

## *Greetings*

Michael D. O'Dell Editor-in-Chief

*H*ello again.

Containing only two papers, this issue is one of the shorter we've published, based purely on article count, but it is by no means short on content or number of pages.

We have two papers examining how reality impinges on the sometimes-idealized world of pure computer science. In one paper, Bjarne Stroustrup relates the evolution of the C++ programming language over the past five years, providing considerable insight into the forces which shaped the language as we know it today. As you will see, many of the design decisions were not clearcut nor obvious, but rather they reflect considerable thought, experimentation, compromise, and sometimes reversing decisions over a long period of time. C++ did not spring from the forehead fully-formed, and examining the process which created it is a revealing look at the design process of a real programming language. In particular, Stroustrup discusses access control and the increased flexibility in that area, type-safe linkage, overloaded functions, user-defined memory management, abstract classes, and several other features available in C++ 2.0. The period of August 1985 through spring 1989 has been an interesting and active one in the world of object-oriented programming. Stroustrup's detailing of the evolutionary process within C++ is a fascinating piece of history.

The other paper, "Heuristics for Disk Dive Positioning in 4.3BSD" by W. Richard Stevens, addresses a highly pragmatic performance issue – scheduling and positioning disk heads in the face of filesystem traffic. This problem is a classic confrontation between analytic queuing studies and the real systems which have

very seldom, if ever, read the papers predicting their performance. This paper originated in the efforts by the author to understand and tune real, live filesystems, and thus the paper is strongly rooted in the harsh reality of hard performance numbers.

Finally, let me draw your attention to the Letters section. This section was always planned, but apparently, there has never been a controversy irritating enough to provoke anyone's pen. The virus papers in the last issue, however, clearly succeeded: our first Letter to the Editor and my response to it appear at the end of this issue. I suspect, however, that this won't be the end of the matter, particularly since Mr. Robert T. Morris was just indicted on charges relating to the Internet Worm event.

That does it for this issue. Thanks for coming, and think "snow."