

| Tool Name | Execution Time (s) | Total Energy (J) | CPU Energy (J) | Memory Energy (J) | Energy/Time (J/s) |
|-------------------------|--------------------|------------------|----------------|-------------------|-------------------|
| CMake | 2 (1.2) | 6 (5.5) | 6 (6.5) | 2 (1.2) | 4 (2.0) |
| qmake | 3 (1.3) | 2 (3.0) | 2 (4.0) | 3 (1.3) | 2 (1.7) |
| Qbs | 4 (1.5) | 4 (4.5) | 5 (5.5) | 4 (1.5) | 1 (1.5) |
| NetBeans IDE | 4 (1.5) | 7 (7.0) | 7 (7.5) | 4 (1.5) | 4 (2.0) |
| Code::Blocks | 6 (2.0) | 11 (11.0) | 12 (12.0) | 6 (2.0) | 4 (2.0) |
| CLion | 2 (1.2) | 6 (5.5) | 6 (6.5) | 2 (1.2) | 4 (2.0) |
| CodeLite | 4 (1.5) | 7 (7.0) | 8 (8.0) | 4 (1.5) | 4 (2.0) |
| Eclipse CDT | 4 (1.5) | 9 (8.0) | 10 (9.0) | 4 (1.5) | 4 (2.0) |
| KDevelop | 2 (1.2) | 6 (5.5) | 6 (6.5) | 2 (1.2) | 4 (2.0) |
| Geany | 6 (2.0) | 13 (14.0) | 14 (15.0) | 6 (2.0) | 4 (2.0) |
| Anjuta DevStudio | 5 (1.8) | 8 (7.5) | 9 (8.2) | 5 (1.8) | 1 (1.5) |
| Qt Creator | 3 (1.3) | 3 (4.4) | 4 (5.4) | 3 (1.3) | 3 (1.8) |
| DialogBlocks | 4 (1.5) | 7 (7.0) | 8 (8.0) | 4 (1.5) | 4 (2.0) |
| Zinjal | 4 (1.5) | 10 (10.0) | 11 (10.5) | 4 (1.5) | 5 (2.5) |
| GPS | 2 (1.2) | 5 (4.8) | 3 (5.2) | 2 (1.2) | 4 (2.0) |
| Oracle Developer Studio | 4 (1.5) | 7 (7.0) | 7 (7.5) | 4 (1.5) | 4 (2.0) |
| Sphere Engine | 1 (1.0) | 1 (2.0) | 1 (3.0) | 1 (1.0) | 4 (2.0) |
| AWS Cloud9 | 6 (2.0) | 12 (13.0) | 13 (14.0) | 6 (2.0) | 5 (2.5) |

Table 1: Chameneos-redux tools ranked with 0 decimal points

| Tool Name | Execution Time (s) | Total Energy (J) | CPU Energy (J) | Memory Energy (J) | Energy/Time (J/s) |
|-------------------------|--------------------|------------------|----------------|-------------------|-------------------|
| CMake | 3 (4.0) | 6 (11.5) | 5 (12.5) | 3 (2.2) | 10 (9.5) |
| qmake | 6 (4.7) | 2 (6.7) | 1 (7.0) | 4 (2.7) | 3 (5.3) |
| Qbs | 8 (5.5) | 5 (9.5) | 4 (10.5) | 6 (3.5) | 1 (5.0) |
| NetBeans IDE | 8 (5.5) | 7 (12.0) | 5 (12.5) | 5 (3.0) | 6 (7.5) |
| Code::Blocks | 11 (8.0) | 12 (19.0) | 10 (20.0) | 8 (5.0) | 4 (6.0) |
| CLion | 3 (4.0) | 6 (11.5) | 5 (12.5) | 3 (2.2) | 10 (9.5) |
| CodeLite | 7 (5.0) | 9 (14.5) | 7 (15.5) | 5 (3.0) | 9 (9.0) |
| Eclipse CDT | 7 (5.0) | 10 (15.0) | 8 (16.0) | 5 (3.0) | 10 (9.5) |
| KDevelop | 3 (4.0) | 6 (11.5) | 5 (12.5) | 3 (2.2) | 10 (9.5) |
| Geany | 10 (7.0) | 14 (23.0) | 12 (24.0) | 7 (4.0) | 12 (12.0) |
| Anjuta DevStudio | 9 (6.8) | 8 (13.8) | 6 (14.5) | 7 (4.0) | 2 (5.2) |
| Qt Creator | 5 (4.6) | 4 (9.4) | 3 (10.2) | 4 (2.7) | 5 (7.1) |
| DialogBlocks | 4 (4.5) | 9 (14.5) | 7 (15.5) | 5 (3.0) | 10 (9.5) |
| Zinjal | 2 (3.5) | 11 (17.5) | 9 (18.5) | 2 (2.0) | 13 (15.0) |
| GPS | 3 (4.0) | 3 (8.8) | 2 (9.2) | 3 (2.2) | 8 (8.2) |
| Oracle Developer Studio | 8 (5.5) | 7 (12.0) | 5 (12.5) | 5 (3.0) | 6 (7.5) |
| Sphere Engine | 1 (3.0) | 1 (6.0) | 1 (7.0) | 1 (1.0) | 7 (8.0) |
| AWS Cloud9 | 10 (7.0) | 13 (21.5) | 11 (22.5) | 7 (4.0) | 11 (11.0) |

Table 2: Chameneos-redux tools ranked with 1 decimal points

| Tool Name | Execution Time (s) | Total Energy (J) | CPU Energy (J) | Memory Energy (J) | Energy/Time (J/s) |
|-------------------------|--------------------|------------------|----------------|-------------------|-------------------|
| CMake | 4 (10.2) | 6 (11.5) | 5 (12.5) | 5 (9.2) | 8 (13.8) |
| qmake | 6 (10.7) | 2 (6.7) | 1 (7.0) | 4 (9.0) | 2 (7.0) |
| Qbs | 11 (14.0) | 5 (9.5) | 4 (10.5) | 9 (11.5) | 2 (7.0) |
| NetBeans IDE | 10 (13.0) | 7 (12.0) | 5 (12.5) | 7 (10.0) | 3 (9.5) |
| Code::Blocks | 14 (16.0) | 12 (19.0) | 10 (20.0) | 12 (15.0) | 2 (7.0) |
| CLion | 4 (10.2) | 6 (11.5) | 5 (12.5) | 5 (9.2) | 8 (13.8) |
| CodeLite | 7 (11.0) | 9 (14.5) | 7 (15.5) | 8 (11.0) | 7 (13.0) |
| Eclipse CDT | 9 (12.0) | 10 (15.0) | 8 (16.0) | 8 (11.0) | 9 (14.5) |
| KDevelop | 4 (10.2) | 6 (11.5) | 5 (12.5) | 5 (9.2) | 8 (13.8) |
| Geany | 11 (14.0) | 14 (23.0) | 12 (24.0) | 11 (14.0) | 11 (17.0) |
| Anjuta DevStudio | 13 (15.2) | 8 (13.8) | 6 (14.5) | 10 (13.5) | 1 (6.2) |
| Qt Creator | 8 (11.2) | 4 (9.4) | 3 (10.2) | 6 (9.7) | 4 (10.0) |
| DialogBlocks | 5 (10.5) | 9 (14.5) | 7 (15.5) | 7 (10.0) | 7 (13.0) |
| Zinjal | 1 (7.0) | 11 (17.5) | 9 (18.5) | 2 (6.0) | 12 (22.0) |
| GPS | 3 (9.0) | 3 (8.8) | 2 (9.2) | 3 (7.5) | 5 (11.0) |
| Oracle Developer Studio | 10 (13.0) | 7 (12.0) | 5 (12.5) | 7 (10.0) | 3 (9.5) |
| Sphere Engine | 2 (8.0) | 1 (6.0) | 1 (7.0) | 1 (5.0) | 6 (12.0) |
| AWS Cloud9 | 12 (14.5) | 13 (21.5) | 11 (22.5) | 10 (13.5) | 10 (15.0) |

Table 3: Chameneos-redux tools ranked with 2 decimal points

| Tool Name | Execution Time (s) | Total Energy (J) | CPU Energy (J) | Memory Energy (J) | Energy/Time (J/s) |
|-------------------------|--------------------|------------------|----------------|-------------------|-------------------|
| CMake | 4 (12.0) | 5 (12.5) | 5 (12.5) | 7 (12.8) | 10 (14.2) |
| qmake | 5 (12.3) | 1 (7.0) | 1 (7.0) | 4 (11.3) | 3 (7.3) |
| Qbs | 10 (16.0) | 4 (10.5) | 4 (10.5) | 9 (14.0) | 4 (7.5) |
| NetBeans IDE | 9 (15.0) | 5 (12.5) | 5 (12.5) | 8 (13.0) | 5 (9.5) |
| Code::Blocks | 13 (19.0) | 10 (20.0) | 10 (20.0) | 13 (18.0) | 2 (7.0) |
| CLion | 4 (12.0) | 5 (12.5) | 5 (12.5) | 7 (12.8) | 10 (14.2) |
| CodeLite | 6 (12.5) | 7 (15.5) | 7 (15.5) | 9 (14.0) | 9 (13.5) |
| Eclipse CDT | 8 (14.0) | 8 (16.0) | 8 (16.0) | 9 (14.0) | 11 (15.5) |
| KDevelop | 4 (12.0) | 5 (12.5) | 5 (12.5) | 7 (12.8) | 10 (14.2) |
| Geany | 11 (17.0) | 12 (24.0) | 12 (24.0) | 12 (17.0) | 12 (18.0) |
| Anjuta DevStudio | 12 (17.8) | 6 (14.5) | 6 (14.5) | 11 (16.8) | 1 (6.2) |
| Qt Creator | 7 (13.0) | 3 (10.2) | 3 (10.2) | 6 (12.6) | 6 (10.4) |
| DialogBlocks | 4 (12.0) | 7 (15.5) | 7 (15.5) | 5 (12.5) | 9 (13.5) |
| Zinjal | 1 (8.0) | 9 (18.5) | 9 (18.5) | 2 (7.5) | 13 (23.0) |
| GPS | 3 (10.5) | 2 (9.2) | 2 (9.2) | 3 (9.2) | 7 (11.2) |
| Oracle Developer Studio | 9 (15.0) | 5 (12.5) | 5 (12.5) | 8 (13.0) | 5 (9.5) |
| Sphere Engine | 2 (9.0) | 1 (7.0) | 1 (7.0) | 1 (7.0) | 8 (13.0) |
| AWS Cloud9 | 11 (17.0) | 11 (22.5) | 11 (22.5) | 10 (16.5) | 11 (15.5) |

Table 4: Chameneos-redux tools ranked with 3 decimal points