HPC2002 Result

IBM Corporation
IBM RS/6000 SP-375MHz T

SPECenvM2002 = 28.7

SPEC license #: HPG0021A | Tested by: NREL (National Renewable Energy Lab) | Test site: NREL, Golden, CO | Test date: Nov-2002 | HW Avail: Feb-2000 | SW Avail: Dec-2001

Benchmark	Reference Time	Runtime	Ratio
361.wrf_m	86400	3013	28.7

5 10 15 20 25 30

Hardware

CPU:	Power3-II
CPU MHz:	375
FPU:	Integrated
CPU(s) enabled:	56
CPU(s) orderable:	128
Primary Cache:	32KBI+64KBD (on chip)
Secondary Cache:	8MB unified (off chip)
L3 Cache:	None
Other Cache:	None
Memory:	2GB
Disk Subsystem:	2x9.1GB
Other Hardware:	Ethernet 10-Base2/SP-Colony Switch

Software

Parallel:	MPI
Processes-Threads:	16
MPI Processes:	16
OpenMP Threads:	--
Operating System:	AIX 4.3.3
Compiler:	C: IBM VAC 5.0.2.0, "mpcc_r" Preprocessor: IBM VAC 5.0.2.0, "/usr/ccs/lib/cpp" Fortran: IBM xl Fortran 7.1.1.0, "mpxlf90_r"
File System:	AIX/GPFS
System State:	Multi-user
Other Software:	Parallel Operating Environment (POE) 3.1.0.0 NetCDF 5.3.0

Notes/Tuning Information

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Tested by NREL (National Renewable Energy Lab)

 Flags:
   C: -DNOUNDERSCORE -I{$SPEC}/netcdf32/include -O3 -qarch=pwr3 -qtune=pwr3
   Preprocessor:  -D_OPENMP -I{$SPEC}/netcdf32/include
   Fixed Form Fortran: -qfixed
   Free Form Fortran: -qsuffix=f=f90
   Fortran: -NS4096 -I{$SPEC}/netcdf32/include -O3 -qarch=pwr3 -qtune=pwr3
    -bmaxdata:0x60000000 -bmaxstack:0x20000000 -L${SPEC}/netcdf32/lib -lnetcdf

 Alternate Source:
   env2002-src_nrel_ibm-20021106.tar.gz
   Directives to compile specific subroutines at lower optimization level to
   allow remainder of wrf application to compile at high optimization

 User Environment:
   limit stacksize 256m
   limit memoryuse 2048m

 Submit command to run MPI applications
   export "MP_HOSTFILE=\${HOME}/hostfile"; export "MP_PROCS=\$MPI_COMM_SIZE";
     poe $command

 NetCDF 3.5.0 built from source
   CPPFLAGS='-DNDEBUG'
   CC='xlc_r'
   CFLAGS='-D_LARGE_FILES -O -qmaxmem=-1'
   CXX='xlC_r'
   CXXFLAGS='-D_LARGE_FILES -O -qmaxmem=-1'
   F90='xlf90_r'
   FC='xlf_r'
   F90FLAGS='-qsuffix=f=f90'
```