Manticore is a high-level parallel programming language aimed at general-purpose applications running on multi-core processors. Manticore supports parallelism at multiple levels: explicit concurrency and coarse-grain parallelism via CML-style constructs and fine-grain parallelism via various light-weight notations, such as parallel tuple expressions and NESL/Nepal-style parallel array comprehensions.

We have been working on a compiler and runtime system for Manticore since the beginning of 2007. Currently we have most of the parallel features implemented and running on Linux and MacOS X on the x86-64 (a.k.a. AMD64) architecture. Our current implementation efforts are focused on performance tuning, extending the language implementation with NESL-style flattening, and adding mutable state cleanly.

Recently Updated

- Installation instructions
- Documentation
- Compiler Overview

- Runtime configuration-file format
- Logging
- Flat-heap implementation notes
- proposed move to System F
- C calls
- Set-once memory
- Fiber-local storage
- MLB
- Inline BOM
- Compiler Overview

- Work Items
- Compile on Windows
- Atomicity
- Scheduler