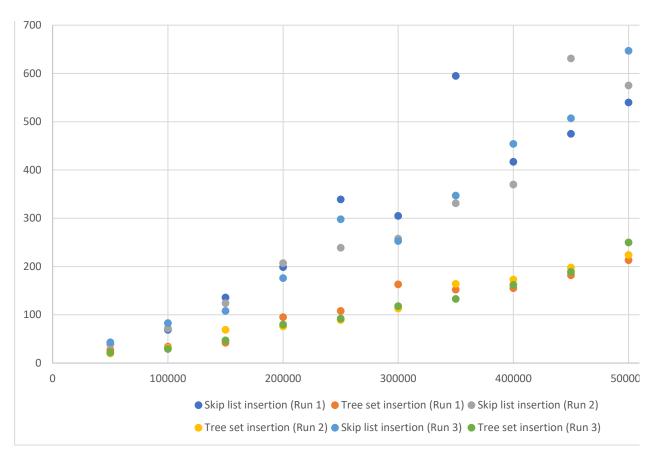
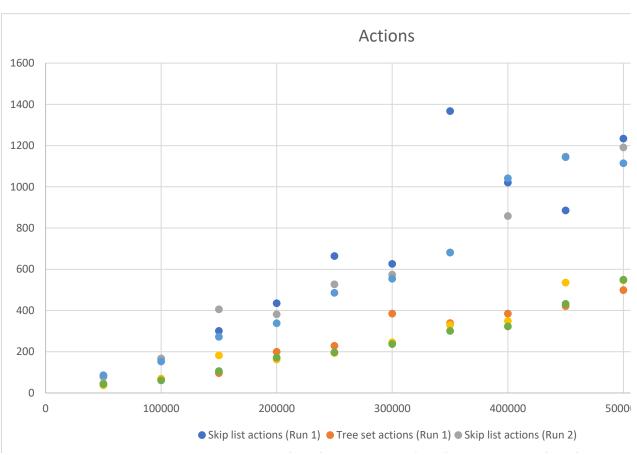
|           |                             |                            | Insertion Times             |
|-----------|-----------------------------|----------------------------|-----------------------------|
| Test size | Skip list insertion (Run 1) | Tree set insertion (Run 1) | Skip list insertion (Run 2) |
| 50000     | 39                          | 27                         | 39                          |
| 100000    | 69                          | 34                         | 72                          |
| 150000    | 136                         | 42                         | 124                         |
| 200000    | 199                         | 95                         | 207                         |
| 250000    | 339                         | 108                        | 239                         |
| 300000    | 305                         | 163                        | 258                         |
| 350000    | 595                         | 152                        | 331                         |
| 400000    | 417                         | 155                        | 370                         |
| 450000    | 475                         | 182                        | 631                         |
| 500000    | 540                         | 213                        | 575                         |

|           |                            |                           | Deletion Times             |
|-----------|----------------------------|---------------------------|----------------------------|
| Test size | Skip list deletion (Run 1) | Tree set deletion (Run 1) | Skip list deletion (Run 2) |
| 50000     | 43                         | 18                        | 38                         |
| 100000    | 98                         | 33                        | 94                         |
| 150000    | 165                        | 54                        | 282                        |
| 200000    | 236                        | 105                       | 175                        |
| 250000    | 325                        | 121                       | 288                        |
| 300000    | 321                        | 222                       | 316                        |
| 350000    | 772                        | 187                       | 350                        |
| 400000    | 603                        | 230                       | 488                        |
| 450000    | 410                        | 239                       | 515                        |
| 500000    | 694                        | 286                       | 616                        |

|           |                           |                          | Actions Times             |
|-----------|---------------------------|--------------------------|---------------------------|
| Test size | Skip list actions (Run 1) | Tree set actions (Run 1) | Skip list actions (Run 2) |
| 50000     | 82                        | 45                       | 77                        |
| 100000    | 167                       | 67                       | 166                       |
| 150000    | 301                       | 96                       | 406                       |
| 200000    | 435                       | 200                      | 382                       |
| 250000    | 664                       | 229                      | 527                       |
| 300000    | 626                       | 385                      | 574                       |
| 350000    | 1367                      | 339                      | 681                       |
| 400000    | 1020                      | 385                      | 858                       |
| 450000    | 885                       | 421                      | 1146                      |
| 500000    | 1234                      | 499                      | 1191                      |

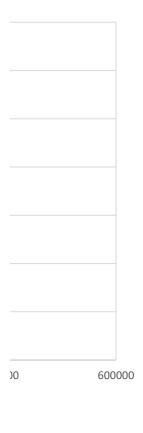


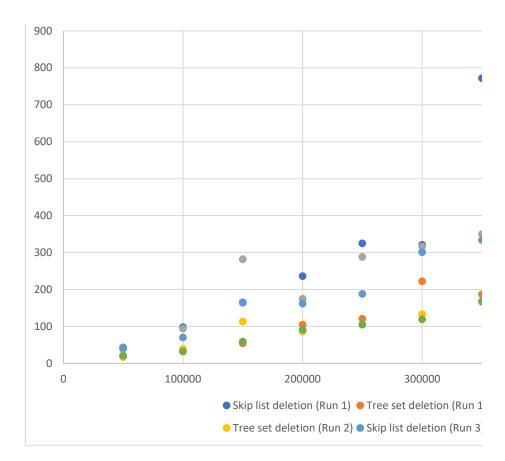


| Tree set insertion (Run 2) | Skip list insertion (Run 3) | Tree set insertion (Run 3) |
|----------------------------|-----------------------------|----------------------------|
| 20                         | 43                          | 22                         |
| 31                         | 83                          | 29                         |
| 69                         | 108                         | 47                         |
| 76                         | 176                         | 80                         |
| 89                         | 298                         | 92                         |
| 113                        | 253                         | 118                        |
| 164                        | 347                         | 133                        |
| 173                        | 454                         | 162                        |
| 198                        | 507                         | 189                        |
| 224                        | 647                         | 250                        |

| Tree set deletion (Run 2) | Skip list deletion (Run 3) | Tree set deletion (Run 3) |
|---------------------------|----------------------------|---------------------------|
| 17                        | 43                         | 21                        |
| 39                        | 70                         | 32                        |
| 113                       | 164                        | 59                        |
| 86                        | 162                        | 91                        |
| 105                       | 188                        | 105                       |
| 133                       | 301                        | 119                       |
| 166                       | 334                        | 168                       |
| 176                       | 587                        | 161                       |
| 337                       | 637                        | 243                       |
| 322                       | 467                        | 299                       |

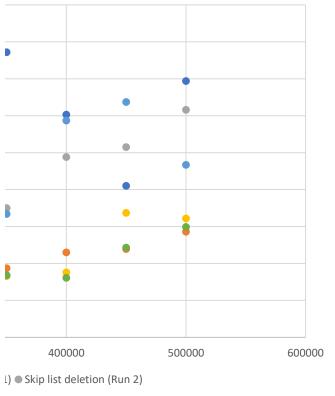
| Tree set actions (Run 2) | Skip list actions (Run 3) | Tree set actions (Run 3) |
|--------------------------|---------------------------|--------------------------|
| 37                       | 86                        | 43                       |
| 70                       | 153                       | 61                       |
| 182                      | 272                       | 106                      |
| 162                      | 338                       | 171                      |
| 194                      | 486                       | 197                      |
| 246                      | 554                       | 237                      |
| 330                      | 681                       | 301                      |
| 349                      | 1041                      | 323                      |
| 535                      | 1144                      | 432                      |
| 546                      | 1114                      | 549                      |







| - |  |  |  |  |
|---|--|--|--|--|
|   |  |  |  |  |



) • Tree set deletion (Run 3)