

Growing a Language

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Introduction by Guy L. Steele Jr.

This is the (slightly edited) text of an invited talk at the 1998 ACM OOPSLA conference. Richard Gabriel reports that the fellow sitting next to him, on seeing Steele walk up onto the stage wearing a suit and tie, remarked that they must be in for some sort of marketing talk or sales pitch. Well, he was right, in a way—but the talk was not at all in the form he expected!

This talk argues that most programming languages have impoverished vocabularies that make them awkward to use. The talk also makes a case for designing facilities into programming languages to allow the programmer, not just the language designer, to add new facilities to the language, to grow the language for the benefit of other programmers. What makes the talk unusual is that it is reflexive, or metacircular, serving as an example of the phenomenon being described.

REFERENCES:

Steele, Guy L., Jr. "Growing a Language." Higher-Order and Symbolic Computation 12, 3 (October 1999), Kluwer Academic Publishers (Hingham, MA), 221–236.

Additional Publications by Guy L. Steele Jr.:

Common Lisp: The Language (Digital Press, 1984, 1990)

C: A Reference Manual (Prentice-Hall, 1984, 1986, 1991, 1995)

The High Performance Fortran Handbook (MIT Press, 1994)

The Java™ Language Specification (Addison-Wesley, 1996, 2000)