Strategies for memory profiling

This page contains guidelines and recommendations for common memory profiling scenarios, including some heuristics about memory usage patterns that might indicate a memory problem. Of course, every application is different, so these guidelines only outline strategies for memory profiling; to apply these strategies you will need a good understanding of your application.

To get the most useful results, you will need to take one or more snapshots at appropriate times. You can either do this manually, while you interact with your application, or you can take snapshots at precisely the right moment by modifying your code.

Note that Windows Task Manager and Performance Monitor can give misleading results because of the particular memory counters they use. Because of this, you should not try to compare results shown in ANTS Memory Profiler with these other products. For more information about different types of memory counter, see Setting up performance counters.

Identifying types of memory problems

There are many different types of memory issue, so the first step to solving your problem is to work out what type of problem you are facing.

We recommend the following strategy:

1. Check for large object heap fragmentation.
2. Check for a leak in unmanaged memory.
3. Check for a leak in, or excessively high usage of, managed memory.