

# LISP - OVERVIEW

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John McCarthy invented LISP in 1958, shortly after the development of FORTRAN. It was first implemented by Steve Russell on an IBM 704 computer.

It is particularly suitable for Artificial Intelligence programs, as it processes symbolic information effectively.

Common Lisp originated, during the 1980s and 1990s, in an attempt to unify the work of several implementation groups, which were successors to Maclisp like ZetaLisp and NIL *NewImplementationofLisp* etc.

It serves as a common language, which can be easily extended for specific implementation.

Programs written in Common LISP do not depend on machine-specific characteristics, such as word length etc.

## Features of Common LISP

- It is machine-independent
- It uses iterative design methodology, and easy extensibility.
- It allows updating the programs dynamically.
- It provides high level debugging.
- It provides advanced object-oriented programming.
- It provides convenient macro system.
- It provides wide-ranging data types like, objects, structures, lists, vectors, adjustable arrays, hash-tables, and symbols.
- It is expression-based.
- It provides an object-oriented condition system.
- It provides complete I/O library.
- It provides extensive control structures.

## Applications Built in LISP

Large successful applications built in Lisp.

- Emacs
- G2
- AutoCad
- Igor Engraver
- Yahoo Store

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