

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

	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?

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