CAMPURSOFT

PRESENTS

PARADOS Ver.1.0

By QUANTUM COMPUTING

Programmed by

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STS SOFTWARE

Presents

PARADOS version 1.0

High capacity disk operating system for the CPC

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Distribution: STS Software

INSTALLATION OF YOUR PARADOS ROM

PARADOS is supplied on a single ROM chip. This must be carefully inserted into any slot of your Rom-box with the exception of slot 0. Ensure that your CPC is switched off before fitting ANY chip in your Rom-box.

One of the most powerful features of PARADOS is that it can be fitted in ROM slot 7. It does not require the AMSDOS ROM - PARADOS replaces it. With PARADOS in slot 7, you are given more compatibility with programs.

The ROM can easily be damaged by fitting it into the Rom-box the wrong way. The < on the ROM label should face a corresponding notch on the ROM socket of your ROM-box. If it does not, then see where the notch on your other ROMs is located and fit PARADOS accordingly, ensuring that no legs are bent or otherwise damaged. If you have ON-OFF switches on your Rom-box, obviously the slot PARADOS is in should be switched ON. Treat all ROMS with great care - they are delicate!

Once installed, switch your computer on, and a new message should appear:

> PARADOS V1.0. (c) QUANTUM Computing.

If not, switch the computer off and check the fitting instructions again.

Enter |DRIVE to see the PARADOS program - the | is obtained by pressing SHIFT @.

CONVENTIONS

The menu system employed by PARADOS has many options. In this manual, these options are denoted by their name with a capital letter. For example, the word Configure would mean you need to press SHIFT C. The letters that you press are always inverse in the menus. Configure has a sub-menu consisting of Drive and Format. Configure Format would mean that you need to press SHIFT C F, hold down SHIFT, press C and then F.

These are the formats that PARADOS supports. The format name, capacity, number of directory entries, type (single sided or double sided) number of sectors per track, and the sector IDs are shown. Every format is supported in either drive A or B.

FORMAT	CAPACITY	DIRECTORIES	TYPE	SECTORS/TRACK	SECTORS
PARADOS 80	396k	128	SS	10	&91-&9a
PARADOS 41	203k	64	SS	10	&81-&8a
PARADOS 40D	396k	128	DS	10	&a1-&aa
ROMDOS D1	716k	128	DS	9	&01-&09
ROMDOS D2	712k	256	DS	9	&21-&29
ROMDOS D10	796k	128	DS	10	&11-&1a
ROMDOS D20	792k	256	DS	10	&31-&3a
ROMDOS D40	396k	128	SS	10	&51-&5a
S-DOS	396k	128	SS	10	&71-&7a
DATA (SS 40)	178k	64	SS	9	&c1-&c9
DATA (DS 40)	356k	64	DS	9	&c1-&c9 E
DATA (SS 80)	356k	64	SS	9	&c1-&c9 E
DATA (DS 80)	716k	64	DS	9	&c1-&c9 E
SYSTEM (SS 40)	169k	64	SS	9	&41-&49
SYSTEM (DS 40)	346k	64	DS	9	&41-&49 E
SYSTEM (SS 80)	346k	64	SS	9	&41-&49 E
SYSTEM (DS 80)	704k	64	DS	9	&41-&49 E
IBM (SS 40)	169k	64	SS	8	&01-&08
IBM (DS 40)	346k	64	DS	8	&01-&08 E
IBM (SS 80)	346k	64	SS	8	&01-&08 E
IBM (DS 80)	704k	64	DS	8	&01-&08 E
ULTRAFORM	203k	64	SS	9	&10-&19

With PARADOS supporting twenty two formats, which one should you use? For 3" disks, you can use DATA SS 40, which is the standard CPC disk format. There is also ULTRAFORM and PARADOS 41 for 3" disks, both offering 203k per disk. Obviously these formats will not be recognised by other CPCs without PARADOS.

It is preferable to use a double sided, 80 track format for 3.5" disks, which give you between 700k-800k per disk. The best formats are ROMDOS DI and ROMDOS D2 as far as reliability is concerned. Other formats may offer a larger capacity, but they may be unreliable, particularly ROMDOS D10 and D20. ROMDOS D1 gives 128k directory entries and 716k a, disk, which is sufficient for most purposes. If you need more directory entries, for disks containing many small files egg letters or clip art, then ROMDOS D2 allows up to 256k directory entries. We would advise through experience that you stick to these two formats.

PARADOS occupies just six bytes of user memory during normal use. These are bytes &bafa-&baff, just below the firmware jumpblock. The last two, the bytes at &bafe and &baff form the drive definition bytes which is the Configure option in PARADOS. The default settings are &00 and &03 which translates to DRIVE A: 40 tracks, single sided, DRIVE B: 80 tracks, double sided.

PARADOS UTILITIES PROGRAM

PARADOS offers a powerful utilities program where the user can perform various disk operations such as formatting, renaming, copying etc. All of the different formats are accepted from within the program, and all, with the exception of ELECTRO formats, are automatically detected by PARADOS.

To enter the utilities program, type |DRIVE.

You will see the main part of the screen left blank (this is filled with filenames when you Log a disk), the menus at the bottom, and the Information block on the right hand side.

THE ELECTRO FORMATS

Formats marked 'E' in the format list above are ELECTRO formats. The ELECTRO formats are additional, special formats. There is only one reason you would want to use an ELECTRO format, and that is if you own the disk utility XEXOR. XEXOR recognises the PARADOS ROM, but only supports the ELECTRO extended formats.

Supplied with XEXOR is SETB.COM, a program used for configuring CPM Plus to read/write the ELECTRO formats. This allows you to use programs such as NSWP with large format 3.5" disks.

There is no way that PARADOS can auto-detect for ELECTRO formats - it must be told specifically that it is handling them, and which type. This is because the sector IDs for the formats are all the same. For example, if you are using DATA DS 80 format, the most useful of the ELECTRO formats, then Configure in PARADOS must be set to 80 tracks, double sided on drive B, and ELECTRO formats must be enabled on the Configure Format menu.

When you Log onto a disk using the SHIFT L command, the main screen area will be filled with the filenames of the files on that disk. If the file has attributes differing from the default settings, then PARADOS shows this by highlighting part of the extension. The first character of the extension highlighted denotes the file is set to READ ONLY and the second character highlighted means the file is set to SYSTEM (hidden).

You can move the bar selector using the up and down keys. This is used to move onto particular files, to tag them etc. Whichever file the selector is on is referred to as the current file. The main display of PARADOS will scroll if there are too many files on the disk to be displayed on one screen.

PARADOS MENU SYSTEM

The menus in PARADOS are split into three parts:

1. MAIN menu - operations are performed on the current file.
2. SHIFT menu - operations to be performed on the disk as a whole
3. CONTROL menu - operations to be performed on 'tagged' files.

The MAIN menu is displayed on entry to PARADOS. Hold down either SHIFT or CONTROL to display the other two menus. You must hold down either SHIFT or CONTROL whilst pressing the option letter on these menus, for example, hold down SHIFT whilst pressing L to Log a disk.

MAIN - Attributes, Copy, Erase, Filespec, Move, Rename, Tag, Un-tag

Attributes   Set the attributes of the current file. A file can be either DIRECTORY or SYSTEM: DIRECTORY files are standard, but SYSTEM files do not show up when CAT is used.

                A file can be either READ/WRITE or READ ONLY: READ/WRITE files are normal and can be deleted, renamed from BASIC. READ ONLY files are marked with a * when CAT is used. Such files cannot be deleted from BASIC.

                Incidentally, the word SYSTEM when referring to the Attributes has nothing to do with the disk format SYSTEM.

Copy   Copies the current file to another disk. This activates a powerful file copier, which will use as much memory as your CPC has available as a copy buffer. If the destination disk is found to have a file under the same name as the source disk, PARADOS will ask you whether you wish to overwrite this file. PARADOS will not create BAK files.

                Files of any length or type can be copied without problems. PARADOS will prompt you to insert the source disk and destination disk as required.

Erase   Erase the current file. If the file is READ ONLY, PARADOS will ask for extra confirmation before erasing the file.

Filespec   When a disk is logged, all the files in user 0 are displayed. The Filespec command can be used to look in other user groups and to show only certain files. For example, you could specify *.BIN to show all files with the extension BIN or S*.* to show all files that begin with the letter S. Use the left and right cursor keys when in this option to select between User and Filespec.

                When you Erase a file, the file is placed in a normally un-used user group - user 229. Using Filespec, you can look in user 229, press CONTROL T to tag the deleted files, and then press CONTROL M 0 to Move the files back to user group 0 - effectively un-erasing the files.

Move   Moves the current file into a different user group.

Rename   Renames the current file. PARADOS will ask for confirmation before renaming READ ONLY files. Press CLR when typing a new filename to clear and re-enter a name.

Tag   Tag the current file. The options such as Copy in the CONTROL menu are performed on files that are tagged. PARADOS shows which files are tagged by displaying a * after the filename.

Un-tag   Un-tag the current file. If the file was previously tagged, then the * next to it will vanish.

SHIFT - Backup, Configure, Format, Log, Sort, Un-log, Verify

Backup   This feature wasn't implemented by our programmer due to lack of space in the ROM chip.

Configure   A more specialised and complicated option (get ready!) Configure is split into two parts:

        Drive   Sets details about the disk in both drives. A disk can have either 40 or 80 tracks, and is either single sided or double sided.

                Formats such as ROMDOS D1 are double sided and can only be used with 3.5" disks. They are also 80 track formats. Because they use 80 tracks - twice that available on 3" disks - and both sides simultaneously - twice that a 3" disk uses - you get four times the storage capacity.

                Only 3.5" disks are double sided and have 80 tracks, but they can also act as 3" disks, that is being single sided and having 40 tracks. For further details of the two different 'modes' 3.5" disks can be used in, please see below.

                The default settings are DRIVE A: 40 tracks, side 0 and DRIVE B: 80 tracks, double sided. Both drives should be set to single stepping at all times - double stepping is a specialised option, if you don't know what it means, you don't need it!

                IMPORTANT: Some programs, in particular games, may overwrite the PARADOS workspace, the six bytes it needs to work with. Read fails may be produced on disks if this occurs. If this is the case, reset the Drive settings to the default ones above.

Format Format   Most users will not require this option. It allows you to use ULTRAFORM, originally a AA type-in by Rob Scott. It enables you to format 3" disks to 203k. PARADOS will automatically detect this enhanced 3" format giving 50k extra space on 3" disks.

In addition, the Configure Format option also allows you to enable or disable the ELECTRO formats (see above), and use IBM formats.

In Configure, use the up and down cursor keys to move onto the drive details you want to change, and press RETURN to toggle between the options.

Format   Format a disk. PARADOS asks which drive, and then displays a list of the available formats for this drive, depending on the settings in Configure. You are also offered the option of verifying the disk while it formats.

If the drive you select to Format is set to 80 track, double sided, then the full twenty two formats will be available. When this menu is displayed, it even scrolls up and down! The menu shrinks for 40 track, double sided or 80 track single sided settings in Configure Drive, and shrinks even further when dealing with 40 track, single sided disks e.g. 3" disks.

Once formatted, PARADOS will ask if you wish to format another disk. If you select yes, PARADOS will format to the same drive and format as before.

Log   Log a disk in either drive. Once logged, the Information section will be updated to display the details about the disk.

Sort   The main display of PARADOS, the disk directory, can be displayed in either alphabetical order, or in the order which the files were created on the disk. This option toggles between the two.

Un-log   Un-log the currently selected disk as if PARADOS had just been entered. This resets the main part of the screen and the Information section.

Verify   Checks each sector on a disk. The user is alerted to any errors which means that the disk is corrupt. Be sure that the Configure menu is set up correctly for the format of the disk, otherwise Verify may show the disk is faulty when it thinks it's dealing with a different format than the disk actually is. If the 'read fail' box appears, press C to cancel that track.

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CONTROL - Attributes, Copy, Erase, Move, Tag, Un-tag
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Attributes   The same as the MAIN option, except that all tagged files are set to the specified attribute, rather than just the current file.

Copy   Copy all the tagged files to another disk. See the copy command above for further details.

Erase   Delete all of the tagged files. Again, additional confirmation is required to delete files set with the READ ONLY attribute.

Move   Move all the tagged files to a new user group. Confirmation is needed to move files that are READ ONLY.

Tag   Tag all files displayed on screen. The command will not tag files outside the file specification defined by File spec.

Un-tag   Un-tag all of the files displayed on screen.

MODE 1 OPERATION

Under PARADOS, a 3.5" disk can operate in one of two modes - MODE 1 or MODE 2. MODE 1 is the standard mode - you will have 178k per disk side, similar to 3" disks. The disk will only use 40 of the 80 tracks available to it, and both sides are treated totally separately, just like 3" disks. However, 3.5" disks aren't 'flippy': you can only insert them one way in the drive. PARADOS offers the facility to side select from within Configure Drive menu - a unique facility for CPC operating systems - but you may also use any side select switch provided with your drive.

MODE 2 OPERATION

This is where PARADOS becomes more useful. When using MODE 2, the enhanced mode, your 3.5" disks can store almost 800k on a disk. In MODE 2, all 80 tracks are used for storage, and both sides are used simultaneously. When using MODE 2 you must have your side switch set to side 0, and Configure Drive must also be on side 0, otherwise read fails will be produced.

IMPORTANT: Only your 3.5" drive can perform MODE 2 operation. Although PARADOS offers to use 80 track, double sided (MODE 2) formats in drive A, this is for users with an ABBA switch (available from STS), which can make your 3.5" drive think it's drive A, and your 3" drive acts as the B drive. Do not attempt to use MODE 2 formats on 3" disks!

INFORMATION SECTION

The Information section, on the right hand side of your screen, gives the details of the currently logged disk. This is updated whenever a new disk is logged, or when disk operations are carried out. It contains the following information:

Drive   Which drive is logged, either A or B. Also shows if the directory is Sorted or Un-sorted.
Format   The format the disk is, any one of the many formats PARADOS supports.
User   The user group PARADOS is currently looking at.
Files   Wildcard of what files are being displayed.

No. of files   The number of files on the disk.
Used entries   How many directory entries are used …
Total entries … and how many are available on the particular format.

Free space   How much 'k' is left on the disk.
Used space   How much 'k' is used on the disk.
Total space   How much 'k' is available on the disk.

Tagged files   Number of files that have been tagged.
Tagged space   How much 'k' the tagged files take up.

Free buffer   The Total buffer minus the Tagged files.
Total buffer   How much space is available in the copy buffer - PARADOS automatically recognises Ram expansions up to 256k, and a silicon disk giving up to 360k of copying buffer. The Total buffer varies depending on how many files there are on the disk when logged.

STS Software have spent months testing PARADOS to a far higher standard than the average user is ever likely to use it to. Although few people will appreciate it, PARADOS is one of the most proficiently programmed piece of software ever written for the CPC. The entire PARADOS system had to be coded in just 8k of ROM space - not an easy task.

The PARADOS ROM consists of two parts: PARADOS itself and the normal disk ROM. It can actually replace the standard disk ROM in the CPC, because PARADOS occupies space in the ROM which was used by DR LOGO 3. This has the fortunate limitation of you not being able to use DR LOGO 3 under CPM when PARADOS is installed in ROM slot 7. DR LOGO 2 may still be used, however.

There is just one bug in PARADOS. You will notice it when you play around with the different menus: the letter 'y' is left over from Verify in the SHIFT menu. This in no way effects the operation of PARADOS.

Manual supplied by David Cantrell.
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