

ARPEGE MEMORANDUM

From:

GCO

Date: November 10, 2011

Subject:

New cycle CY38

ClearCase label:

Contributors:

BAZILE Eric	CCase branch:mrpm604_CY37T1_MUSC
BENACEK Patrik	CCase branch:benacek_CY37T1_ainda
BOGATCHEV Andrey	CCase branch:mrpe702_CY37T1_ab1
BOUTELOUP Yves	CCase branch:mrpa648_CY37T1_dmnclean CCase branch:mrpa648_CY37T1_dmnclean38
DAHLGREN Per	CCase branch:dahlgren_CY37T1_contrib_dahlgren
EL KHATIB Ryad	CCase branch:mrpm602_CY37T1_dsrek
GCO	CCase branch:none CCase branch:marp003_CY37T1_fix_ejgnrgg CCase branch:marp003_CY37T1_jbchvar CCase branch:marp003_CY37T1_mandalay CCase branch:marp003_CY37T1_modsurf CCase branch:marp003_CY37T1_r3b_plus_bf CCase branch:marp003_CY37T1_r3fix* CCase branch:marp003_CY37T1_remove_ifdefDOC CCase branch:marp003_CY37T1_satrad CCase branch:marp003_CY37T1_time_numtsl
GCO & SALMOND Deborah	CCase branch:marp003_CY37T1_r3b_and_ds_pre38
GUIDARD Vincent	CCase branch:mrpe710_CY37T1_validr3b

GUILLAUME Frank	CCase branch:mrpa644_CY37T1_bator38
HIRLAM Consortium	CCase branch:mrpe737_CY37T1_cy37t1_main_contrib_hirlam
MARGUINAUD Philippe	CCase branch:mrpm609_CY37T1_bug1
	CCase branch:mrpm609_CY37T1_fixio_serv
MONTMERLE Thibaut	CCase branch:mrpa666_CY37T1_lam_wavelet_TM
PAYAN Christophe	CCase branch:mrpa642_CY37T1_scawsolmax_pre38
RIVIERE Olivier	CCase branch:mrpe601_CY37T1_collection_bf_optim
SASSI Zied	CCase branch:sassi_CY37T1_sas
SEITY Yann	CCase branch:mrpm637_CY37T1_bfsurfex
SPANIEL Olda	CCase branch:mrpe693_CY37T1_ol
TAILLEFER Françoise	CCase branch:mrpa647_CY37T1_ftcan
YESSAD Karim	CCase branch:marp003_CY37T1_ky_pre_cy38
	CCase branch:mrpm603_CY37T1_final_cleaning_on_cy37t1r3

BAZILE Eric**Doc:**

Modset for 1D model (MUSC). This modset has no impact on model results.

Project: ifs,ifsaux
ClearCase branch: mrpm604_CY37T1_MUSC

Added:

arp/phys_dmn	open_output_lfa.F90 wrscmr.F90	wrarom.F90	writemusc.F90
xrd/ddh	const_ther.F90	fonctions.F90	recpol.F90

Modified:

arp/adiab	cp_forcing.F90 cpphinp.F90	cpg.F90 gpcty_forc.F90	cpg_dyn.F90
arp/module	yom_ygfl.F90	yomlsforc.F90	yomtoph.F90
arp/namelist	namlsforc.h	namtoph.h	
arp/phys_dmn	mf_phys.F90 wrarom.F90 wrscmr.F90	open_output_lfa.F90 writemusc.F90	sutoph.F90 writephysio.F90
arp/setup	sugridspa.F90	sulsforc.F90	suspsp.F90
xrd/ddh	const_ther.F90	fonctions.F90	recpol.F90

BENACEK Patrik**Doc:**

Bugfix for SURF time correction after XFU 0 time step.

Project: mse
ClearCase branch: benacek_CY37T1_ainda

Modified:

mse/externals aro_ground_param.F90

BOGATCHEV Andrey**Doc:**

Fix compilation problems in ALADIN .

Project: aladin
ClearCase branch: mrpe702_CY37T1_ab1

Modified:

ald/coupling esrlxt1.F90
ald/setup elsac.F90 suegeo2.F90
ald/utility euvcopy.F90

BOUTELOUP Yves**Doc:**

Fix norm violations in "phys_dmn" directory.

Project: ifs
ClearCase branch: mrpa648_CY37T1_dmn_clean

Modified:

arp/phys_dmn	acconvsad.F90	acconvstl.F90	accvimp.F90
	acdifo2.F90	acdifspadt.F90	acdifv1.F90
	acdifv2.F90	acdifv3.F90	acdrac.F90
	acdraglad.F90	acdragltl.F90	acmicroad.F90
	acmicrotl.F90	acmixelen.F90	acmripp.F90
	acnebcond.F90	acnebsmtl.F90	acnuages.F90
	acnuagesad.F90	acnuagestl.F90	acpluis.F90
	acpluiz.F90	acptke.F90	acsol.F90
	acsolw.F90	actkecoefk.F90	actkehmt.F90
	acturb.F90	acupd.F90	apl_arome.F90
	aplpar.F90	arocldia.F90	cpchet.F90
	hlaconds.F90	hltabdef.F90	initaplpar.F90
	mf_phys.F90	nomfi.F90	profilechet.F90
	recmwf.F90	suaer15.F90	suchet.F90
	suparar.F90	suphmse.F90	surdi15.F90
	surf_ideal_flux.F90	sw1s15.F90	swclr15.F90
	vdfhghthl.F90	vdfhghtnhl.F90	vdfparcelhl.F90
	vdfpdftablehl.F90	vdfstcucrithl.F90	writechet.F90

Doc:

Fix norms violations in "phys_dmn" directory.

Project: ifs

ClearCase branch: mrpa648_CY37T1_dmnclean38

Modified:

arp/phys_dmn	aclspasad.F90	aclspstl.F90	advprcsad.F90
	advprcstl.F90	aplparsad.F90	aplparstl.F90
	open_output_lfa.F90	wrarom.F90	writemusc.F90
	wrscmr.F90		

DAHLGREN Per

Doc:

1) *Fix norm violations:*

USE SPECTRAL_FIELDS_MOD, ONLY : ASSIGNMENT(=), etc... instead of USE SPECTRAL_FIELDS_MOD

2) *Remove use of module SPECTRAL_FIELDS_MOD (suejbtest.F90).*

Project: aladin

ClearCase branch: dahlgren_CY37T1_contrib_dahlgren

Modified:

ald/setup	suemp.F90		
ald/sinvect	esptrlcz.F90		
ald/var	ebalvert.F90	ebalvertad.F90	ebalverti.F90
	ebalvertiad.F90	suejbtest.F90	

EL KHATIB Ryad

Doc:

1) *Update configuration file "arpifs_excluded_files" .*

2) *Fix mandatory interfaces problems.*

3) *couplo4_inimpi.F90*: put call to *jfh_bind()* under CPP key *RS6K* .

Project: aeolus,ifs,satrad
ClearCase branch: mrpm602_CY37T1_dsrek

Modified:

aeo/Scripts	arpifs_excluded_files		
arp/op_obs	cobsalltl.F90		
arp/prism	couplo4_inimpi.F90		
sat/onedvar	onedvar_get_rtcoeff.F90		
sat/pre_screen	scinex.F90		
sat/programs	create_tables_spectra.F90	example_fwd.F90	example_rttovscatt.F90
	rttov_ascii2bin_scattcoef.F90		
sat/rttov/ifs	rttov_dealloc_allcoef.F90	rttov_ec.F90	rttov_ec_ad.F90
	rttov_ec_alloc.F90	rttov_ec_alloc_ad.F90	rttov_ec_alloc_tl.F90
	rttov_ec_tl.F90		

GCO

Doc:

- 1) Remove obsolete routines.
- 2) Add a missing "&" in a multiline OpenMP directive.

Project: ifs
ClearCase branch: none

Deleted:

arp/module	mwimager_mix.F90	parssmi.F90	yoclop.F90
	yomamarar.F90	yomfceb.F90	yomfltxt.F90
	yomgmv_ptrs.F90	yomssmi.F90	
arp/mwave	mwave_postproc.F90		
arp/namelist	namjbcodes.h	namjg.h	namssmi.h
arp/obs_error	finoerr.F90	obs Perr.F90	

arp/obs_preproc	inissmip.F90 suobsc1.F90	misc.F90	ssmimas.F90
arp/op_obs	grg_fparamad.F90 grg_jno2_cloudad.F90 grg_jno2tl.F90 tropopause.F90	grg_fparamtl.F90 grg_jno2_clouddl.F90 mwimager_cloud.F90	grg_jno2.F90 grg_jno2ad.F90 mwimager_lwp.F90
arp/parallel	disgrid.F90 sutag.F90	diwrgrid.F90	phrset.F90
arp/phys_ec	suclop.F90		
arp/pp_obs	ppnox.F90		
arp/setup	sulunio_serv.F90		
arp/utility	save4next.F90		

Modified:

arp/control scan2m.F90

Doc:

Replace the use of variable FCEBUF from (removed) module YOMFCEB by the use of JB_STRUCTURE%JB_DATA%FCEBUF .

Project:

aladin

ClearCase branch:

marp003_CY37T1_fix_ejgnrgg

Modified:

ald/var	ejgnrgg.F90	ejgnrggad.F90	ejgnrggi.F90
	ejgnrggiad.F90		

Doc:

Fix that we hope not to be definitive: replace the use of statement functions from include file "fjbchvar.h" by the use of functions encapsulated in new module "yomjchvar_functions.F90" . The aim is to get rid with a strange compilation problem on NEC/SX9, currently in investigation status.

Project:

ifs

ClearCase branch:

marp003_CY37T1_jbchvar

Added:

arp/module yomjchvar_functions.F90

Modified:

arp	module		
arp/module	yomjbchvar_functions.F90		
arp/var	jbchvar.F90	jbchvarad.F90	jbchvari.F90
	jbchvariad.F90	pregprh.F90	subwavgen.F90
	symtransin.F90		

Doc:

- 1) Fix for "Mandalay.F90": replace call to SUCMOCTP by call to SUCOCTP .
- 2) Remove some entry points from "odb/pandor/extrtovs" & "odb/pandor/fcq" directories (NB: they already all have been copied in "odb/tools" directory).

Project: odb
ClearCase branch: marp003_CY37T1_mandalay

Deleted:

odb/pandor/extrtovs	add_bias_1c.F90	add_scan_1c.F90	biasconv_1c.F90
	calc_bias_1c.F90	calc_scan_1c.F90	cycle_bias_1c.F90
	cycle_biasprep_1c.F90	cycle_biassele_1c.F90	cycle_scan_1c.F90
odb/pandor/fcq	fcqodb.F90		
odb/pandor/mandalay	mandalay.F90		

Modified:

odb/pandor	extrtovs	fcq	mandalay
odb/tools	Mandalay.F90		

Doc:

- 1) Remove references to "modsurf" in "decis_robhdr_[12].sql" .
- 2) Remove line "if (dbase_out == 'ECMA') iall = 1" in case LECMWF=.TRUE. .

Project: odb
ClearCase branch: marp003_CY37T1_modsurf

Modified:

odb/cma2odb shuffle_odb.F90
odb/ddl decis_robhdr_1.sql decis_robhdr_2.sql

Doc:

Introduce bugfixes of cycle CY37T1 :

- 1) *Fix for ODB: links "radar_station" are now updated correctly in "shuffle", in the case where many bases containing radar datas exist.*
- 2) *Miscellaneous fixes:*
 - *Bugfixes to run ARPEGE-SURFEX .*
 - *Cleanings in order to have module and interface of routines identicals .*
- 3) *Fix for BATOR: all strong Doppler winds are now handled (radar datas).*
- 4) *Fix for ALADIN: the aim of this modset is to handle atmospheric boundary layer operators in calculation of 2m temperature and humidity,
bellow the last model level. This calculation is activated by key LFPCLSTOGMV in namelist NAMFPC .*
- 5) *Add security (KNND=0) in shallow convection scheme.*
- 6) *Use of GRIB file "errgribvor" in task diag_sigmas .*
- 7) *Miscellaneous fixes:*
 - *If NOTVAR=-1 is set on a wind measure (u,v), v-component is flagged passive (as u-component) (flagging under .NOT.LECMWF key, routine hoptl).*
 - *In 3DVar case (Aladin*,Arome), no trajectory computation, so the scatterometer wind solutions, which minimize the less, are flagged rejected,
and datum_event1.depar2big flag is set, at the end of the minimisation (in 4DVar, done in the last trajectory).*
- 8) *Fix for BATOR (IASI datas): column MDB_CLDCOVER_AT_ATOVS was filled with sensor number.*
- 9) *Rehabilit a compiler options line at the top of the routine oi_cacsts.F90, with the aim to avoid unexpected optimizations. The results are not
changed in ALADIN & AROME*
- 10) *Modifications for PINUTS: bugfixes, and complete documentation.*
- 11) *Miscellaneous fixes:*
 - *This modset allows to run with LRTTOV_INTERPOL=.TRUE. without crash, in all configurations ARPEGE/AROME/ALADIN .*
 - *Optimizations for RTTOV9 .*

12) Miscellaneous fixes:

- *cacdgu.F90, caidgu.F90, ca0dgu.F90* : enable bit-reproductibility when changing the number of processors + fusion of the former SM code
with the DM code (to be used later for open-mp support) ;
- *casgqa.F90* : bugfix in the distribution of the observations per geographical quadrant (also save cpu times on scalar machines because less trigonometric calculations are required).

NOTICE : this modset does change the scientific results.

13) Fixes for AROME :

- missing interface to *e_budget.F90* ;
- fixes for SURFEX time when using XFU, and for the writing of lfi files .

Project: ifs,mse,odb,surfex,utilities,ifsaux
ClearCase branch: marp003_CY37T1_r3b_plus_bf

Modified:

arp/canari	ca0dgu.F90 casgqa.F90	cacdgu.F90	caidgu.F90
arp/fullpos	vpos.F90		
arp/op_obs	bgobs.F90 hjo.F90 hop_rad_ml.F90 hradp_ml.F90 hretr.F90 radtr_ml_tl.F90	co2cldairs_ml.F90 hop.F90 hopad.F90 hradp_ml_ad.F90 radtr_ml.F90	co2cldiasi_ml.F90 hop_rad.F90 hoptl.F90 hradp_ml_tl.F90 radtr_ml_ad.F90
arp/phys_dmn	apl_arome.F90	aplpair.F90	hl_aplpair.F90
arp/setup	suarg.F90		
arp/var	suvar.F90		
mse/externals	aro_ground_param.F90	aro_surf_diag.F90	
mse/interface	aro_ground_param.h		
mse/internals	correct_time_flake.F90 correct_time_surf.F90	correct_time_isba.F90 correct_time_teb.F90	correct_time_sea.F90 correct_time_wat.F90
odb/pandor/module	bator_ecriptions_mod.F90		
surfex/isba/phys	e_budget.F90	isba.F90	

surfex/offlin/assim	oi_cacsts.F90	
uti/pinuts/module	egg_tools_mod.F90	namlist_mod.F90
xrd/fa	compact.F90	uncompact.F90

Doc:

* arp/module/yomjg.F90:

Set following derived types as public:

TYPE_WAVELETJB_CONFIG
TYPE_WAVELETJB_DATA
TYPE_WAVELETJB_VCOR_STRUCT
TYPE_WAVELETJB_GRID_STRUCT
TYPE_LAMWAVELETJB_CONFIG
TYPE_LAMWAVELETJB_INFO
TYPE_LAMWAVELETJB_VCOR_STRUCT
TYPE_LAMWAVELETJB_GRID_STRUCT
TYPE_SKF_DATA

Those types are used by public derived type TYPE_JBCHVAR, and set them as private as for consequence compilation problems on NEC/SX9, and with PGI compiler.

* arp/phys_ec/callpar.F90
arp/phys_ec/callparad.F90
arp/phys_ec/callpartl.F90
arp/phys_ec/ec_phys.F90
arp/phys_ec/ec_phys_ad.F90
arp/phys_ec/ec_phys_drv.F90
arp/phys_ec/ec_phys_tl.F90
arp/phys_ec/ec_physg.F90:

Remove attribute INTENT from pointer argument YD_MWAVE_RAD , in order to fix a compilation problem on NEC/SX9 .

Miscellaneous fixes:

- * digfil.F90: add a test of presence of argument PGFLGP before using it...
- * defrun.F90: fix writes formats.
- * suphy0.F90: put writes related to "Alaro TOUCANS/pTKE scheme" under key LCOEFKtKE .
- * io_serv_open.F90: remove the call to SULUNIO_SERV, and the mandatory interface block for this subroutine. The variables previously initialized in this subroutine are now initialized in module YOMLUN .

- * Move OpenMP instructions block (lines 470 to 472) just before the next Fortran "DO" statement (line 483).
- * Fix from ECMWF (module_obb1_mix.F90).
- * Create links to "ddl/mkglobstab_gpsro.sql" in "ddl.CCMA" & "ddl.ECMA" directories, and update files "CCMA.dep" & "ECMA.dep" .
- * scan2m.F90: fix in Open-MP directives (from ECMWF).
- * shuffle_odb.F90: fix in the test of presence of argument "force_all" (from ECMWF).

2 fixes from ECMWF:

- * su0phy.F90: replace LECTESSEL=.FALSE. by:
LECTESSEL=.TRUE.
LEAGS=.FALSE.
- * su_surf_flds.F90: move the SST allocation from line 1053 to 1102 .

- * jfh_bind.F90: put the whole code under key RS6K (from ECMWF).

- * obt/bias_sat/biasprep_fbcrack_geos.F90
- obt/bias_sat/cycle_biasprep_1c.F90
- obt/bias_sat/cycle_biasprep_ssmi.F90
- obt/satmon/fbcrack_dmsp.F90
- obt/src/app3v.F90
- obt/src/std.F90:

Externalization of subroutines APP3V and STID, defined (and identical each other) in the 4 other mentioned obstat routines (from Ryad El Khatib).

- * odb/ddl.CCMA/getsatid_resat.sql (new link)
- odb/ddl.CCMA/hop_canari_conv.sql (new link)
- odb/ddl.CCMA/robhdr_screen_conv.sql (new link)
- odb/ddl.CCMA/setup_tovscv_cloud_sink.sql (new link)
- odb/ddl.CCMA/setup_tovscv.sql (new link)
- odb/ddl.ECMA/getsatid_resat.sql (new link)
- odb/ddl.ECMA/hop_canari_conv.sql (new link)
- odb/ddl.ECMA/robhdr_screen_conv.sql (new link)
- odb/ddl.ECMA/setup_tovscv_cloud_sink.sql (new link)
- odb/ddl.ECMA/setup_tovscv.sql (new link)
- odb/cma2odb/ctxinitdb.F90
- odb/ddl.CCMA/CCMA.dep
- odb/ddl.ECMA/ECMA.dep:

Bugfixes, with the aim to run CANARI (from Francoise Taillefer).

- * ald/programs/holo.F90

ald/programs/unholo.F90
xrd/fa/compact.F90 to xrd/utilities/compact.F90
xrd/fa/uncompact.F90 to xrd/utilities/uncompact.F90
xrd/lfi/lfiarticles.F:

Introduction of HOLO/UNHOLO programs, allowing to perform a pseudo-compression/decompression of coupling files (from Ludovic Auger).

* arp/adiab/cpg25.F90:

Fix INTENT of argument YDOROG (from Ryad EL KHATIB).

* arp/op_obs/hjo.F90:

Add use of module OML_MOD (OML_SET_LOCK & OML_UNSET_LOCK), as OpenMP statement (from Ryad El Khatib).

* arp/var/sujb.F90:

Return backward to previous version (from Deborah Salmond).

* ald/obs_preproc/lamflag_odb_select.F90
ald/programs/lamflag_odb.F90:

Those 2 program units are now obsolete, their content has been cleaned. They will be removed before declare cycle CY38.

Final sources modifications & moves:

- * remove some obsolete routines in "aeolus" ;
- * remove LAMFLAG routines (NB: LAMFLAG stuff is already included in BATOR) ;
- * add missing SQL links in odb/ddl.CCMA & odb/ddlIECMA folders ;
- * move ifsaux modules fa_mod.F & lfimod.F to ifsaux/module folder ;
- * move ifsaux/fa/*compact.F90 to ifsaux/utilities folder ;
- * spec2grid(ad).F90: call to INV_TRANS(AD) only if argument YDSP%SCAL is associated ;
- * sufpc.F90: add IBM compiler directives ;
- * yom_ygfl.F90: JPFORC is reduced back to 50 ;
- * shuffle.F90: remove a commented WRITE instruction ;
- * decis_robhdr_1.sql & pre_thinn_roboddy_9.sql: bugfixes .

Project: aeolus,aladin,ifs,odb,ifsaux
ClearCase branch: marp003_CY37T1_r3fix*

Added:

ald/programs	holo.F90	unholo.F90	
obt/src	app3v.F90	stid.F90	
odb/ddl.CCMA	ak_resat_averaging_kernel.sql	conv_hdr.sql	data_radar_station.sql
	ecmwf_matchup_gbrad.sql	fixresatlen.sql	gbrad_body_rr.sql
	gbrad_rr.sql	get_soe_resat.sql	getgbradid.sql
	getsatid_resat.sql	getsfcobsid.sql	hop_canari_conv.sql
	hretr_canari_satbody.sql	mkglobstab_gpsro.sql	obsdist_gbrad.sql
	obsdist_gbrad_body.sql	obsdist_hdr2gbrad_body.sql	obsdist_hdr2radiance_body.sql
	obsdist_hdr2resat_averaging_kernel.sql	obsdist_radiance_body.sql	obsdist_resat.sql
	obsdist_resat_averaging_kernel.sql	obsdist_windows.sql	obsort_hdr2gbrad_body.sql
	robhdr_gbrad_get_rr.sql	robhdr_gbrad_put_rr.sql	robhdr_rad.sql
	robhdr_screen_conv.sql	robody_gbrad_get_rr.sql	robody_gbrad_put_rr.sql
	robody_rad.sql	sat_aeolus.sql	sat_gpsro.sql
	satbody_atovs.sql	satbody_gpsro.sql	setup_tovscv.sql
	setup_tovscv_cloud_sink.sql	varbc_gbrad_robhdr.sql	varbc_gbrad_robody.sql
	varbc_sfcobs_robhdr.sql	varbc_sfcobs_robody.sql	
odb/ddl.ECMA	airep_flight_phase_robhdr.sql	airep_flight_phase_robody.sql	ak_resat_averaging_kernel.sql
	black_allsky.sql	black_gpsro.sql	black_robhdr_10.sql
	black_robody_10.sql	conv_hdr.sql	decis_convbody_1.sql
	decis_convbody_2.sql	ecmwf_matchup_gbrad.sql	fb_getresat.sql
	fixresatlen.sql	gbrad_body_rr.sql	gbrad_rr.sql
	get_soe_resat.sql	getgbradid.sql	getsatid_resat.sql
	getsfcobsid.sql	hop_canari_conv.sql	hretr_canari_satbody.sql
	links_gbrad.sql	matchup_gbrad.sql	mkglobstab_gpsro.sql
	nak_resat_averaging_kernel.sql	obsdist_gbrad.sql	obsdist_gbrad_body.sql
	obsdist_hdr2gbrad_body.sql	obsdist_hdr2radiance_body.sql	obsdist_hdr2resat_averaging_kernel.sql
	obsdist_radiance_body.sql	obsdist_resat.sql	obsdist_resat_averaging_kernel.sql
	obsdist_smos.sql	obsdist_windows.sql	obsort_collocated_imager_information.sql
	obsort_conv.sql	obsort_conv_body.sql	obsort_gbrad.sql
	obsort_gbrad_body.sql	obsort_gnssro.sql	obsort_gnssro_body.sql
	obsort_hdr2conv_body.sql	obsort_hdr2gbrad_body.sql	obsort_hdr2gnssro_body.sql
	obsort_hdr2radiance_body.sql	obsort_radiance_body.sql	obsort_resat.sql
	obsort_resat_averaging_kernel.sql	obstat_conv.sql	obstat_fcdep.sql
	obstat_fcdep_gpsro.sql	obstat_resat.sql	obstat_smos_land.sql

obstatfc_1.sql	obstatfc_10.sql	obstatfc_11.sql
obstatfc_12.sql	obstatfc_13.sql	obstatfc_14.sql
obstatfc_15.sql	obstatfc_16.sql	obstatfc_17.sql
obstatfc_18.sql	obstatfc_19.sql	obstatfc_2.sql
obstatfc_20.sql	obstatfc_3.sql	obstatfc_4.sql
obstatfc_5.sql	obstatfc_6.sql	obstatfc_7.sql
obstatfc_8.sql	obstatfc_9.sql	robhdr_gbrad_get_rr.sql
robhdr_gbrad_put_rr.sql	robhdr_rad.sql	robhdr_screen_conv.sql
robody_gbrad_get_rr.sql	robody_gbrad_put_rr.sql	robody_rad.sql
sat_aeolus.sql	sat_gpsro.sql	satbody_atovs.sql
satbody_gpsro.sql	sathdr_screen_aeolus_2b_part2.sql	sathdr_screen_gpsro.sql
sathdr_screen_resat.sql	setup_tovscv.sql	setup_tovscv_cloud_sink.sql
update_fcdiag_links.sql	update_links_gbrad.sql	varbc_gbrad_robhdr.sql
varbc_gbrad_robody.sql	varbc_mode_hist_robhdr.sql	varbc_mode_hist_robody.sql
varbc_sfcobs_robhdr.sql	varbc_sfcobs_robody.sql	
xrd/lfi	lfiarticles.F	

Renamed:

xrd/fa compact.F90 to xrd/utilities/compact.F90
fa_mod.F to xrd/module/fa_mod.F
uncompact.F90 to xrd/utilities/uncompact.F90
xrd/lfi lfiMOD.F to xrd/module/lfiMOD.F

Deleted:

aeo/InputScreening	AE_TEST_AUX_PAR_2B_20060707T000000_20111231T000000_0000.EEF		
aeo/main	Dummy_L2C_processor.F90		
aeo/schemas	AUX_MET_HDR_v01.32.xsd	AUX_PAR.xml	
ald/obs_preproc	lamflag_odb_select.F90		
ald/programs	lamflag_odb.F90		
xrd/fa	compact.F90	fa_mod.F	uncompact.F90
xrd/lfi	lfiMOD.F		

Modified:

aeo/Scripts arpifs_excluded_files
ald/obs_preproc lamflag_odb_select.F90

ald/programs	holo.F90	lamflag_odb.F90	unholo.F90
arp/adiab	cpg25.F90		
arp/control	scan2m.F90		
arp/dfi	digfil.F90		
arp/fullpos	sufpc.F90		
arp/io_serv	io_serv_open.F90		
arp/module	module_obb1_mix.F90	yom_ygfl.F90	yomjg.F90
arp/obs_preproc	defrun.F90		
arp/op_obs	hjo.F90		
arp/phys_dmn	suphy0.F90		
arp/phys_ec	callpar.F90	callparad.F90	callpartl.F90
	ec_phys.F90	ec_phys_ad.F90	ec_phys_drv.F90
	ec_phys_tl.F90	ec_physg.F90	
arp/setup	su0phy.F90	su_surf_flds.F90	
arp/transform	spec2grid.F90	spec2gridad.F90	
arp/var	sujb.F90		
obt/bias_sat	biasprep_fbcrack_geos.F90	cycle_biasprep_1c.F90	cycle_biasprep_ssmi.F90
obt/satmon	fbcrack_dmsp.F90		
obt/src	app3v.F90	stid.F90	
odb/cma2odb	ctxinitdb.F90	shuffle.F90	shuffle_odb.F90
odb	ddl.CCMA		
odb/ddl.CCMA	CCMA.dep		
odb	ddl.ECMA		
odb/ddl.ECMA	ECMA.dep		
odb/ddl	decis_robhdr_1.sql	pre_thinn_roboty_9.sql	
xrd/lfi	lfiarticles.F		
xrd/support	jfh_bind.F90		
xrd/svipc	svipc.c		

Doc:

Remove obsolete "#ifdef DOC" statements.

Project: ifs,odb,surf,aladin transforms,transform,ifsaux
ClearCase branch: marp003_CY37T1_remove_ifdefDOC

Modified:

arp/ald_inc/function	fctez.h		
arp/function	fccl.d.h	fcobs.h	fcttre.h
	fcttread.h	fcttretl.h	fcttrm.h
	fcttrmad.h	fcttrmtl.h	fctveg.h
	fjbchvar.h	qabitu.h	stmfun_ifs.h
arp/namelist	nacobs.h	nactan.h	nacveg.h
	naimpo.h	namcumf.h	namcumfs.h
	nammkodb.h	namres.h	
arp/parallel	mysendset.F90	phrset.F90	
arp/phys_dmn	arocldia.F90	cpchet.F90	initaplpar.F90
	profilechet.F90	suchet.F90	wrotechet.F90
arp/sekf	susekf.F90		
arp/var	jbtomodel.F90	jbtomodelad.F90	
odb/include	stmfun.h		
sur/function	fcsttre.h		
sur/module	cptave_mod.F90	srfi_mod.F90	srfrcg_mod.F90
	srfrootfr_mod.F90	srfsn_lwexp_mod.F90	srfsn_lwimp_mod.F90
	srfsn_mod.F90	srfsn_rsn_mod.F90	srft_mod.F90
	srfwdif_mod.F90	srfwexc_mod.F90	srfwexc_vg_mod.F90
	srfwinc_mod.F90	srfwl_mod.F90	srfwng_mod.F90
	surfbc_ctl_mod.F90	surfexcdriver_ctl_mod.F90	surfexcdrivers_ctl_mod.F90
	surfexcdriversad_ctl_mod.F90	surfexcdriverstl_ctl_mod.F90	surfpp_ctl_mod.F90
	surfpps_ctl_mod.F90	surfppsad_ctl_mod.F90	surfppstl_ctl_mod.F90
	surfrad_ctl_mod.F90	surfseb_ctl_mod.F90	surfsebad_ctl_mod.F90
	surfsebtl_ctl_mod.F90	surftstp_ctl_mod.F90	surwn_mod.F90
	suscst_mod.F90	susrad_mod.F90	sussoil_mod.F90
	susthf_mod.F90	susurf_ctl_mod.F90	susveg_mod.F90
	vexcs_mod.F90	vsurf_mod.F90	vsurfs_mod.F90
	vsurfsad_mod.F90	vsurfstl_mod.F90	vupdz0_mod.F90
	vupdz0s_mod.F90		
tal/module	eldspc2_mod.F90	eldspc2ad_mod.F90	eltdir_mod.F90
	eltdirad_mod.F90	eltinv_mod.F90	eltinvad_mod.F90

	eprfi1_mod.F90	eprfi1ad_mod.F90	eprfi1b_mod.F90
	eprfi1bad_mod.F90	espnsde_mod.F90	evdtuv_mod.F90
	evdtuvad_mod.F90		
tfl/module	ldspc2_mod.F90	ldspc2ad_mod.F90	ltdir_mod.F90
	ltdirad_mod.F90	ltinv_mod.F90	ltinvad_mod.F90
	myrecvset_mod.F90	mysendset_mod.F90	pe2set_mod.F90
	prepsnm_mod.F90	prfi1_mod.F90	prfi1ad_mod.F90
	prfi1b_mod.F90	prfi1bad_mod.F90	prle1_mod.F90
	prle1ad_mod.F90	set2pe_mod.F90	spnsde_mod.F90
	suleg_mod.F90	vdtuv_mod.F90	vdtuvad_mod.F90
xrd/module	fitspectrum_mod.F90		

Doc:

- 1) Fix mandatory interface problems.
- 2) Fix a phasing bug in "rttov_intavg_chan_tl.F90".
- 3) Rename "predict_psd_F07.F90" to "predict_psd_f07.F90", and change mandatory interface in "set_spectra.F90".

Project: satrad
ClearCase branch: marp003_CY37T1_satrad

Renamed:
 sat/rttov/mw_scatt_coef predict_psd_F07.F90 to sat/rttov/mw_scatt_coef/predict_psd_f07.F90

Modified:

sat/module	rttov_coef_io_mod.F90	rttov_test_k_mod.F90	
sat/mwave	mwave_get_rtcoeff.F90		
sat/programs	example_pc_fwd.F90	rttov_conv_coef.F90	rttov_test.F90
	rttov_test_get_pc_predictindex.F90		
sat/rttov/coef_io	rttov_coefname.F90	rttov_dealloc_coef.F90	rttov_dealloc_coef_pccomp.F90
	rttov_dealloc_coef_scatt_ir.F90	rttov_dealloc_coefs.F90	rttov_dealloc_optpar_ir.F90
	rttov_distribute_coef_pccomp.F90	rttov_distribute_optpar_ir.F90	rttov_get_pc_predictindex.F90
	rttov_init_coef.F90	rttov_init_coef_pccomp.F90	rttov_init_coefs.F90
	rttov_opencoeff.F90	rttov_read_ascii_coef.F90	rttov_read_ascii_pccoeff.F90
	rttov_read_ascii_scaercoef.F90	rttov_read_ascii_scldcoef.F90	rttov_read_binary_coef.F90
	rttov_read_binary_pccoeff.F90	rttov_read_binary_scaercoef.F90	rttov_read_binary_scldcoef.F90

	rttov_read_coefs.F90	rttov_setup.F90	rttov_write_ascii_coef.F90
	rttov_write_ascii_pccoef.F90	rttov_write_ascii_scaercoef.F90	rttov_write_ascii_scldcoef.F90
	rttov_write_binary_coef.F90	rttov_write_binary_pccoef.F90	rttov_write_binary_scaercoef.F90
	rttov_write_binary_scldcoef.F90	rttov_write_coefs.F90	
sat/rttov/main	rttov_ad.F90	rttov_alloc_aux_prof.F90	rttov_alloc_auxrad.F90
	rttov_alloc_auxrad_stream.F90	rttov_alloc_ircl.d.F90	rttov_alloc_opdp_path.F90
	rttov_alloc_pc_dimensions.F90	rttov_alloc_pccomp.F90	rttov_alloc_predictor.F90
	rttov_alloc_prof.F90	rttov_alloc_rad.F90	rttov_alloc_raytracing.F90
	rttov_alloc_sunlint.F90	rttov_alloc_traj.F90	rttov_alloc_trans_scatt_ir.F90
	rttov_alloc_transmission.F90	rttov_alloc_transmission_aux.F90	rttov_calcemis_mw.F90
	rttov_check_traj.F90	rttov_checkinput.F90	rttov_direct.F90
	rttov_intavg_chan_tl.F90	rttov_k.F90	rttov_refsun.F90
	rttov_tl.F90	rttov_user_profile_checkinput.F90	
sat/rttov/mw_scatt	rttov_dealloc_scattcoeffs.F90	rttov_read_scattcoeffs.F90	
sat/rttov	mw_scatt_coef		
sat/rttov/mw_scatt_coef	predict_psd_f07.F90	set_spectra.F90	
sat/rttov/parallel	rttov_parallel_ad.F90	rttov_parallel_direct.F90	rttov_parallel_k.F90
	rttov_parallel_tl.F90		
sat/rttov/test	rttov_k_ad.F90	rttov_k_bf.F90	

Doc:

- 1) Add links to "time_numtsl.sql" in odb/ddl.CCMA & odb/ddl.ECMA , and update *CMA.dep files.
- 2) Upgrade VERSION_MAJOR to 38 .

Project: odb
ClearCase branch: marp003_CY37T1_time_numtsl

Added:

odb/ddl.CCMA time_numtsl.sql
 odb/ddl.ECMA time_numtsl.sql

Modified:

odb ddl.CCMA
 odb/ddl.CCMA CCMA.dep
 odb ddl.ECMA

odb/ddl.ECMA ECMA.dep
odb/lib version.c

GCO & SALMOND Deborah

Doc:

Manual pre-phasing CY37T1 + bugfixes & CY37R3 .

cf. memorandum of cycle CY37R3 available here: <http://gco.meteo.fr/welcome/IMG/pdf/cy37r3.pdf>

Project: ifs,odb,satrad,ifsaux
ClearCase branch: marp003_CY37T1_r3b_and_ds_pre38

Modified:

arp/obs_preproc	readoba.F90		
arp/var	writeoba.F90		
odb/cma2odb	ctxinitdb.F90	putatdb.F90	shuffle.F90
	shuffle_odb.F90		
odb/ddl	decis_robhdr_1.sql	decis_robhdr_2.sql	fcq_roboddy_0.sql
odb/interface	shuffle_odb.h		
sat/onedvar	onedvar_obsop_grad_rttov.F90	onedvar_obsop_rttov.F90	onedvar_obsop_tl_rttov.F90
sat/rttov/ifs	rttov_ec_tl.F90		
sat/rttov/main	rttov_ad.F90	rttov_setpredictors_7_ad.F90	rttov_setpredictors_7_tl.F90
	rttov_tl.F90		
sat/rttov/mw_scatt	rttov_eddington.F90	rttov_eddington_ad.F90	rttov_eddington_tl.F90
	rttov_iniedd.F90	rttov_iniedd_ad.F90	rttov_iniedd_tl.F90
	rttov_iniscatt.F90	rttov_iniscatt_tl.F90	rttov_integratesource.F90
	rttov_integratesource_ad.F90	rttov_integratesource_tl.F90	rttov_mieproc.F90
	rttov_mieproc_ad.F90	rttov_mieproc_tl.F90	rttov_scatt.F90
	rttov_scatt_ad.F90	rttov_scatt_tl.F90	rttov_setpressure.F90
xrd/module	mpl_recv_mod.F90		

GUIDARD Vincent

Doc:

Manual phasing between CY37T1 & CY37R3 .

Project: ifs,satrad
ClearCase branch: mrpe710_CY37T1_validr3b

Modified:

arp/op_obs	co2cldairs_ml.F90	co2cldiasi_ml.F90	radtr_ml.F90
sat/rttov/main	rttov_intavg_chan.F90	rttov_intavg_chan_ad.F90	rttov_intavg_chan_tl.F90

GUILLAUME Frank

Doc:

Phasing with ODB modifications in pre-cycle CY38 .

Project: odb
ClearCase branch: mrpa644_CY37T1_bator38

Modified:

odb/ddl	bator_hdr_6.sql	
odb/pandor/module	bator_ecritures_mod.F90	bator_saisies_mod.F90

HIRLAM Consortium

Doc:

Miscellaneous bugfixes (NB: other bugfixes from HIRLAM have been integrated in Yann Seity's branch mrpm637_CY37T1_bfsurfex).

Project: ifs,odb,surfex
ClearCase branch: mrpe737_CY37T1_cy37t1_main_contrib_hirlam

Modified:

arp/canari caclsst.F90
odb/lib tracing.c
surfex/pgd detect_field.F90

MARGUINAUD Philippe

Doc:

* *disgrid_mod.F90*: change *INTENT* for *PREAL* argument in subroutine *DISGRID_RECV* .
* *modd_type_date_surf.F90*: initialize attributes of types *DATE* and *DATE_TIME* .

Project: ifs,surfex
ClearCase branch: mrpm609_CY37T1_bug1

Modified:

arp/module disgrid_mod.F90
surfex/surf_atm/module modd_type_date_surf.F90

Doc:

Bugfix in IO server (initialization in FA library).

Project: ifs
ClearCase branch: mrpm609_CY37T1_fixio_serv

Modified:

arp/io_serv io_serv_compress.F90 io_serv_suiosctmpl.F90

MONTMERLE Thibaut

Doc:

Fixes for Jb wavelet (from Alex Deckmyn).

Project: ifs
ClearCase branch: mrpa666_CY37T1_lam_wavelet_TM

Modified:
arp/module wav_lifting_mod.F90 yemwavelet.F90

PAYAN Christophe

Doc:

Changes for scatterometer data, level diagnostic, assimilation bit reproducible:

- In the screening step, the ambiguous winds, which are above the number of solutions accepted in the minimization step, are flagged datum_event1.depar2big (can be the case for ASCAT winds, KNMI product). So datum_event1.depar2big flag is not set only for the closest solution to the first-guess chosen among the solutions which may be accepted for the minimization.*
- In the screening step still, datum_event1.depar2big flag is set only for winds data (bodies) which are the most remote to the first guess, or above the number of acceptable solutions (all data except the wind closest to the first-guess up to now).*

Project: ifs
ClearCase branch: mrpa642_CY37T1_scawsolmax_pre38

Modified:
arp/op_obs hjo.F90

RIVIERE Olivier

Doc:

- 1) *aclspasad.F90: bugfix ;*
- 2) *acmicroad.F90 & advprcsad.F90: optimizations (NB: increase adjoint computation with factor... 50!) ;*
- 3) *Introduce smoothing of melting snow option LSMOOTHMELT .*

Project: ifs
ClearCase branch: mrpe601_CY37T1_collection_bf_optim

Modified:

arp/module	yomphy.F90		
arp/namelist	namphy.h		
arp/phys_dmn	aclspasad.F90	acmicroad.F90	acmicrotl.F90
	advprcs.F90	advprcsad.F90	advprcstl.F90
arp/setup	su0phy.F90		

SASSI Zied

Doc:

Fix norms violations.

Project: ifs
ClearCase branch: sassi_CY37T1_sas

Modified:

arp/dfi	copgfl.F90	corgfl.F90	
arp/op_obs	hjo.F90		
arp/var	amv_read_oberror.F90	evjcdfi.F90	jbchvar.F90
	jbchvarad.F90	jbchvari.F90	jbchvariad.F90
	pregprh.F90	sujb.F90	sujbwavgen.F90

SEITY Yann**Doc:**

Miscellaneous bugfixes for SURFEX, discovered by HIRLAM people on other platforms.

Project: mse,surfex

ClearCase branch: mrpm637_CY37T1_bfsurfex

Modified:

mse/externals	aro_ground_param.F90	
mse/programs	driver_off_omp.F90	prep.F90
surfex/offlin/phys	offline.F90	
surfex/pgd	detect_field.F90	

SPANIEL Oida**Doc:**

Miscellaneous fixes of compilation errors, on many platforms (NB: var/wavelet and deello.F90 mostly done by Thibaut Montmerle).

*ald/wavelet/ejbwav_v2h.F90
completion of JB_STRUCT*

*ald/wavelet/ejbwav_hcori.F90
completion of JB_STRUCT*

*ald/wavelet/ejbwav_h2v.F90
correction NLEV DIST -> ILEV DIST*

ald/wavelet/ejbwav_gp2wav.F90

correction NLEVDIST -> ILEVDIST
and completion of JB_STRUCT

ald/wavelet/suejbwalloc.F90

problematic allocation of ALLOCATE(JB_STRUCT%LAMWAVELET_VCOR) and others

1511-099 (S) Objects appearing in ALLOCATE and DEALLOCATE statements must be allocatable objects or pointers.

ald/wavelet/suejbwavelet.F90

2 |NAMELIST /NEMWAVELET/NWAVITER,NPERIODIC,NWAVSCALES,NGPX,NGPY, &

.....a.....b.....c.....d.....e.....

a - ".D[16]/nemwavelet.h", line 2.22: 1516-036 (S) Entity nwaviter has undefined type.

b - ".D[16]/nemwavelet.h", line 2.31: 1516-036 (S) Entity nperiodic has undefined type.

c - ".D[16]/nemwavelet.h", line 2.41: 1516-036 (S) Entity nwavscases has undefined type.

d - ".D[16]/nemwavelet.h", line 2.52: 1516-036 (S) Entity ngpx has undefined type.

e - ".D[16]/nemwavelet.h", line 2.57: 1516-036 (S) Entity ngpy has undefined type.

1 3 | & NWAVDIMX,NWAVDIMY

.....a.....b.....

a - ".D[16]/nemwavelet.h", line 3.8: 1516-036 (S) Entity nwavdimx has undefined type.

b - ".D[16]/nemwavelet.h", line 3.17: 1516-036 (S) Entity nwavdimy has undefined type.

Just dirty solution for compilation (a mail has been sent to Alex for more clean solution)

INTEGER(KIND=JPIM) :: NPERIODIC

INTEGER(KIND=JPIM) :: NWAVITER

INTEGER(KIND=JPIM) :: NWAVSCALES

INTEGER(KIND=JPIM) :: NGPX

INTEGER(KIND=JPIM) :: NGPY

INTEGER(KIND=JPIM) :: NWAVDIMX

INTEGER(KIND=JPIM) :: NWAVDIMY

ald/wavelet/suejbwav_read_siglab.F90

YOMLUN NULTMP -> RESERVE_LUN, FREE_LUN

and completion of JB_STRUCT

ald/wavelet/suejbwav_read_eigvec.F90

YOMLUN NULTMP -> RESERVE_LUN, FREE_LUN

and completion of JB_STRUCT

ald/wavelet/ejbwav_vcori.F90

completion of JB_STRUCT

ald/utility/deello.F90

*IF (ALLOCATED(JB_STRUCTURE%LAMWAVELET_INFO%SCALESIZEX))
->
IF (ASSOCIATED(JB_STRUCTURE%LAMWAVELET_INFO%SCALESIZEX))
+ arranged IF statement*

*ald/utility/euvcopy.F90 - AB
remove allocated check from SPA1*

*ald/setup/elsac.F90 - AB
forbade assignement of NEFLSS, because it is parameter*

*ald/setup/suegeo2.F90 -AB
remove include abort.infb.h*

*ald/var/ecvaru2iad.F90
USE YOMJG , ONLY : JB_STRUCTURE
->
USE YOMJG , ONLY : JB_STRUCTURE ! FP2TPS, JB_DATA%SPJB*

ZSP=SPJB%SPR -> ZSP=JB_STRUCTURE%JB_DATA%SPJB%SPR

*ald/var/escaljgs.F90
same as ecvaru2iad.F90*

*ald/var/ecvaru2i.F90
same as ecvaru2iad.F90*

*ald/var/suejknorm.F90
YOMLUN NULTMP -> RESERVE_LUN, FREE_LUN*

*ald/var/suescal.F90
same as ecvaru2iad.F90*

*ald/var/suejbttest.F90
same as ecvaru2iad.F90*

*ald/var/suejbbal.F90
YOMLUN NULTMP -> RESERVE_LUN, FREE_LUN*

*ald/var/suejbcor.F90
YOMLUN NULTMP -> RESERVE_LUN, FREE_LUN
and same as ecvaru2iad.F90*

ald/var/ejgnrggiad.F90
same as evaru2iad.F90, correction of syntax error

ald/var/ebalverti.F90
118 | CALL MXMAOP(JB_STRUCTURE%JB_DATA%SHUM(1,1,IKSTAR),NFLEVG,1,&

.....a.....
a - "ebalvertiad.F90", line 118.15: 1513-061 (S) Actual argument attributes do not match those specified by an accessible explicit interface.

MXMAOP(JB_STRUCTURE%JB_DATA%SDIV(1,1,IKSTAR),1,NFLEVG,&
->
MXMAOP(JB_STRUCTURE%JB_DATA%SDIV(:,:IKSTAR),1,NFLEVG,&

ald/var/ebalvertiad.F90
same as ebalverti.F90

ald/var/suejbd96.F90
YOMLUN NULTMP -> RESERVE_LUN, FREE_LUN

ald/coupling/esrlxt1.F90 -AB
OMP do instead of OMP share

arp/adiab/cpg.F90 - KY

arp/control/scan2m.F90 -KY

arp/module/yomjg.F90 - by TM
TYPE (TYPE_LAMWAVELET_VCOR_STRUCTURE), POINTER :: LAMWAVELET_VCOR | TYPE (TYPE_LAMWAVELET_VCOR_STRUCTURE) ::
LAMWAVELET_VCOR
TYPE (TYPE_LAMWAVELET_GRID_STRUCTURE), POINTER :: LAMWAVELET_GRID | TYPE (TYPE_LAMWAVELET_GRID_STRUCTURE) ::
LAMWAVELET_GRID

arp/module/yemwavelet.F90 - by TM
*correction TYPE_LAMWAVELET_B**

run-time problem
arp/fullpos/vpos.F90 - KY
arp/fullpos/phymfpos.F90 - KY
xla/module/spectral_fields_data.F90

bug:avoid abort in dealges.F90

*** 195 Value of allocate-object must not disassociated pointer/not allocated array in DEALLOCATE

PROG=spectral_fields_mod.deallocat

e_spec ELN=379(4010a2264)

Called from dealges ELN=65(40c00b89c)

Called from freemem ELN=157(400cc557c)

Called from cnt0 ELN=408(400002cec)

Called from master ELN=99(400000d88)

solution (Deborah Salmond):

To set the POINTERS to NULL when they are declared in

xla/module/spectral_fields_data.F90

TYPE SPECTRAL_FIELD

REAL(KIND=JPRB), POINTER :: SP2D(:, :) => NULL()

REAL(KIND=JPRB), POINTER :: SP3D(:, :, :) => NULL()

REAL(KIND=JPRB), POINTER :: SP1D(:, :) => NULL()

INTEGER(KIND=JPIM), POINTER :: NASM0(:) => NULL()

etc.

Project: aladin,ifs,algor

ClearCase branch: mrpe693_CY37T1_ol

Modified:

ald/coupling	esrlxt1.F90		
ald/setup	elsac.F90	suegeo2.F90	
ald/utility	deello.F90	euvcopy.F90	
ald/var	ebalverti.F90	ebalvertiad.F90	ecvaru2i.F90
	ecvaru2iad.F90	ejgnrggiad.F90	escaljgs.F90
	suejbbal.F90	suejbcor.F90	suejbdat96.F90
	suejbttest.F90	suejknorm.F90	suescal.F90
ald/wavelet	ejbwav_gp2wav.F90	ejbwav_h2v.F90	ejbwav_hcori.F90
	ejbwav_v2h.F90	ejbwav_vcori.F90	suejbwav_read_eigvec.F90
	suejbwav_read_sigmab.F90	suejbwavalloc.F90	suejbwavelet.F90
arp/adiab	cpg.F90		
arp/control	scan2m.F90		
arp/fullpos	phymfpos.F90	vpos.F90	
arp/module	yemwavelet.F90	yomjg.F90	

xla/module spectral_fields_data.F90

TAILLEFER Francoise

Doc:

Fix a crash in the case where no DRIBU message is present in observations file.

Project: ifs
ClearCase branch: mrpa647_CY37T1_ftcan

Modified:
arp/canari caredo.F90

YESSAD Karim

Doc:

Manual pre-phasing CY37T1/CY37R3 .

Project: aladin
ClearCase branch: marp003_CY37T1_ky_pre_cy38

Added:
ald/setup suelega.F90

Modified:
ald setup
ald/setup suelega.F90

Doc:

1) Fix norm violations.

2) Replace "ifsdata/*" file names by files' basenames.

Fix some issues when passing unallocated subsets of "pointer" buffers to subroutines (cf. following details). For "yomlun.F90", remove the "parameter" attribute from variable NEFLSS : this variable can be modified in "elsac.F90" (ALADIN).

* CPG: call to CPG_DYN

The original piece of code is:

```
CALL CPG_DYN( &
...
& SD_VF(:,YSD_VF%YLSM%MP,IBL),SP_RR(:,YSP_R%YT%MP0,IBL), &
& ZQSOL(1,ILL), &
...
& )
```

In adiabatic runs, no field is allocated in SD_VF and SP_RR; pointers YSD_VF%YLSM%MP and YSP_R%YT%MP0 are set to NUNDEFD. The old CY37T1 code worked with that but now it does not work any longer. There is an abort with the following status:

```
**** 90 Fatal exception PROG=cpg ELN=1755(400c9ecb4)
SIGILL: Illegal instruction
```

A correction was brought, like (taking account of the fact that ZLSM is used only for the very simplified physics, ZTSOL is used only when NDPSFI=1):

```
IF (YSD_ACT_VF%L_LSM) THEN
  ZLSM(IST:IEND)=SD_VF(IST:IEND,YSD_VF%YLSM%MP,IBL)
ELSE
  ZLSM(IST:IEND)=0.0_JPRB
ENDIF
IF (YSP_ACT_RR%L_T) THEN
  ZTSOL(IST:IEND)=SP_RR(IST:IEND,YSP_RR%YT%MP0,IBL)
ELSE
  ZTSOL(IST:IEND)=PGMV(IST:IEND,NFLEVG,YT0%MT,IBL)
ENDIF

CALL CPG_DYN( &
...
& ZLSM,ZTSOL, &
& ZQSOL(1,ILL), &
...
& )
```


With this recoding CPG works in adiabatic runs.

We have also noticed that we pass potentially unallocated arrays (SD_VF,SP_SG,SP_SB,SP_RR) to CPG_DIA. Adiabatic configurations requiring to call DDH were not tested, so adiabatic tests do not call CPG_DIA. But we cannot be sure that passing these arrays as it is done currently is completely safe.

** SCAN2M: call to VPOS*

The current call to VPOS is still written in order to pass separately pieces of array GMV, including some ones which may be not allocated. It is expected in the future to pass GMV in one step, but we do not want to have explicit references to pointers YT0 in VPOS, so that will require additional codings in VPOS_PREP to have local structures, like we already have for GFL variables.

The original piece of code is:

```
DO JKGLO=1,NGPTOT,NPROMA
```

```
...
```

```
CALL VPOS(IST1,IEND1,IOFF,YGFL%NDIM,CDCONF(5:5),YLIN,YLGFL, &  
& YRSGEOM(IBL),YROROG(IBL), &  
& GMV(:, :,YT0%MEDOT,IBL), &  
& GMV(:, :,YT0%MU ,IBL),GMV(:, :,YT0%MUL ,IBL),GMV(:, :,YT0%MDIV,IBL), &  
& GMV(:, :,YT0%MV ,IBL),GMV(:, :,YT0%MVL ,IBL),GMV(:, :,YT0%MVOR,IBL), &  
& GMV(:, :,YT0%MT ,IBL),GMV(:, :,YT0%MTL ,IBL),GMV(:, :,YT0%MTM ,IBL), &  
& GMV(:, :,YT0%MSPD,IBL), &  
& GMV(:, :,YT0%MSPDL,IBL),GMV(:, :,YT0%MSPDM,IBL), &  
& GMV(:, :,YT0%MSVD,IBL),GMV(:, :,YT0%MNHX,IBL), &  
& GMVS(:,YT0%MSP,IBL), &  
& GMVS(:,YT0%MSPL,IBL),GMVS(:,YT0%MSPM,IBL), &  
& GFL(:, :,IBL))
```

```
ENDDO
```

Fields EDOT, UL, VL, VOR, SPD, SPDL, SPDM, SVD, NHX may be not allocated. In hydrostatic runs, SPD, SPDL, SPDM, SVD, NHX are not allocated. When not allocated, the corresponding pointers YT0%M... are set to NUNDEFD.

The old CY37T1 code worked with that but now it does not work any longer. There is an abort with the following status:

```
**** 90 Fatal exception PROG=scan2m ELN=774(4007f6fdc)  
SIGSEGV: Segmentation violation
```

Following correction was brought:

```
I_MEDOT=MIN(NDIMGMV,MAX(1,YT0%MEDOT))
I_MUL=MIN(NDIMGMV,MAX(1,YT0%MUL))
I_MVL=MIN(NDIMGMV,MAX(1,YT0%MVL))
I_MVOR=MIN(NDIMGMV,MAX(1,YT0%MVOR))
I_MSPD=MIN(NDIMGMV,MAX(1,YT0%MSPD))
I_MSPDL=MIN(NDIMGMV,MAX(1,YT0%MSPDL))
I_MSPDM=MIN(NDIMGMV,MAX(1,YT0%MSPDM))
I_MSVD=MIN(NDIMGMV,MAX(1,YT0%MSVD))
I_MNHX=MIN(NDIMGMV,MAX(1,YT0%MNHX))
```

```
DO JKGLO=1,NGPTOT,NPROMA
```

...

```
CALL VPOS(IST1,IEND1,IOFF,YGFL%NDIM,CDCONF(5:5),YLIN,YLGFL, &
& YRSGGEOM(IBL),YROROG(IBL), &
& GMV(:, :, I_MEDOT, IBL), &
& GMV(:, :, YT0%MU, IBL), GMV(:, :, I_MUL, IBL), GMV(:, :, YT0%MDIV, IBL), &
& GMV(:, :, YT0%MV, IBL), GMV(:, :, I_MVL, IBL), GMV(:, :, I_MVOR, IBL), &
& GMV(:, :, YT0%MT, IBL), GMV(:, :, YT0%MTL, IBL), GMV(:, :, YT0%MTM, IBL), &
& GMV(:, :, I_MSPD, IBL), &
& GMV(:, :, I_MSPDL, IBL), GMV(:, :, I_MSPDM, IBL), &
& GMV(:, :, I_MSVD, IBL), GMV(:, :, I_MNHX, IBL), &
& GMVS(:, YT0%MSP, IBL), &
& GMVS(:, YT0%MSPL, IBL), GMVS(:, YT0%MSPM, IBL), &
& GFL(:, :, IBL))
```

```
ENDDO
```

Routine SCAN2M does not abort any longer with this correction.

* arp/module/yoe_cuconvca.F90
arp/control/gp_model.F90:

Fixes from Deborah Salmond & Filip Vana (cellular automatom) .

* arp/setup/suctrl_gflattr.F90:

Remove (useless) ABORT tests on LPC_CHEAP, and code reorganization.

* *ald/coupling/ecoupl1.F90*
ald/coupling/eseimpls.F90
ald/coupling/eseimplsad.F90
arp/module/elbc0b_mod.F90
arp/obs_preproc/mkglobstab.F90:

Bugfixes for coupling, and under LELAM code in mkglobstab.F90, with the aim to run CANARI in ALADIN .

* *xrd/fa/mt/facine_mt.F90:*

Bugfix (from Andrey Bogatchev).

Project: aladin,ifs,ifsaux
ClearCase branch: mrpm603_CY37T1_final_cleaning_on_cy37t1r3

Modified:

ald/coupling	ecoupl1.F90	eseimpls.F90	eseimplsad.F90
ald/wavelet	suejbwav_read_eigval.F90		
arp/adiab	cpg.F90	cpg5_gp.F90	
arp/c9xx	relnew.F90		
arp/control	cfcsens2obs.F90	cprep1.F90	gp_model.F90
	scan2m.F90		
arp/dfi	digfil.F90	digp.F90	zeroacu.F90
arp/dia	cpdyddh.F90	cpphddh.F90	cpphddhe.F90
arp/fullpos	phymfpos.F90	vpos.F90	
arp/module	aeolus_l2bp_wrapper_mod.F90	elbc0b_mod.F90	module_obb1_mix.F90
	yoe_cuconvca.F90	yomlun.F90	yomnmev.F90
arp/obs_preproc	mkglobstab.F90		
arp/op_obs	obshortl.F90		
arp/phys_radi	rrtm_kgb1.F90	srtm_kgb16.F90	su_c11clim.F90
	su_c12clim.F90	su_c22clim.F90	su_ccl4clim.F90
	su_ch4clim.F90	su_co2clim.F90	su_gch4clim.F90
	su_gco2clim.F90	su_gozoclim.F90	su_mcica.F90
	su_n2oclim.F90	su_no2clim.F90	su_ozoclim.F90
	suecozc.F90		
arp/setup	su0yomb.F90	suarg.F90	suctrl_gflattr.F90

	sulsforc.F90	susta_conv_prhs_dyncore.F90	sutrajp.F90
	suvertdlr.F90		
arp/utility	deallo.F90	wrgp2fa.F90	
arp/var	cvar3.F90	cvar3in.F90	inflation_pert.F90
	sujbcovsignal.F90		
xrd/fa/mt	facine_mt.F		