

---

Subject: What is the oldest computer that could be used today for real work?

Posted by [faux\\_dameron](#) on Sun, 05 Sep 2021 09:55:25 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

I know this is an odd question, so let me explain what I'm thinking.

First of all, what is "real work"? Let's say that you're a Linux/Unix/BSD system administrator who spends 90% of his day on the command line. What is the oldest computer that he could get by with to do his job?

For example: Could you rig up a serial connection from a modern PC to a C64 to get a command prompt on the C64 to use as the interface for the command line? Sure, it would demote the C64 to a "dumb terminal" but could it work?

These are the kinds of things that I would like to hear about on this group.

Jason

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sun, 05 Sep 2021 10:35:24 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: gareth evans

On 05/09/2021 10:55, Jason Evans wrote:

- > I know this is an odd question, so let me explain what I'm thinking.
- >
- > First of all, what is "real work"? Let's say that you're a Linux/Unix/BSD
- > system administrator who spends 90% of his day on the command line. What is
- > the oldest computer that he could get by with to do his job?
- >
- > For example: Could you rig up a serial connection from a modern PC to a C64
- > to get a command prompt on the C64 to use as the interface for the command
- > line? Sure, it would demote the C64 to a "dumb terminal" but could it work?
- >
- > These are the kinds of things that I would like to hear about on this group.

Well, by jerking the slide from the middle of your slide rule, you could use it to move the pebbles of your abacus.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sun, 05 Sep 2021 16:28:17 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Grant Taylor

On 9/5/21 3:55 AM, Jason Evans wrote:

- > First of all, what is "real work"? Let's say that you're a
- > Linux/Unix/BSD system administrator who spends 90% of his day on the
- > command line. What is the oldest computer that he could get by with
- > to do his job?

The problem is the remaining 10%. (I'm re-using your numbers.)

IMM/RSA/iLO/LOM/iDRAC/etc consoles that are inherently GUI which are invaluable when recovering systems during outages.

Don't forget that email clients /almost/ \*need\* to be GUI to display more than simple text ~> attachments. -- We can't forget the venerable Power Point slides that we need to look at before the next meeting.

I would be remiss if I didn't mention video chat, especially with work from home that is quite common for the last ~18 months. Not to mention conference rooms for geographically disperse team meetings.

I don't know about you, but I would have a problem justifying my employment if I didn't participate in that 10%. And I'm quite sure that CLI /only/ is not sufficient to do so.

I leave you with ...

Link - Terminal forever | CommitStrip

- <https://www.commitstrip.com/en/2016/12/22/terminal-forever/>

--

Grant. . . .

unix || die

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Mon, 06 Sep 2021 02:54:18 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Michael Trew

On 9/5/2021 5:55 AM, Jason Evans wrote:

- > I know this is an odd question, so let me explain what I'm thinking.
- >
- > First of all, what is "real work"? Let's say that you're a Linux/Unix/BSD
- > system administrator who spends 90% of his day on the command line. What is
- > the oldest computer that he could get by with to do his job?

>  
> For example: Could you rig up a serial connection from a modern PC to a C64  
> to get a command prompt on the C64 to use as the interface for the command  
> line? Sure, it would demote the C64 to a "dumb terminal" but could it work?  
>  
> These are the kinds of things that I would like to hear about on this group.  
>  
> Jason

I have an IBM Datamaster/System 23 in my basement that is functional with its original dot matrix printer. I'd have to imagine it can still do some basic functions like some kind of word processing. I have boxes and boxes of 8" floppies as well.

[https://en.wikipedia.org/wiki/IBM\\_System/23\\_Datamaster](https://en.wikipedia.org/wiki/IBM_System/23_Datamaster)

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Mon, 06 Sep 2021 03:39:29 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: John Goerzen

On 2021-09-05, Jason Evans <jsevens@mailfence.com> wrote:  
> First of all, what is "real work"? Let's say that you're a Linux/Unix/BSD  
> system administrator who spends 90% of his day on the command line. What is

.... that fits...

> the oldest computer that he could get by with to do his job?

So I'm going to be "that guy" that says "it depends on what you mean by computer."

So I have a DEC vt510 that I do still use. It has a serial connection to a Raspberry Pi, from which I can ssh wherever. I actually enjoy using it as a "focus mode" break. It was sold as an ANSI terminal. Is it a computer? Well, it has an 8080 in it IIRC. I do actually use it for doing work on my job from time to time too.

I also have a Linux box, more modern, that is a Micro PC I used to do backups. It doesn't permit ssh or such for security reasons. My only way into it is via serial console or local console. So the vt510 can hook up to that and it is then doing actual work too. I also have older terminals.

What about older general-purpose machines? I've seen plenty of DOS still kicking around. Various industrial machinery still uses DOS machines as

controllers or programmers. A lot of time they are running on more modern hardware, but also a lot of time they wouldn't NEED to be; that's just what is out there. So that takes us back firmly into the 80s.

The DEC PDP-10 was introduced in 1966 and was famously used by CompuServe up until at least 2007, 41 years later.

Here's an article from 2008 about how Seattle still uses DEC VAXes (released 1977):

<https://www.seattletimes.com/seattle-news/education/dinosaur-computer-stalls-seattle-schools-plans/>

Here's an article from just last year about how Kansas is still using a mainframe from 1977 to manage unemployment claims:

[https://www.kctv5.com/coronavirus/kansas-department-of-labor-mainframe-is-from-1977/article\\_40459370-7ac4-11ea-b4db-df529463a7d4.html](https://www.kctv5.com/coronavirus/kansas-department-of-labor-mainframe-is-from-1977/article_40459370-7ac4-11ea-b4db-df529463a7d4.html)

No word on what precise type of mainframe that is.

<https://www.dol.ks.gov/documents/20121/85583/KDOL+Modernization+Timeline.pdf/d186de09-851b-d996-d235-ad6fb9286fcb?version=1.0&t=1620335465573> gives a clue that it may be some sort of IBM something.

<https://governor.kansas.gov/wp-content/uploads/2021/04/GintherTaxCouncilKDOT.pdf> hints that it may be an IBM System 370/Model 145.

> For example: Could you rig up a serial connection from a modern PC to a C64  
> to get a command prompt on the C64 to use as the interface for the command  
> line? Sure, it would demote the C64 to a "dumb terminal" but could it work?

The display resolution may be tricky, but an old IBM PC certainly would.

- John

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Mon, 06 Sep 2021 04:06:43 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Sun, 05 Sep 2021 22:54:18 -0400, Michael Trew  
<michael.trew@att.net> wrote:

> On 9/5/2021 5:55 AM, Jason Evans wrote:

>> I know this is an odd question, so let me explain what I'm thinking.

>>

>> First of all, what is "real work"? Let's say that you're a Linux/Unix/BSD

>> system administrator who spends 90% of his day on the command line. What is

>> the oldest computer that he could get by with to do his job?

>>  
>> For example: Could you rig up a serial connection from a modern PC to a C64  
>> to get a command prompt on the C64 to use as the interface for the command  
>> line? Sure, it would demote the C64 to a "dumb terminal" but could it work?  
>>  
>> These are the kinds of things that I would like to hear about on this group.  
>>  
>> Jason  
>  
>  
> I have an IBM Datamaster/System 23 in my basement that is functional  
> with its original dot matrix printer. I'd have to imagine it can still  
> do some basic functions like some kind of word processing. I have boxes  
> and boxes of 8" floppies as well.  
>  
> [https://en.wikipedia.org/wiki/IBM\\_System/23\\_Datamaster](https://en.wikipedia.org/wiki/IBM_System/23_Datamaster)

You can run Unix from a teletype. Not something anyone in their right mind wants to do these days but you can do it.

The real work in this case is running the Unix system and you already have a computer if you do that.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [faux\\_dameron](#) on Mon, 06 Sep 2021 06:30:46 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Mon, 06 Sep 2021 00:06:43 -0400, J. Clarke wrote:

> You can run Unix from a teletype. Not something anyone in their right  
> mind wants to do these days but you can do it.

Linux via ham radio RTTY would be stupid and awesome, lol.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Ahem A Rivet's Shot](#) on Mon, 06 Sep 2021 08:14:41 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Mon, 6 Sep 2021 06:30:46 -0000 (UTC)  
Jason Evans <[jsevens@mailfence.com](mailto:jsevens@mailfence.com)> wrote:

> On Mon, 06 Sep 2021 00:06:43 -0400, J. Clarke wrote:  
>  
>> You can run Unix from a teletype. Not something anyone in their right  
>> mind wants to do these days but you can do it.

>  
> Linux via ham radio RTTY would be stupid and awesome, lol.

Erm KA9Q was originally TCP/IP over souped up RTTY (aka packet radio) was it not. OK it was not Linux (that was still in the future) but it did come with email, usenet, ftp and a multi-tasking kernel to run them under messy dos - I never saw the CP/M version but 64K is awfully tight for TCP/IP.

It was awesome and far from stupid.

--  
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: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Mon, 06 Sep 2021 10:55:48 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: gareth evans

On 06/09/2021 09:14, Ahem A Rivet's Shot wrote:  
> On Mon, 6 Sep 2021 06:30:46 -0000 (UTC)  
> Jason Evans <jsevens@mailfence.com> wrote:  
>  
>> On Mon, 06 Sep 2021 00:06:43 -0400, J. Clarke wrote:  
>>  
>>> You can run Unix from a teletype. Not something anyone in their right  
>>> mind wants to do these days but you can do it.  
>>  
>> Linux via ham radio RTTY would be stupid and awesome, lol.  
>  
> Erm KA9Q was originally TCP/IP over souped up RTTY (aka packet  
> radio) was it not. OK it was not Linux (that was still in the future) but  
> it did come with email, usenet, ftp and a multi-tasking kernel to run them  
> under messy dos - I never saw the CP/M version but 64K is awfully tight for  
> TCP/IP.  
>  
> It was awesome and far from stupid.  
>

One needs to be careful about terminology.

RTTY in Ham Radio terms means ITA No2, 5-unit start-stop stuff with the awkward Figure Shift and Letter Shift keys.

Packet Radio was something else, I know not what, but certainly 8-bit character transmissions.

Gareth G4SDW

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [faux\\_dameron](#) on Mon, 06 Sep 2021 11:12:24 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Mon, 6 Sep 2021 11:55:48 +0100, gareth evans wrote:

>>>> You can run Unix from a teletype. Not something anyone in their  
>  
> RTTY in Ham Radio terms means ITA No2, 5-unit start-stop stuff with the  
> awkward Figure Shift and Letter Shift keys.  
>  
> Packet Radio was something else, I know not what, but certainly 8-bit  
> character transmissions.  
>  
> Gareth G4SDW

When J Clarke mentioned teletype, I immediately thought of radioteletype  
i.e. RTTY and that's why I mentioned it.

Jason KI4GMX

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [faux\\_dameron](#) on Mon, 06 Sep 2021 11:16:37 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Mon, 6 Sep 2021 09:14:41 +0100, Ahem A Rivet's Shot wrote:

> Erm KA9Q was originally TCP/IP over souped up RTTY (aka packet  
> radio) was it not. OK it was not Linux (that was still in the future)  
> but it did come with email, usenet, ftp and a multi-tasking kernel to  
> run them under messy dos - I never saw the CP/M version but 64K is  
> awfully tight for TCP/IP.  
>  
> It was awesome and far from stupid.

I meanth "stupid" only in the amount of time and effort it would take to  
use an old radioteletype machine as an interface with as a linux console.  
It does sound very awesome, though!

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Mon, 06 Sep 2021 17:42:28 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Grant Taylor

On 9/6/21 12:30 AM, Jason Evans wrote:

> Linux via ham radio RTTY would be stupid and awesome, lol.

It's not ham radio RTTY, but it is darned close.

Link - Curious Marc tweets from a TTY.

- [https://twitter.com/curious\\_marc/status/1253216773370867717](https://twitter.com/curious_marc/status/1253216773370867717)

--

Grant. . . .

unix || die

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Mon, 06 Sep 2021 17:44:57 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Grant Taylor

On 9/6/21 2:14 AM, Ahem A Rivet's Shot wrote:

> Erm KA9Q was originally TCP/IP over souped up RTTY (aka packet radio)  
> was it not. OK it was not Linux (that was still in the future) but  
> it did come with email, usenet, ftp and a multi-tasking kernel to  
> run them under messy dos - I never saw the CP/M version but 64K is  
> awfully tight for TCP/IP.

Was it Usenet (UUCP / NNTP) or FTP proper? Or was it other non-standard services that provided similar function to the proper services?

Many BBSs, both radio and non-radio, of the time provided similar functionality without using /Internet/ standard protocols for doing so.

> It was awesome and far from stupid.

~chuckle~

--

Grant. . . .

---



---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Peter Flass](#) on Mon, 06 Sep 2021 17:56:09 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Michael Trew <michael.trew@att.net> wrote:

> On 9/5/2021 5:55 AM, Jason Evans wrote:

>> I know this is an odd question, so let me explain what I'm thinking.

>>

>> First of all, what is "real work"? Let's say that you're a Linux/Unix/BSD

>> system administrator who spends 90% of his day on the command line. What is

>> the oldest computer that he could get by with to do his job?

>>

>> For example: Could you rig up a serial connection from a modern PC to a C64

>> to get a command prompt on the C64 to use as the interface for the command

>> line? Sure, it would demote the C64 to a "dumb terminal" but could it work?

>>

>> These are the kinds of things that I would like to hear about on this group.

>>

>> Jason

>

>

> I have an IBM Datamaster/System 23 in my basement that is functional

> with its original dot matrix printer. I'd have to imagine it can still

> do some basic functions like some kind of word processing. I have boxes

> and boxes of 8" floppies as well.

>

> [https://en.wikipedia.org/wiki/IBM\\_System/23\\_Datamaster](https://en.wikipedia.org/wiki/IBM_System/23_Datamaster)

>

This is kind of a bizarre question. Any computer could be used for 'real work' today. They did their thing years ago, and could still do, the same kinds of things today: statistics, engineering calculations, payroll, inventory, etc. I was going to say the IBM 1130, but just realized all could. Obviously no internet, and things like graphics and relational databases that require gobs of memory would be out.

--

Pete

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Ahem A Rivet's Shot](#) on Mon, 06 Sep 2021 19:07:53 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Mon, 6 Sep 2021 11:44:57 -0600

Grant Taylor <gtaylor@tnetconsulting.net> wrote:

> On 9/6/21 2:14 AM, Ahem A Rivet's Shot wrote:

>> Erm KA9Q was originally TCP/IP over souped up RTTY (aka packet radio)

>> was it not. OK it was not Linux (that was still in the future) but

>> it did come with email, usenet, ftp and a multi-tasking kernel to

>> run them under messy dos - I never saw the CP/M version but 64K is

>> awfully tight for TCP/IP.

>

> Was it Usenet (UUCP / NNTP) or FTP proper? Or was it other non-standard

> services that provided similar function to the proper services?

It was the real thing, there was a pretty good TCP/IP stack in there and a multi-tasking kernel, the applications were pluggable at build time but most settled on a variant of Elm for email backed by an SMTP server, Tin for USENET (NNRP) and I forget where the usual ftp client originated. When Demon Internet first started offering dial up connections with a static IP address KA9Q was the standard offering for messy dos.

--

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: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Mon, 06 Sep 2021 20:05:28 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: snipeco.2

Ahem A Rivet's Shot <steveo@eircom.net> wrote:

> On Mon, 6 Sep 2021 11:44:57 -0600

> Grant Taylor <gtaylor@tnetconsulting.net> wrote:

>

>> On 9/6/21 2:14 AM, Ahem A Rivet's Shot wrote:

>>> Erm KA9Q was originally TCP/IP over souped up RTTY (aka packet radio)

>>> was it not. OK it was not Linux (that was still in the future) but

>>> it did come with email, usenet, ftp and a multi-tasking kernel to

>>> run them under messy dos - I never saw the CP/M version but 64K is

>>> awfully tight for TCP/IP.

>>

>> Was it Usenet (UUCP / NNTP) or FTP proper? Or was it other non-standard

>> services that provided similar function to the proper services?

>

> It was the real thing, there was a pretty good TCP/IP stack in there  
> and a multi-tasking kernel, the applications were pluggable at build time  
> but most settled on a variant of Elm for email backed by an SMTP server,  
> Tin for USENET (NNRP) and I forget where the usual ftp client originated.  
> When Demon Internet first started offering dial up connections with a  
> static IP address KA9Q was the standard offering for messy dos.

It worked very well; I began by using KA9Q too, in 1994 with Demon.

--

^|^\ <[https://youtu.be/\\_kqytf31a8E](https://youtu.be/_kqytf31a8E)>

My pet rock Gordon just is.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Mon, 06 Sep 2021 20:54:48 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Grant Taylor

On 9/6/21 1:07 PM, Ahem A Rivet's Shot wrote:

> It was the real thing, there was a pretty good TCP/IP stack in there  
> and a multi-tasking kernel, the applications were pluggable at build  
> time but most settled on a variant of Elm for email backed by an  
> SMTP server, Tin for USENET (NNRP) and I forget where the usual ftp  
> client originated. When Demon Internet first started offering dial  
> up connections with a static IP address KA9Q was the standard offering  
> for messy dos.

Interesting.

Thank you for confirming.

TIL :-)

--

Grant. . . .

unix || die

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Robin Vowels](#) on Tue, 07 Sep 2021 03:27:50 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Tuesday, September 7, 2021 at 3:56:11 AM UTC+10, Peter Flass wrote:

> Michael Trew <michae...@att.net> wrote:

>> On 9/5/2021 5:55 AM, Jason Evans wrote:

>>> I know this is an odd question, so let me explain what I'm thinking.

>>>

>>> First of all, what is "real work"? Let's say that you're a Linux/Unix/BSD

>>> system administrator who spends 90% of his day on the command line. What is

>>> the oldest computer that he could get by with to do his job?

>>>

>>> For example: Could you rig up a serial connection from a modern PC to a C64

>>> to get a command prompt on the C64 to use as the interface for the command

>>> line? Sure, it would demote the C64 to a "dumb terminal" but could it work?

>>>

>>> These are the kinds of things that I would like to hear about on this group.

>>>

>>> Jason

>>

>>

>> I have an IBM Datamaster/System 23 in my basement that is functional

>> with its original dot matrix printer. I'd have to imagine it can still

>> do some basic functions like some kind of word processing. I have boxes

>> and boxes of 8" floppies as well.

>>

>> [https://en.wikipedia.org/wiki/IBM\\_System/23\\_Datamaster](https://en.wikipedia.org/wiki/IBM_System/23_Datamaster)

>>

> This is kind of a bizarre question. Any computer could be used for 'real

> work" today. They did their thing years ago, and could still do, the same

> kinds of things today: statistics, engineering calculations, payroll,

> inventory, etc. I was going to say the IBM 1130, but just realized all

> could. Obviously no internet, and things like graphics and relational

> databases that require gobs of memory would be out.

Early computers had "gobs of memory" via endless numbers of

punch cards, endless lengths of paper tape and/or magnetic tape.

Some even had graphics. Yesterday I came across a subroutine for

DEUCE, written in 1955, that rotated the display by 90 degrees.

On that same computer was an animated version of a mouse

finding its way around a maze; also of "hickory dickory dock"

with sound effects; and noughts and crosses [tic-tac-toe].

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Tue, 07 Sep 2021 05:03:59 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Mon, 6 Sep 2021 03:39:29 -0000 (UTC), John Goerzen

<jgoerzen@complete.org> wrote:

> On 2021-09-05, Jason Evans <jsevens@mailfence.com> wrote:

>> First of all, what is "real work"? Let's say that you're a Linux/Unix/BSD

>> system administrator who spends 90% of his day on the command line. What is

>

> ... that fits...

>

>> the oldest computer that he could get by with to do his job?

>

> So I'm going to be "that guy" that says "it depends on what you mean by

> computer."

>

> So I have a DEC vt510 that I do still use. It has a serial connection to a

> Raspberry Pi, from which I can ssh wherever. I actually enjoy using it as a

> "focus mode" break. It was sold as an ANSI terminal. Is it a computer? Well,

> it has an 8080 in it IIRC. I do actually use it for doing work on my job from

> time to time too.

>

> I also have a Linux box, more modern, that is a Micro PC I used to do backups.

> It doesn't permit ssh or such for security reasons. My only way into it is via

> serial console or local console. So the vt510 can hook up to that and it is

> then doing actual work too. I also have older terminals.

>

> What about older general-purpose machines? I've seen plenty of DOS still

> kicking around. Various industrial machinery still uses DOS machines as

> controllers or programmers. A lot of time they are running on more modern

> hardware, but also a lot of time they wouldn't NEED to be; that's just what is

> out there. So that takes us back firmly into the 80s.

>

> The DEC PDP-10 was introduced in 1966 and was famously used by CompuServe up

> until at least 2007, 41 years later.

>

> Here's an article from 2008 about how Seattle still uses DEC VAXes (released

> 1977):

> [https://www.seattletimes.com/seattle-news/education/dinosaur](https://www.seattletimes.com/seattle-news/education/dinosaur-computer-stalls-seattle-schools-plans/)

> [-computer-stalls-seattle-schools-plans/](https://www.seattletimes.com/seattle-news/education/dinosaur-computer-stalls-seattle-schools-plans/)

>

> Here's an article from just last year about how Kansas is still using a

> mainframe from 1977 to manage unemployment claims:

> [https://www.kctv5.com/coronavirus/kansas-department-of-labor](https://www.kctv5.com/coronavirus/kansas-department-of-labor-mainframe-is-from-1977/article_40459370-7ac4-11ea-b4db-df529463a7d4.html)

> [-mainframe-is-from-1977/article\\_40459370-7ac4-11ea-b4db-df529463a7d4.html](https://www.kctv5.com/coronavirus/kansas-department-of-labor-mainframe-is-from-1977/article_40459370-7ac4-11ea-b4db-df529463a7d4.html)

>

> No word on what precise type of mainframe that is.

> [https://www.dol.ks.gov/documents/20121/85583/KDOL+Modernizat](https://www.dol.ks.gov/documents/20121/85583/KDOL+Modernization+Timeline.pdf/d186de09-851b-d996-d235-ad6fb9286fcb?version=1.0&t=1620335465573)

> [ion+Timeline.pdf/d186de09-851b-d996-d235-ad6fb9286fcb?version=1.0&t=1620335465573](https://www.dol.ks.gov/documents/20121/85583/KDOL+Modernization+Timeline.pdf/d186de09-851b-d996-d235-ad6fb9286fcb?version=1.0&t=1620335465573)

> gives a clue that it may be some sort of IBM something.

> <https://governor.kansas.gov/wp-content/uploads/2021/04/GinterTaxCouncilKDOL.pdf>

> hints that it may be an IBM System 370/Model 145.

I'd be very surprised if it actually was. When did IBM end maintenance on those?

>> For example: Could you rig up a serial connection from a modern PC to a C64  
>> to get a command prompt on the C64 to use as the interface for the command  
>> line? Sure, it would demote the C64 to a "dumb terminal" but could it work?

>

> The display resolution may be tricky, but an old IBM PC certainly would.

>

> - John

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Tue, 07 Sep 2021 13:06:16 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: John Goerzen

On 2021-09-07, J Clarke <jclarke.873638@gmail.com> wrote:

>> <https://governor.kansas.gov/wp-content/uploads/2021/04/GintherTaxCouncilKDOT.pdf>

>> hints that it may be an IBM System 370/Model 145.

>

> I'd be very surprised if it actually was. When did IBM end

> maintenance on those?

I have no more information, other than that link claims "The Kansas UI System runs on a Mainframe that was installed in 1977."

Is it possible the hardware was upgraded to something that can emulate the 370/145, and that difference was lost on a non-technical author? Sure.

I have known other places to run mainframes an absurdly long time. I've seen it in universities and, of course, there's the famous CompuServe PDP-10 story - though presumably they had more technical know-how to keep their PDP-10s alive. You are right; it does seem farfetched.

.... so I did some more digging, and found

<https://ldh.la.gov/assets/medicaid/mmis/docs/IVVRProcurementLibrary/Section3RelevantCorporateExperienceCorporateFinancialCondition.doc>  
which claims that the "legacy UI system applications run on the Kansas Department of Administration's OBM OS/390 mainframe."

I know little of IBM's mainframe lineup, but

[https://en.wikipedia.org/wiki/IBM\\_System/390](https://en.wikipedia.org/wiki/IBM_System/390) claims that the System/390 has some level of compatibility with the S/370.

- John

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [scott](#) on Tue, 07 Sep 2021 15:08:04 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

John Goerzen <jgoerzen@complete.org> writes:

> On 2021-09-05, Jason Evans <jsevens@mailfence.com> wrote:

>> First of all, what is "real work"? Let's say that you're a Linux/Unix/BSD

>> system administrator who spends 90% of his day on the command line. What is

>

> The DEC PDP-10 was introduced in 1966 and was famously used by CompuServe up  
> until at least 2007, 41 years later.

>

> Here's an article from 2008 about how Seattle still uses DEC VAXes (released  
> 1977):

> <https://www.seattletimes.com/seattle-news/education/dinosaur-computer-stalls-seattle-schools-plans/>

>

> Here's an article from just last year about how Kansas is still using a  
> mainframe from 1977 to manage unemployment claims:

> [https://www.kctv5.com/coronavirus/kansas-department-of-labor-mainframe-is-from-1977/article\\_40459370-7ac4-11ea-b4db-df52\\_9463a7d4.html](https://www.kctv5.com/coronavirus/kansas-department-of-labor-mainframe-is-from-1977/article_40459370-7ac4-11ea-b4db-df52_9463a7d4.html)

Burroughs medium systems, introduced in 1965, were still running the city of Santa Ana until 2010 (that system was donated to the Living Computer Museum who ran it for a couple of years thereafter.

I've a Burroughs/Unisys T27 block-mode terminal hooked up to a medium systems simulator that still runs today.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Tue, 07 Sep 2021 15:34:05 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Michael Trew

On 9/6/2021 4:11 PM, Andreas Kohlbach wrote:

> On Sun, 05 Sep 2021 22:54:18 -0400, Michael Trew wrote:

>>

>> On 9/5/2021 5:55 AM, Jason Evans wrote:

>>> I know this is an odd question, so let me explain what I'm thinking.

>>>

>>> First of all, what is "real work"? Let's say that you're a Linux/Unix/BSD



>>> system administrator who spends 90% of his day on the command line. What is  
>>> the oldest computer that he could get by with to do his job?  
>>>  
>>> For example: Could you rig up a serial connection from a modern PC to a C64  
>>> to get a command prompt on the C64 to use as the interface for the command  
>>> line? Sure, it would demote the C64 to a "dumb terminal" but could it work?  
>>>  
>>> These are the kinds of things that I would like to hear about on this group.  
>>>  
>>> Jason  
>>  
>>  
>> I have an IBM Datamaster/System 23 in my basement that is functional  
>> with its original dot matrix printer. I'd have to imagine it can  
>> still do some basic functions like some kind of word processing. I  
>> have boxes and boxes of 8" floppies as well.  
>>  
>> [https://en.wikipedia.org/wiki/IBM\\_System/23\\_Datamaster](https://en.wikipedia.org/wiki/IBM_System/23_Datamaster)  
>  
> Read about this long ago. Is considered by many to be the "first  
> PC". Reminds me on the Apple Lisa which went the right direction but was  
> too expensive. So the little less capable but more successful McIntosh  
> was released.

I have most all of the manuals as well. It was used as a database in a  
radio station in the early 80's. I never actually sat down and figured  
out how it works, but it does boot when you flip the switch; numbers  
come up on the green screen.

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Tue, 07 Sep 2021 16:14:30 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: drb

> I have most all of the manuals as well. It was used as a database in a  
> radio station in the early 80's. I never actually sat down and figured  
> out how it works, but it does boot when you flip the switch; numbers  
> come up on the green screen.

User programming is done in BASIC. It's a curious implementation, with  
a lot of fairly powerful stuff for business applications, statement  
labels, some sort-of cursor editing of statements. Most IBM supplied  
utilities are not in BASIC; I think it may have been possible for some  
ecosystem developers to get the tooling to do assembler or maybe  
compiled development.



There were two types of base machine: the all-in-one type, and a floor standing one with separate screen and keyboard. Peripherals included several printers, a twinax-based network for interconnecting stations, and a hard disk unit that could be shared across the network. 8085 processor, paged address space so that the machine can (and does) have well over 64k of RAM, and quite a bit of ROM too.

IBM sold various software for them, including a menu-driven application development system that wrote BASIC applications. There was at least a small third party ecosystem.

De

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Wed, 08 Sep 2021 04:00:04 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Tue, 7 Sep 2021 13:06:16 -0000 (UTC), John Goerzen  
<jgoerzen@complete.org> wrote:

> On 2021-09-07, J Clarke <jclarke.873638@gmail.com> wrote:  
>>> <https://governor.kansas.gov/wp-content/uploads/2021/04/GintherTaxCouncilKDOT.pdf>  
>>> hints that it may be an IBM System 370/Model 145.  
>>  
>> I'd be very surprised if it actually was. When did IBM end  
>> maintenance on those?  
>  
> I have no more information, other than that link claims "The Kansas UI System  
> runs on a Mainframe that was installed in 1977."  
>  
> Is it possible the hardware was upgraded to something that can emulate the  
> 370/145, and that difference was lost on a non-technical author? Sure.

A brand new Z can emulate the 370/145. So can my Raspberry Pi if I  
don't expect any performance.

> I have known other places to run mainframes an absurdly long time. I've seen it  
> in universities and, of course, there's the famous CompuServe PDP-10 story -  
> though presumably they had more technical know-how to keep their PDP-10s alive.  
> You are right; it does seem farfetched.  
>  
> ... so I did some more digging, and found  
> <https://ldh.la.gov/assets/medicaid/mmis/docs/IVVRProcurementLibrary/Section3RelevantCorporateExperienceCorporateFinancialCondition.doc>  
> which claims that the "legacy UI system applications run on the Kansas

> Department of Administration's OBM OS/390 mainframe."  
>  
> I know little of IBM's mainframe lineup, but  
> [https://en.wikipedia.org/wiki/IBM\\_System/390](https://en.wikipedia.org/wiki/IBM_System/390) claims that the System/390 has some  
> level of compatibility with the S/370.

From the 360 on, application-level backwards compatibility has been maintained. I occasionally encounter code today that has dated comments from the '70s. The OS is tuned for the specific hardware and new features are provided, but application programmers don't generally deal with that.

We just transferred our entire system to new hardware, was done over a weekend. That's a system that manages a Fortune 100 financial services company.

A common misconception among people who don't work with mainframes is that the mainframe you have today is the same as the one that was installed in the mid '60s. They don't understand that the modern mainframe is just that, with numerous cores, vast quantities of RAM, and very high clock speeds that can be sustained under any workload.

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Ahem A Rivet's Shot](#) on Wed, 08 Sep 2021 07:10:36 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Wed, 08 Sep 2021 00:00:04 -0400  
J. Clarke <[jjclarke.873638@gmail.com](mailto:jjclarke.873638@gmail.com)> wrote:

> We just transferred our entire system to new hardware, was done over a  
> weekend. That's a system that manages a Fortune 100 financial  
> services company.

In some circles they just throw new hardware into the racks and tell the virtual swarm coordinator that runs their systems where to find the new hardware or tell the coordinator to stop using an obsolete machine so they can pull it. The systems never notice.

--

|                              |   |
|------------------------------|---|
| 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.  | <a href="http://www.sohara.org/">http://www.sohara.org/</a> |

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Peter Flass](#) on Wed, 08 Sep 2021 18:50:37 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

John Goerzen <jgoerzen@complete.org> wrote:

> On 2021-09-07, J Clarke <jclarke.873638@gmail.com> wrote:

>>> <https://governor.kansas.gov/wp-content/uploads/2021/04/GintherTaxCouncilKDOT.pdf>

>>> hints that it may be an IBM System 370/Model 145.

>>

>> I'd be very surprised if it actually was. When did IBM end

>> maintenance on those?

>

> I have no more information, other than that link claims "The Kansas UI System

> runs on a Mainframe that was installed in 1977."

>

> Is it possible the hardware was upgraded to something that can emulate the

> 370/145, and that difference was lost on a non-technical author? Sure.

>

> I have known other places to run mainframes an absurdly long time. I've seen it

> in universities and, of course, there's the famous CompuServe PDP-10 story -

> though presumably they had more technical know-how to keep their PDP-10s alive.

> You are right; it does seem farfetched.

>

> ... so I did some more digging, and found

> <https://ldh.la.gov/assets/medicaid/mmis/docs/IVVRProcurement>

> Library/Section3RelevantCorporateExperienceCorporateFinancialCondition.doc

> which claims that the "legacy UI system applications run on the Kansas

> Department of Administration's OBM OS/390 mainframe."

>

> I know little of IBM's mainframe lineup, but

> [https://en.wikipedia.org/wiki/IBM\\_System/390](https://en.wikipedia.org/wiki/IBM_System/390) claims that the System/390 has some

> level of compatibility with the S/370.

>

> - John

>

You can still run programs compiled on a 360 on the latest "z" box.

--

Pete

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Wed, 08 Sep 2021 22:46:00 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: John Goerzen

On 2021-09-08, Peter Flass <peter\_flass@yahoo.com> wrote:

> You can still run programs compiled on a 360 on the latest "z" box.

I gotta say - that's darn impressive. I'm not aware of anything else that maintains compatibility that long; am I missing anything?

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Dan Espen](#) on Thu, 09 Sep 2021 00:28:27 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

John Goerzen <jgoerzen@complete.org> writes:

> On 2021-09-08, Peter Flass <peter\_flass@yahoo.com> wrote:

>> You can still run programs compiled on a 360 on the latest "z" box.

>

> I gotta say - that's darn impressive. I'm not aware of anything else that

> maintains compatibility that long; am I missing anything?

Nope. S/360 in it's various flavors is the only survivor of that era.

Before then, IBM kept introducing new incompatible models each one programmed in it's assembly language. The promise of S/360 was that you would never again have to throw out your massive investment in software.

Object code will still run.

--

Dan Espen

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [John Levine](#) on Thu, 09 Sep 2021 01:59:49 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

According to Dan Espen <dan1espen@gmail.com>:

> John Goerzen <jgoerzen@complete.org> writes:

>

>> On 2021-09-08, Peter Flass <peter\_flass@yahoo.com> wrote:

>>> You can still run programs compiled on a 360 on the latest "z" box.

>>

>> I gotta say - that's darn impressive. I'm not aware of anything else that

>> maintains compatibility that long; am I missing anything?

>

> Nope. S/360 in it's various flavors is the only survivor of that era.

I thought the Unisys Clearpath machines still run Unival 1100 code from the 1960s.

--

Regards,

John Levine, johnl@taugh.com, Primary Perpetrator of "The Internet for Dummies",  
Please consider the environment before reading this e-mail. <https://jl.ly>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Thu, 09 Sep 2021 02:24:19 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Thu, 9 Sep 2021 01:59:49 -0000 (UTC), John Levine <johnl@taugh.com>  
wrote:

> According to Dan Espen <dan1espen@gmail.com>:

>> John Goerzen <jgoerzen@complete.org> writes:

>>

>>> On 2021-09-08, Peter Flass <peter\_flass@yahoo.com> wrote:

>>>> You can still run programs compiled on a 360 on the latest "z" box.

>>>

>>> I gotta say - that's darn impressive. I'm not aware of anything else that

>>> maintains compatibility that long; am I missing anything?

>>

>> Nope. S/360 in it's various flavors is the only survivor of that era.

>

> I thought the Unisys Clearpath machines still run Unival 1100 code from the 1960s.

Unisys Clearpath is an emulator running on Intel. IBM implements the  
Z in purpose-made hardware.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Thu, 09 Sep 2021 05:14:42 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Grant Taylor

On 9/8/21 8:24 PM, J. Clarke wrote:

> Unisys Clearpath is an emulator running on Intel. IBM implements

> the Z in purpose-made hardware.

IBM implements it in microcode. Which is as much software as it is  
hardware.

--

Grant. . . .  
unix || die

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Thu, 09 Sep 2021 05:59:37 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Wed, 8 Sep 2021 23:14:42 -0600, Grant Taylor  
<gtaylor@tnetconsulting.net> wrote:

> On 9/8/21 8:24 PM, J. Clarke wrote:  
>> Unisys Clearpath is an emulator running on Intel. IBM implements  
>> the Z in purpose-made hardware.  
>  
> IBM implements it in microcode. Which is as much software as it is  
> hardware.

They did once. Do they still when they have from a 360 architecture  
viewpoint vast quantities of silicon real estate to play with?

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Thu, 09 Sep 2021 13:08:35 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Thomas Koenig

J Clarke <jclarke.873638@gmail.com> schrieb:  
> On Tue, 7 Sep 2021 13:06:16 -0000 (UTC), John Goerzen  
> <jgoerzen@complete.org> wrote:  
>  
>> On 2021-09-07, J Clarke <jclarke.873638@gmail.com> wrote:  
>>>> [https://governor.kansas.gov/wp-content/uploads/2021/04/Ginth\\_erTaxCouncilKDOT.pdf](https://governor.kansas.gov/wp-content/uploads/2021/04/Ginth_erTaxCouncilKDOT.pdf)  
>>>> hints that it may be an IBM System 370/Model 145.  
>>>  
>>> I'd be very surprised if it actually was. When did IBM end  
>>> maintenance on those?  
>>  
>> I have no more information, other than that link claims "The Kansas UI System  
>> runs on a Mainframe that was installed in 1977."  
>>  
>> Is it possible the hardware was upgraded to something that can emulate the

>> 370/145, and that difference was lost on a non-technical author? Sure.  
>  
> A brand new Z can emulate the 370/145. So can my Raspberry Pi if I  
> don't expect any performance.

Surely, a higher performance than the original? Bitsavers claims that

"The Model 145 has a variable-length CPU cycle time. Cycle times of 202.5, 247.5, 292.5, and 315 nanoseconds are implemented. The time required for the CPU to perform operations is made up of combinations of these cycles. The CPU fetches instructions from processor storage a doubleword at a time, while data accesses, both fetches and stores, are made on a word basis. Eight instruction bytes or four data bytes can be fetched by the CPU in 540 nanoseconds."

Variable-length CPU cycle time sounds strange, but the clock ran at somewhere between 3.2 and 5 MZhz. Not sure what sort of Pi you have, but even a 700 MHz ARMv6 should be able to run rings around that old machine in emulation with a factor of more than 100 in CPU cycle time.

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Thu, 09 Sep 2021 17:53:50 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Grant Taylor

On 9/8/21 11:59 PM, J. Clarke wrote:  
> They did once. Do they still when they have from a 360 architecture  
> viewpoint vast quantities of silicon real estate to play with?

Absolutely.

If anything they do even more in microcode now than they used to.

The microcode has somewhat become an abstraction layer. The processor underneath can do whatever it wants and rely on the microcode to be the abstraction boundary.

There have been multiple episodes of the Terminal Talk podcast talk about microcode, milicode, and other very low level codes that fall into the more broad category of firmware.

--  
Grant. . . .

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [scott](#) on Thu, 09 Sep 2021 18:27:06 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Dan Espen <dan1espen@gmail.com> writes:

> John Goerzen <jgoerzen@complete.org> writes:

>

>> On 2021-09-08, Peter Flass <peter\_flass@yahoo.com> wrote:

>>> You can still run programs compiled on a 360 on the latest "z" box.

>>

>> I gotta say - that's darn impressive. I'm not aware of anything else that

>> maintains compatibility that long; am I missing anything?

>

> Nope. S/360 in it's various flavors is the only survivor of that era.

Actually, that's not precisely true. The Burroughs B5500 still lives on as the Unisys Clearpath systems, and still supports object files from the 1960s.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Peter Flass](#) on Thu, 09 Sep 2021 19:23:06 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Scott Lurndal <scott@slp53.sl.home> wrote:

> Dan Espen <dan1espen@gmail.com> writes:

>> John Goerzen <jgoerzen@complete.org> writes:

>>

>>> On 2021-09-08, Peter Flass <peter\_flass@yahoo.com> wrote:

>>>> You can still run programs compiled on a 360 on the latest "z" box.

>>>

>>> I gotta say - that's darn impressive. I'm not aware of anything else that

>>> maintains compatibility that long; am I missing anything?

>>

>> Nope. S/360 in it's various flavors is the only survivor of that era.

>

> Actually, that's not precisely true. The Burroughs B5500 still lives on

> as the Unisys Clearpath systems, and still supports object files from

> the 1960s.

>

? I thought that the 5500's successor systems weren't object-compatible with it. I don't know about the degree of compatibility between the 6000s, 7000s, and 8000s. Id be happy to be corrected.



--  
Pete

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Dan Espen](#) on Thu, 09 Sep 2021 19:44:35 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

scott@slp53.sl.home (Scott Lurndal) writes:

> Dan Espen <dan1espen@gmail.com> writes:  
>> John Goerzen <jgoerzen@complete.org> writes:  
>>  
>>> On 2021-09-08, Peter Flass <peter\_flass@yahoo.com> wrote:  
>>>> You can still run programs compiled on a 360 on the latest z box.  
>>>  
>>> I gotta say - that's darn impressive. I'm not aware of anything else that  
>>> maintains compatibility that long; am I missing anything?  
>>  
>> Nope. S/360 in it's various flavors is the only survivor of that era.  
>  
> Actually, that's not precisely true. The Burroughs B5500 still lives on  
> as the Unisys Clearpath systems, and still supports object files from  
> the 1960s.

hmm, I actually have been in contact with some of those systems but had  
no idea they went back as far as 64.

--  
Dan Espen

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [scott](#) on Thu, 09 Sep 2021 21:10:28 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Peter Flass <peter\_flass@yahoo.com> writes:  
> Scott Lurndal <scott@slp53.sl.home> wrote:  
>> Dan Espen <dan1espen@gmail.com> writes:  
>>> John Goerzen <jgoerzen@complete.org> writes:  
>>>  
>>>> On 2021-09-08, Peter Flass <peter\_flass@yahoo.com> wrote:  
>>>> > You can still run programs compiled on a 360 on the latest "z" box.  
>>>>  
>>>> I gotta say - that's darn impressive. I'm not aware of anything else that  
>>>> maintains compatibility that long; am I missing anything?

>>>  
>>> Nope. S/360 in it's various flavors is the only survivor of that era.  
>>  
>> Actually, that's not precisely true. The Burroughs B5500 still lives on  
>> as the Unisys Clearpath systems, and still supports object files from  
>> the 1960s.  
>>  
>  
> ? I thought that the 5500's successor systems weren't object-compatible  
> with it. I don't know about the degree of compatibility between the 6000s,  
> 7000s, and 8000s. Id be happy to be corrected.

There was a step change between the B5500 and the B6500; after than they were binary compatible (e-mode in the early 1980s added support for larger memory, but still ran old codefiles).

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [scott](#) on Thu, 09 Sep 2021 21:14:45 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Dan Espen <dan1espen@gmail.com> writes:  
> scott@slp53.sl.home (Scott Lurndal) writes:  
>  
>> Dan Espen <dan1espen@gmail.com> writes:  
>>> John Goerzen <jgoerzen@complete.org> writes:  
>>>  
>>>> On 2021-09-08, Peter Flass <peter\_flass@yahoo.com> wrote:  
>>>> > You can still run programs compiled on a 360 on the latest z box.  
>>>>  
>>>> I gotta say - that's darn impressive. I'm not aware of anything else that  
>>>> maintains compatibility that long; am I missing anything?  
>>>  
>>> Nope. S/360 in it's various flavors is the only survivor of that era.  
>>  
>> Actually, that's not precisely true. The Burroughs B5500 still lives on  
>> as the Unisys Clearpath systems, and still supports object files from  
>> the 1960s.  
>  
> hmm, I actually have been in contact with some of those systems but had  
> no idea they went back as far as 64.

Here's a video from 1968 on the B6500. I worked at that plant in Pasadena in the 1980s.

<https://www.youtube.com/watch?v=rNBtjEBYFPk>

The family really started with the B5000

<https://www.youtube.com/watch?v=K3q5n1mR9iM>

which was quickly superseded by the B5500:

<https://www.youtube.com/watch?v=KswWJ6zvBUs>

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Dan Espen](#) on Fri, 10 Sep 2021 01:02:24 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

scott@slp53.sl.home (Scott Lurndal) writes:

```
> Peter Flass <peter_flass@yahoo.com> writes:
>> Scott Lurndal <scott@slp53.sl.home> wrote:
>>> Dan Espen <dan1espen@gmail.com> writes:
>>>> John Goerzen <jgoerzen@complete.org> writes:
>>>>
>>>> > On 2021-09-08, Peter Flass <peter_flass@yahoo.com> wrote:
>>>> >> You can still run programs compiled on a 360 on the latest "œz" box.
>>>> >
>>>> > I gotta say - that's darn impressive. I'm not aware of anything else that
>>>> > maintains compatibility that long; am I missing anything?
>>>>
>>>> Nope. S/360 in it's various flavors is the only survivor of that era.
>>>
>>> Actually, that's not precisely true. The Burroughs B5500 still lives on
>>> as the Unisys Clearpath systems, and still supports object files from
>>> the 1960s.
>>>
>>
>> ? I thought that the 5500's successor systems weren't object-compatible
>> with it. I don't know about the degree of compatibility between the 6000s,
>> 7000s, and 8000s. Id be happy to be corrected.
>
> There was a step change between the B5500 and the B6500; after than they
> were binary compatible (e-mode in the early 1980s added support for larger
> memory, but still ran old codefiles).
```

I see a date of 1969 for the B6500.

That gives the title back to S/360.

I had to support a project moving Unisys code to z-Arch.

We had persistent performance issues, the mainframe just couldn't deal with loading lots of small programs while the app was running.

I see Unisys is naturally reentrant. That probably had a lot to do with the problems we were having.

--  
Dan Espen

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [John Levine](#) on Fri, 10 Sep 2021 01:35:34 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

According to Thomas Koenig <tkoenig@netcologne.de>:  
>> A brand new Z can emulate the 370/145. So can my Raspberry Pi if I  
>> don't expect any performance.  
>  
> Surely, a higher performance than the original? ...

CPU speed, sure, but the point of a mainframe is that it has high performance peripherals. A /145 could have up to four channels and could attach several dozen disk drives.

These days one SSD holds more data than two dozen 2314 disks, but I wouldn't think a Pi has particularly high I/O bandwidth.

--  
Regards,  
John Levine, johnl@taugh.com, Primary Perpetrator of "The Internet for Dummies",  
Please consider the environment before reading this e-mail. <https://jl.ly>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [scott](#) on Fri, 10 Sep 2021 03:19:55 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Dan Espen <dan1espen@gmail.com> writes:  
> scott@slp53.sl.home (Scott Lurndal) writes:  
>  
>> Peter Flass <peter\_flass@yahoo.com> writes:  
>>> Scott Lurndal <scott@slp53.sl.home> wrote:  
>>>> Dan Espen <dan1espen@gmail.com> writes:  
>>>> > John Goerzen <jgoerzen@complete.org> writes:  
>>>> >  
>>>> >> On 2021-09-08, Peter Flass <peter\_flass@yahoo.com> wrote:  
>>>> >>> You can still run programs compiled on a 360 on the latest "œzâ€ box.  
>>>> >>  
>>>> >> I gotta say - that's darn impressive. I'm not aware of anything else that  
>>>> >> maintains compatibility that long; am I missing anything?  
>>>> >  
>>>> > Nope. S/360 in it's various flavors is the only survivor of that era.

>>>>  
>>>> Actually, that's not precisely true. The Burroughs B5500 still lives on  
>>>> as the Unisys Clearpath systems, and still supports object files from  
>>>> the 1960s.  
>>>>  
>>>  
>>> ? I thought that the 5500's successor systems weren't object-compatible  
>>> with it. I don't know about the degree of compatibility between the 6000s,  
>>> 7000s, and 8000s. I'd be happy to be corrected.  
>>  
>> There was a step change between the B5500 and the B6500; after that they  
>> were binary compatible (e-mode in the early 1980s added support for larger  
>> memory, but still ran old codefiles).  
>  
> I see a date of 1969 for the B6500.  
> That gives the title back to S/360.

I wouldn't be surprised to find that B5000 applications ran on the B6500 - Burroughs was good about backwards compatibility - as shown by the B3500 line which ran the original binaries through end of life (last system powered off in 2010 so far as I'm aware - 45 year run).

Someone pointed to this, which talks about the Pasadena plant and the development of the B5000 line. I hadn't realized that Cliff Berry had any connection to Burroughs when I was working there; one of my school's most famous Alumni.

<http://www.digim.com/UNITE/2019/2019-Origins-Burroughs-Algol.pdf>

>  
> I had to support a project moving Unisys code to z-Arch.  
> We had persistent performance issues, the mainframe just couldn't deal  
> with loading lots of small programs while the app was running.

The Burroughs systems were all designed to be very easy to use and to program.

> I see Unisys is naturally reentrant. That probably had a lot to do with  
> the problems we were having.

Yes, it was quite advanced for the day. The capability model that Burroughs invented with the large systems line is being investigated for new processor architectures today, see for example CHERI.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Fri, 10 Sep 2021 03:52:21 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Fri, 10 Sep 2021 01:35:34 -0000 (UTC), John Levine  
<johnl@taugh.com> wrote:

> According to Thomas Koenig <tkoenig@netcologne.de>:  
>>> A brand new Z can emulate the 370/145. So can my Raspberry Pi if I  
>>> don't expect any performance.  
>>  
>> Surely, a higher performance than the original? ...

No. The pi is painfully slow running the emulator.

> CPU speed, sure, but the point of a mainframe is that it has high performance  
> peripherals. A /145 could have up to four channels and could attach several  
> dozen disk drives.  
>  
> These days one SSD holds more data than two dozen 2314 disks, but I wouldn't  
> think a Pi has particularly high I/O bandwidth.

It's I/O is a USB port, Gigabit, and wifi. It can also implement I/O  
with a USART but that's very limited bandwidth.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anne & Lynn Wheel](#) on Fri, 10 Sep 2021 03:56:21 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

John Levine <johnl@taugh.com> writes:

> CPU speed, sure, but the point of a mainframe is that it has high performance  
> peripherals. A /145 could have up to four channels and could attach several  
> dozen disk drives.  
>  
> These days one SSD holds more data than two dozen 2314 disks, but I wouldn't  
> think a Pi has particularly high I/O bandwidth.

raspberry Pi 4 specs and benchmarks (2 yrs ago)

<https://magpi.raspberrypi.org/articles/raspberry-pi-4-specs-benchmarks>

SoC: Broadcom BCM2711B0 quad-core A72 (ARMv8-A) 64-bit @ 1.5GHz

GPU: Broadcom VideoCore VI

Networking: 2.4GHz and 5GHz 802.11b/g/n/ac wireless LAN

RAM: 1GB, 2GB, or 4GB LPDDR4 SDRAM

Bluetooth: Bluetooth 5.0, Bluetooth Low Energy (BLE)

GPIO: 40-pin GPIO header, populated

Storage: microSD

Ports: 2x micro-HDMI 2.0, 3.5mm analogue audio-video jack, 2x USB 2.0,  
2x USB 3.0, Gigabit Ethernet, Camera Serial Interface (CSI), Display Serial Interface (DSI)

Dimensions: 88mm x 58mm x 19.5mm, 46g

linpack mips 925MIPS, 748MIPS, 2037MIPS

memory bandwidth (1MB blocks r&w) 4129/sec, 4427/sec

USB storage thruput (megabytes/sec r&w) 353mbytes/sec, 323mbytes/sec

more details

[https://en.wikipedia.org/wiki/Raspberry\\_Pi](https://en.wikipedia.org/wiki/Raspberry_Pi)

best picks Pi microSD cards (32gbytes)

<https://www.tomshardware.com/best-picks/raspberry-pi-microsd-cards>

===

by comparison, 145 would be .3MIPS and 512kbyte memory,

2314 capacity 29mbytes ... need 34 2314s/gbyte or 340 2314s for  
10gbytes

[https://www.ibm.com/ibm/history/exhibits/storage/storage\\_2314.html](https://www.ibm.com/ibm/history/exhibits/storage/storage_2314.html)

2314 disk rate 312kbytes/sec ... ignoring channel program overhead, disk  
access, etc, assuming that all four 145 channels would continuously be doing  
disk i/o transfer at sustained 312kbytes/sec ... that is theoretical  
1.2mbytes/sec

trivia: after transferring to San Jose Research (bldg28), I got roped  
into playing disk engineer part time (across the street in  
bldg14&15). The 3830 controller for 3330 & 3350 disk drives was replaced  
with 3880 controller for 3380 disk drives. While 3880 had special  
hardware data path for handling 3380 3mbyte/sec transfer ... it had a  
microprocessor that was significantly slower than 3830 for everything  
else ... which drastically drove up channel busy overhead ... especially  
for the channel program chatter latency between processor and  
controller.

The 3090 folks had configured number of channels, assuming the 3880  
would be similar to 3830 but handling 3mbyte data transfer ... when they  
found out how bad the 3880 channel busy really was ... they realized  
they would have to drastically increase the number of channels. The  
channel number increase required an extra (very expensive) TCM (there  
were jokes that the 3090 office was going to charge the 3880 office for  
the increase in 3090 manufacturing cost). Eventually marketing respun  
big increase in number of channels (to handle the half-duplex chatter  
channel busy overhead) as how great all the 3090 channels were.

Other triva: in 1980, IBM STL (lab) was bursting at the seams and they



were moving 300 people from the IMS DBMS development group to and offsite bldg with dataprocessing back to STL datacenter. The group had tried "remote" 3270 terminal support and found the human factors totally unacceptable. I get con'ed into doing channel-extender support so they can put local channel connected 3270 controllers at the offsite bldg (with no perceived difference in human factors offsite and in STL).

The hardware vendor tries to get IBM to release my support, but there were some people in POK playing with some serial stuff that get it vetoed (they were worried that if it was in the market, it would harder to justify releasing their stuff). Then in 1988, I'm asked to help LLNL standardize some serial stuff they are laying with ... which quickly becomes fibre channel standard (including some stuff I had done in 1980), initially 1gbit (100mbyte) full-duplex (2gbit, aka 200mbyte, aggregate)

In 1990, the POK people get their stuff released with ES/9000 as ESCON (when it is already obsolete, around 17mbyte aggregate). Later some of the POK people start playing with fibre channel standard and define a heavy weight protocol that drastically cuts the native throughput which is finally releaseed as FICON.

The latest published benchmarks I can find is "peak I/O" for z196 that used 104 FICON (running over 104 fibre channel) to get 2M IOPS. About the same time there was a fibre channel announced for E5-2600 blade claiming over million IOPS, two such fibre channel getting higher (native) throughput than 104 FICON running over 104 fibre channel).

--

virtualization experience starting Jan1968, online at home since Mar1970

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Fri, 10 Sep 2021 05:17:11 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Thu, 09 Sep 2021 17:56:21 -1000, Anne & Lynn Wheeler  
<lynn@garlic.com> wrote:

> John Levine <johnl@taugh.com> writes:

>> CPU speed, sure, but the point of a mainframe is that it has high performance  
>> peripherals. A /145 could have up to four channels and could attach several  
>> dozen disk drives.

>>

>> These days one SSD holds more data than two dozen 2314 disks, but I wouldn't  
>> think a Pi has particularly high I/O bandwidth.



>

- > raspberry Pi 4 specs and benchmarks (2 yrs ago)
- > <https://magpi.raspberrypi.org/articles/raspberry-pi-4-specs-benchmarks>
- >
- > SoC: Broadcom BCM2711B0 quad-core A72 (ARMv8-A) 64-bit @ 1.5GHz
- > GPU: Broadcom VideoCore VI
- > Networking: 2.4GHz and 5GHz 802.11b/g/n/ac wireless LAN
- > RAM: 1GB, 2GB, or 4GB LPDDR4 SDRAM
- > Bluetooth: Bluetooth 5.0, Bluetooth Low Energy (BLE)
- > GPIO: 40-pin GPIO header, populated
- > Storage: microSD
- > Ports: 2x micro-HDMI 2.0, 3.5mm analogue audio-video jack, 2x USB 2.0,
- > 2x USB 3.0, Gigabit Ethernet, Camera Serial Interface (CSI), Display Serial Interface (DSI)
- > Dimensions: 88mm x 58mm x 19.5mm, 46g
- >
- > linpack mips 925MIPS, 748MIPS, 2037MIPS
- > memory bandwidth (1MB blocks r&w) 4129/sec, 4427/sec
- > USB storage thruput (megabytes/sec r&w) 353mbytes/sec, 323mbytes/sec
- >
- > more details
- > [https://en.wikipedia.org/wiki/Raspberry\\_Pi](https://en.wikipedia.org/wiki/Raspberry_Pi)
- > best picks Pi microSD cards (32gbytes)
- > <https://www.tomshardware.com/best-picks/raspberry-pi-microsd-cards>
- >
- > ===
- >
- > by comparison, 145 would be .3MIPS and 512kbyte memory,
- >
- > 2314 capacity 29mbytes ... need 34 2314s/gbyte or 340 2314s for
- > 10gbytes
- > [https://www.ibm.com/ibm/history/exhibits/storage/storage\\_2314.html](https://www.ibm.com/ibm/history/exhibits/storage/storage_2314.html)
- > 2314 disk rate 312kbytes/sec ... ignoring channel program overhead, disk
- > access, etc, assuming that all four 145 channels would continuously be doing
- > disk i/o transfer at sustained 312kbytes/sec ... that is theoretical
- > 1.2mbytes/sec
- >
- > trivia: after transferring to San Jose Research (bldg28), I got roped
- > into playing disk engineer part time (across the street in
- > bldg14&15). The 3830 controller for 3330 & 3350 disk drives was replaced
- > with 3880 controller for 3380 disk drives. While 3880 had special
- > hardware data path for handling 3380 3mbyte/sec transfer ... it had a
- > microprocessor that was significantly slower than 3830 for everything
- > else ... which drastically drove up channel busy overhead ... especially
- > for the channel program chatter latency between processor and
- > controller.
- >
- > The 3090 folks had configured number of channels, assuming the 3880
- > would be similar to 3830 but handling 3mbyte data transfer ... when they

> found out how bad the 3880 channel busy really was ... they realized  
> they would have to drastically increase the number of channels. The  
> channel number increase required an extra (very expensive) TCM (there  
> were jokes that the 3090 office was going to charge the 3880 office for  
> the increase in 3090 manufacturing cost). Eventually marketing respon  
> big increase in number of channels (to handle the half-duplex chatter  
> channel busy overhead) as how great all the 3090 channels were.  
>  
> Other trivia: in 1980, IBM STL (lab) was bursting at the seams and they  
> were moving 300 people from the IMS DBMS development group to and  
> offsite bldg with dataprocessing back to STL datacenter. The group had  
> tried "remote" 3270 terminal support and found the human factors totally  
> unacceptable. I get con'ed into doing channel-extender support so they  
> can put local channel connected 3270 controllers at the offsite bldg  
> (with no perceived difference in human factors offsite and in STL).  
>  
> The hardware vendor tries to get IBM to release my support, but there  
> were some people in POK playing with some serial stuff that get it  
> vetoed (they were worried that if it was in the market, it would harder  
> to justify releasing their stuff). Then in 1988, I'm asked to help LLNL  
> standardize some serial stuff they are laying with ... which quickly  
> becomes fibre channel standard (including some stuff I had done in  
> 1980), initially 1gbit (100mbyte) full-duplex (2gbit, aka 200mbyte,  
> aggregate)  
>  
> In 1990, the POK people get their stuff released with ES/9000 as ESCON  
> (when it is already obsolete, around 17mbyte aggregate). Later some of  
> the POK people start playing with fibre channel standard and define a  
> heavy weight protocol that drastically cuts the native throughput which  
> is finally releaseed as FICON.  
>  
> The latest published benchmarks I can find is "peak I/O" for z196 that  
> used 104 FICON (running over 104 fibre channel) to get 2M IOPS. About  
> the same time there was a fibre channel announced for E5-2600 blade  
> claiming over million IOPS, two such fibre channel getting higher  
> (native) throughput than 104 FICON running over 104 fibre channel).

I supposed I could compile Linpack under Z/OS on the pi and see what  
it actually does. I'm not that ambitious though. Native on the pi  
doesn't count.

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Fri, 10 Sep 2021 15:54:10 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Thomas Koenig

John Levine <johnl@taugh.com> schrieb:

> According to Thomas Koenig <tkoenig@netcologne.de>:

>>> A brand new Z can emulate the 370/145. So can my Raspberry Pi if I

>>> don't expect any performance.

>>

>> Surely, a higher performance than the original? ...

>

> CPU speed, sure, but the point of a mainframe is that it has high performance

> peripherals. A /145 could have up to four channels and could attach several

> dozen disk drives.

The "Functional characteristics" document from 1972 from Bitsavers gives a maximum rate per channel of 1.85 MB per second with a word buffer installed, plus somewhat lower figures for four channels for a total of 5.29 MB/s (which would be optimum).

> These days one SSD holds more data than two dozen 2314 disks, but I wouldn't  
> think a Pi has particularly high I/O bandwidth.

A single USB2 port can do around 53 MB/s theoretical maximum, a factor of approximately 10 vs. the 370/145. I didn't look up the speed of the Pi's SSD.

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Fri, 10 Sep 2021 15:57:39 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Thomas Koenig

J Clarke <jclarke.873638@gmail.com> schrieb:

> On Fri, 10 Sep 2021 01:35:34 -0000 (UTC), John Levine

> <johnl@taugh.com> wrote:

>

>> According to Thomas Koenig <tkoenig@netcologne.de>:

>>>> A brand new Z can emulate the 370/145. So can my Raspberry Pi if I

>>>> don't expect any performance.

>>>

>>> Surely, a higher performance than the original? ...

>

> No. The pi is painfully slow running the emulator.

Slower than the original? How many cycles per S/360 instruction does it take? If it was really slower than the original, it would have to be more than 100 cycles per instruction. I find that hard to believe.

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anne & Lynn Wheel](#) on Fri, 10 Sep 2021 16:49:57 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Thomas Koenig <[tkoenig@netcologne.de](mailto:tkoenig@netcologne.de)> writes:

> Slower than the original? How many cycles per S/360 instruction does  
> it take? If it was really slower than the original, it would have  
> to be more than 100 cycles per instruction. I find that hard to  
> believe.

Endicott cons me into helping do ECPS for 138/148. I was told that low/mid 370, 115-148 avg ten native instructions per 370 emulated instructions (i.e. 80kips 370/115 had 800kips engine, 120kips 370/125 had 1.2mips engine, etc) and the 138/148 had 6kbytes of available microcode storage. I was to identify the 6k bytes highest executed kernel instructions for moving to microcode (on roughlyly byte-for-byte basis). old archived post with the analysis  
<http://www.garlic.com/~lynn/94.html#21>

6kbytes of kernel instructions pathlength accounted for 79.55% of kernel execution time ... dropped directly into microcode would run 10times faster. Also implemented for later 4331/4341.

In the early 80s I got permission to give howto ECPS presentations at local user group (silicon valley) monthly baybunch meetings and would get lots of questions from the Amdahl people.

They would say that IBM had started doing lots of trivial microcode implementations for the 3033 which would be required for MVS to run. Amdahl eventually responded with "macrocode" ... effectively 370-like instruction set that ran in microcode mode ... where Amdahl could implement the 3033 microcodes changes much easier with much less effort.

Note the low/mid range 370s had vertical instruction microcode processors (i.e. programming like cics/risc processors). high-end 370 had horizontal microcode and typically expressed in the avg. number of machine cycles per 370 instruction. The 370/165 ran 2.1 machine cycles per 370 instruction. That was optimized for 370/168 to 1.6 machine cycles per 370 instruction. The 3033 started out as 168-3 logic remapped to 20% faster chips and the microcode was further optimized to one machine cycle per 370 instruction. It was claimed that all those 3033 microcode tweaks ran same speed as 370 (and some cases slower).

Amdahl was then using macrocode to implement hypervisor support ... subset of virtual machines support w/o needing vm370 ... which took IBM several years to respond with PR/SM and LPAR in native horizontal microcode (well after 3081 and well into 3090 product life).

some years later after retiring from IBM ... I was doing some stuff with  
<http://www.funsoft.com/>

and their experience with emulating 370, avg. ten instructions per 370  
was about the same as low&mid range 370s ... although they had some  
other tweaks that could dynamically translate high-use instruction paths  
directly into native code on-the-fly (getting 10:1 improvement).

I believe hercules is somewhat similar  
[https://en.wikipedia.org/wiki/Hercules\\_\(emulator\)](https://en.wikipedia.org/wiki/Hercules_(emulator))

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

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Andreas Kohlbach](#) on Fri, 10 Sep 2021 16:51:24 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Fri, 10 Sep 2021 15:57:39 -0000 (UTC), Thomas Koenig wrote:

>  
> J Clarke <jclarke.873638@gmail.com> schrieb:  
>> On Fri, 10 Sep 2021 01:35:34 -0000 (UTC), John Levine  
>> <johnl@taugh.com> wrote:  
>>  
>>> According to Thomas Koenig <tkoenig@netcologne.de>:  
>>>> > A brand new Z can emulate the 370/145. So can my Raspberry Pi if I  
>>>> > don't expect any performance.  
>>>>  
>>>> Surely, a higher performance than the original? ...  
>>  
>> No. The pi is painfully slow running the emulator.  
>  
> Slower than the original? How many cycles per S/360 instruction does  
> it take? If it was really slower than the original, it would have  
> to be more than 100 cycles per instruction. I find that hard to  
> believe.

Having the issue here with an (aged) AMD PC. It's since years (software  
bloat over the years I assume) no longer able to emulate a Commodore 64  
with full speed (around 1 MHz for the 6510 CPU), while the host is  
supposed to run at 780 MHz (according to /proc/cpuinfo here in Linux), so  
780 times faster. Yeas ago it was able to emulate the C64 at its max  
speed, while I could run other tasks on the host at the same time.

--  
Andreas

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [scott](#) on Fri, 10 Sep 2021 20:45:40 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Thomas Koenig <[tkoenig@netcologne.de](mailto:tkoenig@netcologne.de)> writes:

> John Levine <[johnl@taugh.com](mailto:johnl@taugh.com)> schrieb:

>> According to Thomas Koenig <[tkoenig@netcologne.de](mailto:tkoenig@netcologne.de)>:

>>>> A brand new Z can emulate the 370/145. So can my Raspberry Pi if I

>>>> don't expect any performance.

>>>

>>> Surely, a higher performance than the original? ...

>>

>> CPU speed, sure, but the point of a mainframe is that it has high performance

>> peripherals. A /145 could have up to four channels and could attach several

>> dozen disk drives.

>

> The "Functional characteristics" document from 1972 from Bitsavers

> gives a maximum rate per channel of 1.85 MB per second with a

> word buffer installed, plus somewhat lower figures for four channels

> for a total of 5.29 MB/s (which would be optimum).

But it is unlikely that a single drive was dense enough to drive anywhere near that rate. Regardless of the channel speed, the drive is limited by how fast it can get the data off the platter.

Burroughs disk channels had similar transfer rates and supported multiple independently seeking drives on a single channel (up to 16) to use the available bandwidth. The I/O controller on the B4900 was rated at 8MB/sec across 32 channels.

USB3.0 on a raspberry pi crushes that by orders of magnitude.

>

>> These days one SSD holds more data than two dozen 2314 disks, but I wouldn't

>> think a Pi has particularly high I/O bandwidth.

>

> A single USB2 port can do around 53 MB/s theoretical maximum, a factor

> of approximately 10 vs. the 370/145. I didn't look up the speed

> of the Pi's SSD.

The fastest NVME SSDs can read three GByte/second and write one Gbyte/second.

The fastest USB SSDs are limited to 600MByte/sec, but few can reach that speed.

As NVME simply requires a PCI express port, which is available on many raspberry pi boards, the max I/O speed for a pi is the speed of a single PCI Express Gen 3 (1GByte/s) or Gen 4 (2Gbytes/s) lane depending on the pi. Might even see Gen 5 in the next couple of years (4Gbytes/sec) in future Pi processors.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [John Levine](#) on Fri, 10 Sep 2021 22:03:48 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

According to Scott Lurndal <slp53@pacbell.net>:

>> The "Functional characteristics" document from 1972 from Bitsavers  
>> gives a maximum rate per channel of 1.85 MB per second with a  
>> word buffer installed, plus somewhat lower figures for four channels  
>> for a total of 5.29 MB/s (which would be optimum).

>

> But it is unlikely that a single drive was dense enough to drive  
> anywhere near that rate. Regardless of the channel speed, the  
> drive is limited by how fast it can get the data off the platter.

That's why there were four channels. Each channel can have a disk transfer going. An IBM web page said a 2314 could transfer 312L bytes per second so the fastest burst speed would be four times that, say 1.2M bytes/sec.

I'd think later on people would be more likely to use 3330 or 3340 disks, which were 800K bytes/sec so say total data rate of 3.2MB/sec.

> USB3.0 on a raspberry pi crushes that by orders of magnitude.

Yeah, I would think so. No seek time on your SSD either.

--

Regards,

John Levine, johnl@taugh.com, Primary Perpetrator of "The Internet for Dummies",  
Please consider the environment before reading this e-mail. <https://jl.ly>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Peter Flass](#) on Sat, 11 Sep 2021 01:40:58 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Scott Lurndal <scott@slp53.sl.home> wrote:

> Dan Espen <dan1espen@gmail.com> writes:

>> scott@slp53.sl.home (Scott Lurndal) writes:

>>

>>> Dan Espen <dan1espen@gmail.com> writes:

>>>> John Goerzen <jgoerzen@complete.org> writes:

>>>>

>>>> > On 2021-09-08, Peter Flass <peter\_flass@yahoo.com> wrote:

>>>> >> You can still run programs compiled on a 360 on the latest z box.

>>>> >

>>>> > I gotta say - that's darn impressive. I'm not aware of anything else that

>>>> > maintains compatibility that long; am I missing anything?



>>>>  
>>>> Nope. S/360 in it's various flavors is the only survivor of that era.  
>>>  
>>> Actually, that's not precisely true. The Burroughs B5500 still lives on  
>>> as the Unisys Clearpath systems, and still supports object files from  
>>> the 1960s.  
>>  
>> hmm, I actually have been in contact with some of those systems but had  
>> no idea they went back as far as 64.  
>  
> Here's a video from 1968 on the B6500. I worked at that plant in Pasadena  
> in the 1980s.  
>  
> <https://www.youtube.com/watch?v=rNBtjEBYFPk>

White shirts and ties, sideburns, and cigarettes in the office.

>  
> The family really started with the B5000  
>  
> <https://www.youtube.com/watch?v=K3q5n1mR9iM>  
>  
> which was quickly superceded by the B5500:  
>  
> <https://www.youtube.com/watch?v=KswWJ6zvBUs>  
>

--  
Pete

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Peter Flass](#) on Sat, 11 Sep 2021 01:40:59 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Dan Espen <[dan1espen@gmail.com](mailto:dan1espen@gmail.com)> wrote:  
> [scott@slp53.sl.home](mailto:scott@slp53.sl.home) (Scott Lurndal) writes:  
>  
>> Peter Flass <[peter\\_flass@yahoo.com](mailto:peter_flass@yahoo.com)> writes:  
>>> Scott Lurndal <[scott@slp53.sl.home](mailto:scott@slp53.sl.home)> wrote:  
>>>> Dan Espen <[dan1espen@gmail.com](mailto:dan1espen@gmail.com)> writes:  
>>>> > John Goerzen <[jgoerzen@complete.org](mailto:jgoerzen@complete.org)> writes:  
>>>> >  
>>>> >> On 2021-09-08, Peter Flass <[peter\\_flass@yahoo.com](mailto:peter_flass@yahoo.com)> wrote:  
>>>> >>> You can still run programs compiled on a 360 on the latest æœzæ box.



```

>>>> >>
>>>> >> I gotta say - that's darn impressive. I'm not aware of anything else that
>>>> >> maintains compatibility that long; am I missing anything?
>>>> >
>>>> > Nope. S/360 in it's various flavors is the only survivor of that era.
>>>>
>>>> Actually, that's not precisely true. The Burroughs B5500 still lives on
>>>> as the Unisys Clearpath systems, and still supports object files from
>>>> the 1960s.
>>>>
>>>
>>> ? I thought that the 5500's successor systems weren't object-compatible
>>> with it. I don't know about the degree of compatibility between the 6000s,
>>> 7000s, and 8000s. I'd be happy to be corrected.
>>>
>>
>> There was a step change between the B5500 and the B6500; after than they
>> were binary compatible (e-mode in the early 1980s added support for larger
>> memory, but still ran old codefiles).
>
> I see a date of 1969 for the B6500.
> That gives the title back to S/360.
>
> I had to support a project moving Unisys code to z-Arch.
> We had persistent performance issues, the mainframe just couldn't deal
> with loading lots of small programs while the app was running.
> I see Unisys is naturally reentrant. That probably had a lot to do with
> the problems we were having.
>

```

You could have reentrant programs on S/360, too, but they had to be coded as reentrant. I believe all HLLs would generate reentrant code, unless you deliberately wrote them to be otherwise. There were lots of tuning techniques you could use to optimize the "lots of small programs," too, but they weren't automatic. That is what CICS is really good at. I thought UNIVAC TIP would be a dog compared to CICS, because it did just run lots of small programs.

--

Pete

---

Subject: Re: What is the oldest computer that could be used today for real work?  
 Posted by [Dan Espen](#) on Sat, 11 Sep 2021 02:15:17 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Peter Flass <peter\_flass@yahoo.com> writes:

> Dan Espen <dan1espen@gmail.com> wrote:

```

>> scott@slp53.sl.home (Scott Lurndal) writes:
>>
>>> Peter Flass <peter_flass@yahoo.com> writes:
>>>> Scott Lurndal <scott@slp53.sl.home> wrote:
>>>> > Dan Espen <dan1espen@gmail.com> writes:
>>>> >> John Goerzen <jgoerzen@complete.org> writes:
>>>> >>
>>>> >>> On 2021-09-08, Peter Flass <peter_flass@yahoo.com> wrote:
>>>> >>>> You can still run programs compiled on a 360 on the latest æz box.
>>>> >>>
>>>> >>> I gotta say - that's darn impressive. I'm not aware of anything else that
>>>> >>> maintains compatibility that long; am I missing anything?
>>>> >>
>>>> >> Nope. S/360 in it's various flavors is the only survivor of that era.
>>>> >
>>>> > Actually, that's not precisely true. The Burroughs B5500 still lives on
>>>> > as the Unisys Clearpath systems, and still supports object files from
>>>> > the 1960s.
>>>> >
>>>> >
>>>> ? I thought that the 5500's successor systems weren't object-compatible
>>>> with it. I don't know about the degree of compatibility between the 6000s,
>>>> 7000s, and 8000s. Id be happy to be corrected.
>>>
>>> There was a step change between the B5500 and the B6500; after than they
>>> were binary compatible (e-mode in the early 1980s added support for larger
>>> memory, but still ran old codefiles).
>>
>> I see a date of 1969 for the B6500.
>> That gives the title back to S/360.
>>
>> I had to support a project moving Unisys code to z-Arch.
>> We had persistent performance issues, the mainframe just couldn't deal
>> with loading lots of small programs while the app was running.
>> I see Unisys is naturally reentrant. That probably had a lot to do with
>> the problems we were having.
>
> You could have reentrant programs on S/360, too, but they had to be coded
> as reentrant. I believe all HLLs would generate reentrant code, unless you
> deliberately wrote them to be otherwise. There were lots of tuning
> techniques you could use to optimize the "lots of small programs," too, but
> they weren't automatic. That is what CICS is really good at. I thought
> UNIVAC TIP would be a dog compared to CICS, because it did just run lots
> of small programs.

```

This was a C project and the Unisys code invoked lots of mains.  
The IBM LE code to establish reentrancy (mainly building the WSA)  
was a major player in the slowness. I'm guessing that Unisys

had more efficient ways of establishing reentrancy.

--

Dan Espen

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Sat, 11 Sep 2021 06:42:00 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: maus

On 2021-09-10, Scott Lurndal <[scott@slp53.sl.home](mailto:scott@slp53.sl.home)> wrote:

> Thomas Koenig <[tkoenig@netcologne.de](mailto:tkoenig@netcologne.de)> writes:

>> John Levine <[johnl@taugh.com](mailto:johnl@taugh.com)> schrieb:

>>> According to Thomas Koenig <[tkoenig@netcologne.de](mailto:tkoenig@netcologne.de)>:

>>>> > A brand new Z can emulate the 370/145. So can my Raspberry Pi if I

>>>> > don't expect any performance.

>>>>

>>>> Surely, a higher performance than the original? ...

>>>>

>>> CPU speed, sure, but the point of a mainframe is that it has high performance

>>> peripherals. A /145 could have up to four channels and could attach several

>>> dozen disk drives.

>>

>> The "Functional characteristics" document from 1972 from Bitsavers

>> gives a maximum rate per channel of 1.85 MB per second with a

>> word buffer installed, plus somewhat lower figures for four channels

>> for a total of 5.29 MB/s (which would be optimum).

>

> But it is unlikely that a single drive was dense enough to drive

> anywhere near that rate. Regardless of the channel speed, the

> drive is limited by how fast it can get the data off the platter.

>

>

> The fastest NVME SSDs can read three GByte/second and write one Gbyte/second.

>

> The fastest USB SSDs are limited to 600MByte/sec, but few can reach that speed.

>

> As NVME simply requires a PCI express port, which is available on many raspberry

> pi boards, the max I/O speed for a pi is the speed of a single PCI Express Gen 3

> (1GByte/s) or Gen 4 (2Gbytes/s) lane depending on the pi. Might even see

> Gen 5 in the next couple of years (4Gbytes/sec) in future Pi processors.

I have several Pi's, and only in the last have I found what I think is a grievous error, installed heat sinks, turned it on. After a few minutes I noticed a searing pain where my hand was leaning on one of

the heat sinks.

greymausg@mail.com

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sat, 11 Sep 2021 07:34:58 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Thomas Koenig

Andreas Kohlbach <ank@spamfence.net> schrieb:

> On Fri, 10 Sep 2021 15:57:39 -0000 (UTC), Thomas Koenig wrote:

>>

>> J Clarke <jclarke.873638@gmail.com> schrieb:

>>> On Fri, 10 Sep 2021 01:35:34 -0000 (UTC), John Levine

>>> <johnl@taugh.com> wrote:

>>>>

>>>> According to Thomas Koenig <tkoenig@netcologne.de>:

>>>> >> A brand new Z can emulate the 370/145. So can my Raspberry Pi if I

>>>> >> don't expect any performance.

>>>> >

>>>> > Surely, a higher performance than the original? ...

>>>>

>>> No. The pi is painfully slow running the emulator.

>>

>> Slower than the original? How many cycles per S/360 instruction does

>> it take? If it was really slower than the original, it would have

>> to be more than 100 cycles per instruction. I find that hard to

>> believe.

>

> Having the issue here with an (aged) AMD PC. It's since years (software

> bloat over the years I assume) no longer able to emulate a Commodore 64

> with full speed (around 1 MHz for the 6510 CPU), while the host is

> supposed to run at 780 MHz (according to /proc/cpuinfo here in Linux), so

> 780 times faster.

That is a bit different. An emulator for a whole C-64 including graphics and sound has to do much more work than an emulator for a 370/145 which did computation and I/O.

> Yeas ago it was able to emulate the C64 at its max

> speed, while I could run other tasks on the host at the same time.

"Other tasks" including running a browser?

I agree that modern software, also for Linux, has become incredibly bloated. IIRC, the first Linux I ran at home was Slackware

0.99-something on a 486 with 4 MB running a simple window manager and xterm. It wasn't as nice as the HP workstations I used at the university, but it ran well enough.

Now... not a chance of getting things going with that setup.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sat, 11 Sep 2021 07:36:50 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Thomas Koenig

Peter Flass <peter\_flass@yahoo.com> schrieb:

> You could have reentrant programs on S/360, too, but they had to be coded  
> as reentrant. I believe all HLLs would generate reentrant code, unless you  
> deliberately wrote them to be otherwise.

Fortran was not reentrant (at least not by default), it used the standard OS/360 linkage convention.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sat, 11 Sep 2021 11:36:40 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Thomas Koenig

Peter Flass <peter\_flass@yahoo.com> schrieb:

> Scott Lurndal <scott@slp53.sl.home> wrote:  
>> Dan Espen <dan1espen@gmail.com> writes:  
>>> scott@slp53.sl.home (Scott Lurndal) writes:  
>>>>  
>>>> Dan Espen <dan1espen@gmail.com> writes:  
>>>> > John Goerzen <jgoerzen@complete.org> writes:  
>>>> >  
>>>> >> On 2021-09-08, Peter Flass <peter\_flass@yahoo.com> wrote:  
>>>> >>> You can still run programs compiled on a 360 on the latest z box.  
>>>> >>  
>>>> >> I gotta say - that's darn impressive. I'm not aware of anything else that  
>>>> >> maintains compatibility that long; am I missing anything?  
>>>> >  
>>>> > Nope. S/360 in it's various flavors is the only survivor of that era.  
>>>>  
>>>> Actually, that's not precisely true. The Burroughs B5500 still lives on  
>>>> as the Unisys Clearpath systems, and still supports object files from

>>>> the 1960s.  
>>>  
>>> hmm, I actually have been in contact with some of those systems but had  
>>> no idea they went back as far as 64.  
>>  
>> Here's a video from 1968 on the B6500. I worked at that plant in Pasadena  
>> in the 1980s.  
>>  
>> <https://www.youtube.com/watch?v=rNBtjEBYFPk>  
>  
> White shirts and ties, sideburns, and cigarettes in the office.

I have a similar video from the early 1970s about a building I came  
to work in a few decades earlier. Same style.

Unfortunately, I do not think I can share it, there are probably  
all sorts of legal obstacles, such as the personality rights of  
the persons who are shown working in it.

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Sat, 11 Sep 2021 12:55:54 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On 11 Sep 2021 06:42:00 GMT, maus <[maus@dmaus.org](mailto:maus@dmaus.org)> wrote:

> On 2021-09-10, Scott Lurndal <[scott@slp53.sl.home](mailto:scott@slp53.sl.home)> wrote:  
>> Thomas Koenig <[tkoenig@netcologne.de](mailto:tkoenig@netcologne.de)> writes:  
>>> John Levine <[johnl@taugh.com](mailto:johnl@taugh.com)> schrieb:  
>>>> According to Thomas Koenig <[tkoenig@netcologne.de](mailto:tkoenig@netcologne.de)>:  
>>>> >> A brand new Z can emulate the 370/145. So can my Raspberry Pi if I  
>>>> >> don't expect any performance.  
>>>> >  
>>>> >Surely, a higher performance than the original? ...  
>>>>  
>>>> CPU speed, sure, but the point of a mainframe is that it has high performance  
>>>> peripherals. A /145 could have up to four channels and could attach several  
>>>> dozen disk drives.  
>>>>  
>>> The "Functional characteristics" document from 1972 from Bitsavers  
>>> gives a maximum rate per channel of 1.85 MB per second with a  
>>> word buffer installed, plus somewhat lower figures for four channels  
>>> for a total of 5.29 MB/s (which would be optimum).  
>>  
>> But it is unlikely that a single drive was dense enough to drive  
>> anywhere near that rate. Regardless of the channel speed, the

>> drive is limited by how fast it can get the data off the platter.  
>>  
>>  
>> The fastest NVME SSDs can read three GByte/second and write one Gbyte/second.  
>>  
>> The fastest USB SSDs are limited to 600MByte/sec, but few can reach that speed.  
>>  
>> As NVME simply requires a PCI express port, which is available on many raspberry  
>> pi boards, the max I/O speed for a pi is the speed of a single PCI Express Gen 3  
>> (1GByte/s) or Gen 4 (2Gbytes/s) lane depending on the pi. Might even see  
>> Gen 5 in the next couple of years (4Gbytes/sec) in future Pi processors.  
>  
>  
> I have several Pi's, and only in the last have I found what I think is  
> a grievous error, installed heat sinks, turned it on. After a few  
> minutes I noticed a searing pain where my hand was leaning on one of  
> the heat sinks.  
>  
> greymausg@mail.com

I think this is mostly moot. A maxed out 360 would have under a gig  
of DASD. On a pi 4 with 4 or 8 gig of RAM there's enough to buffer  
the entire system, so our emulated 360, DASD and all, would be running  
mostly RAM resident.

I think we forget how \_immense\_ the capacity of even a good \_watch\_ is  
by '60s standards.

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [scott](#) on Sat, 11 Sep 2021 15:26:05 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Peter Flass <peter\_flass@yahoo.com> writes:  
> Scott Lurndal <scott@slp53.sl.home> wrote:  
>> Dan Espen <dan1espen@gmail.com> writes:  
>>> scott@slp53.sl.home (Scott Lurndal) writes:  
>>>  
>>>> Dan Espen <dan1espen@gmail.com> writes:  
>>>> > John Goerzen <jgoerzen@complete.org> writes:  
>>>> >  
>>>> >> On 2021-09-08, Peter Flass <peter\_flass@yahoo.com> wrote:  
>>>> >>> You can still run programs compiled on a 360 on the latest z box.  
>>>> >>  
>>>> >> I gotta say - that's darn impressive. I'm not aware of anything else that  
>>>> >> maintains compatibility that long; am I missing anything?  
>>>> >  
>>>> > Nope. S/360 in it's various flavors is the only survivor of that era.



>>>>

>>>> Actually, that's not precisely true. The Burroughs B5500 still lives on  
>>>> as the Unisys Clearpath systems, and still supports object files from  
>>>> the 1960s.

>>>

>>> hmm, I actually have been in contact with some of those systems but had  
>>> no idea they went back as far as 64.

>>

>> Here's a video from 1968 on the B6500. I worked at that plant in Pasadena  
>> in the 1980s.

>>

>> <https://www.youtube.com/watch?v=rNBtjEBYFPk>

>

> White shirts and ties, sideburns, and cigarettes in the office.

It wasn't until 1986 that smoking in the Pasadena Burroughs plant  
was fully banned. I moved into an office in 1985 and I had to scrub  
every surface to remove the nicotine stains and odor.

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Andy Burns](#) on Sat, 11 Sep 2021 19:02:28 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Scott Lurndal wrote:

> As NVME simply requires a PCI express port, which is available on many raspberry  
> pi boards

The latest pi compute module has PCIe and various breakout boards make  
it available as a normal X1 slot, but other than that, I thought to get  
access to PCIe on any other pi required de-soldering the USB chip?

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [scott](#) on Sat, 11 Sep 2021 19:42:40 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Andy Burns <[usenet@andyburns.uk](mailto:usenet@andyburns.uk)> writes:

> Scott Lurndal wrote:

>

>> As NVME simply requires a PCI express port, which is available on many raspberry  
>> pi boards

>

> The latest pi compute module has PCIe and various breakout boards make  
> it available as a normal X1 slot, but other than that, I thought to get  
> access to PCIe on any other pi required de-soldering the USB chip?



Hence "many" instead of "all".

---

---

Subject: Re: reentrant, What is the oldest computer that could be used today for real work?

Posted by [John Levine](#) on Sun, 12 Sep 2021 00:02:22 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

According to Thomas Koenig <tkoenig@netcologne.de>:

>> You could have reentrant programs on S/360, too, but they had to be coded  
>> as reentrant. I believe all HLLs would generate reentrant code, unless you  
>> deliberately wrote them to be otherwise.

>

> Fortran was not reentrant (at least not by default), it used the  
> standard OS/360 linkage convention.

You could write reentrant code that used the standard linkage scheme, but it was fiddly and used more conventions about handling the dynamic storage areas.

Fortran and Cobol were never reentrant. PL/I could be if you used the REENTRANT option in your source code. The PL/I programmers' guides have examples of calling reentrant and non-reentrant assembler code.

My impression is that most reentrant code was written in assembler and preloaded at IPL time to be used as shared libraries.

--

Regards,

John Levine, johnl@taugh.com, Primary Perpetrator of "The Internet for Dummies",  
Please consider the environment before reading this e-mail. <https://jl.ly>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Andy Burns](#) on Sun, 12 Sep 2021 10:45:01 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Scott Lurndal wrote:

> Andy Burns writes:

>

>> The latest pi compute module has PCIe and various breakout boards make  
>> it available as a normal X1 slot, but other than that, I thought to get  
>> access to PCIe on any other pi required de-soldering the USB chip?

>

> Hence "many" instead of "all".

It'd be "a few" in my book.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sun, 12 Sep 2021 16:24:23 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Sun, 12 Sep 2021 11:45:01 +0100, Andy Burns <[usenet@andyburns.uk](mailto:usenet@andyburns.uk)> wrote:

> Scott Lurndal wrote:

>

>> Andy Burns writes:

>>

>>> The latest pi compute module has PCIe and various breakout boards make

>>> it available as a normal X1 slot, but other than that, I thought to get

>>> access to PCIe on any other pi required de-soldering the USB chip?

>>

>> Hence "many" instead of "all".

>

> It'd be "a few" in my book.

>

I think "hardly any" comes closer.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Peter Flass](#) on Mon, 13 Sep 2021 18:39:52 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Thomas Koenig <[tkoenig@netcologne.de](mailto:tkoenig@netcologne.de)> wrote:

> Peter Flass <[peter\\_flass@yahoo.com](mailto:peter_flass@yahoo.com)> schrieb:

>

>> You could have reentrant programs on S/360, too, but they had to be coded

>> as reentrant. I believe all HLLs would generate reentrant code, unless you

>> deliberately wrote them to be otherwise.

>

> Fortran was not reentrant (at least not by default), it used the

> standard OS/360 linkage convention.

>

Okay, I guess just PL/I and assembler then. I'm not sure CICS supported FORTRAN. The linkage convention isn't the problem, FORTRAN and COBOL used only static storage for data, rather than automatic per-task data. For PL/I you just had to not modify STATIC storage (AUTOMATIC) is the default, or at least be careful about how you modified it.

--  
Pete

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Sat, 18 Sep 2021 03:57:06 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Branimir Maksimovic

On 2021-09-08, Peter Flass <peter\_flass@yahoo.com> wrote:  
> John Goerzen <jgoerzen@complete.org> wrote:  
>> On 2021-09-07, J Clarke <jclarke.873638@gmail.com> wrote:  
>>>> <https://governor.kansas.gov/wp-content/uploads/2021/04/GintherTaxCouncilKDOT.pdf>  
>>>> hints that it may be an IBM System 370/Model 145.  
>>>  
>>> I'd be very surprised if it actually was. When did IBM end  
>>> maintenance on those?  
>>  
>> I have no more information, other than that link claims "The Kansas UI System  
>> runs on a Mainframe that was installed in 1977."  
>>  
>> Is it possible the hardware was upgraded to something that can emulate the  
>> 370/145, and that difference was lost on a non-technical author? Sure.  
>>  
>> I have known other places to run mainframes an absurdly long time. I've seen it  
>> in universities and, of course, there's the famous CompuServe PDP-10 story -  
>> though presumably they had more technical know-how to keep their PDP-10s alive.  
>> You are right; it does seem farfetched.  
>>  
>> ... so I did some more digging, and found  
>> <https://ldh.la.gov/assets/medicaid/mmis/docs/IVVRProcurementLibrary/Section3RelevantCorporateExperienceCorporateFinancialCondition.doc>  
>> which claims that the "legacy UI system applications run on the Kansas  
>> Department of Administration's OBM OS/390 mainframe."  
>>  
>> I know little of IBM's mainframe lineup, but  
>> [https://en.wikipedia.org/wiki/IBM\\_System/390](https://en.wikipedia.org/wiki/IBM_System/390) claims that the System/390 has some  
>> level of compatibility with the S/370.  
>>  
>> - John  
>>  
>  
> You can still run programs compiled on a 360 on the latest "z" box.  
>  
Why?

--

bmaxa now listens rock.mp3

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [John Levine](#) on Sat, 18 Sep 2021 04:07:50 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

According to Branimir Maksimovic <branimir.maksimovic@gmail.com>:

>> You can still run programs compiled on a 360 on the latest "z" box.

>>

> Why?

Because they are still useful? Is this a trick question?

--

Regards,

John Levine, johnl@taugh.com, Primary Perpetrator of "The Internet for Dummies",

Please consider the environment before reading this e-mail. <https://jl.ly>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Ahem A Rivet's Shot](#) on Sat, 18 Sep 2021 06:27:48 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Sat, 18 Sep 2021 04:07:50 -0000 (UTC)

John Levine <johnl@taugh.com> wrote:

> According to Branimir Maksimovic <branimir.maksimovic@gmail.com>:

>>> You can still run programs compiled on a 360 on the latest "z" box.

>>>

>> Why?

>

> Because they are still useful? Is this a trick question?

I suppose the real question is why not recompile them to take advantage of the newer hardware. I know during Y2K work that a lot of instances of lost source code came to light, are people still running binaries for which there is no source ?

--

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: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sat, 18 Sep 2021 06:49:00 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Grant Taylor

On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:

- > I suppose the real question is why not recompile them to take
- > advantage of the newer hardware. I know during Y2K work that a lot of
- > instances of lost source code came to light, are people still running
- > binaries for which there is no source ?

Why recompile something just for the sake of recompiling it?

If it's working just fine and is exhibiting no symptoms, why mess with it?

--

Grant. . . .

unix || die

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sat, 18 Sep 2021 09:23:36 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Thomas Koenig

Ahem A Rivet's Shot <steveo@eircom.net> schrieb:

- > On Sat, 18 Sep 2021 04:07:50 -0000 (UTC)
- > John Levine <johnl@taugh.com> wrote:
- >
- >> According to Branimir Maksimovic <branimir.maksimovic@gmail.com>:
- >>>> You can still run programs compiled on a 360 on the latest "z" box.
- >>>>
- >>> Why?
- >>
- >> Because they are still useful? Is this a trick question?
- >
- > I suppose the real question is why not recompile them to take
- > advantage of the newer hardware.

Recompile?

You mean re-assemble?

- > I know during Y2K work that a lot of

- > instances of lost source code came to light, are people still running
- > binaries for which there is no source ?

AFAIK, people still use commercial software like Microsoft Windows.  
One can presume that Microsoft has the source, but most users certainly don't (and for the user, this amounts to the same thing).

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Sat, 18 Sep 2021 09:47:56 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Sat, 18 Sep 2021 00:49:00 -0600, Grant Taylor  
<[gtaylor@tnetconsulting.net](mailto:gtaylor@tnetconsulting.net)> wrote:

- > On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:
- >> I suppose the real question is why not recompile them to take
- >> advantage of the newer hardware. I know during Y2K work that a lot of
- >> instances of lost source code came to light, are people still running
- >> binaries for which there is no source ?
- >
- > Why recompile something just for the sake of recompiling it?
- >
- > If it's working just fine and is exhibiting no symptoms, why mess with it?

However sometimes there are binaries with no source. Source was on a tape or card deck that got archived and can no longer be found.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Ahem A Rivet's Shot](#) on Sat, 18 Sep 2021 14:52:10 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Sat, 18 Sep 2021 00:49:00 -0600  
Grant Taylor <[gtaylor@tnetconsulting.net](mailto:gtaylor@tnetconsulting.net)> wrote:

- > On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:
- >> I suppose the real question is why not recompile them to take
- >> advantage of the newer hardware. I know during Y2K work that a lot of
- >> instances of lost source code came to light, are people still running
- >> binaries for which there is no source ?
- >
- > Why recompile something just for the sake of recompiling it?
- >
- > If it's working just fine and is exhibiting no symptoms, why mess with it?

Yeah I get it, you might be depending on an old undocumented compiler bug or you might fall foul of a new one so why risk the new shiny compiler that might get 10% better performance and might break the application.

--

|                              |   |
|------------------------------|---|
| 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.  | <a href="http://www.sohara.org/">http://www.sohara.org/</a> |

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Peter Flass](#) on Sat, 18 Sep 2021 18:02:04 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Branimir Maksimovic <[branimir.maksimovic@gmail.com](mailto:branimir.maksimovic@gmail.com)> wrote:  
> On 2021-09-08, Peter Flass <[peter\\_flass@yahoo.com](mailto:peter_flass@yahoo.com)> wrote:  
>> John Goerzen <[jgoerzen@complete.org](mailto:jgoerzen@complete.org)> wrote:  
>>> On 2021-09-07, J Clarke <[jclarke.873638@gmail.com](mailto:jclarke.873638@gmail.com)> wrote:  
>>>> > <https://governor.kansas.gov/wp-content/uploads/2021/04/GintherTaxCouncilKDOT.pdf>  
>>>> > hints that it may be an IBM System 370/Model 145.  
>>>>  
>>>> I'd be very surprised if it actually was. When did IBM end  
>>>> maintenance on those?  
>>>  
>>> I have no more information, other than that link claims "The Kansas UI System  
>>> runs on a Mainframe that was installed in 1977."  
>>>  
>>> Is it possible the hardware was upgraded to something that can emulate the  
>>> 370/145, and that difference was lost on a non-technical author? Sure.  
>>>  
>>> I have known other places to run mainframes an absurdly long time. I've seen it  
>>> in universities and, of course, there's the famous CompuServe PDP-10 story -  
>>> though presumably they had more technical know-how to keep their PDP-10s alive.  
>>> You are right; it does seem farfetched.  
>>>  
>>> ... so I did some more digging, and found  
>>> <https://ldh.la.gov/assets/medicaid/mmis/docs/IVVRProcurementLibrary/Section3RelevantCorporateExperienceCorporateFinancialCondition.doc>  
>>> which claims that the "legacy UI system applications run on the Kansas  
>>> Department of Administration's OBM OS/390 mainframe."  
>>>  
>>> I know little of IBM's mainframe lineup, but  
>>> [https://en.wikipedia.org/wiki/IBM\\_System/390](https://en.wikipedia.org/wiki/IBM_System/390) claims that the System/390 has some  
>>> level of compatibility with the S/370.  
>>>

>>> - John  
>>>  
>>  
>> You can still run programs compiled on a 360 on the latest "z" box.  
>>  
> Why?  
>

Because they still work, and do what you need them to do. If it works,  
leave it alone.

--  
Pete

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Peter Flass](#) on Sat, 18 Sep 2021 18:02:05 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

J. Clarke <jclarke.873638@gmail.com> wrote:  
> On Sat, 18 Sep 2021 00:49:00 -0600, Grant Taylor  
> <gtaylor@tnetconsulting.net> wrote:  
>  
>> On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:  
>>> I suppose the real question is why not recompile them to take  
>>> advantage of the newer hardware. I know during Y2K work that a lot of  
>>> instances of lost source code came to light, are people still running  
>>> binaries for which there is no source ?  
>>  
>> Why recompile something just for the sake of recompiling it?  
>>  
>> If it's working just fine and is exhibiting no symptoms, why mess with it?  
>  
> However sometimes there are binaries with no source. Source was on a  
> tape or card deck that got archived and can no longer be found.  
>

Or at least messed up. I tried to rebuild the PL/I(F) compiler from source.  
Several modules had minor problems, missing or extra END statements, but  
one had a major problem: a large chunk of the program was missing. I spent  
several days working from a disassembly to reconstruct the original.

IBM had a big fire at PID in Mechanicsburg, and a lot of sources went  
missing. Digital Research lost the source to PL/I-86. The source for PL/C  
has not (yet) been found, although the executable still works fine.

--  
Pete

---

---



Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Peter Flass](#) on Sat, 18 Sep 2021 18:02:05 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Thomas Koenig <tkoenig@netcologne.de> wrote:

> Ahem A Rivet's Shot <steveo@eircom.net> schrieb:

>> On Sat, 18 Sep 2021 04:07:50 -0000 (UTC)

>> John Levine <johnl@taugh.com> wrote:

>>

>>> According to Branimir Maksimovic <branimir.maksimovic@gmail.com>:

>>>> > You can still run programs compiled on a 360 on the latest "z" box.

>>>> >

>>>> Why?

>>>

>>> Because they are still useful? Is this a trick question?

>>

>> I suppose the real question is why not recompile them to take

>> advantage of the newer hardware.

>

> Recompile?

>

> You mean re-assemble?

>

>> I know during Y2K work that a lot of

>> instances of lost source code came to light, are people still running

>> binaries for which there is no source ?

There was a lot of this during conversions from 1401 to S/360. People tended to patch the 1401 object decks rather than change the source and recompile. If the source hadn't been lost, it likely didn't reflect the running program.

>

> AFAIK, people still use commercial software like Microsoft Windows.

> One can presume that Microsoft has the source, but most users

> certainly don't (and for the user, this amounts to the same thing).

>

--

Pete

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Peter Flass](#) on Sat, 18 Sep 2021 18:02:06 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Ahem A Rivet's Shot <steveo@eircom.net> wrote:

> On Sat, 18 Sep 2021 00:49:00 -0600

> Grant Taylor <gtaylor@tnetconsulting.net> wrote:

>

>> On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:

>>> I suppose the real question is why not recompile them to take

>>> advantage of the newer hardware. I know during Y2K work that a lot of

>>> instances of lost source code came to light, are people still running

>>> binaries for which there is no source ?

>>

>> Why recompile something just for the sake of recompiling it?

>>

>> If it's working just fine and is exhibiting no symptoms, why mess with it?

>

> Yeah I get it, you might be depending on an old undocumented

> compiler bug or you might fall foul of a new one so why risk the new shiny

> compiler that might get 10% better performance and might break the

> application.

>

I ran into this trying to recompile some code that was written for PL/I(F) with the Enterprise compiler. Several constructs were rejected. This was in gray areas where the documentation didn't definitively allow or not allow the code. After a while it became not worth it to me to make a lot of changes to fit the new compiler.

--

Pete

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [John Levine](#) on Sat, 18 Sep 2021 18:20:22 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

It appears that Ahem A Rivet's Shot <steveo@eircom.net> said:

> On Sat, 18 Sep 2021 04:07:50 -0000 (UTC)

> John Levine <johnl@taugh.com> wrote:

>

>> According to Branimir Maksimovic <branimir.maksimovic@gmail.com>:

>>>> You can still run programs compiled on a 360 on the latest "z" box.

>>>>

>>> Why?

>>

>> Because they are still useful? Is this a trick question?

>

> I suppose the real question is why not recompile them to take

> advantage of the newer hardware.

A lot of 360 software was written in assembler. I gather a fair amount still is.  
For some they still have the source, some they don't, but even if they do, it's assembler.

The newer hardware has bigger addresses and some more instructions but they don't run any faster.

If you look at the zSeries principles of operation you can see the many hacks they invented to let old 24 bit addresss 360 code work with more modern 31 and 64 bit code.

--

Regards,  
John Levine, johnl@taugh.com, Primary Perpetrator of "The Internet for Dummies",  
Please consider the environment before reading this e-mail. <https://jl.ly>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Sat, 18 Sep 2021 20:07:26 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Sat, 18 Sep 2021 11:02:05 -0700, Peter Flass  
<peter\_flass@yahoo.com> wrote:

> J. Clarke <jclarke.873638@gmail.com> wrote:  
>> On Sat, 18 Sep 2021 00:49:00 -0600, Grant Taylor  
>> <gtaylor@tnetconsulting.net> wrote:  
>>  
>>> On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:  
>>>> I suppose the real question is why not recompile them to take  
>>>> advantage of the newer hardware. I know during Y2K work that a lot of  
>>>> instances of lost source code came to light, are people still running  
>>>> binaries for which there is no source ?  
>>>  
>>> Why recompile something just for the sake of recompiling it?  
>>>  
>>> If it's working just fine and is exhibiting no symptoms, why mess with it?  
>>  
>> However sometimes there are binaries with no source. Source was on a  
>> tape or card deck that got archived and can no longer be found.  
>>  
>  
> Or at least messed up. I tried to rebuild the PL/I(F) compiler from source.  
> Several modules had minor problems, missing or extra END statements, but  
> one had a major problem: a large chunk of the program was missing. I spent  
> several days working from a disassembly to reconstruct the original.  
>  
> IBM had a big fire at PID in Mechanicsburg, and a lot of sources went  
> missing. Digital Research lost the source to PL/I-86. The source for PL/C

> hs not (yet) been found, although the executable still works fine.

And I remember the time that NASTRAN got dropped down the stairwell at a PPOE. Three floors with cards flying merrily the whole way. I \_think\_ they were all found (I had to be somewhere and didn't get to participate in the search).

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Sat, 18 Sep 2021 20:13:47 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Sat, 18 Sep 2021 18:20:22 -0000 (UTC), John Levine  
<johnl@taugh.com> wrote:

> It appears that Ahem A Rivet's Shot <steveo@eircom.net> said:  
>> On Sat, 18 Sep 2021 04:07:50 -0000 (UTC)  
>> John Levine <johnl@taugh.com> wrote:  
>>  
>>> According to Branimir Maksimovic <branimir.maksimovic@gmail.com>:  
>>>> > You can still run programs compiled on a 360 on the latest "z" box.  
>>>> >  
>>>> Why?  
>>>  
>>> Because they are still useful? Is this a trick question?  
>>  
>> I suppose the real question is why not recompile them to take  
>> advantage of the newer hardware.  
>  
> A lot of 360 software was written in assembler. I gather a fair amount still is.  
> For some they still have the source, some they don't, but even if they do, it's assembler.  
>  
> The newer hardware has bigger addresses and some more instructions but they don't run any  
faster.  
> If you look at the zSeries principles of operation you can see the many hacks they invented to  
> let old 24 bit addresss 360 code work with more modern 31 and 64 bit code.

Something that ran adequately on a machine with a 10 MHz clock will  
generally run so much more than adequately on a machine with a 5 GHz  
clock that there's not much incentive to optimize anyway.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Dan Espen](#) on Sat, 18 Sep 2021 21:46:11 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Peter Flass <peter\_flass@yahoo.com> writes:

> Ahem A Rivet's Shot <steveo@eircom.net> wrote:  
>> On Sat, 18 Sep 2021 00:49:00 -0600  
>> Grant Taylor <gtaylor@tnetconsulting.net> wrote:  
>>  
>>> On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:  
>>>> I suppose the real question is why not recompile them to take  
>>>> advantage of the newer hardware. I know during Y2K work that a lot of  
>>>> instances of lost source code came to light, are people still running  
>>>> binaries for which there is no source ?  
>>>  
>>> Why recompile something just for the sake of recompiling it?  
>>>  
>>> If it's working just fine and is exhibiting no symptoms, why mess with it?  
>>  
>> Yeah I get it, you might be depending on an old undocumented  
>> compiler bug or you might fall foul of a new one so why risk the new shiny  
>> compiler that might get 10% better performance and might break the  
>> application.  
>  
> I ran into this trying to recompile some code that was written for PL/I(F)  
> with the Enterprise compiler. Several constructs were rejected. This was in  
> gray areas where the documentation didn't definitively allow or not allow  
> the code. After a while it became not worth it to me to make a lot of  
> changes to fit the new compiler.

Similar here, large amounts of PL/I and a bit of it broke with  
Enterprise PL/I. Strange how a new compiler can suddenly make  
uninitialized variables start causing problems.

We had more than that though including some new compiler bugs.

--  
Dan Espen

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Dan Espen](#) on Sat, 18 Sep 2021 21:50:46 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Peter Flass <peter\_flass@yahoo.com> writes:

> Thomas Koenig <tkoenig@netcologne.de> wrote:  
>> Ahem A Rivet's Shot <steveo@eircom.net> schrieb:  
>>> On Sat, 18 Sep 2021 04:07:50 -0000 (UTC)  
>>> John Levine <johnl@taugh.com> wrote:  
>>>

>>>> According to Branimir Maksimovic <branimir.maksimovic@gmail.com>:  
>>>> >> You can still run programs compiled on a 360 on the latest "z" box.  
>>>> >>  
>>>> > Why?  
>>>>  
>>>> Because they are still useful? Is this a trick question?  
>>>  
>>> I suppose the real question is why not recompile them to take  
>>> advantage of the newer hardware.  
>>  
>> Recompile?  
>>  
>> You mean re-assemble?  
>>  
>>> I know during Y2K work that a lot of  
>>> instances of lost source code came to light, are people still running  
>>> binaries for which there is no source ?  
>  
> There was a lot of this during conversions from 1401 to S/360. People  
> tended to patch the 1401 object decks rather than change the source and  
> recompile. If the source hadn't been lost, it likely didn't reflect the  
> running program.

During my long career I ran into very few instances of missing source.  
Only 1 comes to mind.

As I remember, operations would not accept an object deck with patches.  
At the same time they accepted the new object deck they  
secured the source code and listing.

--  
Dan Espen

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Sat, 18 Sep 2021 22:30:22 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Thomas Koenig

J Clarke <jclarke.873638@gmail.com> schrieb:  
> On Sat, 18 Sep 2021 18:20:22 -0000 (UTC), John Levine  
> <johnl@taugh.com> wrote:  
>  
>> It appears that Ahem A Rivet's Shot <steveo@eircom.net> said:  
>>> On Sat, 18 Sep 2021 04:07:50 -0000 (UTC)  
>>> John Levine <johnl@taugh.com> wrote:  
>>>

```

>>>> According to Branimir Maksimovic <branimir.maksimovic@gmail.com>:
>>>> >> You can still run programs compiled on a 360 on the latest "z" box.
>>>> >>
>>>> >Why?
>>>>
>>>> Because they are still useful? Is this a trick question?
>>>>
>>>> I suppose the real question is why not recompile them to take
>>>> advantage of the newer hardware.
>>>>
>>>> A lot of 360 software was written in assembler. I gather a fair amount still is.
>>>> For some they still have the source, some they don't, but even if they do, it's assembler.
>>>>
>>>> The newer hardware has bigger addresses and some more instructions but they don't run any
>>>> faster.
>>>> If you look at the zSeries principles of operation you can see the many hacks they invented to
>>>> let old 24 bit addresss 360 code work with more modern 31 and 64 bit code.
>>>>
>>>> > Something that ran adequately on a machine with a 10 MHz clock will
>>>> > generally run so much more than adequately on a machine with a 5 GHz
>>>> > clock that there's not much incentive to optimize anyway.

```

There are a couple of things that could go wrong, though, especially if the problem sizes have grown, as they tend to do.

Tradeoffs between disk speed and memory made in the 1980s may not work as well when the relative performances of CPU and discs have diverged as much as they did, and there is a factor of  $10^n$  more data to process, and all of a sudden you find there is this  $n^2$  algorithm hidden somewhere...

---

Subject: Re: What is the oldest computer that could be used today for real work?  
 Posted by [John Levine](#) on Sun, 19 Sep 2021 01:55:22 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

```

According to Thomas Koenig <tkoenig@netcologne.de>:
>>>> >>> >> You can still run programs compiled on a 360 on the latest "z" box.

>>>> > There are a couple of things that could go wrong, though, especially
>>>> > if the problem sizes have grown, as they tend to do.
>>>> >
>>>> > Tradeoffs between disk speed and memory made in the 1980s may not
>>>> > work as well when the relative performances of CPU and discs have
>>>> > diverged as much as they did, and there is a factor of  $10^n$  more
>>>> > data to process, and all of a sudden you find there is this
>>>> >  $n^2$  algorithm hidden somewhere...

```

Nobody is claiming we still run \*all\* of the code written in the 1960s.

I gather there is some code where for financial reasons it has to produce results the same as what it has produced for the past forty years, even though the programmer who wrote it has retired or died, even though the results may depend on funky details of the 360's ill-designed floating point, or of shift-and-round-decimal instructions where for some reason it uses a rounding digit of 6 rather than the normal 5.

It can be worth a lot to keep running the actual code rather than trying to reverse engineer it and hope you got all the warts right for every case.

--

Regards,

John Levine, johnl@taugh.com, Primary Perpetrator of "The Internet for Dummies",  
Please consider the environment before reading this e-mail. <https://jl.ly>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Sun, 19 Sep 2021 02:08:38 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Sun, 19 Sep 2021 01:55:22 -0000 (UTC), John Levine  
<johnl@taugh.com> wrote:

> According to Thomas Koenig <tkoenig@netcologne.de>:  
>>>> >> >> You can still run programs compiled on a 360 on the latest "z" box.  
>  
>> There are a couple of things that could go wrong, though, especially  
>> if the problem sizes have grown, as they tend to do.  
>>  
>> Tradeoffs between disk speed and memory made in the 1980s may not  
>> work as well when the relative performances of CPU and discs have  
>> diverged as much as they did, and there is a factor of 10^n more  
>> data to process, and all of a sudden you find there is this  
>> n^2 algorithm hidden somewhere...  
>  
> Nobody is claiming we still run \*all\* of the code written in the 1960s.  
>  
> I gather there is some code where for financial reasons it has to produce  
> results the same as what it has produced for the past forty years, even  
> though the programmer who wrote it has retired or died, even though  
> the results may depend on funky details of the 360's ill-designed floating  
> point, or of shift-and-round-decimal instructions where for some reason  
> it uses a rounding digit of 6 rather than the normal 5.  
>  
> It can be worth a lot to keep running the actual code rather than trying



> to reverse engineer it and hope you got all the warts right for every case.

That's something that I live. If there's a mismatch we don't let it slide, we learn the reason why. When you have assets under management that look like the National Debt a little tiny mistake can be a huge lawsuit.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sun, 19 Sep 2021 06:22:00 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Bob Eager

On Sun, 19 Sep 2021 01:55:22 +0000, John Levine wrote:

> I gather there is some code where for financial reasons it has to  
> produce results the same as what it has produced for the past forty  
> years, even though the programmer who wrote it has retired or died, even  
> though the results may depend on funky details of the 360's ill-designed  
> floating point, or of shift-and-round-decimal instructions where for  
> some reason it uses a rounding digit of 6 rather than the normal 5.

Do you have a reference to anything on that rounding decision? It's actually relevant to something I'm working on...

--

Using UNIX since v6 (1975)...

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

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [John Levine](#) on Mon, 20 Sep 2021 03:24:32 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

According to Bob Eager <[news0009@eager.cx](mailto:news0009@eager.cx)>:

> On Sun, 19 Sep 2021 01:55:22 +0000, John Levine wrote:

>

>> I gather there is some code where for financial reasons it has to  
>> produce results the same as what it has produced for the past forty  
>> years, even though the programmer who wrote it has retired or died, even  
>> though the results may depend on funky details of the 360's ill-designed  
>> floating point, or of shift-and-round-decimal instructions where for

>> some reason it uses a rounding digit of 6 rather than the normal 5.  
>  
> Do you have a reference to anything on that rounding decision? It's  
> actually relevant to something I'm working on...

Sorry, it's a real instruction but a hypothetical example.

The closest I got to this was back in the 1980s when I was working on a modelling package called Javelin and I had to write the functions that computed bond prices and yields. The securities association published a pamphlet with the algorithms and examples, and needless to say my code wasn't done until it got all the examples exactly correct. Some of the calculations were rather odd like the ones that decreed that a year has 360 days.

--

Regards,  
John Levine, johnl@taugh.com, Primary Perpetrator of "The Internet for Dummies",  
Please consider the environment before reading this e-mail. <https://jl.ly>

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [cross](#) on Wed, 22 Sep 2021 19:00:53 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

In article <20210918155210.02c1c46cfbb0456d26a4ee94@eircom.net>, Ahem A Rivet's Shot <steveo@eircom.net> wrote:  
> On Sat, 18 Sep 2021 00:49:00 -0600  
> Grant Taylor <gtaylor@tnetconsulting.net> wrote:  
>> On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:  
>>> I suppose the real question is why not recompile them to take  
>>> advantage of the newer hardware. I know during Y2K work that a lot of  
>>> instances of lost source code came to light, are people still running  
>>> binaries for which there is no source ?  
>>  
>> Why recompile something just for the sake of recompiling it?  
>>  
>> If it's working just fine and is exhibiting no symptoms, why mess with it?  
>  
> Yeah I get it, you might be depending on an old undocumented  
> compiler bug or you might fall foul of a new one so why risk the new shiny  
> compiler that might get 10% better performance and might break the  
> application.

By that logic, one should never upgrade anything if it can be avoided. An operating system upgrade in particular would

be terribly fraught.

It strikes me how much process we've built predicated on the presumed difficulty of testing and qualifying software for production use.

- Dan C.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Wed, 22 Sep 2021 21:54:39 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Wed, 22 Sep 2021 19:00:53 -0000 (UTC),  
cross@spitfire.i.gajendra.net (Dan Cross) wrote:

```
> In article <20210918155210.02c1c46cfbb0456d26a4ee94@eircom.net>,
> Ahem A Rivet's Shot <steveo@eircom.net> wrote:
>> On Sat, 18 Sep 2021 00:49:00 -0600
>> Grant Taylor <gtaylor@tnetconsulting.net> wrote:
>>> On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:
>>>> I suppose the real question is why not recompile them to take
>>>> advantage of the newer hardware. I know during Y2K work that a lot of
>>>> instances of lost source code came to light, are people still running
>>>> binaries for which there is no source ?
>>>
>>> Why recompile something just for the sake of recompiling it?
>>>
>>> If it's working just fine and is exhibiting no symptoms, why mess with it?
>>
>> Yeah I get it, you might be depending on an old undocumented
>> compiler bug or you might fall foul of a new one so why risk the new shiny
>> compiler that might get 10% better performance and might break the
>> application.
>
> By that logic, one should never upgrade anything if it can
> be avoided. An operating system upgrade in particular would
> be terribly fraught.
>
> It strikes me how much process we've built predicated on the
> presumed difficulty of testing and qualifying software for
> production use.
```

Nothing "presumed" about it.

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Dan Espen](#) on Thu, 23 Sep 2021 01:15:07 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

cross@spitfire.i.gajendra.net (Dan Cross) writes:

```
> In article <20210918155210.02c1c46cfbb0456d26a4ee94@eircom.net>,
> Ahem A Rivet's Shot <steveo@eircom.net> wrote:
>> On Sat, 18 Sep 2021 00:49:00 -0600
>> Grant Taylor <gtaylor@tnetconsulting.net> wrote:
>>> On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:
>>>> I suppose the real question is why not recompile them to take
>>>> advantage of the newer hardware. I know during Y2K work that a lot of
>>>> instances of lost source code came to light, are people still running
>>>> binaries for which there is no source ?
>>>
>>> Why recompile something just for the sake of recompiling it?
>>>
>>> If it's working just fine and is exhibiting no symptoms, why mess with it?
>>
>> Yeah I get it, you might be depending on an old undocumented
>> compiler bug or you might fall foul of a new one so why risk the new shiny
>> compiler that might get 10% better performance and might break the
>> application.
>
> By that logic, one should never upgrade anything if it can
> be avoided. An operating system upgrade in particular would
> be terribly fraught.
>
> It strikes me how much process we've built predicated on the
> presumed difficulty of testing and qualifying software for
> production use.
```

You only update software when the benefit justifies the cost.

--

Dan Espen

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Thu, 23 Sep 2021 02:34:41 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Wed, 22 Sep 2021 21:15:07 -0400, Dan Espen <dan1espen@gmail.com>  
wrote:

> cross@spitfire.i.gajendra.net (Dan Cross) writes:  
>  
>> In article <20210918155210.02c1c46cfbb0456d26a4ee94@eircom.net>,  
>> Ahem A Rivet's Shot <steveo@eircom.net> wrote:  
>>> On Sat, 18 Sep 2021 00:49:00 -0600  
>>> Grant Taylor <gtaylor@tnetconsulting.net> wrote:  
>>>> On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:  
>>>> > I suppose the real question is why not recompile them to take  
>>>> > advantage of the newer hardware. I know during Y2K work that a lot of  
>>>> > instances of lost source code came to light, are people still running  
>>>> > binaries for which there is no source ?  
>>>>  
>>>> Why recompile something just for the sake of recompiling it?  
>>>>  
>>>> If it's working just fine and is exhibiting no symptoms, why mess with it?  
>>>  
>>> Yeah I get it, you might be depending on an old undocumented  
>>> compiler bug or you might fall foul of a new one so why risk the new shiny  
>>> compiler that might get 10% better performance and might break the  
>>> application.  
>>  
>> By that logic, one should never upgrade anything if it can  
>> be avoided. An operating system upgrade in particular would  
>> be terribly fraught.  
>>  
>> It strikes me how much process we've built predicated on the  
>> presumed difficulty of testing and qualifying software for  
>> production use.  
>  
> You only update software when the benefit justifies the cost.

I wish our management understood that. I spend half my time  
recovering from "updates".

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Charlie Gibbs](#) on Thu, 23 Sep 2021 02:51:21 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-09-23, Dan Espen <dan1espen@gmail.com> wrote:

> cross@spitfire.i.gajendra.net (Dan Cross) writes:  
>  
>> In article <20210918155210.02c1c46cfbb0456d26a4ee94@eircom.net>,  
>> Ahem A Rivet's Shot <steveo@eircom.net> wrote:  
>>  
>>> On Sat, 18 Sep 2021 00:49:00 -0600  
>>> Grant Taylor <gtaylor@tnetconsulting.net> wrote:

```
>>>
>>>> On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:
>>>>
>>>> > I suppose the real question is why not recompile them to take
>>>> > advantage of the newer hardware. I know during Y2K work that a lot of
>>>> > instances of lost source code came to light, are people still running
>>>> > binaries for which there is no source ?
>>>>
>>>> Why recompile something just for the sake of recompiling it?
>>>>
>>>> If it's working just fine and is exhibiting no symptoms, why mess with it?
>>>
>>> Yeah I get it, you might be depending on an old undocumented
>>> compiler bug or you might fall foul of a new one so why risk the
>>> new shiny compiler that might get 10% better performance and might
>>> break the application.
>>
>> By that logic, one should never upgrade anything if it can
>> be avoided. An operating system upgrade in particular would
>> be terribly fraught.
```

s/would be/is/

Especially if you have no mechanism for parallel testing  
prior to the cutover.

```
>> It strikes me how much process we've built predicated on the
>> presumed difficulty of testing and qualifying software for
>> production use.
>
> You only update software when the benefit justifies the cost.
```

Sadly, people now update software whenever the vendor tells them to  
(or does it behind their back).

Last year I heard that a number of 911 sites went down (i.e. no  
dial tone) for at least half an hour thanks to a buggy Windows  
update that was pushed out to them.

--

```
/~\ Charlie Gibbs          | Life is perverse.
\/ <cgibbs@kltpzyxm.invalid> | It can be beautiful -
X I'm really at ac.dekanfrus  | but it won't.
/\ if you read it the right way. | -- Lily Tomlin
```

---

Subject: Re: What is the oldest computer that could be used today for real work?

Originally posted by: J. Clarke

On Thu, 23 Sep 2021 02:51:21 GMT, Charlie Gibbs  
<cgibbs@kltpzyxm.invalid> wrote:

```
> On 2021-09-23, Dan Espen <dan1espen@gmail.com> wrote:
>
>> cross@spitfire.i.gajendra.net (Dan Cross) writes:
>>
>>> In article <20210918155210.02c1c46cfbb0456d26a4ee94@eircom.net>,
>>> Ahem A Rivet's Shot <steveo@eircom.net> wrote:
>>>
>>>> On Sat, 18 Sep 2021 00:49:00 -0600
>>>> Grant Taylor <gtaylor@tnetconsulting.net> wrote:
>>>>
>>>> > On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:
>>>> >
>>>> >> I suppose the real question is why not recompile them to take
>>>> >> advantage of the newer hardware. I know during Y2K work that a lot of
>>>> >> instances of lost source code came to light, are people still running
>>>> >> binaries for which there is no source ?
>>>> >
>>>> > Why recompile something just for the sake of recompiling it?
>>>> >
>>>> > If it's working just fine and is exhibiting no symptoms, why mess with it?
>>>>
>>>> Yeah I get it, you might be depending on an old undocumented
>>>> compiler bug or you might fall foul of a new one so why risk the
>>>> new shiny compiler that might get 10% better performance and might
>>>> break the application.
>>>
>>> By that logic, one should never upgrade anything if it can
>>> be avoided. An operating system upgrade in particular would
>>> be terribly fraught.
>
> s/would be/is/
>
> Especially if you have no mechanism for parallel testing
> prior to the cutover.
>
>>> It strikes me how much process we've built predicated on the
>>> presumed difficulty of testing and qualifying software for
>>> production use.
>>
>> You only update software when the benefit justifies the cost.
>
```



> Sadly, people now update software whenever the vendor tells them to  
> (or does it behind their back).  
>  
> Last year I heard that a number of 911 sites went down (i.e. no  
> dial tone) for at least half an hour thanks to a buggy Windows  
> update that was pushed out to them.

Push updates should be a criminal offense.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [scott](#) on Thu, 23 Sep 2021 14:00:08 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

J. Clarke <jclarke.873638@gmail.com> writes:  
> On Thu, 23 Sep 2021 02:51:21 GMT, Charlie Gibbs  
> <cgibbs@kltpzyxm.invalid> wrote:

>>  
>> Last year I heard that a number of 911 sites went down (i.e. no  
>> dial tone) for at least half an hour thanks to a buggy Windows  
>> update that was pushed out to them.  
>  
> Push updates should be a criminal offense.

Running critical infrastructure on windows should be a criminal offense.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Peter Flass](#) on Thu, 23 Sep 2021 14:32:04 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:  
> On 2021-09-23, Dan Espen <dan1espen@gmail.com> wrote:  
>  
>> cross@spitfire.i.gajendra.net (Dan Cross) writes:  
>>  
>>> In article <20210918155210.02c1c46cfbb0456d26a4ee94@eircom.net>,  
>>> Ahem A Rivet's Shot <steveo@eircom.net> wrote:  
>>>  
>>>> On Sat, 18 Sep 2021 00:49:00 -0600  
>>>> Grant Taylor <gtaylor@tnetconsulting.net> wrote:  
>>>>  
>>>> > On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:  
>>>> >  
>>>> >> I suppose the real question is why not recompile them to take  
>>>> >> advantage of the newer hardware. I know during Y2K work that a lot of

>>>> >> instances of lost source code came to light, are people still running  
>>>> >> binaries for which there is no source ?  
>>>> >  
>>>> > Why recompile something just for the sake of recompiling it?  
>>>> >  
>>>> > If it's working just fine and is exhibiting no symptoms, why mess with it?  
>>>>  
>>>> Yeah I get it, you might be depending on an old undocumented  
>>>> compiler bug or you might fall foul of a new one so why risk the  
>>>> new shiny compiler that might get 10% better performance and might  
>>>> break the application.  
>>>  
>>> By that logic, one should never upgrade anything if it can  
>>> be avoided. An operating system upgrade in particular would  
>>> be terribly fraught.  
>  
> s/would be/is/  
>  
> Especially if you have no mechanism for parallel testing  
> prior to the cutover.  
>  
>>> It strikes me how much process we've built predicated on the  
>>> presumed difficulty of testing and qualifying software for  
>>> production use.  
>>  
>> You only update software when the benefit justifies the cost.  
>  
> Sadly, people now update software whenever the vendor tells them to  
> (or does it behind their back).  
>  
> Last year I heard that a number of 911 sites went down (i.e. no  
> dial tone) for at least half an hour thanks to a buggy Windows  
> update that was pushed out to them.  
>

I hate to say that's what they get for using windows, but...

--

Pete

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Dan Espen](#) on Thu, 23 Sep 2021 14:52:30 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Peter Flass <[peter\\_flass@yahoo.com](mailto:peter_flass@yahoo.com)> writes:

> Charlie Gibbs <[cgibbs@kltpzyxm.invalid](mailto:cgibbs@kltpzyxm.invalid)> wrote:

>> On 2021-09-23, Dan Espen <dan1espen@gmail.com> wrote:  
>>  
>>> cross@spitfire.i.gajendra.net (Dan Cross) writes:  
>>>  
>>>> In article <20210918155210.02c1c46cfbb0456d26a4ee94@eircom.net>,  
>>>> Ahem A Rivet's Shot <steveo@eircom.net> wrote:  
>>>>  
>>>> > On Sat, 18 Sep 2021 00:49:00 -0600  
>>>> > Grant Taylor <gtaylor@tnetconsulting.net> wrote:  
>>>> >  
>>>> >> On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:  
>>>> >>  
>>>> >>> I suppose the real question is why not recompile them to take  
>>>> >>> advantage of the newer hardware. I know during Y2K work that a lot of  
>>>> >>> instances of lost source code came to light, are people still running  
>>>> >>> binaries for which there is no source ?  
>>>> >>  
>>>> >> Why recompile something just for the sake of recompiling it?  
>>>> >>  
>>>> >> If it's working just fine and is exhibiting no symptoms, why mess with it?  
>>>> >  
>>>> > Yeah I get it, you might be depending on an old undocumented  
>>>> > compiler bug or you might fall foul of a new one so why risk the  
>>>> > new shiny compiler that might get 10% better performance and might  
>>>> > break the application.  
>>>>  
>>>> By that logic, one should never upgrade anything if it can  
>>>> be avoided. An operating system upgrade in particular would  
>>>> be terribly fraught.  
>>  
>> s/would be/is/  
>>  
>> Especially if you have no mechanism for parallel testing  
>> prior to the cutover.  
>>  
>>>> It strikes me how much process we've built predicated on the  
>>>> presumed difficulty of testing and qualifying software for  
>>>> production use.  
>>>  
>>> You only update software when the benefit justifies the cost.  
>>  
>> Sadly, people now update software whenever the vendor tells them to  
>> (or does it behind their back).  
>>  
>> Last year I heard that a number of 911 sites went down (i.e. no  
>> dial tone) for at least half an hour thanks to a buggy Windows  
>> update that was pushed out to them.  
>

> I hate to say that's what they get for using windows, but...

All these stories about companies paying ransoms.  
Seldom do they place the blame directly on Windows.

Too be fair, poor backup and recovery probably plays a role too.

--

Dan Espen

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Peter Flass](#) on Thu, 23 Sep 2021 17:01:37 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Dan Espen <dan1espen@gmail.com> wrote:

> Peter Flass <peter\_flass@yahoo.com> writes:

>

>> Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:

>>> On 2021-09-23, Dan Espen <dan1espen@gmail.com> wrote:

>>>>

>>>> cross@spitfire.i.gajendra.net (Dan Cross) writes:

>>>>

>>>> > In article <20210918155210.02c1c46cfbb0456d26a4ee94@eircom.net>,

>>>> > Ahem A Rivet's Shot <steveo@eircom.net> wrote:

>>>> >

>>>> >> On Sat, 18 Sep 2021 00:49:00 -0600

>>>> >> Grant Taylor <gtaylor@tnetconsulting.net> wrote:

>>>> >>

>>>> >>> On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:

>>>> >>>>

>>>> >>>> I suppose the real question is why not recompile them to take

>>>> >>>> advantage of the newer hardware. I know during Y2K work that a lot of

>>>> >>>> instances of lost source code came to light, are people still running

>>>> >>>> binaries for which there is no source ?

>>>> >>>>

>>>> >>>> Why recompile something just for the sake of recompiling it?

>>>> >>>>

>>>> >>>> If it's working just fine and is exhibiting no symptoms, why mess with it?

>>>> >>>>

>>>> >>>> Yeah I get it, you might be depending on an old undocumented

>>>> >>>> compiler bug or you might fall foul of a new one so why risk the

>>>> >>>> new shiny compiler that might get 10% better performance and might

>>>> >>>> break the application.

>>>> >>>>

>>>> >>>> > By that logic, one should never upgrade anything if it can

>>>> >>>> > be avoided. An operating system upgrade in particular would

>>>> >>>> > be terribly fraught.

>>>  
>>> s/would be/is/  
>>>  
>>> Especially if you have no mechanism for parallel testing  
>>> prior to the cutover.  
>>>  
>>>> > It strikes me how much process we've built predicated on the  
>>>> > presumed difficulty of testing and qualifying software for  
>>>> > production use.  
>>>>  
>>>> You only update software when the benefit justifies the cost.  
>>>  
>>> Sadly, people now update software whenever the vendor tells them to  
>>> (or does it behind their back).  
>>>  
>>> Last year I heard that a number of 911 sites went down (i.e. no  
>>> dial tone) for at least half an hour thanks to a buggy Windows  
>>> update that was pushed out to them.  
>>  
>> I hate to say that's what they get for using windows, but...  
>  
> All these stories about companies paying ransoms.  
> Seldom do they place the blame directly on Windows.  
>  
> Too be fair, poor backup and recovery probably plays a role too.  
>

I was going to say that windows is just a bigger target than Linux, but Linux is used extensively in servers and mission-critical situations, and you seldom hear about a successful attack targeting Linux. You're right about poor backup software and procedures.

Someone recently posted here about ransomware that just lay low and corrupted backups for a while before it struck, but don't good systems checksum the backups and verify a good one? Duplicity does that, and also does a test restore periodically. I have had occasion to restore some files a few times, and I'm grateful to have it, although I also do some of my own backups.

I did prefer the system I had previously, whose name I have forgotten, that had a better UI, but they dropped support for individual users in favor of corporate licenses.

--  
Pete

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [scott](#) on Thu, 23 Sep 2021 17:05:56 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Peter Flass <peter\_flass@yahoo.com> writes:

> Dan Espen <dan1espen@gmail.com> wrote:

>> Peter Flass <peter\_flass@yahoo.com> writes:

>>

>> Too be fair, poor backup and recovery probably plays a role too.

>>

>

> I was going to say that windows is just a bigger target than Linux, but

> Linux is used extensively in servers and mission-critical situations, and

> you seldom hear about a successful attack targeting Linux. You're right

> about poor backup software and procedures.

Fundamentally, it devolves to Microsoft's choice to use HTML

in email and to allow executable content in mail, to forgo

any form of user security, et cetera.

Simple text is far safer, and forcing someone to manually cut & paste

URLs from a text mail (where the URL is unobfuscatable) to

a sandboxed browser would have been a far more secure paradigm.

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Dan Espen](#) on Thu, 23 Sep 2021 17:12:17 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Peter Flass <peter\_flass@yahoo.com> writes:

> Dan Espen <dan1espen@gmail.com> wrote:

>> Peter Flass <peter\_flass@yahoo.com> writes:

>>

>>> Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:

>>>> On 2021-09-23, Dan Espen <dan1espen@gmail.com> wrote:

>>>>

>>>> > cross@spitfire.i.gajendra.net (Dan Cross) writes:

>>>> >

>>>> >> In article <20210918155210.02c1c46cfbb0456d26a4ee94@eircom.net>,

>>>> >> Ahem A Rivet's Shot <steveo@eircom.net> wrote:

>>>> >>

>>>> >>> On Sat, 18 Sep 2021 00:49:00 -0600

>>>> >>> Grant Taylor <gtaylor@tnetconsulting.net> wrote:

>>>> >>>

>>>> >>>> On 9/18/21 12:27 AM, Ahem A Rivet's Shot wrote:

>>>> >>>>

```

>>>> >>>> I suppose the real question is why not recompile them to take
>>>> >>>> advantage of the newer hardware. I know during Y2K work that a lot of
>>>> >>>> instances of lost source code came to light, are people still running
>>>> >>>> binaries for which there is no source ?
>>>> >>>>
>>>> >>>> Why recompile something just for the sake of recompiling it?
>>>> >>>>
>>>> >>>> If it's working just fine and is exhibiting no symptoms, why mess with it?
>>>> >>>>
>>>> >>>> Yeah I get it, you might be depending on an old undocumented
>>>> >>>> compiler bug or you might fall foul of a new one so why risk the
>>>> >>>> new shiny compiler that might get 10% better performance and might
>>>> >>>> break the application.
>>>> >>>>
>>>> >>>> By that logic, one should never upgrade anything if it can
>>>> >>>> be avoided. An operating system upgrade in particular would
>>>> >>>> be terribly fraught.
>>>> >>>>
>>>> >>>> s/would be/is/
>>>> >>>>
>>>> >>>> Especially if you have no mechanism for parallel testing
>>>> >>>> prior to the cutover.
>>>> >>>>
>>>> >>>> It strikes me how much process we've built predicated on the
>>>> >>>> presumed difficulty of testing and qualifying software for
>>>> >>>> production use.
>>>> >>>>
>>>> >>>> > You only update software when the benefit justifies the cost.
>>>> >>>>
>>>> >>>> Sadly, people now update software whenever the vendor tells them to
>>>> >>>> (or does it behind their back).
>>>> >>>>
>>>> >>>> Last year I heard that a number of 911 sites went down (i.e. no
>>>> >>>> dial tone) for at least half an hour thanks to a buggy Windows
>>>> >>>> update that was pushed out to them.
>>>> >>>>
>>>> >>>> I hate to say that's what they get for using windows, but...
>>>> >>>>
>>>> >>>> All these stories about companies paying ransoms.
>>>> >>>> Seldom do they place the blame directly on Windows.
>>>> >>>>
>>>> >>>> Too be fair, poor backup and recovery probably plays a role too.
>>>> >>>>
>>>> >>>> >
>>>> >>>> > I was going to say that windows is just a bigger target than Linux, but
>>>> >>>> > Linux is used extensively in servers and mission-critical situations, and
>>>> >>>> > you seldom hear about a successful attack targeting Linux. You're right
>>>> >>>> > about poor backup software and procedures.

```

>  
> Someone recently posted here about ransomware that just lay low and  
> corrupted backups for a while before it struck, but don't good systems  
> checksum the backups and verify a good one? Duplicity does that, and also  
> does a test restore periodically. I have had occasion to restore some files  
> a few times, and I'm grateful to have it, although I also do some of my own  
> backups.

I'm not and never have been a professional system admin.  
It seems to me the system doing backups should only be connected to the  
disk farm. That would make corrupting backups an unlikely event.

> I did prefer the system I had previously, whose name I have forgotten, that  
> had a better UI, but they dropped support for individual users in favor of  
> corporate licenses.

Backup systems? For my home system cron driven rsync with periodic  
changes to the backup USB sticks. Couldn't be much simpler.  
Rsync just creates another copy, getting to the backup is just a matter  
of copying.

--  
Dan Espen

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Andreas Kohlbach](#) on Thu, 23 Sep 2021 17:40:27 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Thu, 23 Sep 2021 10:01:37 -0700, Peter Flass wrote:

>  
> Dan Espen <dan1espen@gmail.com> wrote:  
>>  
>> All these stories about companies paying ransoms.  
>> Seldom do they place the blame directly on Windows.  
>>  
>> Too be fair, poor backup and recovery probably plays a role too.  
>>  
>  
> I was going to say that windows is just a bigger target than Linux, but  
> Linux is used extensively in servers and mission-critical situations, and  
> you seldom hear about a successful attack targeting Linux. You're right  
> about poor backup software and procedures.

While it's true that Linux is extensively used on servers it needs an  
exploit targeting the server (PHP exploit or something).

But Linux Desktop installations are AFAIK rarely attacked.



Anybody who runs Linux on a desktop for their daily work (email, social media, watching pr0n) are less likely to find their computer compromised than their Windows counterparts.

[...]

--

Andreas

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Charlie Gibbs](#) on Thu, 23 Sep 2021 18:31:34 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-09-23, Scott Lurndal <[scott@slp53.sl.home](mailto:scott@slp53.sl.home)> wrote:

> J. Clarke <[jjclarke.873638@gmail.com](mailto:jjclarke.873638@gmail.com)> writes:

>

>> On Thu, 23 Sep 2021 02:51:21 GMT, Charlie Gibbs

>> <[cgibbs@kltpzyxm.invalid](mailto:cgibbs@kltpzyxm.invalid)> wrote:

>>

>>> Last year I heard that a number of 911 sites went down (i.e. no

>>> dial tone) for at least half an hour thanks to a buggy Windows

>>> update that was pushed out to them.

>>

>> Push updates should be a criminal offense.

I'm amazed that it doesn't seem to occur to anyone what a huge security hole this represents.

> Running critical infrastructure on windows should be a criminal offense.

Hear, hear!

--

/~\ Charlie Gibbs | Life is perverse.

/ / <[cgibbs@kltpzyxm.invalid](mailto:cgibbs@kltpzyxm.invalid)> | It can be beautiful -

X I'm really at [ac.dekanfrus](mailto:ac.dekanfrus) | but it won't.

/\ if you read it the right way. | -- Lily Tomlin

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Ahem A Rivet's Shot](#) on Thu, 23 Sep 2021 18:41:07 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Thu, 23 Sep 2021 13:12:17 -0400

Dan Espen <[dan1espen@gmail.com](mailto:dan1espen@gmail.com)> wrote:

- > I'm not and never have been a professional system admin.
- > It seems to me the system doing backups should only be connected to the
- > disk farm. That would make corrupting backups an unlikely event.

That doesn't work! Getting good backups of files in use requires interaction with the application, usually a minimum of flushing application state to disc, pausing the application and taking a snapshot so that the application can resume running, then backup the snapshot not the active files.

One common technique for backing up PCs is to mount the backup drive from the NAS and write a backup to it. This makes the ransomware author's job very easy indeed.

--

|                              |   |
|------------------------------|---|
| 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.  | <a href="http://www.sohara.org/">http://www.sohara.org/</a> |

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Charlie Gibbs](#) on Thu, 23 Sep 2021 18:42:11 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-09-23, Scott Lurndal <[scott@slp53.sl.home](mailto:scott@slp53.sl.home)> wrote:

- > Peter Flass <[peter\\_flass@yahoo.com](mailto:peter_flass@yahoo.com)> writes:
- >
- >> Dan Espen <[dan1espen@gmail.com](mailto:dan1espen@gmail.com)> wrote:
- >>
- >>> Too be fair, poor backup and recovery probably plays a role too.
- >>
- >> I was going to say that windows is just a bigger target than Linux, but
- >> Linux is used extensively in servers and mission-critical situations, and
- >> you seldom hear about a successful attack targeting Linux. You're right
- >> about poor backup software and procedures.
- >
- > Fundamentally, it devolves to Microsoft's choice to use HTML
- > in email and to allow executable content in mail, to forgo
- > any form of user security, et cetera.
- >
- > Simple text is far safer, and forcing someone to manually cut & paste
- > URLs from a text mail (where the URL is unobfuscatable) to
- > a sandboxed browser would have been a far more secure paradigm.

Yes, but far less convenient. And as every marketroid knows,

convenience trumps everything: cost, efficiency, security, even safety.

Wait, let me amend that: perceived convenience. How many times have you watched someone pointing and clicking and pointing and clicking and dragging and dropping and... oops, my mouse finger slipped - where did that file get dropped? All this to do something we could do with a dozen keystrokes. And still they'll proudly proclaim how convenient it is. Furrfu.

--

```
/~\ Charlie Gibbs      | Life is perverse.  
\ / <cgibbs@kltpzyxm.invalid> | It can be beautiful -  
X I'm really at ac.dekanfrus | but it won't.  
\ if you read it the right way. | -- Lily Tomlin
```

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Fri, 24 Sep 2021 00:47:46 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Thu, 23 Sep 2021 18:31:34 GMT, Charlie Gibbs  
<cgibbs@kltpzyxm.invalid> wrote:

> On 2021-09-23, Scott Lurndal <scott@slp53.sl.home> wrote:

>

>> J. Clarke <jclarke.873638@gmail.com> writes:

>>

>>> On Thu, 23 Sep 2021 02:51:21 GMT, Charlie Gibbs

>>> <cgibbs@kltpzyxm.invalid> wrote:

>>>

>>>> Last year I heard that a number of 911 sites went down (i.e. no

>>>> dial tone) for at least half an hour thanks to a buggy Windows

>>>> update that was pushed out to them.

>>>

>>> Push updates should be a criminal offense.

>

> I'm amazed that it doesn't seem to occur to anyone what a

> huge security hole this represents.

The story is that those updates are essential to close security holes.

It's amazing the bullshit that people believe about security.

>> Running critical infrastructure on windows should be a criminal offense.

>

> Hear, hear!

That ship, however, has sailed.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Fri, 24 Sep 2021 00:51:16 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Thu, 23 Sep 2021 18:42:11 GMT, Charlie Gibbs  
<cgibbs@kltpzyxm.invalid> wrote:

> On 2021-09-23, Scott Lurndal <scott@slp53.sl.home> wrote:

>

>> Peter Flass <peter\_flass@yahoo.com> writes:

>>

>>> Dan Espen <dan1espen@gmail.com> wrote:

>>>

>>>> Too be fair, poor backup and recovery probably plays a role too.

>>>

>>> I was going to say that windows is just a bigger target than Linux, but

>>> Linux is used extensively in servers and mission-critical situations, and

>>> you seldom hear about a successful attack targeting Linux. You're right

>>> about poor backup software and procedures.

>>

>> Fundamentally, it devolves to Microsoft's choice to use HTML

>> in email and to allow executable content in mail, to forgo

>> any form of user security, et cetera.

>>

>> Simple text is far safer, and forcing someone to manually cut & paste

>> URLs from a text mail (where the URL is unobfuscatable) to

>> a sandboxed browser would have been a far more secure paradigm.

>

> Yes, but far less convenient. And as every marketroid knows,

> convenience trumps everything: cost, efficiency, security, even safety.

>

> Wait, let me amend that: perceived convenience. How many times have

> you watched someone pointing and clicking and pointing and clicking

> and dragging and dropping and... oops, my mouse finger slipped - where

> did that file get dropped?

That particular one is a stupid design decision. Accidentally hit  
the button at the wrong moment and you can drag a whole heirarchy into  
obscurity. And the really annoying thing is that you can drag it out  
of a folder to which you do not have the permissions to drag it  
back.

> All this to do something we could do with

> a dozen keystrokes.

If the filenames and paths have fewer than a dozen letters.

> And still they'll proudly proclaim how \_convenient\_  
> it is. Furrfu.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Fri, 24 Sep 2021 01:31:44 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Carlos E. R.

On 05/09/2021 18.28, Grant Taylor wrote:

> On 9/5/21 3:55 AM, Jason Evans wrote:  
>> First of all, what is "real work"? Let's say that you're a  
>> Linux/Unix/BSD system administrator who spends 90% of his day on the  
>> command line. What is the oldest computer that he could get by with to  
>> do his job?  
>  
> The problem is the remaining 10%. (I'm re-using your numbers.)  
>  
> IMM/RSA/iLO/LOM/iDRAC/etc consoles that are inherently GUI which are  
> invaluable when recovering systems during outages.  
>  
> Don't forget that email clients /almost/ \*need\* to be GUI to display  
> more than simple text ~> attachments. -- We can't forget the venerable  
> Power Point slides that we need to look at before the next meeting.

I use a pure text mail client a lot of the time.

--

Cheers,  
Carlos E.R.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Fri, 24 Sep 2021 01:41:09 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Carlos E. R.

On 05/09/2021 11.55, Jason Evans wrote:

> I know this is an odd question, so let me explain what I'm thinking.  
>

- > First of all, what is "real work"? Let's say that you're a Linux/Unix/BSD
- > system administrator who spends 90% of his day on the command line. What is
- > the oldest computer that he could get by with to do his job?

Voyager 1, launched 1977, still running. It is doing the job for which it was programmed.

What about the navigation computers for all the nuclear missiles built... when? 60's?

--

Cheers,  
Carlos E.R.

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Mike Spencer](#) on Fri, 24 Sep 2021 06:10:29 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

J. Clarke <jclarke.873638@gmail.com> writes:

- > On Thu, 23 Sep 2021 18:31:34 GMT, Charlie Gibbs
- > <cgibbs@kltpzyxm.invalid> wrote:
- >
- >> On 2021-09-23, Scott Lurndal <scott@slp53.sl.home> wrote:
- >>
- >>> Running critical infrastructure on windows should be a criminal offense.
- >>
- >> Hear, hear!
- >
- > That ship, however, has sailed.

AIUI, the US Navy now navigates with Windoes, has for many years. And in addition has dropped astral navigation skills as a requirement for officers. Furrfu.

--

Mike Spencer                      Nova Scotia, Canada

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Charlie Gibbs](#) on Fri, 24 Sep 2021 17:16:55 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-09-24, J Clarke <jclarke.873638@gmail.com> wrote:

> On Thu, 23 Sep 2021 18:31:34 GMT, Charlie Gibbs  
> <cgibbs@kltpzyxm.invalid> wrote:  
>  
>> On 2021-09-23, Scott Lurndal <scott@slp53.sl.home> wrote:  
>>  
>>> J. Clarke <jclarke.873638@gmail.com> writes:  
>>>  
>>>> On Thu, 23 Sep 2021 02:51:21 GMT, Charlie Gibbs  
>>>> <cgibbs@kltpzyxm.invalid> wrote:  
>>>>  
>>>> > Last year I heard that a number of 911 sites went down (i.e. no  
>>>> > dial tone) for at least half an hour thanks to a buggy Windows  
>>>> > update that was pushed out to them.  
>>>>  
>>>> Push updates should be a criminal offense.  
>>  
>> I'm amazed that it doesn't seem to occur to anyone what a  
>> huge security hole this represents.  
>  
> The story is that those updates are essential to close security holes.  
> It's amazing the bullshit that people believe about security.

For many people, security is all about giving yourself the warm fuzzies; whether the measures are effective is irrelevant. A PPOE once implemented a security policy requiring all after-hours access to be done through one door (at the opposite end of the building from the computer department, of course). So I'd have to walk the length of the building on the outside, let myself in through the designated door, then walk back the length of the building on the inside. There were no locked doors internally - once you were inside you had the run of the building - so this measure accomplished exactly nothing.

>>> Running critical infrastructure on windows should be a criminal offense.  
>>  
>> Hear, hear!  
>  
> That ship, however, has sailed.

In the case of the Australian navy, that ship was left dead in the water when Windows crashed.

--  
/~\ Charlie Gibbs | Life is perverse.  
\ / <cgibbs@kltpzyxm.invalid> | It can be beautiful -  
X I'm really at ac.dekanfrus | but it won't.  
/\ if you read it the right way. | -- Lily Tomlin

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [cross](#) on Fri, 24 Sep 2021 19:13:06 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

In article <8c9nkg10159m3f0rvhpma1cdqg5b897qo9@4ax.com>,

J. Clarke <jclarke.873638@gmail.com> wrote:

> On Wed, 22 Sep 2021 19:00:53 -0000 (UTC),

> cross@spitfire.i.gajendra.net (Dan Cross) wrote:

>>> Yeah I get it, you might be depending on an old undocumented

>>> compiler bug or you might fall foul of a new one so why risk the new shiny

>>> compiler that might get 10% better performance and might break the

>>> application.

>>

>> By that logic, one should never upgrade anything if it can

>> be avoided. An operating system upgrade in particular would

>> be terribly fraught.

>>

>> It strikes me how much process we've built predicated on the

>> presumed difficulty of testing and qualifying software for

>> production use.

>

> Nothing "presumed" about it.

Sure it is. The level of difficulty depends entirely on your processes and practices and how robust your test and staging infrastructure is. Some places do it very well. Others, not so much.

- Dan C.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [cross](#) on Fri, 24 Sep 2021 19:15:34 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

In article <sigker\$kfes1@dont-email.me>,

Dan Espen <dan1espen@gmail.com> wrote:

> cross@spitfire.i.gajendra.net (Dan Cross) writes:

>> By that logic, one should never upgrade anything if it can

>> be avoided. An operating system upgrade in particular would

>> be terribly fraught.

>>

>> It strikes me how much process we've built predicated on the

>> presumed difficulty of testing and qualifying software for

>> production use.

>

> You only update software when the benefit justifies the cost.



....or when external factors compel you to do so. But that may be a reflection of those external factors forcing an unbearable cost that implicitly justifies the upgrade.

And recall, the original discussion isn't necessarily on updating software, but on recompiling that software.

Of course, as the dividing line between "hardware" and "software" grows ever more vague, so does the definition of what it means to "update software" anyway.

- Dan C.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Fri, 24 Sep 2021 22:25:31 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: maus

On 2021-09-24, Andreas Kohlbach <ank@spamfence.net> wrote:

> On 24 Sep 2021 03:10:29 -0300, Mike Spencer wrote:

>>

>> J. Clarke <jclarke.873638@gmail.com> writes:

>>

>>> That ship, however, has sailed.

>>

>> AIUI, the US Navy now navigates with Windoes, has for many years. And

>> in addition has dropped astral navigation skills as a requirement for

>> officers. Furrfu.

>

> The world is way too computerized when it comes to security. If (or may

> be just a question if "when") China goes to war against NATO, first thing

> they do is to take out GPS (shooting some satellites down) or somehow

> jamming the signal to deny access. Suppose the Navy and Army are blind

> then. And without astral navigation skills ships might not even find the

> way home.

After an atomic war, there will be no homes to go to.

--

greymausg@mail.com

Down the wrong mousehole.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Fri, 24 Sep 2021 22:28:26 GMT

Originally posted by: maus

On 2021-09-23, Peter Flass <peter\_flass@yahoo.com> wrote:

> Dan Espen <dan1espen@gmail.com> wrote:

>> Peter Flass <peter\_flass@yahoo.com> writes:

>>

>>> Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:

>>>> On 2021-09-23, Dan Espen <dan1espen@gmail.com> wrote:

>>>>

>>>> > cross@spitfire.i.gajendra.net (Dan Cross) writes:

>>>> >

>>>> >> In article <20210918155210.02c1c46cfbb0456d26a4ee94@eircom.net>,

>>>> >> Ahem A Rivet's Shot <steveo@eircom.net> wrote:

>>>> >>

> checksum the backups and verify a good one? Duplicity does that, and also

> does a test restore periodically. I have had occasion to restore some files

> a few times, and I'm grateful to have it, although I also do some of my own

> backups.

>

> I did prefer the system I had previously, whose name I have forgotten, that

> had a better UI, but they dropped support for individual users in favor of

> corporate licenses.

>

I occasion get a message demanding money or else. So far, nothing happens.

--

greymausg@mail.com

Down the wrong mousehole.

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Fri, 24 Sep 2021 22:37:19 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Fri, 24 Sep 2021 19:13:06 -0000 (UTC),

cross@spitfire.i.gajendra.net (Dan Cross) wrote:

> In article <8c9nkg10159m3f0rvhpma1cdqg5b897qo9@4ax.com>,

> J. Clarke <jclarke.873638@gmail.com> wrote:

>> On Wed, 22 Sep 2021 19:00:53 -0000 (UTC),

>> cross@spitfire.i.gajendra.net (Dan Cross) wrote:

>>>> Yeah I get it, you might be depending on an old undocumented

>>>> compiler bug or you might fall foul of a new one so why risk the new shiny  
>>>> compiler that might get 10% better performance and might break the  
>>>> application.  
>>>  
>>> By that logic, one should never upgrade anything if it can  
>>> be avoided. An operating system upgrade in particular would  
>>> be terribly fraught.  
>>>  
>>> It strikes me how much process we've built predicated on the  
>>> presumed difficulty of testing and qualifying software for  
>>> production use.  
>>  
>> Nothing "presumed" about it.  
>  
> Sure it is. The level of difficulty depends entirely on  
> your processes and practices and how robust your test and  
> staging infrastructure is. Some places do it very well.  
> Others, not so much.

If you feel like robusticizing the "processes and practices and test and staging infrastructure" for a Fortune 500 financial services company, I can give you a name to which you can send your sales pitch. Make it shiny enough and put a big enough hook in it and he may even bite.

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Fri, 24 Sep 2021 22:50:59 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On 24 Sep 2021 03:10:29 -0300, Mike Spencer  
<mds@bogus.nodomain.nowhere> wrote:

>  
> J. Clarke <jclarke.873638@gmail.com> writes:  
>  
>> On Thu, 23 Sep 2021 18:31:34 GMT, Charlie Gibbs  
>> <cgibbs@kltpzyxm.invalid> wrote:  
>>  
>>> On 2021-09-23, Scott Lurndal <scott@slp53.sl.home> wrote:  
>>>  
>>>> Running critical infrastructure on windows should be a criminal offense.  
>>>  
>>> Hear, hear!  
>>  
>> That ship, however, has sailed.

>  
> AIUI, the US Navy now navigates with Windoes, has for many years. And  
> in addition has dropped astral navigation skills as a requirement for  
> officers. Furrfu.

You do know that a handheld GPS can provide the same information as  
celestial nav, with vastly greater precision, do you not? And likely  
has accurate charts these days.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Sat, 25 Sep 2021 00:11:01 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Branimir Maksimovic

Who in sane state of MIND would use WINDOWS for critical missions  
and FAULT TAULERANCY :P  
(I work for RS military)

--

7-77-777

\\

---

/\\

On 2021-09-24, Charlie Gibbs <[cgibbs@kltpzyxm.invalid](mailto:cgibbs@kltpzyxm.invalid)> wrote:

> On 2021-09-24, J Clarke <[jclarke.873638@gmail.com](mailto:jclarke.873638@gmail.com)> wrote:

>

>> On Thu, 23 Sep 2021 18:31:34 GMT, Charlie Gibbs

>> <[cgibbs@kltpzyxm.invalid](mailto:cgibbs@kltpzyxm.invalid)> wrote:

>>

>>> On 2021-09-23, Scott Lurndal <[scott@slp53.sl.home](mailto:scott@slp53.sl.home)> wrote:

>>>

>>>> J. Clarke <[jclarke.873638@gmail.com](mailto:jclarke.873638@gmail.com)> writes:

>>>>

>>>> > On Thu, 23 Sep 2021 02:51:21 GMT, Charlie Gibbs

>>>> > <[cgibbs@kltpzyxm.invalid](mailto:cgibbs@kltpzyxm.invalid)> wrote:

>>>> >

>>>> >> Last year I heard that a number of 911 sites went down (i.e. no

>>>> >> dial tone) for at least half an hour thanks to a buggy Windows

>>>> >> update that was pushed out to them.

>>>> >

>>>> > Push updates should be a criminal offense.

>>>

>>> I'm amazed that it doesn't seem to occur to anyone what a

>>> huge security hole this represents.

>>

>> The story is that those updates are essential to close security holes.

>> It's amazing the bullshit that people believe about security.  
>  
> For many people, security is all about giving yourself the warm fuzzies;  
> whether the measures are effective is irrelevant. A PPOE once implemented  
> a security policy requiring all after-hours access to be done through one  
> door (at the opposite end of the building from the computer department,  
> of course). So I'd have to walk the length of the building on the outside,  
> let myself in through the designated door, then walk back the length of  
> the building on the inside. There were no locked doors internally -  
> once you were inside you had the run of the building - so this measure  
> accomplished exactly nothing.  
>  
>>>> Running critical infrastructure on windows should be a criminal offense.  
>>>>  
>>> Hear, hear!  
>>  
>> That ship, however, has sailed.  
>  
> In the case of the Australian navy, that ship was left dead in the water  
> when Windows crashed.  
>

--

Evil Sinner!

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sat, 25 Sep 2021 00:36:20 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Branimir Maksimovic

No electronics, only light bulbs will survive that is why Russians  
have lamps in their PLANES.

--

7-77-777

\\

---

/\\

On 2021-09-24, maus <maus@dmaus.org> wrote:

> On 2021-09-24, Andreas Kohlbach <ank@spamfence.net> wrote:

>> On 24 Sep 2021 03:10:29 -0300, Mike Spencer wrote:

>>>

>>> J. Clarke <jclarke.873638@gmail.com> writes:

>>>

>>>> That ship, however, has sailed.  
>>>  
>>> AIUI, the US Navy now navigates with Windoes, has for many years. And  
>>> in addition has dropped astral navigation skills as a requirement for  
>>> officers. Furrfu.  
>>  
>> The world is way too computerized when it comes to security. If (or may  
>> be just a question if "when") China goes to war against NATO, first thing  
>> they do is to take out GPS (shooting some satellites down) or somehow  
>> jamming the signal to deny access. Suppose the Navy and Army are blind  
>> then. And without astral navigation skills ships might not even find the  
>> way home.  
>  
> After an atomic war, there will be no homes to go to.

--  
Evil Sinner!

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Sat, 25 Sep 2021 00:38:30 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Branimir Maksimovic

I have learned that NOTHING IS FREE. If you PAY HONESTLY it is cheaper  
then to use something virtually free.

--  
7-77-777  
\\/  
---  
/\\  
On 2021-09-24, maus <maus@dmaus.org> wrote:  
> On 2021-09-23, Peter Flass <peter\_flass@yahoo.com> wrote:  
>> Dan Espen <dan1espen@gmail.com> wrote:  
>>> Peter Flass <peter\_flass@yahoo.com> writes:  
>>>  
>>>> Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:  
>>>> > On 2021-09-23, Dan Espen <dan1espen@gmail.com> wrote:  
>>>> >  
>>>> >> cross@spitfire.i.gajendra.net (Dan Cross) writes:  
>>>> >>  
>>>> >>> In article <20210918155210.02c1c46cfbb0456d26a4ee94@eircom.net>,  
>>>> >>> Ahem A Rivet's Shot <steveo@eircom.net> wrote:  
>>>> >>>  
>> checksum the backups and verify a good one? Duplicity does that, and also

>> does a test restore periodically. I have had occasion to restore some files  
>> a few times, and I'm grateful to have it, although I also do some of my own  
>> backups.  
>>  
>> I did prefer the system I had previously, whose name I have forgotten, that  
>> had a better UI, but they dropped support for individual users in favor of  
>> corporate licenses.  
>>  
>  
> I occasion get a message demanding money or else. So far, nothing  
> happens.  
>

--

Evil Sinner!

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Andreas Kohlbach](#) on Sat, 25 Sep 2021 06:57:43 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Fri, 24 Sep 2021 20:23:33 -0500, Dave Garland wrote:

>  
> On 9/24/2021 5:50 PM, J. Clarke wrote:  
>>>  
>>> AIUI, the US Navy now navigates with Windoes, has for many years. And  
>>> in addition has dropped astral navigation skills as a requirement for  
>>> officers. Furrfu.  
>> You do know that a handheld GPS can provide the same information as  
>> celestial nav, with vastly greater precision, do you not? And likely  
>> has accurate charts these days.  
>>  
> Works so long as the satellites are still functioning, not turned off,  
> not jammed, not spoofed. Remember a few years ago Iran fooled a US  
> drone into landing at one of their airfields? Or google "China GPS  
> spoofing" for fun and games with ships near to China. Or the 20 ships  
> in the Black Sea in 2017 whose location returned as an airport 32km  
> inland. I would expect every competent military has tools to deal with  
> satnav these days. (You can buy a jammer off AliBaba for as little as  
> \$200, spoofing probably costs a lot more.)

That goes already back to World War II. In the Battle Of The Beams  
<[https://en.wikipedia.org/wiki/Battle\\_of\\_the\\_Beams](https://en.wikipedia.org/wiki/Battle_of_the_Beams)> the British tempered  
with German location findings for "blind landings". They fooled some  
German air planes to land in Britain, believing they landed in Nazi  
Germany.

| Thus the beam was seemingly "bent" away from the target. Eventually,  
| the beams could be inclined by a controlled amount which enabled the  
| British to fool the Germans into dropping their bombs where they  
| wanted them. A side effect was that as the German crews had been  
| trained to navigate solely by the beams, many crews failed to find  
| either the true equi-signal or Germany again. Some Luftwaffe bombers  
| even landed at RAF bases, believing they were back in the Reich.

> It's way harder to spoof the stars.

:-)

--

Andreas

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Mike Spencer](#) on Sat, 25 Sep 2021 07:22:50 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

J. Clarke <jclarke.873638@gmail.com> writes:

> On 24 Sep 2021 03:10:29 -0300, Mike Spencer  
> <mds@bogus.nodomain.nowhere> wrote:  
>  
>> AIUI, the US Navy now navigates with Windoes, has for many years. And  
>> in addition has dropped astral navigation skills as a requirement for  
>> officers. Furrfu.  
>  
> You do know that a handheld GPS can provide the same information as  
> celestial nav, with vastly greater precision, do you not? And likely  
> has accurate charts these days.

Yes, I do know that. But the US Navy operates \*war\*ships. If the Navy is ever again confronted with an actual war -- something beyond sending helicopter gunships or drones after "insurgents" or showing the flag in the South China Sea -- against a capable opponent, GPS/satnav is going to be the opponent's early target. Naval mariners have long had the attitude that they should be prepared to cope when X fails for almost all values of X.

I once toured a Canadian naval ship and asked about a hand-crank bolted to a bulkhead in a hold near the bilges. The answer: If you have a cold ship -- boilers cold, no shore power, nothing operating -- you unbolt the crank, use it to hand-start an antique single-banger diesel. That generates enough power to start the big 8-cyl diesel which in turn compresses enough air to start the two really big 16-cyl diesels which then generate enough power to fire up and run everything else.



--

Mike Spencer

Nova Scotia, Canada

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sat, 25 Sep 2021 11:19:54 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On 25 Sep 2021 04:22:50 -0300, Mike Spencer  
<mds@bogus.nodomain.nowhere> wrote:

>

> J. Clarke <jclarke.873638@gmail.com> writes:

>

>> On 24 Sep 2021 03:10:29 -0300, Mike Spencer

>> <mds@bogus.nodomain.nowhere> wrote:

>>

>>> AIUI, the US Navy now navigates with Windoes, has for many years. And

>>> in addition has dropped astral navigation skills as a requirement for

>>> officers. Furrfu.

>>

>> You do know that a handheld GPS can provide the same information as

>> celestial nav, with vastly greater precision, do you not? And likely

>> has accurate charts these days.

>

> Yes, I do know that. But the US Navy operates \*war\*ships. If the

> Navy is ever again confronted with an actual war -- something beyond

> sending helicopter gunships or drones after "insurgents" or showing

> the flag in the South China Sea -- against a capable opponent,

> GPS/satnav is going to be the opponent's early target. Naval mariners

> have long had the attitude that they should be prepared to cope when X

> fails for almost all values of X.

Satnav isn't that easy to kill you know. It's not like you can shoot one down with a MiG 21. Besides, there are 4 different systems. To render satnav unusable would require destroying upwards of 100 different satellites.

In addition, google SINS. Have you asked yourself how a submarine could sail around the world submerged in 1960? The answer is inertial navigation. It's not as precise as GPS--you can't use it to enter a harbor in a fog after 25,000 miles--but it works well enough if you are aware of its limitations.

> I once toured a Canadian naval ship and asked about a hand-crank

> bolted to a bulkhead in a hold near the bilges. The answer: If you  
> have a cold ship -- boilers cold, no shore power, nothing operating --  
> you unbolt the crank, use it to hand-start an antique single-banger  
> diesel. That generates enough power to start the big 8-cyl diesel  
> which in turn compresses enough air to start the two really big  
> 16-cyl diesels which then generate enough power to fire up and run  
> everything else.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Peter Flass](#) on Sat, 25 Sep 2021 19:28:22 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

J. Clarke <jclarke.873638@gmail.com> wrote:

> On 24 Sep 2021 03:10:29 -0300, Mike Spencer  
> <mds@bogus.nodomain.nowhere> wrote:

>

>>

>> J. Clarke <jclarke.873638@gmail.com> writes:

>>

>>> On Thu, 23 Sep 2021 18:31:34 GMT, Charlie Gibbs

>>> <cgibbs@kltpzyxm.invalid> wrote:

>>>

>>>> On 2021-09-23, Scott Lurndal <scott@slp53.sl.home> wrote:

>>>>

>>>> > Running critical infrastructure on windows should be a criminal offense.

>>>>

>>>> Hear, hear!

>>>

>>> That ship, however, has sailed.

>>

>> AIUI, the US Navy now navigates with Windoes, has for many years. And

>> in addition has dropped astral navigation skills as a requirement for

>> officers. Furrfu.

>

> You do know that a handheld GPS can provide the same information as

> celestial nav, with vastly greater precision, do you not? And likely

> has accurate charts these days.

>

Sure, but only, as someone has said, if the satellites are working. Heck,  
my iPhone has good GPS.

--

Pete

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sat, 25 Sep 2021 19:56:30 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Sat, 25 Sep 2021 12:28:22 -0700, Peter Flass  
<peter\_flass@yahoo.com> wrote:

> J. Clarke <jclarke.873638@gmail.com> wrote:

>> On 24 Sep 2021 03:10:29 -0300, Mike Spencer

>> <mds@bogus.nodomain.nowhere> wrote:

>>

>>>

>>> J. Clarke <jclarke.873638@gmail.com> writes:

>>>

>>>> On Thu, 23 Sep 2021 18:31:34 GMT, Charlie Gibbs

>>>> <cgibbs@kltpzyxm.invalid> wrote:

>>>>

>>>> > On 2021-09-23, Scott Lurndal <scott@slp53.sl.home> wrote:

>>>> >

>>>> >> Running critical infrastructure on windows should be a criminal offense.

>>>> >

>>>> > Hear, hear!

>>>>

>>>> That ship, however, has sailed.

>>>

>>> AIUI, the US Navy now navigates with Windoes, has for many years. And

>>> in addition has dropped astral navigation skills as a requirement for

>>> officers. Furrfu.

>>

>> You do know that a handheld GPS can provide the same information as

>> celestial nav, with vastly greater precision, do you not? And likely

>> has accurate charts these days.

>>

>

> Sure, but only, as someone has said, if the satellites are working. Heck,

> my iPhone has good GPS.

Why would they not be? There are 100 orbital launches or so a year.

It would take that many to knock down all the satnav satellites. And

there aren't very many orbital launch facilities in the

world--furthermore none of them are hardened.

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Ahem A Rivet's Shot](#) on Sat, 25 Sep 2021 21:21:51 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Sat, 25 Sep 2021 15:56:30 -0400  
J. Clarke <jclarke.873638@gmail.com> wrote:

- > Why would they not be? There are 100 orbital launches or so a year.
- > It would take that many to knock down all the satnav satellites. And
- > there aren't very many orbital launch facilities in the
- > world--furthermore none of them are hardened.

This and the possibility that there is a separate constellation for military use with an authenticated and encrypted protocol and hardened satellites. It would be easy enough to do and hide and an elementary common sense precaution and it's really hard to steal a private key if the only copy is on a satellite.

--

Steve O'Hara-Smith  
Odds and Ends at <http://www.sohara.org/>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [lawrence](#) on Sat, 25 Sep 2021 23:48:29 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Grant Taylor <gtaylor@tnetconsulting.net> writes:

- > On 9/6/21 2:14 AM, Ahem A Rivet's Shot wrote:
- >> Erm KA9Q was originally TCP/IP over souped up RTTY (aka packet
- >> radio) was it not. OK it was not Linux (that was still in the
- >> future) but it did come with email, usenet, ftp and a multi-tasking
- >> kernel to run them under messy dos - I never saw the CP/M version
- >> but 64K is awfully tight for TCP/IP.
- >
- > Was it Usenet (UUCP / NNTP) or FTP proper? Or was it other
- > non-standard services that provided similar function to the proper
- > services?
- >

It was a full TCP/IP stack for late-80s-vintage IBM PC Hardware. The 'dominant' transport was IP-over-AX.25, but it also could use early Ethernet drivers, and there was a version that supported SL/IP (but I don't recall ever seeing a PPP implementation)

It included 'application' support for FTP, SMTP transport, a mail client called Bdale's Mailer, and a complete TELNET client implementation. It also provided a keyboard-to-keyboard-chat feature as a TELNET server.

--NK1G

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Charlie Gibbs](#) on Sun, 26 Sep 2021 04:24:58 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-09-25, Andreas Kohlbach <ank@spamfence.net> wrote:

> On Sat, 25 Sep 2021 07:19:54 -0400, J. Clarke wrote:

>>

>> On 25 Sep 2021 04:22:50 -0300, Mike Spencer

>> <mds@bogus.nodomain.nowhere> wrote:

>>

>>> Yes, I do know that. But the US Navy operates \*war\*ships. If the  
>>> Navy is ever again confronted with an actual war -- something beyond  
>>> sending helicopter gunships or drones after "insurgents" or showing  
>>> the flag in the South China Sea -- against a capable opponent,  
>>> GPS/satnav is going to be the opponent's early target. Naval mariners  
>>> have long had the attitude that they should be prepared to cope when X  
>>> fails for almost all values of X.

>>

>> Satnav isn't that easy to kill you know. It's not like you can shoot  
>> one down with a MiG 21. Besides, there are 4 different systems. To  
>> render satnav unusable would require destroying upwards of 100  
>> different satellites.

>

> From what I read there are 31 (US) GPS satellites in orbit. Cannot find  
> out the distance to one to another. Might be less than 1000  
> kilometers. If one nuke is fired at a distance of 500 kilometers between  
> two satellites it might take out both of them. So you (China, or who ever  
> is the enemy in a future war) need 15 nukes to take out the whole  
> system. Shouldn't be a problem. Should be even enough to take down only a  
> few of them to make the system useless.

Not really. If you can pick up three satellites you have a 2D position.  
Four satellites will give you a 3D position. Five will give you RAIM  
(redundant autonomous integrity monitoring). As long as you have that  
much of a subset in view, you can still navigate, although perhaps at  
reduced precision.

Occasionally NOTAMs (notices to airmen) are issued warning about possible  
interruptions to GPS service. They specify a time range when GPS signals  
may become unreliable within a certain radius of a given spot (smaller  
radii at low altitudes, larger ones at higher altitudes). The specified  
location is always at a military base; they're experimenting with jamming  
the signals.

--

/~\ Charlie Gibbs | Life is perverse.  
\ / <cgibbs@kltpzyxm.invalid> | It can be beautiful -  
X I'm really at ac.dekanfrus | but it won't.

/\ if you read it the right way. | -- Lily Tomlin

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Charlie Gibbs](#) on Sun, 26 Sep 2021 04:24:59 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

[top-posting corrected]

On 2021-09-25, Branimir Maksimovic <branimir.maksimovic@gmail.com> wrote:

> On 2021-09-24, maus <maus@dmaus.org> wrote:

>

>> I occasion get a message demanding money or else. So far, nothing

>> happens.

>

> I have learned that NOTHING IS FREE. If you PAY HONESTLY it is cheaper

> then to use something virtually free.

If they CHARGE HONESTLY I'd more likely to pay.

--

/~\ Charlie Gibbs | Life is perverse.

\ / <cgibbs@kltpzyxm.invalid> | It can be beautiful -

X I'm really at ac.dekanfrus | but it won't.

/\ if you read it the right way. | -- Lily Tomlin

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sun, 26 Sep 2021 07:10:45 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Branimir Maksimovic

On 2021-09-26, Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:

>

> Not really. If you can pick up three satellites you have a 2D position.

> Four satellites will give you a 3D position. Five will give you RAIM

> (redundant autonomous integrity monitoring). As long as you have that

> much of a subset in view, you can still navigate, although perhaps at

> reduced precision.

>

> Occasionally NOTAMs (notices to airmen) are issued warning about possible

> interruptions to GPS service. They specify a time range when GPS signals

> may become unreliable within a certain radius of a given spot (smaller

> radii at low altitudes, larger ones at higher altitudes). The specified

> location is always at a military base; they're experimenting with jamming

> the signals.

>

Not really jonosphere, you need only one.

Also, who first build Tesla Weapon planes will become thing of the past.

Also to improve radar for detecting objects that does not reflect signals from 20km range...

--

7-77-777

Evil Sinner!

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sun, 26 Sep 2021 07:19:35 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Branimir Maksimovic

On 2021-09-26, Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:

>> I have learned that NOTHING IS FREE. If you PAY HONESTLY it is cheaper

>> then to use something virtually free.

>

> If they CHARGE HONESTLY I'd more likely to pay.

>

Well, in 2000 I gave away all my money, thrroughed last 1600deutch marks behind left shoulder for luck, and started to sleep on streets :P

In order to test theory how you can reach Kingdom Of Heaven :P

I despise money :P

Think it is ANTICHRIST :P

When I want to buy small chocolate that costs less then

1 euro, I pay 40, and when seller runs for me I say:

keep it sister, you \*earned it\*.

I beleive that if you are alum it will be taken from you,

but i fyout don't care and throw away you will be \*given\*

more then you need :P

--

7-77-777

Evil Sinner!

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sun, 26 Sep 2021 16:10:34 GMT

---

Originally posted by: J. Clarke

On Sun, 26 Sep 2021 04:24:58 GMT, Charlie Gibbs  
<cgibbs@kltpzyxm.invalid> wrote:

> On 2021-09-25, Andreas Kohlbach <ank@spamfence.net> wrote:

>

>> On Sat, 25 Sep 2021 07:19:54 -0400, J. Clarke wrote:

>>>

>>> On 25 Sep 2021 04:22:50 -0300, Mike Spencer

>>> <mds@bogus.nodomain.nowhere> wrote:

>>>

>>>> Yes, I do know that. But the US Navy operates \*war\*ships. If the  
>>>> Navy is ever again confronted with an actual war -- something beyond  
>>>> sending helicopter gunships or drones after "insurgents" or showing  
>>>> the flag in the South China Sea -- against a capable opponent,  
>>>> GPS/satnav is going to be the opponent's early target. Naval mariners  
>>>> have long had the attitude that they should be prepared to cope when X  
>>>> fails for almost all values of X.

>>>

>>> Satnav isn't that easy to kill you know. It's not like you can shoot  
>>> one down with a MiG 21. Besides, there are 4 different systems. To  
>>> render satnav unusable would require destroying upwards of 100  
>>> different satellites.

>>

>> From what I read there are 31 (US) GPS satellites in orbit. Cannot find  
>> out the distance to one to another. Might be less than 1000  
>> kilometers. If one nuke is fired at a distance of 500 kilometers between  
>> two satellites it might take out both of them. So you (China, or who ever  
>> is the enemy in a future war) need 15 nukes to take out the whole  
>> system. Shouldn't be a problem. Should be even enough to take down only a  
>> few of them to make the system useless.

>

> Not really. If you can pick up three satellites you have a 2D position.  
> Four satellites will give you a 3D position. Five will give you RAIM  
> (redundant autonomous integrity monitoring). As long as you have that  
> much of a subset in view, you can still navigate, although perhaps at  
> reduced precision.

>

> Occasionally NOTAMs (notices to airmen) are issued warning about possible  
> interruptions to GPS service. They specify a time range when GPS signals  
> may become unreliable within a certain radius of a given spot (smaller  
> radii at low altitudes, larger ones at higher altitudes). The specified  
> location is always at a military base; they're experimenting with jamming  
> the signals.

In addition to what Charlie says:



There are four constellations. We have one, Russia has one, the EU has one, and China has one. India is working on one. In a war in which the US is involved, we can count on access to at least two of those.

Andreas could not find out the distance between the satellites because there is no fixed distance. They are in 6 orbital planes with 4 or more satellites per plane, at an orbital radius of roughly 16503 miles. The gory details can be found in

<https://www.gps.gov/technical/ps/2020-SPS-performance-standards.pdf>.

You may find

[https://www.faa.gov/about/office\\_org/headquarters\\_offices/av/s/offices/aam/cami/library/online\\_libraries/aerospace\\_medicine/tutorial/media/iii.4.1.4\\_describing\\_orbits.pdf](https://www.faa.gov/about/office_org/headquarters_offices/av/s/offices/aam/cami/library/online_libraries/aerospace_medicine/tutorial/media/iii.4.1.4_describing_orbits.pdf) helpful in understanding the nomenclature used.

Calculating the actual closest approach is more effort than I want to go into for a casual conversation. For a rough estimate of the distance between them consider a sphere of radius 16503 miles. That has an area of 3,422,438,583 square miles. Divide that by 24 and you get 142601607 square miles per satellite. Figure the radius of a circle of that area and you get 6737. Double that and you have 13474 miles. Very very rough estimate, and will vary.

Next, there's the notion of using a nuclear weapon to kill two satellites. Let's look at that. Assume the weapon yield is 60 megatons. The largest nuclear weapon ever demonstrated (Tsar Bomba, Soviet test AN602) had a yield of 50-58 megatons depending on whose data you believe so that is a reasonable limit. There are no currently operational launch systems which could carry a weapon that size to the altitude required to attack GPS.

Blast effects. In air the overpressure at 40 miles would be down to 1 psi. At that overpressure breaking windows is the major effect. That's in air--space is a vacuum so the blast effects occur over a much smaller radius.

Thermal effects: Beyond 50 miles the thermal intensity is enough to produce a sunburn in humans.

Radiation: A Tsar Bomba sized weapon could produce enough radiation to damage unshielded rad-hard ICs at up to about 7500 miles. The amount of shielding installed on GPS satellites does not appear to be available in unclassified documents. At the

EMP:

This is the one that people always trot out. EMP is an atmospheric

effect--it is the result of interaction of the nuclear weapon with both the magnetic field and the atmosphere and depends on gamma rays stripping electrons from atoms in the atmosphere. Its nature is that it is directed downward, not upward and there's not enough atmosphere at the altitude of GPS satellites to generate an effective E1 or E2 pulse at their altitude. An E3 pulse could still occur but it requires very long transmission lines to have an effect, and that is something that satellites do not have.

Intensification of the Van Allen Belt:

This is something that was demonstrated in several US and Soviet nuclear tests. It is not an issue for GPS as they are above the lower belt and below the upper one.

Bottom line:

Trying to take out two satellites with one nuclear weapon is unlikely to take out either and would require a Starship/Long March 9/Saturn V/N1 class launch vehicle, none of which exist in operational form at this time. And if there is to be more than 1 such attempt there will have to be hardened silos for such vehicles, which again do not exist anywhere at this time--after the first attempt the launch facility would become a priority target.

Note also that ICBMs are not designed to attack satellites. They could be repurposed to do so but it would require essentially reworking them into orbital launchers and their payload would be significantly reduced.

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sun, 26 Sep 2021 16:11:38 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Sun, 26 Sep 2021 04:24:59 GMT, Charlie Gibbs  
<cgibbs@kltpzyxm.invalid> wrote:

> [top-posting corrected]

>

> On 2021-09-25, Branimir Maksimovic <branimir.maksimovic@gmail.com> wrote:

>

>> On 2021-09-24, maus <maus@dmaus.org> wrote:

>>

>>> I occasion get a message demanding money or else. So far, nothing

>>> happens.

>>

>> I have learned that NOTHING IS FREE. If you PAY HONESTLY it is cheaper

>> then to use something virtually free.  
>  
> If they CHARGE HONESTLY I'd more likely to pay.

While the money to develop Linux comes from somewhere, nobody is obligated to pay for it.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Sun, 26 Sep 2021 16:55:44 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Grant Taylor

On 9/25/21 5:48 PM, Lawrence Statton (NK1G) wrote:

> It was a full TCP/IP stack for late-80s-vintage IBM PC Hardware.  
> The 'dominant' transport was IP-over-AX.25, but it also could use  
> early Ethernet drivers, and there was a version that supported SL/IP  
> (but I don't recall ever seeing a PPP implementation)

Thank you for the clarification Lawrence.

I had wondered if you might be referring to similar functionality that many BBS packages provided using different technology. But you have satisfactorily clarified my misunderstanding.

> It included 'application' support for FTP, SMTP transport, a mail client  
> called Bdale's Mailer, and a complete TELNET client implementation.  
> It also provided a keyboard-to-keyboard-chat feature as a TELNET  
> server.

Interesting.

Thank you again.

--  
Grant. . . .  
unix || die

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [John Levine](#) on Sun, 26 Sep 2021 19:50:02 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

According to Lawrence Statton (NK1G) <lawrence@cluon.com>:

> [KA9Q] was a full TCP/IP stack for late-80s-vintage IBM PC Hardware. The  
> 'dominant' transport was IP-over-AX.25, but it also could use early  
> Ethernet drivers, and there was a version that supported SL/IP (but I  
> don't recall ever seeing a PPP implementation)

In 1990 I used a couple of old PCs and Wavelan proto-wifi cards to set up a connection from my house in Cambridge MA to a friend's house a block away and share his connection to the local Internet co-op. It was quite the kludge, with a yagi antenna sticking out of an attic window but it worked great.

I believe I used PC-ROUTE, packet drivers for the Ethernet card and perhaps an NDIS shim for the Wavelan, but I don't think I had to write any software.

--

Regards,  
John Levine, johnl@taugh.com, Primary Perpetrator of "The Internet for Dummies",  
Please consider the environment before reading this e-mail. <https://jl.ly>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [cross](#) on Mon, 27 Sep 2021 12:52:47 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

In article <2fkskgliuu6o31kjfcgsmbh28m4jrek0bq@4ax.com>,  
J. Clarke <jclarke.873638@gmail.com> wrote:  
> On Fri, 24 Sep 2021 19:13:06 -0000 (UTC),  
> [cross@spitfire.i.gajendra.net](mailto:cross@spitfire.i.gajendra.net) (Dan Cross) wrote:  
>> Sure it is. The level of difficulty depends entirely on  
>> your processes and practices and how robust your test and  
>> staging infrastructure is. Some places do it very well.  
>> Others, not so much.  
>  
> If you feel like robusticizing the "processes and practices and test  
> and staging infrastructure" for a Fortune 500 financial services  
> company, I can give you a name to which you can send your sales pitch.  
> Make it shiny enough and put a big enough hook in it and he may even  
> bite.

So you admit that those processes and practices are below  
those of industry standards in more modern organizations.  
Cool.

- Dan C.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [usenet](#) on Tue, 28 Sep 2021 13:10:28 GMT

On Fri, 24 Sep 2021 20:23:33 -0500, Dave Garland <dave.garland@wizinfo.com> wrote:

> On 9/24/2021 5:50 PM, J. Clarke wrote:

>> You do know that a handheld GPS can provide the same information as

>> celestial nav, with vastly greater precision, do you not? And likely

>> has accurate charts these days.

>>

> Works so long as the satellites are still functioning, not turned off,

> not jammed, not spoofed. Remember a few years ago Iran fooled a US

> drone into landing at one of their airfields? Or google "China GPS

> spoofing" for fun and games with ships near to China. Or the 20 ships

> in the Black Sea in 2017 whose location returned as an airport 32km

> inland. I would expect every competent military has tools to deal with

> satnav these days. (You can buy a jammer off AliBaba for as little as

> \$200, spoofing probably costs a lot more.)

>

> It's way harder to spoof the stars.

If you can see them. Warship operations can't be dependent on a lack of fog or an overcast sky.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [usenet](#) on Tue, 28 Sep 2021 13:10:54 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On 25 Sep 2021 04:22:50 -0300, Mike Spencer <mds@bogus.nodomain.nowhere> wrote:

> J. Clarke <jclarke.873638@gmail.com> writes:

>> On 24 Sep 2021 03:10:29 -0300, Mike Spencer

>> <mds@bogus.nodomain.nowhere> wrote:

>>> AIUI, the US Navy now navigates with Windoes, has for many years. And

>>> in addition has dropped astral navigation skills as a requirement for

>>> officers. Furrfu.

>>

>> You do know that a handheld GPS can provide the same information as

>> celestial nav, with vastly greater precision, do you not? And likely

>> has accurate charts these days.

>

> Yes, I do know that. But the US Navy operates \*war\*ships. If the

> Navy is ever again confronted with an actual war -- something beyond

> sending helicopter gunships or drones after "insurgents" or showing

> the flag in the South China Sea -- against a capable opponent,

> GPS/satnav is going to be the opponent's early target. Naval mariners

> have long had the attitude that they should be prepared to cope when X

> fails for almost all values of X.

>

> I once toured a Canadian naval ship and asked about a hand-crank  
> bolted to a bulkhead in a hold near the bilges. The answer: If you  
> have a cold ship -- boilers cold, no shore power, nothing operating --  
> you unbolt the crank, use it to hand-start an antique single-banger  
> diesel. That generates enough power to start the big 8-cyl diesel  
> which in turn compresses enough air to start the two really big  
> 16-cyl diesels which then generate enough power to fire up and run  
> everything else.

Circling back to something on topic: this reminds me of bootstrapping a DEC KI-10. From memory, subject to errors: first you set a code in a switch register that selects which device to use, for example, paper tape, then push another button. That loads into memory and executes a small loader program that reads a bigger bootstrap loader from disk, which in turn loads and starts the operating system (i.e., the monitor in TOPS-10 parlance).

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [usenet](#) on Tue, 28 Sep 2021 13:11:34 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Sat, 25 Sep 2021 22:21:51 +0100, Ahem A Rivet's Shot <steveo@eircom.net> wrote:

> On Sat, 25 Sep 2021 15:56:30 -0400  
> J. Clarke <jclarke.873638@gmail.com> wrote:  
>> Why would they not be? There are 100 orbital launches or so a year.  
>> It would take that many to knock down all the satnav satellites. And  
>> there aren't very many orbital launch facilities in the  
>> world--furthermore none of them are hardened.  
>  
> This and the possibility that there is a separate constellation for  
> military use with an authenticated and encrypted protocol and hardened  
> satellites. It would be easy enough to do and hide and an elementary common  
> sense precaution and it's really hard to steal a private key if the only  
> copy is on a satellite.

Easy to do -- perhaps. Easy to hide? No. There are bird watchers, train spotters, and similarly, people who track satellites. They have the orbital characteristics for known commercial and military satellites, and watch for them. So-called "black" satellites tend to stand out because when they are observed from the ground, their orbits don't match any satellites that people are claiming credit for.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [usenet](#) on Tue, 28 Sep 2021 13:13:29 GMT

On Sun, 26 Sep 2021 12:10:34 -0400, J. Clarke <jclarke.873638@gmail.com> wrote:

> On Sun, 26 Sep 2021 04:24:58 GMT, Charlie Gibbs

> <cgibbs@kltpzyxm.invalid> wrote:

>> On 2021-09-25, Andreas Kohlbach <ank@spamfence.net> wrote:

>>> On Sat, 25 Sep 2021 07:19:54 -0400, J. Clarke wrote:

>>>> On 25 Sep 2021 04:22:50 -0300, Mike Spencer

>>>> <mds@bogus.nodomain.nowhere> wrote:

>>>> >Yes, I do know that. But the US Navy operates \*war\*ships. If the

>>>> >Navy is ever again confronted with an actual war -- something beyond

>>>> >sending helicopter gunships or drones after "insurgents" or showing

>>>> >the flag in the South China Sea -- against a capable opponent,

>>>> >GPS/satnav is going to be the opponent's early target. Naval mariners

>>>> >have long had the attitude that they should be prepared to cope when X

>>>> >fails for almost all values of X.

>>>>

>>>> Satnav isn't that easy to kill you know. It's not like you can shoot

>>>> one down with a MiG 21. Besides, there are 4 different systems. To

>>>> render satnav unusable would require destroying upwards of 100

>>>> different satellites.

>>>>

>>> From what I read there are 31 (US) GPS satellites in orbit. Cannot find

>>> out the distance to one to another. Might be less than 1000

>>> kilometers. If one nuke is fired at a distance of 500 kilometers between

>>> two satellites it might take out both of them. So you (China, or who ever

>>> is the enemy in a future war) need 15 nukes to take out the whole

>>> system. Shouldn't be a problem. Should be even enough to take down only a

>>> few of them to make the system useless.

>>>

>> Not really. If you can pick up three satellites you have a 2D position.

>> Four satellites will give you a 3D position. Five will give you RAIM

>> (redundant autonomous integrity monitoring). As long as you have that

>> much of a subset in view, you can still navigate, although perhaps at

>> reduced precision.

>>>

>> Occasionally NOTAMs (notices to airmen) are issued warning about possible

>> interruptions to GPS service. They specify a time range when GPS signals

>> may become unreliable within a certain radius of a given spot (smaller

>> radii at low altitudes, larger ones at higher altitudes). The specified

>> location is always at a military base; they're experimenting with jamming

>> the signals.

>>>

> In addition to what Charlie says:

>>>

> There are four constellations. We have one, Russia has one, the EU

> has one, and China has one. India is working on one. In a war in

> which the US is involved, we can count on access to at least two of

> those.



>

- > Andreas could not find out the distance between the satellites because
- > there is no fixed distance. They are in 6 orbital planes with 4 or
- > more satellites per plane, at an orbital radius of roughly 16503
- > miles. The gory details can be found in
- > <https://www.gps.gov/technical/ps/2020-SPS-performance-standards.pdf>.
- > You may find
- > [https://www.faa.gov/about/office\\_org/headquarters\\_offices/av/s/offices/aam/cami/library/online\\_libraries/aerospace\\_medicine/tutorial/media/iii.4.1.4\\_describing\\_orbits.pdf](https://www.faa.gov/about/office_org/headquarters_offices/av/s/offices/aam/cami/library/online_libraries/aerospace_medicine/tutorial/media/iii.4.1.4_describing_orbits.pdf)
- > helpful in understanding the nomenclature used.
- >
- > Calculating the actual closest approach is more effort than I want to
- > go into for a casual conversation. For a rough estimate of the
- > distance between them consider a sphere of radius 16503 miles. That
- > has an area of 3,422,438,583 square miles. Divide that by 24 and you
- > get 142601607 square miles per satellite. Figure the radius of a
- > circle of that area and you get 6737. Double that and you have 13474
- > miles. Very very rough estimate, and will vary.

The problem with your calculation is that assumes the satellites are equally likely to be anywhere around the planet, when in fact by your statement they are in one of six orbital planes. I don't know what the width of those planes is, but go ahead and calculate their total area, taking into account where they overlap. I'll let you simplify the problem by assuming flat bands, instead of matching the Earth's curvature. I'm sure the total area is much smaller. Targeting the area where one or more planes intersect may increase effectiveness.

I don't have any major problem with the rest of your analysis, which leads me to suggest that a far more practical method to take out the GPS network would be to launch a payload of small ball bearings into the same orbital plane but going in the other direction from the satellites. The collateral damage from setting off a Kessler Syndrome may be very high, but hey, war is hell, right?

- > Next, there's the notion of using a nuclear weapon to kill two
- > satellites. Let's look at that. Assume the weapon yield is 60
- > megatons. The largest nuclear weapon ever demonstrated (Tsar Bomba,
- > Soviet test AN602) had a yield of 50-58 megatons depending on whose
- > data you believe so that is a reasonable limit. There are no currently
- > operational launch systems which could carry a weapon that size to the
- > altitude required to attack GPS.
- >
- > Blast effects. In air the overpressure at 40 miles would be down to 1
- > psi. At that overpressure breaking windows is the major effect.
- > That's in air--space is a vacuum so the blast effects occur over a
- > much smaller radius.



- >
  - > Thermal effects: Beyond 50 miles the thermal intensity is enough to
  - > produce a sunburn in humans.
  - >
  - > Radiation: A Tsar Bomba sized weapon could produce enough radiation
  - > to damage unshielded rad-hard ICs at up to about 7500 miles. The
  - > amount of shielding installed on GPS satellites does not appear to be
  - > available in unclassified documents. At the
  - >
  - > EMP:
  - > This is the one that people always trot out. EMP is an atmospheric
  - > effect--it is the result of interaction of the nuclear weapon with
  - > both the magnetic field and the atmosphere and depends on gamma rays
  - > stripping electrons from atoms in the atmosphere. Its nature is that
  - > it is directed downward, not upward and there's not enough atmosphere
  - > at the altitude of GPS satellites to generate an effective E1 or E2
  - > pulse at their altitude. An E3 pulse could still occur but it
  - > requires very long transmission lines to have an effect, and that is
  - > something that satellites do not have.
  - >
  - > Intensification of the Van Allen Belt:
  - > This is something that was demonstrated in several US and Soviet
  - > nuclear tests. It is not an issue for GPS as they are above the lower
  - > belt and below the upper one.
  - >
  - > Bottom line:
  - > Trying to take out two satellites with one nuclear weapon is unlikely
  - > to take out either and would require a Starship/Long March 9/Saturn
  - > V/N1 class launch vehicle, none of which exist in operational form at
  - > this time. And if there is to be more than 1 such attempt there will
  - > have to be hardened silos for such vehicles, which again do not exist
  - > anywhere at this time--after the first attempt the launch facility
  - > would become a priority target.
  - >
  - > Note also that ICBMs are not designed to attack satellites. They
  - > could be repurposed to do so but it would require essentially
  - > reworking them into orbital launchers and their payload would be
  - > significantly reduced.
- 

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Ahem A Rivet's Shot](#) on Tue, 28 Sep 2021 13:48:25 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Tue, 28 Sep 2021 13:11:34 GMT  
usenet@only.tnx (Questor) wrote:

- > On Sat, 25 Sep 2021 22:21:51 +0100, Ahem A Rivet's Shot

> <steveo@eircom.net> wrote:  
>> On Sat, 25 Sep 2021 15:56:30 -0400  
>> J. Clarke <jclarke.873638@gmail.com> wrote:  
>>> Why would they not be? There are 100 orbital launches or so a year.  
>>> It would take that many to knock down all the satnav satellites. And  
>>> there aren't very many orbital launch facilities in the  
>>> world--furthermore none of them are hardened.  
>>  
>> This and the possibility that there is a separate constellation for  
>> military use with an authenticated and encrypted protocol and hardened  
>> satellites. It would be easy enough to do and hide and an elementary  
>> common sense precaution and it's really hard to steal a private key if  
>> the only copy is on a satellite.  
>  
> Easy to do -- perhaps. Easy to hide? No. There are bird watchers, train  
> spotters, and similarly, people who track satellites. They have the

Sure, there are known to be many satellites with undeclared  
purpose, who's to say that some of them aren't an encrypted military only  
GPS system ?

--  
Steve O'Hara-Smith  
Odds and Ends at <http://www.sohara.org/>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Charlie Gibbs](#) on Tue, 28 Sep 2021 19:03:54 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-09-28, Questor <usenet@only.tnx> wrote:

> On Fri, 24 Sep 2021 20:23:33 -0500, Dave Garland  
> <dave.garland@wizinfo.com> wrote:  
>  
>> On 9/24/2021 5:50 PM, J. Clarke wrote:  
>>  
>>> You do know that a handheld GPS can provide the same information as  
>>> celestial nav, with vastly greater precision, do you not? And likely  
>>> has accurate charts these days.  
>>  
>> Works so long as the satellites are still functioning, not turned  
>> off, not jammed, not spoofed. Remember a few years ago Iran fooled  
>> a US drone into landing at one of their airfields? Or google "China  
>> GPS spoofing" for fun and games with ships near to China. Or the 20  
>> ships in the Black Sea in 2017 whose location returned as an airport  
>> 32km inland. I would expect every competent military has tools to  
>> deal with satnav these days. (You can buy a jammer off AliBaba for

>> as little as \$200, spoofing probably costs a lot more.)

>>

>> It's way harder to spoof the stars.

>

> If you can see them. Warship operations can't be dependent on a lack

> of fog or an overcast sky.

True, but it's one more option in your toolkit when conditions permit.

There's an old saying about not putting all your eggs in one basket,

but that seems to have fallen into disfavour these days...

--

/~\ Charlie Gibbs | Life is perverse.

\ / <cgibbs@kltpzyxm.invalid> | It can be beautiful -

X I'm really at ac.dekanfrus | but it won't.

/\ if you read it the right way. | -- Lily Tomlin

---

Subject: Re: bootstrap, was What is the oldest computer that could be used today for real work?

Posted by [John Levine](#) on Wed, 29 Sep 2021 22:10:06 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

According to Questor <usenet@only.tnx>:

> Circling back to something on topic: this reminds me of bootstrapping  
> a DEC KI-10. From memory, subject to errors: first you set a code  
> in a switch register that selects which device to use, for example, paper tape,  
> then push another button. That loads into memory and executes a small  
> loader program that reads a bigger bootstrap loader from disk, which in  
> turn loads and starts the operating system (i.e., the monitor in TOPS-10  
> parlance).

Sounds like S/360. You set the device number of the IPL (initial program load) device in the switches and pressed the IPL button. That ran a fixed one instruction channel program pretending to be at location 0, that read 24 bytes into 0-23, then executed whatever was read into location 8, typically another read command to read a disk or tape block with real bootstrap, then started the computer by restoring the status word at location 0 which runs the bootstrap just read in to start up the computer.

--

Regards,

John Levine, [johnl@taugh.com](mailto:johnl@taugh.com), Primary Perpetrator of "The Internet for Dummies",

Please consider the environment before reading this e-mail. <https://jl.ly>

---

---

Subject: Re: bootstrap, was What is the oldest computer that could be used today for real work?

Posted by [Anne & Lynn Wheel](#) on Thu, 30 Sep 2021 03:16:47 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

John Levine <johnl@taugh.com> writes:

> Sounds like S/360. You set the device number of the IPL (initial  
> program load) device in the switches and pressed the IPL button. That  
> ran a fixed one instruction channel program pretending to be at  
> location 0, that read 24 bytes into 0-23, then executed whatever was  
> read into location 8, typically another read command to read a disk or  
> tape block with real bootstrap, then started the computer by restoring  
> the status word at location 0 which runs the bootstrap just read in to  
> start up the computer.

old post to ibm-main & alt.folklore.computers

<http://www.garlic.com/~lynn/2007f.html#1>

discussing 360 "3card loader" and BPS (card) loader ... also

references "How to create CDROM IPL Images" for use with hercules  
(mainframe emulator)

<https://www.cbttape.org/~jjaeger/cdrom.html>

following is from old assemble program ... it can bootstrap load the

assembler program it is included in ... the "xxx"s originally were

EBCDIC HEX

```
***** 00046000
*
* 00047000
* TWO-CARD ABSOLUTE LOADER -- THE FOLLOWING ARE SELF-LOADING *
00048000
* IPL-ABLE CARDS THAT LOAD A CHANNEL PROGRAM WHICH FUNCTIONS *
00049000
* AS AN ABSOLUTE TXT CARD LOADER, EXECUTING AS A COMMAND CHAIN *
00050000
* FROM THE INITIAL IPL READ. IF PUNCHED BEFORE ANY ASSEMBLED * 00051000
* INSTRUCTIONS OR DATA, THE TEXT FILE THE ASSEMBLER PRODUCES * 00052000
* MAY BE CONVERTED INTO A SELF-LOADING DECK BY USING AN EDITOR * 00053000
* TO DELETE ANY RECORDS PRECEDING THE TWO LOADER CARDS, WHICH *
00054000
* IMMEDIATELY PRECEDE THE FIRST TXT RECORD IN THE TEXT OUTPUT. * 00055000
* 00056000
* NO CONSTANTS MAY BE ASSEMBLED IN THE ABSOLUTE ADDRESS RANGE *
00057000
* X'10' TO X'43', AS THEIR LOADING WOULD OVERWRITE THE LOADER * 00058000
* AND CAUSE IPL FAILURES. THE LOADER OPERATION IS TERMINATED * 00059000
* BY LOADING AN ORDINARY NOP CCW AT LOCATION X'40'. WHEN THE * 00060000
* ASSEMBLY BEGINS WITH A 'LABEL START 0' STATEMENT, THIS COULD * 00061000
* BE ACCOMPLISHED BY INSERTING THE SEQUENCE: * 00062000
* 00063000
```

recent post (to facebook) about early CP67, including discussion of  
(assemble output) BPS "TXT" deck loading  
<http://www.garlic.com/~lynn/2021i.html#61>

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Thu, 30 Sep 2021 13:34:13 GMT  
[View Forum Message](#) <> [Reply to Message](#)

On 9/6/21 1:30 AM, Jason Evans wrote:

```
>
>> You can run Unix from a teletype. Not something anyone in their right
>> mind wants to do these days but you can do it.
>
> Linux via ham radio RTTY would be stupid and awesome, lol.
>
```

I've even thought about a LIDAR setup, although those are quite pricey right now.

--

---

Subject: Re: bootstrap, was What is the oldest computer that could be used today for real work?

Posted by [scott](#) on Thu, 30 Sep 2021 14:29:51 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

John Levine <[johnl@taugh.com](mailto:johnl@taugh.com)> writes:

> According to Questor <[usenet@only.tnx](mailto:usenet@only.tnx)>:

>> Circling back to something on topic: this reminds me of bootstrapping  
>> a DEC KI-10. From memory, subject to errors: first you set a code  
>> in a switch register that selects which device to use, for example, paper tape,  
>> then push another button. That loads into memory and executes a small  
>> loader program that reads a bigger bootstrap loader from disk, which in  
>> turn loads and starts the operating system (i.e., the monitor in TOPS-10  
>> parlance).

>

> Sounds like S/360. You set the device number of the IPL (initial program load)  
> device in the switches and pressed the IPL button. That ran a fixed one instruction  
> channel program pretending to be at location 0, that read 24 bytes into 0-23, then  
> executed whatever was read into location 8, typically another read command to read  
> a disk or tape block with real bootstrap, then started the computer by restoring the status word  
> at  
> location 0 which runs the bootstrap just read in to start up the computer.

The Burroughs B3500 coldstart process was similar. The operator would enter an Initiate I/O (IIO) instruction at address zero and execute it[\*];

it would read in the first card and transfer control to data read from the card, which would read in subsequent cards to complete the bootstrap program, which would then read in the MCP from tape (or disk (100byte sectors) or pack (180 byte sectors)) to memory and transfer control to the MCP.

The MCP would complete the coldstart process by initializing the disk data structures (directory, free list, disk bootstrap sector, etc), reading in the configuration file (from cards) and completing the coldstart process.

[\*] The FE would strap the disk bootstrap channel in the processor so the halt/load (bootstrap) button would read the first sector of a disk on that channel and transfer control to it when booting subsequent to the coldstart.

---

---

Subject: Re: bootstrap, was What is the oldest computer that could be used today for real work?

Posted by [Charles Richmond](#) on Thu, 30 Sep 2021 14:41:37 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On 9/29/2021 5:10 PM, John Levine wrote:

> According to Questor <usenet@only.tnx>:

>> Circling back to something on topic: this reminds me of bootstrapping

>> a DEC KI-10. From memory, subject to errors: first you set a code

>> in a switch register that selects which device to use, for example, paper tape,

>> then push another button. That loads into memory and executes a small

>> loader program that reads a bigger bootstrap loader from disk, which in

>> turn loads and starts the operating system (i.e., the monitor in TOPS-10

>> parlance).

>

> Sounds like S/360. You set the device number of the IPL (initial program load)

> device in the switches and pressed the IPL button. That ran a fixed one instruction

> channel program pretending to be at location 0, that read 24 bytes into 0-23, then

> executed whatever was read into location 8, typically another read command to read

> a disk or tape block with real bootstrap, then started the computer by restoring the status word at

> location 0 which runs the bootstrap just read in to start up the computer.

>

If it's like the IBM IPL I know... sit down and be prepared to wait a-while. Where I went to uni, the IBM 370/155 took about 20 minutes to IPL. Something about "waiting for the time-base generator to come up to speed" I think... Power supply voltage levels were involved, and sequencing the power-on of equipment to prevent power surges.

'course that's been a \*long\* time ago for me!!!

--

Charles Richmond

--

This email has been checked for viruses by Avast antivirus software.  
<https://www.avast.com/antivirus>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Charles Richmond](#) on Thu, 30 Sep 2021 14:46:00 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On 9/28/2021 2:03 PM, Charlie Gibbs wrote:

> On 2021-09-28, Questor <usenet@only.tnx> wrote:

>

>> On Fri, 24 Sep 2021 20:23:33 -0500, Dave Garland

>> <dave.garland@wizinfo.com> wrote:

>>

>>> On 9/24/2021 5:50 PM, J. Clarke wrote:

>>>

>>>> You do know that a handheld GPS can provide the same information as

>>>> celestial nav, with vastly greater precision, do you not? And likely

>>>> has accurate charts these days.

>>>

>>> Works so long as the satellites are still functioning, not turned

>>> off, not jammed, not spoofed. Remember a few years ago Iran fooled

>>> a US drone into landing at one of their airfields? Or google "China

>>> GPS spoofing" for fun and games with ships near to China. Or the 20

>>> ships in the Black Sea in 2017 whose location returned as an airport

>>> 32km inland. I would expect every competent military has tools to

>>> deal with satnav these days. (You can buy a jammer off AliBaba for

>>> as little as \$200, spoofing probably costs a lot more.)

>>>

>>> It's way harder to spoof the stars.

>>

>> If you can see them. Warship operations can't be dependent on a lack

>> of fog or an overcast sky.

>

> True, but it's one more option in your toolkit when conditions permit.

> There's an old saying about not putting all your eggs in one basket,

> but that seems to have fallen into disfavour these days...

>

All true! Now-a-days the one basket for "all your eggs" is called the smart cell phone. Now when a person loses their smart cell phone, that person is put back to counting rocks at the opening of the cave where they live. ;-)



--

Charles Richmond

--

This email has been checked for viruses by Avast antivirus software.  
<https://www.avast.com/antivirus>

---

---

Subject: Re: bootstrap, was What is the oldest computer that could be used today for real work?

Posted by [Dan Espen](#) on Thu, 30 Sep 2021 15:03:14 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Charles Richmond <[codescott@aquaporin4.com](mailto:codescott@aquaporin4.com)> writes:

> On 9/29/2021 5:10 PM, John Levine wrote:  
>> According to Questor <[usenet@only.tnx](mailto:usenet@only.tnx)>:  
>>> Circling back to something on topic: this reminds me of bootstrapping  
>>> a DEC KI-10. From memory, subject to errors: first you set a code  
>>> in a switch register that selects which device to use, for example, paper tape,  
>>> then push another button. That loads into memory and executes a small  
>>> loader program that reads a bigger bootstrap loader from disk, which in  
>>> turn loads and starts the operating system (i.e., the monitor in TOPS-10  
>>> parlance).  
>> Sounds like S/360. You set the device number of the IPL (initial  
>> program load)  
>> device in the switches and pressed the IPL button. That ran a fixed one instruction  
>> channel program pretending to be at location 0, that read 24 bytes into 0-23, then  
>> executed whatever was read into location 8, typically another read command to read  
>> a disk or tape block with real bootstrap, then started the computer by restoring the status word  
>> at  
>> location 0 which runs the bootstrap just read in to start up the computer.  
>>  
>  
> If it's like the IBM IPL I know... sit down and be prepared to wait  
> a-while. Where I went to uni, the IBM 370/155 took about 20 minutes  
> to IPL. Something about "waiting for the time-base generator to come  
> up to speed" I think... Power supply voltage levels were involved,  
> and sequencing the power-on of equipment to prevent power surges.  
>  
> 'course that's been a \*long\* time ago for me!!!

I think that was characteristic of OS/VS.

DOS and DOS/VS managed a minute or 2.

The IBM 1401 booted just about the same as the other machines mentioned.  
Clear 1-80, read a card into 1-80, branch to 1.

Unlike the S/360, I don't remember any way to make a 1401 boot from other media.

--  
Dan Espen

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Charlie Gibbs](#) on Thu, 30 Sep 2021 17:44:06 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-09-30, Charles Richmond <codescott@aquaporin4.com> wrote:

> On 9/28/2021 2:03 PM, Charlie Gibbs wrote:  
>  
>> On 2021-09-28, Questor <usenet@only.tnx> wrote:  
>>  
>>> On Fri, 24 Sep 2021 20:23:33 -0500, Dave Garland  
>>> <dave.garland@wizinfo.com> wrote:  
>>>  
>>>> On 9/24/2021 5:50 PM, J. Clarke wrote:  
>>>>  
>>>> > You do know that a handheld GPS can provide the same information as  
>>>> > celestial nav, with vastly greater precision, do you not? And likely  
>>>> > has accurate charts these days.  
>>>>  
>>>> Works so long as the satellites are still functioning, not turned  
>>>> off, not jammed, not spoofed. Remember a few years ago Iran fooled  
>>>> a US drone into landing at one of their airfields? Or google "China  
>>>> GPS spoofing" for fun and games with ships near to China. Or the 20  
>>>> ships in the Black Sea in 2017 whose location returned as an airport  
>>>> 32km inland. I would expect every competent military has tools to  
>>>> deal with satnav these days. (You can buy a jammer off AliBaba for  
>>>> as little as \$200, spoofing probably costs a lot more.)  
>>>>  
>>>> It's way harder to spoof the stars.  
>>>  
>>> If you can see them. Warship operations can't be dependent on a lack  
>>> of fog or an overcast sky.  
>>  
>> True, but it's one more option in your toolkit when conditions permit.  
>> There's an old saying about not putting all your eggs in one basket,  
>> but that seems to have fallen into disfavour these days...  
>  
> All true! Now-a-days the one basket for "all your eggs" is called the

> smart cell phone. Now when a person loses their smart cell phone, that  
> person is put back to counting rocks at the opening of the cave where  
> they live. ;-)

Yup. The other example of one basket for all your eggs is the Cloud.  
And it's not even your own basket.

"All your data are belong to us."

--

/~\ Charlie Gibbs | Life is perverse.  
\ / <cgibbs@kltpzyxm.invalid> | It can be beautiful -  
X I'm really at ac.dekanfrus | but it won't.  
/\ if you read it the right way. | -- Lily Tomlin

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Ahem A Rivet's Shot](#) on Thu, 30 Sep 2021 18:10:56 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Thu, 30 Sep 2021 17:44:06 GMT  
Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:

> On 2021-09-30, Charles Richmond <codescott@aquaporin4.com> wrote:  
>  
>> All true! Now-a-days the one basket for "all your eggs" is called the  
>> smart cell phone. Now when a person loses their smart cell phone, that  
>> person is put back to counting rocks at the opening of the cave where  
>> they live. ;-)

Nah it's fine they have it all backed up in the cloud, they just  
get a new one and the nice man at the shop helps them to get it all back.

> Yup. The other example of one basket for all your eggs is the Cloud.  
> And it's not even your own basket.

Yes well there is that. However you can do what I do and run your  
own 'cloud services' and then persuade the phone to use them instead of the  
default ones. Not that there's much on the phone outside of the contact  
list which rather has to be there.

> "All your data are belong to us."

Keep your data close.

--

Steve O'Hara-Smith  
Odds and Ends at <http://www.sohara.org/>

---

Subject: Re: bootstrap, was What is the oldest computer that could be used today for real work?

Posted by [Anne & Lynn Wheel](#) on Thu, 30 Sep 2021 19:16:00 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Dan Espen <dan1espen@gmail.com> writes:

- > I think that was characteristic of OS/VS.
- >
- > DOS and DOS/VS managed a minute or 2.
- >
- > The IBM 1401 booted just about the same as the other machines mentioned.
- > Clear 1-80, read a card into 1-80, branch to 1.
- >
- > Unlike the S/360, I don't remember any way to make a 1401 boot from
- > other media.

CP/67 and VM/370 came up in several seconds. Early on CP/67 (that carried over to VM/370) for being up 7/24 dark room with no operator. There was even special handling for system crash, automatically take dump core image ... and automagically re-ipl and be back up and running.

Also back to days when all IBM mainframes were rented and charges based on "system meter" reading that ran whenever the CPU and/or any channel was running ... CP/67 developed special channel programs that let channel go idle but would immediately wake-up for any characters arriving on a line ... to reduce offshift, light load costs (and help encourage leaving system up and available 7x24, also goes for running w/o an operator/human present).

All activity had to be idle for 400ms before "system meter" would actually stop running. Note: long after IBM had switched mainframes from lease/rent to sales ... MVS (VS/2) still had a timer task that woke up every 400ms (to guarantee that system meter never stopped)

--

virtualization experience starting Jan1968, online at home since Mar1970

---

---

Subject: Re: bootstrap, was What is the oldest computer that could be used today for real work?

Posted by [Peter Flass](#) on Fri, 01 Oct 2021 00:43:22 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Scott Lurndal <scott@slp53.sl.home> wrote:

- > John Levine <johnl@taugh.com> writes:
- >> According to Questor <usenet@only.tnx>:
- >>> Circling back to something on topic: this reminds me of bootstrapping

>>> a DEC KI-10. From memory, subject to errors: first you set a code  
>>> in a switch register that selects which device to use, for example, paper tape,  
>>> then push another button. That loads into memory and executes a small  
>>> loader program that reads a bigger bootstrap loader from disk, which in  
>>> turn loads and starts the operating system (i.e., the monitor in TOPS-10  
>>> parlance).  
>>  
>> Sounds like S/360. You set the device number of the IPL (initial program load)  
>> device in the switches and pressed the IPL button. That ran a fixed one instruction  
>> channel program pretending to be at location 0, that read 24 bytes into 0-23, then  
>> executed whatever was read into location 8, typically another read command to read  
>> a disk or tape block with real bootstrap, then started the computer by  
>> restoring the status word at  
>> location 0 which runs the bootstrap just read in to start up the computer.  
>  
> The Burroughs B3500 coldstart process was similar. The operator would  
> enter an Initiate I/O (IIO) instruction at address zero and execute it[\*];  
> it would read in the first card and transfer control to data read from  
> the card, which would read in subsequent cards to complete the bootstrap  
> program, which would then read in the MCP from tape (or disk (100byte sectors)  
> or pack (180 byte sectors)) to memory and transfer control to the MCP.  
>  
> The MCP would complete the coldstart process by initializing the disk  
> data structures (directory, free list, disk bootstrap sector, etc),  
> reading in the configuration file (from cards) and completing the coldstart process.  
>  
> [\*] The FE would strap the disk bootstrap channel in the processor so the  
> halt/load (bootstrap) button would read the first sector of a disk on that  
> channel and transfer control to it when booting subsequent to the coldstart.  
>  
we  
On the CDC6400, the operator had to toggle in a small "dead start" program  
on the console to boot the system.

--

Pete

---

Subject: Re: bootstrap, was What is the oldest computer that could be used today  
for real work?

Posted by [Peter Flass](#) on Fri, 01 Oct 2021 00:43:23 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Dan Espen <dan1espen@gmail.com> wrote:

> Charles Richmond <codescott@aquaporin4.com> writes:

>

>> On 9/29/2021 5:10 PM, John Levine wrote:

>>> According to Questor <usenet@only.tnx>:

>>>> Circling back to something on topic: this reminds me of bootstrapping  
>>>> a DEC KI-10. From memory, subject to errors: first you set a code  
>>>> in a switch register that selects which device to use, for example, paper tape,  
>>>> then push another button. That loads into memory and executes a small  
>>>> loader program that reads a bigger bootstrap loader from disk, which in  
>>>> turn loads and starts the operating system (i.e., the monitor in TOPS-10  
>>>> parlance).  
>>> Sounds like S/360. You set the device number of the IPL (initial  
>>> program load)  
>>> device in the switches and pressed the IPL button. That ran a fixed one instruction  
>>> channel program pretending to be at location 0, that read 24 bytes into 0-23, then  
>>> executed whatever was read into location 8, typically another read command to read  
>>> a disk or tape block with real bootstrap, then started the computer by  
>>> restoring the status word at  
>>> location 0 which runs the bootstrap just read in to start up the computer.  
>>>  
>>  
>> If it's like the IBM IPL I know... sit down and be prepared to wait  
>> a-while. Where I went to uni, the IBM 370/155 took about 20 minutes  
>> to IPL. Something about "waiting for the time-base generator to come  
>> up to speed" I think... Power supply voltage levels were involved,  
>> and sequencing the power-on of equipment to prevent power surges.  
>>  
>> 'course that's been a \*long\* time ago for me!!!  
>  
> I think that was characteristic of OS/VS.  
>  
> DOS and DOS/VS managed a minute or 2.  
>  
> The IBM 1401 booted just about the same as the other machines mentioned.  
> Clear 1-80, read a card into 1-80, branch to 1.  
>  
> Unlike the S/360, I don't remember any way to make a 1401 boot from  
> other media.  
>

I believe I just read that the IBM 1130 had to be booted from the card reader. Of course, since it had core memory it could be powered down and up without having to reboot, so I'm not sure I ever experienced this.

--  
Pete

---

Subject: Re: bootstrap, was What is the oldest computer that could be used today for real work?

Posted by [Ahem A Rivet's Shot](#) on Fri, 01 Oct 2021 05:18:50 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Thu, 30 Sep 2021 17:43:23 -0700

Peter Flass <peter\_flass@yahoo.com> wrote:

> I believe I just read that the IBM 1130 had to be booted from the card  
> reader.

That is correct, the card was punched with a binary that could load  
the real boot code from disk. I used it fairly often, the 1130 was an easy  
machine for students to crash.

--

Steve O'Hara-Smith

Odds and Ends at <http://www.sohara.org/>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Fri, 01 Oct 2021 10:48:25 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Vir Campestris

On 23/09/2021 02:15, Dan Espen wrote:

> You only update software when the benefit justifies the cost.

The problem is that a lot of updates don't add any real functionality,  
they just plug security holes that someone has found.

Andy

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Fri, 01 Oct 2021 11:38:52 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: vladimir...@gmail.com

A real life example. My father-in-law is a math professor of some notoriety, he had his own wiki  
page for a while. He is semi-retired and works from home. I was surprised to see that his system  
is a P-100 running Windows 95. He uses LATEX, a pascal compiler and Outlook email client. SO  
he completely refused to talk about upgrading because his current system does everything he  
needs.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

---

Posted by [Charlie Gibbs](#) on Fri, 01 Oct 2021 17:43:23 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:

> On 23/09/2021 02:15, Dan Espen wrote:  
>  
>> You only update software when the benefit justifies the cost.  
>  
> The problem is that a lot of updates don't add any real functionality,  
> they just plug security holes that someone has found.

Or they add security holes when the vendors decide they don't  
don't have their hooks into you deeply enough.

--

/~\ Charlie Gibbs |  
\ / <cgibbs@kltpzyxm.invalid> | "Alexa, define 'bugging'."  
X I'm really at ac.dekanfrus |  
/\ if you read it the right way. |

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Charlie Gibbs](#) on Fri, 01 Oct 2021 17:43:25 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-10-01, vladimir...@gmail.com <vladimir.rodionov@gmail.com>  
wrote:

> A real life example. My father-in-law is a math professor of some  
> notoriety, he had his own wiki page for a while. He is semi-retired  
> and works from home. I was surprised to see that his system is a P-100  
> running Windows 95. He uses LATEX, a pascal compiler and Outlook email  
> client. SO he completely refused to talk about upgrading because his  
> current system does everything he needs.

I love to mess with salesmen's minds by gushing over how much  
I love something that they sold me a few years ago, crushing  
their hopes of selling me a newer model. Jeff Bezos can take  
his "divine discontent" and shove it wherever his ingenuity  
may devise and complacency permit.

--

/~\ Charlie Gibbs | Life is perverse.  
\ / <cgibbs@kltpzyxm.invalid> | It can be beautiful -  
X I'm really at ac.dekanfrus | but it won't.  
/\ if you read it the right way. | -- Lily Tomlin

---

---



Subject: Re: bootstrap, was What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sat, 02 Oct 2021 03:04:39 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: drb

- > On the CDC6400, the operator had to toggle in a small “dead start” program
- > on the console to boot the system.

Actually, a switch panel stashed in one of the cabinets held 17B PP words worth of deadstart program. It was rarely fiddled with.

De

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Peter Flass](#) on Sun, 03 Oct 2021 19:14:28 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

vladimir...@gmail.com <vladimir.rodionov@gmail.com> wrote:

- > A real life example. My father-in-law is a math professor of some
- > notoriety, he had his own wiki page for a while. He is semi-retired and
- > works from home. I was surprised to see that his system is a P-100
- > running Windows 95. He uses LATEX, a pascal compiler and Outlook email
- > client. SO he completely refused to talk about upgrading because his
- > current system does everything he needs.
- >

Makes sense. Every time you “upgrade” you have to waste a lot of time re-doing the customizations from your old system that make it so easy to use. You also have to learn new “muscle memory” things like key combinations (ctrl-alt-del for example). Your old software may not work, and new versions may not work the same. It’s a lot of work just to get back to where you were before.

--

Pete

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Sun, 03 Oct 2021 20:43:18 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Vir Campestris

On 01/10/2021 18:43, Charlie Gibbs wrote:

- > On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:

>  
>> On 23/09/2021 02:15, Dan Espen wrote:  
>>  
>>> You only update software when the benefit justifies the cost.  
>>  
>> The problem is that a lot of updates don't add any real functionality,  
>> they just plug security holes that someone has found.  
>  
> Or they add security holes when the vendors decide they don't  
> don't have their hooks into you deeply enough.  
>

I'm paranoid, but I'm not \_that\_ paranoid.

Do you have a source for that assertion?

Andy

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Charlie Gibbs](#) on Sun, 03 Oct 2021 21:14:46 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:

> On 01/10/2021 18:43, Charlie Gibbs wrote:  
>  
>> On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>>  
>>> On 23/09/2021 02:15, Dan Espen wrote:  
>>>  
>>>> You only update software when the benefit justifies the cost.  
>>>  
>>> The problem is that a lot of updates don't add any real functionality,  
>>> they just plug security holes that someone has found.  
>>  
>> Or they add security holes when the vendors decide they don't  
>> don't have their hooks into you deeply enough.  
>  
> I'm paranoid, but I'm not \_that\_ paranoid.  
>  
> Do you have a source for that assertion?

No definite examples, but I did read the entire Windows EULA back around the XP days. I found a clause in which Microsoft claimed entitlement to walk into your machine whenever they felt like it, take a look around, and remove anything which they in their sole estimation felt you should not have.

That nobody recognizes automatic updates as a wide-open back door has always amazed me.

Just because you're paranoid doesn't mean they aren't out to get you.

--  
/~\ Charlie Gibbs | Life is perverse.  
\/ <cgibbs@kltpzyxm.invalid> | It can be beautiful -  
X I'm really at ac.dekanfrus | but it won't.  
/\ if you read it the right way. | -- Lily Tomlin

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Sun, 03 Oct 2021 21:56:22 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Sun, 03 Oct 2021 21:14:46 GMT, Charlie Gibbs  
<cgibbs@kltpzyxm.invalid> wrote:

> On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>  
>> On 01/10/2021 18:43, Charlie Gibbs wrote:  
>>  
>>> On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>>>  
>>>> On 23/09/2021 02:15, Dan Espen wrote:  
>>>>  
>>>> > You only update software when the benefit justifies the cost.  
>>>>  
>>>> The problem is that a lot of updates don't add any real functionality,  
>>>> they just plug security holes that someone has found.  
>>>  
>>> Or they add security holes when the vendors decide they don't  
>>> don't have their hooks into you deeply enough.  
>>  
>> I'm paranoid, but I'm not \_that\_ paranoid.  
>>  
>> Do you have a source for that assertion?  
>  
> No definite examples, but I did read the entire Windows EULA back  
> around the XP days. I found a clause in which Microsoft claimed  
> entitlement to walk into your machine whenever they felt like it,  
> take a look around, and remove anything which they in their sole  
> estimation felt you should not have.  
>

> That nobody recognizes automatic updates as a wide-open back door  
> has always amazed me.  
>  
> Just because you're paranoid doesn't mean they aren't out to get you.

It's rather distressing the degree to which big corporations will trust other big corporations. If everything you do runs on computers that are in someone else's physical possession and all your communications with those computers travels over a route that neither of you control, security is pretty much a joke.

---

---

Subject: Re: bootstrap, was What is the oldest computer that could be used today for real work?

Posted by [John Levine](#) on Sun, 03 Oct 2021 22:45:19 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

According to Peter Flass <peter\_flass@yahoo.com>:

> I believe I just read that the IBM 1130 had to be booted from the card  
> reader. Of china course, since it had core memory it could be powered down  
> and up without having to to reboot, so I'm not sure I ever experienced  
> this.

The manual says you could boot it either from the card reader or paper tape, but I doubt there was ever a paper-tape-only 1130.

--

Regards,

John Levine, johnl@taugh.com, Primary Perpetrator of "The Internet for Dummies",  
Please consider the environment before reading this e-mail. <https://jl.ly>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Charlie Gibbs](#) on Mon, 04 Oct 2021 01:56:22 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-10-03, J Clarke <jclarke.873638@gmail.com> wrote:

> On Sun, 03 Oct 2021 21:14:46 GMT, Charlie Gibbs  
> <cgibbs@kltpzyxm.invalid> wrote:  
>  
>> On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>>  
>>> On 01/10/2021 18:43, Charlie Gibbs wrote:  
>>>  
>>>> On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>>>>

```

>>>> > On 23/09/2021 02:15, Dan Espen wrote:
>>>> >
>>>> >> You only update software when the benefit justifies the cost.
>>>> >
>>>> > The problem is that a lot of updates don't add any real functionality,
>>>> > they just plug security holes that someone has found.
>>>>
>>>> Or they add security holes when the vendors decide they don't
>>>> don't have their hooks into you deeply enough.
>>>
>>> I'm paranoid, but I'm not _that_ paranoid.
>>>
>>> Do you have a source for that assertion?
>>
>> No definite examples, but I did read the entire Windows EULA back
>> around the XP days. I found a clause in which Microsoft claimed
>> entitlement to walk into your machine whenever they felt like it,
>> take a look around, and remove anything which they in their sole
>> estimation felt you should not have.
>>
>> That nobody recognizes automatic updates as a wide-open back door
>> has always amazed me.
>>
>> Just because you're paranoid doesn't mean they aren't out to get you.
>
> It's rather distressing the degree to which big corporations will
> trust other big corporations.

```

It's just as distressing the degree to which individuals will trust big corporations.

```

> If everything you do runs on computers that are in someone else's
> physical possession and all your communications with those computers
> travels over a route that neither of you control, security is
> pretty much a joke.

```

Ditto for the Cloud, in which all your data lives on servers that you don't control. Even if you could encrypt your data unbreakably, you're still subject to ransomware attacks (possibly by the owners of those servers), not to mention accidental loss. I can't see why more people don't find this obvious and arrange their own backups.

"All your data are belong to us."

--

```

/~\ Charlie Gibbs          | Life is perverse.
\/ <cgibbs@kltpzyxm.invalid> | It can be beautiful -
X I'm really at ac.dekanfrus | but it won't.

```

/\ if you read it the right way. | -- Lily Tomlin

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Mon, 04 Oct 2021 05:07:04 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Branimir Maksimovic

On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:

> On 01/10/2021 18:43, Charlie Gibbs wrote:

>> On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:

>>

>>> On 23/09/2021 02:15, Dan Espen wrote:

>>>

>>>> You only update software when the benefit justifies the cost.

>>>

>>> The problem is that a lot of updates don't add any real functionality,

>>> they just plug security holes that someone has found.

>>

>> Or they add security holes when the vendors decide they don't

>> don't have their hooks into you deeply enough.

>>

>

> I'm paranoid, but I'm not \_that\_ paranoid.

>

> Do you have a source for that assertion?

>

> Andy

No need to be paranoid :P

Just don't Interfere in Politics :P

--

7-77-777

Evil Sinner!

to weak you should be meek, and you should brainfuck stronger

<https://github.com/rofl0r/chaos-pp>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Mon, 04 Oct 2021 07:12:17 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Mainlander

On 2021-10-04, Branimir Maksimovic <branimir.maksimovic@icloud.com> wrote:  
> On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>> On 01/10/2021 18:43, Charlie Gibbs wrote:  
>>> On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>>>>  
>>>> On 23/09/2021 02:15, Dan Espen wrote:  
>>>>>  
>>>>> > You only update software when the benefit justifies the cost.  
>>>>>  
>>>>> The problem is that a lot of updates don't add any real functionality,  
>>>>> they just plug security holes that someone has found.  
>>>>  
>>>> Or they add security holes when the vendors decide they don't  
>>>> don't have their hooks into you deeply enough.  
>>>>  
>>>>  
>>>> I'm paranoid, but I'm not \_that\_ paranoid.  
>>>>  
>>>> Do you have a source for that assertion?  
>>>>  
>>>> Andy  
>>>> > No need to be paranoid :P  
>>>> > Just don't Interfere in Politics :P  
>>>>  
>>>>  
>>>>

I remember something about stallman having a key combination in emacs  
that would insert dangerous words into text. I don't know if it works  
now.

--  
greymausg@mail.com  
That's not a mousehole!

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Mon, 04 Oct 2021 15:12:13 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Bud Frede

"Carlos E. R." <robin\_listas@es.invalid> writes:

> On 05/09/2021 18:28, Grant Taylor wrote:  
>> On 9/5/21 3:55 AM, Jason Evans wrote:  
>>> First of all, what is "real work"? Let's say that you're a  
>>> Linux/Unix/BSD system administrator who spends 90% of his day on the

```
>>> command line. What is the oldest computer that he could get by with to
>>> do his job?
>>
>> The problem is the remaining 10%. (I'm re-using your numbers.)
>>
>> IMM/RSA/iLO/LOM/iDRAC/etc consoles that are inherently GUI which are
>> invaluable when recovering systems during outages.
>>
>> Don't forget that email clients /almost/ *need* to be GUI to display
>> more than simple text ~> attachments. -- We can't forget the venerable
>> Power Point slides that we need to look at before the next meeting.
>
> I use a pure text mail client a lot of the time.
```

I use mutt sometimes, but I couldn't really do so for work. There are a lot of times when clients send me screen captures so I can see the issue they're running into. I need a way of displaying those or I can't effectively do my job. A text-only display like was common years ago just wouldn't work.

Yes, I suppose I could force my clients to describe what they're seeing instead of sending a screen capture, but I think they'd find it frustrating and I don't know how long I'd retain them as clients. (I'd find it frustrating too, but they're the ones that are paying so I want to avoid making things awkward or difficult for them.)

I also work a lot with an app suite that has a web GUI with plenty of graphics and javascript. You can do some management and configuration of it from a CLI, and I do so. You can even use it to some extent with only CLI tools. However, my clients don't use it that way - they use the web GUI.

It might be possible to control the VOIP service I use via the CLI, but I haven't seen any tools for doing so. (I haven't really looked, but I did look for ways of accessing it from a Linux system. Someone had created a very basic app with Electron, but I didn't see anything for CLI.)

The problem with a lot of this is that, while I might be able to do more than I am with the CLI, it might not be supported by the vendors I work with. If there's a DDoS against bandwidth.com and the VOIP service we use is not working as a result of that, my boss will understand why I couldn't answer the phone. If I don't or can't answer the phone because of some unsupported CLI client I insist on using, he's going to be mad at me because there's a GUI client that runs fine on the computer he provides me with, and that all the other employees are using on the computers he provides us with - and I wasn't using it!



I don't mind using a GUI for many things, and I've actually become quite comfortable and pretty productive in this environment (macOS). I can use the CLI when I need to, I have most of the same Unix tools at my fingertips that I would on Linux, FreeBSD, Solaris, etc. It's pretty usable and livable. I've found that I like it enough that I bought a Mac for myself and use it about half the time for my personal computing. (The rest of the time I use Linux Mint MATE, or I'm doing something on one of the handful of Raspberry Pis I have.)

Some days at work I spend most of my time in a terminal, writing scripts (vim is my preferred editor for most things) or connected to a remote system via SSH and doing various tasks.

Yes, I am sometimes nostalgic for when I was sitting in front of a terminal in college using VM/370, or using an Apple II, dialed into a BBS using Telix or {Commo}, using one of the Freenets, or Linux at a time when I didn't have a good video card in the PC I used for Linux and thus used virtual consoles instead of X. I did have a friend who had a Timex Sinclair, and we did some learning to use BASIC on it. I've only used the C64 in an emulator. A former employer used a TRS-80, and I used it a little. So I do feel a yearning to remind myself of what looking back seem like simpler times. (They often didn't seem that simple then.)

I can't really get too retro for work though, and when I'm not working, there are so many things to do - more than I have time for. I tend to do more modern things. If I want a more simple computing experience, I use the Raspberry Pi. It feels to me like a hobby computer from when I was first using personal computers. It's far more powerful than those old 8-bit computers were, but still not nearly as powerful as the servers I typically work with that have dozens of cores, etc. Sometimes it feels really nice to be working on a limited system though. It feels like sometimes I have to be more creative to work within those limits and still get what I want done.

One thing I do regularly that's pretty retro is read and post to Usenet. :-) I've moved on from the newsreaders I used in the past, but gnus is still pretty venerable (it's evidently 34 years old now). I hadn't really thought about how long it's been around before, or checked to see when it was first released. From that perspective, almost all of the newsreaders I used previously were younger than gnus. IIRC, the Freenets provided rn or nn, or maybe both. Those are both a bit older than gnus.

Getting back to the topic of the thread... I suppose that the oldest computer I could use would be something that supports modern cryptographic software and a modern browser. I'd actually need two browsers, firefox and chrom[elium]. I very occasionally need to try using the browser that my client is using, and I can reasonably suggest

that they try using either firefox or chrome if they're using something else. I use chrome for work since it better supports some other software we use. I do have to fire up firefox from time to time to try to see what a client is experiencing. I need to be able to run various VPN clients, need to be able to securely access various things via HTTPS, need to be able to use ssh and scp to remote systems, and I also need a mail client that can connect securely to the mail server and I sign all my messages with PGP and encrypt some of them.

Given that I would also need to be running a current and fully-patched OS, even if I were able to use Linux for work, I'd probably be looking at an x86\_64 machine. (I'm not sure what the state of 32-bit x86 is for Linux distros these days. I see that Ubuntu is only x86\_64 now.) Even if I were able to use something older that's 32-bit, the days of that are probably limited.

I'm not that familiar with the various Intel CPUs for personal computers since I've typically gone with AMD when possible. I see that AMD64 came out in 2003 with the Opteron and Athlon64. I guess that would tend to

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Mon, 04 Oct 2021 15:22:26 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Branimir Maksimovic

On 2021-10-04, Mainlander <Mainlander@katamail.com> wrote:  
> On 2021-10-04, Branimir Maksimovic <branimir.maksimovic@icloud.com> wrote:  
>> On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>>> On 01/10/2021 18:43, Charlie Gibbs wrote:  
>>>> On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>>>>  
>>>> > On 23/09/2021 02:15, Dan Espen wrote:  
>>>> >  
>>>> >> You only update software when the benefit justifies the cost.  
>>>> >  
>>>> > The problem is that a lot of updates don't add any real functionality,  
>>>> > they just plug security holes that someone has found.  
>>>>  
>>>> Or they add security holes when the vendors decide they don't  
>>>> don't have their hooks into you deeply enough.  
>>>>  
>>>  
>>> I'm paranoid, but I'm not \_that\_ paranoid.  
>>>  
>>> Do you have a source for that assertion?

>>>  
>>> Andy  
>> No need to be paranoid :P  
>> Just don't Interfere in Politics :P  
>>  
>>  
Well if you wish good and LOVE to world and every single  
individual in this Earth, no one will hurt you :P  
>  
> I remember something about stallman having a key combination in emacs  
> that would insert dangerous words into text. I don't know if it works  
> now.

Well if you write evil someone will stop you :P  
§  
>  
>

--

7-77-777  
Evil Sinner!  
to weak you should be meek, and you should brainfuck stronger  
<https://github.com/rofl0r/chaos-pp>

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [scott](#) on Mon, 04 Oct 2021 16:50:02 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Bud Frede <[frede@mouse-potato.com](mailto:frede@mouse-potato.com)> writes:  
> "Carlos E. R." <[robin\\_listas@es.invalid](mailto:robin_listas@es.invalid)> writes:  
>  
>> On 05/09/2021 18.28, Grant Taylor wrote:  
>>> On 9/5/21 3:55 AM, Jason Evans wrote:  
>>>> First of all, what is "real work"? Let's say that you're a  
>>>> Linux/Unix/BSD system administrator who spends 90% of his day on the  
>>>> command line. What is the oldest computer that he could get by with to  
>>>> do his job?  
>>>  
>>> The problem is the remaining 10%. (I'm re-using your numbers.)  
>>>  
>>> IMM/RSA/iLO/LOM/iDRAC/etc consoles that are inherently GUI which are  
>>> invaluable when recovering systems during outages.  
>>>  
>>> Don't forget that email clients /almost/ \*need\* to be GUI to display  
>>> more than simple text ~> attachments. -- We can't forget the venerable

>>> Power Point slides that we need to look at before the next meeting.  
>>  
>> I use a pure text mail client a lot of the time.  
>  
> I use mutt sometimes, but I couldn't really do so for work. There are a  
> lot of times when clients send me screen captures so I can see the issue  
> they're running into. I need a way of displaying those or I can't  
> effectively do my job. A text-only display like was common years ago  
> just wouldn't work.

mutt works for that. From the 'v' screen, just hit enter on the attached  
image and if your .mailcap is setup correctly, it will fire up lynx/firefox (for html)  
or your favorite image viewer for jpg.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Charlie Gibbs](#) on Mon, 04 Oct 2021 17:00:50 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-10-04, Bud Frede <frede@mouse-potato.com> wrote:

> I don't mind using a GUI for many things, and I've actually become quite  
> comfortable and pretty productive in this environment (macOS). I can use  
> the CLI when I need to, I have most of the same Unix tools at my  
> fingertips that I would on Linux, FreeBSD, Solaris, etc. It's pretty  
> usable and livable.

And that's the point. Use the tool that gets the job done for you.  
Sometimes I use a GUI because it works better. At other times a CLI  
will do the job more easily.

If you're talking about the tools you use to do your own work,  
it doesn't matter whether Joe Blow can do it better with a GUI.  
He might need 10 minutes using a CLI and 5 minutes using a GUI -  
but if you need 5 minutes using a GUI when you can do it in 30  
seconds with a CLI, then the CLI is a win for you.

A well-designed GUI will offer keyboard shortcuts so you don't  
have to move your hands from the home position (and move them  
back afterwards).

--  
/~\ Charlie Gibbs | Life is perverse.  
\/ <cgibbs@kltpzyxm.invalid> | It can be beautiful -  
X I'm really at ac.dekanfrus | but it won't.  
/\ if you read it the right way. | -- Lily Tomlin

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Mon, 04 Oct 2021 18:25:20 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Bud Frede

scott@slp53.sl.home (Scott Lurndal) writes:

```
> Bud Frede <frede@mouse-potato.com> writes:
>> "Carlos E. R." <robin_listas@es.invalid> writes:
>>
>>> On 05/09/2021 18.28, Grant Taylor wrote:
>>>> On 9/5/21 3:55 AM, Jason Evans wrote:
>>>> > First of all, what is "real work"? Let's say that you're a
>>>> > Linux/Unix/BSD system administrator who spends 90% of his day on the
>>>> > command line. What is the oldest computer that he could get by with to
>>>> > do his job?
>>>>
>>>> The problem is the remaining 10%.Â (I'm re-using your numbers.)
>>>>
>>>> IMM/RSA/iLO/LOM/iDRAC/etc consoles that are inherently GUI which are
>>>> invaluable when recovering systems during outages.
>>>>
>>>> Don't forget that email clients /almost/ *need* to be GUI to display
>>>> more than simple text ~> attachments.Â --Â We can't forget the venerable
>>>> Power Point slides that we need to look at before the next meeting.
>>>
>>> I use a pure text mail client a lot of the time.
>>
>> I use mutt sometimes, but I couldn't really do so for work. There are a
>> lot of times when clients send me screen captures so I can see the issue
>> they're running into. I need a way of displaying those or I can't
>> effectively do my job. A text-only display like was common years ago
>> just wouldn't work.
>
> mutt works for that. From the 'v' screen, just hit enter on the attached
> image and if your .mailcap is setup correctly, it will fire up lynx/firefox (for html)
> or your favorite image viewer for jpg.
```

I was thinking about a system without X or any other framework for a GUI. For instance, virtual consoles on Linux. I could fire up lynx, but are there image viewers that don't need X? I know there were for DOS, but can't remember if I used anything like that on Linux.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Mon, 04 Oct 2021 18:32:22 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Bud Frede

Charlie Gibbs <cgibbs@kltpzyxm.invalid> writes:

> On 2021-10-04, Bud Frede <frede@mouse-potato.com> wrote:  
>  
>> I don't mind using a GUI for many things, and I've actually become quite  
>> comfortable and pretty productive in this environment (macOS). I can use  
>> the CLI when I need to, I have most of the same Unix tools at my  
>> fingertips that I would on Linux, FreeBSD, Solaris, etc. It's pretty  
>> usable and livable.  
>  
> And that's the point. Use the tool that gets the job done for you.  
> Sometimes I use a GUI because it works better. At other times a CLI  
> will do the job more easily.  
>  
> If you're talking about the tools you use to do your own work,  
> it doesn't matter whether Joe Blow can do it better with a GUI.  
> He might need 10 minutes using a CLI and 5 minutes using a GUI -  
> but if you need 5 minutes using a GUI when you can do it in 30  
> seconds with a CLI, then the CLI is a win for you.  
>  
> A well-designed GUI will offer keyboard shortcuts so you don't  
> have to move your hands from the home position (and move them  
> back afterwards).

I try to pay at least some attention to when I'm using the keyboard and when I'm using the mouse. Then I try to find ways I can avoid using the mouse when that makes sense. I get thrown off a bit sometimes because the Mac and my Linux desktop of preference (MATE) do things differently, but I'm managing.

It's been a process of some years to do this, but it's very satisfying to learn a new keyboard shortcut and get myself to start using it.

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Ahem A Rivet's Shot](#) on Mon, 04 Oct 2021 18:52:47 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Mon, 04 Oct 2021 14:25:20 -0400  
Bud Frede <frede@mouse-potato.com> wrote:

> I was thinking about a system without X or any other framework for a  
> GUI. For instance, virtual consoles on Linux. I could fire up lynx, but  
> are there image viewers that don't need X?

There were last time I looked - some years back.

--

Steve O'Hara-Smith  
Odds and Ends at <http://www.sohara.org/>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Peter Flass](#) on Tue, 05 Oct 2021 00:31:59 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Branimir Maksimovic <[branimir.maksimovic@icloud.com](mailto:branimir.maksimovic@icloud.com)> wrote:  
> On 2021-10-04, Mainlander <[Mainlander@katamail.com](mailto:Mainlander@katamail.com)> wrote:  
>> On 2021-10-04, Branimir Maksimovic <[branimir.maksimovic@icloud.com](mailto:branimir.maksimovic@icloud.com)> wrote:  
>>> On 2021-10-03, Vir Campestris <[vir.campestris@invalid.invalid](mailto:vir.campestris@invalid.invalid)> wrote:  
>>>> On 01/10/2021 18:43, Charlie Gibbs wrote:  
>>>> > On 2021-10-01, Vir Campestris <[vir.campestris@invalid.invalid](mailto:vir.campestris@invalid.invalid)> wrote:  
>>>> >  
>>>> >> On 23/09/2021 02:15, Dan Espen wrote:  
>>>> >>  
>>>> >>> You only update software when the benefit justifies the cost.  
>>>> >>  
>>>> >> The problem is that a lot of updates don't add any real functionality,  
>>>> >> they just plug security holes that someone has found.  
>>>> >  
>>>> > Or they add security holes when the vendors decide they don't  
>>>> > don't have their hooks into you deeply enough.  
>>>> >  
>>>>  
>>>> I'm paranoid, but I'm not \_that\_ paranoid.  
>>>>  
>>>> Do you have a source for that assertion?  
>>>>  
>>>> Andy  
>>> No need to be paranoid :P  
>>> Just don't Interfere in Politics :P  
>>>  
>>>  
> Well if you wish good and LOVE to world and every single  
> individual in this Earth, no one will hurt you :P  
>>  
>> I remember something about stallman having a key combination in emacs  
>> that would insert dangerous words into text. I don't know if it works  
>> now.  
>  
> Well if you write evil someone will stop you :P  
>  
What's evil to one may not be evil to another. The crazy Chinese, for  
example, seem to want to control anything anyone might say about them.



Free Hong Kong!

--

Pete

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Peter Flass](#) on Tue, 05 Oct 2021 00:32:00 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:

> On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:

>

>> On 01/10/2021 18:43, Charlie Gibbs wrote:

>>

>>> On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:

>>>

>>>> On 23/09/2021 02:15, Dan Espen wrote:

>>>>

>>>> > You only update software when the benefit justifies the cost.

>>>>

>>>> The problem is that a lot of updates don't add any real functionality,

>>>> they just plug security holes that someone has found.

>>>

>>> Or they add security holes when the vendors decide they don't

>>> don't have their hooks into you deeply enough.

>>

>> I'm paranoid, but I'm not \_that\_ paranoid.

>>

>> Do you have a source for that assertion?

>

> No definite examples, but I did read the entire Windows EULA back

> around the XP days. I found a clause in which Microsoft claimed

> entitlement to walk into your machine whenever they felt like it,

> take a look around, and remove anything which they in their sole

> estimation felt you should not have.

>

> That nobody recognizes automatic updates as a wide-open back door

> has always amazed me.

>

> Just because you're paranoid doesn't mean they aren't out to get you.

>

I know of situations where someone, maybe Amazon, has gone into peoples' eReaders and deleted eBooks which they had purchased.

--

Pete

---

---



Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Dan Espen](#) on Tue, 05 Oct 2021 00:59:45 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Peter Flass <peter\_flass@yahoo.com> writes:

```
> Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:
>> On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:
>>
>>> On 01/10/2021 18:43, Charlie Gibbs wrote:
>>>
>>>> On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:
>>>>
>>>> > On 23/09/2021 02:15, Dan Espen wrote:
>>>> >
>>>> >> You only update software when the benefit justifies the cost.
>>>> >
>>>> > The problem is that a lot of updates don't add any real functionality,
>>>> > they just plug security holes that someone has found.
>>>>
>>>> Or they add security holes when the vendors decide they don't
>>>> don't have their hooks into you deeply enough.
>>>
>>> I'm paranoid, but I'm not _that_ paranoid.
>>>
>>> Do you have a source for that assertion?
>>
>> No definite examples, but I did read the entire Windows EULA back
>> around the XP days. I found a clause in which Microsoft claimed
>> entitlement to walk into your machine whenever they felt like it,
>> take a look around, and remove anything which they in their sole
>> estimation felt you should not have.
>>
>> That nobody recognizes automatic updates as a wide-open back door
>> has always amazed me.
>>
>> Just because you're paranoid doesn't mean they aren't out to get you.
>
> I know of situations where someone, maybe Amazon, has gone into peoples'
> eReaders and deleted eBooks which they had purchased.
```

Need details, exact details to make sense of that story.

If they were purchased from Amazon, there's no problem.

The book is reloaded when you try to access it.

I used to have Amazon's free book deal. Download and read up to 10 books at a time. To get the 11th, you have to return 1. When you cancel, all books currently in the deal get deleted when you try

to access them.

--

Dan Espen

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Tue, 05 Oct 2021 01:09:31 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Branimir Maksimovic

On 2021-10-05, Peter Flass <peter\_flass@yahoo.com> wrote:

> Branimir Maksimovic <branimir.maksimovic@icloud.com> wrote:

>> On 2021-10-04, Mainlander <Mainlander@katamail.com> wrote:

>>> On 2021-10-04, Branimir Maksimovic <branimir.maksimovic@icloud.com> wrote:

>>>> On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:

>>>> > On 01/10/2021 18:43, Charlie Gibbs wrote:

>>>> >> On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:

>>>> >>

>>>> >>> On 23/09/2021 02:15, Dan Espen wrote:

>>>> >>>

>>>> >>>> You only update software when the benefit justifies the cost.

>>>> >>>

>>>> >>> The problem is that a lot of updates don't add any real functionality,  
>>>> >>> they just plug security holes that someone has found.

>>>> >>

>>>> >> Or they add security holes when the vendors decide they don't  
>>>> >> don't have their hooks into you deeply enough.

>>>> >>

>>>> >

>>>> > I'm paranoid, but I'm not \_that\_ paranoid.

>>>> >

>>>> > Do you have a source for that assertion?

>>>> >

>>>> > Andy

>>>> No need to be paranoid :P

>>>> Just don't Interfere in Politics :P

>>>>

>>>>

>> Well if you wish good and LOVE to world and every single

>> individual in this Earth, no one will hurt you :P

>>>

>>> I remember something about stallman having a key combination in emacs  
>>> that would insert dangerous words into text. I don't know if it works  
>>> now.

>>

>> Well if you write evil someone will stop you :P

>>  
> What's evil to one may not be evil to another. The crazy Chinese, for  
> example, seem to want to control anything anyone might say about them.  
>  
> Free Hong Kong!  
YES! Evil is always Evil, we know what's Evil it's inside us :P

--

7-77-777

Evil Sinner!

to weak you should be meek, and you should brainfuck stronger

<https://github.com/rofl0r/chaos-pp>

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Peter Flass](#) on Tue, 05 Oct 2021 02:29:31 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Dan Espen <[dan1espen@gmail.com](mailto:dan1espen@gmail.com)> wrote:

> Peter Flass <[peter\\_flass@yahoo.com](mailto:peter_flass@yahoo.com)> writes:

>

>> Charlie Gibbs <[cgibbs@kltpzyxm.invalid](mailto:cgibbs@kltpzyxm.invalid)> wrote:

>>> On 2021-10-03, Vir Campestris <[vir.campestris@invalid.invalid](mailto:vir.campestris@invalid.invalid)> wrote:

>>>

>>>> On 01/10/2021 18:43, Charlie Gibbs wrote:

>>>>

>>>> > On 2021-10-01, Vir Campestris <[vir.campestris@invalid.invalid](mailto:vir.campestris@invalid.invalid)> wrote:

>>>> >

>>>> >> On 23/09/2021 02:15, Dan Espen wrote:

>>>> >>

>>>> >>> You only update software when the benefit justifies the cost.

>>>> >>

>>>> >> The problem is that a lot of updates don't add any real functionality,

>>>> >> they just plug security holes that someone has found.

>>>> >

>>>> > Or they add security holes when the vendors decide they don't

>>>> > don't have their hooks into you deeply enough.

>>>>

>>>> I'm paranoid, but I'm not \_that\_ paranoid.

>>>>

>>>> Do you have a source for that assertion?

>>>>

>>> No definite examples, but I did read the entire Windows EULA back

>>> around the XP days. I found a clause in which Microsoft claimed

>>> entitlement to walk into your machine whenever they felt like it,

>>> take a look around, and remove anything which they in their sole

>>> estimation felt you should not have.

>>>  
>>> That nobody recognizes automatic updates as a wide-open back door  
>>> has always amazed me.  
>>>  
>>> Just because you're paranoid doesn't mean they aren't out to get you.  
>>  
>> I know of situations where someone, maybe Amazon, has gone into peoples'  
>> eReaders and deleted eBooks which they had purchased.  
>  
> Need details, exact details to make sense of that story.  
>  
> If they were purchased from Amazon, there's no problem.  
> The book is reloaded when you try to access it.  
>  
> I used to have Amazon's free book deal. Download and read up to 10  
> books at a time. To get the 11th, you have to return 1. When you  
> cancel, all books currently in the deal get deleted when you try  
> to access them.  
>

Why Amazon is within its rights to remove access to your Kindle books

<https://www.zdnet.com/article/why-amazon-is-within-its-rights-to-remove-access-to-your-kindle-books/>

--  
Pete

---

---

Subject: Re: unbooks, was What is the oldest computer that could be used today for real work?

Posted by [John Levine](#) on Tue, 05 Oct 2021 02:57:07 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

According to Peter Flass <peter\_flass@yahoo.com>:

> I know of situations where someone, maybe Amazon, has gone into peoples'  
> eReaders and deleted eBooks which they had purchased.

In 2009, Amazon was notified that the publisher of a Kindle book did not have the rights to sell the book, so they both removed that edition from the catalog and also deleted it from all of the Kindles of people who had bought it and refunded what they'd paid.

The book, inevitably, was Orwell's "1984".

<https://gizmodo.com/amazon-secretly-removes-1984-from-the-kindle-5317703>

They said they wouldn't do it again, but they weren't super clear about what they consider "it" to have been.

--

Regards,  
John Levine, johnl@taugh.com, Primary Perpetrator of "The Internet for Dummies",  
Please consider the environment before reading this e-mail. <https://jl.ly>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Mike Spencer](#) on Tue, 05 Oct 2021 03:35:27 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-10-04, Mainlander <Mainlander@katamail.com> wrote:

> I remember something about stalling having a key combination in emacs  
> that would insert dangerous words into text. I don't know if it works  
> now.

M-x spook

Depends on file spook.lines containing any null-terminated lines you  
imagine will trigger the surveillance spooks.

--

Mike Spencer                      Nova Scotia, Canada

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Tue, 05 Oct 2021 06:23:28 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Thomas Koenig

Peter Flass <peter\_flass@yahoo.com> schrieb:

> Why Amazon is within its rights to remove access to your Kindle books  
  
> [https://www.zdnet.com/article/why-amazon-is-within-its-right  
s-to-remove-access-to-your-kindle-books/](https://www.zdnet.com/article/why-amazon-is-within-its-rights-to-remove-access-to-your-kindle-books/)

Yuck. The author makes a very strong case for paper-based books (and  
for buying DVDs instead of streaming).

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Tue, 05 Oct 2021 07:42:16 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Maus

On 2021-10-05, Peter Flass <peter\_flass@yahoo.com> wrote:  
> Branimir Maksimovic <branimir.maksimovic@icloud.com> wrote:  
>> On 2021-10-04, Mainlander <Mainlander@katamail.com> wrote:  
>>> On 2021-10-04, Branimir Maksimovic <branimir.maksimovic@icloud.com> wrote:  
>>>> On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>>>> > On 01/10/2021 18:43, Charlie Gibbs wrote:  
>>>> >> On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>>>> >>  
>>>> >>> On 23/09/2021 02:15, Dan Espen wrote:  
>>>> >>>  
>>>> >>>> You only update software when the benefit justifies the cost.  
>>>> >>>  
>>>> >>> The problem is that a lot of updates don't add any real functionality,  
>>>> >>> they just plug security holes that someone has found.  
>>>> >>  
>>>> >> Or they add security holes when the vendors decide they don't  
>>>> >> don't have their hooks into you deeply enough.  
>>>> >>  
>>>> >  
>>>> > I'm paranoid, but I'm not \_that\_ paranoid.  
>>>> >  
>>>> > Do you have a source for that assertion?  
>>>> >  
>>>> > Andy  
>>>> No need to be paranoid :P  
>>>> Just don't Interfere in Politics :P  
>>>>  
>>>>  
>> Well if you wish good and LOVE to world and every single  
>> individual in this Earth, no one will hurt you :P  
>>>  
>>> I remember something about stallman having a key combination in emacs  
>>> that would insert dangerous words into text. I don't know if it works  
>>> now.  
>>  
>> Well if you write evil someone will stop you :P  
>>  
> What's evil to one may not be evil to another. The crazy Chinese, for  
> example, seem to want to control anything anyone might say about them.  
>  
> Free Hong Kong!

With every pack of cornflakes?

Do a bit of history reading. Hong Kong was set during the opium wars to ease the smuggling of opium into china. Not England's finest hour.

--

greymausg@mail.com  
That's not a mousehole!

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Tue, 05 Oct 2021 07:45:45 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Maus

On 2021-10-05, Peter Flass <peter\_flass@yahoo.com> wrote:

> Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:

>>> Do you have a source for that assertion?

>>

>> No definite examples, but I did read the entire Windows EULA back

>> around the XP days. I found a clause in which Microsoft claimed

>> entitlement to walk into your machine whenever they felt like it,

>> take a look around, and remove anything which they in their sole

>> estimation felt you should not have.

>>

>> That nobody recognizes automatic updates as a wide-open back door

>> has always amazed me.

>>

>> Just because you're paranoid doesn't mean they aren't out to get you.

>>

>

> I know of situations where someone, maybe Amazon, has gone into peoples'

> eReaders and deleted eBooks which they had purchased.

>

I can attest that is true. There used to be a trick that I do not know still work, you install a pirated copy of something on a windows machine, and the next time you start up, it is gone.

--

greymausg@mail.com  
That's not a mousehole!

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Originally posted by: Maus

On 2021-10-05, Dan Espen <dan1espen@gmail.com> wrote:

> Peter Flass <peter\_flass@yahoo.com> writes:

>

>> Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:

>>> On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:

>>>

>>>> On 01/10/2021 18:43, Charlie Gibbs wrote:

>>>>

>>>> > On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:

>>>> >

>>>> >> On 23/09/2021 02:15, Dan Espen wrote:

>>>> >>

>>>> >>> You only update software when the benefit justifies the cost.

>>>> >>

>>>> >> The problem is that a lot of updates don't add any real functionality,

>>>> >> they just plug security holes that someone has found.

>>>> >

>>>> > Or they add security holes when the vendors decide they don't

>>>> > don't have their hooks into you deeply enough.

>>>>

>>>> I'm paranoid, but I'm not \_that\_ paranoid.

>>>>

>>>> Do you have a source for that assertion?

>>>>

>>> No definite examples, but I did read the entire Windows EULA back

>>> around the XP days. I found a clause in which Microsoft claimed

>>> entitlement to walk into your machine whenever they felt like it,

>>> take a look around, and remove anything which they in their sole

>>> estimation felt you should not have.

>>>

>>> That nobody recognizes automatic updates as a wide-open back door

>>> has always amazed me.

>>>

>>> Just because you're paranoid doesn't mean they aren't out to get you.

>>

>> I know of situations where someone, maybe Amazon, has gone into peoples'

>> eReaders and deleted eBooks which they had purchased.

>

> Need details, exact details to make sense of that story.

Details are unlikely if you want to remain friends with Amazon.

>

> If they were purchased from Amazon, there's no problem.



> The book is reloaded when you try to access it.  
>  
> I used to have Amazon's free book deal. Download and read up to 10  
> books at a time. To get the 11th, you have to return 1. When you  
> cancel, all books currently in the deal get deleted when you try  
> to access them.  
>

--

greymausg@mail.com  
That's not a mousehole!

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Tue, 05 Oct 2021 07:50:16 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Maus

On 2021-10-05, Thomas Koenig <tkoenig@netcologne.de> wrote:

> Peter Flass <peter\_flass@yahoo.com> schrieb:  
>  
>> Why Amazon is within its rights to remove access to your Kindle books  
>  
>> [https://www.zdnet.com/article/why-amazon-is-within-its-right  
s-to-remove-access-to-your-kindle-books/](https://www.zdnet.com/article/why-amazon-is-within-its-right-s-to-remove-access-to-your-kindle-books/)  
>  
> Yuck. The author makes a very strong case for paper-based books (and  
> for buying DVDs instead of streaming).

I am sitting here surrounded by dead-tree books which I no longer find a  
pleasure to read. Eye problems. I can increase the font-size in Kindle.

--

greymausg@mail.com  
That's not a mousehole!

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Ahem A Rivet's Shot](#) on Tue, 05 Oct 2021 08:11:58 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Tue, 5 Oct 2021 06:23:28 -0000 (UTC)  
Thomas Koenig <tkoenig@netcologne.de> wrote:

> Peter Flass <peter\_flass@yahoo.com> schrieb:  
>  
>> Why Amazon is within its rights to remove access to your Kindle books  
>  
>> <https://www.zdnet.com/article/why-amazon-is-within-its-right-s-to-remove-access-to-your-kindle-books/>  
>  
> Yuck. The author makes a very strong case for paper-based books (and

A calibre server loaded with epub's running on my own NAS works for me - at least for those books I can get that way.

> for buying DVDs instead of streaming).

I think of streaming as being like borrowing books from a library.

--  
Steve O'Hara-Smith  
Odds and Ends at <http://www.sohara.org/>

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Tue, 05 Oct 2021 10:29:47 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Mon, 04 Oct 2021 20:59:45 -0400, Dan Espen <dan1espen@gmail.com> wrote:

> Peter Flass <peter\_flass@yahoo.com> writes:  
>  
>> Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:  
>>> On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>>>>  
>>>> On 01/10/2021 18:43, Charlie Gibbs wrote:  
>>>>>  
>>>> > On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>>>> >  
>>>> >> On 23/09/2021 02:15, Dan Espen wrote:  
>>>> >>  
>>>> >>> You only update software when the benefit justifies the cost.  
>>>> >>  
>>>> >> The problem is that a lot of updates don't add any real functionality,  
>>>> >> they just plug security holes that someone has found.  
>>>> >  
>>>> > Or they add security holes when the vendors decide they don't  
>>>> > don't have their hooks into you deeply enough.

>>>>  
>>>> I'm paranoid, but I'm not \_that\_ paranoid.  
>>>>  
>>>> Do you have a source for that assertion?  
>>>  
>>> No definite examples, but I did read the entire Windows EULA back  
>>> around the XP days. I found a clause in which Microsoft claimed  
>>> entitlement to walk into your machine whenever they felt like it,  
>>> take a look around, and remove anything which they in their sole  
>>> estimation felt you should not have.  
>>>  
>>> That nobody recognizes automatic updates as a wide-open back door  
>>> has always amazed me.  
>>>  
>>> Just because you're paranoid doesn't mean they aren't out to get you.  
>>  
>> I know of situations where someone, maybe Amazon, has gone into peoples'  
>> eReaders and deleted eBooks which they had purchased.  
>  
> Need details, exact details to make sense of that story.  
>  
> If they were purchased from Amazon, there's no problem.  
> The book is reloaded when you try to access it.

If Amazon removed it, why would Amazon allow you to reload it?

> I used to have Amazon's free book deal. Download and read up to 10  
> books at a time. To get the 11th, you have to return 1. When you  
> cancel, all books currently in the deal get deleted when you try  
> to access them.

That's not what is under discussion.

< <https://www.nytimes.com/2009/07/18/technology/companies/18amazon.html> >

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Tue, 05 Oct 2021 10:31:20 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On 5 Oct 2021 07:45:45 GMT, Maus <Grey Maus@mail.com> wrote:

> On 2021-10-05, Peter Flass <peter\_flass@yahoo.com> wrote:  
>> Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:  
>>>> Do you have a source for that assertion?  
>>>>

>>> No definite examples, but I did read the entire Windows EULA back  
>>> around the XP days. I found a clause in which Microsoft claimed  
>>> entitlement to walk into your machine whenever they felt like it,  
>>> take a look around, and remove anything which they in their sole  
>>> estimation felt you should not have.  
>>>  
>>> That nobody recognizes automatic updates as a wide-open back door  
>>> has always amazed me.  
>>>  
>>> Just because you're paranoid doesn't mean they aren't out to get you.  
>>>  
>>  
>> I know of situations where someone, maybe Amazon, has gone into peoples'  
>> eReaders and deleted eBooks which they had purchased.  
>>  
>  
> I can attest that is true. There used to be a trick that I do not know  
> still work, you install a pirated copy of something on a windows  
> machine, and the next time you start up, it is gone.

It doesn't matter what kind of machine you are using. It's the Kindle software that allowed the removal.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Robin Vowels](#) on Tue, 05 Oct 2021 10:47:32 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Tuesday, October 5, 2021 at 6:50:18 PM UTC+11, Maus wrote:  
> On 2021-10-05, Thomas Koenig <tko...@netcologne.de> wrote:  
..  
> I am sitting here surrounded by dead-tree books which I no longer find a  
> pleasure to read. Eye problems. I can increase the font-size in Kindle.  
..  
Get a magnifying glass.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Peter Flass](#) on Tue, 05 Oct 2021 13:48:44 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Maus <Greymaus@mail.com> wrote:  
> On 2021-10-05, Peter Flass <peter\_flass@yahoo.com> wrote:  
>> Branimir Maksimovic <branimir.maksimovic@icloud.com> wrote:  
>>> On 2021-10-04, Mainlander <Mainlander@katamail.com> wrote:  
>>>> On 2021-10-04, Branimir Maksimovic <branimir.maksimovic@icloud.com> wrote:  
>>>> > On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:

>>>> >> On 01/10/2021 18:43, Charlie Gibbs wrote:  
>>>> >>> On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>>>> >>>>  
>>>> >>>> On 23/09/2021 02:15, Dan Espen wrote:  
>>>> >>>>  
>>>> >>>>> You only update software when the benefit justifies the cost.  
>>>> >>>>>  
>>>> >>>>> The problem is that a lot of updates don't add any real functionality,  
>>>> >>>>> they just plug security holes that someone has found.  
>>>> >>>>  
>>>> >>> Or they add security holes when the vendors decide they don't  
>>>> >>> don't have their hooks into you deeply enough.  
>>>> >>>>  
>>>> >>  
>>>> >> I'm paranoid, but I'm not \_that\_ paranoid.  
>>>> >>  
>>>> >> Do you have a source for that assertion?  
>>>> >>  
>>>> >> Andy  
>>>> > No need to be paranoid :P  
>>>> > Just don't Interfere in Politics :P  
>>>> >  
>>>> >  
>>> Well if you wish good and LOVE to world and every single  
>>> individual in this Earth, no one will hurt you :P  
>>>>  
>>>> I remember something about stallman having a key combination in emacs  
>>>> that would insert dangerous words into text. I don't know if it works  
>>>> now.  
>>>>  
>>> Well if you write evil someone will stop you :P  
>>>>  
>> What's evil to one may not be evil to another. The crazy Chinese, for  
>> example, seem to want to control anything anyone might say about them.  
>>>>  
>> Free Hong Kong!  
>>>>  
> With every pack of cornflakes?  
>>>>  
> Do a bit of history reading. Hong Kong was set during the opium wars to  
> ease the smuggling of opium into china. Not England's finest hour.  
>>>>  
>>>>

Sure, but most recently they were relatively free and democratic, and were an financial powerhouse. Now the first two are gone, and the third is circling the drain.

--  
Pete

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Peter Flass](#) on Tue, 05 Oct 2021 13:48:45 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Maus <Greymaus@mail.com> wrote:  
> On 2021-10-05, Thomas Koenig <tkoenig@netcologne.de> wrote:  
>> Peter Flass <peter\_flass@yahoo.com> schrieb:  
>>  
>>> Why Amazon is within its rights to remove access to your Kindle books  
>>  
>>> <https://www.zdnet.com/article/why-amazon-is-within-its-rights-to-remove-access-to-your-kindle-books/>  
>>  
>> Yuck. The author makes a very strong case for paper-based books (and  
>> for buying DVDs instead of streaming).  
>  
> I am sitting here surrounded by dead-tree books which I no longer find a  
> pleasure to read. Eye problems. I can increase the font-size in Kindle.  
>  
>

I discovered how useful this is when I recently had cataracts removed and before I picked up some reading glasses.

I read mostly Amazon eBooks, and library books, these days. I used to have shelves full of books in every room of the house until I moved. I kept only a few and now seldom buy any dead-tree books.

--  
Pete

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Tue, 05 Oct 2021 13:54:33 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Maus

On 2021-10-05, J Clarke <jclarke.873638@gmail.com> wrote:  
> On Mon, 04 Oct 2021 20:59:45 -0400, Dan Espen <dan1espen@gmail.com>  
> wrote:  
>  
>> Peter Flass <peter\_flass@yahoo.com> writes:

```

>>
>>> Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:
>>>> On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:
>>>>
>>>> > On 01/10/2021 18:43, Charlie Gibbs wrote:
>>>> >
>>>> >> On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:
>>>> >>
>>>> >>> On 23/09/2021 02:15, Dan Espen wrote:
>>>> >>>
>>>> >>>> You only update software when the benefit justifies the cost.
>>>> >>>
>>>> >>> The problem is that a lot of updates don't add any real functionality,
>>>> >>> they just plug security holes that someone has found.
>>>> >>
>>>> >> Or they add security holes when the vendors decide they don't
>>>> >> don't have their hooks into you deeply enough.
>>>> >
>>>> > I'm paranoid, but I'm not _that_ paranoid.
>>>> >
>>>> > Do you have a source for that assertion?
>>>>
>>>> No definite examples, but I did read the entire Windows EULA back
>>>> around the XP days. I found a clause in which Microsoft claimed
>>>> entitlement to walk into your machine whenever they felt like it,
>>>> take a look around, and remove anything which they in their sole
>>>> estimation felt you should not have.
>>>>
>>>> That nobody recognizes automatic updates as a wide-open back door
>>>> has always amazed me.
>>>>
>>>> Just because you're paranoid doesn't mean they aren't out to get you.
>>>
>>> I know of situations where someone, maybe Amazon, has gone into peoples'
>>> eReaders and deleted eBooks which they had purchased.
>>
>> Need details, exact details to make sense of that story.
>>
>> If they were purchased from Amazon, there's no problem.
>> The book is reloaded when you try to access it.
>
> If Amazon removed it, why would Amazon allow you to reload it?
>
>> I used to have Amazon's free book deal. Download and read up to 10
>> books at a time. To get the 11th, you have to return 1. When you
>> cancel, all books currently in the deal get deleted when you try
>> to access them.
>

```

> That's not what is under discussion.

IMHO, if you didn't like amazon's policy, you had an alternative. Start your own ebook selling system, and publish your stuff yourself.

My own policy since leaving school early was, if anyone asked you to do a job, you did it, regardless of who they were. Once I left a job because of an argument, and i regret it still.

>

> < <https://www.nytimes.com/2009/07/18/technology/companies/18amazon.html>>

--

greymausg@mail.com  
That's not a mousehole!

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [scott](#) on Tue, 05 Oct 2021 14:11:23 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Maus <Grey Maus@mail.com> writes:

> On 2021-10-05, Peter Flass <peter\_flass@yahoo.com> wrote:

>>> Well if you write evil someone will stop you :P

>>>

>> What's evil to one may not be evil to another. The crazy Chinese, for  
>> example, seem to want to control anything anyone might say about them.

>>

>> Free Hong Kong!

>

> With every pack of cornflakes?

>

> Do a bit of history reading. Hong Kong was set during the opium wars to  
> ease the smuggling of opium into china. Not England's finest hour.

Indeed. Hence their invasion of Kabul in the 1840s and various idiocies in what is now India and Pakistan, just to secure the supply line.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [scott](#) on Tue, 05 Oct 2021 14:13:49 GMT

[View Forum Message](#) <> [Reply to Message](#)

---



Thomas Koenig <tkoenig@netcologne.de> writes:  
> Peter Flass <peter\_flass@yahoo.com> schrieb:  
>  
>> Why Amazon is within its rights to remove access to your Kindle books  
>  
>> <https://www.zdnet.com/article/why-amazon-is-within-its-right-s-to-remove-access-to-your-kindle-books/>  
>  
> Yuck. The author makes a very strong case for paper-based books (and  
> for buying DVDs instead of streaming).

Buy the ebook, so the author gets a pittance from the publisher,  
then pick up a copy sans DRM from the internet (or usenet) so you can read  
it forever. Many authors also have Patreon for more direct support.

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Tue, 05 Oct 2021 15:49:11 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On 5 Oct 2021 13:54:33 GMT, Maus <Greymaus@mail.com> wrote:

> On 2021-10-05, J Clarke <jclarke.873638@gmail.com> wrote:  
>> On Mon, 04 Oct 2021 20:59:45 -0400, Dan Espen <dan1espen@gmail.com>  
>> wrote:  
>>  
>>> Peter Flass <peter\_flass@yahoo.com> writes:  
>>>  
>>>> Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:  
>>>> > On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>>>> >  
>>>> >> On 01/10/2021 18:43, Charlie Gibbs wrote:  
>>>> >>  
>>>> >>> On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>>>> >>>  
>>>> >>>> On 23/09/2021 02:15, Dan Espen wrote:  
>>>> >>>>  
>>>> >>>>> You only update software when the benefit justifies the cost.  
>>>> >>>>  
>>>> >>>>> The problem is that a lot of updates don't add any real functionality,  
>>>> >>>>> they just plug security holes that someone has found.  
>>>> >>>>  
>>>> >>> Or they add security holes when the vendors decide they don't  
>>>> >>> don't have their hooks into you deeply enough.  
>>>> >>  
>>>> >> I'm paranoid, but I'm not \_that\_ paranoid.

>>>> >>  
>>>> >> Do you have a source for that assertion?  
>>>> >  
>>>> > No definite examples, but I did read the entire Windows EULA back  
>>>> > around the XP days. I found a clause in which Microsoft claimed  
>>>> > entitlement to walk into your machine whenever they felt like it,  
>>>> > take a look around, and remove anything which they in their sole  
>>>> > estimation felt you should not have.  
>>>> >  
>>>> > That nobody recognizes automatic updates as a wide-open back door  
>>>> > has always amazed me.  
>>>> >  
>>>> > Just because you're paranoid doesn't mean they aren't out to get you.  
>>>>  
>>>> I know of situations where someone, maybe Amazon, has gone into peoples'  
>>>> eReaders and deleted eBooks which they had purchased.  
>>>  
>>> Need details, exact details to make sense of that story.  
>>>  
>>> If they were purchased from Amazon, there's no problem.  
>>> The book is reloaded when you try to access it.  
>>  
>> If Amazon removed it, why would Amazon allow you to reload it?  
>>  
>>> I used to have Amazon's free book deal. Download and read up to 10  
>>> books at a time. To get the 11th, you have to return 1. When you  
>>> cancel, all books currently in the deal get deleted when you try  
>>> to access them.  
>>  
>> That's not what is under discussion.  
>  
> IMHO, if you didn't like amazon's policy, you had an alternative. Start  
> your own ebook selling system, and publish your stuff yourself.  
>  
> My own policy since leaving school early was, if anyone asked you to do  
> a job, you did it, regardless of who they were. Once I left a job  
> because of an argument, and i regret it still.

Well that's all nice but we aren't talking about selling books, we're  
talking about buying them and then having bought and paid for them  
having them taken back by the book seller.

>> < <https://www.nytimes.com/2009/07/18/technology/companies/18amazon.html>>

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Tue, 05 Oct 2021 15:50:08 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: J. Clarke

On Tue, 5 Oct 2021 06:48:44 -0700, Peter Flass <peter\_flass@yahoo.com> wrote:

> Maus <Greymaus@mail.com> wrote:

>> On 2021-10-05, Peter Flass <peter\_flass@yahoo.com> wrote:

>>> Branimir Maksimovic <branimir.maksimovic@icloud.com> wrote:

>>>> On 2021-10-04, Mainlander <Mainlander@katamail.com> wrote:

>>>> > On 2021-10-04, Branimir Maksimovic <branimir.maksimovic@icloud.com> wrote:

>>>> >> On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:

>>>> >>> On 01/10/2021 18:43, Charlie Gibbs wrote:

>>>> >>>> On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:

>>>> >>>>

>>>> >>>>> On 23/09/2021 02:15, Dan Espen wrote:

>>>> >>>>>

>>>> >>>>>> You only update software when the benefit justifies the cost.

>>>> >>>>>>

>>>> >>>>>> The problem is that a lot of updates don't add any real functionality,

>>>> >>>>>> they just plug security holes that someone has found.

>>>> >>>>

>>>> >>>> Or they add security holes when the vendors decide they don't

>>>> >>>> don't have their hooks into you deeply enough.

>>>> >>>>

>>>> >>>>

>>>> >>> I'm paranoid, but I'm not \_that\_ paranoid.

>>>> >>>

>>>> >>> Do you have a source for that assertion?

>>>> >>>

>>>> >>> Andy

>>>> >> No need to be paranoid :P

>>>> >> Just don't Interfere in Politics :P

>>>> >>

>>>> >>

>>>> Well if you wish good and LOVE to world and every single

>>>> individual in this Earth, no one will hurt you :P

>>>> >

>>>> > I remember something about stallman having a key combination in emacs

>>>> > that would insert dangerous words into text. I don't know if it works

>>>> > now.

>>>>

>>>> Well if you write evil someone will stop you :P

>>>>

>>> What's evil to one may not be evil to another. The crazy Chinese, for

>>> example, seem to want to control anything anyone might say about them.

>>>

>>> Free Hong Kong!  
>>  
>> With every pack of cornflakes?  
>>  
>> Do a bit of history reading. Hong Kong was set during the opium wars to  
>> ease the smuggling of opium into china. Not England's finest hour.  
>>  
>>  
>  
> Sure, but most recently they were relatively free and democratic, and were  
> an financial powerhouse. Now the first two are gone, and the third is  
> circling the drain.

And China once again snatches defeat from the jaws of victory.

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Ahem A Rivet's Shot](#) on Tue, 05 Oct 2021 20:18:07 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Tue, 5 Oct 2021 14:02:14 -0500

Dave Garland <dave.garland@wizinfo.com> wrote:

> Eh, there's a fair list of countries that the US has done that to,  
> because their relatively democratic governments didn't sufficiently  
> follow the US line. And some clearly non-free undemocratic countries  
> that the US is BFF with. Doesn't make it right for the PRC, but I'm  
> not sure us USAns have the moral standing to object.

Last time I looked there were no saints among nations, most seem to  
be getting better over time though.

--

Steve O'Hara-Smith

Odds and Ends at <http://www.sohara.org/>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Charlie Gibbs](#) on Tue, 05 Oct 2021 23:04:31 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-10-05, J Clarke <jclarke.873638@gmail.com> wrote:

> On 5 Oct 2021 13:54:33 GMT, Maus <Greymaus@mail.com> wrote:  
>  
>>  
>> My own policy since leaving school early was, if anyone asked you to

>> do a job, you did it, regardless of who they were.

Only if you agree to the terms beforehand.

>> Once I left a job because of an argument, and i regret it still.

If they move the goalposts, walking might be the moral thing to do.

> Well that's all nice but we aren't talking about selling books, we're  
> talking about buying them and then having bought and paid for them  
> having them taken back by the book seller.

But they don't consider you to have bought them, only rented.  
Welcome to the wonderful world of Software as a Service (SaaS).  
Its goal is the same as that of Karl Marx: the elimination of  
private property. (Large corporations are no longer private  
entities, but another layer - or a parallel form - of government.)

--

/~\ Charlie Gibbs | Life is perverse.  
\ / <cgibbs@kltpzyxm.invalid> | It can be beautiful -  
X I'm really at ac.dekanfrus | but it won't.  
/\ if you read it the right way. | -- Lily Tomlin

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Joy Beeson](#) on Wed, 06 Oct 2021 02:36:24 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Tue, 5 Oct 2021 03:47:32 -0700 (PDT), Robin Vowels  
<robin.vowels@gmail.com> wrote:

> Get a magnifying glass.

Works only when you have natural indirect sunlight to read by.

--

Joy Beeson  
joy beeson at centurylink dot net  
<http://wlweather.net/PAGEJOY/>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Ahem A Rivet's Shot](#) on Wed, 06 Oct 2021 05:37:15 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On Tue, 05 Oct 2021 23:04:31 GMT

Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:

- > But they don't consider you to have bought them, only rented.
- > Welcome to the wonderful world of Software as a Service (SaaS).
- > Its goal is the same as that of Karl Marx: the elimination of
- > private property. (Large corporations are no longer private
- > entities, but another layer - or a parallel form - of government.)

It's a bit less sinister than that, Wall Street investors like companies that sell open ended rental contracts because they produce predictable income for years out of each sale and so every sale produces growth in the company.

--

Steve O'Hara-Smith

Odds and Ends at <http://www.sohara.org/>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Wed, 06 Oct 2021 07:52:23 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Maus

On 2021-10-05, Peter Flass <peter\_flass@yahoo.com> wrote:

- > Maus <Greymaus@mail.com> wrote:
- >> On 2021-10-05, Peter Flass <peter\_flass@yahoo.com> wrote:
- >>> example, seem to want to control anything anyone might say about them.
- >>>
- >>> Free Hong Kong!
- >>
- >> With every pack of cornflakes?
- >>
- >> Do a bit of history reading. Hong Kong was set during the opium wars to
- >> ease the smuggling of opium into china. Not England's finest hour.
- >>
- >>
- >
- > Sure, but most recently they were relatively free and democratic, and were
- > an financial powerhouse. Now the first two are gone, and the third is
- > circling the drain.
- >

I read a few years ago that HK'ers had bought a lot of property in Vancouver but had not moved there, leaving property there in an odd situation. Perhaps Charlie can elucidate?.. Boris promised 120,000 visas to people who wanted to get out of HK. Talk about going to the

sinking ship.

--

greymausg@mail.com  
That's not a mousehole!

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Wed, 06 Oct 2021 07:54:16 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Maus

On 2021-10-05, Ahem A Rivet's Shot <steveo@eircom.net> wrote:

> On Tue, 5 Oct 2021 14:02:14 -0500

> Dave Garland <dave.garland@wizinfo.com> wrote:

>

>> Eh, there's a fair list of countries that the US has done that to,  
>> because their relatively democratic governments didn't sufficiently  
>> follow the US line. And some clearly non-free undemocratic countries  
>> that the US is BFF with. Doesn't make it right for the PRC, but I'm  
>> not sure us USAns have the moral standing to object.

>

> Last time I looked there were no saints among nations, most seem to  
> be getting better over time though.

>

Neither are there any saints among people.

--

greymausg@mail.com  
That's not a mousehole!

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Wed, 06 Oct 2021 07:57:46 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Maus

On 2021-10-05, Scott Lurndal <scott@slp53.sl.home> wrote:

> Thomas Koenig <tkoenig@netcologne.de> writes:

>> Peter Flass <peter\_flass@yahoo.com> schrieb:

>>

>>> Why Amazon is within its rights to remove access to your Kindle books

>>

>>> <https://www.zdnet.com/article/why-amazon-is-within-its-right-s-to-remove-access-to-your-kindle-books/>

>>

>> Yuck. The author makes a very strong case for paper-based books (and  
>> for buying DVDs instead of streaming).

>

> Buy the ebook, so the author gets a pittance from the publisher,  
> then pick up a copy sans DRM from the internet (or usenet) so you can read  
> it forever. Many authors also have Patreon for more direct support.

In Ireland, there has been a surge of 'coffee table' books with  
beautiful pictures of trees, gardens, etc. I have bought some of them.

--

greymausg@mail.com  
That's not a mousehole!

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Ahem A Rivet's Shot](#) on Wed, 06 Oct 2021 10:29:01 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On 6 Oct 2021 07:54:16 GMT

Maus <Greymaus@mail.com> wrote:

> On 2021-10-05, Ahem A Rivet's Shot <steveo@eircom.net> wrote:

>> On Tue, 5 Oct 2021 14:02:14 -0500

>> Last time I looked there were no saints among nations, most  
>> seem to be getting better over time though.

>>

>

> Neither are there any saints among people.

Ah, of course. Just as people have to be dead for several  
centuries<sup>[1]</sup> before they can be declared saints it would seem that nations  
with their longer lifespans would need to be dead for many millennia before  
being eligible for sainthood.

[1] Long enough so that any sins can be convincingly denied.

--

Steve O'Hara-Smith  
Odds and Ends at <http://www.sohara.org/>

---

---



Subject: Re: empty buildings was What is the oldest computer that could be used today for real work?

Posted by [John Levine](#) on Wed, 06 Oct 2021 18:46:07 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

According to Maus <rhunDARNtheSPAM@DARNtheSPAMkatamailDARNtheSPAM.com>:

>> Sure, but most recently they were relatively free and democratic, and were  
>> an financial powerhouse. Now the first two are gone, and the third is  
>> circling the drain.

>

> I read a few years ago that HK'ers had bought a lot of property in  
> Vancouver but had not moved there, leaving property there in an odd  
> situation. Perhaps Charlie can elucidate?

Vancouver has luxury apartment blocks that are dark at night because nobody lives there. So do Toronto and NY, but I gather it's worse in Vancouver. It's one of the reasons that Vancouver real estate is completely unaffordable to normal people. They have made weak attempts to control it with surtaxes on unoccupied foreign owned flats, but the far worse problem is that most of the city is zoned to prohibit anything denser than detached single houses and to require vast parking garages for multi-unit structures.

a First Nations tribe that owns a large chunk of Vancouver real estate recently voted to develop it with 50 story mixed use towers that will both provide housing to their members and a lot of other people and businesses, and with more transit access and much less parking than the city would require. They can do that because they can ignore the city's zoning.

--

Regards,

John Levine, [johnl@taugh.com](mailto:johnl@taugh.com), Primary Perpetrator of "The Internet for Dummies",  
Please consider the environment before reading this e-mail. <https://jl.ly>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Charlie Gibbs](#) on Wed, 06 Oct 2021 20:24:19 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-10-06, Maus <Greymaus@mail.com> wrote:

> On 2021-10-05, Peter Flass <peter\_flass@yahoo.com> wrote:

>

>> Maus <Greymaus@mail.com> wrote:

>>

>>> On 2021-10-05, Peter Flass <peter\_flass@yahoo.com> wrote:

>>>

>>>> example, seem to want to control anything anyone might say about them.  
>>>>  
>>>> Free Hong Kong!  
>>>  
>>> With every pack of cornflakes?  
>>>  
>>> Do a bit of history reading. Hong Kong was set during the opium wars to  
>>> ease the smuggling of opium into china. Not England's finest hour.  
>>  
>> Sure, but most recently they were relatively free and democratic, and were  
>> an financial powerhouse. Now the first two are gone, and the third is  
>> circling the drain.  
>  
> I read a few years ago that HK'ers had bought a lot of property in  
> Vancouver but had not moved there, leaving property there in an odd  
> situation. Perhaps Charlie can elucidate?..

HK-bashers are plentiful here, and there is a rising tide of anti-Asian sentiment (which, as usual, is ill-conceived). Housing prices are now among the highest in the world. This is considered a Good Thing by developers, realtors, and the governments that they've bought, and any slacking of housing prices' meteoric rise is considered a grave situation by these parties. The provincial government has brought in a "speculation tax" in an attempt to discourage foreign speculators - while remaining suspiciously silent regarding domestic speculators. There's even been talk about housing subsidies so people can buy condos without housing prices leveling off or - horrors! - falling to an affordable level.

--

/~\ Charlie Gibbs | Life is perverse.  
\ / <cgibbs@kltpzyxm.invalid> | It can be beautiful -  
X I'm really at ac.dekanfrus | but it won't.  
/\ if you read it the right way. | -- Lily Tomlin

---

Subject: Re: empty buildings was What is the oldest computer that could be used today for real work?

Posted by [Charlie Gibbs](#) on Wed, 06 Oct 2021 20:50:27 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-10-06, John Levine <johnl@taugh.com> wrote:

> According to Maus <rhunDARNtheSPAM@DARNtheSPAMkatamailDARNtheSPAM.com>:  
>  
>>> Sure, but most recently they were relatively free and democratic, and were  
>>> an financial powerhouse. Now the first two are gone, and the third is  
>>> circling the drain.  
>>

>> I read a few years ago that HK'ers had bought a lot of property in  
>> Vancouver but had not moved there, leaving property there in an odd  
>> situation. Perhaps Charlie can elucidate?  
>  
> Vancouver has luxury apartment blocks that are dark at night because  
> nobody lives there. So do Toronto and NY, but I gather it's worse in  
> Vancouver. It's one of the reasons that Vancouver real estate is  
> completely unaffordable to normal people. They have made weak attempts  
> to control it with surtaxes on unoccupied foreign owned flats, but the  
> far worse problem is that most of the city is zoned to prohibit  
> anything denser than detached single houses and to require vast parking  
> garages for multi-unit structures.

Zoning changes move slowly, but if you're a rich enough developer you can get it done. Council has begun to listen to developers' crocodile tears about the costs of including parking garages in new towers, and is even talking about passing bylaws prohibiting adequate parking from being built, as part of a war against vehicular traffic that they have been waging for decades. It's easier - and more fun - to make life miserable for those who dare to take a car downtown than it is to make life easier for those who are willing to take transit - even if that takes three times as long.

> a First Nations tribe that owns a large chunk of Vancouver real estate  
> recently voted to develop it with 50 story mixed use towers that will  
> both provide housing to their members and a lot of other people and  
> businesses, and with more transit access and much less parking than  
> the city would require. They can do that because they can ignore the  
> city's zoning.

The city is too busy going after buildings consisting of a row of storefronts with one or two storeys of apartments above them for shopkeepers, etc. Under a policy they call "highest and best use" (gag), they're taxing these buildings as if they were 50-storey mixed-use towers, which is killing the small businesses that occupy the ground floor. Once those businesses been gotten rid of, the deserted hulks of these buildings be torn down and another 50-storey tower built. And they still talk about "building communities". Feh.

--

/~\ Charlie Gibbs | Life is perverse.  
\ / <cgibbs@kltpzyxm.invalid> | It can be beautiful -  
X I'm really at ac.dekanfrus | but it won't.  
/\ if you read it the right way. | -- Lily Tomlin

---

Subject: Re: empty buildings was What is the oldest computer that could be used

today for real work?

Posted by [Anonymous](#) on Thu, 07 Oct 2021 10:52:57 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Maus

On 2021-10-06, John Levine <johnl@taugh.com> wrote:

> According to Maus <rhunDARNtheSPAM@DARNtheSPAMkatamailDARNtheSPAM.com>:

>>> Sure, but most recently they were relatively free and democratic, and were

>>> an financial powerhouse. Now the first two are gone, and the third is

>>> circling the drain.

>>

>> I read a few years ago that HK'ers had bought a lot of property in

>> Vancouver but had not moved there, leaving property there in an odd

>> situation. Perhaps Charlie can elucidate?

>

> Vancouver has luxury apartment blocks that are dark at night because

> nobody lives there. So do Toronto and NY, but I gather it's worse in

> Vancouver. It's one of the reasons that Vancouver real estate is

> completely unnafordable to normal people. They have made weak attempts

> to control it with surtaxes on unoccupied foreign owned flats, but the

> far worse problem is that most of the city is zoned to prohibit

> anything denser than detached single houses and to require vast parking

> garages for multi-unit structures.

>

> a First Nations tribe that owns a large chunk of Vancouver real estate

> recently voted to develop it with 50 story mixed use towers that will

> both provide housing to their members and a lot of other people and

> businesses, and with more transit access and much less parking than

> the city would require. They can do that because they can ignore the

> city's zoning.

>

Ta

--

greymausg@mail.com

That's not a mousehole!

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Thu, 07 Oct 2021 10:57:43 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Maus

On 2021-10-06, Charlie Gibbs <cgibbs@kltpzyxm.invalid> wrote:

> On 2021-10-06, Maus <Greymaus@mail.com> wrote:

>  
>> On 2021-10-05, Peter Flass <peter\_flass@yahoo.com> wrote:  
>>  
>>> Maus <Greymaus@mail.com> wrote:  
>>>  
>>  
>> I read a few years ago that HK'ers had bought a lot of property in  
>> Vancouver but had not moved there, leaving property there in an odd  
>> situation. Perhaps Charlie can elucidate?..  
>  
> HK-bashers are plentiful here, and there is a rising tide of anti-Asian  
> sentiment (which, as usual, is ill-conceived). Housing prices are now  
> among the highest in the world. This is considered a Good Thing by  
> developers, realtors, and the governments that they've bought, and any  
> slacking of housing prices' meteoric rise is considered a grave situation  
> by these parties. The provincial government has brought in a "speculation  
> tax" in an attempt to discourage foreign speculators - while remaining  
> suspiciously silent regarding domestic speculators. There's even been  
> talk about housing subsidies so people can buy condos without housing  
> prices leveling off or - horrors! - falling to an affordable level.  
>

As usual, the popular view is wrong. The problem is deeper, and will not  
be solved by attacking the 'usual suspects'. Subsidies only encourage  
sellers to raise prices.

--  
greymausg@mail.com  
That's not a mousehole!

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Fri, 08 Oct 2021 14:27:24 GMT  
[View Forum Message](#) <> [Reply to Message](#)

Originally posted by: stefano capelli

<https://www.pcgamer.com/dutch-legend-has-been-running-his-computer-site-since-1986-using-an-atari-st/>

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Fri, 22 Oct 2021 07:36:24 GMT  
[View Forum Message](#) <> [Reply to Message](#)

Originally posted by: D Gillies

I wrote a multi-connection TCP for the IBM PC (called PC/IP which became FTP Software) in 1984. With a 4K control block (2K send, 2K receive), it could run finger with 7 tcp connections at a time on a 64K IBM PC circa x 10 different flavors of TCP (Multics, Tenex, Tops-10, PDP v7 Unix, BSD 4.15 which had a terrible TCP Bug, etc.). Our project was the first one to put the IBM PC on the Arpanet as a full network citizen, including FTP, which needed my protocol stack.

<https://people.ece.ubc.ca/~gillies/pages/9802net.html>

- Don Gillies, class of '84  
Palo Alto, CA, USA

On Monday, September 6, 2021 at 1:30:03 AM UTC-7, Ahem A Rivet's Shot wrote:

```
> On Mon, 6 Sep 2021 06:30:46 -0000 (UTC)
> Jason Evans <jse...@mailfence.com> wrote:
>
>> On Mon, 06 Sep 2021 00:06:43 -0400, J. Clarke wrote:
>>
>>> You can run Unix from a teletype. Not something anyone in their right
>>> mind wants to do these days but you can do it.
>>
>> Linux via ham radio RTTY would be stupid and awesome, lol.
> Erm KA9Q was originally TCP/IP over souped up RTTY (aka packet
> radio) was it not. OK it was not Linux (that was still in the future) but
> it did come with email, usenet, ftp and a multi-tasking kernel to run them
> under messy dos - I never saw the CP/M version but 64K is awfully tight for
> TCP/IP.
>
> It was awesome and far from stupid.
>
> --
> 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: What is the oldest computer that could be used today for real work?

Posted by [Anonymous](#) on Fri, 22 Oct 2021 07:42:53 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: D Gillies

KA9Q (by Phil Karn) was written in 1985, and I met him when we both worked at Qualcomm Corporate R&D in the early 2000's. Mine was open source and multi-threaded (using an MIT explicit-give-up-the-processor threading package) because it was a part of my bachelor's thesis (a full Mail Security Proxy). I think Phil - being part of the Ham Radio community - probably did a better job of sharing his code and it became the more well-known stack in the hobbyist

community, but was not as commercially successful.

- Don Gillies  
Palo Alto, CA, USA

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Anonymous](#) on Fri, 22 Oct 2021 15:02:00 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Originally posted by: Kurt Weiske

To: D Gillies  
=> D Gillies wrote to alt.folklore.computers <=-

DG> KA9Q (by Phil Karn) was written in 1985, and I met him when we both  
DG> worked at Qualcomm Corporate R&D in the early 2000's.

That must have been a heckuva place to work back then. I was a huge fan of  
Eudora, as were most in the '90s. I was amazed at how much we could do with  
text-based address books and mbox formatted email on a Windows/Mac client.

kurt weiske | kweiske at realitycheckbbs dot org  
| <http://realitycheckbbs.org>  
| 1:218/700@fidonet

.... I hear he can kill people with an init string.  
--- MultiMail/DOS v0.52  
--- Synchronet 3.19a-Win32 NewsLink 1.113  
\* realitycheckBBS - Aptos, CA - telnet://realitycheckbbs.org

---

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Jorgen Grahn](#) on Sun, 24 Oct 2021 14:36:53 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On Sun, 2021-10-03, Charlie Gibbs wrote:  
> On 2021-10-03, Vir Campestris <vir.campestris@invalid.invalid> wrote:  
>  
>> On 01/10/2021 18:43, Charlie Gibbs wrote:  
>>  
>>> On 2021-10-01, Vir Campestris <vir.campestris@invalid.invalid> wrote:



>>>  
>>>> On 23/09/2021 02:15, Dan Espen wrote:  
>>>>  
>>>> > You only update software when the benefit justifies the cost.  
>>>>  
>>>> The problem is that a lot of updates don't add any real functionality,  
>>>> they just plug security holes that someone has found.  
>>>  
>>> Or they add security holes when the vendors decide they don't  
>>> don't have their hooks into you deeply enough.  
>>  
>> I'm paranoid, but I'm not \_that\_ paranoid.  
>>  
>> Do you have a source for that assertion?  
>  
> No definite examples, but I did read the entire Windows EULA back  
> around the XP days. I found a clause in which Microsoft claimed  
> entitlement to walk into your machine whenever they felt like it,  
> take a look around, and remove anything which they in their sole  
> estimation felt you should not have.  
>  
> That nobody recognizes automatic updates as a wide-open back door  
> has always amazed me.

I think people do now, maybe. The extortion attack on swedish food store chain Coop (and others) in July went that way. The cash registers got new software pushed to them, and the new software was ransomware: someone in the long chain of suppliers and cloud thingies had been hacked.

> Just because you're paranoid doesn't mean they aren't out to get you.

Yes, perhaps the cash registers are now feeding my grocery list to the NSA again.

/Jorgen

--

// Jorgen Grahm <grahn@ Oo o. . .  
\X/ snipabacken.se> O o .

---

Subject: Re: What is the oldest computer that could be used today for real work?  
Posted by [Ahem A Rivet's Shot](#) on Mon, 25 Oct 2021 03:40:29 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

On 24 Oct 2021 14:36:53 GMT  
Jorgen Grahm <grahn+nntp@snipabacken.se> wrote:



> Yes, perhaps the cash registers are now feeding my grocery list to the  
> NSA again.

Did they finish building their zettabyte store then ?

--

Steve O'Hara-Smith

Odds and Ends at <http://www.sohara.org/>

---

---

Subject: Re: What is the oldest computer that could be used today for real work?

Posted by [Charlie Gibbs](#) on Mon, 25 Oct 2021 17:53:05 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

On 2021-10-25, Ahem A Rivet's Shot <[steveo@eircom.net](mailto:steveo@eircom.net)> wrote:

> On 24 Oct 2021 14:36:53 GMT

> Jorgen Grahn <[grahn+nntp@snipabacken.se](mailto:grahn+nntp@snipabacken.se)> wrote:

>

>> Yes, perhaps the cash registers are now feeding my grocery list to the

>> NSA again.

>

> Did they finish building their zettabyte store then ?

Almost - that's what that last budget appropriation was really for.

--

/~\ Charlie Gibbs | Life is perverse.

\ / <[cgibbs@kltpzyxm.invalid](mailto:cgibbs@kltpzyxm.invalid)> | It can be beautiful -

X I'm really at [ac.dekanfrus](mailto:ac.dekanfrus) | but it won't.

/\ if you read it the right way. | -- Lily Tomlin

---