Subject: Day 6 of Advent of Code in Commodore 128 Basic
Posted by Anonymous on Fri, 14 Dec 2018 07:21:51 GMT

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Originally posted by: Lawrence Woodman

Hello Commodore fans,

You may have heard of the Advent of Code challenge. For a bit of fun I
decided to do day 6 of the challenge on the Commodore 128 using its built
in Basic. It took days to calculate but it was great to be able to
complete it on this machine.

I had to use Vice though as my real machine has a memory fault which I
need to get around to solving. The advantage of Vice was that
I could easily transfer the code between the emulator and my Linux box to
put it in a github repo and on my website.

If you're interested here it is:
 https://techtinkering.com/articles/advent-of-code-2018-25-da ys-25-languages/#day6

Best wishes

Lorry

---
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Subject: Re: Day 6 of Advent of Code in Commodore 128 Basic
Posted by Anonymous on Fri, 14 Dec 2018 07:44:54 GMT

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Originally posted by: bernardoone

On Friday, December 14, 2018 at 2:21:52 AM UTC-5, Lawrence Woodman wrote:

> If you're interested here it is:

>   https://techtinkering.com/articles/advent-of-code-2018-25-da ys-25-languages/#day6

and wrote on that webpage --

> The only real problem is that it took days for it to do the calculation.

    Heh, if you had a SuperCPU 128, it would have been done more quickly. ;)

      Truly,

Robert Bernardo
Fresno Commodore User Group - http://www.dickestel.com/fcug.htm
Southern California Commodore & Amiga Network - http://www.portcommodore.com/sccan

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Subject: Re: Day 6 of Advent of Code in Commodore 128 Basic
Posted by Anonymous on Fri, 14 Dec 2018 09:12:59 GMT
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Originally posted by: Lawrence Woodman

On Thu, 13 Dec 2018 23:44:54 -0800, bernardoone wrote:

> On Friday, December 14, 2018 at 2:21:52 AM UTC-5, Lawrence Woodman wrote:
>
>> If you're interested here it is:
>
>>   https://techtinkering.com/articles/advent-of-code-2018-25-da ys-25-languages/#day6
>
> and wrote on that webpage --
>
>>   The only real problem is that it took days for it to do the calculation.
>
>   Heh, if you had a SuperCPU 128, it would have been done more quickly. ;)

Interestingly, it took days even in warp mode under Vice. However, this
was only 4 times as fast. As I understand it a supercpu would have run
it 10-20 times as fast. So using a supercpu and doing it on retro
hardware would have beaten a modern machine under emulation.

Lorry

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Subject: Re: Day 6 of Advent of Code in Commodore 128 Basic
Posted by wwww.leser on Fri, 14 Dec 2018 11:30:48 GMT
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On Friday, December 14, 2018 at 8:21:52 AM UTC+1, Lawrence Woodman wrote:
> Hello Commodore fans,
>
> You may have heard of the Advent of Code challenge. For a bit of fun I
> decided to do day 6 of the challenge on the Commodore 128 using its built
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>
> Best wishes
>
> Lorry
>
> ---
> https://techtinkering.com - Retro Computers, Programming and General Technical Tinkering

I copied the code you published into VICE and was disappointed to get nothing but an OUT OF
DATA ERROR IN 6050.
Trying to figure out what's missing, I realized that the site you linked to merely gives a tiny
example that's already solved in place.
So I guess they give the additional problem data only to those who register (which I won't).
Does the challenge consist in writing a fully general solution to the mathematical problem? Or are
they content if your program can solve the given major problem?
Would it be a lot of work to devise a problem instance that is too hard to solve by hand but still can
be solved by a standard Commodore 128 within a few minutes?

Subject: Re: Day 6 of Advent of Code in Commodore 128 Basic
Posted by wwww.leser on Fri, 14 Dec 2018 13:21:40 GMT
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On Friday, December 14, 2018 at 12:30:49 PM UTC+1, ArcadeAge wrote:
> On Friday, December 14, 2018 at 8:21:52 AM UTC+1, Lawrence Woodman wrote:
>> Hello Commodore fans,
>>
>> You may have heard of the Advent of Code challenge. For a bit of fun I
>> decided to do day 6 of the challenge on the Commodore 128 using its built
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\>\>

\>\> Best wishes

\>\>

\>\> Lorry

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\>\> ---

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\>

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\> Would it be a lot of work to devise a problem instance that is too hard to solve by hand but still can be solved by a standard Commodore 128 within a few minutes?

Ok, there are enough data, but line numbers are re-used, overwriting previously entered code. Easy to fix.

VICE running at ~4000% -- faster than any SuperCPU, I guess.

Subject: Re: Day 6 of Advent of Code in Commodore 128 Basic
Posted by Anonymous on Fri, 14 Dec 2018 17:53:15 GMT
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Originally posted by: Lawrence Woodman

On Fri, 14 Dec 2018 05:21:40 -0800, ArcadeAge wrote:

\> On Friday, December 14, 2018 at 12:30:49 PM UTC+1, ArcadeAge wrote:

\>\> On Friday, December 14, 2018 at 8:21:52 AM UTC+1, Lawrence Woodman wrote:

\>\>\> Hello Commodore fans,

\>\>\>

\>\>\> You may have heard of the Advent of Code challenge. For a bit of fun I

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\>\>\> If you're interested here it is:

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I'm glad you noticed that. I never noticed because I used petcat to create the .PRG so it wasn't a problem. I have just gone back and changed the code. Thanks.

4000% wow, my machine must be getting old, the most I've managed on vice is about 480%.

Lorry

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Subject: Re: Day 6 of Advent of Code in Commodore 128 Basic
Posted by wwww.leser on Fri, 14 Dec 2018 18:30:59 GMT
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On Friday, December 14, 2018 at 6:53:16 PM UTC+1, Lawrence Woodman wrote:
> On Fri, 14 Dec 2018 05:21:40 -0800, ArcadeAge wrote:
>
>> On Friday, December 14, 2018 at 12:30:49 PM UTC+1, ArcadeAge wrote:
>>> On Friday, December 14, 2018 at 8:21:52 AM UTC+1, Lawrence Woodman wrote:
>>>> Hello Commodore fans,
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> Lorry
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> ---
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> Technical Tinkering

More likely you're running VICE with all the bells & whistles on.
Switch off sound and true drive emulation (and anything else that's expensive to emulate).
As I had to learn today, percentages are (of course) relative. The program runs even faster in 80 column fast mode, although the percentage is then only 2500 -- relative to 2 MHz, that is.

Are any VICE developers reading this? We need a feature to pause warp mode once the interpreter is ready again (or waiting for keyboard input, or has printed a specified number of lines, or ... it's Christmas soon, isn't it?).

Subject: Re: Day 6 of Advent of Code in Commodore 128 Basic
Posted by Anonymous on Fri, 14 Dec 2018 18:41:28 GMT
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Originally posted by: Lawrence Woodman

On Fri, 14 Dec 2018 10:30:59 -0800, ArcadeAge wrote:

> On Friday, December 14, 2018 at 6:53:16 PM UTC+1, Lawrence Woodman wrote:
>> On Fri, 14 Dec 2018 05:21:40 -0800, ArcadeAge wrote:
>>
>>> On Friday, December 14, 2018 at 12:30:49 PM UTC+1, ArcadeAge wrote:
>>>> On Friday, December 14, 2018 at 8:21:52 AM UTC+1, Lawrence Woodman wrote:
>>>> > Hello Commodore fans,
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> As I had to learn today, percentages are (of course) relative. The program runs even faster in
80 column fast mode, although the percentage is then only 2500 -- relative to 2 MHz, that is.

That's really interesting. I turned sound off and suddenly it's
running at just over 3300% when running 80 column in fast mode.

Lorry

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Subject: Re: Day 6 of Advent of Code in Commodore 128 Basic
Posted by Anssi Saari on Sat, 15 Dec 2018 12:43:16 GMT
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ArcadeAge <wwww.leser@gmail.com> writes:

> Does the challenge consist in writing a fully general solution to the
> mathematical problem? Or are they content if your program can solve
> the given major problem?

Specific problem solving only, they expect a specific result from a
specific set of input data. One assumes they check the answers
automatically.

> Would it be a lot of work to devise a problem instance that is too
> hard to solve by hand but still can be solved by a standard Commodore
> 128 within a few minutes?

Probably not. I looked at the first two problems, both have two parts. I
think a C64 (or 128) can easily do three of them. The fourth needs some
memory where 64 or 128 KB is not enough and I at least can't see a way
around that. Maybe with a RAM expansion. I wouldn't want to do that
with a floppy drive although a 1581 would work. And now that I've
thought that far, maybe I have to do just that :)

I actually tried doing one of the Euler project problems on a C64. After
a lot of head scratching the problem reduced to 400 additions which of
course a C64 can do easily. Only problem was, the result needed about 36
bits and cc65 only has 32-bit integers.