

Mymalloc uses meta data in the simulated data space to mark boundary of blocks. This metadata takes the form of a short at the start and end of each block. The value of the short is equal to the size of the block it bounds. For a used block the short at the start of the block is negative and the short at the end is positive. A free block has the opposite signs. When a block is freed the adjacent blocks are checked to determine if they can be merged with the newly freed block.

The average time for the test cases is:

test A: 0.000003

test B: 0.000002

test C: 0.000006

test D: 0.000003

test E: 0.000007

test F: 0.000007