

LISP

A Programmable Programming Language

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Agenda

1. Why Lisp?
2. A bit of History
3. Macros in Action

Why Lisp?

Timeless

- One of the oldest (~ 1958) language families still in use today (only Fortran is older)
- The Syntax is by its very nature timeless

Timeline of Lisp dialects [\(edit\)](#)

	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015
Lisp 1.5	Lisp 1.5												
MacLisp			MacLisp										
Interlisp			Interlisp										
ZetaLisp				Lisp Machine Lisp									
Scheme				Scheme									
NIL					NIL								
Common Lisp					Common Lisp								
T							T						
Emacs Lisp								Emacs Lisp					
AutoLISP								AutoLISP					
ISLISP								ISLISP					
EuLisp								EuLisp					
PicoLisp								PicoLisp					
Racket								Racket					
Arc										Arc			
Clojure											Clojure		
LFE											LFE		
Hy												Hy	

- Garbage Collection
- Homoiconicity
- Read Evaluate Print Loop (REPL)
- Incremental Compilation (compiled and interpreted functions can intermix freely)

Scheme - A Language for Teaching

- Scheme was used as a introductory Language in famous Universities like MIT (6.001)
- Extremely small language core
- TODO image

A bit of History

Macros in Action

Questions?

