

g5\_modules\_perl\_wrapper: Setting BASEDIR and modules for discover26  
 Files /etc/SuSE-release and /gpfs/dswdev/pchakrab/builds/g591p7/Linux/etc/SuSE-release are equivalent.  
 anapsas=; anassi=; anagsi=1; fullldas=1;

```
-----
fvSETUP - The fvDAS Experiment Setup Tool
         Finite-Volume DAS Version 5_9_1_p7
-----
```

## BINARIES

Using binaries located at /gpfs/dswdev/pchakrab/builds/g591p7/Linux  
 having CVS tag GEOSadas-5\_9\_1\_p7 in DAS mode

## G5GCM SETTINGS

The following parameters are GEOS-5 GCM specific settings.

| PARAMETER       | DFLT | DESCRIPTION                                                                                                                                                          |
|-----------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AGCM Resolution | b72  | Atmosphere Horizontal and Vertical Resolution                                                                                                                        |
| OGCM Resolution | c34  | Ocean Horizontal and Vertical Resolution<br>where Ocean Horizontal Resolution is either<br>c : 1-deg (360x180); e.g. Reynolds<br>f : 1/8-deg (2880x1440); e.g. OSTIA |

AGCM Resolution? [b72] C180

OGCM Resolution? [c34] f34

## EXPID

This is a short string which will serve as an identifier  
 for labeling all output files produced during this  
 experiment.

DEFAULT NAME: u000\_C180

DEFAULT DESC: u000\_C180,GEOSadas-5\_9\_1\_p7,1st\_try

EXPID? [u000\_C180] g591p7ops

EXPDSC? [g591p7ops,GEOSadas-5\_9\_1\_p7,1st\_try]

## FVHOME

This is the HOME directory for your fvDAS experiment.  
 Resource files, restarts and system output will be stored  
 under this directory. Usually it will contain subdirectories:

|          |                                |
|----------|--------------------------------|
| ana/     | first guess/analysis output    |
| daotvs/  | daotvs field output            |
| diag/    | diagnostic field output        |
| etc/     | listings and other odds & ends |
| fcst/    | forecast run directory         |
| fvInput/ | process required inputs        |
| obs/     | post-analysis ODS files        |
| prog/    | prognostic field output        |
| recycle/ | latest restart files           |
| rs/      | restart files                  |
| run/     | resource files                 |

DEFAULT: /discover/nobackup/pchakrab/g591p7ops

```
FVHOME? [/discover/nobackup/pchakrab/g591p7ops] /discover/nobackup/pchakrab/runs/ADAS/g591p7ops
The directory /discover/nobackup/pchakrab/runs/ADAS/g591p7ops does not exist. Create it now? [y]
Processing nodes (1:Nehalem, 2:Westmere)? [2]
```

# -----

## Analysis Update Frequency

# -----

| PARAMETER | DEFAULT | DESCRIPTION                                               |
|-----------|---------|-----------------------------------------------------------|
| varcase   | 1       | 1=IAU (default); 2=IAU w/ IBC; 3=no IAU; 4=4d-var; 5=FGAT |
| varwindow | 360     | Variational assimilation time window (min)                |
| varoffset | 180     | Offset from beginning of analysis time (min)              |

```
Which case of variational analysis? [1]
Window of the variational analysis (min)? [360]
```

# -----

## FVINPUT

# -----

Please enter the directory where the boundary conditions  
(SST, topography, O3, H2O, etc) and other inputs are kept.

Default: /discover/nobackup/projects/gmao/share/gmao\_ops/fvInput\_4dvar

Also, if (near) real-time run, enter directory where real-time  
boundary conditions are (SST):

Default: /discover/nobackup/projects/gmao/share/gmao\_ops/fvInput\_4dvar/g5gcm/bcs/realtime/  
OSTIA\_REYNOLDS

```
FVINPUT? [/discover/nobackup/projects/gmao/share/gmao_ops/fvInput_4dvar]
REAL TIME BCS? [/discover/nobackup/projects/gmao/share/gmao_ops/fvInput_4dvar/g5gcm/bcs/realtime/
OSTIA_REYNOLDS]
```

# -----

## EXTERNAL DATA

# -----

Enter directory location for external data sets.

```
g5chem? [/discover/nobackup/projects/gmao/share/gmao_ops/fvInput_4dvar/g5chem]
PIESA? [/discover/nobackup/projects/gmao/share/gmao_ops/fvInput_4dvar/PIESA]
```

# -----

## INITIAL CONDITIONS

# -----

The following start-up data files are needed for a simulation:

```
catch_internal_rst:
fvcore_internal_rst:
irrad_internal_rst:
lake_internal_rst:
landice_internal_rst:
moist_import_rst:
moist_internal_rst:
pchem_internal_rst:
saltwater_import_rst:
saltwater_internal_rst:
solar_internal_rst:
surf_import_rst:
turb_import_rst:
turb_internal_rst:
rst.lcv:          File containing date of restarts
```

Typically these files are copied from previously spun-up

runs to "/discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle".

FVICS is the directory where these start-up files are located. Answer "later" if you prefer to copy these files later.

DEFAULT: /archive/u/jstassi/restarts/591/DE2880xPE1440

FVICS? [/archive/u/jstassi/restarts/591/DE2880xPE1440]

Starting year-month-day? [20120315]

Starting hour-min-sec? [210000]

Name of experiment where ICs come from: [C180\_e572p3\_fp]

#### ----- ADM-TLM Defaults -----

Sensitivity exps use analyses from: /archive/u/pchakrab/g591p7ops/ana/Y%y4/M%m2/  
g591p7ops.asm.eta.%y4%m2%d2\_%h2z.nc4

Note: when doing sensitivity against forecast, template resembles something like:

..../prog/Y%y4/M%m2/%s.prog.eta.%y4%m2%d2\_%h2z+%y4%m2%d2\_%h2z.nc4

Run model-adjoint-related applications (0=no,1=yes)? [0]

#### ----- Analysis Sensitivity Defaults -----

Verifying experiment id: g591p7ops

Run analysis-sensitivity applications (0=no,1=yes)? [0]

#### ----- TIME RANGE -----

The following parameters control the time length of the whole experiment, as well as the size of each job segment, and the number of CPU's to use:

| PARAMETER | DEFAULT  | DESCRIPTION                                |
|-----------|----------|--------------------------------------------|
| NYMD_end  | 20120317 | Ending year-month-day                      |
| FHOURS    | 123      | Length (in hours) of FORECAST run segments |
| NSEGS     | 1        | Number of DAS segments per PBS job         |
| NX        | 4        | Number of PEs in the zonal direction       |
| NY        | 24       | Number of PEs in the meridional direction  |
| NICKNAME  | g5das    | Job nickname (max 5 characters)            |
| SPLITEXE  | 1        | Split executable mode                      |
| ASYNFRQ   | 030000   | Freq of asynoptic background               |

NOTE: The actual experiment starting date/time is determined by the dynamics restart file.

Ending year-month-day? [20120317]

Length of FORECAST run segments (in hours)? [123]

Number of one-day DAS segments per PBS job? [1]

Number of PEs in the zonal direction (NX)? [4]

Number of PEs in the meridional direction (NY)? [24]

Job nickname? [g5das]

Run in split executable mode (1=yes;0=no)? [1]

Frequency of background fields (hour-min-sec)? [030000]

#### ----- GSI SETTINGS -----

The following parameters are GSI specific settings.

| PARAMETER | DEFAULT | DESCRIPTION                               |
|-----------|---------|-------------------------------------------|
| SPECRES   | 254     | Spectral truncation                       |
| SIGLEVS   | 72      | Analysis sigma levels                     |
| GSIGRDS   | NA      | GSI horizontal grid                       |
| GEOSGRD   | d       | GEOS-5 native grid resolution (a,b,c,d,e) |
| NX        | 12      | number of pes in the zonal direction      |
| NY        | 4       | number of pes in the meridional direction |

Triangular spectral truncation? [254]  
 Analysis vertical levels (sig))? [72]  
 GSI grid resolution? [NA]  
 GEOS grid resolution instead? [d]  
 Number of procs in the zonal direction (NX)? [12]  
 Number of procs in the meridional direction (NY)? [4]

#### OBSERVING SYSTEM CLASSES

Merra obsclass files only (y/n)? [n]  
 Filter out obsolete data sets (y/n)? [y]

| obclass               | Data Description                                     |
|-----------------------|------------------------------------------------------|
| ssi_prep_buf          | NCEP Conventional Data in bufr format (specific exp) |
| ncep_osbuv8_buf       |                                                      |
| ncep_spssmi_buf       | NCEP SSMI Data in bufr format                        |
| ncep_sptrmm_buf       | NCEP TRMM Data in bufr format                        |
| ncep_lbamua_buf       | NCEP Satellite AMSUA Data (bufr)                     |
| ncep_lbamub_buf       | NCEP Satellite AMSUB Data (bufr)                     |
| ncep_lbhrs2_buf       | NCEP Satellite HIRS2 Data (bufr)                     |
| ncep_lbhrs3_buf       | NCEP Satellite HIRS3 Data (bufr)                     |
| ncep_lbmsu_buf        | NCEP Satellite MSU Data (bufr)                       |
| ncep_ssmit_buf        | NCEP Satellite SSM/I Data (bufr)                     |
| ncep_prep_buf         | NCEP Conventional Data in bufr format (ops)          |
| gmao_airs_buf         | GMAO Version of NESDIS AMSU-A AIRS                   |
| merra_ers1            | ERS-1 scatterometer for MERRA                        |
| merra_lbamua_buf      | MERRA - Satellite AMSUA Data (bufr)                  |
| merra_lbamub_buf      | MERRA - Satellite AMSUB Data (bufr)                  |
| merra_lbhrs2_buf      | MERRA - Satellite HIRS2 Data (bufr)                  |
| merra_lbhrs3_buf      | MERRA - Satellite HIRS3 Data (bufr)                  |
| merra_lbmsu_buf       | MERRA - Satellite MSU Data (bufr)                    |
| merra_lbssu_buf       | MERRA - Satellite SSU Data (bufr)                    |
| merra_ssmit08_buf     | MERRA - F08 Wentz SSM/I brightness temperatures      |
| merra_ssmit10_buf     | MERRA - F10 Wentz SSM/I brightness temperatures      |
| merra_ssmit11_buf     | MERRA - F11 Wentz SSM/I brightness temperatures      |
| merra_ssmit13_buf     | MERRA - F13 Wentz SSM/I brightness temperatures      |
| merra_ssmit14_buf     | MERRA - F14 Wentz SSM/I brightness temperatures      |
| merra_ssmit15_buf     | MERRA - F15 Wentz SSM/I brightness temperatures      |
| merra_cdas_prep_buf   | NCEP Conventional Data in bufr format (ops)          |
| merra_goesnd_prep_buf |                                                      |
| merra_nmodis_prep_buf | MERRA - NESDIS MODIS winds                           |
| merra_prof_prep_buf   | MERRA - Profilers                                    |
| ncep_tcvitals         | NCEP Vital files for Tropical Storms                 |
| merra_ers2            | ERS-2 scatterometer for MERRA                        |
| merra_wspd_buf        | MERRA Wentz Speeds                                   |
| merra_gprofp08_buf    |                                                      |
| merra_gprofp10_buf    |                                                      |
| merra_gprofp11_buf    |                                                      |
| merra_gprofp13_buf    | MERRA GPROF F13 Precip                               |
| merra_gprofp14_buf    | MERRA GPROF F14 Precip                               |
| merra_gprofp15_buf    |                                                      |
| merra_tmil_buf        | MERRA TRMM Land Precip                               |
| merra_tmio_buf        | MERRA TRMM Ocean Precip                              |
| merra_qscat_jpl       | QuickScat from JPL                                   |

```

merra_airs_bufr      MERRA Version of NESDIS AMSU-A AIRS
ncep_mhs_bufr
ncep_1bhrs4_bufr     NCEP Satellite HIRS4 Data (bufr)
ncep_airs_bufr
ncep_amsre_bufr
ncep_geoimr_bufr
ncep_goesfv_bufr
ncep_gome_bufr
ncep_gpsipw_bufr
ncep_gpsro_bufr
ncep_mtiasi_bufr
ncep_atms_bufr
ncep_cris_bufr
ncep_satwnd_bufr
ncep_sevcsr_bufr
ncep_avcsam_bufr
ncep_avcspm_bufr
ncep_mls_bufr        NCEP MLS
disc_airs_bufr
disc_amsua_bufr
merra_sfcland_prep_bufr MERRA Surf Land Conv Obs
merra_upa_prep_bufr   MERRA Upper-Air Conv Obs
merra_acars_prep_bufr MERRA ACARS Conv Obs
merra_aircft_prep_bufr MERRA AirCraft Conv Obs
merra_satwnd_prep_bufr MERRA Sat Winds Conv Obs
merra_satwnd00_prep_bufr
merra_satwnd12_prep_bufr
merra_satwnd18_prep_bufr
merra_sfcskip_prep_bufr MERRA Ship Conv Obs
merra_sfcbog00_prep_bufr
merra_sfcbog12_prep_bufr
aura_mlsoz_bufr       MLS standard (not near-realtime) Ozone from AURA in BUFR ("o3lev")
aura_mlsoz_text       MLS standard (not near-realtime) Ozone from AURA in text ("o3levtext")
aura_omi_bufr         OMI Ozone from AURA in BUFR

```

NOTE: Earlier SSI/GSI exp used what are the following classes:  
 ssi\_obs,ssi\_prep,ncep\_osbuv,ncep\_spssmi,ncep\_sptrmm

#### DEFAULT:

```
ssi_prep_bufr,ncep_osbuv8_bufr,ncep_spssmi_bufr,ncep_sptrmm_bufr,ncep_1bamua_bufr,ncep_1bamub_bufr,ncep_1bhrs2
```

OBSERVING SYSTEM CLASSES? ncep\_prep\_bufr

#### ----- CHECKING OBSYSTEM -----

- 1 will not check the existence of requested observing files
- 2 will check the given time period and classes within the observing database resource file definition (DEFAULT)
- 3 will physically check the existence of specified data from mass storage

CHECKING OBSYSTEM? [2]

Soft checking observing system files...

#### ----- RADCOR SETTING -----

Choose from among the following RADCOR options:

| VALUE      | DESCRIPTION                                        |
|------------|----------------------------------------------------|
| NONE       | neither NCEP nor Haimberger-hradcor                |
| NCEP       | standard NCEP (correct type 52, CORUSVAI~F)        |
| NCEP_VAI   | NCEP radcor but do not correct type 52 CORUSVAI~T  |
| HAIMB_HRAD | Apply both Haimberger homogenization and 'hradcor' |

HAIMB            No NCEP RADCOR, apply Haimberger homogenization  
                 but do not apply 'hradcor' correction.

Which RADCOR option? [NONE]

#### ----- FORECASTING -----

The following parameters control the writing of initial conditions (a.k.a. restart files) for subsequent production of forecasting runs.

| PARAMETER | DEFAULT | DESCRIPTION                                                                                                                                                       |
|-----------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FCST_frq  | 0       | frequency in days to write restarts;<br>"0" means never                                                                                                           |
| FCST_beg  | 0       | date (YYYYMMDD) to begin writing restarts;<br>"0" means beginning of run                                                                                          |
| FCST_hrs  | 12      | array of integers up to 24 numbers;<br>Example: 0,6,12,18 will write restarts<br>at 0z, 6z, 12z, and 18z of any selected day.<br>"-1" means do not write restarts |

You can also choose to have the forecast restart files staged to:

/discover/nobackup/pchakrab/runs/ADAS/g591p7ops/fcst

in additions to their regular archival to mass storage.

Frequency (in days) for writing restarts? [0]

#### ----- FVGCM OUTPUT -----

The FVGCM model can produce output of PROGNOSTIC fields (instantaneous) and DIAGNOSTIC fields (average):

| PARAMETER | DEFAULT | DESCRIPTION                                    |
|-----------|---------|------------------------------------------------|
| NDOUT     | 030000  | Freq (HHMMSS) to output PROGNOSTIC fields      |
| NGOUT2D   | 010000  | Freq (HHMMSS) to output (2D) DIAGNOSTIC fields |
| NGOUT     | 030000  | Freq (HHMMSS) to output (3D) DIAGNOSTIC fields |
| IM        | 576     | Dimension of output in zonal direction         |
| JM        | 361     | Dimension of output in meridional direction    |

Frequency for PROGNOSTIC fields? [030000]

Frequency for surface (2D) DIAGNOSTIC fields? [010000]

Frequency for upper air (3D) DIAGNOSTIC fields? [030000]

Dimension of output in zonal direction? [576]

Dimension of output in meridional direction? [361]

#### ----- DIAGNOSTICS OUTPUT -----

You can also control the output of individual quantities by editing file: "diag.rc" in GEOS-4; and "HISTORY.rc" in GEOS-5. From here you can only control the output of PROG/2D/3D as a group, or in the case of GEOS-5, the conversion of output with lcv2prs.

Would you like 2D diagnostics? [y]

Would you like 3D diagnostics? [y]

Would you like to compress diagnostics output files? [n]

#### ----- GOCART TRACERS -----

```

Include GOCART tracers (CO,CO2,aerosols,etc) (y/n)? [y]
Do Aerosol Analysis (y/n)? [y]
Enable AOD assimilations (y/n)? [y]

```

# HISTORY

Which HISTORY template?

```

HISTORY.AGCM.rc.tmpl
HISTORY.rc.tmpl
HISTORY_G5NCEP.rc.tmpl
HISTORY_GloPac.rc.tmpl
HISTORY_MERRA_CFIO.rc.tmpl
HISTORY_YOTC_ANA.rc.tmpl

```

DEFAULT: HISTORY.rc.tmpl

```

Which template? [HISTORY.rc.tmpl]
Using HISTORY template: HISTORY.rc.tmpl

```

# Forecast HISTORY

Which Forecast HISTORY template?

```

GCMPROG.rc.tmpl
GCMPROG_GloPac.rc.tmpl
GCMTRAJ.rc.tmpl
GCMTRAJ_apert.rc.tmpl

```

DEFAULT: GCMPROG.rc.tmpl

```

Which template? [GCMPROG.rc.tmpl]
Using Forecast HISTORY template: GCMPROG.rc.tmpl

```

# Group ID

| Sp Code | Org   | Sponsor           | Research                          |
|---------|-------|-------------------|-----------------------------------|
| g0620   | 610.1 | Michele Rienecker | GMA0 - Systems and Data Synthesis |

select group: [g0620]

Setting up FVHOME directory for g591p7ops experiment ...

```

fvsetup: Writing to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/fcst/saverst.rc: @SAVERSTHRS
sed -i -e 's/@EXPID/g591p7ops/' -e 's/@EXPDSC/g591p7ops,GE0Sadas-5_9_1_p7,1st_try/' -e 's/
@CORES_PER_NODE/12/' -e 's/@FREQ2D/010000/' -e 's/@FREQ3D/030000/' -e 's/@ASYNFRQ/030000/' -e 's/
@TRILNLON/72/' -e 's/@TRILNLAT/46/' -e 's/@TRAJNLON/72/' -e 's/@TRAJNLAT/46/' -e 's/@HIST_IM/576/' -e 's/
@HIST_JM/361/' -e 's/@HIST_PERT_IM/288/' -e 's/@HIST_PERT_JM/181/' -e 's/@BKGRES/ /' -e 's/@COMPRESS/#/' -
e 's/@4DVAR/#/' -e 's/@4ASEN/#/' -e 's/@FV3TRAJ/ /' -e 's/@FVTRAJ/#/' /discover/nobackup/pchakrab/runs/
ADAS/g591p7ops/run/HISTORY.rc.tmpl
/gpfsm/dswdev/pchakrab/builds/g591p7/Linux/bin/edhist.pl /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/
run/HISTORY.rc.tmpl -i -rD -XP -Ipm gaas -Ipm _gas_N
WARNING: tavg1_2d_lfo_Nx-.nbits is commented.
WARNING: inst1_2d_lfo_Nx-.nbits is commented.
WARNING: inst3_3d_wxmd_Cp+-.resolution is commented.

```

WARNING: multiple values found:

```

WARNING * inst3_3d_wxmd_Cp+-.resolution = 576 361,
WARNING * inst3_3d_wxmd_Cp+-.resolution = 540 361,

```

WARNING second value replaces the first

WARNING: inst3\_3d\_asm\_Cp+-.resolution is commented.

WARNING: multiple values found:

WARNING \* inst3\_3d\_asm\_Cp+-.resolution = 576 361,

WARNING \* inst3\_3d\_asm\_Cp+-.resolution = 540 361,

WARNING second value replaces the first

WARNING: inst3\_3d\_asm\_Cp+-.ref\_date is commented.

WARNING: tavg3\_3d\_ext\_Np+- 'DUSCATCOEF' field is commented.

WARNING: tavg3\_3d\_ext\_Np+- 'SSSCATCOEF' field is commented.

WARNING: tavg3\_3d\_ext\_Np+- 'BCSCATCOEF' field is commented.

WARNING: tavg3\_3d\_ext\_Np+- 'OCSCATCOEF' field is commented.

WARNING: tavg3\_3d\_ext\_Np+- 'SUSCATCOEF' field is commented.

WARNING: inst1\_2d\_hwl\_Nx+-.ref\_date is commented.

WARNING: asm.eta.ref\_date is commented.

WARNING: asm.eta.ref\_time is commented.

fvsetup: Writing to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run/saverst.rc: @SAVERSTHRS

./fvsetup: Cannot find resource file /gpfs/dswdev/pchakrab/builds/g591p7/Linux/etc/CARMA\_GridComp.rc

./fvsetup: Cannot find resource file /gpfs/dswdev/pchakrab/builds/g591p7/Linux/etc/CARMA\_Registry.rc

/gpfs/dswdev/pchakrab/builds/g591p7/Linux/bin/vED /gpfs/dswdev/pchakrab/builds/g591p7/Linux/etc/

Chem\_Registry.rc -o /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run/gocart/Chem\_Registry.rc

The following resource files are missing:

- CARMA\_GridComp.rc

- CARMA\_Registry.rc

Continue without missing resource files? [y]

Edit COLLECTIONS list in run/HISTORY.rc.tmpl (y/n)? [n]

/discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run/HISTORY.rc.tmpl is ready.

Edit COLLECTIONS list in fcst/HISTORY.rc.tmpl (y/n)? [n]

/discover/nobackup/pchakrab/runs/ADAS/g591p7ops/fcst/HISTORY.rc.tmpl is ready.

/gpfs/dswdev/pchakrab/builds/g591p7/Linux/bin/copy\_restarts.pl -nymd 20120315 -nhms 210000 -d /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03 -dmget -expid C180\_e572p3\_fp -dest /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle -newid g591p7ops -copy -noprompt -bf 3 -X agcm\_import

copy\_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/  
C180\_e572p3\_fp.catch\_internal\_rst.20120315\_21z.bin

to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/

g591p7ops.catch\_internal\_rst.20120315\_21z.bin

copy\_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/  
C180\_e572p3\_fp.fvcore\_internal\_rst.20120315\_21z.bin

to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/

g591p7ops.fvcore\_internal\_rst.20120315\_21z.bin

copy\_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/  
C180\_e572p3\_fp.gocart\_internal\_rst.20120315\_21z.bin

to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/

g591p7ops.gocart\_internal\_rst.20120315\_21z.bin

copy\_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/  
C180\_e572p3\_fp.lake\_internal\_rst.20120315\_21z.bin

to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/

g591p7ops.lake\_internal\_rst.20120315\_21z.bin

copy\_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/  
C180\_e572p3\_fp.landice\_internal\_rst.20120315\_21z.bin

to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/

g591p7ops.landice\_internal\_rst.20120315\_21z.bin

copy\_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/  
C180\_e572p3\_fp.moist\_internal\_rst.20120315\_21z.bin

to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/

g591p7ops.moist\_internal\_rst.20120315\_21z.bin

copy\_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/  
C180\_e572p3\_fp.pchem\_internal\_rst.20120315\_21z.bin

```

to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/
g591p7ops.pchem_internal_rst.20120315_21z.bin
copy_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/
C180_e572p3_fp.rst.lcv.20120315_21z.bin
to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/
g591p7ops.rst.lcv.20120315_21z.bin
copy_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/
C180_e572p3_fp.saltwater_internal_rst.20120315_21z.bin
to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/
g591p7ops.saltwater_internal_rst.20120315_21z.bin
copy_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/
C180_e572p3_fp.ana_satbang_rst.20120315_21z.txt
to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/
g591p7ops.ana_satbang_rst.20120315_21z.txt
copy_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/
C180_e572p3_fp.ana_satbias_rst.20120315_21z.txt
to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/
g591p7ops.ana_satbias_rst.20120315_21z.txt
copy_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/
C180_e572p3_fp.bkg03_eta_rst.20120315_21z.nc4
to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/
g591p7ops.bkg03_eta_rst.20120315_21z.nc4
copy_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/
C180_e572p3_fp.bkg03_sfc_rst.20120315_21z.nc4
to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/
g591p7ops.bkg03_sfc_rst.20120315_21z.nc4
copy_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/
C180_e572p3_fp.bkg06_eta_rst.20120316_00z.nc4
to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/
g591p7ops.bkg06_eta_rst.20120316_00z.nc4
copy_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/
C180_e572p3_fp.bkg06_sfc_rst.20120316_00z.nc4
to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/
g591p7ops.bkg06_sfc_rst.20120316_00z.nc4
copy_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/
C180_e572p3_fp.bkg09_eta_rst.20120316_03z.nc4
to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/
g591p7ops.bkg09_eta_rst.20120316_03z.nc4
copy_restarts.pl: copy /archive/u/jstassi/restarts/591/DE2880xPE1440/rs/Y2012/M03/
C180_e572p3_fp.bkg09_sfc_rst.20120316_03z.nc4
to /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/recycle/
g591p7ops.bkg09_sfc_rst.20120316_03z.nc4

```

Cannot find irrاد\_internal\_rst restart.

BOOTSTRAP irrاد\_internal\_rst (y/n)? [y] BOOTSTRAP: irrاد\_internal\_rst

Cannot find moist\_import\_rst restart.

BOOTSTRAP moist\_import\_rst (y/n)? [y]

BOOTSTRAP: moist\_import\_rst

Cannot find saltwater\_import\_rst restart.

BOOTSTRAP saltwater\_import\_rst (y/n)? [y]

BOOTSTRAP: saltwater\_import\_rst

Cannot find solar\_internal\_rst restart.

BOOTSTRAP solar\_internal\_rst (y/n)? [y]

BOOTSTRAP: solar\_internal\_rst

Cannot find surf\_import\_rst restart.

BOOTSTRAP surf\_import\_rst (y/n)? [y]

BOOTSTRAP: surf\_import\_rst

Cannot find turb\_internal\_rst restart.

BOOTSTRAP turb\_internal\_rst (y/n)? [y]

BOOTSTRAP: turb\_internal\_rst

Cannot find turb\_import\_rst restart.

BOOTSTRAP turb\_import\_rst (y/n)? [y]

BOOTSTRAP: turb\_import\_rst

Cannot find gaas\_bkg\_sfc\_rst restart.

BOOTSTRAP gaas\_bkg\_sfc\_rst (y/n)? [y]

BOOTSTRAP: gaas\_bkg\_sfc\_rst

DA0=1; GFLAG=1; proot=/archive/u/pchakrab; mhost=discover26.nccs.nasa.gov

```

Writing /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run/FVDAS_Run_Config
sed -e 3i"#PBS -W group_list=g0620" -e 3i"# " < /gpfs/dswdev/pchakrab/builds/g591p7/Linux/etc/
ana_aod.j.tmpl > /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run/gaas/ana_aod.j.tmpl
/gpfs/dswdev/pchakrab/builds/g591p7/Linux/bin/monthly_means_setup.pl -expid g591p7ops -fvhome /discover/
nobackup/pchakrab/runs/ADAS/g591p7ops -fvroot /gpfs/dswdev/pchakrab/builds/g591p7/Linux -gid g0620
mkdir /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run/monthly_plots
mkdir /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run/monthly_plots/plot

```

```

replaceLabels < /gpfs/dswdev/pchakrab/builds/g591p7/Linux/bin/monthly_means_prefetch.j.tmpl
replaceLabels > /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run/monthly_means_prefetch.j
replaceLabels: _QUEUEFLAG_ => PBS -q datamove
replaceLabels: _PROCID_ => :proc=neha
replaceLabels: _WALLTIME_ => PBS -l walltime=12:00:00
replaceLabels: _GROUPLIST_ => PBS -W group_list=g0620

```

```

replaceLabels < /gpfs/dswdev/pchakrab/builds/g591p7/Linux/bin/monthly_means.j.tmpl
replaceLabels > /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run/monthly_means.j
replaceLabels: _QUEUEFLAG_ => PBS -q general
replaceLabels: _PROCID_ => :proc=neha
replaceLabels: _WALLTIME_ => PBS -l walltime=12:00:00
replaceLabels: _GROUPLIST_ => PBS -W group_list=g0620

```

```

replaceLabels < /gpfs/dswdev/pchakrab/builds/g591p7/Linux/bin/monthly_plots.j.tmpl
replaceLabels > /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run/monthly_plots/monthly_plots.j
replaceLabels: _QUEUEFLAG_ => PBS -q general
replaceLabels: _PROCID_ => :proc=neha
replaceLabels: _WALLTIME_ => PBS -l walltime=12:00:00
replaceLabels: _GROUPLIST_ => PBS -W group_list=g0620
/gpfs/dswdev/pchakrab/builds/g591p7/Linux/bin/write_mm_rc_arc.pl -H /discover/nobackup/pchakrab/runs/
ADAS/g591p7ops/run/HISTORY.rc.tmpl -inarc /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run/silo.arc -
outarc /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run/monthly_means.rc -outarc /discover/nobackup/
pchakrab/runs/ADAS/g591p7ops/run/monthly_means.arc
/gpfs/dswdev/pchakrab/builds/g591p7/Linux/bin/edhist.pl -plot /discover/nobackup/pchakrab/runs/ADAS/
g591p7ops/run -o /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run/monthly_plots -order /discover/
nobackup/pchakrab/runs/ADAS/g591p7ops/run/HISTORY.rc.tmpl
WARNING: tavg1_2d_lfo_Nx.nbits is commented.
WARNING: inst1_2d_lfo_Nx.nbits is commented.
WARNING: inst3_3d_asm_Cp+-.ref_date is commented.
WARNING: tavg3_3d_ext_Np+- 'DUSCATCOEF' field is commented.
WARNING: tavg3_3d_ext_Np+- 'SSSCATCOEF' field is commented.
WARNING: tavg3_3d_ext_Np+- 'BCSCATCOEF' field is commented.
WARNING: tavg3_3d_ext_Np+- 'OCSCATCOEF' field is commented.
WARNING: tavg3_3d_ext_Np+- 'SUSCATCOEF' field is commented.
WARNING: inst1_2d_hwl_Nx+-.ref_date is commented.
WARNING: asm.eta.ref_date is commented.
WARNING: asm.eta.ref_time is commented.

```

```

replaceLabels < /gpfs/dswdev/pchakrab/builds/g591p7/Linux/etc/das_plot.tmpl
replaceLabels > /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run/monthly_plots/plot/gcm_plot.tmpl
replaceLabels: _EXPID_ => g591p7ops
replaceLabels: _GROUPLIST_ => PBS -W group_list=g0620

```

#### CERES Configuration

```

Edit files in run directory for CERES configuration (y/n)? [n]
removing /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run/GEOS_ChemGridComp.rc~
removing /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run/HISTORY.rc.tmpl~
removing /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/fcst/GEOS_ChemGridComp.rc~

```

#### REVIEW

The job script, namelists and resources for your experiments have been created. At this point you can edit the following files and customize the

default configuration:

Archiving Rules: silo.arc mstorage.arc

Job Script: g5das.j

Resources: Chem\_Registry\_apert.rc fv4dvar.ccmrun.namelist.tmpl fvgcm.ccmflags.namelist  
fvpsas.rc gsi\_atms\_beamwidth.rc gmao\_airs\_buftr.tbl gmao\_global\_aeroinfo.rc gmao\_global\_anavinfo.rc  
gmao\_global\_blacklist.rc gmao\_global\_coinfo.rc gmao\_global\_convinfo.rc gmao\_global\_hybinfo.l72.rc  
gmao\_global\_insituinfo.rc gmao\_global\_ozinfo.rc gmao\_global\_pcpinfo.rc gmao\_global\_satinfo.rc  
gmao\_global\_scaninfo.rc gsi\_sens.rc.tmpl noreplay.acq odsmatch.rc prepobs\_acarsqc.merra.parm  
prepobs\_cqc\_statbge prepobs\_cqcbufr.merra.parm prepobs\_errtable.global prepobs\_landc prepobs\_oiqc.oberrs  
prepobs\_prep.buftrtable prepobs\_prepacqc.merra.parm prepobs\_prevents.merra.parm prepobs\_profcqc.merra.parm  
prepobs\_waypoints sac.nl.tmpl vtrack.ctl.tmpl vtrack.rc vtx.ctl.tmpl inst2d\_met\_x.rc inst3d\_met\_p.rc  
tavg2d\_met\_x.rc tavg3d\_cld\_p.rc tavg3d\_cld\_v.rc tavg3d\_dyn\_p.rc tavg3d\_dyn\_v.rc tavg3d\_met\_e.rc  
tavg3d\_mst\_p.rc tavg3d\_mst\_v.rc tavg3d\_prs\_v.rc tavg3d\_tmp\_p.rc tavg3d\_tmp\_v.rc tavg3d\_wnd\_p.rc  
tavg3d\_wnd\_v.rc Chem\_Registry\_apert.rc GSI\_GridComp.rc.tmpl gsi.rc.tmpl

Namelist: AGCM.rc.tmpl CAP.rc.tmpl ExtData.rc.tmpl GEOS\_ChemGridComp.rc GCMPROG.rc.tmpl  
HISTORY.rc.tmpl OBS\_GridComp.rc.tmpl saverst.rc

Enter:

"e" to edit these files with emacs  
"x" to edit these files with xemacs  
"v" to edit these files with vi  
"Q" to quit, WITHOUT archiving configuration files (DEFAULT)  
"q" to quit, archiving configuration files

Which? [Q]

-----  
SAVE INPUTS  
-----

Experiment ID: g591p7ops

Save the inputs for this experiment (y/n)? [y]

Experiment description: [g591p7ops, agrid/ogrid=C180/f34]

Output file written: /discover/nobackup/pchakrab/runs/ADAS/SavedInputs/g591p7ops.input

Hit <cr> to continue ...

-----  
fvSETUP - The fvDAS Experiment Setup Tool  
-----

-----  
ALL DONE!  
-----

Well done! This completes your fvDAS experiment setup.  
For starting your data assimilation experiment please enter:

```
cd /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/run
qsub g5das.j
```

This script will carry out the assimilation experiment by means  
of several job segments, each 1 simulation day(s) long.

-----  
FORECASTING  
-----

Your forecast initial conditions will NOT be automatically staged.  
Before running forecasts, you will need to retrieve your initial  
conditions (a.k.a. restart files) from mass storage.

After you complete your data assimilation experiment you can  
produce forecasts by entering:

```
qsub /discover/nobackup/pchakrab/runs/ADAS/g591p7ops/fcst/g5fcst.j
```

This script will carry out the forecast runs by means of several job segments (one per initial conditions), each 123 simulation hour(s) long.

The output location is discover26.nccs.nasa.gov under /archive/u/pchakrab/g591p7ops

Checking the mask on discover26.nccs.nasa.gov...

fvDAS v5\_9\_1\_p7 setup on Thu Mar 7 13:25:17 EST 2013 by pchakrab.