
Subject: What assembler do you guys use?

Posted by [David Murray](#) on Mon, 07 Feb 2005 03:46:25 GMT

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Okay.. I'm tired of programming in an ML monitor.. I'm so spoiled by being used to having an emulator to program in on my PC. However, when you are adding real hardware to your C64, you can't use an emulator. I do not currently have a real assembler for my C64 and most of the ones I see referenced are commercial. So can somebody point me to some good free assemblers that I can actually run on the real Commodore hardware..

By the way, I don't need anything fancy.. the simpler and easier the better. My program will probably be less than 4K when completed.

--DavidM

Subject: Re: What assembler do you guys use?

Posted by [Christian Lott](#) on Mon, 07 Feb 2005 04:45:15 GMT

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David Murray wrote:

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> used to having an emulator to program in on my PC. However, when you are
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> better. My program will probably be less than 4K when completed.
>
> --DavidM

<http://www.esw-heim.tu-clausthal.de/~marco/smorbrod/acme/acme.html>

Just remember to write:

!to"filename"

at the top of the file.

Christian

Subject: Re: What assembler do you guys use?
Posted by [rusure](#) on Mon, 07 Feb 2005 05:26:02 GMT
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David Murray wrote:

> Okay.. I'm tired of programming in an ML monitor.. I'm so
> spoiled by being used to having an emulator to program in on
> my PC. However, when you are adding real hardware to your C64,
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Assembler language WEB site
<ftp://utopia.hacktic.nl/pub/c64/Tools/Assembler/>

I am sure that the assemblers available at the above site are obsolete like the computer for which they were intended. The TURBO assembler has quite a few fans that contribute to this group. I personally use the MACRO ASSEMBLER DEVELOPMENT SYSTEM. It is cumbersome to use but I NEED its symbolic cross referencing mapping capability. Symbolic cross reference maps are passe. They were never discussed when I took a C course in 1998. I used them frequently when I programmed in FORTRAN on large main frames. I am not sure if MADS is still sold anywhere. I would say its status is in limbo.

Although you are tired of MLMs, here is the C64 standard in machine language monitors.

SUPERMON WEB site
<ftp://videocam.net.au/cbm/utils/programming/>
<http://usuarios.lycos.es/fermhg/english.htm>

Subject: Re: What assembler do you guys use?
Posted by [Jeremy Sieracki](#) on Mon, 07 Feb 2005 08:05:38 GMT
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The one I like to use is the Type-In program from Computel's Gazette called BASSEM, it has very good features and is easy to use, you type in your code in a format akin to

BASIC entry as you use line numbers,
You can use Labels inside, delimiting them with
the left arrow character on the Commodore 64
keyboard, so you just save your assembly code
like a basic program, then run it to assemble it
to ML, you can have it assemble straight to a
file on disk, and split up code in several BASIC
listings, another command will dump to the screen
all the used Labels in the code.
Not sure what the previous post meant about
symbolic crossreferencing, but maybe it does that too?

It can be found on the April and May issues
of the Magazine of 1990, I will upload it in
D64 form and the scans of the Documentation
from the magazine to alt.binaries.emulators.cbm,
Check 'er out.

Jeremy
jeremysieracki@charter.net

Subject: Re: What assembler do you guys use?
Posted by [Jeremy Sieracki](#) on Mon, 07 Feb 2005 09:03:18 GMT
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Didn't realize, but I had typed in the DOCS into
a PC DOC file, one for MSWord, and one for WordPad,
I uploaded both of them also to alt.binaries.emulators.cbm

Jeremy

Subject: Re: What assembler do you guys use?
Posted by [Jeremy Sieracki](#) on Mon, 07 Feb 2005 09:14:41 GMT
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When I typed in BASSEM, I also had a very good article
from Commodore Magazine that outlined how to make
hires graphics on a C64 with Assembly language, I spent
a month studying that article and typing the results into
BASSEM, the finished product was a compact routine
to do HiRes and MedRes graphics in ML, the code
had routines to draw pixels, lines, turn on and off either
the HiRes or MedRes screen and to clear them,
The resulting BASSEM source files I still have, but
they are REALLY compressed, in that I mean I typed all

the lines of code, as much as I could squeeze into a line, to make the code compact so I could add routines to the end which would use the routines, this makes it hard to read and to decipher, but the routines work well, I will post the source code for them, and a couple programs which use the compiled result (these are in BASIC which load the ML after compiling)
if you look at the BASIC parts you can easily decipher what SYS calls do what with the compiled source, and maybe use them as you like, I wish I had made a commented version, but I just assumed I'd always know what I was planning, ha, as I look at them now, I'm not so sure,

The labels indicate mostly what their function is, like CLEAR would clear the hires/medres screen some are a little more cryptic, like MX, MY and MXY which if set to a value of 1 will mirror the Plot, be it a line or just a pixel in those directions x, y and both x and y, you just set the values and then call the PLOT routine and the mirror will be automatic, reset them to zero and the mirroring stops in subsequent calls/sys's

posting them to alt.binaries.emulators.cbm
first load BASSEM, and then the Source files, as BASSEM is needed to be in memory when any source is loaded or else the extensions to BASIC won't be there and all will look funny and not work.

Jeremy
jeremysieracki@charter.net

Subject: Re: What assembler do you guys use?
Posted by [Jeremy Sieracki](#) on Mon, 07 Feb 2005 09:56:10 GMT
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Ok, the Source's of some examples (well just 3, one with BASIC loader, the other two are pure ML/source for BASSEM, are posted to alt.binaries.emulators.cbm,
Here are some docs for what you'll find in the posting:

MAZE2/BAS - Basic Maze Loader, Loads MAZE2/ML which is the BASSEM code compiled from

MAZE2/AC

MAZE2/AC - Source Code For Maze2 program, load in BASSEM

MAZE2/ML - Compiled Code From MAZE2/AC

HIRES/AC - BASSEM Source for HIRES Graphics Routines

COLORHIRES/AC - BASSEM Source for Multi-Color Graphics Routines

GRAPHICS/AC - Same BASSEM source as HIRES/AC but this one is commented (yeah)

MEDRES1/AC - Another Version of COLORHIRES/AC not sure which came first, this one is compressed

MOVELINES/AC - An attempt to duplicate the SWISH part of the popular C64 program SWINTH, I didn't

really succeed, load BASSEM then load this code, then RUN and lastly SYS49152

to see it in action

SWINTH/AC - Another attempt at the SWISH part of Swinth, this one is better, but still not

correct, same as above, load BASSEM, then load this source, and then RUN and

lastly SYS49152 to run,

Jeremy Sieracki

jeremysieracki@charter.net

ps. I'll try and dig up the scans for the Commodore Article that listed the assembly for HiRes graphics and post

them, it is a great article

Subject: Re: What assembler do you guys use?

Posted by [MagerValp](#) on Mon, 07 Feb 2005 13:57:52 GMT

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>>>> > "DM" == David Murray <spamsucks@stopspam.com> writes:

DM> Okay.. I'm tired of programming in an ML monitor.. I'm so spoiled

DM> by being used to having an emulator to program in on my PC.

DM> However, when you are adding real hardware to your C64, you can't

DM> use an emulator. I do not currently have a real assembler for my

DM> C64 and most of the ones I see referenced are commercial. So can

DM> somebody point me to some good free assemblers that I can actually

DM> run on the real Commodore hardware..

Grab the Style Coding Tools disk from:

<http://www.style64.org/>

it includes the Turbo Macro Pro assembler.

--

_____.+ . 0
|_| + . + . + . Per Olofsson, arkadspelare
o-o . . . o + MagerValp@cling.gu.se
- + + . <http://www.cling.gu.se/~cl3polof/>

Subject: Re: What assembler do you guys use?
Posted by [rusure](#) on Mon, 07 Feb 2005 17:20:28 GMT
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Jeremy Sieracki wrote:

> Not sure what the previous post meant about symbolic
crossreferencing, but maybe it does that too?

I had (maybe even have) the original BASSEM article(s), in COMPUTE GAZETTE. When ever I have a chance to acquire another assembler, the secondary feature I require is a cross reference tool. (The primary requirement is that the assembler accept and assemble source code) I scanned the BASSEM article(s) for a cross reference tool without success.

At one time I had BUDDY 128. I was unable to find a cross referencer in BUDDY as well.

Cross reference maps enumerate, usually in alphabetical order, all the symbols present in the source code, as well as their line numbers and the line numbers that reference the symbols. Good Xmappers will discriminate between the line locations of the symbols and lines that refer to the symbols. I would think that this info is stored somewhere in all language processors. Symbolic cross reference mappers are poor mans flow charts.

Subject: Re: What assembler do you guys use?
Posted by [Patryk 'Silver Dream](#) on Mon, 07 Feb 2005 19:15:53 GMT
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David Murray wrote:

> Okay.. I'm tired of programming in an ML monitor.. I'm so spoiled by being
> used to having an emulator to program in on my PC. However, when you are
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> By the way, I don't need anything fancy.. the simpler and easier the
> better. My program will probably be less than 4K when completed.

I can't say it's "nothing fancy" as it includes basically everything you may need on a 64 without REU. It's my all-time favorite MacroAssembler,

which was published on the INPUT64 in (AFAIR) June release of 1986. It has a built-in lightweight editor, 2-pass assembler with macro support as well as it assembles to disk, to memory, outputs listings to file or printer, allows single-file state saving and does a lot of other nice stuff ;-). The built-in editor is highly WordStar (still remember that?) compatible so one finds all the lovely CTRL-K combinations there. Yup. Just great ;-)

Subject: Re: What assembler do you guys use?
Posted by [Cameron Kaiser](#) on Tue, 08 Feb 2005 02:26:04 GMT
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MagerValp <MagerValp@cling.gu.se> writes:

> it includes the Turbo Macro Pro assembler.

I still use the original TurboAss (although mine has a couple patches) when I code directly on the 64, but that's rarely now. Most of my work is cross-assembled using xa on Mac OS X.

--

Cameron Kaiser * ckaiser@floodgap.com * posting with a Commodore 128
personal page: <http://www.armory.com/%7Espectre/>

** Computer Workshops: games, productivity software and more for C64/128! **
** <http://www.armory.com/%7Espectre/cwi/> **

Subject: Re: What assembler do you guys use?
Posted by [Six of DLoC\[1\]](#) on Tue, 08 Feb 2005 14:53:14 GMT
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David Murray <spamsucks@stopspam.com> wrote in
news:Xns95F5DD807D760neverspamnosspamcom@151.164.30.48:

> Okay.. I'm tired of programming in an ML monitor.. I'm so spoiled by
> being used to having an emulator to program in on my PC. However,
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>

> --DavidM

>

Turbo Macro Pro from Style
<http://style64.org> - on the tools disk

Subject: Re: What assembler do you guys use?
Posted by [Anton Treuenfels](#) on Wed, 09 Feb 2005 04:26:55 GMT
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> Cross reference maps enumerate, usually in
> alphabetical order, all the symbols present in
> the source code, as well as their line numbers
> and the line numbers that reference the symbols.
> Good Xmappers will discriminate between the line
> locations of the symbols and lines that refer to
> the symbols.

> I would think that this info is stored
> somewhere in all language processors.

Not necessarily. A reference to a symbol in an expression only needs the value of that symbol, not where it came from. As you've noticed, many assemblers don't bother to save that kind of information because they don't need it to accomplish what they're intended to do. It can be done, but it takes extra memory for code and data, which is precious on small machines.

- Anton Treuenfels

Subject: Re: What assembler do you guys use?
Posted by [rusure](#) on Tue, 15 Mar 2005 04:20:28 GMT
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r_u_sure@mybluelight.com wrote:

> David Murray wrote:
>> Okay.. I'm tired of programming in an ML monitor.. can
>> somebody point me to some good free assemblers that
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> It is cumbersome to use but I NEED its symbolic cross
> referencing mapping capability. I am not sure if MADS is

> still sold anywhere. I would say its status is in limbo.

Since I posted the above message, I have stumbled onto the following site with MADS :

<http://www.haddewig.de/nogames64/tools.html>

Click on the Commodore Assembler entry. The MADS files from the site are 1 byte longer than those on the original Commodore system disk, except for the DOS WEDGE booting programs. Both WEDGE booters appear to perform equivalent operations.

MADS docs are at :

<http://project64.c64.org/misc/index.html>
