

Research in Integrated Development Environments (IDEs)

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What Is an IDE?

- Integrated collection of tools.
- Basic components are:
 - source code editor
 - compiler/interpreter
 - debugger

Advanced IDE Features

- multi-language support
- code browsing
- graphical views
- testing
- integrated version control

Earliest IDEs

- Lisp environments of the 1970s.
- First terminal-based, then GUI.

Research Heyday

- Mid-1980s.
- Pioneering environments like
BALSA and PECAN.

Productization

- 1990s and 2000s have seen many commercial and open source products.
- Eclipse is noteworthy.

Latest Research

- Focus on expanding IDE scope.
- Areas include:
 - o* hypermedia
 - o* collaborative work
 - o* ubiquitous computing