

WARNING: NX and NY are set such that NX x NY/6 has side ratio >= 2.5. Consider adjusting resources in runConfig.sh to be more square. This will avoid

negative effects due to excessive communication between cores.

Compute resources:

NX	: 1	GCHP.rc
NY	: 30	GCHP.rc
CoresPerNode	: 30	HISTORY.rc

Cubed-sphere resolution:

GCHP.IM_WORLD	: 24	GCHP.rc
GCHP.IM	: 24	GCHP.rc
GCHP.JM	: 144	GCHP.rc
IM	: 24	GCHP.rc
JM	: 144	GCHP.rc
npx	: 24	fvcore_layout.rc
npv	: 24	fvcore_layout.rc
GCHP.GRIDNAME	: PE24x144-CF	GCHP.rc

Initial restart file:

GIGChem_INTERNAL_RESTART_FILE	: +initial_GEOSChem_rst.c24_standard.nc
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GCHP.rc

Simulation start, end, duration:

BEG_DATE	: 20160701 000000	CAP.rc
END_DATE	: 20160701 010000	CAP.rc
JOB_SGMT	: 00000000 010000	CAP.rc

Checkpoint (restart) frequency:

RECORD_FREQUENCY	: 100000000	GCHP.rc
RECORD_REF_DATE	: 20160701	GCHP.rc
RECORD_REF_TIME	: 000000	GCHP.rc

Output:

SpeciesConc.frequency	: 010000	HISTORY.rc
SpeciesConc.duration	: 010000	HISTORY.rc
SpeciesConc.mode	: 'time-averaged'	HISTORY.rc
StateMet_avg.frequency	: 010000	HISTORY.rc
StateMet_avg.duration	: 010000	HISTORY.rc
StateMet_avg.mode	: 'time-averaged'	HISTORY.rc
StateMet_inst.frequency	: 010000	HISTORY.rc
StateMet_inst.duration	: 010000	HISTORY.rc
StateMet_inst.mode	: 'instantaneous'	HISTORY.rc
AerosolMass.frequency	: 010000	HISTORY.rc
AerosolMass.duration	: 010000	HISTORY.rc
AerosolMass.mode	: 'time-averaged'	HISTORY.rc
Aerosols.frequency	: 010000	HISTORY.rc
Aerosols.duration	: 010000	HISTORY.rc
Aerosols.mode	: 'time-averaged'	HISTORY.rc
Budget.frequency	: 010000	HISTORY.rc

Budget.duration	: 010000	HISTORY.rc
Budget.mode	: 'time-averaged'	HISTORY.rc
CloudConvFlux.frequency	: 010000	HISTORY.rc
CloudConvFlux.duration	: 010000	HISTORY.rc
CloudConvFlux.mode	: 'time-averaged'	HISTORY.rc
ConcAboveSfc.frequency	: 010000	HISTORY.rc
ConcAboveSfc.duration	: 010000	HISTORY.rc
ConcAboveSfc.mode	: 'instantaneous'	HISTORY.rc
ConcAfterChem.frequency	: 010000	HISTORY.rc
ConcAfterChem.duration	: 010000	HISTORY.rc
ConcAfterChem.mode	: 'time-averaged'	HISTORY.rc
DryDep.frequency	: 010000	HISTORY.rc
DryDep.duration	: 010000	HISTORY.rc
DryDep.mode	: 'time-averaged'	HISTORY.rc
Emissions.frequency	: 010000	HISTORY.rc
Emissions.duration	: 010000	HISTORY.rc
Emissions.mode	: 'time-averaged'	HISTORY.rc
JValues.frequency	: 010000	HISTORY.rc
JValues.duration	: 010000	HISTORY.rc
JValues.mode	: 'time-averaged'	HISTORY.rc
JValuesLocalNoon.frequency	: 010000	HISTORY.rc
JValuesLocalNoon.duration	: 010000	HISTORY.rc
JValuesLocalNoon.mode	: 'time-averaged'	HISTORY.rc
LevelEdgeDiags.frequency	: 010000	HISTORY.rc
LevelEdgeDiags.duration	: 010000	HISTORY.rc
LevelEdgeDiags.mode	: 'time-averaged'	HISTORY.rc
KppDiags.frequency	: 010000	HISTORY.rc
KppDiags.duration	: 010000	HISTORY.rc
KppDiags.mode	: 'time-averaged'	HISTORY.rc
ProdLoss.frequency	: 010000	HISTORY.rc
ProdLoss.duration	: 010000	HISTORY.rc
ProdLoss.mode	: 'time-averaged'	HISTORY.rc
RadioNuclide.frequency	: 010000	HISTORY.rc
RadioNuclide.duration	: 010000	HISTORY.rc
RadioNuclide.mode	: 'time-averaged'	HISTORY.rc
StateChm.frequency	: 010000	HISTORY.rc
StateChm.duration	: 010000	HISTORY.rc
StateChm.mode	: 'time-averaged'	HISTORY.rc
Transport.frequency	: 010000	HISTORY.rc
Transport.duration	: 010000	HISTORY.rc
Transport.mode	: 'instantaneous'	HISTORY.rc
WetLossConv.frequency	: 010000	HISTORY.rc
WetLossConv.duration	: 010000	HISTORY.rc
WetLossConv.mode	: 'time-averaged'	HISTORY.rc
WetLossLS.frequency	: 010000	HISTORY.rc
WetLossLS.duration	: 010000	HISTORY.rc
WetLossLS.mode	: 'time-averaged'	HISTORY.rc
Timesteps:		
HEARTBEAT_DT	: 600	GCHP.rc

SOLAR_DT	: 600	GCHP.rc
IRRAD_DT	: 600	GCHP.rc
RUN_DT	: 600	GCHP.rc
GIGChem_DT	: 1200	GCHP.rc
DYNAMICS_DT	: 600	GCHP.rc
HEARTBEAT_DT	: 600	CAP.rc
dt	: 600	fvcore_layout.rc
GIGChem_REFERENCE_TIME	: 001000	GCHP.rc
PS2 read frequency	: 0;001000	ExtData.rc
SPHU2 read frequency	: 0;001000	ExtData.rc
TMPU2 read frequency	: 0;001000	ExtData.rc

Debug levels:

DEBUG_LEVEL	: 0	ExtData.rc
MEMORY_DEBUG_LEVEL	: 0	GCHP.rc

Components on/off:

Turn on Chemistry?	: T	input.geos
Turn on emissions?	: T	input.geos
Turn on Transport	: T	input.geos
Turn on Cloud Conv?	: T	input.geos
Turn on PBL Mixing?	: T	input.geos
=> Use non-local PBL?	: T	input.geos
Turn on Dry Deposition?	: T	input.geos
Turn on Wet Deposition?	: T	input.geos
AdvCore_Advection	: 1	GCHP.rc

Timesteps:

Tran/conv timestep [sec]	: 600	input.geos
Chem/emis timestep [sec]	: 1200	input.geos

Dust mass tuning factor

--> Mass tuning factor	: 6.0e-4	HEMCO_Config.rc
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WARNING: You are using environment settings in /glade/u/home/achristian/geos-chem/env/gchpctm.gnu8\_openmpi4\_plus.env

Environment variables set:

LD\_LIBRARY\_PATH: /glade/u/apps/ch/opt/openmpi/4.0.3/gnu/8.3.0/lib:/glade/u/apps/ch/opt/gnu/8.3.0/lib64:/ncar/opt/slurm/latest/lib:/glade/u/apps/ch/opt/netcdf/4.7.3/gnu/8.3.0/lib:/glade/u/apps/ch/opt/netcdf/4.7.3/gnu/8.3.0/lib

ESMF\_COMM: openmpi

ESMP\_BOPT: 0

MPI\_ROOT: /glade/u/apps/ch/opt/openmpi/4.0.3/gnu/8.3.0

CC: gcc

OMPI\_CC: gcc

CXX: g++

OMPI\_CXX: g++

FC: gfortran

F77: gfortran

F90: gfortran

OMPI\_FC: gfortran

COMPILER: gfortran

ESMF\_COMPILER: gfortran

GC\_BIN: /glade/u/apps/ch/opt/netcdf/4.7.3/gnu/8.3.0/bin

GC\_INCLUDE: /glade/u/apps/ch/opt/netcdf/4.7.3/gnu/8.3.0/include

GC\_LIB: /glade/u/apps/ch/opt/netcdf/4.7.3/gnu/8.3.0/lib

GC\_F\_BIN: /glade/u/apps/ch/opt/netcdf/4.7.3/gnu/8.3.0/bin

GC\_F\_INCLUDE: /glade/u/apps/ch/opt/netcdf/4.7.3/gnu/8.3.0/include

GC\_F\_LIB: /glade/u/apps/ch/opt/netcdf/4.7.3/gnu/8.3.0/lib

Done sourcing

====> Run started at Tue Jul 7 09:53:46 MDT 2020

In MAPL\_Shmem:

NumCores per Node =	6
NumNodes in use =	1
Total PEs =	6

In MAPL\_InitializeShmem (NodeRootsComm):

NumNodes in use =	1
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Integer\*4 Resource Parameter: HEARTBEAT\_DT:600

NOT using buffer I/O for file: cap\_restart

Character Resource Parameter: ROOT\_CF:GCHP.rc

Character Resource Parameter: ROOT\_NAME:GCHP

Character Resource Parameter: HIST\_CF:HISTORY.rc

Character Resource Parameter: MAPL\_ENABLE\_TIMERS:YES

Character Resource Parameter: MAPL\_ENABLE\_MEMUTILS:YES

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Contents of CollList

StateMet\_inst

StateMet\_avg

SpeciesConc

Emissions

Adding history variables to GCHP Export State:

adding export: SpeciesConc\_ACET  
adding export: SpeciesConc\_ACTA  
adding export: SpeciesConc\_AERI  
adding export: SpeciesConc\_ALD2  
adding export: SpeciesConc\_ALK4  
adding export: SpeciesConc\_AT00H  
adding export: SpeciesConc\_BCPI  
adding export: SpeciesConc\_BCPO  
adding export: SpeciesConc\_BENZ  
adding export: SpeciesConc\_Br  
adding export: SpeciesConc\_Br2  
adding export: SpeciesConc\_BrCl  
adding export: SpeciesConc\_BrN02  
adding export: SpeciesConc\_BrN03  
adding export: SpeciesConc\_Br0  
adding export: SpeciesConc\_BrSALA  
adding export: SpeciesConc\_BrSALC  
adding export: SpeciesConc\_C2H6  
adding export: SpeciesConc\_C3H8  
adding export: SpeciesConc\_CCl4  
adding export: SpeciesConc\_CFC11  
adding export: SpeciesConc\_CFC113  
adding export: SpeciesConc\_CFC114  
adding export: SpeciesConc\_CFC115  
adding export: SpeciesConc\_CFC12  
adding export: SpeciesConc\_CH2Br2  
adding export: SpeciesConc\_CH2Cl2  
adding export: SpeciesConc\_CH2I2  
adding export: SpeciesConc\_CH2IBr  
adding export: SpeciesConc\_CH2ICl  
adding export: SpeciesConc\_CH2O  
adding export: SpeciesConc\_CH3Br  
adding export: SpeciesConc\_CH3CCl3  
adding export: SpeciesConc\_CH3Cl  
adding export: SpeciesConc\_CH3I  
adding export: SpeciesConc\_CH4  
adding export: SpeciesConc\_CHBr3  
adding export: SpeciesConc\_CHCl3  
adding export: SpeciesConc\_Cl  
adding export: SpeciesConc\_Cl2  
adding export: SpeciesConc\_Cl2O2  
adding export: SpeciesConc\_ClN02  
adding export: SpeciesConc\_ClN03  
adding export: SpeciesConc\_Cl0  
adding export: SpeciesConc\_Cl00  
adding export: SpeciesConc\_CO  
adding export: SpeciesConc\_DMS  
adding export: SpeciesConc\_DST1  
adding export: SpeciesConc\_DST2  
adding export: SpeciesConc\_DST3

adding export: SpeciesConc\_DST4  
adding export: SpeciesConc\_E0H  
adding export: SpeciesConc\_ETHLN  
adding export: SpeciesConc\_ETN03  
adding export: SpeciesConc\_ETP  
adding export: SpeciesConc\_GLYC  
adding export: SpeciesConc\_GLYX  
adding export: SpeciesConc\_H1211  
adding export: SpeciesConc\_H1301  
adding export: SpeciesConc\_H2402  
adding export: SpeciesConc\_H20  
adding export: SpeciesConc\_H202  
adding export: SpeciesConc\_HAC  
adding export: SpeciesConc\_HBr  
adding export: SpeciesConc\_HC5A  
adding export: SpeciesConc\_HCFC123  
adding export: SpeciesConc\_HCFC141b  
adding export: SpeciesConc\_HCFC142b  
adding export: SpeciesConc\_HCFC22  
adding export: SpeciesConc\_HCl  
adding export: SpeciesConc\_HC00H  
adding export: SpeciesConc\_HI  
adding export: SpeciesConc\_HMHP  
adding export: SpeciesConc\_HMML  
adding export: SpeciesConc\_HN02  
adding export: SpeciesConc\_HN03  
adding export: SpeciesConc\_HN04  
adding export: SpeciesConc\_H0Br  
adding export: SpeciesConc\_HOCl  
adding export: SpeciesConc\_HOI  
adding export: SpeciesConc\_HONIT  
adding export: SpeciesConc\_HPALD1  
adding export: SpeciesConc\_HPALD2  
adding export: SpeciesConc\_HPALD3  
adding export: SpeciesConc\_HPALD4  
adding export: SpeciesConc\_HPETHNL  
adding export: SpeciesConc\_I  
adding export: SpeciesConc\_I2  
adding export: SpeciesConc\_I202  
adding export: SpeciesConc\_I203  
adding export: SpeciesConc\_I204  
adding export: SpeciesConc\_IBr  
adding export: SpeciesConc\_ICHE  
adding export: SpeciesConc\_ICl  
adding export: SpeciesConc\_ICN  
adding export: SpeciesConc\_ICPDH  
adding export: SpeciesConc\_IDC  
adding export: SpeciesConc\_IDCHP  
adding export: SpeciesConc\_IDHDP  
adding export: SpeciesConc\_IDHPE

adding export: SpeciesConc\_IDN  
adding export: SpeciesConc\_IEPOXA  
adding export: SpeciesConc\_IEPOXB  
adding export: SpeciesConc\_IEPOXD  
adding export: SpeciesConc\_IHN1  
adding export: SpeciesConc\_IHN2  
adding export: SpeciesConc\_IHN3  
adding export: SpeciesConc\_IHN4  
adding export: SpeciesConc\_INDIOL  
adding export: SpeciesConc\_INO  
adding export: SpeciesConc\_INPB  
adding export: SpeciesConc\_INPD  
adding export: SpeciesConc\_IO  
adding export: SpeciesConc\_IONITA  
adding export: SpeciesConc\_IONO  
adding export: SpeciesConc\_IONO2  
adding export: SpeciesConc\_IPRNO3  
adding export: SpeciesConc\_ISALA  
adding export: SpeciesConc\_ISALC  
adding export: SpeciesConc\_ISOP  
adding export: SpeciesConc\_ITCN  
adding export: SpeciesConc\_ITHN  
adding export: SpeciesConc\_LIMO  
adding export: SpeciesConc\_LVOC  
adding export: SpeciesConc\_LVOCOA  
adding export: SpeciesConc\_MACR  
adding export: SpeciesConc\_MACR100H  
adding export: SpeciesConc\_MAP  
adding export: SpeciesConc\_MCRDH  
adding export: SpeciesConc\_MCRENOL  
adding export: SpeciesConc\_MCRHN  
adding export: SpeciesConc\_MCRHNB  
adding export: SpeciesConc\_MCRHP  
adding export: SpeciesConc\_MEK  
adding export: SpeciesConc\_MEN03  
adding export: SpeciesConc\_MGLY  
adding export: SpeciesConc\_MOH  
adding export: SpeciesConc\_MONITA  
adding export: SpeciesConc\_MONITS  
adding export: SpeciesConc\_MONITU  
adding export: SpeciesConc\_MP  
adding export: SpeciesConc\_MPAN  
adding export: SpeciesConc\_MPN  
adding export: SpeciesConc\_MSA  
adding export: SpeciesConc\_MTPA  
adding export: SpeciesConc\_MTPO  
adding export: SpeciesConc\_MVK  
adding export: SpeciesConc\_MVKDH  
adding export: SpeciesConc\_MVKHC  
adding export: SpeciesConc\_MVKHCB

adding export: SpeciesConc\_MVKHP  
adding export: SpeciesConc\_MVKN  
adding export: SpeciesConc\_MVKPC  
adding export: SpeciesConc\_N20  
adding export: SpeciesConc\_N205  
adding export: SpeciesConc\_NH3  
adding export: SpeciesConc\_NH4  
adding export: SpeciesConc\_NIT  
adding export: SpeciesConc\_NITs  
adding export: SpeciesConc\_N0  
adding export: SpeciesConc\_N02  
adding export: SpeciesConc\_N03  
adding export: SpeciesConc\_NPRN03  
adding export: SpeciesConc\_O3  
adding export: SpeciesConc\_OC10  
adding export: SpeciesConc\_OCPI  
adding export: SpeciesConc\_OCPO  
adding export: SpeciesConc\_OCS  
adding export: SpeciesConc\_OI0  
adding export: SpeciesConc\_PAN  
adding export: SpeciesConc\_pFe  
adding export: SpeciesConc\_PIP  
adding export: SpeciesConc\_PP  
adding export: SpeciesConc\_PPN  
adding export: SpeciesConc\_PROPNN  
adding export: SpeciesConc\_PRPE  
adding export: SpeciesConc\_PRPN  
adding export: SpeciesConc\_PYAC  
adding export: SpeciesConc\_R4N2  
adding export: SpeciesConc\_R4P  
adding export: SpeciesConc\_RA3P  
adding export: SpeciesConc\_RB3P  
adding export: SpeciesConc\_RCH0  
adding export: SpeciesConc\_RIPA  
adding export: SpeciesConc\_RIPB  
adding export: SpeciesConc\_RIPC  
adding export: SpeciesConc\_RIPD  
adding export: SpeciesConc\_RP  
adding export: SpeciesConc\_SALA  
adding export: SpeciesConc\_SALC  
adding export: SpeciesConc\_S02  
adding export: SpeciesConc\_S04  
adding export: SpeciesConc\_S04s  
adding export: SpeciesConc\_S0AGX  
adding export: SpeciesConc\_S0AIE  
adding export: SpeciesConc\_S0AP  
adding export: SpeciesConc\_S0AS  
adding export: SpeciesConc\_TOLU  
adding export: SpeciesConc\_XYLE  
adding export: SpeciesConc\_A302



adding export: SpeciesConc\_AT02  
adding export: SpeciesConc\_B302  
adding export: SpeciesConc\_BR02  
adding export: SpeciesConc\_C4HVP1  
adding export: SpeciesConc\_C4HVP2  
adding export: SpeciesConc\_CH200  
adding export: SpeciesConc\_CH3CH00  
adding export: SpeciesConc\_CO2  
adding export: SpeciesConc\_ET02  
adding export: SpeciesConc\_H  
adding export: SpeciesConc\_H02  
adding export: SpeciesConc\_HPALD100  
adding export: SpeciesConc\_HPALD200  
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adding export: SpeciesConc\_ICN00  
adding export: SpeciesConc\_IDHNB00  
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adding export: SpeciesConc\_IDHND002  
adding export: SpeciesConc\_IDN00  
adding export: SpeciesConc\_IEPOXA00  
adding export: SpeciesConc\_IEPOXB00  
adding export: SpeciesConc\_IH001  
adding export: SpeciesConc\_IH004  
adding export: SpeciesConc\_IHPNB00  
adding export: SpeciesConc\_IHPND00  
adding export: SpeciesConc\_IHP001  
adding export: SpeciesConc\_IHP002  
adding export: SpeciesConc\_IHP003  
adding export: SpeciesConc\_INA  
adding export: SpeciesConc\_IN02B  
adding export: SpeciesConc\_IN02D  
adding export: SpeciesConc\_ISOPN001  
adding export: SpeciesConc\_ISOPN002  
adding export: SpeciesConc\_K02  
adding export: SpeciesConc\_LBR02H  
adding export: SpeciesConc\_LBR02N  
adding export: SpeciesConc\_LIM02  
adding export: SpeciesConc\_LISOP0H  
adding export: SpeciesConc\_LISOPN03  
adding export: SpeciesConc\_LTR02H  
adding export: SpeciesConc\_LTR02N  
adding export: SpeciesConc\_LXR02H  
adding export: SpeciesConc\_LXR02N  
adding export: SpeciesConc\_MACRN02  
adding export: SpeciesConc\_MC03  
adding export: SpeciesConc\_MCROH00  
adding export: SpeciesConc\_M02  
adding export: SpeciesConc\_MVKOH00  
adding export: SpeciesConc\_N  
adding export: SpeciesConc\_0

adding export: SpeciesConc\_01D  
adding export: SpeciesConc\_0H  
adding export: SpeciesConc\_0LND  
adding export: SpeciesConc\_0LNN  
adding export: SpeciesConc\_0THRO2  
adding export: SpeciesConc\_PI02  
adding export: SpeciesConc\_P02  
adding export: SpeciesConc\_PRN1  
adding export: SpeciesConc\_R4N1  
adding export: SpeciesConc\_R402  
adding export: SpeciesConc\_RC03  
adding export: SpeciesConc\_R0H  
adding export: SpeciesConc\_S04H1  
adding export: SpeciesConc\_S04H2  
adding export: SpeciesConc\_TR02  
adding export: SpeciesConc\_XR02  
adding export: Met\_AD  
adding export: Met\_AREAM2  
adding export: Met\_BXHEIGHT  
adding export: Met\_CLDFRC  
adding export: Met\_PMID  
adding export: Met\_PSC2WET  
adding export: Met\_PSC2DRY  
adding export: Met\_OPTD  
adding export: Met\_SPHU  
adding export: Met\_T  
adding export: Met\_TropHt  
adding export: Met\_TropLev  
adding export: Met\_TropP

Reading entire HEMCO configuration file: HEMCO\_Config.rc

Reading HEMCO configuration file: HEMCO\_Config.rc

adding HEMCO export: EmisACET\_Total  
adding HEMCO export: EmisACET\_Anthro  
adding HEMCO export: EmisACET\_BioBurn  
adding HEMCO export: EmisACET\_Biogenic  
adding HEMCO export: EmisACET\_Ocean  
adding HEMCO export: EmisALD2\_Total  
adding HEMCO export: EmisALD2\_Anthro  
adding HEMCO export: EmisALD2\_BioBurn  
adding HEMCO export: EmisALD2\_Biogenic  
adding HEMCO export: EmisALD2\_Ocean  
adding HEMCO export: EmisALD2\_PlantDecay  
adding HEMCO export: EmisALD2\_Ship  
adding HEMCO export: EmisALK4\_Total  
adding HEMCO export: EmisALK4\_Aircraft  
adding HEMCO export: EmisALK4\_Anthro  
adding HEMCO export: EmisALK4\_BioBurn  
adding HEMCO export: EmisALK4\_Ship  
adding HEMCO export: EmisBCPI\_Total

adding HEMCO export: EmisBCPI\_Aircraft  
adding HEMCO export: EmisBCPI\_Anthro  
adding HEMCO export: EmisBCPI\_BioBurn  
adding HEMCO export: EmisBCPI\_Ship  
adding HEMCO export: EmisBCP0\_Total  
adding HEMCO export: EmisBCP0\_Anthro  
adding HEMCO export: EmisBCP0\_BioBurn  
adding HEMCO export: EmisBCP0\_Ship  
adding HEMCO export: EmisBENZ\_Total  
adding HEMCO export: EmisBENZ\_Anthro  
adding HEMCO export: EmisBENZ\_BioBurn  
adding HEMCO export: EmisBENZ\_Ship  
adding HEMCO export: EmisC2H2\_Total  
adding HEMCO export: EmisC2H2\_Anthro  
adding HEMCO export: EmisC2H2\_Ship  
adding HEMCO export: EmisC2H4\_Total  
adding HEMCO export: EmisC2H4\_Anthro  
adding HEMCO export: EmisC2H4\_Biogenic  
adding HEMCO export: EmisC2H4\_Ship  
adding HEMCO export: EmisC2H6\_Total  
adding HEMCO export: EmisC2H6\_Aircraft  
adding HEMCO export: EmisC2H6\_Anthro  
adding HEMCO export: EmisC2H6\_BioBurn  
adding HEMCO export: EmisC2H6\_Ship  
adding HEMCO export: EmisC3H8\_Total  
adding HEMCO export: EmisC3H8\_Aircraft  
adding HEMCO export: EmisC3H8\_Anthro  
adding HEMCO export: EmisC3H8\_BioBurn  
adding HEMCO export: EmisC3H8\_Ship  
adding HEMCO export: EmisCH2Br2\_Ocean  
adding HEMCO export: EmisCH2I2\_Ocean  
adding HEMCO export: EmisCH2ICl\_Ocean  
adding HEMCO export: EmisCH2IBr\_Ocean  
adding HEMCO export: EmisCH20\_Total  
adding HEMCO export: EmisCH20\_Aircraft  
adding HEMCO export: EmisCH20\_Anthro  
adding HEMCO export: EmisCH20\_BioBurn  
adding HEMCO export: EmisCH20\_Ship  
adding HEMCO export: EmisCH3I\_Ocean  
adding HEMCO export: EmisCH4\_Total  
adding HEMCO export: EmisCH4\_Anthro  
adding HEMCO export: EmisCH4\_BioBurn  
adding HEMCO export: EmisCH4\_Ship  
adding HEMCO export: EmisCHBr3\_Ocean  
adding HEMCO export: EmisCO\_Total  
adding HEMCO export: EmisCO\_Aircraft  
adding HEMCO export: EmisCO\_Anthro  
adding HEMCO export: EmisCO\_BioBurn  
adding HEMCO export: EmisCO\_Ship  
adding HEMCO export: EmisCO2\_Total

adding HEMCO export: EmisCO2\_Anthro  
adding HEMCO export: EmisCO2\_BioBurn  
adding HEMCO export: EmisCO2\_Ship  
adding HEMCO export: EmisDMS\_Ocean  
adding HEMCO export: EmisDST1\_Total  
adding HEMCO export: EmisDST1\_Anthro  
adding HEMCO export: EmisDST1\_Natural  
adding HEMCO export: EmisDST2\_Natural  
adding HEMCO export: EmisDST3\_Natural  
adding HEMCO export: EmisDST4\_Natural  
adding HEMCO export: EmisEOH\_Total  
adding HEMCO export: EmisEOH\_Anthro  
adding HEMCO export: EmisEOH\_BioBurn  
adding HEMCO export: EmisEOH\_Biogenic  
adding HEMCO export: EmisEOH\_PlantDecay  
adding HEMCO export: EmisEOH\_Ship  
adding HEMCO export: EmisETN03\_Ocean  
adding HEMCO export: EmisHAC\_Total  
adding HEMCO export: EmisHAC\_Anthro  
adding HEMCO export: EmisGLYC\_Total  
adding HEMCO export: EmisGLYC\_Anthro  
adding HEMCO export: EmisGLYX\_Total  
adding HEMCO export: EmisGLYX\_Anthro  
adding HEMCO export: EmisHCOOH\_Total  
adding HEMCO export: EmisHCOOH\_Anthro  
adding HEMCO export: EmisHCOOH\_Ship  
adding HEMCO export: EmisHN02\_Anthro  
adding HEMCO export: EmisHN03\_Ship  
adding HEMCO export: EmisISOP\_Total  
adding HEMCO export: EmisISOP\_Anthro  
adding HEMCO export: EmisISOP\_Biogenic  
adding HEMCO export: EmisLIMO\_Biogenic  
adding HEMCO export: EmisMACR\_Total  
adding HEMCO export: EmisMACR\_Aircraft  
adding HEMCO export: EmisMACR\_Anthro  
adding HEMCO export: EmisMEK\_Total  
adding HEMCO export: EmisMEK\_Anthro  
adding HEMCO export: EmisMEK\_BioBurn  
adding HEMCO export: EmisMEK\_Ship  
adding HEMCO export: EmisMEN03\_Ocean  
adding HEMCO export: EmisMGLY\_Total  
adding HEMCO export: EmisMGLY\_Anthro  
adding HEMCO export: EmisMOH\_Total  
adding HEMCO export: EmisMOH\_Anthro  
adding HEMCO export: EmisMOH\_BioBurn  
adding HEMCO export: EmisMOH\_Biogenic  
adding HEMCO export: EmisMOH\_Ocean  
adding HEMCO export: EmisMOH\_Ship  
adding HEMCO export: EmisMTPA\_Total  
adding HEMCO export: EmisMTPA\_BioBurn

adding HEMCO export: EmisMTPA\_Biogenic  
adding HEMCO export: EmisMTPO\_Biogenic  
adding HEMCO export: EmisMVK\_Anthro  
adding HEMCO export: EmisNAP\_Total  
adding HEMCO export: EmisNAP\_Anthro  
adding HEMCO export: EmisNAP\_BioBurn  
adding HEMCO export: EmisNH3\_Total  
adding HEMCO export: EmisNH3\_Anthro  
adding HEMCO export: EmisNH3\_BioBurn  
adding HEMCO export: EmisNH3\_Natural  
adding HEMCO export: EmisNH3\_Seabirds  
adding HEMCO export: EmisNH3\_Ship  
adding HEMCO export: EmisNO\_Total  
adding HEMCO export: EmisNO\_Aircraft  
adding HEMCO export: EmisNO\_Anthro  
adding HEMCO export: EmisNO\_BioBurn  
adding HEMCO export: EmisNO\_Lightning  
adding HEMCO export: EmisNO\_Ship  
adding HEMCO export: EmisNO\_Soil  
adding HEMCO export: EmisNO2\_Anthro  
adding HEMCO export: EmisNO2\_Ship  
adding HEMCO export: EmisO3\_Ship  
adding HEMCO export: EmisOCPI\_Total  
adding HEMCO export: EmisOCPI\_Aircraft  
adding HEMCO export: EmisOCPI\_Anthro  
adding HEMCO export: EmisOCPI\_BioBurn  
adding HEMCO export: EmisOCPI\_Ship  
adding HEMCO export: EmisOCPO\_Total  
adding HEMCO export: EmisOCPO\_Anthro  
adding HEMCO export: EmisOCPO\_BioBurn  
adding HEMCO export: EmisOCPO\_Ship  
adding HEMCO export: EmispFe\_Total  
adding HEMCO export: EmispFe\_Anthro  
adding HEMCO export: EmispFe\_Ship  
adding HEMCO export: EmisPOG1\_Total  
adding HEMCO export: EmisPOG1\_Anthro  
adding HEMCO export: EmisPOG1\_BioBurn  
adding HEMCO export: EmisPOG2\_Total  
adding HEMCO export: EmisPOG2\_Anthro  
adding HEMCO export: EmisPOG2\_BioBurn  
adding HEMCO export: EmisPRPE\_Total  
adding HEMCO export: EmisPRPE\_Aircraft  
adding HEMCO export: EmisPRPE\_Anthro  
adding HEMCO export: EmisPRPE\_BioBurn  
adding HEMCO export: EmisPRPE\_Biogenic  
adding HEMCO export: EmisPRPE\_Ship  
adding HEMCO export: EmisRCHO\_Total  
adding HEMCO export: EmisRCHO\_Aircraft  
adding HEMCO export: EmisRCHO\_Anthro  
adding HEMCO export: EmisSESQ\_Biogenic

```
adding HEMCO export: EmisBr2_Natural
adding HEMCO export: EmisBrSALA_Natural
adding HEMCO export: EmisBrSALC_Natural
adding HEMCO export: EmisSALA_Natural
adding HEMCO export: EmisSALC_Natural
adding HEMCO export: EmisSO2_Total
adding HEMCO export: EmisSO2_Aircraft
adding HEMCO export: EmisSO2_Anthro
adding HEMCO export: EmisSO2_BioBurn
adding HEMCO export: EmisSO2_VolcErupt
adding HEMCO export: EmisSO2_VolcDegas
adding HEMCO export: EmisSO2_Ship
adding HEMCO export: EmisSO4_Total
adding HEMCO export: EmisSO4_Aircraft
adding HEMCO export: EmisSO4_Anthro
adding HEMCO export: EmisSO4_Ship
adding HEMCO export: EmisSOAP_Total
adding HEMCO export: EmisSOAP_Aircraft
adding HEMCO export: EmisSOAP_Anthro
adding HEMCO export: EmisSOAP_Biogenic
adding HEMCO export: EmisSOAP_BioBurn
adding HEMCO export: EmisSOAP_Ship
adding HEMCO export: EmisSOAS_Biogenic
adding HEMCO export: EmisTOLU_Total
adding HEMCO export: EmisTOLU_Anthro
adding HEMCO export: EmisTOLU_BioBurn
adding HEMCO export: EmisTOLU_Ship
adding HEMCO export: EmisXYLE_Total
adding HEMCO export: EmisXYLE_Anthro
adding HEMCO export: EmisXYLE_BioBurn
adding HEMCO export: EmisXYLE_Ship
adding HEMCO export: LightningFlashRate_Total
adding HEMCO export: LightningFlashRate_IntraCloud
adding HEMCO export: LightningFlashRate_CloudGround
adding HEMCO export: ConvectiveCloudTopHeight
```

Character Resource Parameter: DYCORE:OFF

NOTE from PE 0: MPP\_DOMAINS\_SET\_STACK\_SIZE: stack size set to 32768.

&MPP\_IO\_NML

```
HEADER_BUFFER_VAL=16384 ,
GLOBAL_FIELD_ON_ROOT_PE=T,
IO_CLOCKS_ON=F,
SHUFFLE=0 ,
DEFLATE_LEVEL=-1 ,
CF_COMPLIANCE=F,
/
```

NOTE from PE 0: MPP\_IO\_SET\_STACK\_SIZE: stack size set to 131072.

NOTE from PE 0: MPP\_DOMAINS\_SET\_STACK\_SIZE: stack size set to 20000000.

Integer\*4 Resource Parameter: NX:1  
Integer\*4 Resource Parameter: NY:30  
Integer\*4 Resource Parameter: IM:24  
Integer\*4 Resource Parameter: JM:144  
Integer\*4 Resource Parameter: RUN\_DT:600  
For k\_split (remapping)= 1  
n\_split is set to 02 for resolution-dt=0025x0025x6- 600.000  
Using n\_zfilter : 000  
Using n\_sponge : 001  
Using non\_ortho : T  
Starting PEs : 6  
Starting Threads : 36

FATAL from PE 1: mpp\_domains\_define.inc: not all the pe\_end are in the pelist

FATAL from PE 3: mpp\_domains\_define.inc: not all the pe\_end are in the pelist

FATAL from PE 5: mpp\_domains\_define.inc: not all the pe\_end are in the pelist

FATAL from PE 0: mpp\_domains\_define.inc: not all the pe\_end are in the pelist

FATAL from PE 2: mpp\_domains\_define.inc: not all the pe\_end are in the pelist

FATAL from PE 4: mpp\_domains\_define.inc: not all the pe\_end are in the pelist

FATAL from PE 0: mpp\_domains\_define.inc: not all the pe\_end are in the pelist

---

-----  
MPI\_ABORT was invoked on rank 1 in communicator MPI\_COMM\_WORLD with errorcode 1.

NOTE: invoking MPI\_ABORT causes Open MPI to kill all MPI processes. You may or may not see output from other processes, depending on exactly when Open MPI kills them.

---

-----  
[r1i2n17:64901] PMIX ERROR: UNREACHABLE in file server/pmix\_server.c at line 2193  
[r1i2n17:64901] PMIX ERROR: UNREACHABLE in file server/pmix\_server.c at line 2193  
[r1i2n17:64901] PMIX ERROR: UNREACHABLE in file server/pmix\_server.c at line 2193

```
[r1i2n17:64901] PMIX ERROR: UNREACHABLE in file server/pmix_server.c
at line 2193
[r1i2n17:64901] PMIX ERROR: UNREACHABLE in file server/pmix_server.c
at line 2193
[r1i2n17:64901] 5 more processes have sent help message help-mpi-
api.txt / mpi-abort
[r1i2n17:64901] Set MCA parameter "orte_base_help_aggregate" to 0 to
see all help / error messages
==> Run ended at Tue Jul 7 09:53:49 MDT 2020
```