SDOS (v1.1) – *2019.04.15.*

SDOS (legacy) is a C64 disk utility and speed loader by Robert Olessak.

All of its contents are Public Domain: open-source and freeware.

The executables together with the source files and some description (this PDF) can be found all within a ZIP file. If you are missing any of them, you can download it from here:

http://istennyila.hu/stuff/archive/sdosleg.zip

The name "legacy" refers to the fact that this version has mainly been meant to replace some old and outdated other applications (there are further new versions actually in the making supposed to be called as "normal" and "pro" with greatly improved functionality, but that is yet coming soon); these three ones:

1.) **VDOS**: written by Edward Carroll in 1986 (a typical early C64 fastloader).

2.) **SJLOAD (v0.96)**: created by "1570" in 2008-2009, based on VDOS: replacing the speed loader part with another code portion for supporting the JiffyDOS protocol instead.

3.) **SDOS (v1.0)**: created by Robert Olessak in 2016, based on SJLOAD and VDOS: first porting them to CBM prg Studio, then combining both into a common one.

VDOS had supported only 1541 and 1571 disk drives (in C64 mode), while SJLOAD supported only Jiffy drives (mostly used for SD2IEC). SDOS can be used for any kind of periferals: it checks the drive at being launched, then chooses the right protocol.

SDOS (v1.1) has been created in 2019, and this newer version has already got a lot of minor and major bugfixes over the previous ones as well as some new features (*see next page for more details*).

General usage (for starting the loader):

LOAD "!" ,8,1	*simply launch (with autostart),* ***or:***
LOAD "!*PROGRAM" ,8,1	*launch and then load and run "program",* ***or:***
LOAD "!" ,8 / RUN	*as above (but without the autostart),* ***or:***
LOAD "!*PROGRAM" ,8 / RUN	*as above*

*(Note: on a 1581 disk drive, the * does not work, so please type = instead.)*

After having been installed:

VERIFY	*display status from command channel*
VERIFY "…"	*send command to drive*
VERIFY "$"	*display directory (only on the screen)*

LOAD "$"	*load directory from last accessed device*
LOAD "PROGRAM"	*load program from last accessed device*
LOAD "PROGRAM" (,8),1	*as above (as a machine code)*
LOAD "PROGRAM" (,8),0	*as above (as a Basic code)*
LOAD *(without filename)*	*=> LOAD "?*" ,8(,1) (load first file)*
SYS 737	*re-install (or activate)*
SYS 700	*un-install (or deactivate)*

New features in SDOS:

- ➢ if using LOAD "!*PROGRAM" ,8(,1) the program will also be autorun
- ➢ holding the Shift key skips the autorun (can be combined with below)
- ➢ holding the Ctrl key forces always SJLOAD (and skips drive check)
- ➢ holding the C= key forces always VDOS (and skips drive check)
- ➢ holding both C= and Ctrl keys at once forces always Kernal load
- ➢ screen blanked and sprites and IRQ disabled in all three modes
- ➢ typing 0 or 1 for device number means latest with ,0 or ,1
- ➢ typing no device number at all means latest once again
- ➢ number 8 (or 1) is substitute for last accessed device
- ➢ specifying no filename means load first file
- ➢ screen colours are slightly changed

File sizes:

The former ones were limited to load files sized of maximally about 195 blocks on disk (if loaded to Basic start). This version of SDOS (v1.1) can go nearly up to 200 blocks (or even some more). It is itself 9 blocks (whereas the other two were merely 5 blocks) though, which is not so surprising, since it contains both of them.

Compatibility:

The main goal was to always have the Jiffy protocol if/when ever just possible while also allowing to use drives without the built-in Jiffy ROM extension.

On being launched, SDOS makes a quick drive check by sending out a UI (soft reset) command, then reading the first-time message from the command channel back. If it contains some certain keywords (like e.g. "jiffy", or "cmd" as identifying a CMD hard drive, or "iec" as identifying as SD2IEC, uIEC, MMC2IEC or IEC-ATA etc.), then it will be treated as a Jiffy device, so the SJLOAD protocol is used by default. If not, then it rather searches for a classical 1541/71 (or 1540/70) floppy drive (but without the JiffyDOS), and if found, then the VDOS protocol is used instead. If none of them is found, then it reverts to the stock Kernal routines of your machine (therefore SDOS only provides the wedge functionality in this case).

However, it is once more revised if a DTV or NTSC system is found in conjuction with a classical floppy drive, which also leads to VDOS for safety's sake after all (even if it has the Jiffy ROM), because SJLOAD is not too reliable in this case.

You might manually reconsider the above decisions by holding down some controlling keys if you want: C= for forcing to choose VDOS, or Ctrl for forcing to choose SJLOAD; or even by holding down both keys at the same time for forcing to choose Kernal load as well.

Besides, the old programs had still got a lot of minor bugs and flaws before, the most of which have already been fixed in SDOS by now. Therefore they are not so recommended to be used any more. This version of SDOS (legacy) is also only recommended to use in replacement of them (*for any other purposes, please read the following*).

This is called "legacy" just because the application is still under development, in the course of which is only meant to be the first and easiest step. Some of the planned features:

- ➢ *supporting C128 and VIC-20 (by adding SJ128 and SJVIC), C65 and Plus/4*
- ➢ *supporting REU (as ramdrive) and 1541 Ultimate-II Command Interface*
- ➢ *supporting multiple drives (each with different speed loading method)*
- ➢ *including some Commander-style shell for simple (copying, executing) tasks*
- ➢ *including 80-column native modes (on C128 or C65, also for the MEGA65)*
- ➢ *loading C64 programs in native mode, then executing them in C64 mode*
- ➢ *autobooting… (and so on)*

*Yet, there are **no** guarantees at all, if (or when) finally this all to be made. The most probably still this and/or the next year. (If you would not hear anything about it until then, please consider it being abandoned and as just the single final version then.) Once having been made, the "normal" version simply replaces this "legacy" here. (Since I do not want to publish any beta versions or other similar interim stages. My decision, sorry.) That new version is going to be called as **SDOS v2.x** (while this old one as **SDOS v1.x**).*

About the author:

This entire *SDOS project* initially started as an independent part of my *Rosetta Interactive Fiction* project. (As I had not found any kind of proper boot loading system, I have had to make it by myself.) However, you can also freely apply it at your will, of course.

SDOS project homepage:

http://istennyila.hu/sdos

MemTest64 project homepage:

http://istennyila.hu/memtest64

Rosetta Interactive Fiction project homepage:

http://istennyila.hu/rosetta

(On opening them please click onto the greetings images for entering the main page!)

Robert Olessak (2012-2019)