

Upward Migration

Part 1: Translators

Using translation programs to move CP/M-86 programs to CP/M and MS-DOS

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In software migrations as in any other, the first thing you must know is where you are and where you are going. If a Californian decides to move to Australia, he can call an airline, ask for a ticket from San Francisco to Sydney, and the airline clerk will be happy to reserve a seat for him. If the Californian asks for a ticket from Los Angeles-or-San Francisco to Sydney, however, the airline clerk will find the request confusing. If the Californian asks for a ticket from Los Angeles-or-San Francisco to Sydney under Catholic rule, or a ticket from Los Angeles-or-San Francisco to Sydney under Protestant rule, the airline clerk will probably say, "You've already spent too much time in the hot tub, buddy. Stay in California. You're right where you belong."

In this little parable of modern

times, Los Angeles is the 8080, San Francisco is the Z80, Sydney is the 8086, Catholicism is CP/M-86, and Protestantism is MS-DOS. The

**XLT86 takes 8080
source code and
converts it into
8086 source code
in an intelligent
manner using
data-flow-analysis
techniques.**

operating systems are represented by religions because they generate similar passions, controversies, true believers, and skeptics.

Is there really any need to explain

why Los Angeles stands for the 8080 and San Francisco for the Z80? Or that the airlines stand for the software houses that have written translation programs?

You've probably guessed who the guy is who's trying to buy the ticket. He's the experienced 8080 or Z80 programmer, and the hot tub symbolizes his strong preference for staying right where he is—on one familiar processor with one familiar operating system. What could be cozier?

The programmer may not have the urge for going, but he has to go to one unfamiliar processor and to both operating systems. And so do the rest of us.

We're lucky to have software from at least three companies to help us along. In this article, the first of two parts, we will review three CP/M-80-to-8086 translator programs. We'll