Definitions Bloc

defs_basis: *Defines constants*
defs_parametres *: defines parameters*
defs_variable : *defines global variables*
defs_grid: *defines and sets grid vars*
set_grid, ncell_compute
defs_species : *defs species type*
species_type, planet_type, alloc_species, dealloc_species, print_species, species_def_dim_cdf, species_def_var_cdf, species_put_var_cdf, species_get_var_cdf, species_put_var_bin, species_get_var_bin
defs_atmospheretype: *defs atmosphere type*
atmosphere_type,allocate_atmosphere
defs_particletype : *defs particle type*
particletype, particle_type_size, init_MPI_particle, free_MPI_particle, set_zero_particle, get_var_particle_bin def_var_particle_cdf, put_var_particle_cdf, get_var_particle_cdf , put_var_particle_bin,
defs_mpitype: *adds sw part. at each time step*
mpitype, init_all_mpiinfo, print_mpiinfo, init_MPI, init_mpiinfo,voisinage
defs_diag_type: *defs diagnosis related type*
diag_type, init_diag_type,clean_diag_type
defs_arr3Dtype: *defs for 3D arrays*
arr3Dtype,alloc_arr3D, dealloc_arr3D
defs_basic_cdf : *cdf routines*
test_cdf, get_simple_dimens_cdf, get_simple_variable_cdf
defs_tregister: *defines times for diags*
treg_type, set_tregister, clean_tregister
defs_counts_type: *defs count type (for part diag)*
count_single_type,count_double_type, init_count_particle_type

Diagnostic Bloc

diagnostique : *main routine of the bloc*
diag_all
diag_energy : *diags of energy*
energy_proc,controls
diag_fields : *diags os fields*
wrt_fields, create_file_name
diag_particles : *diags of particles*
wrt_particles, create_file_name
diag_tm_results: *record timing*
wrt_results, create_file_name
diag_wrt_common_cdf :*routines for writing diags*
create_wrt_dimensions_cdf,set_global_attribute_cdf, common_def_var_cdf, common_put_var_cdf, piinfo_def_var_cdf, mpiinfo_put_var_cdf
diag_moment_species : *diags of diff. species*
wrt_particles, create_file_name
diag_iono : *density of atm species (incl. neutrals)*
wrt_iono**, create_file_name_iono**

Field Bloc

field : *Main routine of the bloc, calls other*
calc_field
field_e : *computes electric field*
Ecalc,MEfield
field_b : *computes magnetic field*
Bcalc,testBfield
field_pe : *compute pressure field*
Pecalc
field_cond_limit : *deals with boundaries*
bound_init_mpi_planes, cond_limit_func, bound_free_mpi_planes, mtpd3, b_boundary, apdh3d_arr3d, mtpd_four
field_lissage : *smoothes fields*
smth_init_mpi_plane,smth_free_mpi_plane smth_func

Miscellaneous Bloc

m_logo : *print logo and header*
logo,print_date,take_date, compil_info
m_cmdline : *deals with runtime options*
cmd_line, print_help
m_timing : *timing of the routines (diag)*
entry_type,time_init, time_clean, time_get, time_init_names, time_add,time_sprint, time_separator,time_partition
m_writeout : *manages the output*
wrtout, wrt_double, wrt_debug wrtout_myproc
m_restart : *deals with restart*
wrt_restart, re_start, read_restart
m_rand_gen : *generates random numbers*
rand_vars_put, rand_vars_get,rand_gen1, unif_dist, unif_dist2, bi_max_dib

time_schedule

first, cam3,last

Hyb_3D

Initialisation

allocation, deallocation, h3init, init3, print_procs_distrib,print_init_infos

Particle Bloc

particle: *Main routine of the bloc, calls other*
move, xcalc3,mvsp3r, vcalc3, sortie
part_com : *passes part. from one proc to others*
pack_com, pack_part, communication, pre_communication, rangement
part_init : *set sw particles at initialization*
pldf1,pldf1s
part_fluxes : *computes sw particle fluxes*
compute_fluxes
part_moment: *Computes moments*
momtin,momt3d, momad, Amtsp3, Bmtsp3,Dmtsp3, Emtsp3, Fmtsp3,momad3r, Cmtsp3
part_creation : *adds sw part. at each time step*
new_particles

Atmosphere bloc

atm_charge exchange: *charge exchange*
charge_exchange_generic
atm_photproduction : *computes photo_prod*
photoproduction_generic,flux_solaire_generic,shadow prod_ionisation ,finalize_absorption, absorption_EUV,
atm_sections_efficaces: *contains cross-sections*
several routines
atm_magnetic_fields : *computes mag. fields*
add_dipole_generic, add_multipole_generic, convert, calc_legendre
atm_ionosphere: *creates,maintains ionosphere*
split_particle_iono,create_ionosphere_generic, iono_densities_generic,Ion_production_generic, set_particle_ionosphere,add_particle_ionosphere

Environment Bloc

environment : *Main routine of the bloc,*
Set pointers calling func. in other modules.
select_environment,nullify_environment, add_B_dipole add_exosphere, add_ionosphere,feed_ionosphere calc_photoproduction, calc_charge_exchange init_species
env_* : *contains routines specific to an environement*
alloc_*, dealloc_*,init_species_*, exosphere_*, Photoproduction_*, charge_exchange_*, magnetic_field_* create_ionosphere_*, feed_ionosphere_*

As of dec. 31Th, 2011