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.

- Installation instructions
- Documentation
- Compiler Overview

Recently Updated

Recent changes include:
- Runtime configuration-file format (Oct 15, 2012, Lars August Bergstrom)
- Logging (Oct 15, 2012, Lars August Bergstrom)
- Flat-heap implementation notes (Oct 15, 2012, Lars August Bergstrom)
- proposed move to System F (Oct 15, 2012, Lars August Bergstrom)
- C calls (Oct 15, 2012, Lars August Bergstrom)
- Set-once memory (Oct 15, 2012, Lars August Bergstrom)
- Fiber-local storage (Oct 15, 2012, Lars August Bergstrom)
- MLB (Oct 15, 2012, Lars August Bergstrom)
- Inline BOM (Oct 15, 2012, Lars August Bergstrom)
- Work Items (Oct 15, 2012, Lars August Bergstrom)
- Compile on Windows (Oct 12, 2012, Lars August Bergstrom)
- Atomicity (Oct 12, 2012, Lars August Bergstrom)
- Scheduler (Oct 12, 2012, Lars August Bergstrom)