mod.F90	bator_ecritures_mod.F90
	bator_impr_mod.F90	bator_init_mod.F90	bator_lectures_mod.F90
	bator_module.F90	bator_saisies_mod.F90	bator_util_mod.F90
odb/pandor/namelist	bator_namelist.h		
odb/tools	Bator.F90		

Doc:

Add producer code 176 for MODIS winds processing (code 173 is still active).

Project: odb
ClearCase branch: mrpa644_CY36_cy36_bator_modis

Modified:

odb/pandor/module bator_init_mod.F90

PAYAN Christophe

Doc:

1) Add a producer code in order to process SATAMs obervations, following a change of code from CMISS producer (173 to 176).

2) Fix two forgotten arrays initialization (defrun.F90).

3) Remove a no more use constant (pardimo.F90).

Project: arpege
ClearCase branch: mrpa642_CY36_fixgw

Modified:

arp/module pardimo.F90
arp/obs_preproc defrun.F90

Doc:

** Management by namelists of producer codes and quality index choice of Geowinds (NB: SATAM or AMV).*
** Fix Jo computation for Quikscat, and set a quality flag.*

Project: arpege,black_list,auxiliaire
ClearCase branch: mrpa642_CY36_modgwfrom35t2op1

Modified:

arp/module	pardimo.F90	yomscc.F90	
arp/namelist	namscc.h		
arp/obs_preproc	defrun.F90	new_thinn.F90	new_thinner_no_sq.F90
	pre_thinner.F90		
bla	mf_blacklist.b		
xrd/module	local_trafos.F90		

RIVIERE Olivier

Doc:

Introduction scheme for large scale precipitation in simplified physics under key LSTRASPN.
It is based on Smith scheme for the computation of condensed water in a diagnostic way (no advection iof QL and QI for the time being).

Project: arpege
ClearCase branch: mrpe601_CY35T2_newmp_op35t2

Added:

arp/function	fctdoiad.h	fctdoitl.h	
arp/phys_dmn	aclsps.F90	aclspsad.F90	aclspstl.F90
	acnebsmad.F90	acnebsmtl.F90	radint15.F90

Modified:

arp/control	cva1.F90	
arp/function	fctdoiad.h	fctdoitl.h
arp/module	yomfpc.F90	yomsimphl.F90
arp/namelist	namsimphl.h	
arp/op_obs	hjo.F90	

arp/phys_dmn	aclsps.F90	aclspsad.F90	aclspstl.F90
	acnebsmad.F90	acnebsmtl.F90	aplparsad.F90
	aplparstl.F90		
arp/setup	su0phy.F90		

Doc:

Call to fanion replaced by call to faveur (bf) in order to be able to run with implicted compacted truncature under 10 if specified in namelist (otherwise namelist settings overwritten in fanion).

Project: arpege
ClearCase branch: mrpe601_CY36_modif1d

Modified:

arp/setup	suarg.F90

Doc:

This modest allows activation of option LGWDSPNL, which allows to retrieve part of the GWD formulation directly from the trajectory in the TL/AD computation. By default it is not activated.

Project: arpege
ClearCase branch: mrpe601_CY36_newgwd

Modified:

arp/module	yomsimphl.F90		
arp/namelist	namsimphl.h		
arp/phys_dmn	acdrag.F90	acdraglad.F90	acdragltl.F90
	aplpar.F90	aplparsad.F90	aplparstl.F90
	hl_aplpar.F90	mf_physad.F90	mf_phystl.F90

arp/setup su0phy.F90 sutrajp.F90
arp/var rdphtrajtm.F90 wrphtrajtm.F90

Doc:

1) Add 4 missing dummy arguments in APLPAR . 3 of them were new GFL arrays for Rasch-Kristjansson scheme (arrays with RK string in their names). In addition orography array POROG was not before used in APLPAR and was thus cleaned, but there is new routine which uses it again: so POROG was reintroduced back.

2) Modset allowing activation of option LGWDSPNL which allows to retrieve part of the GWD formulation directly from the trajectory in the TL/AD computation. By default it is not activated.

Project: arpege
ClearCase branch: mrpe601_CY36_phase36t1

Modified:

arp/phys_dmn aplpar.F90

SAEZ Patrick

Doc:

Modset for configuration 901 .

Project: arpege
ClearCase branch: mrpm608_CY36_c901

Modified:

arp/control cprep1.F90
arp/namelist nammars.h

SEITY Yann

Doc:

1) Catch-up from parallel suite:

** Fix possible negative values for graupels .*
** Increase initilization of CANOPY fields, in order to do the same post-processing at time-step 0h and other time-steps.*
** Add the possibility to disable in namelist the date control in fullpos.*
** Fix a bug on maximum gust computation.*
** NMEANSTEPS=1_JPIM instead of NMEANSTEPS=0_JPIM in suxfu.F90, in order to have the same value as the instantaneous wind for the average wind field at the first time-step .(without this modification, this field is empty).*
** New version of EDKF .*
** Changes in turbulence to fix the problems of negative values for QC & QI .*
** Computation of a maximum gust field on 3h .*
** Coding on 4 integers instead of 3 of "surfex" output file time-step (file "AROMOUT").*

2) Bugfixes and cleanings.

Project: aladin,arpege,Meso-NH physique altitude,Meso-NH surface,auxiliaire
ClearCase branch: mrpm637_CY36_arome

Modified:

ald/coupling	ecoupl1.F90		
ald/setup	suebicu.F90		
arp/adiab	cpg.F90	cpg_dia.F90	
arp/control	cnt4.F90		
arp/dia	aro_surf_diagh.F90	cpdyddh.F90	cpxfu.F90
arp/fullpos	openfpfa.F90	sufpc.F90	

arp/module	yomfpc.F90	yomphy2.F90	yomxfu.F90
arp/namelist	namfpc.h	namphy2.h	namxfu.h
arp/phys_dmn	apl_arome.F90	arocldia.F90	suphy2.F90
	vdfhghthl.F90	vdfhghtnhl.F90	vdfparcelhl.F90
arp/setup	suxfu.F90		
arp/utility	echien.F90		
mpa/chem/externals	aro_mnhc.mnh		
mpa/chem/module	modd_dust.mnh		
mpa/micro/externals	aro_adjust.mnh	aro_rain_ice.mnh	aro_subudget.mnh
mpa/micro/internals	rain_ice.mnh		
mpa/micro/module	modi_rain_ice.mnh		
mpa/turb/externals	aro_turb_mnh.mnh		
mpa/turb/internals	turb_ver_thermo_flux.mnh		
mse/externals	aro_ground_param.mnh	aro_surf_diag.mnh	aroini_surf.mnh
mse/interface	aro_surf_diag.h		
xrd/fa	facine.F		

Doc:

** CDCONF='K' for surfex replaced by CDCONF='Q' ('K' was already used) (cnt4.F90,iopack.F90) .*
** Add LMSE test for surfex file production (monio.F90) .*
** Cleaning of useless variables (yomarar.F90) .*
** Bugfix for preparation of initial surfex file (hor_interpol_buffer.f90) .*

Project: arpege,
ClearCase branch: mrpm637_CY36_aromebfs

Modified:

arp/control	cnt4.F90	monio.F90
arp/module	yomarar.F90	
arp/utility	iopack.F90	
surfex/prep	hor_interpol_buffer.f90	

Doc:

Initialization of CANOPY fields. With this modset, reproductibilty of parallel suite is OK for AROME .

Project:
ClearCase branch: mrpm637_CY36_initcanopy

Added:

surfex/isba/phys cls_tq.f90 isba_snow_frac.f90

Modified:

surfex/flake/init	prep_flake.f90	prep_flake_sbl.f90	
surfex/flake/phys	coupling_flake_sbln.f90	diag_inline_flaken.f90	
surfex/isba/init	prep_isba.f90	prep_isba_canopy.f90	
surfex/isba/phys	cls_tq.f90	cls_wind.f90	coupling_isba_canopyn.f90
	coupling_isban.f90	diag_inline_isban.f90	isba_snow_frac.f90
surfex/prep	hor_interpol.f90		
surfex/sea/init	prep_seaflux.f90	prep_seaflux_sbl.f90	
surfex/sea/phys	coupling_seaflux_sbl.f90	diag_inline_seafluxn.f90	
surfex/teb/init	prep_teb.f90	prep_teb_canopy.f90	
surfex/teb/phys	coupling_tebn.f90	diag_inline_tebn.f90	
surfex/water/init	prep_watflux.f90	prep_watflux_sbl.f90	
surfex/water/phys	coupling_watflux_sbln.f90	diag_inline_watfluxn.f90	

Doc:

1) Update routines for building surfex binary "OI_MAIN" .
2) Fix for compilation with intel compiler.

Project: Meso-NH surface, surfex

ClearCase branch: mrpm637_CY36_oimain

Added:

surfex/offlin/assim	ini_assim.f90	oi_bc_soil_moisture.f90	oi_jacobians.f90
	oi_kalman_gain.f90	oi_latlon_conf_proj.f90	trans_chaine.f90

Modified:

mse/programs	oi_main.f90		
surfex/aux	get_surf_maskn.f90	get_type_dimn.f90	init_io_surf_fan.f90
	init_io_surfn.f90	modd_io_surf_fa.f90	read_surf_fa.f90
surfex/isba/module	modd_assim.f90		
surfex/offlin/assim	ini_assim.f90	oi_acsolw.f90	oi_bc_soil_moisture.f90
	oi_cacsts.f90	oi_cavegi.f90	oi_fctveg.f90
	oi_jacobians.f90	oi_kalman_gain.f90	oi_latlon_conf_proj.f90
	oi_tsl.f90	trans_chaine.f90	
surfex/offlin/init	init_write_bin.f90		
surfex/sea/phys	read_oceann.f90		

SPANIEL Olda

Doc:

Fix compilation errors, only for OpenMP .

Project: arpege
ClearCase branch: mrpe693_CY36_ompbf1

Modified:

arp/obs_preproc	redun.F90

arp/parallel dot_product_ctlvec.F90

VANA Filip

Doc:

1) Optimization to the ESPCHOR, ESPCHORAD

modified routines: ald/adiab/espchor.F90, ald/adiab/espchorad.F90

The second attempt (the compromise one) of the two routines optimization, improving their performance for both vector and scalar platforms. For more details see my mail from 22/09/2009 (to Karim, Ryad, Claude,...) with the subject: "Re: optimisation of (e)spchor and (e)spchorad"

2) Updated mixing length computation for the Alaro physics

modified routines (all from arp): module/yomphy.F90, module/yomphy0.F90, namelist/namphy.h, namelist/namphy0.h, phys_dmn/acmixelen.F90, phys_dmn/acmixlenz.F90, phys_dmn/aplpar.F90, phys_dmn/hl_aplpar.F90, phys_dmn/suphy0.F90, setup/su0phy.F90
new routine: arp/module/yomqnse.F90

This reflects the most recent code of the Alaro turbulence code related to the mixing length computation. Although the full TKE code is for the moment still off the common source, some of its components necessary for the mixing length evalueation are already present (X-term computation, QNSE fit,...).
This relatively separated part of the whole turbulence scheme can be activated independently to the rest of the full TKE scheme.

3) Split of the SL high order interpolation

modified routines (all arp): adiab/cpg.F90, adiab/larcinb.F90,
adiab/larcinhb.F90, adiab/lattex.F90, adiab/lattex_dnt.F90,
adiab/lattex_tnt.F90, adiab/lattextl.F90, adiab/lavabo.F90,
adiab/lavent.F90, module/ptrslb1.F90, module/yomdyn.F90,
namelist/namdyn.h, phys_dmn/mf_phys.F90, setup/sudyn.F90,
setup/suslb.F90

Adapted SL dataflow allowing to split high order interpolation of the origin point quantity to the variable itself (or its derivation better suited for advection) and the remaining part. The latter means physics when N[x]LAG=3, or physics and part of the dynamics tendency when N[x]LAG=2. The implementation is controlled by NSPLTHOI (SPLiT High Order Interpolation) variable. This can actually keep following values:

NSPLTHOI=0 (default) keeps the current situation including the exact preservation of the norms. This can be formally written as I(A+B), where I() is the interpolation operator and A and B are the quantities to be interplated;

NSPLTHOI=1 the first high order interpolation applied to the advected quantity can be diffusive, the other one is always the "precise" one. Again this written formally gives I'(A)+I(B). Note that I'() and I() are not necessarily the same;

NSPLTHOI=-1 both high order quantities are of the same kind (whether diffused or not). This written formally gives I(A)+I(B)

Note, that ideally I(A)+I(B)=I(A+B). This equation is however not exactly fulfilled due to the computational error of the machine.

The NSPLTHOI=1 option is designed for the 3D turbulence, the NSPLTHOI=-1 will be used by DDH.

The NSPLTHOI /= is currently done only for the direct (NL) code and

the Meteo-France (non lagged) physics only.

4) New triggering of the SLHD scheme with respect to the D2 (=horizontal divergence)

modified routines (all arp): adiab/gp_kappa.F90, adiab/gp_kappaad.F90,
adiab/gp_kappatl.F90, module/yomdyn.F90, namelist/namdyn.h,
setup/sudyn.F90

The triggering closely inspired by the usual trick from the fluid dynamics to compensate the missing scales by increased diffusion proportional to divergence. The way, how it has been coded allows additionally to separate regions with convergence from those of divergence. (It is believed that it can help to the outflow problem seen with a high resolution.)

I did basic validation (mostly with LAM but the modified code is general to any geometry). I haven't spotted any particular problem with it. When my changes are inactive the norms are preserved exactly. The optimization of ESPCHOR, ESPCHORAD is also fully preserving norms (at least for NEC). With my new development (2) and (4) indeed the results are different, but all seems to be relevant to the expected behavior. The modifications (2) were checked by various parallel tests performed with ALADIN/CE at CHMI.

Project: aladin,arpege
ClearCase branch: mrpe706_CY36_fv

Added:

arp/module yomopf.F90 yomqnse.F90 yomssg.F90
yomtit.F90

Deleted:

arp/module sats_mix.F90 type_gflflds.F90 yomppvi.F90

Modified:

ald/adiab	espchor.F90	espchorad.F90	
arp/adiab	cpg.F90	gp_kappa.F90	gp_kappaad.F90
	gp_kappatl.F90	larcinb.F90	larcinhb.F90
	lattex.F90	lattex_dnt.F90	lattex_tnt.F90
	lattextl.F90	lavabo.F90	lavent.F90
arp/module	ptrslb1.F90	yomdyn.F90	yomphy.F90
	yomphy0.F90	yomqnse.F90	
arp/namelist	namdyn.h	namphy.h	namphy0.h
arp/phys_dmn	acmixelen.F90	acmixlenz.F90	aplpar.F90
	hl_aplpar.F90	mf_phys.F90	suphy0.F90
arp/setup	su0phy.F90	sudyn.F90	suslb.F90

VIGNES Ole

Doc:

1) Bugfixes:
** suebicu.F90 : deallocate ZGP,ZSPM ;*
** hl_aplpar.F90 : deallocate ZSVM,ZSFSV ;*
** facine.F : deallocate ICHAMP .*

2) Addition of a new logical switch LECSST to enable utilization of Sea Surface Temperature (SST) and Sea Ice Concentration (SIC) fields from ECMWF in CANARI .

Project: aladin,arpege,auxiliaire
ClearCase branch: mrpe726_CY36_hirlam

Modified:

ald/setup	suebicu.F90		
arp/canari	caclsst.F90	cacsts.F90	canali.F90

arp/module	qactex.F90
arp/namelist	nactex.h
arp/phys_dmn	hl_aplpar.F90
xrd/fa	facine.F

VOITUS Fabrice

Doc:

These modifications consist in computing the tendencies of the semi-implicit scheme and of the horizontal diffusion scheme in spectral space, respectively for the GMV variables U, V, T and for the GFL variable Q (specific humidity). then transforming them into gridpoint space for DDH application.

Project: aladin,arpege
ClearCase branch: mrpm630_CY36_ddhdyn4cy36t1

Added:

arp/dia	dealdyn_ddh.F90	sualdyn_ddh.F90	
arp/module	yomgpddh.F90	yomopf.F90	yomspddh.F90
	yomssg.F90	yomtit.F90	

Modified:

ald/adiab	espchor.F90	espcsi.F90	
ald/control	espcm.F90		
ald/transform	etransinv_mdl.F90	etransinvh.F90	
arp/adiab	cpg.F90	cpg_dia.F90	spchor.F90
	spcsi.F90		
arp/control	spcm.F90		
arp/dia	cpdyddh.F90	dealdyn_ddh.F90	sualdyn_ddh.F90

	sunddh.F90		
arp/module	yomgpddh.F90	yomlddh.F90	yommddh.F90
	yomspddh.F90		
arp/namelist	namddh.h		
arp/setup	su0yomb.F90		
arp/transform	transinv_mdl.F90	transinvh.F90	
arp/utility	freemem.F90		

WATTRELOT Eric

Doc:

Assimilation of reflectivities.

Project: arpege,black_list,odb
ClearCase branch: mrpa652_CY35T2_bfv05reflectiviteop

Added:

arp/obs_preproc	genada.F90	new_thinn_rad_reflec.F90	pre_thinn_rad_reflec.F90
	statpred.F90	thinn_radar.F90	

Modified:

arp/module	goms_mix.F90		
arp/obs_preproc	defrun.F90	new_thinn.F90	new_thinn_rad_reflec.F90
	pre_thinn_rad_reflec.F90	pre_thinn_radar.F90	prech.F90
	radar_profs.F90		
arp/op_obs	hop.F90	hretr.F90	mpobseq.F90
	mpobseq_pack.F90	reflsim.F90	reflsim_2dop.F90
bla	mf_blacklist.b		
odb/ddl	new_thinn_robhdr_11.sql	new_thinn_robody_11.sql	pre_thinn_robhdr_11.sql

pre_thinn_robody_11.sql satbody_radar.sql
odb/pandor/module bator_decodbufr_mod.F90

Doc:

Update from parallel suite on cycle CY36 .

Project: arpege
ClearCase branch: mrpa652_CY35T2_ewreflec

Modified:

arp/op_obs reflsim_2dop.F90

Doc:

1) Technical and scientifical optimizations.
2) Fix a bug in BATOR: a flag concerning AIRS datas had an unexpected effect on radar datas.

Project: arpege,odb
ClearCase branch: mrpa652_CY35T2_radarewv03

Modified:

arp/obs_preproc flgtst.F90 mkglobstab.F90 new_thinn_radar.F90
arp/op_obs inv_refl1dstat.F90
odb/pandor/module bator_ecritures_mod.F90

Doc:

1) Fix concerning some datas undef model relief, which entered in the model by mistake, and for which the pressure level was set to an obsolete default value.

2) Fix bugs in AROME screening.

Project: arpege
ClearCase branch: mrpa652_CY35T2_radarop1v05

Modified:

arp/op_obs inv_refl1dstat.F90 reflsim_2dop.F90

YESSAD Karim

Doc:

Modification code:

ALLOC : allocate arrays even when unused to avoid false alarms in bound checking runs.

BUGFIX : bug corrections.

EGGNET : preliminary cleanings for future move of CHIEN, ECHIEN and group EGGX in XRD.

EXT911 : externalisation of conf 911 towards UTI.

IFC_SMIN : replace xrd/not_used/ismin.F by xrd/utilities/ifc_smin.F

IFC_SMAX : replace xrd/not_used/ismax.F by xrd/utilities/ifc_smax.F

MERGDM1 : replace calls to OSNDGPF+ORCVGPF by calls to DIWRGRID; replace calls to ISNDGPF+IRCVGPF by calls to DISGRID.

MERGSET : merge RDCSET+PHCSET, SLRSET+RDRSET+PHRSET.

NET : miscellaneous cleanings.
- add missing comments (in particuliar in tfl/external,

tal/external, xla/external, tfl/module, tal/module).
- cosmetic presentation cleanings.
- remove useless declarations.
- rename some dummy or local variables.
- reference extra-GFL and not passive scalars in post-processing.
- rename TFP_GFL into TFP_EXT.
- use root LAN and not CONT for land fraction.
- variables declared with "Argument NOT used", in the non-ECMWF physics routines, and which are actually used: restore the right intent attribute.
- variables declared with "Undetermined intent", in the non-ECMWF physics routines: restore the right intent attribute.

NETYOM : remove some unused module variables.

NETLOCK : remove CDLOCK dummy arguments remaining in MF physics.

NETPOS : set of cleanings under POS and ENDPOS.
- merge of PPGEOP and PPGEOP_OLD (+ TL,AD).
- merge of PPUV and PPUV_OLD (+ TL,AD)
- remove BOB and use PPQ instead with minor adaptations.
- global treatment of GFL
- global treatment of CUF
- in-line AVAL into APACHE
- rationalisation of the calls to APACHE.
- call GP routines as early as possible (beginning of POS, ENDPOS, PPOBSAP) and remove redundant calculations; no GP routine left in FPPS, FPACHMT, PPVVEL.
- take account properly of NH and deep-layer dynamics.
- use always root 'EXT' in the name of extra-GFL variables.
- cosmetic cleanings to make the code norm-compliant.

NETSL : set of cleanings in the semi-Lagrangian scheme.
- make LATTEX_DNT_AD consistent with its direct counterpart.
- make LATTESTL and LATTESAD consistent with LATTES.
- remove NTRSLTYPE=0 or 1 in the TL and AD 3D model SL.

- use root QX,QY for operator (p,q) in variable names (3D).
- use RIPI instead of (RIPI0,RIPI1,RIPI2).
- use RSLD instead of (RSLD1,RSLD2,RSLD3).

OBSOLETE : removal of useless routines.

RM912 : pruning of configuration 912.

RMOPTDFI : remove some obsolete options in DFI (OPTFIL, RECFIL).

RMPCOLD_LA : pruning of LPC_OLD in TL and AD code.

RMSITRIC : pruning of LSITRIC.

RMSLHDN : remove key LPSLHDN and obsolete case LPSLHDN=T.

RMTRAGEO : pruning of TRAGEO and TRAGEOAD, and routines called under them (example SPDICO and SPDICOAD).

FBY_CAPEX : add contribution "fby_diag4" of F. Bouyssel: options LFPISOPV and LFPCAPEX.

YB_LIRAD : add GFL LRAD and IRAD (total liquid water and ice for radiation); contribution originally provided by Yves Bouteloup.

Ccase branch name: mrpm603_CY36_dev36pour36t1

Modified elements:

ald/adiab/elarche5.F90 : NETSL
ald/adiab/elarchead.F90 : NETSL
ald/adiab/elarche.F90 : NETSL
ald/adiab/elarchetl.F90 : NETSL
ald/adiab/elarmes5.F90 : NETSL
ald/adiab/elarmesad.F90 : NETSL

ald/adiab/elarmes.F90 : NETSL
ald/adiab/elarmestl.F90 : NETSL

ald/c9xx/eincli6.F90 : NETLOCK
ald/c9xx/eleci.F90 : NET

ald/control/espch.F90 : NET
ald/control/espchad.F90 : NET

ald/coupling/elscot1.F90 : NET
ald/coupling/elscot1ad.F90 : RMPCOLD_LA
ald/coupling/eseimpls.F90 : NET
ald/coupling/eseimplsad.F90 : NET
ald/coupling/esrlxt1.F90 : NET
ald/coupling/esrlxt1ad.F90 : NET

ald/fullpos/fpfillb.F90 : NETLOCK

ald/inidata/elsirf.F90 : NET
ald/inidata/erlbc.F90 : NET

ald/parallel/ircvezon.F90 : NET
ald/parallel/isndezon.F90 : NET

ald/programs/blend.F90 : EGGNET
ald/programs/blendsur.F90 : EGGNET
ald/programs/check_limits.F90 : EGGNET

ald/setup/sueldynb.F90 : ALLOC

ald/sinvect/esptrlcz.F90 : NET
ald/sinvect/ewrtsv.F90 : NET

ald/transform/ereespe.F90 : NET
ald/transform/esperad.F90 : NET

ald/transform/esperee.F90 : NET
ald/transform/espuv.F90 : NET
ald/transform/etransdir_fp.F90 : NET
ald/transform/etransdirh.F90 : NET
ald/transform/etransdir_mdl.F90 : NET
ald/transform/etransdir_mdlad.F90 : NET
ald/transform/etransinv_fp.F90 : NET
ald/transform/etransinv_mdlad.F90 : NET
ald/transform/etransinv_mdl.F90 : NET

ald/utility/cchien.F90 : EGGNET
ald/utility/eggdir.F90 : EGGNET (is it still useful?)
ald/utility/eggmlt.F90 : EGGNET
ald/utility/eggrvs.F90 : EGGNET
ald/utility/eggx.F90 : EGGNET
ald/utility/eggx_n.F90 : EGGNET

ald/var/suejbbal.F90 : NET

arp/adiab/call_sl_ad.F90 : NETSL
arp/adiab/call_sl.F90 : NETSL
arp/adiab/call_sl_tl.F90 : NETSL
arp/adiab/cpg.F90 : YB_LIRAD
arp/adiab/cpg5.F90 : NETSL
arp/adiab/cpg5_gp.F90 : RMPCOLD_LA
arp/adiab/cpgtl.F90 : NETSL RMPCOLD_LA
arp/adiab/cpgad.F90 : RMPCOLD_LA
arp/adiab/cpg_dyn_tl.F90 : NETSL RMPCOLD_LA
arp/adiab/cpg_dyn_ad.F90 : NETSL RMPCOLD_LA
arp/adiab/cpg_end_tl.F90 : RMPCOLD_LA
arp/adiab/cpg_end_ad.F90 : RMPCOLD_LA
arp/adiab/cpg_gp.F90 : RMPCOLD_LA
arp/adiab/cpg_gp_tl.F90 : NETSL RMPCOLD_LA
arp/adiab/cpg_gp_ad.F90 : NETSL RMPCOLD_LA

arp/adiab/cpg_zero_ad.F90 : RMPCOLD_LA
arp/adiab/gpctytl.F90 : NETSL
arp/adiab/gpctyad.F90 : NETSL
arp/adiab/lacdyntl.F90 : NETSL
arp/adiab/lacdynad.F90 : NETSL
arp/adiab/ladine.F90 : NETSL
arp/adiab/ladinead.F90 : NETSL
arp/adiab/ladinetl.F90 : NETSL
arp/adiab/lainor2.F90 : NETSL
arp/adiab/lainor2ad.F90 : NETSL
arp/adiab/lainor2tl.F90 : NETSL
arp/adiab/lapinea5.F90 : NETSL
arp/adiab/lapineaad.F90 : NETSL
arp/adiab/lapinea.F90 : NETSL
arp/adiab/lapineatl.F90 : NETSL
arp/adiab/lapinebad.F90 : NETSL
arp/adiab/larche5.F90 : NETSL
arp/adiab/larchead.F90 : NETSL
arp/adiab/larche.F90 : NETSL
arp/adiab/larchetl.F90 : NETSL
arp/adiab/larcinaad.F90 : NETSL
arp/adiab/larcina.F90 : NETSL
arp/adiab/larcinatl.F90 : NETSL
arp/adiab/larcinha.F90 : NETSL
arp/adiab/larcin2.F90 : NETSL
arp/adiab/larcin2ad.F90 : NETSL
arp/adiab/larcin2tl.F90 : NETSL
arp/adiab/larmesad.F90 : NETSL
arp/adiab/larmestl.F90 : NETSL
arp/adiab/larmes5.F90 : NETSL
arp/adiab/larmes.F90 : NETSL
arp/adiab/larmes25.F90 : NETSL
arp/adiab/larmes2.F90 : NETSL
arp/adiab/larmes2ad.F90 : NETSL
arp/adiab/larmes2tl.F90 : NETSL

arp/adiab/lascaw.F90 : NETSL
arp/adiab/lascawad.F90 : NETSL
arp/adiab/lascawtl.F90 : NETSL
arp/adiab/lattestl.F90 : NETSL
arp/adiab/lattesad.F90 : NETSL
arp/adiab/lattextl.F90 : NETSL
arp/adiab/lattex_dnt_ad.F90 : NETSL
arp/adiab/laventtl.F90 : NETSL
arp/adiab/spcsi.F90 : RMSITRIC
arp/adiab/spnhsi.F90 : RMSITRIC
arp/adiab/spnhsi_geogw.F90 : RMSITRIC

arp/c9xx/incli6.F90 : NETLOCK

arp/canari/caclsi.F90 : NETLOCK
arp/canari/cacsts.F90 : NETLOCK
arp/canari/calina.F90 : NET
arp/canari/calver.F90 : NET
arp/canari/camera.F90 : IFC_SMAX
arp/canari/capdgu.F90 : NET
arp/canari/carnak.F90 : NET
arp/canari/casmswi.F90 : NETLOCK
arp/canari/casgqa.F90 : NET IFC_SMAX
arp/canari/cassva.F90 : IFC_SMAX
arp/canari/caupflg.F90 : NET
arp/canari/caviso.F90 : NET

arp/climate/updcli.F90 : NET
arp/climate/updclie.F90 : MERGDM1
arp/climate/updclie_aer.F90 : MERGDM1
arp/climate/updclie_co2.F90 : MERGDM1

arp/control/cnt4.F90 : RMSITRIC
arp/control/cnt4tl.F90 : RMSITRIC
arp/control/cnt4ad.F90 : RMSITRIC

arp/control/cprep1.F90 : NETLOCK
arp/control/ini1scan2m.F90 : NET
arp/control/scan2m.F90 : NETPOS
arp/control/scan2mad.F90 : NETSL

arp/dfi/dfi2.F90 : NET
arp/dfi/dfi2mod.F90 : NET
arp/dfi/dfi3.F90 : NET
arp/dfi/digfil.F90 : RMOPTDFI
arp/dfi/reast.F90 : RMOPTDFI
arp/dfi/sudfi.F90 : RMOPTDFI
arp/dfi/sufw.F90 : RMOPTDFI

arp/dia/chkevo.F90 : NET
arp/dia/cpcfu.F90 : NET
arp/dia/cpxfu.F90 : NET
arp/dia/gptcnorm.F90 : NET
arp/dia/spnormave.F90 : NET
arp/dia/wrmlppa.F90 : NET
arp/dia/wrmlppl.F90 : NET

arp/fullpos/fpps.F90 : NETPOS
arp/fullpos/fpachmt.F90 : NETPOS NETLOCK
arp/fullpos/fpcorphy.F90 : NETLOCK
arp/fullpos/hpos.F90 : NETLOCK
arp/fullpos/specfita.F90 : NETPOS
arp/fullpos/vpos.F90 : NETPOS
arp/fullpos/endpos.F90 : NETPOS YB_LIRAD FBY_CAPEX
arp/fullpos/endvpos.F90 : NETPOS YB_LIRAD
arp/fullpos/openfpfa.F90 : EGGNET
arp/fullpos/phymfpos.F90 : NETPOS YB_LIRAD FBY_CAPEX
arp/fullpos/sufpc.F90 : NETPOS FBY_CAPEX
arp/fullpos/sufptr2.F90 : FBY_CAPEX
arp/fullpos/sufpxfu.F90 : FBY_CAPEX
arp/fullpos/wrmlfpl.F90 : NET

arp/function/qastat.h : NET

arp/module/ptrgppc.F90 : RMPCOLD_LA
arp/module/surface_fields_mix.F90 : NET
arp/module/yomafn.F90 : NETPOS YB_LIRAD
arp/module/yomangm.F90 : NET
arp/module/yomct0.F90 : RM912 RMSITRIC
arp/module/yomdfi.F90 : RMOPTDFI
arp/module/yomdim.F90 : RM912 NETYOM
arp/module/yomdyn.F90 : RMSITRIC
arp/module/yomfa.F90 : YB_LIRAD
arp/module/yomfpc.F90 : NETPOS FBY_CAPEX
arp/module/yomleg.F90 : NETSL
arp/module/yomlfi.F90 : RM912
arp/module/yomlun.F90 : RM912
arp/module/yommcuf.F90 : NETPOS
arp/module/yommts.F90 : YB_LIRAD
arp/module/yom_phys_grid.F90: NET
arp/module/yom_ygfl.F90 : YB_LIRAD

arp/module/qaboit.F90 : NETYOM
arp/module/qacoss.F90 : NETYOM
arp/module/qacost.F90 : NETYOM
arp/module/qadore.F90 : NETYOM
arp/module/yemgeo.F90 : NETYOM
arp/module/yemgt3b.F90 : NETYOM
arp/module/yomaerd15.F90 : NETYOM
arp/module/yomarar.F90 : NETYOM
arp/module/yomarg.F90 : NETYOM
arp/module/yomcma.F90 : NETYOM
arp/module/yomcmbdy.F90 : NETYOM
arp/module/yomcmhdr.F90 : NETYOM
arp/module/yomcoctp.F90 : NETYOM
arp/module/yomcou.F90 : NETYOM

arp/module/yomcva.F90 : NETYOM
arp/module/yomdb.F90 : NETYOM
arp/module/yomdimo.F90 : NETYOM
arp/module/yomdphy.F90 : NETYOM
arp/module/yomdyncore.F90 : NETYOM
arp/module/yomectab.F90 : NETYOM
arp/module/yomerr.F90 : NETYOM
arp/module/yomersca.F90 : NETYOM
arp/module/yomglobs.F90 : NETYOM
arp/module/yomgpsk.F90 : NETYOM
arp/module/yomgrb.F90 : NETYOM
arp/module/yomjg.F90 : NETYOM
arp/module/yomlap.F90 : NETYOM
arp/module/yomlimb.F90 : NETYOM
arp/module/yomnmcod.F90 : NETYOM
arp/module/yomnne.F90 : NETYOM
arp/module/yomobs.F90 : NETYOM
arp/module/yomop.F90 : NETYOM
arp/module/yomphy0.F90 : NETYOM
arp/module/yomphy.F90 : NETYOM
arp/module/yomppc.F90 : NETYOM
arp/module/yomrad15.F90 : NETYOM
arp/module/yomres.F90 : NETYOM
arp/module/yomscree.F90 : NETYOM
arp/module/yomspnrm.F90 : NETYOM
arp/module/yomtnh.F90 : NETYOM
arp/module/yomtoph.F90 : NETYOM
arp/module/yomtraj.F90 : NETYOM
arp/module/yomtvrad.F90 : NETYOM
arp/module/yomvar.F90 : NETYOM

arp/namelist/namafn.h : NETPOS YB_LIRAD
arp/namelist/namct0.h : RMSITRIC
arp/namelist/namdfi.h : RMOPTDFI
arp/namelist/namdyn.h : RMSLHDN

arp/namelist/namfa.h : YB_LIRAD
arp/namelist/namfpc.h : FBY_CAPEX
arp/namelist/namgfl.h : YB_LIRAD
arp/namelist/nammts.h : YB_LIRAD

arp/nmi/mo3dprjad.F90 : RMTRAGEO
arp/nmi/mo3dprj.F90 : RMTRAGEO
arp/nmi/nnmi2ad.F90 : RMTRAGEO
arp/nmi/nnmi2.F90 : RMTRAGEO
arp/nmi/nnmi2tl.F90 : RMTRAGEO
arp/nmi/vmodeenergy.F90 : NET

arp/obs_preproc/flgdse.F90 : NET
arp/obs_preproc/level1cgeos_ob.F90 : NET
arp/obs_preproc/new_thinn.F90 : NET
arp/obs_preproc/nflgdse.F90 : NET
arp/obs_preproc/obatabs.F90 : NET
arp/obs_preproc/ozone_ob.F90 : NET
arp/obs_preproc/pnterp.F90 : NET
arp/obs_preproc/redun.F90 : NET
arp/obs_preproc/satob_ob.F90 : NET
arp/obs_preproc/sufger.F90 : NET
arp/obs_preproc/suobarea.F90 : NET
arp/obs_preproc/thin_red_presort.F90 : NET

arp/ocean/wrcoe.F90 : MERGDM1

arp/op_obs/amv_get_preds.F90 : NET
arp/op_obs/amv_reassign.F90 : NET
arp/op_obs/emis_mw_n.F90 : NET
arp/op_obs/grg_ak_ad.F90 : NET
arp/op_obs/grg_ak_op.F90 : NET
arp/op_obs/grg_ak_tl.F90 : NET
arp/op_obs/hsatang.F90 : NET
arp/op_obs/meanuv_average.F90 : NET

arp/op_obs/meanuv_averagead.F90 : NET
arp/op_obs/meanuv_weights.F90 : NET
arp/op_obs/nox2no2ad.F90 : NET
arp/op_obs/nox2no2.F90 : NET
arp/op_obs/nox2no2tl.F90 : NET
arp/op_obs/preintrad.F90 : NET
arp/op_obs/preintr.F90 : NET
arp/op_obs/preintrtl.F90 : NET
arp/op_obs/rad1cemis.F90 : NET
arp/op_obs/rad1cnnead.F90 : NET
arp/op_obs/rad1cnnetl.F90 : NET
arp/op_obs/rad1cobe.F90 : NET
arp/op_obs/radtrk.F90 : NET
arp/op_obs/slint.F90 : NETSL
arp/op_obs/slintad.F90 : NETSL

arp/parallel/arowrgp_surf.F90 : NET
arp/parallel/casndr1.F90 : NET
arp/parallel/casnd1.F90 : NET
arp/parallel/disfou.F90 : NET
arp/parallel/diwrgrid_surf_ext.F90 : NET
arp/parallel/diwrgrid.F90 : NET
arp/parallel/dladdh.F90 : NET
arp/parallel/dmaddh.F90 : NET
arp/parallel/dresddh.F90 : NET
arp/parallel/rdcset.F90 : MERGSET
arp/parallel/slrset.F90 : MERGSET
arp/parallel/slcset.F90 : NET
arp/parallel/trmtov.F90 : NET
arp/parallel/trvtoh.F90 : NET
arp/parallel/wrgp_surf.F90 : NET

arp/phys_dmn/acacon.F90 : NETLOCK
arp/phys_dmn/acbl89.F90 : NETLOCK
arp/phys_dmn/accdev.F90 : NETLOCK

arp/phys_dmn/ac_cloud_model.F90 : NETLOCK
arp/phys_dmn/acclph.F90 : NETLOCK
arp/phys_dmn/accoefk.F90 : NETLOCK
arp/phys_dmn/accoll.F90 : NETLOCK
arp/phys_dmn/acconvad.F90 : NETLOCK
arp/phys_dmn/acconv.F90 : NETLOCK
arp/phys_dmn/acconvtl.F90 : NETLOCK
arp/phys_dmn/accvimpd.F90 : NETLOCK
arp/phys_dmn/accvimpdgy.F90 : NETLOCK
arp/phys_dmn/accvimp.F90 : NETLOCK
arp/phys_dmn/accvimpgy.F90 : NETLOCK
arp/phys_dmn/accvimp_v3.F90 : NETLOCK
arp/phys_dmn/accvud.F90 : NETLOCK
arp/phys_dmn/acdifoz.F90 : NETLOCK
arp/phys_dmn/acdifspad.F90 : NETLOCK
arp/phys_dmn/acdifspadt.F90 : NETLOCK
arp/phys_dmn/acdifsp.F90 : NETLOCK
arp/phys_dmn/acdifsptl.F90 : NETLOCK
arp/phys_dmn/acdifus.F90 : NETLOCK
arp/phys_dmn/acdifv1.F90 : NETLOCK
arp/phys_dmn/acdifv2.F90 : NETLOCK
arp/phys_dmn/acdnshf.F90 : NETLOCK
arp/phys_dmn/acdrac.F90 : NETLOCK
arp/phys_dmn/acdrag.F90 : NETLOCK
arp/phys_dmn/acdraglad.F90 : NETLOCK
arp/phys_dmn/acdragl.F90 : NETLOCK
arp/phys_dmn/acdragltl.F90 : NETLOCK
arp/phys_dmn/acdrmead.F90 : NETLOCK
arp/phys_dmn/acdrme.F90 : NETLOCK
arp/phys_dmn/acdrmetl.F90 : NETLOCK
arp/phys_dmn/acdro.F90 : NETLOCK
arp/phys_dmn/acdrov.F90 : NETLOCK
arp/phys_dmn/acevmel.F90 : NETLOCK
arp/phys_dmn/acevolet.F90 : NETLOCK
arp/phys_dmn/acfluso.F90 : NETLOCK

arp/phys_dmn/achmtad.F90 : NETLOCK
arp/phys_dmn/achmt.F90 : NETLOCK
arp/phys_dmn/achmtls.F90 : NETLOCK
arp/phys_dmn/achmttl.F90 : NETLOCK
arp/phys_dmn/acmixlentm.F90 : NETLOCK
arp/phys_dmn/acmixlenz.F90 : NETLOCK
arp/phys_dmn/acmodo.F90 : NETLOCK
arp/phys_dmn/acnebc.F90 : NETLOCK
arp/phys_dmn/acnebcond.F90 : NETLOCK
arp/phys_dmn/acnebn.F90 : NETLOCK
arp/phys_dmn/acnebr.F90 : NETLOCK
arp/phys_dmn/acnpart.F90 : NETLOCK
arp/phys_dmn/acntclsad.F90 : NETLOCK
arp/phys_dmn/acntcls.F90 : NETLOCK
arp/phys_dmn/acntclstl.F90 : NETLOCK
arp/phys_dmn/acozone.F90 : NETLOCK
arp/phys_dmn/acpblh.F90 : NETLOCK
arp/phys_dmn/acpblhtm.F90 : NETLOCK
arp/phys_dmn/acpluie.F90 : NETLOCK
arp/phys_dmn/acpluis.F90 : NETLOCK
arp/phys_dmn/acptke.F90 : NETLOCK
arp/phys_dmn/acqwlsrad.F90 : NETLOCK
arp/phys_dmn/acqwlsr.F90 : NETLOCK
arp/phys_dmn/acqwlsrtl.F90 : NETLOCK
arp/phys_dmn/acradcoef.F90 : NETLOCK
arp/phys_dmn/acradin.F90 : NETLOCK
arp/phys_dmn/acradsad.F90 : NETLOCK
arp/phys_dmn/acrads.F90 : NETLOCK
arp/phys_dmn/acradstl.F90 : NETLOCK
arp/phys_dmn/acralu.F90 : NETLOCK
arp/phys_dmn/acraneb.F90 : NETLOCK
arp/phys_dmn/acsol.F90 : NETLOCK
arp/phys_dmn/acsolw.F90 : NETLOCK
arp/phys_dmn/actcpnf.F90 : NETLOCK
arp/phys_dmn/actke.F90 : NETLOCK

arp/phys_dmn/actqsat.F90 : NETLOCK
arp/phys_dmn/actqsats.F90 : NETLOCK
arp/phys_dmn/actsecad.F90 : NETLOCK
arp/phys_dmn/actsec.F90 : NETLOCK
arp/phys_dmn/actsectl.F90 : NETLOCK
arp/phys_dmn/acturb.F90 : NETLOCK
arp/phys_dmn/acupd.F90 : NETLOCK
arp/phys_dmn/acupm.F90 : NETLOCK
arp/phys_dmn/acupu.F90 : NETLOCK
arp/phys_dmn/acveg.F90 : NETLOCK
arp/phys_dmn/acvppkf.F90 : NETLOCK
arp/phys_dmn/apl2phy.F90 : NETLOCK
arp/phys_dmn/apl_arome.F90 : NETLOCK
arp/phys_dmn/aplmini.F90 : NETLOCK
arp/phys_dmn/aplmphys.F90 : NETLOCK
arp/phys_dmn/aplpar.F90 : NETLOCK YB_LIRAD
arp/phys_dmn/aplparsad.F90 : NETLOCK
arp/phys_dmn/aplparsadt.F90 : NETLOCK
arp/phys_dmn/aplpars.F90 : NETLOCK
arp/phys_dmn/aplparstl.F90 : NETLOCK
arp/phys_dmn/arp_ground_param.F90 : NETLOCK
arp/phys_dmn/ecrpnebh.F90 : NET
arp/phys_dmn/ecr2dv.F90 : NET
arp/phys_dmn/hl_aplpar.F90 : NETLOCK
arp/phys_dmn/hlturb.F90 : NETLOCK
arp/phys_dmn/mf_physad.F90 : NETLOCK
arp/phys_dmn/mf_phys.F90 : NETLOCK NET YB_LIRAD
arp/phys_dmn/mf_phystl.F90 : NETLOCK
arp/phys_dmn/mts_phys.F90 : YB_LIRAD
arp/phys_dmn/suparar.F90 : NET
arp/phys_dmn/suphmpa.F90 : NET

arp/pp_obs/apache.F90 : NETPOS
arp/pp_obs/pos.F90 : NETPOS YB_LIRAD FBY_CAPEX
arp/pp_obs/ppgeoptl.F90 : NETPOS

arp/pp_obs/ppgeop.F90 : NETPOS
arp/pp_obs/ppgeopad.F90 : NETPOS
arp/pp_obs/ppltp.F90 : FBY_CAPEX
arp/pp_obs/ppobsaad.F90 : NET
arp/pp_obs/ppobsa.F90 : NET
arp/pp_obs/ppobsatl.F90 : NET
arp/pp_obs/ppobsacad.F90 : NETLOCK
arp/pp_obs/ppobsac.F90 : NETLOCK
arp/pp_obs/ppobsactl.F90 : NETLOCK
arp/pp_obs/ppobsap.F90 : NETPOS YB_LIRAD
arp/pp_obs/ppobsasad.F90 : NET
arp/pp_obs/ppobsas.F90 : NET
arp/pp_obs/ppobsastl.F90 : NET
arp/pp_obs/ppobsaza.F90 : NET
arp/pp_obs/ppobsaz.F90 : NET
arp/pp_obs/ppobsaztl.F90 : NET
arp/pp_obs/ppobsn.F90 : NET
arp/pp_obs/ppq.F90 : NETPOS
arp/pp_obs/ppstaad.F90 : NET
arp/pp_obs/ppsta.F90 : NET
arp/pp_obs/ppstatl.F90 : NET
arp/pp_obs/ppuv.F90 : NETPOS
arp/pp_obs/ppuvtl.F90 : NETPOS
arp/pp_obs/ppuvad.F90 : NETPOS
arp/pp_obs/ppvvel.F90 : NETPOS
arp/pp_obs/ppzhlev.F90 : NET

arp/sekf/sekf_matinv.F90 : NET

arp/setup/su0yoma.F90 : RM912
arp/setup/su0yomb.F90 : NETPOS RM912
arp/setup/suafn1.F90 : NETPOS YB_LIRAD
arp/setup/suafn2.F90 : NETPOS YB_LIRAD
arp/setup/suafn3.F90 : NETPOS YB_LIRAD
arp/setup/sualdyn.F90 : RMSITRIC

arp/setup/sualdynb.F90 : ALLOC
arp/setup/suallo.F90 : ALLOC NET
arp/setup/suarg.F90 : EGGNET
arp/setup/suct0.F90 : RM912 RMPCOLD_LA RMSITRIC
arp/setup/suctrl_gflattr.F90: RM912 YB_LIRAD
arp/setup/sudefo_gflattr.F90: YB_LIRAD
arp/setup/sudim1.F90 : RM912 YB_LIRAD
arp/setup/sudim2.F90 : RM912
arp/setup/sudyna.F90 : RMSITRIC
arp/setup/sudyn.F90 : RMSLHDN RMSITRIC
arp/setup/sudyn_setgflattr.F90: YB_LIRAD
arp/setup/suecphypo.F90 : MERGSET
arp/setup/sufa.F90 : YB_LIRAD
arp/setup/sugem.F90 : RM912
arp/setup/sugem1a.F90 : RM912
arp/setup/sugem1b.F90 : RM912
arp/setup/sugfl.F90 : YB_LIRAD
arp/setup/suinif.F90 : NET
arp/setup/sulfi.F90 : RM912
arp/setup/sulun.F90 : RM912
arp/setup/sumpini.F90 : RMSITRIC
arp/setup/sumts.F90 : YB_LIRAD
arp/setup/sunhsi.F90 : RMSITRIC
arp/setup/susc2b.F90 : NETSL RMPCOLD_LA NETSL
arp/setup/suspecb.F90 : RMTRAGEO
arp/setup/suspgpg.F90 : NET
arp/setup/suspqlim.F90 : NET
arp/setup/su_surf_flds.F90 : RM912 NET

arp/sinvect/chsymeig.F90 : NET
arp/sinvect/jacdav.F90 : NET
arp/sinvect/nalan1.F90 : NET
arp/sinvect/nalan2.F90 : NET
arp/sinvect/opk.F90 : NET
arp/sinvect/sptrlcz.F90 : NET

arp/transform/reespe.F90 : NET
arp/transform/transdir_fp.F90 : NET
arp/transform/transdir_mdl.F90 : NET
arp/transform/transdir_mdlad.F90 : NET
arp/transform/transinv_fp.F90 : NET
arp/transform/transinv_mdlad.F90 : NET

arp/utility/chien.F90 : EGGNET
arp/utility/deallo.F90 : RMSITRIC NETSL
arp/utility/echien.F90 : EGGNET
arp/utility/grid_minmaxavg.F90 : MERGDM1
arp/utility/iopack.F90 : NET
arp/utility/matrixin.F90 : NET
arp/utility/maxgpfv.F90 : MERGDM1
arp/utility/read_grid_grib.F90 : MERGDM1
arp/utility/wrgp2fa.F90 : NET YB_LIRAD

arp/var/convddr.F90 : NET
arp/var/jghcosad.F90 : RMTRAGEO
arp/var/jghcos.F90 : RMTRAGEO
arp/var/jghcosiad.F90 : RMTRAGEO
arp/var/jghcosi.F90 : RMTRAGEO
arp/var/setqccma.F90 : NET
arp/var/suvar.F90 : NET

odb/extras/gribex/mxmncr.F : IFC_SMAX IFC_SMIN

tal/module/tpmald_dim.F90 : NET
tal/module/tpmald_distr.F90 : NET
tal/module/tpmald_fft.F90 : NET
tal/module/tpmald_geo.F90 : NET
tal/module/tpmald_tcdis.F90 : NET

tfl/module/tpm_dim.F90 : NET

tfl/module/tpm_distr.F90 : NET
tfl/module/tpm_fft.F90 : NET
tfl/module/tpm_gen.F90 : NET
tfl/module/tpm_geometry.F90 : NET
tfl/module/tpm_trans.F90 : NET

xla/external/linalg/eigsol.F90 : NET
xla/external/linalg/multvdv.F90 : NET
xla/external/linalg/mxmaop.F90 : NET
xla/external/linalg/mxptma.F90 : NET
xla/external/linalg/mxtrma.F90 : NET
xla/external/linalg/mxture.F90 : NET
xla/external/linalg/mxturhd.F90 : NET
xla/external/linalg/mxturs.F90 : NET
xla/external/minim/n1cg1.F90 : NET
xla/external/linalg/suher.F90 : NET
xla/external/linalg/suhert.F90 : NET
xla/external/linalg/suhes.F90 : NET
xla/external/linalg/syminv.F : NET
xla/internal/minim/n1cga.F90 : NET
xla/interface/n1cg1.h : NET
xla/interface/n1cga.h : NET
xla/interface/eigsol.h : NET

xrd/fa/facsim.F : IFC_SMAX IFC_SMIN
xrd/parallel/broadcchar.F90 : NET
xrd/parallel/broadcint.F90 : NET
xrd/parallel/broadcreal.F90 : NET

Added elements:

arp/fullpos/endpos_prepgfl.F90 : NETPOS YB_LIRAD
arp/fullpos/vpos_prep.F90 : NETPOS YB_LIRAD

arp/module/type_gflflds.F90 : NETPOS YB_LIRAD

arp/module/yomppvi.F90 : NETPOS

arp/pp_obs/pos_prepgfl.F90 : NETPOS YB_LIRAD

arp/setup/suppvi.F90 : NETPOS

uti/rdc/programs/master911.F90 : EXT911

uti/rdc/src/dilatb.F90 : EXT911 (formerly in arp/setup)
uti/rdc/src/dilat.F90 : EXT911 (formerly in arp/setup)
uti/rdc/src/suadmi.F90 : EXT911 (formerly in arp/setup)
uti/rdc/src/sudil.F90 : EXT911 (formerly in arp/setup)
uti/rdc/src/sugaw36.F90 : EXT911 (formerly arp/setup/sugawa.F90)
uti/rdc/src/sump_dila.F90 : EXT911 (formerly in arp/setup)
uti/rdc/src/sump_dilb.F90 : EXT911 (formerly in arp/setup)
uti/rdc/src/suncet13.F90 : EXT911 (formerly in arp/setup)
uti/rdc/src/suncmax.F90 : EXT911 (formerly in arp/setup)
uti/rdc/src/suplis.F90 : EXT911 (formerly in arp/setup)
uti/rdc/src/supol35.F90 : EXT911 (formerly arp/setup/supola.F90)
uti/rdc/src/trltom_dil.F90 : EXT911 (formerly in arp/parallel)

uti/rdc/include/dilatb.h : EXT911
uti/rdc/include/dilat.h : EXT911
uti/rdc/include/suadmi.h : EXT911
uti/rdc/include/sudil.h : EXT911
uti/rdc/include/sugaw36.h : EXT911
uti/rdc/include/sump_dila.h : EXT911
uti/rdc/include/sump_dilb.h : EXT911
uti/rdc/include/suncet13.h : EXT911
uti/rdc/include/suncmax.h : EXT911
uti/rdc/include/suplis.h : EXT911
uti/rdc/include/supol35.h : EXT911
uti/rdc/include/trltom_dil.h : EXT911

xrd/utilities/ifc_smin.F : IFC_SMIN (formerly xrd/not_used_ismin.F)

xrd/utilities/ifc_smax.F : IFC_SMAX (formerly xrd/not_used_ismax.F)

Removed elements:

arp/adiab/gpverdia.F90 : NETPOS
arp/adiab/lattex5.F90 : NETSL
arp/adiab/lattex_dnt5.F90 : NETSL
arp/adiab/tricsi.F90 : RMSITRIC

arp/dfi/gee.F90 : RMOPTDFI
arp/dfi/optfil.F90 : RMOPTDFI
arp/dfi/optfilb.F90 : RMOPTDFI
arp/dfi/recfil.F90 : RMOPTDFI
arp/dfi/remez.F90 : RMOPTDFI

arp/fullpos/fpinvtrcuf.F90 : NETPOS

arp/parallel/ircvgpf.F90 : MERGDM1
arp/parallel/isndgpf.F90 : MERGDM1
arp/parallel/orcvgpf.F90 : MERGDM1
arp/parallel/osndgpf.F90 : MERGDM1

arp/module/yomopf.F90 : RMOPTDFI
arp/module/yomssg.F90 : NETYOM
arp/module/yomtit.F90 : RMPCOLD_LA

arp/parallel/phcset.F90 : MERGSET
arp/parallel/rdrset.F90 : MERGSET
arp/parallel/phrset.F90 : MERGSET
arp/parallel/trltom_dil.F90 : EXT911 (moved in uti/rdc/src)
arp/parallel/trmton.F90 : RMTRAGEO
arp/parallel/trntom.F90 : RMTRAGEO

arp/pp_obs/aval.F90 : NETPOS
arp/pp_obs/bob.F90 : NETPOS

arp/pp_obs/ppgeop_old.F90 : NETPOS
arp/pp_obs/ppgeoptl_old.F90 : NETPOS
arp/pp_obs/ppgeopad_old.F90 : NETPOS
arp/pp_obs/ppuv_old.F90 : NETPOS
arp/pp_obs/ppuvtl_old.F90 : NETPOS
arp/pp_obs/ppuvad_old.F90 : NETPOS

arp/setup/dilatb.F90 : EXT911 (moved in uti/rdc/src)
arp/setup/dilat.F90 : EXT911 (moved in uti/rdc/src)
arp/setup/suadmi.F90 : EXT911 (moved in uti/rdc/src)
arp/setup/sudil.F90 : EXT911 (moved in uti/rdc/src)
arp/setup/sufrag.F90 : RM912
arp/setup/sump_dila.F90 : EXT911 (moved in uti/rdc/src)
arp/setup/sump_dilb.F90 : EXT911 (moved in uti/rdc/src)
arp/setup/suncet13.F90 : EXT911 (moved in uti/rdc/src)
arp/setup/suncmax.F90 : EXT911 (moved in uti/rdc/src)
arp/setup/suplis.F90 : EXT911 (moved in uti/rdc/src)
arp/setup/supola.F90 : EXT911 (now uti/rdc/src/supol35.F90)
arp/setup/surot.F90 : RM912
arp/setup/sutric.F90 : RMSITRIC
arp/setup/rotat.F90 : RM912

arp/sinvect/morthodm.F90 : OBSOLETE

arp/transform/spdicoad.F90 : RMTRAGEO
arp/transform/spdico.F90 : RMTRAGEO
arp/transform/spodtsad.F90 : RMTRAGEO
arp/transform/spodts.F90 : RMTRAGEO
arp/transform/spolts.F90 : RMTRAGEO
arp/transform/sportsad.F90 : RMTRAGEO
arp/transform/sports.F90 : RMTRAGEO
arp/transform/sprotaad.F90 : RMTRAGEO
arp/transform/sprota.F90 : RMTRAGEO
arp/transform/sprotlon.F90 : RMTRAGEO
arp/transform/trageoad.F90 : RMTRAGEO

arp/transform/trageo.F90 : RMTRAGEO

arp/utility/suallocuf.F90 : NETPOS
arp/utility/deallocuf.F90 : NETPOS

arp/var/rdittrajm.F90 : RMPCOLD_LA
arp/var/writtrajm.F90 : RMPCOLD_LA

xrd/not_used/ismin.F : IFC_SMIN (replaced by xrd/utilities/ifc_smin.F)
xrd/not_used/ismax.F : IFC_SMAX (replaced by xrd/utilities/ifc_smax.F)

Modifications in namelists:

** NAMAFN: replace TFP_GFL by TFP_EXT.*
** For conf 911, use now a specific namelist containing only NAM911.*

Scientific description of your modification(s):

See paragraph 'Code modif.'

Influence on the results:

- FULL-POS in NH runs: results may be different due to bug corrections.
- FULL-POS in HYD runs: results may be different due to bug corrections.
- conf using TL or AD code, and SL2TL with VESL>0 or XIDT>0, may give slightly different results (bug correction at the first timestep).
- no other significant differences, only numerical differences may occur.

Where to report the modification(s):

None

Other remarks:

- Externalisation of conf 911:

** new arborescence to create under UTI:*
uti/rdc/programs; uti/rdc/include; uti/rdc/src
** to fill "uti", decks must be taken on merou: /home/mrpm603/lib_cy36/c911/uti/rdc*
(directories program, src, include).
** new option "-p master911" to add to "gmkpack"*

Other modifications:

** Optimizations (laitri.F90).*
** Separation of scalar part of code and vector part of code, according to LOPT_SCALAR (laitri.F90).*
** Bugfix (surad.F90).*

Project: aladin,arpege,odb,transformées aladin,transformées arpege,algebre linéaire,auxiliaire

ClearCase branch: mrpm603_CY36_dev36pour36t1

Added:

arp/fullpos	endpos_prepgfl.F90	vpos_prep.F90
arp/module	type_gflflds.F90	yomppvi.F90
arp/pp_obs	pos_prepgfl.F90	
arp/setup	suppvi.F90	
xrd/utilities	ifc_smax.F	ifc_smin.F

Modified:

ald/adiab	elarche.F90	elarche5.F90	elarchead.F90
	elarchetl.F90	elarmes.F90	elarmes5.F90
	elarmesad.F90	elarmestl.F90	espcsi.F90
	espcsiad.F90	espnhsi.F90	espnhsi_geogw.F90
	espnhsiad.F90		
ald/c9xx	eincli6.F90	eleci.F90	
ald/control	espch.F90	espchad.F90	espcm.F90

	espcmad.F90		
ald/coupling	elscot1.F90	elscot1ad.F90	eseimpls.F90
	eseimplsad.F90	esrlxt1.F90	esrlxt1ad.F90
ald/fullpos	fpfillb.F90		
ald/inidata	elsirf.F90	erlbc.F90	
ald/parallel	ircvezon.F90	isndezon.F90	
ald/programs	blend.F90	blendsur.F90	check_limits.F90
ald/setup	sueldynb.F90		
ald/sinvect	esptrlcz.F90	ewrtsv.F90	
ald/transform	ereespe.F90	esperad.F90	esperee.F90
	espuv.F90	etransdir_fp.F90	etransdir_mdl.F90
	etransdir_mdlad.F90	etransdirh.F90	etransinv_fp.F90
	etransinv_mdl.F90	etransinv_mdlad.F90	
ald/utility	cchien.F90	eggdir.F90	eggmlt.F90
	eggrvs.F90	eggx.F90	eggx_n.F90
ald/var	suejbbal.F90		
arp/adiab	call_sl.F90	call_sl_ad.F90	call_sl_tl.F90
	cpg.F90	cpg5.F90	cpg5_gp.F90
	cpg_dyn_ad.F90	cpg_dyn_tl.F90	cpg_end_ad.F90
	cpg_end_tl.F90	cpg_gp.F90	cpg_gp_ad.F90
	cpg_gp_tl.F90	cpg_zero_ad.F90	cpgad.F90
	cpgtl.F90	gpctyad.F90	gpctytl.F90
	gpverdia.F90	lacdynad.F90	lacdyntl.F90
	ladine.F90	ladinead.F90	ladinetl.F90
	lainor2.F90	lainor2ad.F90	lainor2tl.F90
	laitri.F90	lapinea.F90	lapinea5.F90
	lapineaad.F90	lapineatl.F90	lapinebad.F90
	larche.F90	larche5.F90	larchead.F90
	larchetl.F90	larcin2.F90	larcin2ad.F90
	larcin2tl.F90	larcina.F90	larcinaad.F90
	larcinatl.F90	larcinha.F90	larmes.F90
	larmes2.F90	larmes25.F90	larmes2ad.F90

	larmes2tl.F90	larmes5.F90	larmesad.F90
	larmestl.F90	lascaw.F90	lascawad.F90
	lascawtl.F90	lattesad.F90	lattestl.F90
	lattex5.F90	lattex_dnt5.F90	lattex_dnt_ad.F90
	lattextl.F90	laventtl.F90	spcsi.F90
	spnhsi.F90	spnhsi_geogw.F90	tricsi.F90
arp/c9xx	incli6.F90		
arp/canari	caclsi.F90	cacsts.F90	calina.F90
	calver.F90	camera.F90	capdgu.F90
	carnak.F90	casgqa.F90	casmswi.F90
	cassva.F90	caupflg.F90	caviso.F90
arp/climate	updcli.F90	updclie.F90	updclie_aer.F90
	updclie_co2.F90		
arp/control	cnt4.F90	cnt4ad.F90	cnt4tl.F90
	cprep1.F90	ini1scan2m.F90	scan2m.F90
	scan2mad.F90		
arp/dfi	dfi2.F90	dfi2mod.F90	dfi3.F90
	digfil.F90	gee.F90	optfil.F90
	optfilb.F90	reast.F90	recfil.F90
	remez.F90	sudfi.F90	sufw.F90
arp/dia	chkevo.F90	cpcfu.F90	cpxfu.F90
	gptcnorm.F90	spnormave.F90	wrmlppa.F90
	wrmlppl.F90		
arp/fullpos	endpos.F90	endpos_prepgfl.F90	endvpos.F90
	fpachmt.F90	fpcorphy.F90	fpinvtrcuf.F90
	fpps.F90	hpos.F90	openfpfa.F90
	phymfpos.F90	specfita.F90	sufpc.F90
	sufptr2.F90	sufpxfu.F90	vpos.F90
	vpos_prep.F90	wrmlfpl.F90	
arp/function	qastat.h		
arp/module	ptrgppc.F90	qaboit.F90	qacoss.F90
	qacost.F90	qadore.F90	surface_fields_mix.F90

	type_gflflds.F90	yemgeo.F90	yemgt3b.F90
	yom_phys_grid.F90	yom_ygfl.F90	yomaerd15.F90
	yomafn.F90	yomangm.F90	yomarar.F90
	yomarg.F90	yomcma.F90	yomcmbdy.F90
	yomcmhdr.F90	yomcoctp.F90	yomcou.F90
	yomct0.F90	yomcva.F90	yomdb.F90
	yomdfi.F90	yomdim.F90	yomdimo.F90
	yomdphy.F90	yomdyn.F90	yomdyncore.F90
	yomectab.F90	yomerr.F90	yomersca.F90
	yomfa.F90	yomfpc.F90	yomglobs.F90
	yomgpsk.F90	yomgrb.F90	yomjg.F90
	yomlap.F90	yomleg.F90	yomlfi.F90
	yomlimb.F90	yomlun.F90	yommcuf.F90
	yommts.F90	yomnmcod.F90	yomnne.F90
	yomobs.F90	yomop.F90	yomopf.F90
	yomphy.F90	yomphy0.F90	yomppc.F90
	yomppvi.F90	yomrad15.F90	yomres.F90
	yomscree.F90	yomspnrm.F90	yomssg.F90
	yomtit.F90	yomtnh.F90	yomtoph.F90
	yomtraj.F90	yomtvrad.F90	yomvar.F90
arp/namelist	namafn.h	namct0.h	namdfi.h
	namdyn.h	namfa.h	namfpc.h
	namgfl.h	nammts.h	
arp/nmi	mo3dprj.F90	mo3dprjad.F90	nnmi2.F90
	nnmi2ad.F90	nnmi2tl.F90	vmodeenergy.F90
arp/obs_preproc	flgdse.F90	level1cgeos_ob.F90	new_thinn.F90
	nflgdse.F90	obatabs.F90	ozone_ob.F90
	pnterp.F90	redun.F90	satob_ob.F90
	sufger.F90	suobarea.F90	thin_red_presort.F90
arp/ocean	wrcoe.F90		
arp/op_obs	amv_get_preds.F90	amv_reassign.F90	emis_mw_n.F90
	grg_ak_ad.F90	grg_ak_op.F90	grg_ak_tl.F90

	hsatang.F90	meanuv_average.F90	meanuv_averagead.F90
	meanuv_weights.F90	nox2no2.F90	nox2no2ad.F90
	nox2no2tl.F90	preintr.F90	preintrad.F90
	preintrtl.F90	rad1cemis.F90	rad1cnnead.F90
	rad1cnnetl.F90	rad1cobe.F90	radtrk.F90
	slint.F90	slintad.F90	
arp/parallel	arowrgp_surf.F90	casnd1.F90	casndr1.F90
	disfou.F90	diwrgrid.F90	diwrgrid_surf_ext.F90
	dladdh.F90	dmaddh.F90	dresddh.F90
	ircvgpf.F90	isndgpf.F90	orcvgpf.F90
	osndgpf.F90	phcset.F90	phrset.F90
	rdcset.F90	rdrset.F90	slcset.F90
	slrset.F90	trltom_dil.F90	trmton.F90
	trmtov.F90	trntom.F90	trvtoh.F90
	wrgp_surf.F90		
arp/phys_dmn	ac_cloud_model.F90	acacon.F90	acbl89.F90
	accdev.F90	acclph.F90	accoefk.F90
	accoll.F90	acconv.F90	acconvad.F90
	acconvtl.F90	accvimp.F90	accvimp_v3.F90
	accvimpd.F90	accvimpdgy.F90	accvimpgy.F90
	accvud.F90	acdifoz.F90	acdifsp.F90
	acdifspad.F90	acdifspadt.F90	acdifsptl.F90
	acdifus.F90	acdifv1.F90	acdifv2.F90
	acdnshf.F90	acdrac.F90	acdrag.F90
	acdragl.F90	acdraglad.F90	acdragltl.F90
	acdrme.F90	acdrmead.F90	acdrmetl.F90
	acdro.F90	acdrov.F90	acevmel.F90
	acevolet.F90	acfluso.F90	achmt.F90
	achmtad.F90	achmtls.F90	achmttl.F90
	acmixlentm.F90	acmixlenz.F90	acmodo.F90
	acnebc.F90	acnebcond.F90	acnebn.F90
	acnebr.F90	acnpart.F90	acntcls.F90

	acntclsad.F90	acntclstl.F90	acozone.F90
	acpblh.F90	acpblhtm.F90	acpluie.F90
	acpluis.F90	acptke.F90	acqwlsr.F90
	acqwlsrad.F90	acqwlsrtl.F90	acradcoef.F90
	acradin.F90	acrads.F90	acradsad.F90
	acradstl.F90	acralu.F90	acraneb.F90
	acsol.F90	acsolw.F90	actcpnf.F90
	actke.F90	actqsat.F90	actqsats.F90
	actsec.F90	actsecad.F90	actsectl.F90
	acturb.F90	acupd.F90	acupm.F90
	acupu.F90	acveg.F90	acvppkf.F90
	apl2phy.F90	apl_arome.F90	aplmini.F90
	aplmphys.F90	aplpar.F90	aplpars.F90
	aplparsad.F90	aplparsadt.F90	aplparstl.F90
	arp_ground_param.F90	ecr2dv.F90	ecrpnebh.F90
	hl_aplpar.F90	hlturb.F90	mf_phys.F90
	mf_physad.F90	mf_phystl.F90	mts_phys.F90
	suparar.F90	suphmpa.F90	
arp/pp_obs	apache.F90	aval.F90	bob.F90
	pos.F90	pos_prepgfl.F90	ppgeop.F90
	ppgeop_old.F90	ppgeopad.F90	ppgeopad_old.F90
	ppgeoptl.F90	ppgeoptl_old.F90	ppltp.F90
	ppobsa.F90	ppobsaad.F90	ppobsac.F90
	ppobsacad.F90	ppobsactl.F90	ppobsap.F90
	ppobsas.F90	ppobsasad.F90	ppobsastl.F90
	ppobsatl.F90	ppobsaz.F90	ppobsaza.F90
	ppobsaztl.F90	ppobsn.F90	ppq.F90
	ppsta.F90	ppstaad.F90	ppstatl.F90
	ppuv.F90	ppuv_old.F90	ppuvad.F90
	ppuvad_old.F90	ppuvtl.F90	ppuvtl_old.F90
	ppvvel.F90	ppzhlev.F90	
arp/sekf	sekf_matinv.F90		

arp/setup	dilat.F90	dilatb.F90	rotat.F90
	su0yoma.F90	su0yomb.F90	su_surf_flds.F90
	suadmi.F90	suafn1.F90	suafn2.F90
	suafn3.F90	sualdyn.F90	sualdynb.F90
	suallo.F90	suarg.F90	suct0.F90
	suctrl_gflattr.F90	sudefo_gflattr.F90	sudil.F90
	sudim1.F90	sudim2.F90	sudyn.F90
	sudyn_setgflattr.F90	sudyna.F90	suecphypo.F90
	sufa.F90	sufrag.F90	sugem.F90
	sugem1a.F90	sugem1b.F90	sugfl.F90
	suinif.F90	sulfi.F90	sulun.F90
	sump_dila.F90	sump_dilb.F90	sumpini.F90
	sumts.F90	suncet13.F90	suncmax.F90
	sunhsi.F90	suplis.F90	supola.F90
	suppvi.F90	surot.F90	susc2b.F90
	suspecb.F90	suspgpg.F90	suspqlim.F90
	sutric.F90		
arp/sinvect	chsymeig.F90	jacdav.F90	morthodm.F90
	nalan1.F90	nalan2.F90	opk.F90
	sptrlcz.F90		
arp/transform	reespe.F90	spdico.F90	spdicoad.F90
	spodts.F90	spodtsad.F90	spolts.F90
	sports.F90	sportsad.F90	sprota.F90
	sprotaad.F90	sprotlon.F90	trageo.F90
	trageoad.F90	transdir_fp.F90	transdir_mdl.F90
	transdir_mdlad.F90	transinv_fp.F90	transinv_mdlad.F90
arp/utility	chien.F90	deallo.F90	deallocuf.F90
	echien.F90	grid_minmaxavg.F90	iopack.F90
	matrixin.F90	maxgpfv.F90	read_grid_grib.F90
	suallocuf.F90	wrgp2fa.F90	
arp/var	convddr.F90	jghcos.F90	jghcosad.F90
	jghcosi.F90	jghcosiad.F90	rdittrajm.F90

	setqccma.F90	surad.F90	suvar.F90
	writtrajm.F90		
odb/extras/gribex	mxmncr.F		
tal/module	tpmald_dim.F90	tpmald_distr.F90	tpmald_fft.F90
	tpmald_geo.F90	tpmald_tcdis.F90	
tfl/module	tpm_dim.F90	tpm_distr.F90	tpm_fft.F90
	tpm_gen.F90	tpm_geometry.F90	tpm_trans.F90
xla/external/linalg	eigsol.F90	multvdv.F90	mxmaop.F90
	mxptma.F90	mxtrma.F90	mxture.F90
	mxturhd.F90	mxturs.F90	suher.F90
	suhert.F90	suhes.F90	syminv.F
xla/external/minim	n1cg1.F90		
xla/interface	eigsol.h	n1cg1.h	n1cga.h
xla/internal/minim	n1cga.F90		
xrd/fa	facsim.F		
xrd/not_used	ismax.F	ismin.F	
xrd/parallel	broadcchar.F90	broadcint.F90	broadcreal.F90
xrd/utilities	ifc_smax.F	ifc_smin.F	