It should be noted that once PCS location 86 has been intercepted by a micro ECO, this further software modification can be performed via a simple alteration of the contents of the WCS patch file.

Because user microcode is reached without reference to the XFC fault vector in the system control block, a purist may feel that the suggested modifications violate the architecture of the machine. Although this may be true, the considerable improvement in entry time that is possible with the proposed micro ECO shows clearly that the original design of the entry path into the extended WCS is open to question.

Acknowledgments

I would like to thank both Brendan Lynch and Peter Tully for their help in exploring the intricacies of the CPU on the VAX-11/780, and Michael Nowlan for providing the resources used in testing the proposed software modifications on a live system.

References


David M. Abrahamson is a lecturer in computer science at Trinity College Dublin. His research interests include microprogramming, text compression, and compiler construction. A member of the ACM, BCS, and IEEE Computer Society, he spent the 1980-1981 academic year as a visiting professor at Rensselaer Polytechnic Institute in Troy, New York, followed by three months as a visiting scientist at the Technion in Israel.

Abrahamson received his BAI, MA, and PhD degrees in engineering and computer science from Trinity College in 1972, 1978, and 1981, respectively.

Abrahamson's address is Dept. of Computer Science, Trinity College, Dublin 2, Ireland.