# Travel Bug Lifespan Study
### by Jim Evans (Thot) on January 25, 2011

**All bugs in this study were released in the two years between Jan 1, 2004 and Jan 1,2006
Study period was 7 years ending January 25, 2011**

**Total Bugs in Sample 1000**            (NOTE:  Bugs released with no activation date and bugs that were released outside the sample period were excluded from the sample)

**Total Bugs Released 508**

**Bugs Never Released 493**            (I found it interesting that the number of bugs bought and never released is almost the same as the number released)
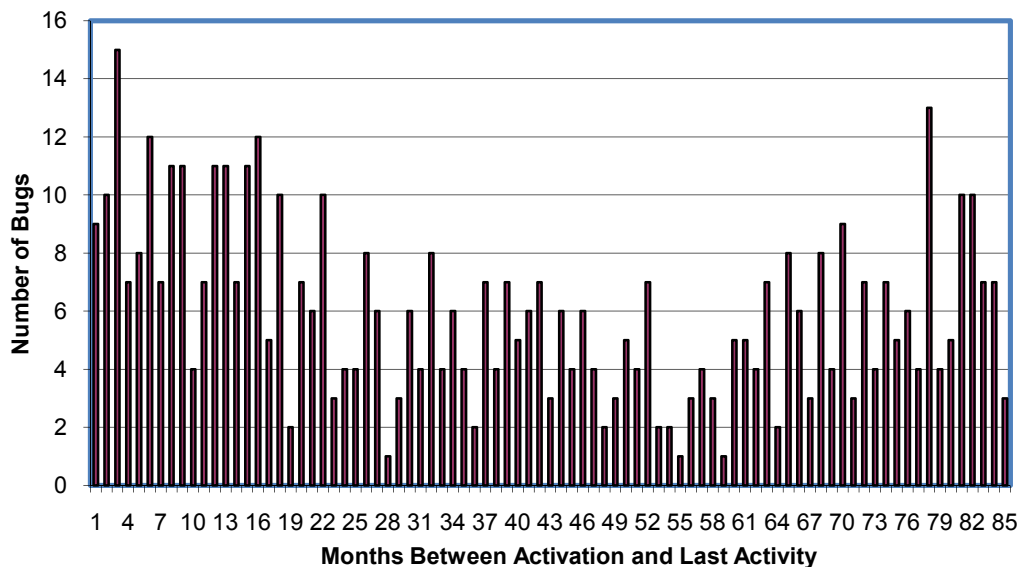
**Average Bug Life 38 Months**            (For you statistical folks the Median is 34 and the mode 3 months)

**Dead Bugs 466 or 92% of the bugs released**            (If there has been no activity in the last six months the bug is assumed dead)

**70% Died in a Cache 30% Died in Someone's Possession**

## Bug Life Data



**Weaknesses I'm aware of**
o   I had to use the Activation date (called the "Released" date on the bug page)
as the starting date.  Some people activate bugs and don't release them
until later.   This would create the appearance of a longer life than the bug
actually had.  A manual sample of 50 bugs suggests that almost all bugs
are released within a week of activation.  Of the few that are delayed, most
are released within a month of activation.  The longest delay in the manual
sample was one bug at four months.  I assume from this sample that the
small number of delayed releases has little effect on the results.

o  The period chosen for the study may mean it is not representative of life spans today.  There's a good chance that average lifespans change over time.  But, a period must be chosen that allows for the lives to play out.  Since the half-life of a bug is about 3 years, bugs released recently don't provide meaningful results.  I didn't measure this, but most of the bugs in this study were probably released in 2004.

o  In deciding which bugs have died, a period of 6 months with no activity will surely declare some bugs dead that will become active again, but to estimate the number that die during the study period, some cutoff must be chosen. In an earlier study (smaller and further back in time) a bug makes a hop about once every 6 weeks.  So, six months is four times the average hop period.  That was before the advent of "Discovering".   Discovering should, if anything, make the time between activities shorter.  Whether a bug is declared dead or not does not affect the average lifespan as this average includes all bugs, dead or not.

o  The average lifespan is really longer than the value shown because some of the bugs are still alive and will continue for some unknown time to come.

o  Some people resurrect dead bugs.  I do that myself.  I have no way to know when that is happening.  This practice would make lifespans appear longer than they really are.

**Remarks**
o  I am surprised by how long bugs live on average.  My experience has been much worse.

o  The shorter average life of a bug in my earlier study was probably because the bug releases were closer to the time of the study.  Thus, more often, full lives had not had not had a chance to play out.

| Months of Life | Number of Bugs With This Life | Cumulative Number of Bugs With Lives Equal or Less Than | Percent of Bugs With Lives Equal To or Less Than Months in Column 1 |
|---|---|---|---|
| 0 | 9 | 9 | 2% |
| 1 | 10 | 19 | 4% |
| 2 | 15 | 34 | 7% |
| 3 | 7 | 41 | 8% |
| 4 | 8 | 49 | 10% |
| 5 | 12 | 61 | 12% |
| 6 | 7 | 68 | 13% |
| 7 | 11 | 79 | 16% |
| 8 | 11 | 90 | 18% |
| 9 | 4 | 94 | 19% |
| 10 | 7 | 101 | 20% |
| 11 | 11 | 112 | 22% |
| 12 | 11 | 123 | 24% |
| 13 | 7 | 130 | 26% |
| 14 | 11 | 141 | 28% |
| 15 | 12 | 153 | 30% |

| | | | |
|---|---|---|---|
| 16 | 5 | 158 | 31% |
| 17 | 10 | 168 | 33% |
| 18 | 2 | 170 | 33% |
| 19 | 7 | 177 | 35% |
| 20 | 6 | 183 | 36% |
| 21 | 10 | 193 | 38% |
| 22 | 3 | 196 | 39% |
| 23 | 4 | 200 | 39% |
| 24 | 4 | 204 | 40% |
| 25 | 8 | 212 | 42% |
| 26 | 6 | 218 | 43% |
| 27 | 1 | 219 | 43% |
| 28 | 3 | 222 | 44% |
| 29 | 6 | 228 | 45% |
| 30 | 4 | 232 | 46% |
| 31 | 8 | 240 | 47% |
| 32 | 4 | 244 | 48% |
| 33 | 6 | 250 | 49% |
| 34 | 4 | 254 | 50% median life |
| 35 | 2 | 256 | 50% |
| 36 | 7 | 263 | 52% |
| 37 | 4 | 267 | 53% |
| 38 | 7 | 274 | 54% average life |
| 39 | 5 | 279 | 55% |
| 40 | 6 | 285 | 56% |
| 41 | 7 | 292 | 57% |
| 42 | 3 | 295 | 58% |
| 43 | 6 | 301 | 59% |
| 44 | 4 | 305 | 60% |
| 45 | 6 | 311 | 61% |
| 46 | 4 | 315 | 62% |
| 47 | 2 | 317 | 62% |
| 48 | 3 | 320 | 63% |
| 49 | 5 | 325 | 64% |
| 50 | 4 | 329 | 65% |
| 51 | 7 | 336 | 66% |
| 52 | 2 | 338 | 67% |
| 53 | 2 | 340 | 67% |
| 54 | 1 | 341 | 67% |
| 55 | 3 | 344 | 68% |
| 56 | 4 | 348 | 69% |
| 57 | 3 | 351 | 69% |
| 58 | 1 | 352 | 69% |
| 59 | 5 | 357 | 70% |
| 60 | 5 | 362 | 71% |
| 61 | 4 | 366 | 72% |
| 62 | 7 | 373 | 73% |
| 63 | 2 | 375 | 74% |
| 64 | 8 | 383 | 75% |
| 65 | 6 | 389 | 77% |
| 66 | 3 | 392 | 77% |
| 67 | 8 | 400 | 79% |

| | | | |
|---|---|---|---|
| 68 | 4 | 404 | 80% |
| 69 | 9 | 413 | 81% |
| 70 | 3 | 416 | 82% |
| 71 | 7 | 423 | 83% |
| 72 | 4 | 427 | 84% |
| 73 | 7 | 434 | 85% |
| 74 | 5 | 439 | 86% |
| 75 | 6 | 445 | 88% |
| 76 | 4 | 449 | 88% |
| 77 | 13 | 462 | 91% |
| 78 | 4 | 466 | 92% |
| 79 | 5 | 471 | 93% |
| 80 | 10 | 481 | 95% |
| 81 | 10 | 491 | 97% |
| 82 | 7 | 498 | 98% |
| 83 | 7 | 505 | 99% |
| 84 | 3 | 508 | 100% |