Object paradigm solves several key problems that can prevent us from building highly malleable, reusable software. Static binding requires all data types to be known at compile time. This makes environmental code explicitly dependent on the type of contents known when the code was developed—when new data types must be introduced, the change ripples throughout the environment. The late binding provided by messaging weakens this dependence so that environmental code can often be reused without change as new data types are added over time.

Objective-C demonstrates that late and early binding need not compete—conventional languages can often be extended with Smalltalk constructs to provide hybrid languages that have the strengths of both parents. Although these languages sacrifice the conceptual purity of Smalltalk, they do provide late-binding tools when and where they are most needed—today, on the workbench of the programmers who are struggling to keep large software systems up to date in a changing world.

References

Brad J. Cox, vice president of software development at Productivity Products International, manages the development of object-oriented languages and applications based on conventional languages and operating systems.

Cox received his BS degree from Furman University and his PhD in chemistry from the University of Chicago. He is a member of ACM and IEEE and has published several papers and articles on object-oriented programming. He is currently writing a book on the same topic.

His address is Productivity Products, Inc., 37 High Rock Rd., Sandy Hook, CT 06482; (203) 426-1875.

Objective-Oriented Programming
A workshop for programmers
conducted by Drs. Brad Cox and Tom Love

- Boulder, CO
  Feb. 15-17
- Orlando, FL
  March 23-25
  (IEEE SW Eng. Conf.)
- Southbury, CT
  April 22-24

To register send $800 to Productivity Products International, 37 High Rock Road, Sandy Hook, CT 06482 or call us with a Purchase Order at (203) 426-1875.

Objective-C™ a compiler which accepts the full C-language plus PPI developed message/object extensions, is now available from PPI. Objective-C can operate on any 16-bit or larger computer which has a C-language compiler.