

# Lilliput Experiment Results

All measures are averages over the given number of samples.

Smpls: Number of samples taken  
 Num-objs: Average number of objects in the heap  
 Size: Average size of objects in the heap, in bytes  
 LDS: Live-data-set: Average number of bytes occupied by live (i.e. reachable) objects in the heap  
 IHashed: Number of objects that have an identity hashcode  
 Locked: Number of locked objects  
 %Ihashed: How many % of live objects have an identity hashcode  
 %Locked: How many % of live objects have been locked

|                   | Smpls | Num-objs   | Size  | LDS           | Ihashed   | Locked | %Ihashed | %Locked |
|-------------------|-------|------------|-------|---------------|-----------|--------|----------|---------|
| Akka-uct          | 608   | 4,361,252  | 27    | 121,892,296   | 2,003     | 25     | 0.05%    | 0.00%   |
| Als               | 1711  | 1,971,209  | 62    | 122,413,413   | 21,336    | 211    | 1.08%    | 0.01%   |
| Chi-square        | 683   | 3,564,621  | 33    | 118,634,906   | 18,978    | 77     | 0.53%    | 0.00%   |
| Db-shootout       | 224   | 72,79      | 79    | 5,795,640     | 1,608     | 4      | 2.21%    | 0.01%   |
| Dec-tree          | 939   | 383,492    | 61    | 23,762,498    | 27,684    | 301    | 7.22%    | 0.08%   |
| Dotty             | 488   | 323,877    | 48    | 15,801,166    | 13,379    | 7      | 4.13%    | 0.00%   |
| Finagle-chirper   | 924   | 1,544,052  | 27    | 41,901,120    | 36,658    | 467    | 2.37%    | 0.03%   |
| Finagle-http      | 1820  | 239,455    | 46    | 11,235,585    | 7,465     | 964    | 3.12%    | 0.40%   |
| Fj-kmeans         | 487   | 2,755,515  | 36    | 101,620,156   | 1,096     | 12     | 0.04%    | 0.00%   |
| Future-genetic    | 5560  | 49,566     | 41    | 2,051,888     | 1,102     | 73     | 2.22%    | 0.15%   |
| Gauss-mix         | 1131  | 193,067    | 61    | 11,877,600    | 20,743    | 88     | 10.74%   | 0.05%   |
| Log-regression    | 1217  | 454,523    | 752   | 341,866,275   | 32,757    | 167    | 7.21%    | 0.04%   |
| Mnemonics         | 1284  | 114,381    | 39    | 4,564,385     | 867       | 3      | 0.76%    | 0.00%   |
| Movie-lens        | 3007  | 669,174    | 38    | 25,813,857    | 146,386   | 302    | 21.88%   | 0.05%   |
| Naive-bayes       | 125   | 2,863,957  | 492   | 1,409,196,996 | 51,379    | 126    | 1.79%    | 0.00%   |
| Neo4j-analytics   | 1640  | 999,156    | 50    | 50,762,959    | 18,785    | 2,973  | 1.88%    | 0.30%   |
| Page-rank         | 137   | 19,283,224 | 30    | 581,361,282   | 4,510,944 | 129    | 23.39%   | 0.00%   |
| Par-mnemonics     | 1288  | 179,059    | 40    | 7,258,851     | 890       | 3      | 0.50%    | 0.00%   |
| Philosophers      | 3245  | 46,875     | 49    | 2,342,731     | 2,195     | 924    | 4.68%    | 1.97%   |
| Reactors          | 440   | 5,886,619  | 33    | 196,289,403   | 2,264     | 632    | 0.04%    | 0.01%   |
| Rx-scrabble       | 737   | 812,495    | 30    | 24,898,063    | 1,187     | 40     | 0.15%    | 0.00%   |
| Scala-doku        | 704   | 198,144    | 24    | 4,808,244     | 24,103    | 3      | 12.16%   | 0.00%   |
| Scala-kmeans      | 1208  | 60,329     | 40    | 2,423,688     | 1,118     | 3      | 1.85%    | 0.00%   |
| Scala-stm-bench7  | 227   | 3,499,505  | 30    | 107,649,699   | 1,058,966 | 22     | 30.26%   | 0.00%   |
| Scrabble          | 375   | 2,899,768  | 28    | 81,581,629    | 1,176     | 17     | 0.04%    | 0.00%   |
| Compiler.compiler | 714   | 6,993,963  | 39    | 273,168,819   | 1,700,872 | 11,840 | 24.32%   | 0.17%   |
| Compiler.sunflow  | 345   | 7,050,561  | 35    | 250,704,305   | 1,482,393 | 468    | 21.03%   | 0.01%   |
| Compress          | 1364  | 11,752     | 18447 | 216,793,553   | 531       | 26     | 4.52%    | 0.22%   |
| CryptoAes         | 9100  | 20,740     | 85    | 1,769,516     | 805       | 25     | 3.88%    | 0.12%   |
| CryptoRsa         | 3956  | 32,549     | 79    | 2,580,747     | 812       | 29     | 2.49%    | 0.09%   |
| CryptoSignVerify  | 208   | 50,486     | 96    | 4,896,152     | 745       | 25     | 1.48%    | 0.05%   |
| Derby             | 2016  | 3,321,638  | 94    | 314,400,671   | 3,425     | 1,085  | 0.10%    | 0.03%   |
| MpegAudio         | 2720  | 17,033     | 185   | 3,155,940     | 627       | 55     | 3.68%    | 0.32%   |
| ScimarkFFT.large  | 9120  | 11,441     | 29441 | 336,867,619   | 522       | 19     | 4.56%    | 0.17%   |
| ScimarkFFT.small  | 652   | 12,012     | 368   | 4,424,850     | 518       | 17     | 4.31%    | 0.14%   |
| Serial            | 148   | 804,862    | 40    | 32,382,926    | 9,135     | 69     | 1.13%    | 0.01%   |
| Sunflow           | 596   | 1,520,535  | 35    | 53,948,514    | 1,145     | 185    | 0.08%    | 0.01%   |
| XmlTransform      | 1715  | 1,051,685  | 74    | 77,943,106    | 16,404    | 155    | 1.56%    | 0.01%   |
| XmlValidation     | 637   | 4,860,800  | 29    | 141,530,974   | 3,154     | 122    | 0.06%    | 0.00%   |
| avro              | 2744  | 139,515    | 49    | 6,872,304     | 735       | 8      | 0.53%    | 0.01%   |
| batik             | 442   | 2,419,292  | 40    | 96,964,528    | 1,448     | 7      | 0.06%    | 0.00%   |
| biojava           | 2320  | 168,846    | 148   | 25,058,934    | 1,595     | 4      | 0.94%    | 0.00%   |
| eclipse           | 2068  | 907,723    | 76    | 69,377,158    | 10,931    | 110    | 1.20%    | 0.01%   |
| graphchi          | 72    | 31,531     | 208   | 6,573,901     | 999       | 9      | 3.17%    | 0.03%   |
| h2                | 2427  | 14,327,673 | 30    | 442,899,050   | 1,026     | 22     | 0.01%    | 0.00%   |
| jme               | 206   | 82,447     | 1091  | 89,995,013    | 2,149     | 5      | 2.61%    | 0.01%   |
| kython            | 212   | 145,214    | 54    | 7,871,629     | 4,537     | 5      | 3.12%    | 0.00%   |
| lusearch          | 20    | 1,139,743  | 87    | 99,463,922    | 646       | 27     | 0.06%    | 0.00%   |
| sunflow           | 1108  | 364,178    | 137   | 50,037,248    | 896       | 13     | 0.25%    | 0.00%   |
| tradebeans        | 5831  | 4,502,694  | 34    | 154,960,435   | 2,8507    | 551    | 0.63%    | 0.01%   |