



Tom Button, Microsoft Corporation

Debunking the Object Myth

At Microsoft, our goal is to make computers more useful and accessible to a broader range of people. That's why we're concerned that object-oriented programming, "OOP", has turned into an industry buzzword. The truth is, OOP is secondary to the ultimate goal of improving user productivity.

I'm the group product manager for the Applications Programmability Product Unit. Our charter is to bring solutions closer to the user (or programmer). We believe that applications programmability is one of the next major steps in the evolution of software. In the future, applications programmability will change how we interact with software. The borders between applications will become less significant, and customizing software to meet individual needs will become more important.

Applications programmability is a crucial part of Information At Your Fingertips, Microsoft's vision for computing in the future. One of our most important visions is that of a common macro language for applications, a language that will one day be the lingua franca for every application, empowering developers and end users alike to make more effective use of software.

GUEST OPINION

DON'T CONFUSE A
SINGLE TOOL WITH
THE GOAL OF ENHANCED
PROGRAMMABILITY

THE PROBLEM: CURRENT LIMITS TO APPLICATION SOFTWARE

The limitations of application software have become apparent as no one type of application spreadsheet, word processor, or file manager can satisfy the needs of today's computer user.

The lack of an architecture that enables the sharing of commands between applications has meant that each commercial application has had to incorporate more and more of the tools already built into other software packages. A word processor may contain a spreadsheet; a spreadsheet may contain a word processor as well as a graphing tool. With this increase in the number of tools, a user may now have to learn how to carry out similar tasks over and over again, but each time with a different application and a different interface. And each development team has to solve problems already solved by others.

Applications thus become like independent islands of functionality, with no bridges to the neighboring islands. A badly needed feature may exist in one application, but there is no way to make use of it in another. At Microsoft, one of our most important goals is to find effective ways to build bridges between these islands.

THE DILEMMA: HOW TO MAKE SOFTWARE MORE USABLE

We think that the solution is to provide users with highly flexible applications that can be easily customized and put into larger, more flexible groups. The key to making software more usable is to put more of the power to create new solutions in the hands of users, corporate gurus, and third-party developers. This means developing more powerful programmability technology and making it available in applications.

THE SOLUTION: APPLICATIONS PROGRAMMABILITY

Some would have you believe OOP is the solution. At Microsoft, we believe it is one part of the solution. The real solution lies in applications programmability. Realizing the vision of applications programmability requires three major efforts:

- Consistent and open architecture that provides the foundation for programmability. For example, technologies like Object Linking and Embedding (OLE) allow Windows applications to share different types of data even in different applications in a single document or file. In Visual BASIC, developers can easily create single programs that exploit multiple applications whatever is needed for the customized solution.
- Applications that support this architecture so they become customizable components of larger solutions. In your case, vertical applications will be far easier to maintain and support because you'll have one consistent solution.
- A consistent set of tools that brings the benefits of programmability to a wide range of users. An example of this is the custom controls in Visual BASIC. You can produce specialized tools that seamlessly extend Visual BASIC to meet virtually any need.

Applications programmability will change the way our industry works. For you, that means you'll be able to easily create customized solutions. Large markets will emerge for reusable components of all sizes. This will open new opportunities for innovation and creativity.

Ours is an evolutionary approach, not a revolutionary approach that suddenly makes old software obsolete. We're committed to making it as easy as possible to adapt current software, without losing anything in the process. ■

Tom Button is group product manager for the Applications Programmability Product Unit at Microsoft. APPU is the home for Visual BASIC, QuickBASIC, and the Professional Development System. APPU has a central role at Microsoft in not only creating modern, structured, and graphical versions of BASIC, but helping to implement versions of that language across a broad range of MS applications and systems software.