

## Tracing the roots of computer languages through the ages

Code-raker Grady Booch, Rational Software's chief scientist, is working with the Computer History Museum in Silicon Valley to record and, in some cases, maintain languages by writing new compilers so our ever-changing hardware can grok the code. Why bother? "They tell us about the state of software practice, the minds of their inventors, and the technical, social, and economic forces that shaped history at the time," Booch explains. "They'll provide the raw material for software archaeologists, historians, and developers to learn what worked, what was brilliant, and what was an utter failure." Here's a peek at the strongest branches of programming's family tree. For a nearly exhaustive rundown, check out the Language List at [HTTP://www.informatik.uni-freiburg.de/Java/misc/lang\\_list.html](http://www.informatik.uni-freiburg.de/Java/misc/lang_list.html). - Michael Mendeno

# Survival of the Fittest

Reasons a language endures, with examples of some classic tongues

- Appeals to a wide audience** C (bolstered by the popularity of Unix)
- Gets a job done** Cobol (designed for business-report writing)
- Delivers new functionality** Java (runs on any hardware platform)
- Fills a niche** Mathematica (speeds up complex computations)
- Offers a modicum of elegance** Icon (has friendly, line-oriented syntax)
- Has a powerful user base or backer** C# (developed by Microsoft for .Net)
- Has a charismatic leader** Perl (programmer-author Larry Wall)

