



# CFP2000 Result

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Hewlett-Packard Company  
hp server rx5670 (1000 MHz, Itanium 2)

SPECfp\_rate2000 = 43.7  
SPECfp\_rate\_base2000 = 40.4

SPEC license #: 3 Tested by: HP Richardson Test date: Jul-2002 Hardware Avail: Sep-2002 Software Avail: Oct-2002

Benchmark	Base Copies	Base Runtime	Base Ratio	Copies	Runtime	Ratio
168.wupwise	4	270	27.5	4	179	41.6
171.swim	4	390	36.8	4	397	36.3
172.mgrid	4	248	33.6	4	248	33.6
173.applu	4	335	29.1	4	335	29.1
177.mesa	4	208	31.3	4	203	32.0
178.galgel	4	124	109	4	93.7	144
179.art	4	95.1	127	4	87.1	139
183.equake	4	176	34.2	4	144	41.9
187.facerec	4	262	33.7	4	253	34.8
188.amp	4	231	44.2	4	231	44.2
189.lucas	4	288	32.2	4	284	32.7
191.fma3d	4	424	23.0	4	415	23.5
200.sixtrack	4	122	41.9	4	122	41.9
301.apsi	4	267	45.2	4	251	48.0

**Hardware**

CPU: Intel Itanium 2  
CPU MHz: 1000  
FPU: Integrated  
CPU(s) enabled: 4 cores, 4 chips, 1 core/chip  
CPU(s) orderable: 1-4  
Parallel: no  
Primary Cache: 16KBI + 16KBD (on chip) per CPU  
Secondary Cache: 256KB (on chip) per CPU  
L3 Cache: 3.0MB (on chip) per CPU  
Other Cache: N/A  
Memory: 12GB  
Disk Subsystem: 1x9GB SCSI disk (root + swap)  
1x9GB SCSI disk (swap)  
Other Hardware: N/A

**Software**

Operating System: HPUX11i-TCOE B.11.22  
Compiler: HP C/ANSI C Compiler B.11.22  
HP Fortran 90 Compiler B.11.22  
HP MLIB B.11.22

PHSS\_27281: f90 product  
PHSS\_27286: C product  
PHSS\_27287: U2comp  
PHSS\_27288: Linker  
PHSS\_27291: PBO  
PHSS\_27293: milli.a  
Caliper v2.1 www.hp.com/go/caliper

File System: VxFS  
System State: Multi-user

## Notes/Tuning Information

C compiler invoked as:  
/opt/ansic/bin/cc -AOe

Portability Flags:  
178.galgel: +source=fixed

Base Flags:  
All : +Oprofile=collect/+Oprofile=use  
f90 : +Ofast +O3 -minshared  
C : +Ofaster +Onorecovery -exec  
Note : By default, f90 links in MLIB libraries if installed

Peak Flags (all use the following except where noted below):



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## Notes/Tuning Information (Continued)

```
All      : LIBS =
f77/f90  : +Ofast +Onoptrs_to_globals -minshared +O3
C        : +Oprofile=collect/+Oprofile=use +Ofaster +Onorecovery
          +Onoptrs_to_globals +Otype_safety=strong -exec -Wl,-aarchive_shared
```

```
168.wupwise : +Ofast +O3 +cat +Onoptrs_to_globals -minshared
              ONESTEP = 1
```

```
172.mgrid  : basepeak=true
```

```
173.applu   : basepeak=true
```

```
177.mesa    : LIBS = -Bprotected
```

```
178.galgel  : +Ofast +Onoptrs_to_globals -minshared +O3
              RM_SOURCES = lapak.f90
              LIBS = -llapack
```

```
179.art     : LIBS = -Bprotected_data /opt/langtools/lib/hpux32/effmem.o
```

```
183.equake  : LIBS = -Bprotected /opt/langtools/lib/hpux32/effmem.o
```

```
188.ammpp   : basepeak=true
```

```
189.lucas   : +Ofast +Onoptrs_to_globals -minshared +O3 +Oinlinebudget=100
```

```
200.sixtrack : basepeak=true
```

### Kernel Tunables:

```
maxdsiz      0x7b03a000
maxdsiz_64bit 0x4000000000
maxssiz      0x10000000
maxssiz_64bit 0x40000000
vps_ceiling   16384
vps_pagesize  4096
swapmem_on    0
dbc_max_pct   20
dbc_min_pct   20
```

### Note:

EFI shell utility 'cpuconfig' used  
to deconfigure other processors