

PDP-11 STILL GOING STRONG

The article "PDP Family Lives On," (July, "Dateline DEC") failed to show why the PDP-11 family still is going strong. It's a simple price versus performance issue. The software costs and relative system performance can be strikingly different.

If we compare some typical software prices we find:

1. VAX BASIC costs twice as much as RSX or RSTS BASIC for a UNIBUS machine — five times as much as for a Q-bus machine.
2. VAX FORTRAN-77 costs twice as much as RSX or RSTS BASIC for a UNIBUS machine — five times as much as for a Q-bus machine.
3. VAX PASCAL costs almost twice as much as RSX or RSTS BASIC for a UNIBUS machine — 4.5 times as much as for a Q-bus machine.

If I were to buy three packages for a small VAX versus a Q-bus PDP-11, I would spend approximately \$16,700 for the VAX software, \$9,000 for the UNIBUS PDP-11 software, and only \$3,600 for the Q-bus PDP-11 software. Prices for software maintenance are similarly cheaper.

When DEC tells me that it will upgrade me from a MICROPDP-11 to a MICROVAX for \$18,000 (Fall 1986 *DEC-direct Update*), it doesn't mention the \$13,000 difference in software costs.

The other major difference in the price/performance question is the overhead that VMS puts on the CPU.

Although our 11/750 has more MIPS than our 11/44, in actual use the 11/44 comes out a winner. As a case in point, our VAX system manager asks us not to run KERMIT during the day because it significantly degrades everyone's response time when we're running terminal emulation at 1200 baud. If we do the same thing on PDP-11 KERMIT, you can't tell that it's running. For equivalent systems and loads, our PDP-11s can support approximately twice the INTERACTIVE users as our 750, although

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the 750 has approximately 1.5 times the MIPS of our 11/44.

Finally, there are many cases when a PDP-11 has sufficient capacity for a given job: A system often can be put together for half the cost of an equivalent VAX. That's why PDP-11s will be around for a long time.

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