

19.10 Massive Parallelism and Parallel Algorithms

Today's multi-core desktop computers typically have two, four or eight cores. We're headed towards a world of massive parallelism where instead of two, four or eight, we could be talking about thousands and eventually millions or more processors.

The ultimate search would be to employ massive parallelism to check every cell simultaneously, in which case, you could determine whether a particular value is in an array in one "cycle" of the hardware.

In [Chapter 23, Concurrency](#), we'll talk more about how parallel algorithms and multi-core hardware can improve the performance of searching and sorting algorithms.