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

Installation instructions
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Flat-heap implementation notes
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proposed move to System F
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C calls
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MLB
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Atomicity
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Scheduler
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