Porting the Community Multiscale Air Quality (CMAQ) modeling system to the
Apple Macintosh Operating System Mac OS X

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It is an appropriate time to have a version of the CMAQ modeling system capable of
running on the Apple Macintosh platform. The combination of the new G5 64 bit
processors and the UNIX based OS X operating system make the Macintosh a viable
option for running the CMAQ modeling system. The availability and affordability of dual
processor machines and larger clusters provides an attractive alternative to Linux or other
UNIX systems, especially when coupled with Apple's user-friendly operating system. For
comparison, we will present timing information for a test CMAQ run on our OS X
system and a similar Linux system. Our tests will be performed on a dual 1.8 GHz G5
machine with 4 GB of RAM. The machine is currently running Mac OS X version 10.3.5.

Thus far, we have successfully compiled the NetCDF v3.5.1 library, versions 2.2 and 3.0
of the I/O API library, SMOKE v2.0, and a single processor version of CMAQ v4.3.
Some of the challenges along the way have included modifying existing Linux-based
scripts to work with OS X and resolving differences in compiler settings and flags. We
are currently working to port PAVE to OS X and to compile and run CMAQ with support
for multiple processors.