# CFP2000 Result

**ION A20 (Intel Xeon processor 5130, 2.0GHz)**

**SPECfp_rate2000 =** 68.4  
**SPECfp_rate_base2000 =** 68.4

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Base Copies</th>
<th>Base Runtime</th>
<th>Base Ratio</th>
<th>Copies</th>
<th>Runtime</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>168.wupwise</td>
<td>4</td>
<td>73.5</td>
<td>101</td>
<td>4</td>
<td>73.5</td>
<td>101</td>
</tr>
<tr>
<td>171.swim</td>
<td>4</td>
<td>272</td>
<td>52.8</td>
<td>4</td>
<td>272</td>
<td>52.8</td>
</tr>
<tr>
<td>172.mgrid</td>
<td>4</td>
<td>177</td>
<td>47.2</td>
<td>4</td>
<td>177</td>
<td>47.2</td>
</tr>
<tr>
<td>173.applu</td>
<td>4</td>
<td>189</td>
<td>51.5</td>
<td>4</td>
<td>189</td>
<td>51.5</td>
</tr>
<tr>
<td>177.mesa</td>
<td>4</td>
<td>69.0</td>
<td>94.2</td>
<td>4</td>
<td>69.0</td>
<td>94.2</td>
</tr>
<tr>
<td>178.galgel</td>
<td>4</td>
<td>79.5</td>
<td>169</td>
<td>4</td>
<td>79.5</td>
<td>169</td>
</tr>
<tr>
<td>179.art</td>
<td>4</td>
<td>61.9</td>
<td>195</td>
<td>4</td>
<td>61.9</td>
<td>195</td>
</tr>
<tr>
<td>183.equake</td>
<td>4</td>
<td>136</td>
<td>44.4</td>
<td>4</td>
<td>136</td>
<td>44.4</td>
</tr>
<tr>
<td>187.facerec</td>
<td>4</td>
<td>105</td>
<td>84.1</td>
<td>4</td>
<td>105</td>
<td>84.1</td>
</tr>
<tr>
<td>188.ammp</td>
<td>4</td>
<td>161</td>
<td>63.6</td>
<td>4</td>
<td>161</td>
<td>63.6</td>
</tr>
<tr>
<td>189.lucas</td>
<td>4</td>
<td>182</td>
<td>51.1</td>
<td>4</td>
<td>182</td>
<td>51.1</td>
</tr>
<tr>
<td>191.fma3d</td>
<td>4</td>
<td>180</td>
<td>54.1</td>
<td>4</td>
<td>180</td>
<td>54.1</td>
</tr>
<tr>
<td>200.sixtrack</td>
<td>4</td>
<td>146</td>
<td>34.9</td>
<td>4</td>
<td>146</td>
<td>34.9</td>
</tr>
<tr>
<td>301.apsi</td>
<td>4</td>
<td>224</td>
<td>53.8</td>
<td>4</td>
<td>224</td>
<td>53.8</td>
</tr>
</tbody>
</table>

## Hardware

- **CPU:** Intel Xeon Processor 5130 (1333Mhz System Bus)
- **CPU MHz:** 2000
- **FPU:** Integrated
- **CPU(s) enabled:** 4 cores, 2 chips, 2 cores/chip
- **CPU(s) orderable:** 1.2 chips
- **Parallel:** No
- **Primary Cache:** 32KB(I) + 32KB(D) on chip, per core
- **Secondary Cache:** 4MB (I+D) on chip, per chip
- **L3 Cache:** None
- **Other Cache:** None
- **Memory:** 8 GB (8*1GB PC2-5300 FB-DIMMs)
- **Disk Subsystem:** 1 x 400GB SATA, 7200rpm
- **Other Hardware:** None

## Software

- **Operating System:** Red Hat Enterprise Linux ES 4 Update 3 for AMD64/Intel EM64T
- **Compiler:** Intel(R) Fortran Compiler for EM64T, V9.1 (Build 20060707)
- **File System:** ext3
- **System State:** Multi-user

## Notes/Tuning Information

- Tested by ION Computer Systems
- BIOS 2.00 Build 54
- Enhanced SpeedStep Disabled in BIOS
- kernel 2.6.9-34.0.1.ELsmp
- +FDO: PASS1=-prof_gen  PASS2=-prof_use

**SPEC CFP2000 Baseline optimization flags**

C programs: -fast -ansi_alias +FDO  
Fortran programs: -fast +FDO  
+FDO: PASS1=-prof_gen  PASS2=-prof_use

**SPEC CFP2000 Peak optimization flags:**

basepeak=yes  set globally

**Portability Flags:**

178.galgel: -F1