
### Intel Core i5-6500, 3.20 GHz, 8 G RAM

*-mx512m (for JRE 7 java section only)*

**Section 1**

**. NET DLL**

**1.1. .NET – write action**

*easy\_WriteXLSXFile*

## Test 1

 1 sheet x 1,000 rows x 10 columns = 10,000 cells, 64KB

 *Time to populate the sheets = 59 milliseconds*

 *Time to generate the file = 583 milliseconds*

## Test 2

 1 sheet x 2,000 rows x 10 columns = 20,000 cells, 121KB

 *Time to populate the sheets = 63 milliseconds*

 *Time to generate the file = 672 milliseconds*

## Test 3

 1 sheet x 5,000 rows x 10 columns = 50,000 cells, 293KB

 *Time to populate the sheets = 98 milliseconds*

 *Time to generate the file = 906 milliseconds*

## Test 4

 1 sheet x 10,000 rows x 10 columns = 100,000 cells, 579KB

 *Time to populate the sheets = 99 milliseconds*

 *Time to generate the file = 1 seconds and 343 milliseconds*

## Test 5

 1 sheet x 50,000 rows x 10 columns = 500,000 cells, 2.79MB

 *Time to populate the sheets = 396 milliseconds*

 *Time to generate the file = 4 seconds and 768 milliseconds*

## Test 6

 1 sheet x 50,000 rows x 20 columns = 1,000,000 cells, 5.38MB

 *Time to populate the sheets = 784 milliseconds*

 *Time to generate the file = 9 seconds and 210 milliseconds*

## Test 7

 2 sheets x 5,000 rows x 10 columns = 100,000 cells, 580KB

 *Time to populate the sheets = 99 milliseconds*

 *Time to generate the file = 1 seconds and 260 milliseconds*

## Test 8

 5 sheets x 5,000 rows x 10 columns = 250,000 cells, 1.4MB

 *Time to populate the sheets = 212 milliseconds*

 *Time to generate the file = 2 seconds and 418 milliseconds*

*easy\_WriteXLSFile*

## Test 1

 1 sheet x 1,000 rows x 10 columns = 10,000 cells, 280KB

 *Time to populate the sheets = 59 milliseconds*

 *Time to generate the file = 296 milliseconds*

## Test 2

 1 sheet x 2,000 rows x 10 columns = 20,000 cells, 555KB

 *Time to populate the sheets = 63 milliseconds*

 *Time to generate the file = 351 milliseconds*

## Test 3

 1 sheet x 5,000 rows x 10 columns = 50,000 cells, 1.34MB

 *Time to populate the sheets = 78 milliseconds*

 *Time to generate the file = 533 milliseconds*

## Test 4

 1 sheet x 10,000 rows x 10 columns = 100,000 cells, 2.69MB

 *Time to populate the sheets = 104 milliseconds*

 *Time to generate the file = 859 milliseconds*

## Test 5

 1 sheet x 50,000 rows x 10 columns = 500,000 cells, 13.7MB

 *Time to populate the sheets = 427 milliseconds*

 *Time to generate the file = 3 seconds and 368 milliseconds*

## Test 6

 1 sheet x 50,000 rows x 20 columns = 1,000,000 cells, 28.6MB

 *Time to populate the sheet = 786 milliseconds*

 *Time to generate the file = 6 seconds and 365 milliseconds*

## Test 7

 2 sheets x 5,000 rows x 10 columns = 100,000 cells, 2.68MB

 *Time to populate the sheets = 104 milliseconds*

 *Time to generate the file = 782 milliseconds*

## Test 8

 5 sheets x 5,000 rows x 10 columns = 250,000 cells, 6.7MB

 *Time to populate the sheets = 249 milliseconds*

 *Time to generate the file = 1 seconds and 544 milliseconds*

*easy\_WriteXLSBFile*

## Test 1

 1 sheet x 1,000 rows x 10 columns = 10,000 cells, 43.2KB

 *Time to populate the sheets = 64 milliseconds*

 *Time to generate the file = 585 milliseconds*

## Test 2

 1 sheet x 2,000 rows x 10 columns = 20,000 cells, 80.1KB

 *Time to populate the sheets = 70 milliseconds*

 *Time to generate the file = 685 milliseconds*

## Test 3

 1 sheet x 5,000 rows x 10 columns = 50,000 cells, 190KB

 *Time to populate the sheets = 81 milliseconds*

 *Time to generate the file = 937 milliseconds*

## Test 4

 1 sheet x 10,000 rows x 10 columns = 100,000 cells, 376KB

 *Time to populate the sheets = 83 milliseconds*

 *Time to generate the file = 941milliseconds*

## Test 5

 1 sheet x 50,000 rows x 10 columns = 500,000 cells, 1.79MB

 *Time to populate the sheets = 432 milliseconds*

 *Time to generate the file = 4 seconds and 840 milliseconds*

## Test 6

 1 sheet x 50,000 rows x 20 columns = 1,000,000 cells, 4.42MB

 *Time to populate the sheets = 817 milliseconds*

 *Time to generate the file = 9 seconds and 361 milliseconds*

## Test 7

 2 sheets x 5,000 rows x 10 columns = 100,000 cells, 377KB

 *Time to populate the sheets = 106 milliseconds*

 *Time to generate the file = 1 seconds and 256 milliseconds*

## Test 8

 5 sheets x 5,000 rows x 10 columns = 250,000 cells, 941KB

 *Time to populate the sheets = 235 milliseconds*

 *Time to generate the file = 2 seconds and 287 milliseconds*

*easy\_WriteTXTFile***,** *easy\_WriteCSVFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 73KB

*Time to populate the sheets = 58 milliseconds*

*Time to write the file = 49 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 152KB

*Time to populate the sheets = 59 milliseconds*

 *Time to write the file =* 87 *milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 389KB

*Time to populate the sheets = 104 milliseconds*

 *Time to write the file = 94 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 784KB

*Time to populate the sheets = 95 milliseconds*

*Time to write the file =* 164 *milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 4.08MB

 *Time to populate the sheets = 399 milliseconds*

*Time to write the file = 737* *milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 8.43MB

 *Time to populate the sheets = 765 milliseconds*

 *Time to write the file = 1 seconds and 500 milliseconds*

*easy\_WriteXMLFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 717KB

*Time to populate the sheets = 60 milliseconds*

*Time to write the file = 260 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 1.40MB

*Time to populate the sheets = 72 milliseconds*

 *Time to write the file = 323 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 3.52MB

*Time to populate the sheets = 87 milliseconds*

 *Time to write the file = 483 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 7.06MB

*Time to populate the sheets = 104 milliseconds*

 *Time to write the file = 776 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 35.6MB

 *Time to populate the sheets =* 395 *milliseconds*

*Time to write the file = 3 seconds and* 164 *milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 69.7MB

 *Time to populate the sheets = 771 milliseconds*

 *Time to write the file = 5 seconds and 473 milliseconds*

*easy\_WriteHTMLFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 399KB

*Time to populate the sheets = 62 milliseconds*

 *Time to write the file = 123 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 804KB

*Time to populate the sheets = 68 milliseconds*

 *Time to write the file = 177 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 1.96MB

*Time to populate the sheets = 72 milliseconds*

 *Time to write the file = 278 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 3.94MB

*Time to populate the sheets = 101 milliseconds*

 *Time to write the file = 441 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 20.0MB

 *Time to populate the sheets = 398 milliseconds*

 *Time to write the file = 2 seconds and* 52 *milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 38.54MB

 *Time to populate the sheets = 771 milliseconds*

 *Time to write the file = 3 seconds and 895 milliseconds*

**1.2. .NET – read action**

*easy\_ReadXLSActiveSheet\_AsDataSet, easy\_ReadXLSSheet\_AsDataSet, easy\_ReadXLSActiveSheet\_AsList, easy\_ReadXLSSheet\_AsList*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 213KB

 *Time to read the file = 150 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 419KB

 *Time to read the file = 182 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 1.01MB

 *Time to read the file = 273 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 2.01MB

 *Time to read the file = 434 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 10.20MB

 *Time to read the file = 1 seconds and 881 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 19.60MB

 *Time to read the file = 4 seconds and 59 milliseconds*

*easy\_ReadXLSXActiveSheet\_AsDataSet, easy\_ReadXLSXSheet\_AsDataSet, easy\_ReadXLSXActiveSheet\_AsList, easy\_ReadXLSXSheet\_AsList*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 78KB

 *Time to read the file = 150 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 138KB

 *Time to read the file = 239 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 347KB

 *Time to read the file = 429 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 698KB

 *Time to read the file = 763 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 3.42MB

 *Time to read the file = 3 seconds and 314 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 6.99MB

 *Time to read the file = 6 seconds and 901 milliseconds*

*easy\_ReadXLSBActiveSheet\_AsDataSet, easy\_ReadXLSBSheet\_AsDataSet, easy\_ReadXLSBActiveSheet\_AsList, easy\_ReadXLSBSheet\_AsList*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 55.3KB

 *Time to read the file = 188 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 94.4KB

 *Time to read the file = 200 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 233KB

 *Time to read the file = 274 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 465KB

 *Time to read the file = 400 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 2.15MB

 *Time to read the file = 1 seconds and 430 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 4.33MB

 *Time to read the file = 3 seconds and 58 milliseconds*

*easy\_ReadXLSSheet\_asXML*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 213KB

 *Time to read the file = 143 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 419KB

 *Time to read the file = 158 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 1.01MB

 *Time to read the file = 225 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 2.01MB

 *Time to read the file = 361 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 10.20MB

 *Time to read the file = 1 seconds and 475 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 19.60MB

 *Time to read the file = 3 seconds and 24 milliseconds*

*easy\_ReadXLSXSheet\_asXML*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 78KB

 *Time to read the file = 235 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 138KB

 *Time to read the file = 247 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 347KB

 *Time to read the file = 422 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 698KB

 *Time to read the file = 725 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 3.42MB

 *Time to read the file = 3 seconds and 69 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 6.99MB

 *Time to read the file =6 seconds and 387 milliseconds*

*easy\_ReadXLSBSheet\_asXML*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 55.3KB

 *Time to read the file = 182 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 94.4KB

 *Time to read the file = 190 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 233KB

 *Time to read the file = 240 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 465KB

 *Time to read the file = 349 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 2.15MB

 *Time to read the file = 1 seconds and 113 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 4.33MB

 *Time to read the file = 2 seconds and 238 milliseconds*

*easy\_ReadXMLSpreadsheet\_AsDataSet, easy\_ReadXMLSpreadsheet\_AsList*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 630KB

 *Time to read the file = 111 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 1.23MB

 *Time to read the file = 188 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 3.08MB

 *Time to read the file = 579 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 6.18MB

 *Time to read the file = 1 seconds and 430 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 31.10MB

 *Time to read the file = 26 seconds and 568 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 62.3MB

 *Time to read the file = 35 seconds and 303 milliseconds*

*easy\_ReadTXTFile\_AsDataSet, easy\_ReadTXTFile\_AsList,*

*easy\_ReadCSVFile\_AsDataSet, easy\_ReadCSVFile\_AsList*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 73KB

 *Time to read the file = 70 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 152KB

 *Time to read the file = 85 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 389KB

 *Time to read the file = 148 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 784KB

 *Time to read the file = 240 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 4.08MB

 *Time to read the file = 1 seconds and 36 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 8.43MB

 *Time to read the file = 2 seconds and 384 milliseconds*

*easy\_LoadTXTFile, easy\_LoadCSVFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 73KB

 *Time to load the file = 158 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 152KB

 *Time to load the file = 170 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 389KB

 *Time to load the file = 204 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 784KB

 *Time to load the file = 295 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 4.08MB

 *Time to load the file = 1 seconds and 10 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 8.43MB

 *Time to load the file = 2 seconds and 96 milliseconds*

*easy\_LoadXLSFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 213KB

 *Time to read the file = 317 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 419KB

 *Time to read the file = 321 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 1.01MB

 *Time to read the file = 451 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 2.01MB

 *Time to read the file = 570 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 10.20MB

 *Time to read the file = 1 seconds and 824 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 19.60MB

 *Time to read the file = 3 seconds and 574 milliseconds*

*easy\_LoadXLSXFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 78KB

 *Time to read the file = 359 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 138KB

 *Time to read the file = 425 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 347KB

 *Time to read the file = 611 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 698KB

 *Time to read the file = 945 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 3.42MB

 *Time to read the file = 3 seconds and 570 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 6.99MB

 *Time to read the file = 6 seconds and 891 milliseconds*

*easy\_LoadXLSBFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 55.3KB

 *Time to read the file = 319 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 94.4KB

 *Time to read the file = 323 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 233KB

 *Time to read the file = 393 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 697KB

 *Time to read the file = 511 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 3.42MB

 *Time to read the file = 1 seconds and 522 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 6.99MB

 *Time to read the file = 2 seconds and 777 milliseconds*

*easy\_LoadXMLSpreadsheetFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 630KB

 *Time to read the file = 298 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 1.23MB

 *Time to read the file = 432 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 3.08MB

 *Time to read the file = 1 seconds and 81 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 6.18MB

 *Time to read the file = 2 seconds and 636 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 31.10MB

 *Time to read the file = 1 min and 7 seconds and 203 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 62.3MB

 *Time to read the file = 1 min, 11 seconds and 703 milliseconds*

*easy\_LoadHTMLFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 530KB

 *Time to read the file = 589 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 1.03MB

 *Time to read the file = 994 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 2.5MB

 *Time to read the file = 2 seconds and 444 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 5.01MB

 *Time to read the file = 4 seconds and 560 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 27.1MB

 *Time to read the file = 25 seconds and 915 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 53.5MB

 *Time to read the file = 55 seconds and 930 milliseconds*

**Section 2**

**COM+ DLL**

* 1. **COM+ – write action**

*easy\_WriteXLSXFile*

## Test 1

 1 sheet x 1,000 rows x 10 columns = 10,000 cells, 64KB

 *Time to populate the sheets = 210 milliseconds*

 *Time to generate the file = 539 milliseconds*

## Test 2

 1 sheet x 2,000 rows x 10 columns = 20,000 cells, 121KB

 *Time to populate the sheets = 355 milliseconds*

 *Time to generate the file = 621 milliseconds*

## Test 3

 1 sheet x 5,000 rows x 10 columns = 50,000 cells, 293KB

 *Time to populate the sheets = 765 milliseconds*

 *Time to generate the file = 859 milliseconds*

## Test 4

 1 sheet x 10,000 rows x 10 columns = 100,000 cells, 579KB

 *Time to populate the sheets = 1 second and 488 milliseconds*

 *Time to generate the file = 1 seconds and 250 milliseconds*

## Test 5

 1 sheet x 50,000 rows x 10 columns = 500,000 cells, 2.79MB

 *Time to populate the sheets = 7 seconds and 199 milliseconds*

 *Time to generate the file = 4 seconds and 648 milliseconds*

## Test 6

 1 sheet x 50,000 rows x 20 columns = 1,000,000 cells, 5.38MB

 *Time to populate the sheets = 13 seconds and 546 milliseconds*

 *Time to generate the file = 9 seconds and 179 milliseconds*

## Test 7

 2 sheets x 5,000 rows x 10 columns = 100,000 cells, 580KB

 *Time to populate the sheets = 1 second and 480 milliseconds*

 *Time to generate the file = 1 seconds and 203 milliseconds*

## Test 8

 5 sheets x 5,000 rows x 10 columns = 250,000 cells, 1.4MB

 *Time to populate the sheets = 3 seconds and 640 milliseconds*

 *Time to generate the file = 2 seconds and 312 milliseconds*

*easy\_WriteXLSFile*

## Test 1

 1 sheet x 1,000 rows x 10 columns = 10,000 cells, 280KB

 *Time to populate the sheets = 214 milliseconds*

 *Time to generate the file = 328 milliseconds*

## Test 2

 1 sheet x 2,000 rows x 10 columns = 20,000 cells, 555KB

 *Time to populate the sheets = 367 milliseconds*

 *Time to generate the file = 382 milliseconds*

## Test 3

 1 sheet x 5,000 rows x 10 columns = 50,000 cells, 1.34MB

 *Time to populate the sheets = 777 milliseconds*

 *Time to generate the file = 546 milliseconds*

## Test 4

 1 sheet x 10,000 rows x 10 columns = 100,000 cells, 2.69MB

 *Time to populate the sheets = 1 second and 472 milliseconds*

 *Time to generate the file = 804 milliseconds*

## Test 5

 1 sheet x 50,000 rows x 10 columns = 500,000 cells, 13.7MB

 *Time to populate the sheets = 7 seconds and 320 milliseconds*

 *Time to generate the file = 3 seconds and 144 milliseconds*

## Test 6

 1 sheet x 50,000 rows x 20 columns = 1,000,000 cells, 28.6MB

 *Time to populate the sheet = 13 seconds and 656 milliseconds*

 *Time to generate the file = 6 seconds and 93 milliseconds*

## Test 7

 2 sheets x 5,000 rows x 10 columns = 100,000 cells, 2.68MB

 *Time to populate the sheets = 1 second and 503 milliseconds*

 *Time to generate the file = 753 milliseconds*

## Test 8

 5 sheets x 5,000 rows x 10 columns = 250,000 cells, 6.7MB

 *Time to populate the sheets = 3 seconds and 558 milliseconds*

 *Time to generate the file = 1 seconds and 496 milliseconds*

*easy\_WriteXLSBFile*

## Test 1

 1 sheet x 1,000 rows x 10 columns = 10,000 cells, 43.2KB

 *Time to populate the sheets = 214 milliseconds*

 *Time to generate the file = 585 milliseconds*

## Test 2

 1 sheet x 2,000 rows x 10 columns = 20,000 cells, 80.1KB

 *Time to populate the sheets = 339 milliseconds*

 *Time to generate the file = 968 milliseconds*

## Test 3

 1 sheet x 5,000 rows x 10 columns = 50,000 cells, 190KB

 *Time to populate the sheets = 773 milliseconds*

 *Time to generate the file = 910 milliseconds*

## Test 4

 1 sheet x 10,000 rows x 10 columns = 100,000 cells, 376KB

 *Time to populate the sheets = 1 second and 457 milliseconds*

 *Time to generate the file = 1 second and 328 milliseconds*

## Test 5

 1 sheet x 50,000 rows x 10 columns = 500,000 cells, 1.79MB

 *Time to populate the sheets = 7 seconds and 398 milliseconds*

 *Time to generate the file = 5 seconds and 156 milliseconds*

## Test 6

 1 sheet x 50,000 rows x 20 columns = 1,000,000 cells, 4.42MB

 *Time to populate the sheets = 13 seconds and 281 milliseconds*

 *Time to generate the file = 9 seconds and 984 milliseconds*

## Test 7

 2 sheets x 5,000 rows x 10 columns = 100,000 cells, 377KB

 *Time to populate the sheets = 1 second and 500 milliseconds*

 *Time to generate the file = 1 seconds and 242 milliseconds*

## Test 8

 5 sheets x 5,000 rows x 10 columns = 250,000 cells, 941KB

 *Time to populate the sheets = 3 seconds and 632 milliseconds*

 *Time to generate the file = 2 seconds and 406 milliseconds*

*easy\_WriteTXTFile***,** *easy\_WriteCSVFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 73KB

*Time to populate the sheets = 210 milliseconds*

*Time to write the file = 62 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 152KB

*Time to populate the sheets = 343 milliseconds*

 *Time to write the file =* 78 *milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 389KB

*Time to populate the sheets = 750 milliseconds*

 *Time to write the file = 101 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 784KB

*Time to populate the sheets = 1 second and 515 milliseconds*

*Time to write the file =* 148 *milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 4.08MB

 *Time to populate the sheets = 7 seconds and 31 milliseconds*

*Time to write the file = 546* *milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 8.43MB

 *Time to populate the sheets = 13 seconds and 867 milliseconds*

 *Time to write the file = 1 seconds and 78 milliseconds*

*easy\_WriteXMLFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 717KB

*Time to populate the sheets = 210 milliseconds*

*Time to write the file = 273 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 1.40MB

*Time to populate the sheets = 351 milliseconds*

 *Time to write the file = 335 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 3.52MB

*Time to populate the sheets = 773 milliseconds*

 *Time to write the file = 484 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 7.06MB

*Time to populate the sheets = 1 second and 515 milliseconds*

 *Time to write the file = 734 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 35.6MB

 *Time to populate the sheets =* 8 *seconds*

*Time to write the file = 2seconds and* 992 *milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 69.7MB

 *Time to populate the sheets = 13 seconds and 726 milliseconds*

 *Time to write the file = 5 seconds and 93 milliseconds*

*easy\_WriteHTMLFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 399KB

*Time to populate the sheets = 210 milliseconds*

 *Time to write the file 148 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 804KB

*Time to populate the sheets = 218 milliseconds*

 *Time to write the file = 148 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 1.96MB

*Time to populate the sheets = 750 milliseconds*

 *Time to write the file = 304 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 3.94MB

*Time to populate the sheets = 1 second and 507 milliseconds*

 *Time to write the file = 468 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 20.0MB

 *Time to populate the sheets = 7 seconds and 85 milliseconds*

 *Time to write the file = 1 seconds and* 867 *milliseconds*

## Test 6

*Time to populate the sheets = 13 seconds and 687 milliseconds*

 *Time to write the file = 3 seconds and 519 milliseconds*

**1.2. COM+ – read action**

*easy\_ReadXLSXActiveSheet\_AsList, easy\_ReadXLSXSheet\_AsList*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 78KB

 *Time to read the file = 144 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 138KB

 *Time to read the file = 210 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 347KB

 *Time to read the file = 390 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 698KB

 *Time to read the file = 695 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 3.42MB

 *Time to read the file = 3 seconds and 156 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 6.99MB

 *Time to read the file = 6 seconds and 515 milliseconds*

*easy\_ReadXLSActiveSheet\_AsList, easy\_ReadXLSSheet\_AsList*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 213KB

 *Time to read the file = 125 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 419KB

 *Time to read the file = 152 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 1.01MB

 *Time to read the file = 246 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 2.01MB

 *Time to read the file = 402 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 10.20MB

 *Time to read the file = 1 seconds and 781 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 19.60MB

 *Time to read the file = 3 seconds and 875 milliseconds*

*easy\_ReadXLSBActiveSheet\_AsList, easy\_ReadXLSBSheet\_AsList*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 55.3KB

 *Time to read the file = 140 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 94.4KB

 *Time to read the file = 179 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 233KB

 *Time to read the file = 250 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 465KB

 *Time to read the file = 371 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 2.15MB

 *Time to read the file = 1 seconds and 359 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 4.33MB

 *Time to read the file = 2 seconds and 921 milliseconds*

*easy\_ReadXLSSheet\_asXML*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 213KB

 *Time to read the file = 117 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 419KB

 *Time to read the file = 132 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 1.01MB

 *Time to read the file = 195 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 2.01MB

 *Time to read the file = 304 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 10.20MB

 *Time to read the file = 1 seconds and 281 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 19.60MB

 *Time to read the file = 2 seconds and 656 milliseconds*

*easy\_ReadXLSXSheet\_asXML*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 78KB

 *Time to read the file = 175 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 138KB

 *Time to read the file = 199 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 347KB

 *Time to read the file = 355 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 698KB

 *Time to read the file = 625 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 3.42MB

 *Time to read the file = 2 seconds and 804 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 6.99MB

 *Time to read the file = 5 seconds and 570 milliseconds*

*easy\_ReadXLSBSheet\_asXML*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 55.3KB

 *Time to read the file = 140 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 94.4KB

 *Time to read the file = 160 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 233KB

 *Time to read the file = 203 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 465KB

 *Time to read the file = 289 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 2.15MB

 *Time to read the file = 949 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 4.33MB

 *Time to read the file = 1 seconds and 898 milliseconds*

*easy\_ReadXMLSpreadsheet\_AsList*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 630KB

 *Time to read the file = 89 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 1.23MB

 *Time to read the file = 171 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 3.08MB

 *Time to read the file = 535 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 6.18MB

 *Time to read the file = 1 seconds and 289 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 31.10MB

 *Time to read the file = 28 seconds and 667milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 62.3MB

 *Time to read the file = 41 seconds and 593 milliseconds*

*easy\_ReadTXTFile\_AsList,*

*easy\_ReadCSVFile\_AsList*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 73KB

 *Time to read the file = 62 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 152KB

 *Time to read the file = 74 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 389KB

 *Time to read the file = 128 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 784KB

 *Time to read the file = 226 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 4.08MB

 *Time to read the file = 1 seconds and 7 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 8.43MB

 *Time to read the file = 2 seconds and 308 milliseconds*

*easy\_LoadTXTFile, easy\_LoadCSVFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 73KB

 *Time to load the file = 93 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 152KB

 *Time to load the file = 105 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 389KB

 *Time to load the file = 156 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 784KB

 *Time to load the file = 238 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 4.08MB

 *Time to load the file = 851 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 8.43MB

 *Time to load the file = 1 seconds and 718 milliseconds*

*easy\_LoadXLSXFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 78KB

 *Time to read the file = 316 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 138KB

 *Time to read the file = 367 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 347KB

 *Time to read the file = 539 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 698KB

 *Time to read the file = 835 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 3.42MB

 *Time to read the file = 3 seconds and 222 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 6.99MB

 *Time to read the file = 6 seconds and 234 milliseconds*

*easy\_LoadXLSFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 213KB

 *Time to read the file = 257 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 419KB

 *Time to read the file = 289 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 1.01MB

 *Time to read the file = 355 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 2.01MB

 *Time to read the file = 492 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 10.20MB

 *Time to read the file = 1 seconds and 609 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 19.60MB

 *Time to read the file = 3 seconds and 128 milliseconds*

*easy\_LoadXLSBFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 55.3KB

 *Time to read the file = 265 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 94.4KB

 *Time to read the file = 281 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 233KB

 *Time to read the file = 335 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 697KB

 *Time to read the file = 445 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 3.42MB

 *Time to read the file = 1 seconds and 265 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 6.99MB

 *Time to read the file = 2 seconds and 292 milliseconds*

*easy\_LoadXMLSpreadsheetFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 630KB

 *Time to read the file = 242 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 1.23MB

 *Time to read the file = 382 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 3.08MB

 *Time to read the file = 980 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 6.18MB

 *Time to read the file = 2 seconds and 375 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 31.10MB

 *Time to read the file = 1 min and 730 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 62.3MB

 *Time to read the file = 1 min, 1 seconds and 500 milliseconds*

*easy\_LoadHTMLFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 530KB

 *Time to read the file = 523 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 1.03MB

 *Time to read the file = 898 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 2.5MB

 *Time to read the file = 1 seconds and 957 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 5.01MB

 *Time to read the file = 3 seconds and 812 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 27.1MB

 *Time to read the file = 20 seconds and 832 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 53.5MB

 *Time to read the file = 42 seconds and 54 milliseconds*

**Section 3**

**JAVA JAR**

**2.1. JAVA – write action**

*easy\_WriteXLSXFile*

## Test 1

 1 sheet x 1,000 rows x 10 columns = 10,000 cells, 271KB

 *Time to populate the sheets = 147 milliseconds*

 *Time to generate the file = 1 second and 451 milliseconds*

## Test 2

 1 sheet x 2,000 rows x 10 columns = 20,000 cells, 538KB

 *Time to populate the sheets = 153 milliseconds*

 *Time to generate the file = 2 second and 501 milliseconds*

## Test 3

 1 sheet x 5,000 rows x 10 columns = 50,000 cells, 1.30MB

 *Time to populate the sheets = 165 milliseconds*

 *Time to generate the file = 5 seconds and 499 milliseconds*

## Test 4

 1 sheet x 10,000 rows x 10 columns = 100,000 cells, 2.61MB

 *Time to populate the sheets = 173 milliseconds*

 *Time to generate the file = 10 seconds and 446 milliseconds*

## Test 5

 1 sheet x 50,000 rows x 10 columns = 500,000 cells, 13.30MB

 *Time to populate the sheets = 284 milliseconds*

 *Time to generate the file = 52 seconds and 42 milliseconds*

## Test 6

 1 sheet x 50,000 rows x 20 columns = 1,000,000 cells, 27.20MB

 *Time to populate the sheets = 1 second and 33 milliseconds*

 *Time to generate the file = 1 minute, 54 seconds and 183 milliseconds*

## Test 7

 2 sheets x 5,000 rows x 10 columns = 100,000 cells, 2.60MB

 *Time to populate the sheets = 170 milliseconds*

 *Time to generate the file = 10 seconds and 310 milliseconds*

## Test 8

 5 sheets x 5,000 rows x 10 columns = 250,000 cells, 6.50MB

 *Time to populate the sheets = 207 milliseconds*

 *Time to generate the file = 24 seconds and 615 milliseconds*

*easy\_WriteXLSFile*

## Test 1

 1 sheet x 1,000 rows x 10 columns = 10,000 cells, 271KB

 *Time to populate the sheets = 144 milliseconds*

 *Time to generate the file = 1 second and 128 milliseconds*

## Test 2

 1 sheet x 2,000 rows x 10 columns = 20,000 cells, 538KB

 *Time to populate the sheets = 149 milliseconds*

 *Time to generate the file = 1 second and 585 milliseconds*

## Test 3

 1 sheet x 5,000 rows x 10 columns = 50,000 cells, 1.30MB

 *Time to populate the sheets = 161 milliseconds*

 *Time to generate the file = 2 seconds and 671 milliseconds*

## Test 4

 1 sheet x 10,000 rows x 10 columns = 100,000 cells, 2.61MB

 *Time to populate the sheets = 170 milliseconds*

 *Time to generate the file = 4 seconds and 918 milliseconds*

## Test 5

 1 sheet x 50,000 rows x 10 columns = 500,000 cells, 13.30MB

 *Time to populate the sheets = 278 milliseconds*

 *Time to generate the file = 22 seconds and 536 milliseconds*

## Test 6

 1 sheet x 50,000 rows x 20 columns = 1,000,000 cells, 27.20MB

 *Time to populate the sheets = 996 milliseconds*

 *Time to generate the file = 47 seconds and 550 milliseconds*

## Test 7

 2 sheets x 5,000 rows x 10 columns = 100,000 cells, 2.60MB

 *Time to populate the sheets = 170 milliseconds*

 *Time to generate the file = 4 seconds and 891 milliseconds*

## Test 8

 5 sheets x 5,000 rows x 10 columns = 250,000 cells, 6.50MB

 *Time to populate the sheets = 207 milliseconds*

 *Time to generate the file = 11 seconds and 359 milliseconds*

*easy\_WriteXLSBFile*

## Test 1

 1 sheet x 1,000 rows x 10 columns = 10,000 cells, 50.8KB

 *Time to populate the sheets = 144 milliseconds*

 *Time to generate the file = 1 second and 484 milliseconds*

## Test 2

 1 sheet x 2,000 rows x 10 columns = 20,000 cells, 125KB

 *Time to populate the sheets = 149 milliseconds*

 *Time to generate the file = 2 seconds and 589 milliseconds*

## Test 3

 1 sheet x 5,000 rows x 10 columns = 50,000 cells, 305KB

 *Time to populate the sheets = 154 milliseconds*

 *Time to generate the file = 5 seconds and 716 milliseconds*

## Test 4

 1 sheet x 10,000 rows x 10 columns = 100,000 cells, 604KB

 *Time to populate the sheets = 170 milliseconds*

 *Time to generate the file = 10 seconds and 828 milliseconds*

## Test 5

 1 sheet x 50,000 rows x 10 columns = 500,000 cells, 2.92MB

 *Time to populate the sheets = 285 milliseconds*

 *Time to generate the file = 55 seconds and 10 milliseconds*

## Test 6

 1 sheet x 50,000 rows x 20 columns = 1,000,000 cells, 4.58MB

 *Time to populate the sheets = 1 second and 38 milliseconds*

 *Time to generate the file = 2 minutes, 2 seconds and 73 milliseconds*

## Test 7

 2 sheets x 5,000 rows x 10 columns = 100,000 cells, 454KB

 *Time to populate the sheets =171 milliseconds*

 *Time to generate the file = 11 seconds and 97 milliseconds*

## Test 8

 5 sheets x 5,000 rows x 10 columns = 250,000 cells, 1.10MB

 *Time to populate the sheets = 210 milliseconds*

 *Time to generate the file = 25 seconds and 851 milliseconds*

*easy\_WriteTXTFile***,** *easy\_WriteCSVFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 92.8KB

 *Time to populate the sheets = 142 milliseconds*

*Time to write the file = 128 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 195KB

*Time to populate the sheets = 146 milliseconds*

 *Time to write the file = 142 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 503KB

*Time to populate the sheets = 155 milliseconds*

 *Time to write the file = 165 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 0.99MB

*Time to populate the sheets = 169 milliseconds*

 *Time to write the file = 205 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 5.33MB

 *Time to populate the sheets = 276 milliseconds*

 *Time to write the file = 573 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 11.4MB

 *Time to populate the sheets = 1 second and 141 milliseconds*

 *Time to write the file = 710 milliseconds*

*easy\_WriteXMLFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 907KB

 *Time to populate the sheets = 145 milliseconds*

 *Time to write the file = 904 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 1.7MB

*Time to populate the sheets = 149 milliseconds*

 *Time to write the file = 1 second and 303 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 4.46MB

*Time to populate the sheets = 158 milliseconds*

 *Time to write the file = 2 seconds and 535 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 8.92MB

*Time to populate the sheets = 170 milliseconds*

 *Time to write the file = 4 seconds and 568 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 45MB

 *Time to populate the sheets = 275 milliseconds*

 *Time to write the file = 20 seconds and 265 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 89.2MB

 *Time to populate the sheets = 1 second and 11 milliseconds*

 *Time to write the file = 42 seconds and 982 milliseconds*

*easy\_WriteHTMLFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 390KB

 *Time to populate the sheets = 142 milliseconds*

 *Time to write the file = 662 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 788KB

*Time to populate the sheets = 147 milliseconds*

 *Time to write the file = 1 second and 66 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 1.93MB

*Time to populate the sheets = 155 milliseconds*

 *Time to write the file = 2 seconds and 247 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 3.88MB

*Time to populate the sheets = 170 milliseconds*

 *Time to write the file = 4 seconds and 178 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 19.8MB

 *Time to populate the sheets = 276 milliseconds*

 *Time to write the file = 19 seconds and 782 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 37.8MB

 *Time to populate the sheets = 1 second and 83 milliseconds*

 *Time to write the file = 43 seconds and 84 milliseconds*

**2.2. JAVA – read action**

*easy\_ReadXLSXActiveSheet\_AsResultSet, easy\_ReadXLSXSheet\_AsResultSet, easy\_ReadXLSXActiveSheet\_AsList, easy\_ReadXLSXSheet\_AsList*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 78KB

 *Time to read the file = 334 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 138KB

 *Time to read the file = 492 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 347KB

 *Time to read the file = 620 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 698KB

 *Time to read the file = 912 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 3.42MB

 *Time to read the file = 2 seconds and 254 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 6.99MB

 *Time to read the file = 4 seconds and 260 milliseconds*

*easy\_ReadXLSActiveSheet\_AsResultSet, easy\_ReadXLSSheet\_AsDataSet, easy\_ReadXLSActiveSheet\_AsList, easy\_ReadxlsSheet\_AsList*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 213KB

 *Time to read the file = 377 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 419KB

 *Time to read the file = 425 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 1.01MB

 *Time to read the file = 492 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 2.01MB

 *Time to read the file = 644 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 10.20MB

 *Time to read the file = 1 seconds and 554 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 19.60MB

 *Time to read the file = 2 seconds and 529 milliseconds*

*easy\_ReadXLSBActiveSheet\_AsResultSet, easy\_ReadXLSBSheet\_AsResultSet, easy\_ReadXLSBActiveSheet\_AsList, easy\_ReadXLSBSheet\_AsList*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 213KB

 *Time to read the file = 419 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 419KB

 *Time to read the file = 500 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 1.01MB

 *Time to read the file = 581 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 2.01MB

 *Time to read the file = 692 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 10.20MB

 *Time to read the file = 1 seconds and 541 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 19.60MB

 *Time to read the file = 2 seconds and 559 milliseconds*

*easy\_ReadXLSXSheet\_asXML*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 78KB

 *Time to read the file = 526 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 138KB

 *Time to read the file = 584 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 347KB

 *Time to read the file = 728 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 698KB

 *Time to read the file = 948 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 3.42MB

 *Time to read the file = 2 seconds and 177 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 6.99MB

 *Time to read the file = 3 seconds and 816 milliseconds*

*easy\_ReadXLSSheet\_AsXML*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 213KB

 *Time to read the file = 430 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 419KB

 *Time to read the file = 456 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 1.01MB

 *Time to read the file = 591 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 2.01MB

 *Time to read the file = 708 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 10.20MB

 *Time to read the file = 1 seconds and 548 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 19.60MB

 *Time to read the file = 2 seconds and 733 milliseconds*

*easy\_ReadXLSBSheet\_asXML*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 630KB

 *Time to read the file = 491 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 1.23MB

 *Time to read the file = 524 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 3.08MB

 *Time to read the file = 643 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 6.18MB

 *Time to read the file = 741 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 31.10MB

 *Time to read the file = 1 seconds and 522 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 62.3MB

 *Time to read the file = 2 seconds and 588 milliseconds*

*easy\_ReadXMLSpreadsheet\_AsResultSet, easy\_ReadXMLSpreadsheet\_AsList*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 630KB

 *Time to read the file = 320 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 1.23MB

 *Time to read the file = 423 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 3.08MB

 *Time to read the file = 690 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 6.18MB

 *Time to read the file = 1 seconds and 138 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 31.10MB

 *Time to read the file = 5 seconds and 257 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 62.3MB

 *Time to read the file = 10 seconds and 96 milliseconds*

*easy\_ReadTXTFile\_AsResultSet, easy\_ReadTXTFile\_AsList,*

*easy\_ReadCSVFile\_AsResultSet, easy\_ReadCSVFile\_AsList*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 73KB

 *Time to read the file = 166 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 152KB

 *Time to read the file = 176 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 389KB

 *Time to read the file = 219 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 784KB

 *Time to read the file = 272 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 4.08MB

 *Time to read the file = 675 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 8.43MB

 *Time to read the file = 1 seconds and 322 milliseconds*

*easy\_LoadTXTFile, easy\_LoadCSVFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 73KB

 *Time to load the file = 352 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 152KB

 *Time to load the file = 370 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 389KB

 *Time to load the file = 419 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 784KB

 *Time to load the file = 486 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 4.08MB

 *Time to load the file = 1 seconds and 111 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 8.43MB

 *Time to load the file = 2 seconds and 317 milliseconds*

*easy\_LoadXLSXFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 78KB

 *Time to read the file = 714 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 138KB

 *Time to read the file = 760 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 347KB

 *Time to read the file = 953 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 698KB

 *Time to read the file = 1 seconds and 214 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 3.42MB

 *Time to read the file = 2 seconds and 888 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 6.99MB

 *Time to read the file = 4 seconds and 4 milliseconds*

*easy\_LoadXLSFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 213KB

 *Time to read the file = 479 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 419KB

 *Time to read the file = 508 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 1.01MB

 *Time to read the file = 639 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 2.01MB

 *Time to read the file = 797 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 10.20MB

 *Time to read the file = 1 seconds and 944 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 19.60MB

 *Time to read the file = 3 seconds and 321 milliseconds*

*easy\_LoadXLSBFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 78KB

 *Time to read the file = 633 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 138KB

 *Time to read the file = 665 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 347KB

 *Time to read the file = 770 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 698KB

 *Time to read the file = 940 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 3.42MB

 *Time to read the file = 2 seconds and 58 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 6.99MB

 *Time to read the file = 3 seconds and 766 milliseconds*

*easy\_LoadXMLSpreadsheetFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 630KB

 *Time to read the file = 609 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 1.23MB

 *Time to read the file = 759 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 3.08MB

 *Time to read the file = 1 seconds and 114 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 6.18MB

 *Time to read the file = 1 seconds and 624 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 31.10MB

 *Time to read the file = 6 seconds and 777 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 62.3MB

 *Time to read the file = 12 seconds and 783 milliseconds*

*easy\_LoadHTMLFile*

## Test 1

 1,000 rows x 10 columns = 10,000 cells, 530KB

 *Time to read the file = 678 milliseconds*

## Test 2

 2,000 rows x 10 columns = 20,000 cells, 1.03MB

 *Time to read the file = 859 milliseconds*

## Test 3

 5,000 rows x 10 columns = 50,000 cells, 2.5MB

 *Time to read the file = 1 seconds and 368 milliseconds*

## Test 4

 10,000 rows x 10 columns = 100,000 cells, 5.01MB

 *Time to read the file = 2 seconds and 39 milliseconds*

## Test 5

 50,000 rows x 10 columns = 500,000 cells, 27.1MB

 *Time to read the file = 10 seconds and 260 milliseconds*

## Test 6

 50,000 rows x 20 columns = 1,000,000 cells, 53.5MB

 *Time to read the file = 17 seconds and 870 milliseconds*