Dell Inc. PowerEdge SC1435 (AMD Opteron 2374 HE, 2.20 GHz)  

**SPECfp\textsuperscript{®}_rate2006 = 105**  
**SPECfp_rate_base2006 = 93.8**

**CPU2006 license:** 55  
**Test sponsor:** Dell Inc.  
**Tested by:** Dell Inc.  
**Test date:** Dec-2008  
**Hardware Availability:** Feb-2009  
**Software Availability:** Oct-2008

<table>
<thead>
<tr>
<th>Program</th>
<th>Copies</th>
<th>10.0</th>
<th>20.0</th>
<th>30.0</th>
<th>40.0</th>
<th>50.0</th>
<th>60.0</th>
<th>70.0</th>
<th>80.0</th>
<th>90.0</th>
<th>100</th>
<th>110</th>
<th>120</th>
<th>130</th>
<th>140</th>
<th>150</th>
<th>160</th>
<th>170</th>
</tr>
</thead>
<tbody>
<tr>
<td>410.bwaves</td>
<td>8</td>
<td>88</td>
<td>96</td>
<td>106</td>
<td>112</td>
<td>120</td>
<td>126</td>
<td>132</td>
<td>138</td>
<td>144</td>
<td>150</td>
<td>156</td>
<td>164</td>
<td>170</td>
<td>176</td>
<td>182</td>
<td>188</td>
<td>194</td>
</tr>
<tr>
<td>416.gamess</td>
<td>8</td>
<td>64</td>
<td>72</td>
<td>80</td>
<td>88</td>
<td>96</td>
<td>104</td>
<td>112</td>
<td>120</td>
<td>128</td>
<td>136</td>
<td>144</td>
<td>152</td>
<td>160</td>
<td>168</td>
<td>176</td>
<td>184</td>
<td>192</td>
</tr>
<tr>
<td>433.milc</td>
<td>8</td>
<td>77.8</td>
<td>84.5</td>
<td>91.2</td>
<td>97.9</td>
<td>104.6</td>
<td>111.3</td>
<td>118.0</td>
<td>124.7</td>
<td>131.4</td>
<td>138.1</td>
<td>144.8</td>
<td>151.5</td>
<td>158.2</td>
<td>164.9</td>
<td>171.6</td>
<td>178.3</td>
<td>185.0</td>
</tr>
<tr>
<td>434.zeusmp</td>
<td>8</td>
<td>64.7</td>
<td>72.4</td>
<td>80.1</td>
<td>87.8</td>
<td>95.5</td>
<td>103.2</td>
<td>110.9</td>
<td>118.6</td>
<td>126.3</td>
<td>134.0</td>
<td>141.7</td>
<td>149.4</td>
<td>157.1</td>
<td>164.8</td>
<td>172.5</td>
<td>180.2</td>
<td>187.9</td>
</tr>
<tr>
<td>435.gromacs</td>
<td>8</td>
<td>77.8</td>
<td>84.5</td>
<td>91.2</td>
<td>97.9</td>
<td>104.6</td>
<td>111.3</td>
<td>118.0</td>
<td>124.7</td>
<td>131.4</td>
<td>138.1</td>
<td>144.8</td>
<td>151.5</td>
<td>158.2</td>
<td>164.9</td>
<td>171.6</td>
<td>178.3</td>
<td>185.0</td>
</tr>
<tr>
<td>436.cactusADM</td>
<td>2</td>
<td>121</td>
<td>121</td>
<td>121</td>
<td>121</td>
<td>121</td>
<td>121</td>
<td>121</td>
<td>121</td>
<td>121</td>
<td>121</td>
<td>121</td>
<td>121</td>
<td>121</td>
<td>121</td>
<td>121</td>
<td>121</td>
<td>121</td>
</tr>
<tr>
<td>437.leslie3d</td>
<td>8</td>
<td>69.7</td>
<td>77.4</td>
<td>85.1</td>
<td>92.8</td>
<td>100.5</td>
<td>108.2</td>
<td>115.9</td>
<td>123.6</td>
<td>131.3</td>
<td>139.0</td>
<td>146.7</td>
<td>154.4</td>
<td>162.1</td>
<td>169.8</td>
<td>177.5</td>
<td>185.2</td>
<td>192.9</td>
</tr>
<tr>
<td>444.namd</td>
<td>8</td>
<td>97.8</td>
<td>105.5</td>
<td>113.2</td>
<td>120.9</td>
<td>128.6</td>
<td>136.3</td>
<td>144.0</td>
<td>151.7</td>
<td>159.4</td>
<td>167.1</td>
<td>174.8</td>
<td>182.5</td>
<td>190.2</td>
<td>197.9</td>
<td>205.6</td>
<td>213.3</td>
<td>221.0</td>
</tr>
<tr>
<td>447.dealII</td>
<td>8</td>
<td>64</td>
<td>72</td>
<td>80</td>
<td>88</td>
<td>96</td>
<td>104</td>
<td>112</td>
<td>120</td>
<td>128</td>
<td>136</td>
<td>144</td>
<td>152</td>
<td>160</td>
<td>168</td>
<td>176</td>
<td>184</td>
<td>192</td>
</tr>
<tr>
<td>450.soplex</td>
<td>8</td>
<td>64.7</td>
<td>72.4</td>
<td>80.1</td>
<td>87.8</td>
<td>95.5</td>
<td>103.2</td>
<td>110.9</td>
<td>118.6</td>
<td>126.3</td>
<td>134.0</td>
<td>141.7</td>
<td>149.4</td>
<td>157.1</td>
<td>164.8</td>
<td>172.5</td>
<td>180.2</td>
<td>187.9</td>
</tr>
<tr>
<td>453.povray</td>
<td>8</td>
<td>64.7</td>
<td>72.4</td>
<td>80.1</td>
<td>87.8</td>
<td>95.5</td>
<td>103.2</td>
<td>110.9</td>
<td>118.6</td>
<td>126.3</td>
<td>134.0</td>
<td>141.7</td>
<td>149.4</td>
<td>157.1</td>
<td>164.8</td>
<td>172.5</td>
<td>180.2</td>
<td>187.9</td>
</tr>
<tr>
<td>454.calculix</td>
<td>8</td>
<td>97.8</td>
<td>105.5</td>
<td>113.2</td>
<td>120.9</td>
<td>128.6</td>
<td>136.3</td>
<td>144.0</td>
<td>151.7</td>
<td>159.4</td>
<td>167.1</td>
<td>174.8</td>
<td>182.5</td>
<td>190.2</td>
<td>197.9</td>
<td>205.6</td>
<td>213.3</td>
<td>221.0</td>
</tr>
<tr>
<td>459.GemsFDTD</td>
<td>8</td>
<td>64.7</td>
<td>72.4</td>
<td>80.1</td>
<td>87.8</td>
<td>95.5</td>
<td>103.2</td>
<td>110.9</td>
<td>118.6</td>
<td>126.3</td>
<td>134.0</td>
<td>141.7</td>
<td>149.4</td>
<td>157.1</td>
<td>164.8</td>
<td>172.5</td>
<td>180.2</td>
<td>187.9</td>
</tr>
<tr>
<td>465.tonto</td>
<td>8</td>
<td>62.5</td>
<td>70.2</td>
<td>77.9</td>
<td>85.6</td>
<td>93.3</td>
<td>101.0</td>
<td>108.7</td>
<td>116.4</td>
<td>124.1</td>
<td>131.8</td>
<td>139.5</td>
<td>147.2</td>
<td>154.9</td>
<td>162.6</td>
<td>170.3</td>
<td>178.0</td>
<td>185.7</td>
</tr>
<tr>
<td>470.lbm</td>
<td>8</td>
<td>64.7</td>
<td>72.4</td>
<td>80.1</td>
<td>87.8</td>
<td>95.5</td>
<td>103.2</td>
<td>110.9</td>
<td>118.6</td>
<td>126.3</td>
<td>134.0</td>
<td>141.7</td>
<td>149.4</td>
<td>157.1</td>
<td>164.8</td>
<td>172.5</td>
<td>180.2</td>
<td>187.9</td>
</tr>
<tr>
<td>481.wrf</td>
<td>8</td>
<td>64.7</td>
<td>72.4</td>
<td>80.1</td>
<td>87.8</td>
<td>95.5</td>
<td>103.2</td>
<td>110.9</td>
<td>118.6</td>
<td>126.3</td>
<td>134.0</td>
<td>141.7</td>
<td>149.4</td>
<td>157.1</td>
<td>164.8</td>
<td>172.5</td>
<td>180.2</td>
<td>187.9</td>
</tr>
<tr>
<td>482.sphinx3</td>
<td>8</td>
<td>64.7</td>
<td>72.4</td>
<td>80.1</td>
<td>87.8</td>
<td>95.5</td>
<td>103.2</td>
<td>110.9</td>
<td>118.6</td>
<td>126.3</td>
<td>134.0</td>
<td>141.7</td>
<td>149.4</td>
<td>157.1</td>
<td>164.8</td>
<td>172.5</td>
<td>180.2</td>
<td>187.9</td>
</tr>
</tbody>
</table>

**Hardware**

- **CPU Name:** AMD Opteron 2374 HE  
- **CPU Characteristics:** 2200 MHz, 8 cores, 1,2 chips  
- **Primary Cache:** 64 KB L1 + 64 KB D on chip per core  
- **Secondary Cache:** 512 KB L1+D on chip per core

**Software**

- **Operating System:** SUSE Linux Enterprise Server 10 (x86_64) SP2, Kernel 2.6.16.60-0.21-smp  
- **Compiler:** PGI Server Complete Version 7.2, PathScale Compiler Suite Version 3.2  
- **Auto Parallel:** Yes  
- **File System:** ReiserFS  
- **System State:** Run level 3 (multi-user)  
- **Base Pointers:** 64-bit  
- **Peak Pointers:** 32/64-bit
Dell Inc.

PowerEdge SC1435 (AMD Opteron 2374 HE, 2.20 GHz)

**SPEC CFP2006 Result**

**SPECfp_rate2006** = 105

**SPECfp_rate_base2006** = 93.8

CPU2006 license: 55

Test date: Dec-2008

Test sponsor: Dell Inc.

Hardware Availability: Feb-2009

Tested by: Dell Inc.

Software Availability: Oct-2008

L3 Cache: 6 MB I+D on chip per chip

Other Cache: None

Memory: 32 GB (8 x 4 GB DDR2-800)

Disk Subsystem: 1 x 80 GB 7200 RPM SATA

Other Hardware: None

Other Software: binutils 2.18

32-bit and 64-bit libhugetlbfs libraries

---

### Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Base Copies</th>
<th>Base Seconds</th>
<th>Base Ratio</th>
<th>Peak Copies</th>
<th>Peak Seconds</th>
<th>Peak Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>410.bwaves</td>
<td>8</td>
<td>1061</td>
<td>103</td>
<td>1062</td>
<td>102</td>
<td>1062</td>
</tr>
<tr>
<td>416.gamess</td>
<td>8</td>
<td>1435</td>
<td>109</td>
<td>1436</td>
<td>109</td>
<td>1437</td>
</tr>
<tr>
<td>433.milc</td>
<td>8</td>
<td>759</td>
<td>84.6</td>
<td>759</td>
<td>84.5</td>
<td>759</td>
</tr>
<tr>
<td>434.zeusmp</td>
<td>8</td>
<td>759</td>
<td>84.6</td>
<td>759</td>
<td>84.5</td>
<td>759</td>
</tr>
<tr>
<td>435.gromacs</td>
<td>8</td>
<td>981</td>
<td>68.0</td>
<td>977</td>
<td>68.3</td>
<td>978</td>
</tr>
<tr>
<td>436.cactusADM</td>
<td>8</td>
<td>759</td>
<td>84.6</td>
<td>759</td>
<td>84.5</td>
<td>759</td>
</tr>
<tr>
<td>437.leslie3d</td>
<td>8</td>
<td>759</td>
<td>84.6</td>
<td>759</td>
<td>84.5</td>
<td>759</td>
</tr>
<tr>
<td>444.namd</td>
<td>8</td>
<td>759</td>
<td>84.6</td>
<td>759</td>
<td>84.5</td>
<td>759</td>
</tr>
<tr>
<td>447.dealII</td>
<td>8</td>
<td>759</td>
<td>84.6</td>
<td>759</td>
<td>84.5</td>
<td>759</td>
</tr>
<tr>
<td>450.soplex</td>
<td>8</td>
<td>981</td>
<td>68.0</td>
<td>977</td>
<td>68.3</td>
<td>978</td>
</tr>
<tr>
<td>453.povray</td>
<td>8</td>
<td>759</td>
<td>84.6</td>
<td>759</td>
<td>84.5</td>
<td>759</td>
</tr>
<tr>
<td>454.calculix</td>
<td>8</td>
<td>759</td>
<td>84.6</td>
<td>759</td>
<td>84.5</td>
<td>759</td>
</tr>
<tr>
<td>459.GemsFDTD</td>
<td>8</td>
<td>759</td>
<td>84.6</td>
<td>759</td>
<td>84.5</td>
<td>759</td>
</tr>
<tr>
<td>465.tonto</td>
<td>8</td>
<td>759</td>
<td>84.6</td>
<td>759</td>
<td>84.5</td>
<td>759</td>
</tr>
<tr>
<td>470.lbm</td>
<td>8</td>
<td>759</td>
<td>84.6</td>
<td>759</td>
<td>84.5</td>
<td>759</td>
</tr>
<tr>
<td>481.wrf</td>
<td>8</td>
<td>857</td>
<td>104</td>
<td>856</td>
<td>104</td>
<td>856</td>
</tr>
<tr>
<td>482.sphinx3</td>
<td>8</td>
<td>857</td>
<td>104</td>
<td>856</td>
<td>104</td>
<td>856</td>
</tr>
</tbody>
</table>

Results appear in the order in which they were run. **Bold underlined text** indicates a median measurement.

---

### Submit Notes

The config file option 'submit' was used.

'n numactl' was used to bind copies to the cores

### Operating System Notes

The libhugetlbfs libraries were installed using the installation rpms that came with the distribution.

'ulimit -s unlimited' was used to set environment stack size

'ulimit -l 2097152' was used to set environment locked pages in memory limit

Set vm/nr_hugepages=7168 in /etc/sysctl.conf

mount -t hugetlbfs nodev /mnt/hugepages
SPEC CFP2006 Result

Dell Inc.

PowerEdge SC1435 (AMD Opteron 2374 HE, 2.20 GHz)

SPECfp_rate2006 = 105

SPECfp_rate_base2006 = 93.8

CPU2006 license: 55
Test sponsor: Dell Inc.
Tested by: Dell Inc.

Test date: Dec-2008
Hardware Availability: Feb-2009
Software Availability: Oct-2008

General Notes

Environment variables set by runspec before the start of the run:
HUGETLB_MORECORE = "yes"
LD_LIBRARY_PATH = "/root/cpu2006_1.1/amd909gh-libs/64:/root/cpu2006_1.1/amd909gh-libs/32"
NCPUS = "4"

Base Compiler Invocation

C benchmarks:
pgcc

C++ benchmarks:
pgcpp

Fortran benchmarks:
pgf95

Benchmarks using both Fortran and C:
pgcc pgf95

Base Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.gamess: -DSPEC_CPU_LP64
433.milc: -DSPEC_CPU_LP64
434.zeusmp: -DSPEC_CPU_LP64
435.gromacs: -DSPEC_CPU_LP64 -Mnomain
436.cactusADM: -DSPEC_CPU_LP64 -Mnomain
437.leslie3d: -DSPEC_CPU_LP64
444.namd: -DSPEC_CPU_LP64
447.dealII: -DSPEC_CPU_LP64
450.soplex: -DSPEC_CPU_LP64
453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -Mnomain
459.GemsFDTD: -DSPEC_CPU_LP64
465.tonto: -DSPEC_CPU_LP64
470.lbm: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
482.sphinx3: -DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:
-Mvect=cachesize:6291456 -fastsse -Msmartalloc=big -Mfprelaxed
-Mipa=fast -Mipa=inline -tp barcelona-64 -Bstatic_pgi

Continued on next page
SPEC CFP2006 Result

Dell Inc.

PowerEdge SC1435 (AMD Opteron 2374 HE, 2.20 GHz)

SPECfp_rate2006 = 105
SPECfp_rate_base2006 = 93.8

CPU2006 license: 55
Test sponsor: Dell Inc.
Test date: Dec-2008
Tested by: Dell Inc.
Hardware Availability: Feb-2009
Software Availability: Oct-2008

Base Optimization Flags (Continued)

C++ benchmarks:
- Mvect=cachesize:6291456 -fastsse -Msmartalloc=huge -Mfprelaxed
--zc_eh -Mipa=fast -Mipa:inline -tp barcelona-64 -Bstatic_pgi

Fortran benchmarks:
- Mvect=cachesize:6291456 -fastsse -Mfprelaxed -Msmartalloc=huge
- Mipa=fast -Mipa=inline -tp barcelona-64 -Bstatic_pgi

Benchmarks using both Fortran and C:
- Mvect=cachesize:6291456 -fastsse -Msmartalloc=huge -Mfprelaxed
- Mipa=fast -Mipa=inline -tp barcelona-64 -Bstatic_pgi

Base Other Flags

C benchmarks:
- Mipa=jobs:4

C++ benchmarks:
- Mipa=jobs:4

Fortran benchmarks:
- Mipa=jobs:4

Benchmarks using both Fortran and C:
- Mipa=jobs:4

Peak Compiler Invocation

C benchmarks:
pgcc

C++ benchmarks (except as noted below):
pathCC
  444.namd: pgcpp

Fortran benchmarks (except as noted below):
pathf95
  410.bwaves: pgf95
  434.zeusmp: pgf95
  437.leslie3d: pgf95

Continued on next page
Dell Inc.  
PowerEdge SC1435 (AMD Opteron 2374 HE, 2.20 GHz)  

**SPEC CFP2006 Result**  

<table>
<thead>
<tr>
<th><strong>SPECfp_rate2006</strong></th>
<th>105</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPECfp_rate_base2006</strong></td>
<td>93.8</td>
</tr>
</tbody>
</table>

**CPU2006 license:** 55  
**Test sponsor:** Dell Inc.  
**Hardware Availability:** Feb-2009  
**Tested by:** Dell Inc.  
**Software Availability:** Oct-2008

---

**Peak Compiler Invocation (Continued)**  
Benchmarks using both Fortran and C (except as noted below):  
pgcc pgf95  
435.gromacs: pathcc pathf95  
481.wrf: pathcc pathf95

---

**Peak Portability Flags**

- 410.bwaves: -DSPEC_CPU_LP64  
- 416.gamepp: -DSPEC_CPU_LP64  
- 433.milc: -DSPEC_CPU_LP64  
- 434.zeusmp: -DSPEC_CPU_LP64  
- 435.gromacs: -DSPEC_CPU_LP64  
- 436.cactusADM: -DSPEC_CPU_LP64 -Mnomain  
- 437.leslie3d: -DSPEC_CPU_LP64  
- 444.namd: -DSPEC_CPU_LP64  
- 453.povray: -DSPEC_CPU_LP64  
- 454.calculix: -DSPEC_CPU_LP64 -Mnomain  
- 459.GemsFDTD: -DSPEC_CPU_LP64  
- 465.tonto: -DSPEC_CPU_LP64  
- 470.lbm: -DSPEC_CPU_LP64  
- 481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX -fno-second-underscore  
- 482.sphinx3: -DSPEC_CPU_LP64

---

**Peak Optimization Flags**

**C benchmarks:**  
433.milc: basepeak = yes

- 470.lbm: -Mvect=cachesize:6291456 -fastsse -Msmartalloc=large  
  -Mprefetch=t0 -Mloop32 -Mfprelaxed -Mipa=fast -Mipa=inline  
  -tp barcelona-64 -Bstatic_pgi

- 482.sphinx3: -Mpfi=indirect(pass 1) -Mpfo=indirect(pass 2)  
  -Mipa=fast(pass 2) -Mipa=inline(pass 2)  
  -Mvect=cachesize:6291456 -fastsse -Mfprelaxed -Msmartalloc  
  -tp barcelona-64 -Bstatic_pgi

**C++ benchmarks:**  
444.namd: -Mpfi(pass 1) -Mpfo(pass 2) -Mipa=fast(pass 2)  
  -Mipa=inline(pass 2) -Mvect=cachesize:6291456 -fastsse  
  -Munroll=n:4 -Munroll=m:8 -Msmartalloc=large -Mnodepchk  
  -Mfprelaxed --zc_eh -tp barcelona-64 -Bstatic_pgi

Continued on next page
Dell Inc.

PowerEdge SC1435 (AMD Opteron 2374 HE, 2.20 GHz)

| SPECfp_rate2006 | 105 |
| SPECfp_rate_base2006 | 93.8 |

CPU2006 license: 55
Test sponsor: Dell Inc.
Tested by: Dell Inc.

Peak Optimization Flags (Continued)

447.dealII: -march=barcelona -Ofast -static -INLINE:aggressive=on -fno-exceptions -m32

450.soplex: -march=barcelona -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -L/usr/lib -lhugetlbfs(pass 2) -O3 -INLINE:aggressive=on -OPT:IEEE_arith=3 -OPT:IEEE_NaN_INF=off -OPT:fold_unsigned_relops=on -OPT:malloc_alg=1 -CG:load_exe=0 -fno-exceptions -m32

453.povray: -march=barcelona -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -Ofast -INLINE:aggressive=on

Fortran benchmarks:


416.gamess: -march=barcelona -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -L,-T/usr/share/libhugetlbfs/ldscripts/elf_x86_64.xBDT(pass 2) -L/usr/lib64 -lhugetlbfs(pass 2) -O2 -OPT:Ofast -OPT:ro=3 -OPT:unroll_size=256


437.lelise3d: -Mfpi=indirect(pass 1) -Mfpo=indirect(pass 2) -Mipa=fast(pass 2) -Mipa=inline(pass 2) -Mvect=cachesize:6291456 -fastsse -Mvect=fuse -Msmartalloc=large -Mprefetch=distance:8 -Mprefetch=t0 -Mfprelaxed -tp barcelona-64 -Bstatic_pgi


Benchmarks using both Fortran and C:
Dell Inc.  
PowerEdge SC1435 (AMD Opteron 2374 HE, 2.20 GHz)  

SPEC CFP2006 Result

<table>
<thead>
<tr>
<th>CPU2006 license</th>
<th>Test date</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>Dec-2008</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test sponsor</th>
<th>Hardware Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dell Inc.</td>
<td>Feb-2009</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tested by</th>
<th>Software Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dell Inc.</td>
<td>Oct-2008</td>
</tr>
</tbody>
</table>

**SPECfp_rate2006 = 105**  
**SPECfp_rate_base2006 = 93.8**

**Peak Optimization Flags (Continued)**

435.gromacs: -march=barcelona -Ofast -OPT:rsqrt=2 -OPT:malloc_alg=1 -Wl,-T/usr/share/libhugetlbfs/ldscripts/elf_x86_64.xBDT -L/usr/lib64 -lhugetlbfs


454.calculix: -Mpfii=indirect(pass 1) -Mpfii=indirect(pass 2) -Mipa=fast(pass 2) -Mipa=inline(pass 2) -Mvect=cachesize:6291456 -fastsse -Msmartalloc=huge -Mfprelaxed -tp barcelona-64 -Bstatic_pgi


**Peak Other Flags**

C benchmarks: -Mipa=jobs:4(pass 2)

C++ benchmarks:

444.namd: -Mipa=jobs:4(pass 2)

Fortran benchmarks (except as noted below):

416.gamess: No flags used

459.GemsFDTD: No flags used

465.tonto: No flags used

Benchmarks using both Fortran and C (except as noted below):

435.gromacs: No flags used

481.wrf: No flags used
### SPEC CFP2006 Result

**Dell Inc.**

PowerEdge SC1435 (AMD Opteron 2374 HE, 2.20 GHz)

| SPECfp_rate2006 | 105 |
| SPECfp_rate_base2006 | 93.8 |

| CPU2006 license: | 55 |
| Test sponsor: | Dell Inc. |
| Tested by: | Dell Inc. |
| Test date: | Dec-2008 |
| Hardware Availability: | Feb-2009 |
| Software Availability: | Oct-2008 |

The flags files that were used to format this result can be browsed at:


You can also download the XML flags sources by saving the following links:


---

SPEC and SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.1.
Originally published on 3 March 2009.