

----- CCSM TIMING PROFILE -----

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Case      : BC5.ne120_t12.pop62.lagrangian.off.2xC02
LID      : 190912-053717
Machine  : xc50
Caseroot : /mnt/lustre/home/sunseon/CESM/cesm_work/BC5.ne120_t12.pop62.lagrangian.off.2xC02
Timeroot : /mnt/lustre/home/sunseon/CESM/cesm_work/BC5.ne120_t12.pop62.lagrangian.off.2xC02/Tools
CCSM User : sunseon
CCSM Tag  : cesm1_2_2 (best guess)
Curr Date : Fri Sep 20 02:47:35 KST 2019

grid      : a%ne120np4_l%ne120np4_oi%tx0.1v2_r%r05_m%tx0.1v2_g%null_w%null
compset   : 2000_CAM5_CLM40%SP_CICE_POP2_RTM_SGLC_SWAV
run_type  : hybrid, continue_run = FALSE (initttype = TRUE)
stop_option : nyears, stop_n = 20
run_length : 7300 days (7299.75 for ocean)
    
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component	comp_pes	root_pe	tasks	x	threads	instances	(stride)
cpl = cpl	3400	2000	3400	x 1	1	1	(1 )
glc = sglc	1	2000	1	x 1	1	1	(1 )
wav = swav	1	2000	1	x 1	1	1	(1 )
lnd = clm	1600	5000	400	x 4	1	1	(1 )
rof = rtm	1600	5000	400	x 4	1	1	(1 )
ice = cice	12000	2000	3000	x 4	1	1	(1 )
atm = cam	13600	2000	3400	x 4	1	1	(1 )
ocn = pop2	2000	0	2000	x 1	1	1	(1 )

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total pes active : 15600
pes per node    : 40
pe count for cost estimate : 15600
    
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Overall Metrics:

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Model Cost:      147486.14 pe-hrs/simulated_year
Model Throughput: 2.54 simulated_years/day
    
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Init Time : 196.220 seconds
Run Time  : 680705.282 seconds 93.247 seconds/day
Final Time : 0.007 seconds
    
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Actual Ocn Init Wait Time : 24,038 seconds
Estimated Ocn Init Run Time : 23,235 seconds
Estimated Run Time Correction : 0,000 seconds
(This correction has been applied to the ocean and total run times)
    
```

Runs Time in total seconds, seconds/model-day, and model-years/wall-day  
 CPL Run Time represents time in CPL pes alone, not including time associated with data exchange with other components

TOT Run Time:	680705.282 seconds	93.247 seconds/mday	2.54 myears/wday
LND Run Time:	13307.646 seconds	1.823 seconds/mday	129.85 myears/wday
ROF Run Time:	54.607 seconds	0.007 seconds/mday	31644.29 myears/wday
ICE Run Time:	123261.291 seconds	16.885 seconds/mday	14.02 myears/wday
ATM Run Time:	468222.081 seconds	64.140 seconds/mday	3.69 myears/wday
OCN Run Time:	678454.963 seconds	92.939 seconds/mday	2.55 myears/wday
GLC Run Time:	0.000 seconds	0.000 seconds/mday	0.00 myears/wday
WAV Run Time:	0.000 seconds	0.000 seconds/mday	0.00 myears/wday
CPL Run Time:	138720.799 seconds	19.003 seconds/mday	12.46 myears/wday
CPL COMM Time:	194999.100 seconds	26.712 seconds/mday	8.86 myears/wday

----- DRIVER TIMING FLOWCHART -----

NOTE: min:max driver timers (seconds/day):  
 CPL (pes 2000 to 5399)

	CPL (pes 2000 to 5399)	OCN (pes 0 to 1999)	LND (pes 5000 to 5399)	ROF (pes 2000 to 5399)	ICE (pes 2000 to 4999)	ATM (pes 2000 to 5399)	GLC (pes 2000 to 2000)	WAV (pes 5000 to 2000)
DRIVER_CLOCK_ADVANCE	0.006: 0.011							
DRIVER_OCNPREP	0.368: 2.118							
DRIVER_C20	<----->	0.001: 0.315						
DRIVER_LNDPREP	0.026: 1.829							
DRIVER_C2L	<----->		0.015: 0.889					
DRIVER_ICEPREP	0.028: 0.695							
DRIVER_C2I	<----->			0.058: 0.727				
DRIVER_ROFPREP	0.001: 0.038							
DRIVER_C2R	<----->			0.001: 0.011				
DRIVER_ICE_RUN				14.865: 16.885				
DRIVER_LND_RUN			1.497: 1.823					
DRIVER_ROF_RUN				0.003: 0.007				
DRIVER_OCN_RUN		91.921: 92.939						
DRIVER_ATMOCNP	0.100: 15.205							
DRIVER_L2C	<----->		0.009: 15.119					
DRIVER_LNDPOST	0.000: 0.000							
DRIVER_R2C	<----->			0.000: 0.794				
DRIVER_ROFPOST	0.000: 0.000							
DRIVER_BUDGET1	0.014: 0.017							
DRIVER_I2C	<----->			0.086: 15.321				
DRIVER_ICEPOST	0.000: 0.000							
DRIVER_FRACSET	0.041: 0.264							
DRIVER_ATMPREP	0.908: 1.801							
DRIVER_C2A	<----->			0.018: 0.760				
DRIVER_ATM_RUN	<----->			60.315: 64.140				
DRIVER_A2C	<----->			0.507: 4.382				
DRIVER_ATMPOST	0.000: 0.000							
DRIVER_BUDGET2	0.000: 0.010							
DRIVER_BUDGET3	0.000: 0.001							
DRIVER_BUDGETF	0.001: 0.002							
DRIVER_O2C	<----->	0.001: 7.049						
DRIVER_OCNPOST	0.000: 0.000							
DRIVER_RESTART	0.006: 0.006							
DRIVER_HISTORY	0.000: 0.000							
DRIVER_TSTAMP_WRITE	0.000: 0.000							
DRIVER_TPROF_WRITE	0.000: 0.000							
DRIVER_RUN_LOOP_BSTOP	0.000: 0.002							

More info on coupler timing:

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DRIVER_OCNPREP      0.368: 2.118
driver_ocnprep_atm2ocn 0.367: 2.110
    
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driver_ocnprep_avg	0.000:	0.000
driver_ocnprep_ravg	0.000:	0.000
driver_ocnprep_rof2ocn	0.000:	0.014
driver_ocnprep_rofcopy	0.000:	0.000
DRIVER_LNDPREP	0.026:	1.829
driver_lndprep_atm2lnd	0.006:	1.803
driver_lndprep_rof2lnd	0.016:	0.872
driver_lndprep_mrgx2l	0.002:	0.002
DRIVER_ICEPREP	0.028:	0.695
driver_iceprep_ocn2ice	0.007:	0.099
driver_iceprep_atm2ice	0.010:	0.612
driver_iceprep_mrgx2i	0.010:	0.013
DRIVER_ROFPREP	0.001:	0.038
driver_rofprep_l2xavg	0.000:	0.000
driver_rofprep_lnd2rof	0.001:	0.038
driver_rofprep_mrgx2r	0.000:	0.000
DRIVER_ATMOCNP	0.100:	15.205
driver_atmocnp_ice2ocn	0.011:	15.087
driver_atmocnp_mrgx2o	0.062:	0.076
driver_atmocnp_accum	0.011:	0.014
driver_atmocnp_fluxo	0.008:	0.082
DRIVER_LNDPOST	0.000:	0.000
driver_rofpost_raccum	0.000:	0.000
DRIVER_ICEPOST	0.000:	0.000
DRIVER_ATMPREP	0.908:	1.801
driver_atmprep_ocn2atmf	0.183:	0.556
driver_atmprep_ocn2atm1	0.086:	0.375
driver_atmprep_ocn2atm2	0.027:	0.302
driver_atmprep_ocn2atmb	0.088:	0.358
driver_atmprep_ice2atm	0.190:	0.851
driver_atmprep_lnd2atm	0.019:	1.207
driver_atmprep_mrgx2a	0.008:	0.010
DRIVER_ATMPOST	0.000:	0.000
DRIVER_OCNPOST	0.000:	0.000
DRIVER_BUDGET	0.025:	0.029
DRIVER_BUDGET1	0.014:	0.017
DRIVER_BUDGET2	0.009:	0.010
DRIVER_BUDGET3	0.000:	0.001
DRIVER_BUDGETF	0.001:	0.002