Subject: So, what was your computer birthplace?
Posted by gareth on Thu, 09 Jun 2016 16:58:22 GMT
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Apart from the FORTRAN for engineers course in 1969,
My exposure was to PDP11 and PDP8 in their naked format,
so that I had complete control and understanding of the machine,
and, even when I progressed to RSX-11, I had complete knowledge
of the source and workings of it, having been on the systems
programmer course at the Butts centre in Reading in 1978.

The result of all that exposure was that I feel uneasy with any
computer system where I am not in complete control or lack
knowledge about what is hiding under the API with which I interact,
and it is that sense of unease that motivates me for my language and OS
ideas.

Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Thu, 09 Jun 2016 18:36:17 GMT
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Originally posted by: JimP

On Thu, 9 Jun 2016 17:58:22 +0100, "gareth G4SDW GQRP #3339"
<no.spam@thank.you.invalid> wrote:

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> My exposure was to PDP11 and PDP8 in their naked format,
> so that I had complete control and understanding of the machine,
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> computer system where I am not in complete control or lack
> knowledge about what is hiding under the API with which I interact,
> and it is that sense of unease that motivates me for my language and OS
> ideas.

My first computer use was in 1976-77 using a dumb terminal, keyboard
and thermal printer with 300 baud acoustic modem, to connect to a
computer on a 4-year campus with us sitting at a community college
campus. The school and the government each paid for part of it. CPU
time mostly. We used it for things like the area under a line,
Simpson's Rule. Next was a Sinclair ZX-81 with the 16KB ram pack about
1983. Then an Amiga A1000 in 1984. Used Apple][+s at the same
community college in 1985 running Apple BASIC. Apple Fortran v1.0 ran

from a Corvus hard drive networked to most of the Apple computers.

Then I transferred to 4-year university and they had a DEC VAX 11/730
with VT102 terminals. Ran VAX PASCAL on it. One class got to run ADA
on it. Slowed the computer waaaay down during compile time.

--
JimP.

Subject: Re: So, what was your computer birthplace?
Posted by bert on Thu, 09 Jun 2016 19:02:45 GMT
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On Thursday, 9 June 2016 17:58:24 UTC+1, gareth G4SDW GQRP #3339 wrote:
> . . . I feel uneasy with any computer system
> where I am not in complete control, or lack
> knowledge about what is hiding under the API . . .

While I was on my third computer, a colleague took home
some assembly program listings for his Dad, who had asked
him "What's all this computer stuff, then?". He tried
to explain the op code mnemonics, and the symbolic or
indirect operand addressing, but his Dad was quite lost.
A while later, he took home a hexadecimal program dump
to continue working on it, and his Dad asked "What's all
this, then?" Not expecting any more insight, he pointed
out the main store addresses marching in sequence down
the left column, then that (for example) this byte here
'D5', that's the 'MVC' (move characters) instruction,
and the next bit '18' says how many characters to move,
then '3806' says to start moving the characters from
806 beyond the address in register 3, and so on . . .
His Dad said "Oh, I can see that all right; it's a lot
simpler than that other rubbish you showed me last time."
--

Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Thu, 09 Jun 2016 19:27:48 GMT
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Originally posted by: mentificium

On Thursday, June 9, 2016 at 9:58:24 AM UTC-7, gareth G4SDW GQRP #3339 wrote:
> Apart from the FORTRAN for engineers course in 1969 [...]

The BRAINIAC computer was my Christmas present at age twelve.
It was a console with dials and wires that could show a result
but there was no logic circuitry for true computation.

At age nineteen I started my independent-scholar project in
artificial intelligence by purchasing several dozen electromechanical
relays with which I performed experiments in artificial life
and neural networks.

At age thirty-seven I purchased a Coleco ADAM Z-80 computer
with which I learned to program in Beginner's All-purpose
Symbolic Instruction Code (BASIC) by Kemeny and Kurtz of
Dartmouth.

At age forty-one I paid for an Amiga 1000 on which I learned
REXX from International Business Machines, renamed as ARexx.
http://mind.sourceforge.net/mindrexx.html was my first AI Mind.

Then on the Amiga I learned Forth and the AI program
http://www.nlg-wiki.org/systems/Mind.Forth was my next AI.

An outfit called Free-PC.com shipped to me a free computer
and monitor running Windows 98, so my next AI Mind was
http://www.nlg-wiki.org/systems/Mind in MSIE JavaScript.
http://www.nlg-wiki.org/systems/Dushka was AI in Russian.

In 2009 I bought an Acer Aspire One netbook on which I code
http://wiki.opencog.org/wikihome/index.php/Ghost in Perl as
http://www.sourcecodeonline.com/details/ghost_perl_webserver _strong_ai.html
so as to launch the Technological Singularity with free open-source AI.
https://www.youtube.com/watch?v=A-99kMuWlXk&t=53m30s is an AI Workshop.

Subject: Re: So, what was your computer birthplace?
Posted by Joe Makowiec on Thu, 09 Jun 2016 20:15:29 GMT
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On 09 Jun 2016 in alt.folklore.computers, gareth G4SDW GQRP #3339 wrote:

> Apart from the FORTRAN for engineers course in 1969,

1974, freshman chemistry major. We were introduced to computers in math
class by way of using FORTRAN (actually WATFIV) using punch cards read
into a 360-50 or maybe a 360-67.

--
Joe Makowiec
http://makowiec.org/

Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Thu, 09 Jun 2016 21:53:40 GMT
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Originally posted by: artie

1967 at Long Beach City College, using an IBM 1620 II-D -- with the disk! Was convinced early on that FORTRAN (II-D, you still had to count all the characters in FORMAT text strings) wasn't as good as writing in assembly, so that's what I did.

When I started at Uni, the week before classes started, I wandered by the computer facility (in a series of trailers at the time). Watched as some folks were putting together a shiny new SDS Sigma-7. Reacted with laughter and disbelief when one of them told me the cables connecting the thing together had never been tested on a live machine. Had lunch with the CEs and SEs responsible for assembling this wonderful puzzle. Head per track disks! Walking back after lunch, we stopped at the office of the computer facility director and one of the CEs told him, "hire this kid, he know which end is up." So the week before school started, I had a job working for the Sigma-7 side of the computer facility. On the other side of the room was a much different machine, a PDP-10.

I did operations/systems work on the Sigma 7. It was also the timesharing machine, supporting terminals (remember Datapoint? ASR 33s?) all over campus. After the initial timesharing BASIC intro class, almost all the computer science classes were taught on the PDP-10.

Graduated in computer science and went to work for SDS, just up the road in scenic El Segundo (701 South Aviation Blvd). Worked on UTS, CP-V, CP-V real time and multiprocessing. SDS was bought by Xerox and augered into the ground, something Xerox did to any number of companies.

A few years later I found myself with one of my SDS colleagues (Dick Hustvedt, one of the most talented people I've ever met or worked with) at DEC working on the VAX 11/780.

Came back to the Left Coast to work with microprocessors, and avoid New England winters.

Subject: Re: So, what was your computer birthplace?
Posted by Howard S Shubs on Fri, 10 Jun 2016 00:24:21 GMT
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On 2016-06-09, gareth G4SDW GQRP #3339 <no.spam@thank.you.invalid> wrote:
> Apart from the FORTRAN for engineers course in 1969,
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> so that I had complete control and understanding of the machine,
> and, even when I progressed to RSX-11, I had complete knowledge
> of the source and workings of it, having been on the systems
> programmer course at the Butts centre in Reading in 1978.

I would have been three or four years old (1968 or '69) when my mom used to take me to work (a navy subcontractor of some kind in the DC area) on occasion. I'd walk down the hall and find myself in a door way (she says it was a window) looking at this BIIIIIIG machine. It was tallllll and went out of sight in both directions. I swear, I imprinted on that IBM 7090 like a baby bird. I had a pretty good idea what I was going to do for a living from a young age.

The first machine I programmed in any way was a Digicomp 1 in 1973. I never really understood it. The first machine I understood at all was some kind of IBM box I never saw, interacting with it using an actual Teletype and acoustic coupler from Byron Junior High to the Shaker Heights High School (Cleveland area) during the 1976-1977 school year. I programmed it in BASIC IIRC.

> The result of all that exposure was that I feel uneasy with any
> computer system where I am not in complete control or lack
> knowledge about what is hiding under the API with which I interact,
> and it is that sense of unease that motivates me for my language and OS
> ideas.

I hear that. Too much abstraction can be an issue, getting in the way of understanding what's actually happening. What I'm starting to understand is that such a deep understanding is no longer always necessary.

Subject: Re: So, what was your computer birthplace?
Posted by Charlie Gibbs on Fri, 10 Jun 2016 02:38:51 GMT
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On 2016-06-10, Howard S Shubs <howard@shubs.net> wrote:

> On 2016-06-09, gareth G4SDW GQRP #3339 <no.spam@thank.you.invalid> wrote:
>

>> The result of all that exposure was that I feel uneasy with any
>> computer system where I am not in complete control or lack
>> knowledge about what is hiding under the API with which I interact,
>> and it is that sense of unease that motivates me for my language and OS
>> ideas.

I take it you're not comfortable with Windows or Macs, then.

> I hear that. Too much abstraction can be an issue, getting in the way
> of understanding what's actually happening. What I'm starting to
> understand is that such a deep understanding is no longer always
> necessary.

Perhaps, but people are going overboard sometimes. An extreme case is
Air France flight 447, which crashed in the Atlantic after instrument
malfunctions created a situation that might have been survivable had
the crew's understanding of the basics of flight not atrophied.

But anyway, back to the topic...

My first step into data processing occurred in 1965, when at the tender
age of 15, on a visit to an uncle's, I saw a large binder on a bookshelf
labeled UNIVAC. (I still have it.) I took it down and started reading
about how to wire a plugboard for the 1004 card processor, one of which
was at the company where uncle worked as an accountant. A couple of
months later he took me in to the office and I got my hands on the
equipment and even wired up a board with a small program of my own.
(Extra trivia: the system used 90-column cards.)

I took computer science at the University of B.C. from 1968 to 1971,
and ran programs on their 7044 and 360/67. Between my second and third
years (summer 1970), the Univac contacts I made during my 1004 experience
enabled me to find a summer job at a small service bureau that had a 9300.
I was already becoming disenchanted with the highly theoretical approach
that the CS classes were taking, and suspected that my third year was
going to be my last. I arranged my course schedule so I had Thursdays
off, and continued working part-time at the service bureau. As I
expected, my third year was pretty much a write-off (although access
to the computers was fun), and at the end of the year I dropped out
and went to work for the service bureau full-time.

When I started at the service bureau they had with a pure card system
with 16K of memory, although we soon added a pair of 8411s (clones of
the IBM 2311), which we later upgraded to a pair of 8414s (equivalent
to two 2314 spindles) and increased memory to a whopping 32K.
(It took us a while to figure out what to do with all that space.)
We wrote in RPG if it would do the job, assembly language otherwise.

My first assignment was to take two programs - a summary written in assembly language and a detail listing written in RPG - and combine them (translating the RPG code into assembly language) so that they could get both listings with one pass through the cards. It was a good introduction for a newbie programmer just learning RPG - it wasn't vital to the company, but once I got it going, it saved machine time, which was in short supply.

I was a big fan of assembly language from the time I first wrapped my head around it. This was one more reason I didn't get along in the computer science world - they were into the latest and greatest high-level languages and considered assembly language beneath them. (I wrote term projects in assembly language partly out of spite.) One course introduced a new language every two weeks: LISP, UMIST, SNOBOL4, pl360, and of course several flavours of Algol: 60, 68, and W. I dodged that bullet by first taking the fun courses like operating system design, then dropping out before getting to the more theoretical stuff.

It was the x86 which finally soured me on assembly language. Fortunately, there was C for me to move to, although for business applications I had become fluent in COBOL and RPG.

--
/~\ cgibbs@kltpzyxm.invalid (Charlie Gibbs)
\ / I'm really at ac.dekanfrus if you read it the right way.
X Top-posted messages will probably be ignored. See RFC1855.
/ \ HTML will DEFINITELY be ignored. Join the ASCII ribbon campaign!

Subject: Re: So, what was your computer birthplace?
Posted by Mike Spencer on Fri, 10 Jun 2016 06:59:30 GMT
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1964: one tiny program in FORTRAN on cards for an IBM 1620.

Nothing more until:

1980: Borrowed an Apple][for awhile, learned BASIC.

Nothing more until:

1987: Made a hand-raised copper curry pan, swapped it even for an
Osborne 1 with software & printer.

Learned C, 8080/Z80 assembler, wrote Conway's Life in BASIC, C and assembler. Ended up with 7 Osbornes. Managed to compile XLisp but it was so big that there was RAM left only for a dozen lines of Lisp.

1989: Was given an account on two networked academic systems with Unix
and VMS. Could log into these with the Osborne from home. Yes,
I created a termcap entry for the O1. One guy thought it was
hilarious to see Emacs on the O1 screen in the boondocks.

Omitting a regretable intervening episode using MS-DOS and Win 3.1 at
home,

Present: 5 assorted machines running Linux. At the moment, I'm
watching data scroll across the screen from a bicycle speedo
magnetic switch connected to button #1 of an old serial mouse
plugged into to a Linux P4 where a Perl script is watching
the serial port. The mag switch is positioned next to an
exerise wheel in a cage were a recently captured woodland
jumping mouse -- quite young, I think -- has run about 2.5
miles in the last 4 hours, hitting 2.91 mph max.

The 1964 FORTRAN instructor would be horrified. He wanted to teach us
numerical methods but the whole class threated to drop the course if
he didn't teach us how to, yew know, actually write a program.

--
Mike Spencer Nova Scotia, Canada

Subject: Re: So, what was your computer birthplace?
Posted by Stephen Wolstenholme on Fri, 10 Jun 2016 08:52:54 GMT
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On Thu, 9 Jun 2016 17:58:22 +0100, "gareth G4SDW GQRP #3339"
<no.spam@thank.you.invalid> wrote:

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> My exposure was to PDP11 and PDP8 in their naked format,
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My first computer was an analogue. A glorified op-amp with a 4 by 4
potentiometer array and two meters to read. It could do all sorts of
calculations. My first digital computer was engineer on a Leo 3
mainframe in 1967.

Steve

--
Neural Network Software for Windows http://www.npsnn.com

Subject: Re: So, what was your computer birthplace?
Posted by gareth on Fri, 10 Jun 2016 10:49:08 GMT
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"Stephen Wolstenholme" <steve@easynn.com> wrote in message
news:plvklbhm7j3euvkmab0562vtl54k2p0opq@4ax.com...
> On Thu, 9 Jun 2016 17:58:22 +0100, "gareth G4SDW GQRP #3339"
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I've some 4K core memory planes from a Leo, which I got in 1973
for the first attempt for a home CPU!

Subject: Re: So, what was your computer birthplace?
Posted by Peter Flass on Fri, 10 Jun 2016 10:58:11 GMT
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1620-II in 1967 for me. As soon as I started playing with it I knew what I
wanted to do with my life. I did some statistical work on a 7094, but
since I never got to touch the machine it wasn't the same. The next year

the college got an 1130, which helped me get my first job.

Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Fri, 10 Jun 2016 11:22:53 GMT
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Originally posted by: Bob Eager

I wrote one program in Mancester Autocode in 1969. Then I really started
in early 1971 on an Elliott 4130. BASIC, assembler, ALGOL-60, FORTRAN.

Moved on to...too many to list!

--
Using UNIX since v6 (1975)...

Use the BIG mirror service in the UK:
 http://www.mirrorservice.org

Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Fri, 10 Jun 2016 11:23:37 GMT
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Originally posted by: Bob Eager

On Fri, 10 Jun 2016 11:49:08 +0100, gareth G4SDW GQRP #3339 wrote:

> "Stephen Wolstenholme" <steve@easynn.com> wrote in message
> news:plvklbhm7j3euvkmab0562vtl54k2p0opq@4ax.com...
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>> calculations. My first digital computer was engineer on a Leo 3
>> mainframe in 1967.
>
> I've some 4K core memory planes from a Leo, which I got in 1973 for the
> first attempt for a home CPU!

I have a 512 byte core memory module from an Atlas (no, not a RIPE Atlas,
although I have an early one of those too).

--
Using UNIX since v6 (1975)...

Use the BIG mirror service in the UK:
http://www.mirrorservice.org

Subject: Re: So, what was your computer birthplace?
Posted by Morten Reistad on Fri, 10 Jun 2016 11:30:29 GMT
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In article <plvklbhm7j3euvkmab0562vtl54k2p0opq@4ax.com>,
Stephen Wolstenholme <steve@easynn.com> wrote:
> On Thu, 9 Jun 2016 17:58:22 +0100, "gareth G4SDW GQRP #3339"
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>> and it is that sense of unease that motivates me for my language and OS
>> ideas.

I can relate to this, very much.

In various PPOEs I have written a lot of code, and they always
critisize me of coding too close to the metal. But I generally
need fewer lines of code that using X intervening libraries; I just
have to make a library or two myself for the task at hand.

I do get praise for fast and small code, though.

It is probably because I want to know what is going on all the
way, if not in detail, at least have a general understanding.
I have that with Linux, (Free|Open)BSD, QNX, Primos and Tops20.
i.e. I have a good mental map of the internal working principles
and modules.

I have tried getting there with Windows, but AFAIK it is just
documented as a black box.

I am not so stringent to want full control over the entire stack,
I just want to know that people I can trust have that control, and
that it is fully verifiable.

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> potentiometer array and two meters to read. It could do all sorts of
> calculations. My first digital computer was engineer on a Leo 3
> mainframe in 1967.

My first one was a TI-59. Programmable calculator. Really a
primitive assembler.

Some upper hundreds program steps, a.k.a. Instructions. Not a
firm figure, just "past 500", depending on register use and
use of constants.

-- mrr

Subject: Re: So, what was your computer birthplace?
Posted by Stephen Wolstenholme on Fri, 10 Jun 2016 11:45:54 GMT
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On Fri, 10 Jun 2016 11:49:08 +0100, "gareth G4SDW GQRP #3339"
<no.spam@thank.you.invalid> wrote:

> "Stephen Wolstenholme" <steve@easynn.com> wrote in message
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> I've some 4K core memory planes from a Leo, which I got in 1973
> for the first attempt for a home CPU!
>

Did you use them? The core stores were only a small part of the whole
store. Intermittent store parity fails were always blamed on the core
but were always something else. I fixed a lot of SPF's without ever
changing a core or even taken a cover off!

Steve

--
Neural Network Software for Windows http://www.npsnn.com

Subject: Re: So, what was your computer birthplace?
Posted by gareth on Fri, 10 Jun 2016 11:57:50 GMT
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"Stephen Wolstenholme" <steve@easynn.com> wrote in message
news:858llbl14o60u7tmqv8pkshvdm7320p1dm@4ax.com...
> On Fri, 10 Jun 2016 11:49:08 +0100, "gareth G4SDW GQRP #3339"
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> store. Intermittent store parity fails were always blamed on the core
> but were always something else. I fixed a lot of SPF's without ever
> changing a core or even taken a cover off!

No, I never ended up using them because I did not get any of the drive electronics,
and, in any case, during the sloooow construction of my 8-bit TTL processor two-off 256 by 1 bit static RAMs came my way and the 128 bytes that gave me with a bit of shift registering satisfied my early need.

I got the Leo stuff from a scrap merchant in Llandudno together with some black anodised
boxes containing what I presumed to be hand-wired ROM, the result of which is that I now have a lifetime's supply of OA10 diodes (But did I bin them during a recent clear out? I certainly binned the RTL round shiny ICs from a different source!)

The core stacks were in self-contained cases with 48 4K planes in each, but over
the years, others expressed an interest in having some planes for their collection,
and I ended up keeping 8 for a byte's worth except that now I only have 7 because
someone wanted some cores for electronic experimentation!

Subject: Re: So, what was your computer birthplace?
Posted by Stephen Wolstenholme on Fri, 10 Jun 2016 12:57:52 GMT
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On Fri, 10 Jun 2016 12:57:50 +0100, "gareth G4SDW GQRP #3339" <no.spam@thank.you.invalid> wrote:

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> electronics,
> and, in any case, during the sloooow construction of my 8-bit TTL processor
> two-off 256 by 1 bit static RAMs came my way and the 128 bytes that gave me
> with a bit of shift registering satisfied my early need.
>

The store electronics filled four cabinets that were about seven foot high, two foot wide and three foot deep. You would have needed a bit a

spare room!

> I got the Leo stuff from a scrap merchant in Llandudno together with some
> black anodised
> boxes containing what I presumed to be hand-wired ROM, the result of which
> is that I now have a lifetime's supply of OA10 diodes (But did I bin them
> during a recent clear out? I certainly binned the RTL round shiny ICs from
> a different source!)
>

The LEO III ROMs were known as microplane stores. Another item that never went wrong if never touched. I remember fitting two extra microplane to extend the machine code to have floating point instructions.

> The core stacks were in self-contained cases with 48 4K planes in each, but
> over
> the years, others expressed an interest in having some planes for their
> collection,
> and I ended up keeping 8 for a byte's worth except that now I only have 7
> because
> someone wanted some cores for electronic experimentation!
>
>

Your mention of bytes is another memory for me. LEO didn't work in bytes. It worked in 44 and 48 bit words. Werner Buchholz coined the name byte for IBM in 1956 but LEO I was up and running in words. Thankfully the whole industry went for the byte!

Steve

--
Neural Network Software for Windows http://www.npsnn.com

Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Fri, 10 Jun 2016 14:35:26 GMT
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Originally posted by: Bob Eager

On Fri, 10 Jun 2016 13:57:52 +0100, Stephen Wolstenholme wrote:

> Your mention of bytes is another memory for me. LEO didn't work in
> bytes. It worked in 44 and 48 bit words. Werner Buchholz coined the name
> byte for IBM in 1956 but LEO I was up and running in words. Thankfully
> the whole industry went for the byte!

My first real programming was on a 24 bit word oriented machine (Elliott 4130). Also ICL 1900 (24 bit word), and PDP-10 (36 bit word, and yes, I know about byte pointers).

And I have two word-oriented machines right here. 12 bits.

--
Using UNIX since v6 (1975)...

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Subject: Re: So, what was your computer birthplace?
Posted by Walter Banks on Fri, 10 Jun 2016 16:10:28 GMT
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On 2016-06-09 12:58 PM, gareth G4SDW GQRP #3339 wrote:
> Apart from the FORTRAN for engineers course in 1969,
> My exposure was to PDP11 and PDP8 in their naked format,

IBM-1620 1966 20K machine with card read/card punch.
Took a fortran course using it, later used the same computer
to do data analysis on it for my thesis. Learned the first
rule of programming if the computer center trusts him give
him a key so his long jobs can be run on weekends and over
night. Immediately followed by sleepless nights and vast quantities
of coke to keep alert and awake and the realization that personal
computers at home were necessary.

Lots of process control with minis, Univac, SDS sigma's then
research on PDP-8's PDP-11, IBM 360/75, Honeywell and a variety
of home built computers starting with a PDP-8 ISA clone implemented with
a microcode processor I created. OSI kits, apple][,
A personal PDP-11 in my basement from a bankruptcy sale.

w..

Subject: Re: So, what was your computer birthplace?
Posted by Alfred Falk on Fri, 10 Jun 2016 17:09:22 GMT
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"gareth G4SDW GQRP #3339" <no.spam@thank.you.invalid> wrote in news:njc77f

jot1@dont-email.me:

> Apart from the FORTRAN for engineers course in 1969,
> My exposure was to PDP11 and PDP8 in their naked format,
> so that I had complete control and understanding of the machine,
> and, even when I progressed to RSX-11, I had complete knowledge
> of the source and workings of it, having been on the systems
> programmer course at the Butts centre in Reading in 1978.
>
> The result of all that exposure was that I feel uneasy with any
> computer system where I am not in complete control or lack
> knowledge about what is hiding under the API with which I interact,
> and it is that sense of unease that motivates me for my language and OS
> ideas.

In 1967, when in first year physics, a friend lent me a copy of Germaine's "Programming the IBM 1620". The university had recently installed a 360/65, but the 1620 it supplanted was freely available to play with. A new world! The following summer I also was able to get an account to use the 360, but I liked the hands-on access of the 1620. The nuclear lab got a PDP-9 in 1967 for data collection and real-time control, and I also learned to program it in assembler. In my final summer another undergrad assistant and I did a complete re-write of data acquistion and display programs on the 9.

When one of the DEC representatives learned that I was going to grad school where there was a PDP-10, he sent me manuals for it. I read them on the 40-hour train trip. After 3 years in Astromomy I switched to Comp Sci, and the rest of my working life...

The first computer I actually owned was a DG Nova II, which I bought from a client after they upgraded to an Eclipse S/130. I dismantled it long ago, but still have the fromt panel and all the boards. The next was a an Eclipse C/330, which I still have, but it hasn't been turned on for 20 years.

Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Fri, 10 Jun 2016 17:25:39 GMT
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Originally posted by: Melzzzzz

On Thu, 9 Jun 2016 17:58:22 +0100
"gareth G4SDW GQRP #3339" <no.spam@thank.you.invalid> wrote:

> Apart from the FORTRAN for engineers course in 1969,
> My exposure was to PDP11 and PDP8 in their naked format,
> so that I had complete control and understanding of the machine,

> and, even when I progressed to RSX-11, I had complete knowledge
> of the source and workings of it, having been on the systems
> programmer course at the Butts centre in Reading in 1978.
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> computer system where I am not in complete control or lack
> knowledge about what is hiding under the API with which I interact,
> and it is that sense of unease that motivates me for my language and
> OS ideas.
>
>
>

My first computer was zx spectrum 48k in 1983. Had professional practice on Burroughs and IBM 1985-1987. Had terminal access so I am not sure what computer was behind,,, In 1987 I bought amstrad CPC 6128. In 1992. started to work on Motorola 68030 and AT&T Unix. Also worked with Unisys and Stratus(VOS)fault tolerant computers . Bought my first PC in 92. From then I had experience with Sparcs Solaris and Intels with Solaris or Linux. Worked also on Windows and from 2001 I work almost exclusively on Linux...
My primary computer language now is C++, but I am practicing every language I can get ;)

Subject: Re: So, what was your computer birthplace?
Posted by Dan Espen on Sat, 11 Jun 2016 02:28:05 GMT
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"gareth G4SDW GQRP #3339" <no.spam@thank.you.invalid> writes:

> Apart from the FORTRAN for engineers course in 1969,
> My exposure was to PDP11 and PDP8 in their naked format,
> so that I had complete control and understanding of the machine,
> and, even when I progressed to RSX-11, I had complete knowledge
> of the source and workings of it, having been on the systems
> programmer course at the Butts centre in Reading in 1978.
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> The result of all that exposure was that I feel uneasy with any
> computer system where I am not in complete control or lack
> knowledge about what is hiding under the API with which I interact,
> and it is that sense of unease that motivates me for my language and OS
> ideas.

If your exposure had started earlier, you would certainly be in complete control with full knowledge of everything going on in the machine.

In 1963 I took the vocational approach to computer programming.

While working for 2 years as a clerk on Wall St. I attended night classes
at Programming and Systems Institute on 42nd St. They taught
Autocoder for the IBM 1401.

My Wall St. Employer had a 1401 and 1460.
This was a tape and card setup with 10 or so programmers.
I wrote a few programs before salary review came up.
Can you believe a tiny raise when I had just advanced from
clerk to programmer?
I bailed on that place the next day.
So first job is a few months using Autocoder tape and card (no disk).

So I jumped my salary 35% and went to a place with
no programmers, just me, an IBM 1440 with Autocoder, disk, card and print.
So I spent the next 2 years implementing application after
application, inventing my own DISK access methods and
designing applications from scratch.

Coding Autocoder on an IBM 1401 was pretty nice.
The machines were usually memory limited but the
design of the machine provided many opportunities for
implementing a lot of logic in a small amount of memory.
So, you might only have 8K to work in, but every byte
was yours to use as you saw fit.

Some 14xx shops were backward enough to use IBM's IOCS for
disk access. Fortunately, I never worked in one.
The disks were dead simple to access (by sequential sector
numbers). Building access methods on top of that is
pretty easy.

I won't bore anyone with the rest of the career.
Been too many places, done too many things.

--
Dan Espen

Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Sat, 11 Jun 2016 10:48:42 GMT
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Originally posted by: Bob Eager

On Fri, 10 Jun 2016 22:28:05 -0400, Dan Espen wrote:

> "gareth G4SDW GQRP #3339" <no.spam@thank.you.invalid> writes:

>
>> Apart from the FORTRAN for engineers course in 1969,
>> My exposure was to PDP11 and PDP8 in their naked format,
>> so that I had complete control and understanding of the machine,
>> and, even when I progressed to RSX-11, I had complete knowledge of the
>> source and workings of it, having been on the systems programmer course
>> at the Butts centre in Reading in 1978.
>>
>> The result of all that exposure was that I feel uneasy with any
>> computer system where I am not in complete control or lack knowledge
>> about what is hiding under the API with which I interact, and it is
>> that sense of unease that motivates me for my language and OS ideas.
>
> If your exposure had started earlier, you would certainly be in complete
> control with full knowledge of everything going on in the machine.

I was in complete control in 1971, on our Elliott 4130.

What go me in trouble was that I wasn't meant to be, having managed to
get access to kernel mode.

--
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Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Sat, 11 Jun 2016 19:32:40 GMT
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Originally posted by: Mike Causer

On Thu, 09 Jun 2016 14:53:40 -0700
artie <artie.m@gNOSPAMmail.com> wrote:

> 1967 at Long Beach City College, using an IBM 1620 II-D -- with the
> disk!

With disk? Our 1620 at Wolverhampton Polytechnic didn't have disk! That
was 1971 and we Mechanical Engineers did not have any computing in the
syllabus, but there was no examination in mathematics in the final year
(we already had all we needed) and the maths lecturer needed a way to
get some sort of attendance at his class. So he taught us Fortran II
which we could run on the 1620. He had the best attendance of any class

that year.

I held the record for the program that ran for longest on the 1620 and produced only garbage as a result. It was an attempt on optimising selection for the football pools (it's a form of betting on soccer game results) but we'd only had sufficient lecture time to show us the language not how to think algorithmically.

Two years later I was using a CDC 6600 in my job as a design draughtsman and two years after that was working full-time at the Computer Aided Design Centre in Cambridge -- a software development spin-off from the University.

Mike

Subject: Re: So, what was your computer birthplace?
Posted by hancock4 on Sat, 11 Jun 2016 20:01:26 GMT
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On Friday, June 10, 2016 at 10:28:11 PM UTC-4, D_J_E wrote:

> Coding Autocoder on an IBM 1401 was pretty nice.
> The machines were usually memory limited but the
> design of the machine provided many opportunities for
> implementing a lot of logic in a small amount of memory.
> So, you might only have 8K to work in, but every byte
> was yours to use as you saw fit.

Would you recall any of the techniques to squeeze in logic in a small amount of memory? Thanks.

Subject: Re: So, what was your computer birthplace?
Posted by hancock4 on Sat, 11 Jun 2016 20:12:22 GMT
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On Friday, June 10, 2016 at 10:28:11 PM UTC-4, D_J_E wrote:

> This was a tape and card setup with 10 or so programmers.
> I wrote a few programs before salary review came up.
> Can you believe a tiny raise when I had just advanced from
> clerk to programmer?
> I bailed on that place the next day.

Some employers were incredibly cheap and shortsighted when it came to salary. It might have been good in the short-term, saving a little bit of money, but in the long term it led to high turnover, bad morale, and low quality personnel.

However, amazingly, a lot of programmers didn't like the idea of jumping ship, even if their employer treated them like crap. Some of them got royally screwed as eventually their site collapsed and they lost their jobs.

A smart employee periodically keeps an eye on the marketplace to see how they're worth in the outside world, as well as what's going on in the outside world. Naturally, some will find they got a good deal where they are. But others will realize that, for them, it's time to move on, IF there are other opportunities out there.

Years ago, there was a steel mill in our area, and we picked up a lot of staff from them. The farsighted people realized the mill didn't have much of a future, and they were right.

Of course, these days, relocation to a distant locale is almost a must. (Some folks gotta go overseas.) That's tough part for a lot of people who have families, as relocation with a spouse and kids is very hard. Our neighborhood had some families move in from the rust-belt when the kids were juniors and seniors in high school. By that point, the social networks are established, and the older kids had trouble fitting in. They weren't happy.

Subject: Re: So, what was your computer birthplace?
Posted by hancock4 on Sat, 11 Jun 2016 20:15:27 GMT
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On Thursday, June 9, 2016 at 12:58:24 PM UTC-4, gareth G4SDW GQRP #3339 wrote:

> So, what was your computer birthplace?

My first exposure was an education film in school explaining how computers worked. I thought it was neat.

When our school got GE Timesharing, I jumped on it.

Subject: Re: So, what was your computer birthplace?
Posted by Quadibloc on Sat, 11 Jun 2016 21:22:06 GMT
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The first computer I had the opportunity to use was a PDP 8/e, but this was at high school, and so I was only using it through CINET BASIC.

Then I got to use a 360/67 running MTS, learning to program it in FORTRAN using the WATFIV compiler. Also, at the end of the introductory programming course, we had the opportunity to use APL/360 through 2741 terminals.

Since then, I've used many computers... programming a TI 990/4 in its assembly language, using UCSD Pascal on an Apple][, using HP-UX on an HP 9000 system, as just a few examples. One major project was modifying the BASIC for the Honeywell 316 so that it could use a disk drive, taking the code from the disk operating system.

John Savard

Subject: Re: So, what was your computer birthplace?
Posted by Dan Espen on Sat, 11 Jun 2016 21:39:02 GMT
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hancock4@bbs.cpcn.com writes:

> On Friday, June 10, 2016 at 10:28:11 PM UTC-4, D_J_E wrote:
>
>> Coding Autocoder on an IBM 1401 was pretty nice.
>> The machines were usually memory limited but the
>> design of the machine provided many opportunities for
>> implementing a lot of logic in a small amount of memory.
>> So, you might only have 8K to work in, but every byte
>> was yours to use as you saw fit.
>
> Would you recall any of the techniques to squeeze in logic
> in a small amount of memory? Thanks.

It's been a while. Remember, field size is determined by the word mark.

Clear 3 accumulators:

```
TAMT  DC '0000000'
TQTY  DC '000'
TDIV  DC '00000'

      S   TDIV,TDIV
      S
      S
```

(Internal A and B registers are used when there are no A and B values in

the instructions)

To search a table, no index register needed:

```
TABLE DC  '   ' KEY
      DC  ' '    VALUE
      DC  'DEF'
      DC  '01000'
      DC  'XYZ'
TE    DC  '02000'

FKEY  DC  'XXX'
FDATA DC  '00000'

LOOK  MLC FDATA,TE
      MLC
      SBR LOOK+4   (STORE B REGISTER IN FIRST MOVE INSTRUCTION)
      C   FKEY,LOOKFOR
      BH  LOOK
      ...
```

I used a similar trick for storing a large actuary table in memory that would not fit otherwise. I did so buy only storing the parts of the numbers that were different:

Data needed	Data stored
00010000	10000
00015000	5000
00020000	20000
00022000	2000

When moving short values to FOUND, the prior value remained. On an 8K 1440, the entire table would not fit. But with short values and keys, it just barely fit. Enough to do the calculations.

Classic is using instructions as constants.
Since that only saves a byte or 2 I never stooped that low.

--
Dan Espen

Subject: Re: So, what was your computer birthplace?
Posted by gareth on Sat, 11 Jun 2016 21:45:36 GMT
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"Dan Espen" <despen@verizon.net> wrote in message

news:njfsvp$8hk$1@dont-email.me...
> "gareth G4SDW GQRP #3339" <no.spam@thank.you.invalid> writes:
>
>> Apart from the FORTRAN for engineers course in 1969,
>> My exposure was to PDP11 and PDP8 in their naked format,
>> so that I had complete control and understanding of the machine,
>> and, even when I progressed to RSX-11, I had complete knowledge
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>> knowledge about what is hiding under the API with which I interact,
>> and it is that sense of unease that motivates me for my language and OS
>> ideas.
>
> If your exposure had started earlier, you would certainly be in complete
> control with full knowledge of everything going on in the machine.

As indeed I was, as discussed above.

Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Sat, 11 Jun 2016 22:07:33 GMT
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Originally posted by: J. Clarke

In article <ddbacd57-3d35-430c-92ab-4de3cb44acc7@googlegroups.com>,
hancock4@bbs.cpcn.com says...
>
> On Friday, June 10, 2016 at 10:28:11 PM UTC-4, D_J_E wrote:
>
>
>> This was a tape and card setup with 10 or so programmers.
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>> Can you believe a tiny raise when I had just advanced from
>> clerk to programmer?
>> I bailed on that place the next day.
>
> Some employers were incredibly cheap and shortsighted when
> it came to salary. It might have been good in the short-term,
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> to high turnover, bad morale, and low quality personnel.
>
> However, amazingly, a lot of programmers didn't like the idea
> of jumping ship, even if their employer treated them like crap.
> Some of them got royally screwed as eventually their site

> collapsed and they lost their jobs.
>
> A smart employee periodically keeps an eye on the marketplace
> to see how they're worth in the outside world, as well as what's
> going on in the outside world. Naturally, some will find they got
> a good deal where they are. But others will realize that, for
> them, it's time to move on, IF there are other opportunities out
> there.
>
> Years ago, there was a steel mill in our area, and we picked up
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> didn't have much of a future, and they were right.
>
> Of course, these days, relocation to a distant locale is almost
> a must. (Some folks gotta go overseas.) That's tough part for
> a lot of people who have families, as relocation with a spouse
> and kids is very hard. Our neighborhood had some families move
> in from the rust-belt when the kids were juniors and seniors in
> high school. By that point, the social networks are established,
> and the older kids had trouble fitting in. They weren't happy.

A certain company which shall remain unnamed recently decided to
outsource its IT staff. The only thing that has actually changed is
that the IT staff now has different badges, lower pay, less benefits,
and a far worse attitude. But to upper management shaving a few pennies
apparently was more important than retaining a competent staff.

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Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Sat, 11 Jun 2016 22:17:16 GMT
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Originally posted by: Bob Eager

On Sat, 11 Jun 2016 14:22:06 -0700, Quadibloc wrote:

> Since then, I've used many computers... programming a TI 990/4 in its
> assembly language, using UCSD Pascal on an Apple][, using HP-UX on an
> HP 9000 system, as just a few examples. One major project was modifying
> the BASIC for the Honeywell 316 so that it could use a disk drive,
> taking the code from the disk operating system.

One of my most interesting projects was modifying the CPU on a Honeywell
516. Backwards compatible, but some modified instructions and effects in

restricted mode.

--
Using UNIX since v6 (1975)...

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Subject: Re: So, what was your computer birthplace?
Posted by Quadibloc on Sat, 11 Jun 2016 22:48:03 GMT
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On Saturday, June 11, 2016 at 4:17:17 PM UTC-6, Bob Eager wrote:

> One of my most interesting projects was modifying the CPU on a Honeywell
> 516. Backwards compatible, but some modified instructions and effects in
> restricted mode.

Wow! That is an advanced project.

John Savard

Subject: Re: So, what was your computer birthplace?
Posted by Anne & Lynn Wheel on Sat, 11 Jun 2016 22:48:29 GMT
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hancock4@bbs.cpcn.com writes:
> Of course, these days, relocation to a distant locale is almost
> a must. (Some folks gotta go overseas.) That's tough part for
> a lot of people who have families, as relocation with a spouse
> and kids is very hard. Our neighborhood had some families move
> in from the rust-belt when the kids were juniors and seniors in
> high school. By that point, the social networks are established,
> and the older kids had trouble fitting in. They weren't happy.

one of the analysis about part of the downturn with the economic mess .... was a lot of US economic vitality has been worker mobility ... from the law of unintended consequences ... the underwater mortgages had significantly restricted worker mobility.

that was separate from a press conference that Bernanke had shortly after Federal Reserve lost legal action requiring them to disclose what they were doing (aka with only $700B allocated for TARP, it was way too small for the bailout, most of it was used for window dressing and other stuff ... and it was the Federal Reserve providing tens of trillions in

ZIRP funds for the "real" bailout). Bernanke said that he had assumed
that the "too big to fail" would use the tens of trillions in ZIRP funds
to help main street, but when they didn't he had no way to force them
(but that hasn't stop the ZIRP funds). Note that supposedly one of the
reasons Bernanke was chosen as FED chairman was because he was student
of the great depression, however the FED had tried something similar
then with the same result (so Bernanke should have had no expectation
for anything different this time).

fed chairman posts
http://manana.garlic.com/~lynn/submisc.html#fed.chairman
"too big to fail" ("too big to prosecute", "too big to jail") posts
http://manana.garlic.com/~lynn/submisc.html#too-big-to-fail
Pecora hearing posts (congressional hearings into the '29 crash
resulted in "glass-steagall" and jail terms)
http://manana.garlic.com/~lynn/submisc.html#Pecora&/orGl ass-Steagall

--
virtualization experience starting Jan1968, online at home since Mar1970

Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Sun, 12 Jun 2016 09:18:22 GMT
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Originally posted by: Bob Eager

On Sat, 11 Jun 2016 15:48:03 -0700, Quadibloc wrote:

> On Saturday, June 11, 2016 at 4:17:17 PM UTC-6, Bob Eager wrote:
>
>> One of my most interesting projects was modifying the CPU on a
>> Honeywell 516. Backwards compatible, but some modified instructions and
>> effects in restricted mode.
>
> Wow! That is an advanced project.

It was my final year undergraduate project (and probably what saved my
degree).

The modifications were largely to allow one to create a proper VM - the
original design did not allow proper virtualisation.

--
Using UNIX since v6 (1975)...

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Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Sun, 12 Jun 2016 11:01:40 GMT
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Originally posted by: J. Clarke

In article <ds4nmuFeav1U1@mid.individual.net>, news0006@eager.cx says...
>
> On Sat, 11 Jun 2016 15:48:03 -0700, Quadibloc wrote:
>
>> On Saturday, June 11, 2016 at 4:17:17 PM UTC-6, Bob Eager wrote:
>>
>>> One of my most interesting projects was modifying the CPU on a
>>> Honeywell 516. Backwards compatible, but some modified instructions and
>>> effects in restricted mode.
>>
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>
> It was my final year undergraduate project (and probably what saved my
> degree).
>
> The modifications were largely to allow one to create a proper VM - the
> original design did not allow proper virtualisation.

If you learned how to do that sort of thing as an undergraduate I want
to have gone to wherever you went. Or was it a case of learning despite
the school instead of because of it?

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https://www.avast.com/antivirus

Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Sun, 12 Jun 2016 11:09:10 GMT
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Originally posted by: Bob Eager

On Sun, 12 Jun 2016 07:01:40 -0400, J. Clarke wrote:

> In article <ds4nmuFeav1U1@mid.individual.net>, news0006@eager.cx says...
>>

>> On Sat, 11 Jun 2016 15:48:03 -0700, Quadibloc wrote:
>>
>>> On Saturday, June 11, 2016 at 4:17:17 PM UTC-6, Bob Eager wrote:
>>>
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> If you learned how to do that sort of thing as an undergraduate I want
> to have gone to wherever you went. Or was it a case of learning despite
> the school instead of because of it?
>
> ---
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> https://www.avast.com/antivirus

I was actually studying Electronics. I wasn't very good at analogue stuff! And then I became hooked on computing in my spare time. My vacation project (compulsory) at the end of the second year was a plotter interface - which was spectacularly awful. I guess I was just very keen.

I think I still have the drawings somewhere.

Oh, University of Kent, Canterbury, UK.

--
Using UNIX since v6 (1975)...

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http://www.mirrorservice.org

Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Sun, 12 Jun 2016 11:24:29 GMT
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Originally posted by: J. Clarke

In article <ds4u6mFeav1U3@mid.individual.net>, news0006@eager.cx says...
>
> On Sun, 12 Jun 2016 07:01:40 -0400, J. Clarke wrote:
>
>> In article <ds4nmuFeav1U1@mid.individual.net>, news0006@eager.cx says...
>>>
>>> On Sat, 11 Jun 2016 15:48:03 -0700, Quadibloc wrote:
>>>
>>>> On Saturday, June 11, 2016 at 4:17:17 PM UTC-6, Bob Eager wrote:
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> I think I still have the drawings somewhere.
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> Oh, University of Kent, Canterbury, UK.

Compulsory vacation project? Definitely a different approach from US
colleges, at least the ones I've attended.

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Subject: Re: So, what was your computer birthplace?
Posted by Stephen Wolstenholme on Sun, 12 Jun 2016 11:37:44 GMT
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On Sun, 12 Jun 2016 07:24:29 -0400, "J. Clarke"
<j.clarke.873638@gmail.com> wrote:

> In article <ds4u6mFeav1U3@mid.individual.net>, news0006@eager.cx says...
>>
>> On Sun, 12 Jun 2016 07:01:40 -0400, J. Clarke wrote:
>>
>>> In article <ds4nmuFeav1U1@mid.individual.net>, news0006@eager.cx says...
>>>>
>>>> On Sat, 11 Jun 2016 15:48:03 -0700, Quadibloc wrote:
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>>>> > On Saturday, June 11, 2016 at 4:17:17 PM UTC-6, Bob Eager wrote:
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> Compulsory vacation project? Definitely a different approach from US
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>

It my experience vacation work was advisory rather than compulsory.
Even so I never got around to doing any!

Steve

--
Neural Network Software for Windows http://www.npsnn.com

Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Sun, 12 Jun 2016 11:44:45 GMT
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Originally posted by: Bob Eager

On Sun, 12 Jun 2016 07:24:29 -0400, J. Clarke wrote:

> In article <ds4u6mFeav1U3@mid.individual.net>, news0006@eager.cx says...
>>
>> On Sun, 12 Jun 2016 07:01:40 -0400, J. Clarke wrote:
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> Compulsory vacation project? Definitely a different approach from US
> colleges, at least the ones I've attended.

Long gone now. It only lasted until the mid 1970s. We were given a small cash grant to cover costs; I seem to remember that it covered rent, and a pint of milk, each day. Food was down to us!

--
Using UNIX since v6 (1975)...

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 http://www.mirrorservice.org

Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Sun, 12 Jun 2016 11:46:41 GMT
View Forum Message <> Reply to Message

Originally posted by: Bob Eager

On Sun, 12 Jun 2016 12:37:44 +0100, Stephen Wolstenholme wrote:

> On Sun, 12 Jun 2016 07:24:29 -0400, "J. Clarke"
> <j.clarke.873638@gmail.com> wrote:
>
>> In article <ds4u6mFeav1U3@mid.individual.net>, news0006@eager.cx says...
>>>
>>> On Sun, 12 Jun 2016 07:01:40 -0400, J. Clarke wrote:
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>> Compulsory vacation project? Definitely a different approach from US
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>>
>>
> It my experience vacation work was advisory rather than compulsory.
> Even so I never got around to doing any!

This was specifically for the vacation preceding the final year. One had
to actually attend the university (or do a VERY detailed essay, which was
anathema to science students).

My vacation work was mainly working in a service station in my first
year. I then had a job working in the computer centre of the university
nearest home (4 miles away) as an operator and programmer.

--
Using UNIX since v6 (1975)...

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http://www.mirrorservice.org

Subject: Re: So, what was your computer birthplace?
Posted by Arne Luft on Sun, 12 Jun 2016 14:29:49 GMT
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On Thu, 09 Jun 2016 17:58:22 +0100, gareth G4SDW GQRP #3339 wrote:

> Apart from the FORTRAN for engineers course in 1969,
> My exposure was to PDP11 and PDP8 in their naked format,
> so that I had complete control and understanding of the machine,
> and, even when I progressed to RSX-11, I had complete knowledge of the
> source and workings of it, having been on the systems programmer course
> at the Butts centre in Reading in 1978.
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> The result of all that exposure was that I feel uneasy with any computer
> system where I am not in complete control or lack knowledge about what
> is hiding under the API with which I interact, and it is that sense of
> unease that motivates me for my language and OS ideas.

My very first computing experience was building a simple analogue computer from pots and a meter while at school. It sort of worked. :)

After that is was a Nascom-1 kit in 1979 (I think). You got a big PCB, a bag of components, a pre-built keyboard and 2 instruction books. The power supply was an optional extra! The instruction books were the assembly manual (also known as "the easy book") and the programming manual (known as "the hard book"). Output was to a TV via an RF modulator. All programmed in Z80 code using an on-board 1k machine code monitor.

That beastie ended up with all sorts of expansion and mods. :)
(more information: www.nascom.info)

Subject: Re: So, what was your computer birthplace?
Posted by Stephen Wolstenholme on Sun, 12 Jun 2016 14:35:27 GMT
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On 12 Jun 2016 14:29:49 GMT, mick <invalid@invalid.invalid> wrote:

> On Thu, 09 Jun 2016 17:58:22 +0100, gareth G4SDW GQRP #3339 wrote:
>
>> Apart from the FORTRAN for engineers course in 1969,

>> My exposure was to PDP11 and PDP8 in their naked format,
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> All programmed in Z80 code using an on-board 1k machine code monitor.
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> That beastie ended up with all sorts of expansion and mods. :)
> (more information: www.nascom.info)

Mine was probably the main cause of my divorce!

Steve

--
Neural Network Software for Windows http://www.npsnn.com

Subject: Re: So, what was your computer birthplace?
Posted by Ahem A Rivet's Shot on Sun, 12 Jun 2016 14:51:09 GMT
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On Thu, 9 Jun 2016 17:58:22 +0100
"gareth G4SDW GQRP #3339" <no.spam@thank.you.invalid> wrote:

> Apart from the FORTRAN for engineers course in 1969,
> My exposure was to PDP11 and PDP8 in their naked format,

Mine came in 1973 when one of our maths teachers asked who would like to be introduced to "the computer". It wasn't a computer, as we soon learned, it was a teletype on which we could prepare BASIC programs on paper tapes to be sent to the computer at the local tech that evening and the results returned the following evening. Then I found out that I could

go visit the machine any evening (there was an open hour), put my programs on decks of cards, walk in put my cards in the hopper, wait and collect my printout from the 1403. Then things got even better - I could book the machine and have it all to myself for an hour once a week.

The machine was an IBM 1130, with a 1442 card reader punch, a 1403 printer and a paper tape reader/punch which IIRC wasn't IBM. After I found my way to it I taught myself FORTRAN and then 1130 assembler. Then there was a pause while I concentrated on A-Levels, entrance exams and some fascinating work in the Cavendish Labs before I wound up working my break year in a Tandy franchise just in time to be handed one of the first TRS-80s in the country and told to see what I could do with it to make a demonstration. Then I went to university and met the 370 there and actually learned about computing.

--
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C:>WIN | A better way to focus the sun
The computer obeys and wins. | licences available see
You lose and Bill collects. | http://www.sohara.org/

Subject: Re: So, what was your computer birthplace?
Posted by Ahem A Rivet's Shot on Sun, 12 Jun 2016 14:55:22 GMT
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On Sun, 12 Jun 2016 07:24:29 -0400
"J. Clarke" <j.clarke.873638@gmail.com> wrote:

> In article <ds4u6mFeav1U3@mid.individual.net>, news0006@eager.cx says...
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>> On Sun, 12 Jun 2016 07:01:40 -0400, J. Clarke wrote:
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> Compulsory vacation project? Definitely a different approach from US
> colleges, at least the ones I've attended.

 It wasn't common in the UK, at least in the normal course of
things but it wasn't unusual if you were switching subjects to have to do a
transition course of some kind in the summer vac - usually quite short. I
had a three week one switching from maths to computer science which included
an infamous FORTRAN in three days section (by the end of which we had an
essay to write on the differences between FORTRAN II and FORTRAN IV).

--
Steve O'Hara-Smith | Directable Mirror Arrays
C:>WIN | A better way to focus the sun
The computer obeys and wins. | licences available see
You lose and Bill collects. | http://www.sohara.org/

Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Sun, 12 Jun 2016 15:15:42 GMT
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Originally posted by: Bob Eager

On Sun, 12 Jun 2016 15:55:22 +0100, Ahem A Rivet's Shot wrote:

> On Sun, 12 Jun 2016 07:24:29 -0400 "J. Clarke"

> <j.clarke.873638@gmail.com> wrote:
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>> In article <ds4u6mFeav1U3@mid.individual.net>, news0006@eager.cx
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> short. I had a three week one switching from maths to computer science
> which included an infamous FORTRAN in three days section (by the end of
> which we had an essay to write on the differences between FORTRAN II and
> FORTRAN IV).

Mine wasn't transition - it was compulsory in every subject!

--
Using UNIX since v6 (1975)...

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Subject: Re: So, what was your computer birthplace?
Posted by Renaissance on Mon, 13 Jun 2016 07:59:18 GMT
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Il 09/06/2016 18.58, gareth G4SDW GQRP #3339 ha scritto:

> The result of all that exposure was that I feel uneasy with any
> computer system where I am not in complete control or lack
> knowledge about what is hiding under the API with which I interact,
> and it is that sense of unease that motivates me for my language and OS
> ideas.

1983, pdp-11/23, rsx-11m+, 12 vt100s. Fortran, Pascal, Assembly.
1983, Commodore 64, basic, assembly.
1986, First ibm pc compatible, i386 25mhz, 4mb ram, ms-dos 4.1 - 5,
windows 3.0 - 3.1, sco xenix 386.

bye G.L.
--
Da i.d.c.tutela:
P.S. Quando ci sarà lo switch-off, avrò problemi anche col
monitor del PC? Ho visto che è collegato in modalità analogica.

Subject: Re: So, what was your computer birthplace?
Posted by Renaissance on Mon, 13 Jun 2016 08:06:53 GMT
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Il 13/06/2016 9.59, Renaissance ha scritto:

> 1986, First ibm pc compatible, i386 25mhz, 4mb ram, ms-dos 4.1 - 5,
> windows 3.0 - 3.1, sco xenix 386.

Errata corrige: 1989.

bye G.L.
--
Da i.d.c.tutela:
P.S. Quando ci sarà lo switch-off, avrò problemi anche col
monitor del PC? Ho visto che è collegato in modalità analogica.

Subject: Re: So, what was your computer birthplace?
Posted by hancock4 on Mon, 13 Jun 2016 21:25:52 GMT
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On Saturday, June 11, 2016 at 5:39:05 PM UTC-4, D_J_E wrote:

[snip]
> I used a similar trick for storing a large actuary table in memory that
> would not fit otherwise. I did so buy only storing the parts of the
> numbers that were different:
[snip]

Thanks for the information. Very interesting.

Subject: Re: So, what was your computer birthplace?
Posted by hancock4 on Mon, 13 Jun 2016 21:36:32 GMT
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On Saturday, June 11, 2016 at 6:07:35 PM UTC-4, J. Clarke wrote:

> A certain company which shall remain unnamed recently decided to
> outsource its IT staff. The only thing that has actually changed is
> that the IT staff now has different badges, lower pay, less benefits,
> and a far worse attitude. But to upper management shaving a few pennies
> apparently was more important than retaining a competent staff.

Sadly, this happened in a great many companies. Usually, in
the _long-run_, in turned out for the worse. However, in the
short-run, it looked good.

Upper management gets to gloat after such an action because,
(1) money is saved by the overall reduction in compensation,
although it isn't all that much. The outsourcing company

has to make a profit, which is part of the expense.
(2) The employee headcount is reduced. That is important to shareholders and analysts. It also improves the productivity index, as 'consultants' aren't included in the index. So, it makes the company appear to be more efficient (more work done with less people).

Years ago, when a company expanded hiring, it was perceived as doing well. But today, when a company reduces its workforce, it is perceived as doing well.

You know, I wonder if IBM could develop System/360 today as it did 50 years ago. Back then, it had to invest a ton of money in R&D and manufacturing and wait years for a payoff. I don't think today's shareholders would be as patient or trusting.

Going back 100 years ago, the Pennsylvania Railroad built tunnels under the Hudson River and a massive station in New York. Would today's investors be willing to wait ten years for a return? Likewise, at that time the New York Central built a massive Grand Central Terminal. Again, would investors today be willing to wait?

Subject: Re: So, what was your computer birthplace?
Posted by Peter Flass on Mon, 13 Jun 2016 21:47:50 GMT
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<hancock4@bbs.cpcn.com> wrote:
> On Saturday, June 11, 2016 at 5:39:05 PM UTC-4, D_J_E wrote:
>
>
> [snip]
>> I used a similar trick for storing a large actuary table in memory that
>> would not fit otherwise. I did so buy only storing the parts of the
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> [snip]
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> Thanks for the information. Very interesting.
>
>

Of course the downside is it limits you to a sequential search from the beginning of the tanle.

--
Pete

Subject: Re: So, what was your computer birthplace?
Posted by Jon Elson on Mon, 13 Jun 2016 22:27:47 GMT
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gareth G4SDW GQRP #3339 wrote:

> Apart from the FORTRAN for engineers course in 1969,
> My exposure was to PDP11 and PDP8 in their naked format,
> so that I had complete control and understanding of the machine,
> and, even when I progressed to RSX-11, I had complete knowledge
> of the source and workings of it, having been on the systems
> programmer course at the Butts centre in Reading in 1978.
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> The result of all that exposure was that I feel uneasy with any
> computer system where I am not in complete control or lack
> knowledge about what is hiding under the API with which I interact,
> and it is that sense of unease that motivates me for my language and OS
> ideas.
That doesn't bother me a bit, unless I'm hooking up bit-flipping hardware to it. Then I need to know more about the underlying construction.

I found the Beagle Bone to be really good in this regard. For higher-level stuff, program in C or whatever language you like. For low-level stuff that needs to be fast, you can use the PRU, a pair of 200 MHz 32-bit microcontrollers that have direct access to a small number of I/O pins.

I emulated an old PC with DMA card using the PRU, and was able to unpack run-length compressed bit strings and feed them to a laser diode at 5 us/pixel. You couldn't do that reliably with the ARM processor in the Linux user environment.

If you want to go back to the PDP-11 console mode programming, SIMH is quite good. I showed my kids how a computer really worked with that.

Jon

Subject: Re: So, what was your computer birthplace?
Posted by Dan Espen on Mon, 13 Jun 2016 22:37:07 GMT
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Peter Flass <peter_flass@yahoo.com> writes:

> <hancock4@bbs.cpcn.com> wrote:
>> On Saturday, June 11, 2016 at 5:39:05 PM UTC-4, D_J_E wrote:
>>
>>
>> [snip]

>>> I used a similar trick for storing a large actuary table in memory that
>>> would not fit otherwise. I did so buy only storing the parts of the
>>> numbers that were different:
>> [snip]
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>> Thanks for the information. Very interesting.
>
> Of course the downside is it limits you to a sequential search from the
> beginning of the tanle.

Yep.

You could do a binary search but not using that technique.

I don't recall ever having to do anything but sequential searches.

I do remember having to update some counters on disk using a 4 digit
code as a key. I found that more than half of the input data was for
just a few of the possible 4 digit keys. As long as I handled them
in memory, no problem.

--
Dan Espen

Subject: Re: So, what was your computer birthplace?
Posted by Quadibloc on Tue, 14 Jun 2016 01:28:18 GMT
View Forum Message <> Reply to Message

On Monday, June 13, 2016 at 3:36:33 PM UTC-6, hanc...@bbs.cpcn.com wrote:

> You know, I wonder if IBM could develop System/360 today as it
> did 50 years ago. Back then, it had to invest a ton of money
> in R&D and manufacturing and wait years for a payoff. I don't
> think today's shareholders would be as patient or trusting.

That may be.

But 50 years ago, shareholders wouldn't be so patient or trusting with just any
company spending money on R&D and manufacturing, with years before there would
be a payoff.

IBM had *earned* their trust, with the runaway success of such computers as the
IBM 704 and the IBM 1401, its high reputation for quality and customer care,
and its dominance of the industry.

Its *then* dominance of the industry, _before_ the success of System/360
increased that dominance to an unprecedented level.

John Savard

Subject: Re: So, what was your computer birthplace?
Posted by Rich Alderson on Thu, 16 Jun 2016 23:27:21 GMT
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1968-69: 1401 - FORTRAN IV; System/360 - COBOL, PL/1
summer 1969: System/360 assembler
1969-1970: System/360 - Coursewriter III, APL\360; IBM 1800 - Coursewriter II, APL\1500
autumn 1970: CDC 6600 - COMPASS; System/370 introduction
1973-1975: System/360 - Coursewriter III, COBOL, PL/I (Optimizer and Checkout), Assembler
1977-1978: DEC-20 - BASIC+2; System/370 - VSBASIC; worked in PL/1
1978: ported Tiny Pascal (BYTE) from Northstar BASIC to TOPS-20 BASIC+2;
    beginning Lisp romance
1979-1982: financial applications on Amdahl 470 in COBOL and PL/I;
  wrote indirect cost system for University of Chicago in System/1022 on DEC-20
1982-1984: systems programming under SVS on Amdahl 470 and MVS on 4341;
  systems programming under TOPS-20 v4 and v5.1 on DEC-20
1984-present: systems and applications programming under TOPS-20
2003-present: systems and applications programming under Tops-10
2013: applications programming under OS/8
2014-present: systems and applications programming under WAITS
2016: initial systems work under VM/370

--
Rich Alderson news@alderson.users.panix.com
  the russet leaves of an autumn oak/inspire once again the failed poet/
  to take up his pen/and essay to place his meagre words upon the page...

Subject: Re: So, what was your computer birthplace?
Posted by scott on Fri, 17 Jun 2016 12:41:57 GMT
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Rich Alderson <news@alderson.users.panix.com> writes:
> 1968-69: 1401 - FORTRAN IV; System/360 - COBOL, PL/1
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> 2013: applications programming under OS/8
> 2014-present: systems and applications programming under WAITS
> 2016: initial systems work under VM/370

Have you done any programming on the V380 yet?

Subject: Re: So, what was your computer birthplace?
Posted by Stephen Wolstenholme on Fri, 17 Jun 2016 13:16:25 GMT
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On 16 Jun 2016 19:27:21 -0400, Rich Alderson
<news@alderson.users.panix.com> wrote:

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I wish I had kept a diary. Apart from starting as a mainframe engineer
in 1969 and retiring in 2003 I've forgotten most of my working life!

Steve

--
Neural Network Software for Windows http://www.npsnn.com

Subject: Re: So, what was your computer birthplace?
Posted by osmium on Fri, 17 Jun 2016 13:22:08 GMT

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"Stephen Wolstenholme" wrote:

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> in 1969 and retiring in 2003 I've forgotten most of my working life!

My PPOE required that we update our working history in a file every year.

Subject: Re: So, what was your computer birthplace?
Posted by Anonymous on Fri, 17 Jun 2016 13:35:51 GMT
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Originally posted by: Jim Rymarczyk

n Thu, 9 Jun 2016 17:58:22 +0100, "gareth G4SDW GQRP #3339"
<no.spam@thank.you.invalid> wrote:

> Apart from the FORTRAN for engineers course in 1969,
> My exposure was to PDP11 and PDP8 in their naked format,
> so that I had complete control and understanding of the machine,
> and, even when I progressed to RSX-11, I had complete knowledge
> of the source and workings of it, having been on the systems
> programmer course at the Butts centre in Reading in 1978.
>
> The result of all that exposure was that I feel uneasy with any
> computer system where I am not in complete control or lack
> knowledge about what is hiding under the API with which I interact,
> and it is that sense of unease that motivates me for my language and OS
> ideas.
>
>
In 1966 I used the MIT Comp Center's IBM 7094 II to run Fortran IV batch jobs, and used the Aero/Astro Dept's IBM 1620 to run hand-fed Fortran II jobs. Punched the card decks with IBM 026 or 029 key punch machines, of course.

Soon after that I got a CTSS account and used a teletype to enter and run Fortran, MAD, SNOBOL4 and Lisp 1.5 programs. (MIT ran CTSS on a modified 7094 II separate from their batch config.)

Also played with Lisp 1.5 on the Comp Center's PDP-1, which was available for walk-in users. I recall that its REPL prompt on the teletypes said "Lithp Is Lithening". :-)

Later got a part time job at the Comp Center helping students debug their programs for OS/360 on the System/360 Model 65. When the Mech

Eng Dept got an IBM 1130 I also got a job babysitting that machine (mainly playing with it myself).

I learned to program in high level and assembly langauges from IBM manuals and textbooks du jour.

In 1968 I got a summer job working for IBM at 545 Tech Sq, programming parts of an experimental time sharing system in S/360 assembly language.

Switched my major from Aero Eng to the new EE/CS and stuck with IBM after graduation.

Subject: Re: So, what was your computer birthplace?
Posted by Renaissance on Fri, 17 Jun 2016 14:11:34 GMT
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Il 13/06/2016 10.06, Renaissance ha scritto:

1984-1985: nbs-z80 nanocomputer, z80 assembly, hex z80 programming and interfacing:
http://www.introni.it/pdf/Nichols%20-%20Nanobook%20Z80%20-%2 0Vol%203.pdf

1986-1988: at the Campus, Unix System V on NEC mini (I don't remember which serie, it was a multiprocessor system Motorola 68010 + MMU based), Pascal.

bye G.L.
--
Da i.d.c.tutela:
P.S. Quando ci sarà lo switch-off, avrò problemi anche col monitor del PC? Ho visto che è collegato in modalità analogica.

Subject: Re: So, what was your computer birthplace?
Posted by Rich Alderson on Fri, 17 Jun 2016 20:55:40 GMT
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scott@slp53.sl.home (Scott Lurndal) writes:

> Rich Alderson <news@alderson.users.panix.com> writes:
>> 1968-69: 1401 - FORTRAN IV; System/360 - COBOL, PL/1
>> summer 1969: System/360 assembler
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>> 2016: initial systems work under VM/370

> Have you done any programming on the V380 yet?

Not yet. I've had a couple of very large PDP-10 related projects taking most
of my time for the last couple of years.

--
Rich Alderson news@alderson.users.panix.com
the russet leaves of an autumn oak/inspire once again the failed poet/
to take up his pen/and essay to place his meagre words upon the page...