PCC Internal Newsletter

Number 4 May 1987

Newsletterhead Competition

The results of voting in the competition are as follows:

Ipecac.....7

Perspicacity.....3

Private Centre Confessions 3

Don't like any of them.....7

Since there is no clear winner, the heading above will continue to be used. Chris Barker wins the champagne anyway for submitting the three entries.

All I can say is, "It seemed like a good idea at the time". Thank you to the staff who responded.

Geoffrey D

New Faces

Welcome to our new Clerk-typist, Lucinda Jackson and a new Trainee Programmer, Christopher Teakle.

Farewell

Our best wishes for the future to Col Lythall who has gone all the way to the Centre for Information Technology Research (CITR).

University News Supplement

Most of you, I hope, will have seen the PCC supplement in the University News. Any feedback from staff would be appreciated. We propose another supplement for publication in August. I am only too happy to discuss ideas and suggestions for possible topics with any member of staff.

Geoffrey D

Griffith University – CIT

The first director of the Centre for Information Technology at Griffith University, Mr Michael Steel has commenced duty. The new Centre replaces the Interim Computing Support unit under the direction of Dr Peter Turner, who was seconded from the School of Science to lead the Unit pending the appointment of a Director.

The Prentice Computer Centre will continue to have a close association with Griffith University and in particular the C.I.T. – staff can expect to have dealings with Mr Steel from time to time.

Geoffrey D

Mail Seminar

For those who couldn't make the first EMAIL seminar of Tuesday (19th May) there is another one scheduled for Wednesday the 27th May from 9am to 12noon in Course Room II.

The major topics to be covered include:

1. Why use a mail system?
2. What can I use a mail system for?
3. Basic facilities of the mail system.
4. Enhanced facilities of the mail system.
5. System specific facilities of the mail system.
   - A KL-10
   - B VAX/VMS
   - C VM/CMS
6. Postmaster functions.
7. Standard names.
8. Discussion.

New network nodes

Once again, the network has been invaded! Two more nodes are/will be online. GUMNUT is a microVAX II stationed out at Griffith University batch station. Its primary role is to act as a print server for Griffith University. Eventually, this node will also support all the DECnet connections for Griffith, including their yet to be established Ethernet.

GUMNUT connects to us via the 2Mb link into DINGO.

PAHOSP will appear on the network soon. This is also a microVAX II and is stationed out at the Princess Alexandra Hospital. Again, this is connected via a synchronous line into DINGO.

Some more forewarning! Soon another node (yet again) will appear. UQPAC will appear and node ELNTST will disappear temporarily. UQPAC is a microVAX I running our packet switch exchange software written using the VAX/ELN environ-

ment. This node is the backbone of our rapidly expanding X.25 network. Nodes communicating via X.25 will include AUSPAC, UQVAX, WOMBAT, the MICOM, CSUNIX, and of course the rest of the world.

The Colourbook software is in the process of being installed on the UQVAX machine. After some accounting details have been sorted out, this will be available for use. It will allow people to send network mail to a large number of sites, mainly those on SPEARNET and JANET.

Danny Smith

PDP-nn History

The following article was observed by Richard Armstrong in a DECUS publication:

The PDP-1 was an 18 bit machine. It was DEC's first computer, and some of the first timesharing systems were designed for it. It's also unique in being ones complement; all later DEC computers were twos complement. Some machines, such as one of MIT's PDP-1s, were in operation until the late '70s.

The PDP-2 was a designation reserved for a 24 bit machine, but as far as I can tell it was never even designed and definitely none were ever built.

The PDP-3 was a 36 bit machine that was designed but never built by DEC. However, Scientific Engineering Institute built one in 1960.

The PDP-4 was an 18 bit machine that was intended to be a cheaper, slower alternative to the PDP-1. It was *so* slow that it didn't sell well, although it was interesting for its auto-incrementing memory registers. It was not program-compatible with the PDP-1, but its instruction set was the basis of DEC's future 18 bit computers.

The PDP-5 was a 12 bit machine designed to be a small laboratory system. It used many of the ideas in the LINC (Laboratory Instruction Computer, designed by Lincoln Labs at MIT, some of which were built by DEC).

The PDP-6 was a 36 bit machine and the first machine to implement the most wonderful computer architecture known to man. It was rather expensive and difficult to maintain and not many were sold. As a result, DEC cancelled 36 bit computers for what was to be the first of many times.

The PDP-7 was an 18 bit machine and the successor the the PDP-4. It was a major price/performance win over the PDP-4 and the first DEC computer to use wire-wrapping.

The PDP-8 was a 12 bit machine and the successor to the PDP-8 [Editor's Note: This is the way it came off the network. I assume he means PDP-5]. It basically defined the term "minicomputer", and went through several incarnations. The original PDP-8 was followed by the extremely slow PDP-8/S (as bad as the PDP-4 was to the PDP-1, but at least the /S was program-compatible). DEC recouped with the PDP-8/I (using MSI integrated circuits) and the smaller PDP-8/L, and somewhat later came out with the "Omnibus 8" machines – the PDP-8/E, the PDP-8/F (a half-sized version of the PDP-8/E), the PDP-8/M (an OEM version of the PDP-8/F), and the final machine, the single board PDP-8/A. The PDP-8/A still exists after a fashion as a current DEC product.

The PDP-9 was an 18 bit machine and the successor to the PDP-7. It had a faster memory than the PDP-7 and was the first microprogrammed DEC computer. Modulo a 300 wire(!) ECO required in the first machines, the PDP-9 was a reliable machine and some are still in operation today. There was a short-lived PDP-9/L.

The PDP-10 was a 36 bit machine and the successor the the PDP-6. It is especially noted for its software, which represents the pinnacle of DEC software engineering and has never been equalled. The first KA10, largely installed in universities, created a whole generation of timesharing hackers. The follow-on KI10, with paging and using IC's instead of discrete components but otherwise unexciting, mostly was sold to commercial organizations. The KL10 went through several incarnations and is today the most representative of this marvelous machine. The KS10 was a small, low-speed (approximately KA10 performance) processor which was DEC's last successful implementation of this architecture.

The PDP-11 was a 16-bit machine that went through more implementations and operating systems than can be counted. Presently it superceded the less powerful PDP-8 as the representative minicomputer. While the PDP-11 used octal, it was, in its deep heart of hearts, a hexadecimal machine, and the first indicator of the creeping IBMification of DEC that took full fruit in the VAX. [I can hear the flames now...] Rather than fight it, the customers loved it; more PDP-11s have been sold than any other DEC computer (possibly more than all the others combined).

The PDP-12 was a 12 bit machine and the successor the the PDP-8. It combined a LINC and a PDP-8 type processor in the same box and basically was a new model of the LINC-8 which was of the same configuration.

No PDP-13 was ever designed or built. Even DEC gets superstitious.

The PDP-14 was a 12 bit machine with a 1 bit register. It was used as a process control engine in applications that were felt to be too rugged for a PDP-8, and basically replaced a set of relays. Later DEC made PDP-8s suitable for this sort of thing, but it didn't sway them from the ultimate silliness of building a PDP-14 that used a PDP-8 as its console processor!

The PDP-15 was an 18 bit machine and the final one of this design built by DEC. More PDP-15s were built and sold than any of the others, and it went through several incarnations including some which used a PDP-11 as a front end. Apparently the cancellation of the PDP-15 came as a great surprise to the "Tiger Team" who worked on it, although considering its general ungainliness compared to comparable performance PDP-11s it wasn't surprising. In many ways the PDP-15 died for the same reason the PDP-10 did.

The PDP-16 was a "roll your own" 16 bit machine based on various "building blocks". Every PDP-16 was essentially custom-designed by the customer. It got a fair amount of attention when it was announced but evidently didn't sell very well.

There was no PDP-17 or any other designator. DEC apparently decided that "PDP" has a pejorative ring to it.

Social Club Executive

At the recent AGM the following were re-elected – unopposed:

President:	Mr Alan Langdon
Secretary:	Mr Danny Smith
Treasurer:	Mr Max Norris
Committee members:	Mr Graham Rees
	Mr Jeff Scrivener
	Mr Alec Waskiw

Deus ex machina?

Xerox in the States have released a hardware spelling checker which plugs in between the keyboard and system unit of an IBM PC. It watches everything you type and beeps if you make a mistake. It sells for US$199.95. Their next version will monitor the user's thoughts – just kidding guys.

In days of old, and perhaps still, some students used to set their watches by the time on the KL. After all, it's a computer, it *must* be right. The operators on the other hand, used to set the time on the KL by their watches.

Here's a little bit of trivia. Did you know that in NASA's old Saturn V booster rockets the fuel pumps alone put out a power equivalent to that of 30 diesel locomotives? Not only that, but of the five rocket motors in the first stage, four were used simply to negate the weight of the rocket. The fifth one pushed it into the sky.

There is a new language being standardised for image scanners. Can you guess what it's called? You got it... PreScript.

Did you hear the one about a recent telephone conversation between Seymour Cray (god) and a colleague. Apparently, it went something like this:

"Hey Seymour, did you hear that Apple are using their new Cray II to design the next Macintosh?"

Silence from the other end of the line.

"Hey Seymour, are you there?"

"Yes... I was just thinking. You see, I'm using a Macintosh to design the next Cray."

cjb

Mind Bender Answer

The answer to the previous puzzle is:

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   GERALD      197485
+ DONALD   + 526485
   ROBERT      723970
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T=0, G=1, O=2, B=3, A=4, D=5, N=6, R=7, L=8, E=9

Geoffrey D

Mind Bender

That last mind bender was fairly straight forward – here's one for all those slightly bent thinkers. The following is a series:

15, 16, 17, 18, 21, 23, 25, 32, 41, 122, ?

What is the next number in the series?

Janelle Briggs