

THE ORDO LOGICA **LANGUAGE**

A FUNCTIONALLY- ORIENTED SYMBOLIC LANGUAGE

**FOR POSIX OPERATING SYSTEMS**

**REFERENCE AND USER GUIDE**

VERSION 1I

Licensing

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and is available in source form from <https://github.com/Software-Knife-and-Tool/logica>

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Introduction

The *Ordo* *Logica* programming system is an implementation of a small Lisp garbage-collected execution environment targeted for Posix operating systems. *Logica* consists of a native run-time library (*libmu)* and several layered Lisp libraries that provide a native-code compiler, repl, garbage collection,

*Logica* is a single address space system that targets x86\_64 and Aarch ARM POSIX kernels. The *libmu* run-time is written in C++14 and implements a kernel language that supports Lisp-style data types in a garbage collected environment.

The implementation language, *mu*, is an immutable namespaced Lisp-1 that supports macros, delimited continuations, and closures. The *libmu* library employs 64 bit tagged data pointers and can accommodate an address space up to 61 bits[3].

The programming environment is implemented by several libraries which provide increasing levels of compatibility with Common Lisp and Scheme.

The supplied repls can be used as a shell and the *libmu* library extends an API for embedded applications. While highly influenced by ANSI Common Lisp, *Logica* borrows from Scheme, Clojure, and the DIN Kernel Lisp specification as critiqued by Baker.

<http://www.pipeline.com/~hbaker1/CritLisp.html>