

Quiz 1

1. A good assembly programmer can potentially obtain a factor of 1.5 to 2 performance improvement over optimized C code. Why don't we program in assembler if performance is important?
2. A server is showing excessive performance degradation. Outline a methodology for solving the problem.
3. A big problem in the supercomputing field is the difficulty of writing code that can exploit the parallel architecture. Not only writing multithreaded and message-passing codes is difficult, but also the performance debugging phase can often be very frustrating. Therefore, it has been argued that a better metric is to measure the "time-to-solution" to evaluate a system. The time-to-solution includes the time to write a program to solve the problem, and the running time of the machine to produce an answer. Critique this metric and consider its practical use.