CoCoSDC

A software storage device for the Dragon Computer

These notes are based on the work of others and have been written to reflect the Dragon specific differences in the CoCoSDC.

I wish to acknowledge the work of:

Darren Atkinson who designed the CoCo SDC hardware and software.
{ http://cocosdc.blogspot.com)

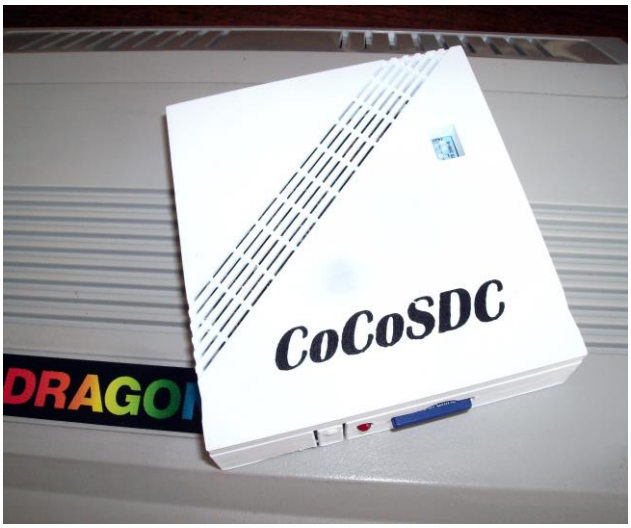
Ed Snider who manufactures the printed circuit boards.

Brian Blake who wrote the original CoCoSDC manual

The CoCoSDC

What Is The CoCoSDC ?

The CoCoSDC is a software storage device for the **Tandy Color Computer (CoCo)** and **Dragon Computers** that can replace floppy disks and cassettes. It uses SD cards to store programs and disk images and can emulate the original disk controller and floppy disk drives.



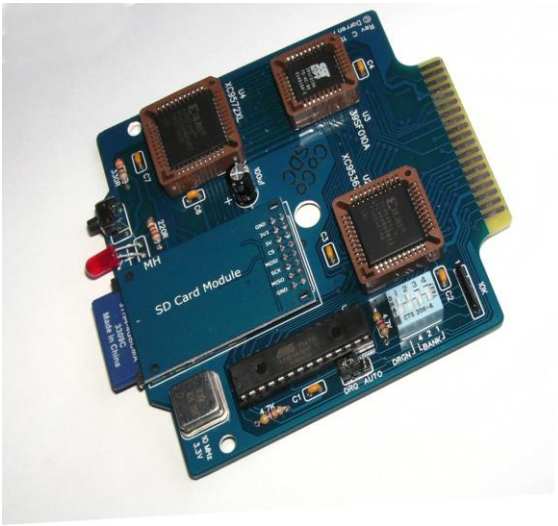
The CoCo SDC plugs into the cartridge port of the computer, replacing the Disk controller and disk drives.

It can also be used with an original disk controller as a second drive if the computer has a MultiPakInterface (MPI).

Two separate disk images (floppy or hard disk) contained on the same SD card may be “mounted” at the same time.

Inside the case is:

- An ATMega micro controller running at 10Mhz,
- An SD card reader that accepts cards formatted with FAT32 or FAT16,
- 8 selectable banks of Flash ROM - two of which hold modified copies of the Dragon and Tandy CoCo disk operating systems,
- Support for virtual hard disk images,
- DriveWire software enhancements,
- A Next-Disk button to support multi-disk programs.



The CoCoSDC

First some History

In 1979 when the Tandy Color Computer was originally made, and then the closely related Dragon32 Computer in 1982, they were intended to be used as affordable family home computers. The options for loading software at that time were as follows

A cassette player – with cassette tapes.
This was a cheap and popular choice. Most households already had some sort of cassette recorder and it allowed programs to be saved and loaded from cassette tapes.

But loading was slow and sometimes unreliable.

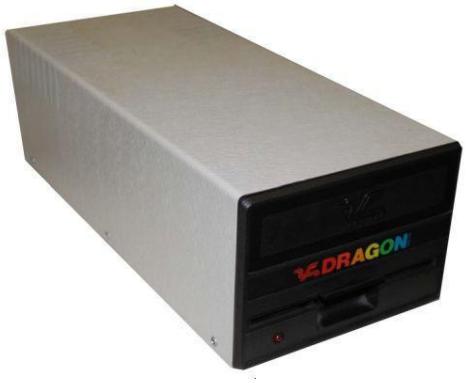
A ROM-PAK
This was a plastic case which contained a circuit board and a Read Only Memory (ROM) that had been pre-programmed with a game or other program.

These had the advantage that they simply plugged into the Cartridge slot on the side of the computer and loaded instantly when the computer was switched on.

But they were expensive and the choice of software was limited.

Disk Drives
As sales of these computers increased, first Tandy and then Dragon produced Disk Drive controllers and drives to take 5¼ inch floppy disks. The controllers plugged into the cartridge port and allowed as many as 4 drives to be connected.

Software could now be loaded and saved more quickly and reliably. But these were bulky and expensive pieces of hardware and they are hard to find secondhand now.



The Tandy and Dragon Disk Operating Systems (DOS)

In order to load and save software on Disks, a computer needs special software called a **Disk Operating System** (**DOS**) as well as a disk drive controller and disk drives.

The Tandy CoCo and Dragon computers are both based on the same outline design from the chip manufacturer Motorola. This shared design uses many Motorola off-the shelf components with only minor hardware differences between the two machines. They both also have a built in BASIC language interpreter licensed from Microsoft with an identical set of commands. This common heritage means that a lot of the software from one machine will run on the other with a few modifications.

However the Disk Controllers and the Disk Operating System (DOS) for each machine were developed independently by each of the companies and they are not interchangeable. **Disk Extended Color Basic** (DECB or RSDOS) is for Tandy CoCos and **DragonDOS** is for Dragon machines. These differences had implications for the design of the CoCoSDC which needs to have separate copies of the two individual Disk Operating Systems. One is based on Tandy DECB and the other on DragonDos.

The two separate disk operating systems have been "extended" with additional commands to access and control the CoCoSDC. This modified DOS software has been "burned" into two of the eight flash memory banks of the SDC and each will only work with the correct make of computer. *More about this later (see page 6)..*

As well as reading and writing to SD cards, the CoCoSDC can also control Tandy or Dragon Disk Drives if they are attached – replacing their original disk drive controllers. There is no additional software required. The DOS software is already stored in two of the eight Flash Memory banks inside the CoCoSDC.

Flat vs Hierarchical Disk Filing Systems

Now would be a good time to explain the big difference between the way files are arranged on the SD cards using SDC compared to the way that the Tandy or Dragon DOS arrange their files on Floppy Disks.

A Flat (Single disk directory) Filing system

The disk directory is just an index – like a telephone directory - that helps to find and load the right file. Tandy DOS (DECB) and DragonDos were designed at a time when 5¼ disks were the norm and these were of limited capacity. Original 35, or 40 track drives were single sided and the disks had a capacity of about 160kilobytes or 180kilobytes respectively. This was just enough space for 10 or 11 large files of 16k each. A single disk directory was sufficient to index all the files on these disks even if

there were a large number of small files. When double sided or 80 track drives were used the disks had double this capacity – 360k or even 720k. But even these larger capacity disks used the same "flat" filing system. That is to say, all of the files were in a single directory.

A Hierarchical (or Tree structured) Filing system

When hard disks or other large capacity storage devices became available, it was possible to store many hundreds of files on a single disk. A single directory containing perhaps hundreds of files became unmanageable. So, in order to organize the files they were split into a number of separate directories (or folders) with a smaller number of files in each. But a large number of directories needed organizing in some way. The solution was to arrange the directories into a Tree structure

In a Tree structure a single high level directory called the "**Root**" contains all the other directories. We call these **Subdirectories** - and these in turn can have directories in them - and all of them may contain individual files…

Users of OS-9, Windows or Linux systems will be familiar with this hierarchy of directories (or folders) and files.

The same tree structure has been used for files stored on SD cards plugged into the SDC . We could place all our disk images, programs and other files in a single directory, but a tree structure with multiple subdirectories is much better.

However, neither Tandy DOS nor DragonDOS have commands to cope with managing files within subdirectories. That is why extra commands have been added to the modified versions of the two DOSs that are stored in the SDC flash memory banks.

SD CARDS

SD cards – either full size, or microSD cards in an adapter, are used to load and save software images, and individual files, as if they were on actual floppy disks.

Use only SD or SDHC cards with the CoCoSDC.

Always insert the card into the socket before applying power to the computer.

Although SD cards are hot-swappable, the CoCo SDC firmware does not handle that situation very well.

It is recommended that you completely shutdown the computer before swapping cards.

Inside the SDC

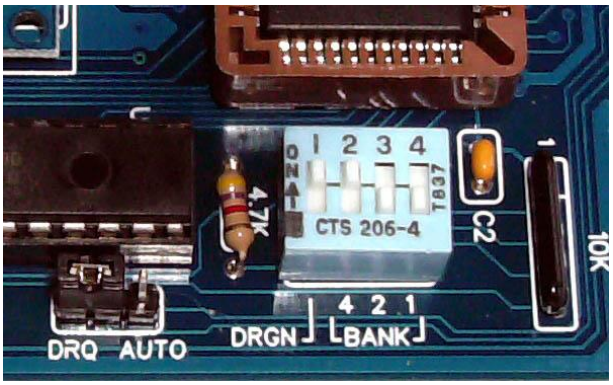
Jumper Settings

A three-pin jumper strip (**bottom left in this image**) marked **DRQ – AUTO** provides **two mutually exclusive options for configuring the SDC**. These are Dragon DRQ mode and Cartridge Auto-Start mode.

A jumper can be installed between the center pin and the AUTO pin to connect the Q clock to the CART interrupt pin. This causes the computer to automatically start executing the program in the selected Flash bank at power-up.
Do NOT use this option to auto-start SDC-DOS or either Tandy or Dragon DOS ROMs.

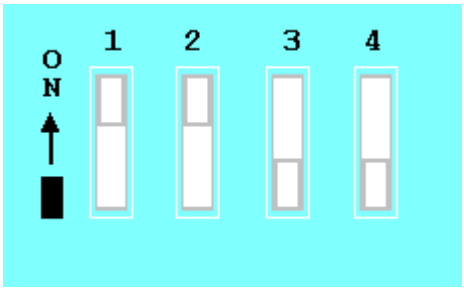
For the Dragon ONLY a jumper is installed between the center pin and the DRQ pin and is required to support emulation of a Dragon DOS floppy controller.

The default setting for a Tandy CoCo has neither option enabled (no jumper installed).



DIP Switch Settings

The board also has a 4-position DIP switch (bottom centre in the picture above) which is visible through an opening on the top of the case. This is used to configure which of the eight Flash banks is active at power-up or reset and which DOS and addressing scheme is used to communicate with the disk drive controller.



CAUTION: Make sure the computer's power is off before making any changes to the DIP switch settings!

The CoCoSDC

The three RIGHTHAND switches (numbered 2, 3 and 4) select which of the Flash banks to activate upon power-up or system reset. The switches are labeled on the board as 2, 3 and 4 but think of them as a Base Two numbering system where the rightmost is binary 1 the next is 2 and the next is 4. The eight Flash banks are numbered 0 to 7.

Set in the ON position only those switches whose sum equals the desired bank number.

So, for example, to select bank 5,
*The decimal number 5 is **1 0 1** in binary, so you would flick the switches labeled 2 and 4 into the ON position and leave the switch labeled 3 in the OFF position.*

Tandy CoCo SDC-DOS in bank 0 of the Flash

all the switches should be OFF if the CoCoSDC is used with a Tandy Computer.

Dragon Dos 5.0 is installed in bank 4 of the Flash in my SDC

*The number 4 in decimal is **1 0 0** in binary – so switch labeled 2 is in the ON position and switches 3 and 4 are in the OFF position*

The LEFTHAND switch (number 1) selects the address scheme for the controller because the CoCo and Dragon Disk controllers used slightly different memory addresses.

In the **OFF** position the controller will use the **CoCo SDC-DOS** address scheme.
In the **ON** position, the controller will use the **Dragon DO**S address scheme.

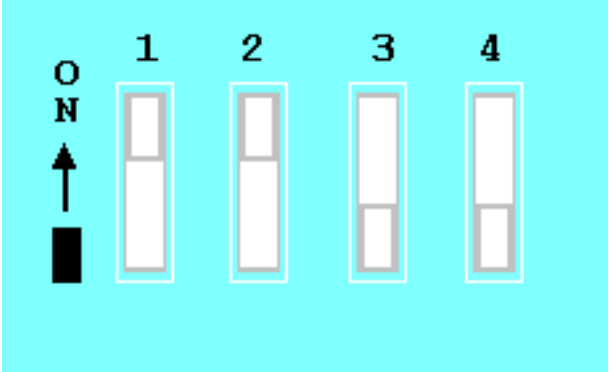
For reference only, the two different Disk Operating Systems Controller addresses are summarized in the following table.

Disk Controller Interface	**Dragon Address**	**Tandy CoCo Address**
Controller Command register (Write only)	FF40	FF48
Controller Status register (Read only)	FF40	FF48
Controller Track register R/W SDC parameters register 1	FF41	FF49
Controller Sector register R/W SDC parameters register 2	FF42	FF4A
Controller Data Register R/W SDC parameters register 3	FF43	FF4B
Controller latch (Write only)	FF48	FF40
SDC Flash data register A	FF4A	FF42
SDC Flash control register B	FF4B	FF43

Default DIP Switch Settings for the Dragon Computers:

As supplied for the Dragon the DIP switches should be set as shown here

Switch 1 is ON (selects Dragon disk controller addressing).
Switch 2 is ON (selects bank 4 for Dragon Dos5)
Switches 3 and 4 are OFF



Precautions

There are a few very important precautions that must be mentioned before we get into the actual operation of the CoCo SDC:

1. **NEVER insert or remove the CoCo SDC when the computer is turned on!**
Just like any other device that uses a Dragon Computer cartridge port, inserting the CoCo SDC into your Computer can damage the Computer, the CoCo SDC, or both.

2. The SD card socket is a Push-Push type. When removing the card, always push in to release the latching mechanism before sliding the card out. Never use force to pull the card out of the socket.

3. The card must be inserted into the socket upside-down (label facing down, contacts facing up).

4. Although SD cards are hot-swappable, the CoCo SDC firmware does not handle that situation very well. It is recommended that you completely shutdown the computer before swapping cards.

5. The firmware in the CoCo SDC does not currently support long file names. You must ensure that the names of all files and directories which are to be accessible by the computer conform to the older 8.3 naming convention - i.e. “AAAAAAAA.BBB”

USING THE SDC

The SDC can be used in a variety of ways:

1. As a CoCo disk emulator … or...
2. As a Dragon disk emulator …
3. And together with an original Disk Controller and physical disk drive if a MultiPakInterface (MPI) is used.

The **MPI** is an additional piece of hardware that plugs into the cartridge slot of the computer and allows 2 or more cartridge devices to be connect to the computer at once.

If an MPI is available then the CoCoSDC and an original Disk Controller Cartridge can be plugged in at the same time. This would allow the computer to access software both on the SDC and on real floppy disks connected via the Disk Controller.

In most early disk operating systems the physical disk drives were given letters (A: B: C: etc), or numbers in the case with the Tandy CoCo and Dragon disk drives.
However the numbering of Tandy and Dragon drives differs slightly.

Tandy drives start with Drive 0 (and subsequent drives are 1, 2 and 3),
whereas Dragon drives start at Drive 1 (and subsequent drives are numbered 2, 3 and 4).

When the CoCo version of the SDC firmware has been selected via the DIP switches, the SD Card appears as the first drive - Drive 0 - and a real CoCo disk drive as Drive 1 – if it is connected via an MPI.

When the Dragon version of the SDC DOS firmware has been selected via the DIP switches, the SD Card appears as the first drive - Drive 1 - and a real Dragon Dos drive as Drive 2 – if it is connected via an MPI.

When power is applied to the SDC, the LED on the CoCo SDC board should light up momentarily.

If the LED does not turn off after a few seconds then this is an indication that the card was not recognised by the hardware. This can happen if the card has not been formatted with a FAT16 or FAT32 file system. It could also indicate that the card was not inserted properly or that there is a problem with the CoCo SDC itself.

Preparing Your SD Card

Start with a blank high-speed SD card – either full size or microSD in a suitable adapter. There is no need for a large capacity card, 4 or 8 GB will be quite sufficient for all of the software that was ever developed for the CoCo and Dragon computers. The card should be formatted as FAT16 or FAT32 as standard. The CoCoSDC recognises both.

Use your PC or desktop computer to download the essential Dragon software from:
https://archive.worldofdragon.org/browse/?dir=downloads/CoCoSDC

Unzip the files which consist of:

- **DRAGON32** (directory) which has a large collection of disk images ready to run.
- **SDC** (directory) which contains documentation (some of which is only applicable to the Tandy CoCo) but you might need to look at these Dragon documents:.
  Introduction to DragonDos which is a scan of the original Dragon Dos manual
  COCOSD-DRAGON.TXT – which is a list of all the disk images that are in the DRAGON32 directory
  DRAGONDISKLIST.XLS – which is the same list in spreadsheet format.
  CAS-ONLY.TXT - which is list of cassette based programs which could be loaded via DriveWire..
- **EXPLORER.VDK** a virtual disk mage (VDK) which has the **SDC Explorer**
- **STARTUP.CFG** which instructs the SDC to load EXPLORER.VDK as Drive 1

Now copy to the ROOT (top level directory) of your SD card the files:
STARTUP.CFG
EXPLORER.VDK
… and also the **DRAGON32 directory** if you want the DRAGON32 archive collection

Let's look at each of these in turn

STARTUP.CFG

STARTUP.CFG is a plain ASCII text file that can be edited on your PC.
It must be placed in the Root directory of the SD card. The name of the file must be "STARTUP.CFG". The contents of the file may contain lines of text which specify the initial images to mount for drives 0 and/or 1 as shown in the example below.

0=EXPLORER.VDK
1=OFF

In this case it will look to mount EXPLORER.VDK as the primary drive, and turn off the secondary drive – which would be a floppy disk controller and drive.
Now this part is going to be confusing so read carefully ...

The CoCoSDC was designed for the Tandy CoCo which numbers its drives 0 and 1 whereas the Dragon numbers its drives 1 and 2 etc. Nevertheless in this STARTUP.CFG file the first drive must be 0 and the second drive number 1, even for a Dragon.

SDC EXPLORER (SDCX)

The **EXPLORER.VDK** disk image has within it a special written program **SDCX.BIN.**

This is the **SDC Explorer** – a program that can be used as a **file manager** to browse the contents of disks, to load files, create blank disks and directories… and much more.

The SDC Explorer provides a simple, user-friendly way to access the contents of the SD card and all the virtual disks, without having to type the commands that SDC expects. It's not necessary to have this on the SD card – the SDC will work perfectly well without it – but it will save a lot of typing and having to look up most of the commonly used SDC commands.

On the Dragon the SDC Explorer is started by typing the command BOOT.
Or by running a BASIC program named **HELLO.BAS** which is in the root of the EXPLORER.VDK alongside SDCX.BIN.

Let's assume that your STARTUP.CFG file names EXPLORER.VDK as the default image to mount in the first drive, and that a virtual disk image named EXPLORER.VDK containing SDCX.BIN and HELLO .BAS are in the root of the SD card. When the computer is started up then the EXPLORER disk will be mounted automatically.

Now type BOOT (or type RUN "HELLO.BAS") to start the SD Explorer

The CoCoSDC

It will look like this – although the version number, and the exact contents of your SD card will differ.

Press **SHIFT-H** to see a help screen of commands..
I won't cover each if them, but simply…

Use the arrow keys to navigate up and down and to switch between the two panes.

Press Enter to select a directory or file to load.

Select the .. at the top of the lefthand pane to move back up a level in the directory tree.

Behind this easy to use interface the Explorer will be passing commands to the SDC firmware. These commands can all be typed directly from the normal OK prompt.
A list of the SDC commands used by the DRAGON SDC DOS follows.

Note: The CoCo SDC DOS version of these commands differs slightly from those for the Dragon, and referring to the documentation for the CoCo commands will probably be confusing.

An easy check to remember is that most of the **new** SDC DragonDOS commands start with an S – such as SDIR, SDRIVE etc

Multi-Disk Programs

Some large commercial programs – such as the OS-9 C-Compiler are spread across several disks. These individual disk images can be copied into a single directory on the SDC card. When the first disk in the directory has been mounted the SDC has a button on the case (alongside the red LED) which when pressed will automatically mount the next disk in the set.

The disk images for multi-disk games and applications must be located in the same directory, and the last character of the disk title must be successive numbers.

The CoCoSDC

The SDC adds new commands to DragonDOS.

The original DragonDos commands are explained in the DragonDos operating manual (see the booklet "**An Introduction to DragonDOS**" - also available as a pdf file).

Those original DragonDOS commands controlled physical drives and floppy disks attached to the Dragon computer.

The DragonDOS commands are still used with the SDC to access files **within** a virtual disk image (a VDK).

So you will use **DIR, LOAD, SAVE, RUN, KILL, DSKINIT** etc, to manipulate files within a virtual disk in the same way as on a real floppy disk. That is, for files with the usual .BAS, .BIN, .BAK extensions.

But the original DragonDOS knows nothing about the "tree structured" filing systems or the subdirectories on an SD card. So the new commands that SDC adds to DragonDOS are needed to create directories, access virtual disk images and to navigate within that hierarchical "tree" structure.

The contents of the SD card are arranged like the branching roots of a tree. The highest level directory is the ROOT. Beneath this are subdirectories which in turn may have further subdirectories, each containing virtual disk images and files.

This may be a good time to explain about virtual disk formats.

The CoCo SDC supports four different virtual disk image formats.

.VDK format was created for Dragon disk images and with emulators like XROAR.
.DSK format can be used for the imaging of both floppy disks and hard disks on both the Tandy CoCo and the Dragon computers.
.SDF format was created specifically for the CoCo SDC and is used for imaging CoCo floppy disks only.
.JVC format is a fourth format recognized by the SDC but which is not often used.

No special name or extension needs to be assigned to an image file for the SDC to recognise the format used When a disk image is mounted the SDC firmware detects which format the image uses by examining a small header in the file to see if it contains a recognised format signature. The header specifies the number of sides, tracks, and sectors, and the sector size. Nevertheless it is recommended that the above extensions are used for easy identification of the disk image type by users.

The CoCoSDC

Dragon VDK Format

Standard Dragon floppy disks have 40 or 80 tracks, each having 18 sectors per track and each sector having 256 bytes. Double sided disks were treated as having 36 sectors per track – rather than referring to side numbers.

So common disk sizes were:

180k (256*18*40 = 184320 bytes)	40 track single sided
360k (256*36*40 = 368640 bytes)	40 track double sided
360k (256*18*80 = 368640 bytes)	80 track single sided
720k (256*36*80 = 737280 bytes)	80 track double sided

The VDK virtual disk image has a 12 byte header followed by a variable sized array of track records. The track records are arranged in ascending order corresponding to their physical position on the disk (cylinder number).

The VDK format was originally created for use with a Dragon emulator program running on a PC – such as XROAR. **The Dragon version of SDC can handle VDK and also DSK format disks images**.

Suitable VDK images can be found here

https://archive.worldofdragon.org/browse/?dir=downloads/Software/Dragon

The CoCoSDC

SDC DRAGON DOS NEW COMMANDS REFERENCE

SDRIVE

Typing **SDRIVE** will show the two SDC drive mappings and their status.

1: ON EXPLORER.VDK 184320
2: - - NO DISC

Drive 1 (the SD card) has the virtual disk EXPLORER.VDK mounted
Drive 2 is OFF shown as –- NO DISC because there is no floppy disk controller connected via an MPI.

Typing ...

SDRIVEn,[ON}[OFF}	Turns drive n (1 or 2) ON or OFF
SDRIVEn,"filename"	Mounts the requested file in Drive 'n'
SDRIVEn,UNLOAD	Unmounts the requested file
SDRIVEn,"DISKNAME",NEW[,180] [,360][,720] *180 is 40Track single sided* *350 is 40 track double sided* *720 is 80 track double sided*	Creates and Formats a new virtual Dragon DOS disk with the specified diskname in the current directory and mounts it in drive 'n'. By default it will be a 180k disk. (40 track single sided equivalent).
SDRIVEn,GET	Shows data about the disk/file mounted in drive 'n'
SDRIVEn,DIM	Shows the size of the disk image in sectors

The CoCoSDC

SDIR

Typing **SDIR** will show the contents of the current disk or directory

> *The contents of the SD card are arranged like the branching roots of a tree. The highest level directory is the ROOT. Beneath this are subdirectories which in turn may have further subdirectories, or disk images and files.*

You can also use this command to specify a Current Directory for commands that access the SD card. Once specified, all subsequent commands will refer to files or directories on the SD card which are relative to the Current Directory unless the path name begins with a **Slash (/)** - in which case it starts from the ROOT directory.

A Double Dot (. .) is a shortcut that refers to the parent directory of the current directory.

A full Pathname to navigate from the root directory to the disk image NDUGTUNE.DSK might be something like this :

/DRAGON32/DEMOS/NDUGTUNE.DSK

Typing …

SDIR?	Shows the full pathname of the current directory
SDIR-	Shows the contents of the ROOT directory
SDIR GET	Unmounts the requested file
SDIR=”pathname”	Changes to the directory named in pathname
SDIR”pathname”	Shows the contents of the directory named in pathname

IMPORTANT

The firmware in the CoCo SDC does not currently support long file names. Only those files and directories which conform to the older 8.3 naming conventions will be displayed by the SDIR command.

The CoCoSDC

SCHD

SCHD is used to change the current directory

Typing…

SCHD"pathname"	Changes to the directory specified in pathname
SCHD/	Changes to the ROOT directory
SCHD . .	Changes to the parent directory

SKILL "filename"
this deletes the named file or empty sub directory within the current directory

SMKDIR

SMKDIR is used to create a sub directory within the current directory

Typing…

SMKDIR"foldername"
creates a new sub directory named foldername

SREN "oldname" "newname"
renames a directory

The CoCoSDC

Commands to access the SDC Flash Memory banks

SCOPY MEM [@bank] [SLOTnum] ,source, destination, length]

This will copy into the Dragon RAM the contents of a section of memory – either from a bank of Flash Ram in the SDC, or from a ROM pack inserted in a slot of an MPI if fitted.

Typing ...

SCOPY MEM @6, &H1000, &H3000, &H2000

will copy 2048 bytes (&H2000) starting from address &H1000 of bank 6 of the Flash and write it into the Dragon RAM at addresses &H3000 to &H4FFF.

SCOPY SLOT2, &HC000, &H2000, &H4000

will copy 4kbytes (&H4000) from a ROM pack in slot 2 of the MPI and write it into the Dragon RAM at addresses &H2000 to &H5FFF.

If source, destination and length are not specified when using the SCOPY command then the addresses &HC000, &H3000, and &H3F00 will be used by default.

WRITE MEM @bank],source, destination, length]

Will write the contents of a portion of the Dragon's memory into a bank of the SDC Flash RAM.

Typing ...

WRITE MEM @3,&H3000, &HC000, &H3A000

will write &H3A00 bytes of the contents of the Dragon RAM starting at &H3000 – into addresses &HC000 onwards in Bank3 of the SDC Flash RAM.

If source, destination and length are not specified when using the SCOPY command then the addresses &H3000, &HC000, and &H3F00 will be used by default.

So typing **WRITE MEM @7** would use the default addresses

CAUTION:
The DragonDos image used by my CoCoSDC is in Bank 4, and the CoCo DECB image is in Bank 0.
It would be easy to overwrite and corrupt the software in these banks, so take care when specifying the bank number.
The WRITE MEM command can also be used to upgrade the copy of the DragonDos image which is in Bank4 of the SDC Flash RAM or the Tandy DECB image in Bank 0.

Coco SDC Explorer 1.0

By Guillaume Major

SDCX is a file browser for the Coco SDC.
It is compatible with all Cocos, the Dragon 32 and the Dragon 64.
SDCX requires 32K. It is based on SideKick by Luis Antoniosi.

Features:

- display content of the SD card
- create, rename and delete disk images and folders
- mount directories for multi-disks programs
- launch ML and BASIC programs
- detect and boot OS-9 disks
- fast disk selection by the first 4 letters
- sorted SDC directory listing

Command Summary:

SHIFT-C: create disk
SHIFT-K: create directory
SHIFT-N: rename disk or directory
SHIFT-X: delete disk or directroy
SHIFT-M: mount directory (multi-disks programs)
SHIFT-F: format disk
SHIFT-R: read disk
SHIFT-W: write disk
SHIFT-D: show floppy drive directory
SHIFT-I: show file information
SHIFT-H: show help
SHIFT-F: refresh directory
SHIFT-1: mount/unmount disk in drive 1 (Coco version)
SHIFT-2: mount/unmount disk in drive 2 (Dragon version)

ENTER: launch program or boot disk
BREAK: quit

Navigational keys:

LEFT/RIGHT : Switch between windows
SHIFT-UP/DOWN : Page up/page down
SHIFT-LEFT/RIGHT: Home/End
SHIFT-S : Toggle directory sort
[A-Z][0-9] : Select next file matching up to 4 characters typed quickly (SDC directory only)

Multi-disks programs:

SDCX can mount directories containing a disk set to support multi-disks programs.

The CoCoSDC

Press SHIFT-M to mount a directory with a disk set. Files on the first disk will appear in the right window.

Press SHIFT-F to refresh the directory list after switching disk with the button on the Coco SDC.

Auto executing SDCX at startup (CoCo only – not DragonDos)

To run SDCX automatically at startup you need SDC-DOS 1.3 or later. To download the latest version of SDC-DOS go to http://cocosdc.blogspot.ca/ and click on the "Latest Firmeware" link in the Pages menu on the right. Run the SETUP.BAS program to update your SDC-DOS version.

Copy the SDCX.DSK file to the root of your SD card and rename it to SDCEXP.DSK.

Create or modify your startup.cfg file at the root of your SD card to mount the SDCEXP.DSK disk in drive 0 or 1 at startup. To do so, add the line #=SDCEXP.DSK where # is the drive number. Example:

0=SDCEXP.DSK

With this setup you can now use the EXP command to run SDCX.

Files description
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sdcx.dsk - SDCX Coco version (35 tracks)
sdcx.vdk - SDCX Dragon version (40 tracks)
readme.txt - This file
changes.txt - Changes history

Limitations:

- creates 35 track (or 40 track on Dragon) disks only (no SDF)
- can only delete empty directories (Coco SDC limitation)
- limit of 512 files per directory

I hope you will find this program useful. Please contact me if you find a bug or have any suggestions!

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