



# Newcomer's Introduction to Interactive Development in Clojure

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# Tooling Overview

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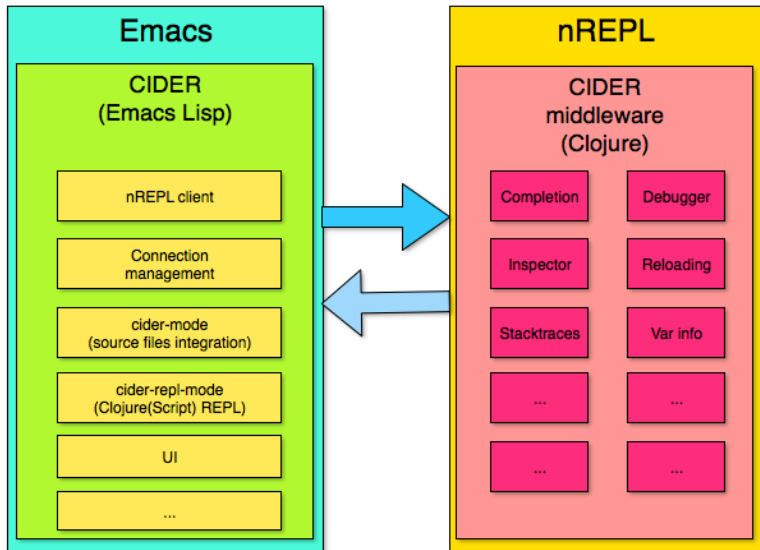
Emacs is an extensible text editor with close ties to the Lisp family of programming languages:

- Actively developed since the mid-1970s
- Built upon a portable C core, which includes an interpreter for Emacs Lisp (ELisp)
- Most functionality is implemented in this Lisp dialect (more than 75% LOC)
- Features established projects built on top of Emacs for working with a variety of Lisp code (SLIME or Sly for Common Lisp, Geiser for Scheme, Paredit for structural editing...)

The CIDER project aims to support interactive programming for Clojure in Emacs.

- Inspired by similar Emacs projects for other Lisp dialects (such as SLIME)
- Built on top of nREPL, a network REPL for Clojure
- Complements Clojure Mode, which provides editor support (syntax highlighting, indentation rules, etc.) for Clojure source code in Emacs
- Integrates with Clojure build tooling (such as Leiningen or Boot), but can be used with any Clojure project

# CIDER - How does it work?



Basic CIDER Architecture (from the CIDER documentation)

# Demo

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```
$ java -jar demo.jar  
Segmentation Fault (core dumped)
```

## Q & A

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# References

- GNU Emacs <https://www.gnu.org/software/emacs/>
- CIDER <https://github.com/clojure-emacs/cider>
- nREPL <https://github.com/clojure/tools.nrepl>
- Code Reloading <https://github.com/clojure/tools.namespace>
- State Management
  - Component <https://github.com/stuartsierra/component>
  - mount <https://github.com/tolitius/mount>
- Leiningen <http://leiningen.org/>
- Boot <https://github.com/boot-clj/boot>
- clj-http <https://github.com/dakrone/clj-http>
- Enlive <https://github.com/cgrand/enlive>
- clj-refactor.el <https://github.com/clojure-emacs/clj-refactor.el>
- company-mode <http://company-mode.github.io/>