Chapter 12

Sorting

After studying this chapter, you should be able to

* Design and implement the following sorting algorithms:
* Straight selection sort
* Bubble sort (two versions)
* Insertion sort
* Merge sort
* Quick sort
* Heap sort
* Radix sort
* Parallel merge sort
* Compare the efficiency of the sorting algorithms in terms of Big-O complexity and space requirements
* Discuss other efficiency considerations: sorting small numbers of elements, programmer time, and sorting arrays of large data elements
* Sort on several keys
* Understand considerations of stability, using keys with pointers to items, and caching when designing a sorting algorithm
* Use the C++ thread facility to take advantage of available parallelism