Greetings

Michael D. O'Dell Editor-in-Chief

*H*ello again.

This issue cuts across the whole spectrum of systems programming: deep kernel issues, "system services," which are clearly an expected part of an operating system environment but which run in outside the kernel, and tools for for sophisticated applications programming. A real slice of life, so to speak.

Our first paper is one of those rare papers which leaves you pleasantly surprised, having just discovered that a topic which conventional wisdom has always deemed quite complex and difficult actually has a simple and compellingly elegant formulation. While Ruane's "Process Synchronization in the UTS Kernel" can't address all the troublesome issues faced in such an effort, the light it sheds on the formidable task of building a symmetric multiprocessing kernel starting from an "out of the box" uniprocessor kernel is both brilliant and deeply illuminating. Even if you are not in the throes of such an effort, you will find it rewarding reading.

The second paper, "A Concurrent Programming Environment on a Computer Network" by Spezzano, Vanneschi and Talia, describes a software system designed to support building sophisticated, distributed applications in a network environment. The urgent need for such tools is, I believe, evidenced by the scarcity of large distributed software applications in spite of there being no shortage of large problems needing such solutions. This paper discusses the linguistic approach developed in their system, the processing tools to support the language extensions, and the distributed run-time support environment which makes it run.

The last paper in this issue addresses printing, a critical part of today's computing environment, although one which is outside the kernel, but usually thought to be inside the "operating systems" boundary by most people (i.e., a user can seldom effect it any any substantive manner). Printing environments are like electronic mail in that correctness and robustness are much harder than they first appear. And it is a sensitive matter: few things can infuriate a user more rapidly than dealing with inadequate or unrobust printing software. The advent of networks has further complicated this job since people now believe that you really ought to be able to use any printer from anywhere, but making it appear that simple is tricky at best. Wagner's paper "Distributed Spooling in a Heterogeneous Environment" discusses how one large organization addressed their problems in this area.

That does it for this issue, and see you next time.