Speed up your inversion projects

Multi-CPU (MCPU) facilitates the networking of hundreds of PCs and Linux machines to ensure the fastest throughput of inversion projects. MCPU for InverTrace® Plus and RockTrace® allows batch jobs from projects to be divided among a number of processors on the same computer, or on multiple computers on a local area network, including multi-CPU machines and processors.

MCPU helps to dramatically cut the execution time of InverTrace Plus and RockTrace batch jobs. This allows users to produce more results in less time with higher quality.

Comparison of execution times (in minutes) for a RockTrace project with different levels of Multi-CPU (MCPU) configurations.

Turning results around quickly to evaluate parameter settings is a key quality indicator for many projects. MCUP may equip you to evaluate your inversion results today instead of tomorrow.

MCPU works by breaking the data set into overlapping blocks and assigning each block to a different processor for job execution. The blocks are reassembled into the final processed cubes automatically. In the figure, the test machine configuration included 2.35 GHz Intel Core-8 processors with 3 GB RAM memory available for processing. The project contained 750,000 traces, five wells and four horizons.

The Jason advantage

Run-time improvements for batch inversion jobs are dramatic with the addition of only a few extra processors:

- Faster job turnaround – hours instead of days
- Better QC control with fewer compromises during QC testing
- Better understanding of spatial QC
- More thorough low-frequency model testing
- More partial stacks for inversions with improved signal-to-noise ratio
- Efficient processing to facilitate testing of alternate partial stack volume scenarios
Multi-CPU

MCPU is designed to meet the needs of a variety of users running different projects – large or small, one at a time, or multiple at a time. Whether you run jobs from many projects in parallel or run very large single projects, in every case MCPU is ready to help make the most effective use of your Jason inversion applications.

Licensing options
MCPU for InverTrace Plus and RockTrace is available with the following options:
- CSSI MCPU-2 to utilize two processors
- CSSI MCPU-4 to utilize four processors
- CSSI MCPU-8 to utilize eight processors
- CSSI MCPU-16 to utilize 16 processors
- CSSI MCPU-32 to utilize 32 processors
- CSSI MCPU-48 to utilize 48 processors
- CSSI MCPU-64 to utilize 64 processors

Operating system requirements
The following operating systems and graphics systems are supported:
- Linux™ Red Hat® Enterprise 4, 5 or 6
- Linux™ SUSE™ 11.x, Enterprise (SLES10)
- Windows® (32 & 64 bit) – XP SP3, Vista™, Windows® 7
- Requires Nvidia® graphics
- Supports remote shell and secure shell

Recommended minimum hardware
Configurations:
Consider the following to determine the optimum license configuration for your operation:
- You may need to process large jobs overnight
- You may want to run RockTrace with more stacks, but have limited time
- You may need to increase overall throughput

Interoperability
Jason InverTrace Plus, RockTrace