Assignment 5

Statistics Obtained:

Weighted Buddy system:

For polynomial arithmetic results are as follows:

Internal fragmentation=0

No external fragmentation

Execution Time=1.74

One bin allocator:

For polynomial arithmetic results are as follows:

Internal fragmentation=0 (as initialized one bin with correct size)

No external fragmentation

Execution Time=1.15

Standard Malloc:

Execution Time=1.00

So,in concludion malloc is faster than both weighted buddy and one bin allocator.

Simulation results for Weighted Buddy allocator: for 5000 time steps

1 For Uniform distribution:

  Parameters used:max=8000,min=100

   Internal Fragmentation:0.173

  Number of splits:22937

  Number of recombinations:22937

2 For Truncated exponential distribution

  Parameters used:max=8000,min=100,mean=4000

  Internal Fragmentation: 0.13573

  Number of splits:19292

  Number of recombinations:19292

Run make for simulation and makefile2 for polynomial program