Level 2_1

Parallel computing makes use of numerous computer cores to do multiple activities at the same time. In contrast to serial computing, parallel architecture may reconstruct a task into its component elements and multitask them. Parallel computer systems are suitable for simulating and modeling actual events.

A processor in old-school serial computing takes one stride at a time, much the same as traveling somewhere along the road. When compared to processing operations in parallel, this is an inefficient process. Parallel processing, on the other hand, is like cloning oneself three or five times and then walking side by side, traveling several steps down the road one after another.

Parallel computing has the feature that lets computers execute code more efficiently, saving time and money by sorting through "large data" faster than ever. Parallel programming can also manage more complex problems by sharing resources. This is useful for applications ranging from improving solar power to changing the banking industry.

At its most basic, parallel computing is a part of the multi-core processors that fuel our technology, such as computers. At its most complex, the amazing 200,000+ cores in the American Summit supercomputer are aiding us in finding solutions in genetics, disease, the environment, and even modeling the behavior of a supernova. It is the concept that a computer may divide a problem into sections and operate on them all at the same time. Parallel computing will keep up with the growth of data in our environment to help us make sense of it.