

CM 2.0

Walltime / Model Year (gadi-cl)

ATM Procs	OCN Procs				
	32	48	64	96	128
480		5:26:26	5:10:22		
576		5:33:29	4:15:15		
672	7:39:38		4:05:13	4:17:30	
768					

Scaling information for ACCESS-CM

Generally you want to optimise the product of walltime and SU cost to find a good balance between speed and cost. You can then use more cpus to run faster at a higher cost, or save cost by using less cpus but waiting longer.

Performance will also depend on how much output you're going to write. on large runs you may want to look into the model's IO servers to improve performance

9:31:50 Use the tables here to estimate the resources required for your own runs, or to decide on how many processors to use

SU / Model Year (gadi-cl)

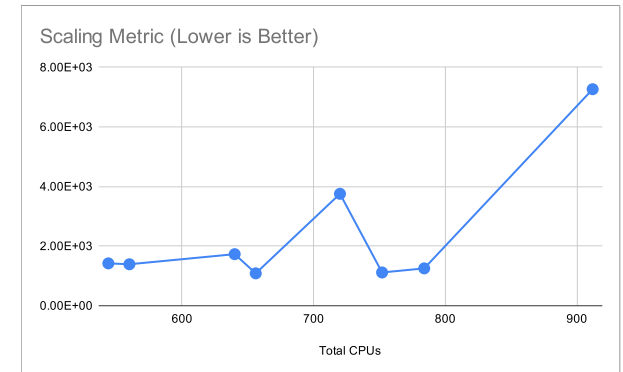
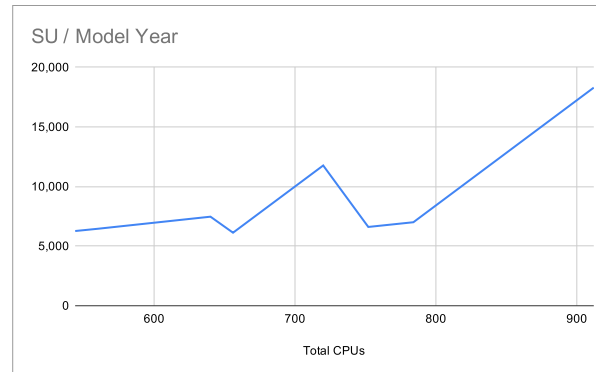
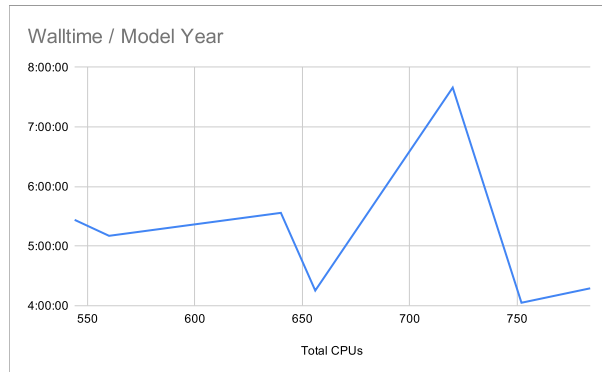
ATM Procs	OCN Procs				
	32	48	64	96	128
480		6,267	6,456		
576		7,470	6,126		
672	11,766		6,670	7,004	
768					18,299

Measurements include IO as set up in the source experiment, although the model may not have been run long enough for them to impact the run time (e.g. if a model outputs montly but has only been run for 10 days). Values have been extrapolated to a full model year from a short run, real world performance may differ but the relationship between different decompositons should be similar.

Coupled runs require a balance between the atmosphere and ocean components so that one is not waiting for the other to finish its timestep.

Scaling Metric (Walltime x SU) (gadi-cl)

ATM Procs	OCN Procs					
	32	48	64	96	128	384
480		1.42E+03	1.39E+03			
576		1.73E+03	1.09E+03			
672	3.76E+03		1.14E+03	1.25E+03		1.09E+03
768						7.27E+03



Walltime / Model Year

Model Procs	System	Values	
	gadi-cl	MEDIAN of Wallt	MIN of ATM Y
		MIN of ATM X	MIN of ATM Y
544		5:26:26	20
560		5:10:22	24
640		5:33:29	24
656		4:15:15	24
720		7:39:38	28
752		4:02:59	28
784		4:17:30	28
912		9:31:50	32

SU / Model Year

Model Procs	System	Values
	gadi-cl	
544		6,267
560		6,456
640		7,470
656		6,126
720		11,766
752		6,609
784		7,004
912		18,299

Scaling Metric

Model Procs	System	Values
	gadi-cl	
544		1.42E+03
560		1.39E+03
640		1.73E+03
656		1.09E+03
720		3.76E+03
752		1.12E+03
784		1.25E+03
912		7.27E+03