

The following operations are to be performed on a Linux platform. Test runs have been successfully carried out on:

1. CentOS 7.5 64-bit
2. CentOS 7.9 64-bit

(A) How to run CMAQ

Assuming that the default master program directory of PATH v2.1 (i.e. path_v2.1) is not changed:

1. cd path_v2.1
2. ./dl_cmrn_year.sh jan (jan for jan month run, feb for feb month run, mar for mar month run and so no)

Program Output: cm5_EPD_??/data/cmaq (??? Stands for jan, feb, mar and so on)

(B) How to convert CMAQ concentrations to text files

1. cd path_v2.1/cmaq_to_txt
2. ./link_cmaq.sh
3. ./myrun.csh

(C) Other information

Test runs have been successfully carried out on 2 different systems. The configuration of these systems and respective run time are listed below for reference.

	Configuration A	Configuration B	Configuration C
Operating System	CentOS 7.9 64-bit	CentOS 7.9 64-bit	CentOS 7.5 64-bit
Processor	2 x Xeon® Gold 6148 @2.4 GHz (40 cores in total)	2 x Xeon® Gold 6148 @2.4 GHz (40 cores in total)	2 x Xeon® X5570 @2.93 GHz (8 cores in total)
RAM (GB)	192GB	192GB	48GB
#coresused in 1-month run	12	20	8
Disk Space	~140 GB (for 1-month run)~2 TB (for all 12 months)		
Time (hours) for 1-month run	~49	~40	~135
Approx. total time (hours) for 12-month runs (assume N machines)	(~49 x 12)/N ~24 days if 1 machine ~8 days if 3 machines	(~40 x 12)/N ~20 days if 1 machine ~7 days if 3 machines	(~135 x 12)/N ~68 days if 1 machine ~22 days if 3 machines