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
Home
Oct 15, 2012 • updated by Lars August Bergstrom • view change
Runtime configuration-file format
Oct 15, 2012 • updated by Lars August Bergstrom • view change
Logging
Oct 15, 2012 • updated by Lars August Bergstrom • view change
Flat-heap implementation notes
Oct 15, 2012 • updated by Lars August Bergstrom • view change
proposed move to System F
Oct 15, 2012 • updated by Lars August Bergstrom • view change
C calls
Oct 15, 2012 • updated by Lars August Bergstrom • view change
Set-once memory
Oct 15, 2012 • updated by Lars August Bergstrom • view change
Fiber-local storage
Oct 15, 2012 • updated by Lars August Bergstrom • view change
MLB
Oct 15, 2012 • updated by Lars August Bergstrom • view change
Inline BOM
Oct 15, 2012 • updated by Lars August Bergstrom • view change
Compiler Overview
Oct 15, 2012 • updated by Lars August Bergstrom • view change
Work Items
Oct 12, 2012 • updated by Lars August Bergstrom • view change
Scheduler
Oct 12, 2012 • updated by Lars August Bergstrom • view change