

Tool Name	Execution Time (s)	Total Energy (J)	CPU Energy (J)	Memory Energy (J)	Energy/Time (J/s)
CMake	3 (3.0)	3 (3.2)	3 (2.5)	4 (2.0)	5 (1.5)
qmake	5 (3.3)	4 (3.3)	4 (2.7)	4 (2.0)	3 (1.3)
Qbs	6 (3.5)	7 (4.0)	5 (3.0)	4 (2.0)	5 (1.5)
NetBeans IDE	3 (3.0)	7 (4.0)	5 (3.0)	4 (2.0)	5 (1.5)
Code::Blocks	3 (3.0)	9 (6.0)	7 (4.0)	4 (2.0)	7 (2.0)
CLion	3 (3.0)	3 (3.2)	3 (2.5)	4 (2.0)	5 (1.5)
CodeLite	2 (2.0)	6 (3.5)	3 (2.5)	2 (1.5)	7 (2.0)
Eclipse CDT	3 (3.0)	7 (4.0)	5 (3.0)	2 (1.5)	5 (1.5)
KDevelop	3 (3.0)	3 (3.2)	3 (2.5)	4 (2.0)	5 (1.5)
Geany	3 (3.0)	9 (6.0)	7 (4.0)	4 (2.0)	7 (2.0)
Anjuta DevStudio	3 (3.0)	8 (5.0)	6 (3.5)	4 (2.0)	6 (1.8)
Qt Creator	4 (3.2)	5 (3.4)	4 (2.7)	4 (2.0)	4 (1.4)
DialogBlocks	3 (3.0)	7 (4.0)	5 (3.0)	4 (2.0)	5 (1.5)
Zinjal	1 (1.5)	2 (3.0)	2 (2.0)	1 (1.0)	7 (2.0)
GPS	3 (3.0)	3 (3.2)	3 (2.5)	3 (1.8)	2 (1.2)
Oracle Developer Studio	3 (3.0)	7 (4.0)	5 (3.0)	4 (2.0)	5 (1.5)
Sphere Engine	3 (3.0)	1 (2.0)	1 (1.0)	1 (1.0)	1 (1.0)
AWS Cloud9	2 (2.0)	8 (5.0)	6 (3.5)	2 (1.5)	7 (2.0)

Table 1: reverse-complement 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	6 (7.8)	6 (9.5)	4 (4.8)	5 (7.5)	2 (2.2)
qmake	8 (8.3)	5 (9.0)	3 (4.7)	6 (7.7)	1 (2.0)
Qbs	9 (8.5)	9 (11.0)	7 (5.5)	11 (9.0)	5 (3.0)
NetBeans IDE	10 (9.0)	10 (11.5)	8 (6.0)	11 (9.0)	5 (3.0)
Code::Blocks	10 (9.0)	13 (15.0)	11 (10.0)	8 (8.0)	7 (4.0)
CLion	6 (7.8)	6 (9.5)	4 (4.8)	5 (7.5)	2 (2.2)
CodeLite	3 (5.5)	3 (8.0)	6 (5.0)	3 (5.5)	6 (3.5)
Eclipse CDT	9 (8.5)	8 (10.0)	8 (6.0)	5 (7.5)	4 (2.5)
KDevelop	6 (7.8)	6 (9.5)	4 (4.8)	5 (7.5)	2 (2.2)
Geany	10 (9.0)	12 (13.0)	10 (8.0)	11 (9.0)	7 (4.0)
Anjuta DevStudio	9 (8.5)	11 (12.2)	9 (7.5)	9 (8.2)	6 (3.5)
Qt Creator	7 (8.1)	7 (9.7)	5 (4.9)	7 (7.9)	3 (2.3)
DialogBlocks	9 (8.5)	9 (11.0)	8 (6.0)	10 (8.5)	4 (2.5)
Zinjal	1 (2.5)	2 (6.5)	2 (4.0)	1 (2.5)	7 (4.0)
GPS	5 (6.8)	4 (8.8)	4 (4.8)	4 (6.5)	4 (2.5)
Oracle Developer Studio	10 (9.0)	10 (11.5)	8 (6.0)	11 (9.0)	5 (3.0)
Sphere Engine	2 (5.0)	1 (3.0)	1 (2.0)	2 (5.0)	1 (2.0)
AWS Cloud9	4 (6.0)	12 (13.0)	10 (8.0)	3 (5.5)	8 (5.0)

Table 2: reverse-complement 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	6 (14.5)	6 (13.0)	5 (10.2)	6 (13.0)	3 (5.2)
qmake	8 (16.0)	5 (12.7)	3 (10.0)	5 (12.7)	2 (4.7)
Qbs	12 (17.5)	9 (15.0)	3 (10.0)	12 (16.5)	4 (6.0)
NetBeans IDE	11 (17.0)	11 (16.5)	9 (13.0)	13 (17.0)	5 (6.5)
Code::Blocks	14 (20.0)	13 (20.0)	14 (21.0)	9 (15.0)	10 (11.0)
CLion	6 (14.5)	6 (13.0)	5 (10.2)	6 (13.0)	3 (5.2)
CodeLite	5 (12.0)	3 (10.5)	6 (10.5)	3 (9.0)	6 (8.0)
Eclipse CDT	13 (19.0)	6 (13.0)	11 (14.5)	7 (13.5)	4 (6.0)
KDevelop	6 (14.5)	6 (13.0)	5 (10.2)	6 (13.0)	3 (5.2)
Geany	15 (21.0)	10 (16.0)	10 (14.0)	13 (17.0)	8 (9.0)
Anjuta DevStudio	10 (16.8)	11 (16.5)	12 (15.2)	11 (15.8)	7 (8.8)
Qt Creator	7 (15.7)	7 (13.3)	4 (10.1)	8 (13.7)	3 (5.2)
DialogBlocks	9 (16.5)	8 (14.5)	8 (12.0)	10 (15.5)	5 (6.5)
Zinjal	1 (2.5)	2 (8.0)	2 (7.0)	1 (2.5)	9 (10.0)
GPS	3 (10.8)	4 (11.5)	7 (10.8)	4 (11.0)	4 (6.0)
Oracle Developer Studio	11 (17.0)	11 (16.5)	9 (13.0)	13 (17.0)	5 (6.5)
Sphere Engine	2 (6.0)	1 (3.0)	1 (3.0)	2 (5.0)	1 (4.0)
AWS Cloud9	4 (11.5)	12 (17.0)	13 (16.5)	3 (9.0)	11 (12.5)

Table 3: reverse-complement 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	6 (14.5)	6 (14.0)	6 (13.5)	5 (14.5)	4 (10.2)
qmake	8 (16.0)	5 (13.3)	3 (12.0)	6 (14.7)	2 (7.7)
Qbs	12 (17.5)	9 (16.5)	3 (12.0)	12 (19.0)	6 (12.0)
NetBeans IDE	11 (17.0)	11 (18.0)	9 (16.5)	13 (20.0)	7 (12.5)
Code::Blocks	14 (20.0)	13 (22.0)	14 (25.0)	9 (17.0)	13 (22.0)
CLion	6 (14.5)	6 (14.0)	6 (13.5)	5 (14.5)	4 (10.2)
CodeLite	5 (12.0)	3 (11.0)	4 (12.5)	3 (10.0)	9 (16.0)
Eclipse CDT	13 (19.0)	6 (14.0)	11 (18.0)	7 (15.5)	5 (11.0)
KDevelop	6 (14.5)	6 (14.0)	6 (13.5)	5 (14.5)	4 (10.2)
Geany	15 (21.0)	10 (17.0)	10 (17.0)	13 (20.0)	11 (18.0)
Anjuta DevStudio	10 (16.8)	11 (18.0)	12 (18.5)	10 (18.2)	10 (17.8)
Qt Creator	7 (15.7)	7 (14.3)	5 (12.7)	8 (15.6)	3 (9.8)
DialogBlocks	9 (16.5)	8 (15.5)	8 (15.0)	11 (18.5)	6 (12.0)
Zinjal	1 (2.5)	2 (8.5)	2 (8.5)	1 (2.5)	12 (19.0)
GPS	3 (10.8)	4 (12.5)	7 (14.0)	4 (12.2)	8 (12.8)
Oracle Developer Studio	11 (17.0)	11 (18.0)	9 (16.5)	13 (20.0)	7 (12.5)
Sphere Engine	2 (6.0)	1 (3.0)	1 (3.0)	2 (5.0)	1 (6.0)
AWS Cloud9	4 (11.5)	12 (18.5)	13 (20.0)	3 (10.0)	14 (23.5)

Table 4: reverse-complement tools ranked with 3 decimal points