

Hyperthreading influence on CPU performance

Friday, 23 April 2010 09:30 (30 minutes)

In this report we present the hyperthreading influence on CPU performance when running the HEP-SPEC2006 benchmark suite in a 2 quadcore CPU shared memory system (HP BL460c G6). This study was performed as a function of the number of running instances (from eight to sixteen), and with and without SPEC RATE. We concluded that the elapsed application run time can be clearly reduced if hyperthreading is on. The effect becomes stronger as the number of running instances increases reaching up to 30% for the maximum number of tested running instances. We intend to extend this work for other shared memory systems, and try to define an upper limit for the CPU performance increase as a function of running instances.

Primary author: MARTTINS, Joao (LIP)

Co-authors: BORGES, Goncalo (LIP); GOMES, Jorge (LIP); DAVID, Mario (LIP)

Presenter: MARTTINS, Joao (LIP)

Session Classification: Benchmarking

Track Classification: Benchmarking