IBM Corporation
IBM System p5 575 (2200 Mhz, 1 CPU, SLES)

SPECFp2000 = 3418
SPECFp_base2000 = 2896

IBM Austin Test date: Oct-2006
Hardware Avail: Feb-2006
Software Avail: Dec-2006

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Reference Time</th>
<th>Base Runtime</th>
<th>Base Ratio</th>
<th>Runtime</th>
<th>Ratio</th>
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</table>

Hardware
CPU: POWER5+
CPU MHz: 2200
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 1 core/chip (SMT off)
CPU(s) orderable: 8,16 core
Parallel: No
Primary Cache: 64 KB I + 32 KB D on chip per core
Secondary Cache: 1920 KB I+D on chip per chip
L3 Cache: 36 MB unified off chip per chip
Other Cache: None
Memory: 64 GB (32x2GB)
Disk Subsystem: 1x73GB SCSI, 15K RPM

Software
Operating System: SLES
SUSE Linux Enterprise Server 10 (ppc) VERSION = 10
w/2.6.16-21.0-ppc64 Linux kernel
Compiler: IBM XL C/C++ Advanced Edition V8.0.1 for Linux
IBM XL Fortran Advanced Edition V10.1.1 for Linux
File System: reiserfs
System State: Multi-User

Notes/Tuning Information
+(FDO) Feedback directed optimization enabled by: PASS1=-qpdf1 PASS2=-qpdf2
FP compilers
C: invoked as xlc
Fortran 77 and Fortran 90: invoked as xlf90, except as noted below
FP Portability Flags
-qfixed used in: 168.wupwise, 171.swim, 172.mgrid, 173.applu, 178.galgel, 200.sixtrack, 301.apsi
-qsuffix=f=f90 used in: 178.galgel, 187.facerec, 189.lucas, 191.fma3d
FP Base Optimization Flags:
C: +FDO -O5
Fortran: +FDO -O5
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SPECfp_base2000 = 2896

Notes/Tuning Information (Continued)

Floating Point Peak Flags

168. wupwise
   +FDO -O5 -qsave -lmass
   -B/usr/share/libhugetlbfs/ -tl -WL,--hugetlbfs-link=BDT
171. swim
   +FDO -O5
   -B/usr/share/libhugetlbfs/ -tl -WL,--hugetlbfs-link=BDT
172. mgrid
   +FDO -O4 -q64
   -B/usr/share/libhugetlbfs/ -tl -WL,--hugetlbfs-link=BDT
173. applu
   +FDO -O5 -q64
   -B/usr/share/libhugetlbfs/ -tl -WL,--hugetlbfs-link=BDT
177. mesa
   basepeak=1
178. galgel
   Fortran invoked as xlf90_r
   +FDO -O5 -qessl -lessl -lmass
   -B/usr/share/libhugetlbfs/ -tl -WL,--hugetlbfs-link=BDT
179. art
   +FDO -O5
   -B/usr/share/libhugetlbfs/ -tl -WL,--hugetlbfs-link=BDT
183. equake
   +FDO -O5
   -B/usr/share/libhugetlbfs/ -tl -WL,--hugetlbfs-link=BDT
187. facerc
   basepeak=1
188. ammp
   +FDO -O3 -qalign=linuxppc
189. lucas
   +FDO -O3 -qarch=auto -qtune=auto
   -B/usr/share/libhugetlbfs/ -tl -WL,--hugetlbfs-link=BDT
191. fma3d
   +FDO -O5
   -B/usr/share/libhugetlbfs/ -tl -WL,--hugetlbfs-link=BDT
200. sixtrack
   +FDO -O3 -qarch=auto -qtune=auto
   -B/usr/share/libhugetlbfs/ -tl -WL,--hugetlbfs-link=BDT
301. apsi
   Fortran invoked as xlf90_r
   +FDO -O5 -qessl
   -B/usr/share/libhugetlbfs/ -tl -WL,--hugetlbfs-link=BDT
   extra_libs = -lessl

System Settings:

-- ulimit stack size set to unlimited

SMT: Acronym for 'Simultaneous Multi-Threading'. A processor technology that allows the simultaneous execution of multiple thread contexts within a single processor core. SMT is enabled by default.

Large pages reserved as follows by root user:
   echo 30 > /proc/sys/vm/nr_hugepages
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Notes/Tuning Information (Continued)
System configured with libhugetlbfs library for application access to large pages
Environment variables set as follows:
   export HUGETLB_MORECORE=yes

Linux booted with the options:
   maxcpus=1 smt-enabled=off

Each process was bound to a cpu using submit= with the taskset command
submit = taskset -p -c "$SPECUSERNUM "$ >/dev/null ; $command