## Amstrad / Schneider CPC – BonnyDOS User Manual (Eng)

BonnyDOS is a system extension to AMSDOS by Brueggi of Noob Inc. (Timo Brueggmann).

This extension allows the use of a hard disc connected via the SYMBiFACE II or the Disk on Module (DoM) of the X-Mass.

BonnyDOS uses its own file system called BFS16.

• NOTE: This is a Google translation of the Spanish PDF User Manual.

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## Welcome!

## **System Requirements**

BonnyDOS to operate and associated software takes a CPC 6128/6128 + / 464 + at least 128K RAM, a ROMcard with at least 3 available positions, and an IDE controller with connected disk. FAT12 routines and commands require a drive 3.5 "DD double-sided as drive B and rom disk operating system that supports 80 tracks (eg ParaDOS).

#### Installation

Install ROMs, as usual, at any position between 1 and 15 - uses the ROMcard your documentation if you are unfamiliar with this process. You can install BonnyDOS alone or with Extra-ROMs.

#### Tips for smooth operation

You should follow the following rules to ensure smooth operation:

→ Never interrupt disk access. Never turn off the computer while BonnyDOS

or other programs are accessing the hard disk.

 $\rightarrow$  Always use proven and stable sources for the hard drive and the computer power.

You should avoid using the monitor current CPC to use IDE drives.

 $\rightarrow$  The hard drive should not be with / on the monitor or other possible sources of interference. As a result data could be lost.

 $\rightarrow$  Avoid shock / vibration of the disk during operation.

→ Always use software updated, and never mix old and new versions BonnyDOS and Extra-ROMs.

#### Error symptoms Hard / Software

If given one or more of the following symptoms, you should turn off your computer immediately. Then check the wiring and computer power supplies and IDE drive.

Try different units for fault isolation.

X The IDE LED remains lit after hits on HD, although the CPC of the message "Ready".

**X** Access to HD causes a greater or lesser swing monitor brightness.

X BonnyDOS shows, "Read Error" or "Write error".

- X The disc type is not correct.
- **X** The computer hangs when accessing IDE drives.
- **X** The directories are not displayed correctly.

## Features

BonnyDOS offers both ROM (internally) and disk (externally) many utilities.

Among other things, BonnyDOS offers:

- ✔ Up to 20 partitions of 2 GB each
- ✓ 8 file attributes
- ✓ Manager Mode ("supervisor mode")
- ✓ It is developed especially for file system CPC BFS16
- ✓ SNA Charger
- ✔ Relative Files
- ✓ And much more

## **Prior Knowledge**

To get the maximum benefit from your system BonnyDOS can give you, you must have basic knowledge of BASIC (Load / Save), and how to deal with diskettes (RSXs commands). Do not worry about the new terms or by the number of new commands - you'll adapt to them quickly. In fact you will be familiar.

## The system disk

During the first part of the book we will see how to configure the hard disk and the RSX commands internal ROM. After the second part will deal with the programs Disk system. Please note that the contents of system disk may change anytime. Please check for updates regularly.

## Log

To be updated and get aid recommend registering. This register is fully Free, without implications of future receipts. Just send your name, CPC settings and as the version number BDOS the author via email. What gives you be registered?

- → Help extended
- → Installation / patches for software problems
- → Alerts / notification of updates
- → Access to documentation development
- → Help program schedule that features from HD

If you have any questions, need help or want to register, please write to: *timo\_brueggmann@yahoo.de* 

#### New on V 1.70

Updates have been primarily in the system disk. Before there were many utilities diskette. Now in addition, there are new wav player that can play files up to 128MB. The Internal ROM has not changed much since V1.65. Were added Two new utilities (| TYPE y | VERSION) in the ROM-Extra # 2, a single ROM shown Now in the role of "mapping units."

This means that the user of any other ROMs expansion can, for example, access other file systems. The main features of the RSX make BonnyDOS 1.70 this possible. Is achieved by transferring parameters according to an external ROM a standard pattern. For more information read the chapter.

# Configuring the unit Basic

Hard drives have become over time an indispensable peripheral. Large capacity storage and fast access times they stressed the diskette. Here is the same operating principle. As with other computer systems typically need to least one partition on the hard drive and then format it. Even if your drive is less than 2 GB capacity, a subdivision makes sense because it will increase the performance of your system. BonnyDOS can create up to 20 partitions, each of up to two gigabytes in size. This is practical to different partitions according to data to be used.

You could do for example the following division:

## I work

Applications, images, text, ...

**Software** Programs of all kinds

**Temporary** Space experiments

## System

Save important data could be here You need to think BEFORE partition, because when you divide the hard disk, again existing partition it will cause data loss. You can also use hard drives that are smaller than 2 GB. This not increases only speed but also safety.

## The file system

The partitions are not the only important issue, but also the base system files. The file system is like parking your hard drive. He knows where Cars (data) are parked and knows where vacancies for new entries. The BonnyDOS routines are based on the administrative map - File System -. While the popular FAT file system of Microsoft is normally used, BonnyDOS works with the file system developed especially for the CPC, the BFS16. It is beyond the objectives of this manual count all the details of the file system. With partitioning not only have our album ready. Only after the final formatting your system will be operative. Formatting and then rebooting, the file system is in state fundamental. The root directory (root) is new and all data blocks are marked as free. Returning to the example above, the parking lot is empty and all seats are considered free.

#### Partitioning

Restart your CPC or turn it on. Enter the B-side BonnyDOS your system disk in your drive, and if necessary, go to the appropriate unit (| A or | B). Type in now

#### RUN "DISC"

The system software is loaded and executed. Please always use the software versions latest. If you have the old partitioning software (V1.0 - V1.6), you should not use it anymore. This is particularly critical for the "SPREPHD.SYS" file. After starting Hard Disk Partitioning V1.7 will get a menu. The user can choose between "Setup" or "Install". To make partitioning start, select with the cursor left / right "Install" cursor and press spacebar.



The software will then check your hard disk for system files BFS16. If the drive is the first time it is operated under BDOS, or if damaged, would require a partitioned. Empty partition table and some data on the hard disk is written. If it is necessary, note that the window appear

"System sector to create?"

Again, you can use the cursor left / right keys and ENTER / RETURN or spacebar. Partitioning will begin answering "Yes" to the question. If you answer no, the program will terminate. If it has found a system sector, or already generated, it will go to the main menu.



Above is the capacity and the occupied and available space. In the lower area list partitions (left) and main (right) menu. With the arrow left / right cursor and you can choose the partition and up / down and spacebar or Enter / Return choose a menu function. At first, the positions of the partitions is not established in gray, those used in black.

Unlike the old partitions the software is checked

No. 1. This measure ensures maximum performance. Better yet, since no

is necessary to maintain an area of 100 free blocks - the disc can be used in full.

## Create

This menu item is used to create a partition. It will only work if

- There are at least 100 free blocks
- There are gaps between partitions

If these conditions are met, the following screen appears:



The control is carried out here too with the cursor keys and the spacebar or Enter / Return. "Minimum": Sets the size of 100 blocks.

"Maximum": Sets the maximum size available - cannot be larger than 2 GB

"-1000" / "+ 1000": Reduces or increases the size of 1000 blocks.

"-100" / "+ 100": Reduces or increases the size 100 blocks.

"Go!": Create the partition in the partition list in memory (not yet written to Disk).

"Sel.": The size can be changed with up / down in one-step (Confirmation Spacebar / Enter). "Abort": Cancels the creation and opens the main menu.

## Delete

Removes the partition marked, if you did, and frees the space occupied.

#### Save

Write partition table to disk and partition sets. Possibly, the data Existing be lost. According to the letter can be the administrator, or supervisor-who enter the data. Should be so in any case if BonnyDOS took v1.6 or later.

Save	
Create Supervisor- account ?" Ok No	

Note that the partition table saves your current setup. Your previous details are lost and disabled (DirectoryDOS / AutoBoot / AutoActivate).

#### Read

Lee disk partition table - all changes will be lost. In a new sector will generate an empty table.

#### Quit

Exits the program.

## The setup menu

In this menu, let's start with the "Settings". Remember, it is the only function that can be executed when just partition the drive. It is controlled by the cursor, spacebar and Enter / Return key. Current options that are green are recorded disk.

Setup			
AutoBoot:			
On	( 0ff		
AutoActivate:			
On	<b>110</b>		
DOS-Directory:			
On	<b>110</b>		
Write	(1)		

## AutoBoot

When active, the starting BonnyDOS attempt to start the "#" in the root directory the first partition. Since it will automatically be on drive C :, will switch to that unit, while "AutoActivate" function is disabled. The program must be in BASIC or machine code (BIN), and binary programs must take account of the CPC and OS Expansion ROMs disabled.

\* The AutoBoot function can be temporarily suspended at the start-up of the computer by holding down the Spacebar.

#### AutoActivate

Enter each computer boot drive C :. If this feature is enabled, it will change the "AutoBoot" to "Off" function.

#### DirectoryDOS

Function with BonnyDOS DirectoryDOS do that files not found in the current path can be found in the "COMMAND" directory. This directory system must be at the root of the first partition (Route "1: COMMAND").

The search DirectoryDOS will do so if:

- → The DirectoryDOS function has been activated
- → The COMMAND directory is configured correctly
- → The operation of the file is "read" type (eg RUN "LOAD" OPENIN ", ...)

With active DirectoryDOS function cannot be eliminated COMMAND directory | RD. You may rename it like when you change the options SETUP - only It will take effect after reboot. Remember, the access time can be increased. In the COMMAND directory only introduces exactly the filename Searches. Here you do not stay the order "FILE."

"ARCHIVO.BAS" and "ARCHIVO.BIN"

With the Extra-ROM # 1, the options can also be changed with | SETUP

. Use Administrator rights.

## Formatting

After partitioning your disk, it must be formatted. For this he uses is used the file system in the basic state. All units must be marked as free and root directory (root) again. This process must be repeated for all partitions - only then be used. To format you must have administrator rights from BonnyDOS version 1.6. Enter LOGIN to initialize. Make sure you enter the correct data. For more information on the administrator mode, or to initialize and out, look at the chapter about it. Now follow the steps: 1. Get with | PART the partition map 2. Go to | PART number% reformat the partition. If, for example, you would enter partition 1, you enter | PART 1 3. Format using the utility | FORMAT 4. When prompted, enter the new name for the partition. 5. If other partitions, return to step 2. When all partitions are formatted, you must reboot again. Your album drive is now ready. To check if your hard drive is really good, you should run the program Drvtest System disk (Side B). If here an error is detected, you must change disk. Since v1.62 you can enter BonnyDOS | PART number% instead of | CD, "number" For example, you can make | PART 2 or | CD, "2"

. After starting the CPC, the first partition is accessed automatically.

### **Filenames and wildcards**

File names in BonnyDOS correspond to, for example AMSDOS, CP / M Microsoft DOS or PC. The name consists of 8 characters, a point and a spread of three character is not mandatory to use. Unlike AMSDOS BDOS is more tolerant as allows characters CHR \$ (33) CHR \$ (127) belong to the name, since the letters lowercase letters are automatically converted to uppercase. The software cassette sometimes brings the beginning of a file name exclamation "!" to

avoid messages cassette as "PLAY THEN PRESS ANY KEY" . The exclamation point is automatically detected and ignored by BonnyDOS. When you're copying to floppy hard disk, there may be filenames invalid, allowed by BonnyDOS, but forbidden by the operating system disk.

#### Wildcards

Some utilities allow the use of so-called universal characters or wildcards. These wildcards allows you to edit multiple files with a single command. Again, BonnyDOS oriented or AMSDOS:

### The question mark "?"

The question mark represents any character (valid) in a fixed position. Therefore "B? NNY.BAS" applies to "BONNY.BAS", "BANNY.BAS" etc .. It is valid for all characters CHR \$ (33) CHR \$ (127).

#### The asterisk "\*"

The asterisk fills the rest of the filename and extension after point with "?" - Wait any number of question marks. "\*. BIN" for example, would apply to all files whose extension is. "BIN", while "TIMO \*. \*" applies to all file names begin with the string "SCAM". Examples **Existing Files** Wildcards Matching Files README.TXT BUCH.TXT HASE.BAS HANS.BAS HAUS.BAS \* .TXT (???????. TXT) README.TXT BUCH.TXT \* .bas (???????. BAS) HASE.BAS HANS.BAS HAUS.BAS Ha? S.BAS HANS.BAS HAUS.BAS README.TXT BUCH.TXT HASE.BAS HANS.BAS HAUS.BAS B \* .TXT (B ??????. TXT) BUCH.TXT Contrary to what you might suspect, the characters after the "\*" are ignored. Therefore, an entry, eg "\* GARTEN.BAS" does not equal "? GARTEN.BAS" but "???????. BAS"!

## File Search

The scheme uses BonnyDOS in finding equivalence holds files AMSDOS. This also means that there is greater support diskettes software. Thus, if you type eg RUN "DISC" BonnyDOS seek "DISC" first in the current directory and then by "DISC.BAS" and end by "DISC.BIN". If the DirectorioDOS function is activated, it will look "DISC" also in the directory

COMMAND of the first partition before throwing an error message.

#### Recording

To record, BonnyDOS not depend on extensions like ".BIN" or ".bas". However, for this is finally a file as ".BAK" copy - if any - should not be protected.

# Data exchange between hard disk and floppy AMSDOS and compatible formats

There are two types of copy commands when you exchange data between disks and hard drives aided by the ROM-Extra # 1. They work with AMSDOS and compatible formats.

This means discs have the following characteristics:

- Block sizes of 1K, 2K or 4K
- Up to two blocks per directory (one in 4K blocks)
- 40 or 80 tracks
- 64 or 128 files in the directory

In addition, the table of contents and management AMSDOS block. It is 100% compatible with the format "ParaDOS DS80". Have also reported problems associated with XDDOS. | DCOPY, filename \$ | DCOPY, "filename" DCOPY copy one or more files (with wildcards) from the diskette to the hard disk. The source drive is Current floppy drive (A: or B :). In the copy of ASCII files, the question Hard-EOF (Y / N)? The answer "Y", copy complete the last recording (128 bytes) file, while "N" copy to the appearance of EOF byte (& 1A). No appointments unit within filenames as they have meaning for BonnyDOS. In the worst case, not source files disk. Example: | DCOPY, "B: \* \*." no copies all files on drive B: a disc, but all files beginning with "B". | COPYD, filename \$ COPYD, "\$ filename" COPYD is the opposite of DCOPY. Transmits one or more files to the floppy disk drive. A DCOPY difference, here the format plays no role. Be sure to use file names in the standard of your system ROMs diskette.

Thus, under AMSDOS filenames forbidden as "F: GARDEN" under bonnydos are allowed!

#### Data exchange between MS-DOS and HDD

The ROM-Extra No. 1 also access MS-DOS disks of 720K. Must be in the Unit B: in the following format:

- 3.5 "DD
- 720K
- FAT12
- 80 tracks, 9 sectors / track

| Fget, filename \$ | Fget, "filename" Copy one or more files (with wildcards) from the diskette to the hard disk. It is not the hard drive if not one of the two disk drives in the system, B: A: the format of the disk in drive A: supplanted. | Fput, filename \$ | Fput, "filename" Copy one or more files (with wildcards) from HDD to a DOS floppy drive B :. The copy of A to B is not possible. Make sure the file name of the disk is in standard format MS-DOS. | FCAT List the contents of the MS-DOS disk. The files with the "Archive" attribute set is displayed in reverse video. | FDEL, filename \$ FDEL, "filename"

Deletes one or more files (with wildcards) DOS diskette.

#### Data exchange between directories and partitions

| COPY, \$ source, \$ destination | COPY, "origin", "destination" Copy one or more files (with wildcards), the <source> will be determined by the board specified <target>. From BonnyDOS v1.61, the destination directory can be in another partition. No subdirectories COPY. If a file already exists in the target directory will not be overwritten.

Source Destination BonnyDOS to V1.60 BonnyDOS from v1.61 \*. BAS : IMAGES | COPY, "\* BAS." "IMAGES" | COPY, "\* BAS." "IMAGES" | COPY, "\* BAS." "IMAGES" \*.\* Partition 3, "BACKUP" | COPY, "\*. \*", "3: BACKUP" To copy should be closed all channels (CLOSEIN / CLOSEOUT). To BonnyDOS v1.61 copying between partitions is not contemplated.

## Data exchange via BFS16 (IBM / PC) Console

With the help of the program BFS16.EXE BonnyDOS can read your hard drive directly into the PC and easily transfer files between Windows / DOS and BonnyDOS. The only requirement is a LBA BIOS enabled on the PC side (advanced INT \$ 13). If this is not available, you may Disk manager used (eg Ontrack Disk Manager), or a BIOS update. The program only displays a prompt.

## **Configuring software**

- → Connect the hard drive to the PC (if the hard disk is suitable can also be done via USB)
- → Copy BFS16.EXE any directory on your PC hard drive
- → Sets an environment variable that specifies BFS16.EXE to find your hard drive

The environment variable must be set directly at least BEFORE running something in the BFS16.EXE prompt. It is recommended to enter the following line in the AUTOEXEC.BAT: BFS16U SET = x

where X is the number of unit where the BonnyDOS hard drive is connected. Remember, the number 0 is the first drive on the IDE port, 1 is the second and so on. The USB ports are another world, basically - here to help with the number of units, using trial / error.

Windows blocks access to advanced disk routines. In this case

you should try without Windows directly at the boot prompt. If so neither

you get it, make sure your PC is able to boot from LBA and

diskette (old) of MS-DOS.

If you put an identification number incorrect drive, you get a message BFS16.EXE error. The data from the unit will not be overwritten! The message "BIOS drives cannot handle LBA "shows the wrong access and therefore a number of unit invalid.

You will find a detailed description of the commands listed in the directory software - BFS16.EXE is not part BonnyDOS software must be obtained separately.

## BonnyDOS V1.70 - Commands RSX

Remember, the parameters in brackets are optional. CPC parameters allows transfer in different ways. Texts such as file names, specified as follows way:

| COMMAND, "TEXT" or alphanumeric string variable | COMMAND TEXT \$ Similarly, numerical values can be transferred: | COMMAND VALUE% | COMMAND, 123 But: If you want results, such as return codes will only be possible with the help of at "@" in the context of integer variables. The variable for the result must have been previously created. This could be: E% = 0: REM Variable Creation | HERR, @ E% This simple example reads the error status BDOS, and passes it to the entire E% variable. Always make sure to write it well, because an error like E% = 0| HERR, E% Have fatal consequences and system crash.

## | C

No parameters No special functions Refers to the hard disk. It will last partition / route that was in the drive C :. After restarting the computer is the root directory of the first partition selectada available. Data discs, such as user IDs and unity are not changed. Possible errors: System Failure Illegal Drive For example: 10 LOAD "TITULO.BIN" & CO00: REM LOAD FROM DISK ... 20 | C: REM WILL DRIVE C: 30 SAVE "TITLE.BIN", B, & CO00, & 4000: REM STORE DISPLAY TO HARD | AMS No parameters No special functions Makes the current floppy diskette drive by default. The unit currently used and path is preserved. Possible errors: None For example: 10 | C 20 | B: | USER 4 30 | DIR: REM DIRECTORY OF B: USER 4 40 LOAD "TITULO.BIN": REM LOAD FROM HARD! 50 | AMS 60 SAVE "PANTALLA.BIN", B, & C000, & 4000: REM STORE IN UNIT B :, USER 4

| STANDBY No parameters No special functions Put the disc into power saving mode. The engine is stopped and recognizes a command read / write is reactivated. Possible errors: None

## FORMAT

No parameters Only applies to supervisor mode Makes a quick format of the current partition. All data will be lost and release the memory. | FORMAT must be performed whenever a partition is created. After formatting the partition name is searched. Possible errors: System Failure Access denied

| MD , Dirname \$ No special functions Create the <dirname \$> in the specified directory. There are 1024 entries directory available. Possible errors: Bad command System Failure Full Disk Full Directory File already exists For example: | MD, "IMAGES" | CD, "IMAGES" SAVE "TEST", B, & C000, & 4000

## | CD

, Path \$ No special functions Changes to <path \$> the current directory partition. If you can not change the basic directory is not changes, remains in the previous route / active partition before | CD. Possible errors: System Failure Bad command Path Not Found Stream (s) Open For example: | CD, "" It goes to the root of the current partition. | CD, "GRAPHICS / IFF" changes as in the previous example, in the root directory of the partition current, then "GRAPHICS" and "IFF". | CD, "5: DANDARE / PART1" changes to the partition 5, then "DANDARE" and "PART1". Changes partition override directory changes. The introduction of such | CD, "2: TEST" switch first tries to BDOS the second partition. If you want access to "2: TEST" without changing the partition wildcard "?" instead of the colon has this purpose: | CD, "2 TEST?"

## | RD

, **Dirname \$** No special functions Delete the empty directory (!) <Dirname \$> specified. You can use the wildcard delete multiple directories at the same time. The COMMAND directory of the first partition only directory can be removed with the DOS function off and restarted relevant CPC. Possible errors: System Failure Bad command For example: | RD, "\*. \*" delete all directories in the current path. | RD, "SAMPLE" eliminates the gap "SAMPLE" directory.

| DEL , Filename \$ No special functions Delete one or more files in the current directory and returns frees blocks occupied. Possible errors: System Failure Bad command For example: | DEL, "\*. \*" delete all files in the directory.

#### | ATTRIB

## , \$ Filename, máscaraatributos%

No special functions Sets for file / directory <filename \$> the attributes specified with <Mascaraatributos%>. Using the wildcard in the <filename \$> parameter will change the multiple objects attributes. Note that the Supervisor attribute can only be modified or deleted in that mode. Attributes mask consists of the following values, which can be combined as: 128: Lock The file is currently in use or was not closed properly. Only can be established by BonnyDOS. 64: Read The file is read-only. 32: Write The file is read / write. 16: Attention The file name is highlighted by the CAT in reverse video. 8: Hidden The object is not shown by CAT 4: User No use of time. 2: Archive The new files / folders automatically receive this attribute. 1: Supervisor An object that can only be operated in supervisor mode. Possible errors: System Failure Bad command For example: | ATTRIB, "JARDIN.BAS" 72 - The "JARDIN.BAS" file is now read-only and will not be shown with CAT. If the files are not closed properly, and therefore the Lock bit there, you can try to do | ATTRIB. This ensures that all files are closed. Enter now | ATTRIB, \$ filename, <atributosdeseados%>. BDOS establish now Automatically Lock bit.

# | RE

**, \$ Newname, antiguonombre \$** *No special functions* Renames a file / directory <antiguonombre \$> to <newname \$>. Possible errors: System Failure Bad command Object exists For example: | RE, "START", "SELECCION.BAS" - SELECCION.BAS rename the file "to" START ".

#### | SORT No parameters

Before his execution in memory, back up your data. ORDERED the current alphabetical directory and rewrites to disk. Depending on the degree of above and the number of objects in the directory system, this process can range from a few seconds to several minutes. SORT requires a 32K buffer, which is created in bank 0 (Area of BASIC). For this reason, be sure to save any important data before. After executing SORT - if you do not need to order anything else - should restart the computer. Possible errors: Stream (s) Open System Failure

## | FIND

, Nombrearhivo \$ No special functions List <filename \$>, if available. The command works like | DIR in AMSDOS. Are can use wildcards. Files supervisor will be only in the appropriate mode. Possible errors: Bad command System Failure For example: | FIND, "\* BAS." HOUSE.BAS [BAS] BOOTME.BAS [BAS] Ready

## | PART

[, Númeropartición%]

No special functions If no parameter takes a list of existing partitions shown. If you carry a <Númeropartición%> (1-20), BDOS will search the root directory of the partition. The command a parameter corresponds to | CD, "x". Possible errors: System Failure Bad command Stream (s) Open For example: | PART 5 - Changes to the partition 5 | PART - Shows all existing partitions. To switch to other partitions, you can not have open files (flows)

## | COPY

## ; \$ Source, \$ rutadestino

No special functions Copy the file (s) <Source \$> in <rutadestino \$>. The source parameters can lead wildcards, and so copy multiple files at once. <Rutadestino \$> specifies the directory in which will copy the file (s). Since version 1.6, the destination path can be on another partition. Before copying files must be closed all channels (streams). Supervisor files only be copied to the appropriate mode. Possible errors: System Failure Bad command Path Not Found Full Disk Full Directory Stream (s) Open For example: | COPY, "\*. \*", "3: BACKUP / 10.05.06" - Copy all files in the current directory partition 3 in "10/06/05".

## CATS

[, **Depth%]** No special functions

Cats - cataloged with subdirectories - displays all files and directories in the current path and its contents, etc. The output can be stopped by pressing a key and ENTER to exit. If the parameter <depth%> is not specified CATS makes up to 128 directories. The reverse directory names are highlighted. Possible errors: System Failure

For example:

| CATS 1

- Displays all files / folders. CATS displays only the contents of all directories in the path. Another change is not allowed.

| HERR , @ Errorcode% No special functions It is the error code of the last operation. Note that not all routines / Utilities generate error code. Possible errors: None

## | LOGIN No parameters

No special functions

It is used to enter supervisor mode. After keying LOGIN BDOS you request the username and password. Both were established in partitioning. If you enter the correct activates supervisor mode, which comes out restarting the computer or | LOGOUT. Possible errors: *None* 

| LOGOUT No parameters No special functions Exits the Supervisor mode. If it was not in this way has no effect. Possible errors: None

## Advanced Commands RSX

BonnyDOS still contains a number of routines that can only be used RSX knowledgeable machine code. These routines allow direct access to core routines BDOS. In this manual commands are not shown because they require special skills. Never you should call routines whose operation you are not properly informed. As a result you could lose data or damage partitions. **Special Features BonnyDOS 1.70** Automatic assignment of function keys It is possible, at every boot of the machine load about individual function keys. Enter the KEYBOARD.SYS file in the root directory of the first partition. BonnyDOS read this sequential file that maps keys F0 is assigned to a function F9 followed by CHR \$ (0). Below is a sample program - you can only run when you changed your route to the first partition has changed (| CD, "1:" o | PART 1 and | C) **10 REM CREATE KEYBOARD.SYS** 20 OpenOut "KEYBOARD.SYS" 30 PRINT # 9, "CAT" + CHR \$ (13) + CHR \$ (0) 40 PRINT # 9, "LIST" + CHR \$ (0) 50 PRINT # 9, CHR \$ (0) 60 PRINT # 9, "CALL & BC02" + CHR \$ (13) + CHR \$ (0) 70 PRINT # 9, "| C" + CHR \$ (13) + CHR \$ (0) 80 PRINT # 9, "| AMS" + CHR \$ (13) + CHR \$ (0) 90 PRINT # 9, "| SORT" + CHR \$ (0) 100 PRINT # 9, "RUN" + CHR \$ (34) + CHR \$ (0) 110 CLOSEOUT The KEYBOARD.SYS creating this program includes the following key definitions: F0 CAT + [ENTER] F1 LIST F2 [Undefined] F3 CALL & BC02 + [ENTER] F4 |C+[ENTER] F5 AMS + [ENTER] **F6** | SORT F7 RUN " Each key definition must end with CHR \$ (0) to complete - especially if you have not assigned any function key (see line 50). "#" - The special file When accessing read files (RUN, "LOAD" OPENIN "MERGE" etc.), you may omit filenames. This is the normal operation of programs cassette, which bear the shortcut CTRL + [ENTER] . BonnyDOS will now automatically with "#" "#. BAS" and "#. BIN" If the DirectorioDOS function is active, "#" will also search the COMMAND directory. To You save time, it is recommended to rename to frequently used programs by typing | RE, "#", "<antiguonombrearchivo>"

#### Load increase speed

Although BonnyDOS power can easily increase the speed of loading.

#### Write protection on TMP files

Many programs, especially games, are on a low RAM address. Needing the loads a 4K buffer that would take us to a "Memory full", the charger normally uses a line how come 10 OpenOut "TRICK" MEMORY xxxx: CLOSEOUT DOS buffer standing in a higher direction. Instead of "TRICK" can be any file name, of course - I've used this on the track that gives its operation in this trick. Change it by the name of your file, where necessary. The seemingly innocuous OPENIN forces BonnyDOS to follow the following steps: 1. Locate File "TRICK" existing 2. Check if you have write protection 3. Remove a possible BAK file exists ("TRUCO.BAK") 4. Create a new "TRUCO.BAK" 5. Find a free directory listing 6. Create a new file TRICK You can save the steps 2-6 - and investing valuable time - using the file "TRICK" command | ATTRIB, "TRICK" 64 With it, the program terminates unchanged, except that now the burden is much faster and the message "not writable" is displayed.

## **Renaming Files**

Another way to increase the charge rate is the correct file renamed. Using This measure time file search are reduced drastically mind. The following example assumes that the directory containing the files AJEDREZ.BAS TITULO.BIN and JUEGO.BIN The "AJEDREZ.BAS" program contains 10 MEMORY & 1FFF 20 MODE 2: PAPER 0: PEN 1: CLS: BORDER 6: INK 0.0: INK 1.26 30 LOAD "TITLE" 40 LOAD "GAME" 50 CALL & 2000 Start up the program, the following steps are recommended: 1. Rename "AJEDREZ.BAS" as "CHESS" -| RE, "CHESS", "AJEDREZ.BAS" 2. Change the line 30-30 LOAD "TITULO.BIN" or rename the "TITULO.BIN" file to "TITLE" 3. Change the line 40-40 LOAD "JUEGO.BIN" or rename the "JUEGO.BIN" file to "GAME"

Before rename files, you should note the original name. Change only programs which have created a backup (| COPY).
## Stop screen output and CAT | CATS

Pressing any key (except CTRL / SHIFT) text output commands | CATS and CAT stops or resumes. You can cancel this command output by Enter / Return.

#### **Memory protection**

To increase the security of data memory parts require a BonnyDOS CRC check. Before you go to write to the hard disk, the sums are compared check with those generated in memory. If they are incorrect the message System Failure

This blocks BonnyDOS before more changes and closes all open files that could losing up to 512 bytes of data.

#### 128K ripping software

To operate the HDD RAM is needed in the last 16K of the second block memory bank. Again, this measure gives as high compatibility BonnyDOS. Unfortunately, in this way, we can not use software 128K. But with few tricks can make this obstacle is not impossible. The software must meet the following conditions:

No refills

•

No record, for example, states of play

•

Banks are available as separate files The typical 128K charger is similar to this: 10 MEMORY & 1FFF 20 OUT & 7F00, & C4: LOAD "BLOQUE1.DAT", & 4000 30 OUT & 7F00, & C5: LOAD "BLOQUE2.DAT", & 4000 40 OUT & 7F00, & C6: LOAD "BLOQUE3.DAT", & 4000 50 OUT & 7F00, & C7: LOAD "BLOQUE4.DAT", & 4000 60 OUT & 7F00, & C0: LOAD "GAME", & 2000: CALL & 2000 In lines 20-50, the individual blocks of 16K are installed.

This storage is not BonnyDOS compatible. to make this program work, we get:

→ Block & C7 is the last to go to your bank, because it is where DOS RAM

→ The main program ("GAME") is loaded first or before the Block & C7 move

The individual memory blocks are now loaded into memory screen & C000 and from there, with small routines in assembly & 4000 passed the Second Bank of 64K. This is achieved by a machine language program 12 bytes long. What is important is the last block (& C7) copy only when the main program ("GAME") is loaded. The new charger BonnyDOS, which of course also works with floppy is: 10 MEMORY & 1FFF 20 DATA 21.00, C0,01,00,40,11,00,40, ED, B0, C9 30 FOR N% = 0 TO 11: READ A \$: POKE & AC8A + N% VAL ("&" + A \$): NEXT 40 LOAD "BLOQUE1.DAT" & C000: OUT & 7F00, & C4: CALL & AC8A 50 LOAD "BLOQUE2.DAT" & C000: OUT & 7F00, & C5: CALL & AC8A 60 LOAD "BLOQUE3.DAT" & C000: OUT & 7F00, & C6: CALL & AC8A 70 LOAD "BLOQUE4.DAT" & C000: OUT & 7F00, & C0: REM LAST BLOCK HAVE NOT COPY! 80 LOAD "GAME", & 2000 90 OUT & 7F00, & C7: CALL & AC8A: OUT & 7F00, & C0: CALL & 2000 As the main program is loaded into & 2000 BASIC must necessarily dodge assembler (eg from & 0040). Please contact us if you find mode solve the problem. Instead of the keyboard buffer & AC8A, the assembler program block that can go the other direction, which is not covered by the main program and memory are overwritten. The location of 12 bytes is your choice. Finally, the assembler listing in plain text: 21 00 C0 LD HL, & C000 ; Origin January 00 40 BC LD, & 4000 ; Length November 00 40 LD DE, & 4000 ; Destination ED B0 LDIR ; Copy C9 RET If you are using ROMPACK PROFESSIONAL, you can move it from & to & 4000 C000 also | SCRBNK, numerobanco%. Please read the User Guide of the RP-PRO-ROMs.

#### The Supervisor Mode

The Supervisor or Manager mode also provides protection against unwanted access your files / directories. In addition, major utilities (| FORMAT y | SETUP) can only used his is being entered as Supervisor.

#### How to enter?

Writing | LOGIN registration begins. Enter your login details. It is case sensitive / insensitive. Not may correct the entry. If you enter correct user name and password, it displays Login OK You are now logged in as administrator.

#### How to get out?

Rebooting the CPC, or by typing | LOGOUT

## How I can transfer files and directories?

You can transfer files and directories at any time by changing the attribute of supervisor (Attribute% = 1) or borrándole. You have to be logged in as administrator. In the Supervisor Mode any new directory or file created will Supervisor automatically attribute. Utilities like | COPY | DCOPY, | COPYD and | Fxxx can only copy Supervisor files when you are logged in as administrator. Page 39

#### The error codes BonnyDOS

Error Meaning 0 Ok One Error reading 1) It is a bad sector 2) The software has been used on a faulty parameter HDD 2 Write error 1) Again, due to a bad sector or 2) wrong parameter Three File not found ("xxx not found") 4 The 1024 directory entries are used ("Directory full") 5 All blocks of the partition are shown ("Disk full") 6 General Error ("Bad command") - as a file name misspelled 7 The file is not eligible ("File type error") 8 Path not found ("Path not found") 9 The file is not readable ("Not readable") - attribute not set 10 The file is not write ("Not writable") - attribute not set 11 Critical Error ("System failure") - is required to restart 12 The file has reached the limit of 128 MB ("File too large") 13 The file is not properly closed or are currently in use ("File is locked") 14 Access denied to an object of Supervisor ("Access denied") 15 There are open files ("Stream (s) open") Even The error codes may be reported by the RSX command | HERR (see above). By

Please note that not all operations BonnyDOS generate an error code.

# The ROM-Extra No. 1

With the help of the ROM-Extra ROM # 1 can increase the performance of BonnyDOS. Installing this ROM will be available the following utilities, including:

- \* Files relating
- \* Snapshot Charger
- \* Check accelerated text (so 80 characters)
- \* Copy Utility FAT12 and AMSDOS
- \* And more ...

Never mix different versions of BonnyDOS and Extra-ROMs. As for the programming storage areas are changed, loss could occur data and system instability.

## Notes pair RSX use FAT12

To access MS-DOS disks need a ROM Operating System diskette 80 tracks and two heads. In addition, a 3.5 "drive (B) would be appropriate for DD disks (see also "Data exchange between HDD and Floppy").

## Extra-ROM # 1 - Commands RSX

Remember, the parameters in brackets is not required insert. The CPC allows transfer parameters in different ways. Texts such as file names, specified in the follows: | COMMAND, "TEXT" or alphanumeric variable | COMMAND, TEXT \$ Similarly, numerical values can be transferred: | COMMAND VALUE% COMMAND, 123 But: If you want results, and return codes returned, this is only possible with the assistance at "@" in the context of integer variable. The variable to store the result, must have been previously created. This could be: E% = 0: REM Create the variable | HERR, @ E% this extremely simple example reads the error status BDOS and sends it to the variable Whole E%. Always ensures correct writing, since an error as E% = 0 | HERR, E% have fatal consequences and system crash.

# | Fget

Filename \$
The source drive is B:
Fget allows data exchange with FAT12 drives. The source drive is the B :. If it is
BonnyDOS (| C) the active unit, the destination is the current route. If a floppy drive (| A or | B) is
active, or taken A: destination, given as the default, or the application is closed,
because the copy of B: B: is not possible.
You can copy multiple files if <\$ filename> contains wildcards.
Possible errors:
Bad command
Full Disc
Directory full.

# | Fput , Filename \$

The current version works only with C: as a source. Fput is the opposite fget - copy files from your hard drive to FAT12 disk in drive B :. You can copy multiple files if <\$ filename> contains wildcards. Files Supervisor will only be sent to disk if it is in the appropriate mode. Possible errors: Feature Not available Full Disk Dest. Dir Full

| FCAT No parameters No special functions FCAT list the contents of a FAT12 disk in drive B :. Possible errors: Bad command

# | FDEL

Filename \$
No special functions
With the help of the service program FDEL you can delete files on the FAT12 disk drive B :. <Filename \$> can contain wildcards to delete multiple files in a time.
Possible errors:
Bad command

# | ECHO.ON / | ECHO.OFF

No parameters

Also comes in ROM diskette. | ECHO.OFF disables the output of confirmation requests and error. Questions (for eg "Are you sure (Y / N)?") are automatically answered with "Y". Therefore can be used to process files within BASIC programs without the program to stop the waiting for user input. | ECHO.ON returns the original condition. Possible errors: None For example: 10 REM \*\*\* batchfile (autoboot) \*\*\* 20 | ECHO.OFF 'Disable Posts 30 A% = 0 'Initialize the variable Error 40 | CD, "4: TEMP" 50 | TOOLS, @ A%: IF A% <> 0 THEN GOTO 80 'IF 4: TEMP THERE ARE CLOSE THE PROGRAM. 60 | DEL, "\* \$\$\$." 70 | DEL, "\* TMP." 80 | ECHO.ON 'Enables Posts 90 | CD, "1" 100 NEW

The program will start deleting computer files in the temporary partition 4. And for this will not require user confirmation ("Are you sure (Y / N)?") because the | ECHO.OFF of line 20, the question is suppressed and the line 80 leave it as it was.

# | DCOPY

, Filename \$ No special functions DCOPY allows copying from floppy to the hard disk. All formats are supported AMSDOS compatible. These also include 720K ROMDOS formats and format Disc CP / M system. You can copy multiple files from floppy if <filename \$> includes wildcards. The ASCII files are copied, showing shortly before the end of the current file the question "Hard-EOF (Y / N)? ". If you answer the question with" N ", the file is copied to the last mark EOF of I copied file. The "Y" will copy the last full recording. Hard-EOF Use with N " Text files, ASCII BASIC programs, etc. "Y" Captures images IFF, etc. Possible errors: Bad command Full Disk Read Fail **Full Directory** 

Write Error

# | COPYD

Filename \$
No special functions
Copy one or more files (wildcards) from hard to floppy disk. The destination drive is the last used and selected. COPYD works independently, means that it is theoretically compatible with all DOS ROMS for CPC.
Possible errors:
Bad command
Full Disk
Write Fail
Read Error

# | RDIR

, Bancomemoria%

No special functions

Read the directory of the current disc in the memory bank <bancomemoria%> (128K 0-3 and 0-31 512K systems). You should not use the bank 3, which is BonnyDOS important files. The entries in the directory can be imported GDIR (see above) from a variable. Possible errors:

None

The bank 3 should not be used under any circumstances! Do not try to integrate blocks  $\mid \mbox{RDIR}$ 

(The memory bank 3 is ignored) to avoid it.

#### | GDIR

, @ Filename \$% @ type% number%

```
No special functions
List the <number%> (0-1023). The file name is sent to the variable
Alphanumeric FILENAME $, the file type to integer variable TYPE%. Both
variables must be created before use, with $ FILENAME a length of at
least 12 characters.
GDIR before use, RDIR be executed at least once.
If the file type = $ 99 or $ FF, the Board is finished (it will do more recordings).
Possible errors:
None
For example:
10 D $ = STRING $ (12.32) 'Create the variable
20 T% = 0
'Create the variable
30 | RDIR, 0 'Lee directory to Bank 0 (= $ C4)
40 MODE 1: PRINT "CURRENT DIRECTORY"
50 PRINT
60 Y% = 3: A% = 0
70 IF A> 1023 THEN END
80 | GDIR, @ D $, @ T% A%
IF T = 90% & 99% OR T = & FF THEN END
100 PRINT D $, "[" + HEX $ (T%, 2) + "]"
110% Y% = Y + 1
120 IF Y%> = 25 THEN PRINT "PRESS ANY KEY": CLEAR INPUT: WHILE INKEY $ = "": WEND:
Y\% = 1
130 A% = A% + 1
140 GOTO 70
```

| SNA

, Filename \$ Optional with Extra-ROM # 2. The SNA capture utility allows memory load emulator (snapshot files). The Current version works only with images 64K, which are loaded from disk. Recording CPC Plus has not been taken into account. Possible errors: Access denied Bad command Read Error ... Not Found For example: | SNA, "DANDARE.SNA" Upload the file snapshot DANDARE.SNA from the hard disk and starts. The ROM-Extra # 2 can be used to expand the project utility | SNA including: - Loading FAT12 hard disk or floppy disk (720K) - Loading and starting 128K snapshots (requires an extension of RAM 512K) If you try to load a dump 128K, although there is no expansion of RAM installed, It will display the ROM-Extra Invalid file and the application will close. If you try with extended computer but without the ROM-Extra # 2, the message is displayed Requires addon No. 2 With the ROM-Extra # 2 as well as to upload files Snapshot 128K, you can SNA upload files directly from FAT12 disks (if the ROM disk is active). Remember that you need the FAT12 routines ROM diskette 80 tracks!

# | SETUP

No parameters No special functions With the basic setup you can change the functions of BonnyDOS. First the SETUP list current options. The following questions if the Supervisor mode is active, will appear: Assign drive 0 (Y / N)? This allows you to change the macro route 0 (see also Commands | 0 and | 1) or delete it. To clean will reply with "Y" if the existing route with DEL or CLR and the Enter / Return key. Assign drive 1 (Y / N)? As above, but referring to entries in the macro Route 1. Auto-Boot (Y / N)? "Y" function enables AutoBoot. If you reply to this question with "Y", jump to the next option. Auto-Activate C: (Y / N)? "Y" function enables AutoActivate. Use DOS-Directory (Y / N)? "Y" enables directory-DOS function. Possible errors: None

# The macros Route | 0 and | 1 No parameters

No special functions

Macros Route | 0 and | 1 already in previous versions of BDOS, which was not yet supported change partition | CD. However, we have two macros with the new version.

BonnyDOS allows two macros (| 0 and | 1), by partition in replacing entry

| CD, \$ path. This could, instead of | CD, "4: GAMES / A / ARKANOID" just writing | 0 and | 1 - depending on how you have configured macros.

The configuration utility allows you to change / delete locations (ASSIGNS) partition active.

Possible errors:

No assign found

Note that you can only create macros for each partition path in which they were created.

## | INFO No parameters

No special functions

Displays information from the unit, and the level of existing partitions. If you are not connected hard disk, only the "Drive Information" portion is displayed. Possible errors: *None* If not properly installed or partition is defective, it shows a

full status.

| Pfree , Partition% block% @ No special functions Specifies the number of free blocks in the <Partition%> (1-20) partition. Possible errors: None For example: 10 F% = 0 20 | pfree, 1, @ F% 30 IF F% = 0 THEN PRINT "SORRY - NO FREE BLOCKS IN PARTITION 1": END

# **|PSIZE**

, Partition% @ size% No special functions

Specifies the size of the <Partition%> (1-20) partition. If <size%> contains the value 0, that is that or this partition does not exist or is not installed / formatted properly. Possible errors: None

| ADRV , @ Unit% No special functions Returns the status of the unit: 0: active floppy 255: HDD Active Possible errors: None

# | REBOOT

# [, NumeroROM [, númeroROM [.....]]]

No special functions Sets a restart of CPC, but only with specified ROMs (not including double tested). This utility increases the HIMEM temporarily in systems with many ROMs for compatibility with certain programs. Possible errors: None For example: The computer has installed the ROM 7 (AMSDOS), ROM 6 (BonnyDOS) and 5 ROM (ROM-Extra # 1): | REBOOT 7 initializing the computer restarts only BASIC and AMSDOS. | REBOOT restart the computer without expansion ROMs. | REBOOT, 7.6 as in the first example, but also include BonnyDOS. BonnyDOS need for proper operation of the operating system ROM diskette. If you use the hard drive should always be with BDOS.

When the CPC will be reset again all ROMs.

#### | FT.ON / | FT.OFF No parameters | FT.ON only works in

| FT.ON only works in Mode 2 | FT.ON activates output accelerated text mode 80 characters. Quenched with | FT.OFF or MODE changing 0/1. Ignores text output options PEN / PAPER, windows and Altered source potential. Possible errors: None

#### | PAGE

, Páginamemoria% e% Must have a file open for reading PAGE reads a page of arbitrary memory of 512 bytes, and said priorprior (0-65535) is copied to <address%> memory bank 0. Previously should be opened up file for reading or by OPENIN (SEQ files permitted) or using the DOS vector CAS IN OPEN. If the storage location of the file is the read command is ignored. The exception is the last data block read. It is completely out, even if the file is not fully occupied. The location and length of the cargo area must be known. Possible errors: None For example: 10 OPENIN "DIBUJOS.DAT" 20 A% = & C000: FOR N = 0 TO 31% 30 | PAGE, N% + 32%, A%: A% = A% + 512 40 NEXT N **50 CLOSEIN** The above example reads the image shift 16384 (& 4000 - Store pages 32-63) from the cabinet file "DIBUJOS.DAT" screen memory. The reading routine works with any file type and is not limited to container files. PAGE is generally applicable to any file. However, with the help Container Creators (IBM / PC) Noob Inc., you can create special files what you choose (eg images).

## Relative files with the ROM-Extra No. 1

several minutes to complete the desired recording.

#### What is a relative file?

A relative file allows free access to any point within the file. If by example file addresses and telephone numbers of all your friends, you can quickly view either direction, modify or delete. The relative low BonnyDOS file can be up to 65536 recordings (0-65535) of 256 bytes each. The memory remains free for process.

#### The RSX commands

To create an empty file on'll use | CREATE, filename \$ For example, for a file called CLIENTES.DAT will use the entry | CREATE, "CLIENTES.DAT". To edit the file you need to open it: | OPEN, filename \$ In the above example would be: | OPEN, "CLIENTES.DAT" Conversely, to close the file and update the Directories CLOSE or **CLOSEIN** Due to the read channel using the files on, no matter which of the two commands you use. If a relative file fails to close, can be done anytime | OPEN, \$ filename: | CLOSE later (even after a reset). The difference between a file concerning not properly closed and locked one | CLOSE / CLOSEIN is a necessary specification defective when CAT size. Only in the closing entry is updated directory size - and written and recorded, generally there is no danger of loss data. Before the file is read or written, must first be selected in any case a batch valid to disable the error "Invalid record". | RECORD, batch% or | RECORD, UNT (LOTE) for real variables, which are greater than 32767 You can select one of the 65536 (<Batch> 0-65535) lots of potential data. A batch consisting of 256 bytes, considering that BASIC can transfer a maximum of 255 bytes. This gives Total file size of 16 Megabytes (256 bytes per batch \* 65536 lots). | RECORD has another meaning: expand the file automatically, if the number of recording <Batch%> does not exist. It will be in the 128 complete recordings expanded. Return the following error codes: 16 - Records added ( the file had to enlarge) 17 - Seek OK In both cases, the selected recording is valid and can be read or written. All new recordings automatically have the CHR \$ (0) added - can therefore lead

Read / Write

| W, @ lot \$
| W, lot \$
| W, "<text>"
Enter the current recording.
| R, @ lot \$
| R, lot \$
Lee from batch data.

Are LEN (lot \$) read / written bytes (the rest of the recording remains intact). The variable Alphanumeric must be created before reading something like LOT \$ = STRING \$ (<desired language>, 0).

| R y | W occupy the area from & AC8A storage for temporary data.

## Search within a file

| SEARCH, string \$, loteinicial% lotefinal%, capitalization% error% @, @ batch%
<String \$>: To search for (sub-) chains. Here, we can use the wildcards "\*" and "?". The sign of question seeks any character, and the asterisk means that the chain is filled with "?".
<Loteinicial%>, <lotefinal%>: The parameters determine the range of the file that will be searched.
<Lotefinal> must be greater than <loteinicial>. Both must be 0 to 65535. If no
<Lotefinal>, the file will not be completed and the search will end with error code 16 (Records added).
<Uppercase%>: If it is a 0, the case will be observed, and if it is other than 0 will be ignored.

<@ Error%>: Return code. error (0 = batch found, 1 = file does not open, ..., 16 Records Added, ...) <@ Lot%>: If the result was obtained (error% = 0) is the batch number where he found the <String \$>.

For example:

10 A% = 0: B% = 0: REM CREATION OF VARIABLES 20 | OPEN, "CLIENTES.DAT" 30 | SEARCH, "Bonny \*", 0,99,1, @ A% B% @ 40 IF A% = 0 THEN PRINT "FOUND IN LOT" B% 50 IF A% <> 0 THEN PRINT "CODE ERROR" A% 60 | CLOSE These are the first 100 records (0-99) File "CLIENTES.DAT" Search. The

search was made on strings that begin with "Bonny", capitalization is ignored ...

## Problems in Search

... You can arise if <lotefinal%> is not known. Because then the file | SEARCH possibly is increased and the search stops. With the command | RECS, @ block% get the number of blocks of data returned by the open document file relative. For <lotefinal%> The following formula is used: LOTEFINAL = (BLOCK \* 128%) - 1

#### Error Codes ROM-Extra No. 1 Error Meaning 0 Ok One There are open files ("Stream (s) open") Even 2 End of file ("EOF" - End of file) Three No recordings available ("No free record") 4 All blocks of the partition are shown ("Disk full") 5 The file is not eligible ("File Type error") 6 General Error ("Bad command") - as a file name misspelled 7 File not found ("File not found") 8 File or invalid file type ("Invalid file") 9 An operation requires the ROM BonnyDOS ("BDOS missing") 10 The file is not write ("Not writable") - attribute not set 11 Critical Error ("FS-error") - is required to restart 12 The file has reached the limit of 128 MB ("File too large") 13 The file is not properly closed or are currently in use ("File is locked") 14 Error reading 1) It is a bad sector 2) The software used on a false parameter HDD 15 Write error 1) Again, due to a bad sector or 2) false parameter 16 Recordings to a relative file ("Records added") were added 17 Current recording a relative file is valid ("Seek ok") 18 No open file ("File not open") 19 The selected file is not valid on recording ("Invalid Record") The error codes may be reported by the RSX command | HERR (see above). By

Please note that not all operations BonnyDOS generate an error code.

# The ROM-Extra No. 2

The second extension ROM BonnyDOS presents some new commands available RSX some extended above utilities. Here are the main new features:

**ENV Variables** 

SNA Charger 128K (also in FAT12 disks)

New commands RSX Never mix different versions of BonnyDOS and Extra-ROMs. Since during the programming storage areas have changed, may cause loss of data and system instability.

#### Large | SNA (ROM-Extra # 1)

The ROM-Extra # 2 extends the SNA utility. Snapshots can be read from a floppy disk (B) MS-DOS®. It is now also possible to start SNA 128K.

#### Page 65

#### Extra-ROM # 2 - Commands RSX

Remember, the parameters in brackets is not required insert. The CPC allows transfer parameters in different ways. Texts such as file names, specified in the follows: | COMMAND, "TEXT" or alphanumeric variable | COMMAND, TEXT \$ Similarly, numerical values can be transferred: | COMMAND VALUE% COMMAND, 123 But: If you want results, and return codes returned, this is only possible with the assistance at "@" in the context of integer variable. The variable to store the result, must have been previously created. This could be: E% = 0: REM Create the variable | HERR, @ E% this extremely simple example reads the error status BDOS and sends it to the variable Whole E%. Always ensures correct writing, since an error as E% = 0 | HERR, E% have fatal consequences and system crash.

| GETENV , Var \$, @ i \$, @ I% See next chapter Reads the contents of the variable ENV <Var \$>. The contents are sent to the variable Alphanumeric <I \$> - with the length LEN (I \$) Limited. <I%> Contains 0 ENV function does not exist / not available > 0 Original length of the string <VAR \$>. Possible errors: Env Not Found For example: See next chapter | EXAMINE , Street address% No special functions Allows specific query in a directory. The <address%> parameter indicates a Structural EXAMINE, which is not allowed in the area of 16,384 (\$ 4,000) to 32,767 (\$ 7FFF). Offset Contents 0 Status 1-12 Pattern 13 Pattern Length 14-46 Entrance 47 Countdown secondary 48 Countdown Entry 49/50 Cylinders 51/52 Heads / Sectors 53/54 Offset 55 Sector Buffer 512 bytes in length Before the first call, the user status (Ofs. 0) is set to & 00 (& 00 = New Query). Then you might find a pattern file or a file name (wildcards) offset one. The length of the name / model (at least 1 byte, maximum 12 bytes) is recorded in the offset 13. If a request to start over is introduced, should always be entered status, and filename / design and length. Fields from 47 should only be established experienced programmers - typically manages the EXAMINE own. EXAMINE find an appropriate directory entry, he returned to offset 14. Then, updates the fields 47-54. When he is returned status & 01 (entry found) o & FF (Done). A consultation with EXAMINE serious eg 10 MEMORY & 7FFF: REM STRUCTURE AT & 8000 20 POKE & 8000.0: REM NEW CONSULTATION 30 POKE & 8001, ASC ("\*") 40 POKE & 8002, ASC (".") 50 POKE & 8003, ASC ("B") 60 POKE & 8004, ASC ("A") 70 POKE & 8005, ASC ("S"): REM PATRON 80 POKE & 800D, 5: REM LENGTH OF PATRON 90 S% = 0WHILE S% 100 <> 255 110 | EXAMINE, & 8000 120 S% = PEEK (& 8000): IF S% = 1 THEN GOSUB 1000 **130 WEND** 140 END 1000 REM DO SOMETHING 1010 FOR N% = 0 TO 10 1020 IF N% = 8 THEN PRINT "."; 1030 PRINT CHR \$ (PEEK (& 800F + N%)); 1040 NEXT 1050 PRINT: REM CRLF **1060 RETURN** This program searches the current directory all "BAS" files and sends them to the screen. The structural principle multiple queries can be performed simultaneously without the influence of observations.

| SET , Errorcode% No special functions Sets an error code <errorcode%> (0-255) that | HERR can read. Possible errors: None For example: 10 | SET 10 20 A% = 0 30 | TOOLS, @ A% 40 PRINT A% RUN 10 Ready Note that the error code set could be a command BonnyDOS eliminated.

# | VERSION

, Filename \$ No special functions The command searches within the file <filename \$> (FDD + HDD) a chain of version and displays it on the screen. A version string must be in the first block of 2K the beginning of a file. It will be replaced by the string "\$ VER:" regardless upper / lower case. The chain end with a <CHR \$ (32). Possible errors: Version Not available For example: REM \$ 10 See: Address Management V1.0 - 12.12.2007 20. 30. 40. SAVE "GESTDIRE" Ready | VERSION, "GESTDIRE" Address Management V1.0 - 12.12.2007 Ready Almost all programs on the disk system used BonnyDOS Specifying this version, so you will smoothly software version you have installed.

# | TYPE

, Filename \$ No special functions Displays the contents of a file (text). The program works with hard drives as well as floppies. If the text reaches the bottom of the screen shows the words "<Press any key to Continue> "and wait until you press a key. As occurs the output text TYPE can press the TAB key to close it. Possible errors: File Not Found System Failure Bad command For example: | TYPE, "FIESTAS.TXT" displays the contents of the file "FIESTAS.TXT". It is recommended that before seeing a text selected with MODE 2 mode display of 80 characters. Binary or BASIC, files are shown defectively TYPE.

## **|D|E|F|G|H No parameters** *Additional units equipped with DRVMAP* Switch to an additional unit, previously configured using the "DRVMAP" utility. Through additional units can access other file systems. Possible errors: Invalid Drive No valid Config
## **ENV** variables

BonnyDOS V1.70 with the help of the second ROM-Extra can handle ENV variables. The ENV variables are-sequential files with a maximum length of 255 bytes. This should ENV be in a directory, which must be recorded in COMMAND (with function DirectorioDOS activated!).

The utilities that support ENV variables:

I CD (BonnyDOS) | COPY (BonnyDOS) | GETENV (ROM-Extra # 2) The ENV Variables must wear a dollar sign "\$" at the beginning of the file name. Remaining 7 characters, a point and three-character extension. Go to the directory COMMAND the first partition and enter "ENV" a: | MD, "ENV" | CD, "ENV" A variable ENV can easily be created from BASIC: OpenOut "\$ HOME": PRINT # 9, "3: BRUEGGI / DATA / BASIC";: CLOSEOUT In this example, the variable name is "\$ HOME" and "3: BRUEGGI / DATA / BASIC" the chain include (remember the semicolon after the PRINT # 9!). If you now | CD, "\$ HOME" shall apply the contents of the variable to | BonnyDOS CD and try to change to this directory.

Similarly, a variable as the fate of copies:

| COPY ". \* BIN", "\$ HOME"

BIN would copy all files in "3: BRUEGGI / DATA / BASIC".

#### Reading | GETENV

The ROM-Extra # 2 includes a command to read ENV variables. The syntax is: | GETENV, "\$ env" @ r \$, @ I% \$ Env: name of the ENV variable to be read

@ R \$: string, which will absorb the content. The LEN (\$ r) characters.

@ L%: Return code: ENV = 0 not found / not available, <> 0: Actual length of the variable. For example, \$ HOME could be used in the following program:

10 R = STRING \$ (255.0): REM Chain created with the maximum length

20 A% = 0: REM return code to create

30 | GETENV, "\$ HOME" @ R \$, @ A%

40 IF A% = 0 THEN PRINT "NO encotrado ENV": END

50 PRINT LEFT \$ (A \$, A%)

Of course, have many applications ENV variable. May be, for example, palettes default color, program settings, etc. They can be recorded as 1023 ENV variables maximum.

For the ENV function can be used to exist in the COMMAND directory first available partition a subdirectory called "ENV", which are stored ENV variables. Also must be active DirectorioDOS function.

## The special \$ ENV PATH Variable

BonnyDOS v1.71 supports together with the ROM-Extra # 2 searches for files set route. If the DirectorioDOS function is active, BDOS searches ENV directory (1: COMMAND / ENV) the \$ PATH Variable ENV. If found, carried BonnyDOS to other routes in the following files. An example will clarify this process.

There is a \$ PATH variable with the following contents:

"1: TOOLS; \$ HOME; 2: BACKUP / BASIC"

If we now introduce RUN "DISC" BonnyDOS searches in the current directory, "DISC" "DISC.BAS" and "DISC.BIN". With the function active DirectorioDOS seek "DISC" in "1: COMMAND" later. If this search fails, will be processed and \$ PATH is searched in these directories:

≻

"1: TOOLS"

The HOME \$ defined by the path

 $\succ$ 

"2: BACKUP / BASIC" If neither is found appears

"DISC . not found "

The assessment of \$ PATH occurs only read access - eg RUN " LOAD "MERGE" etc. It is expected that DirectorioDOS function is activated. Then would be the \$ PATH variable ENV ENV in the directory.

## Error Codes ROM-Extra No. 2

Error Meaning 0 Ok There are open files ("Stream (s) open") Even One End of file ("EOF" - End of File) 2 No recordings available ("No free record") Three All blocks of the partition are shown ("Disk full") 4 5 The file is not eligible ("File Type error") General Error ("Bad command") - as a file name misspelled 6 7 File not found ("File not found") File or file is invalid ("Invalid file") 8 An operation requires the ROM BonnyDOS ("BDOS missing") 9 10 The file is not write ("Not writable") - attribute not set 11 Critical Error ("FS-error") - is required to restart 12 The file has reached the Limete 128 MB ("File too large") 13 The file is not properly closed or are currently in use ("File is locked") 14 Error reading 1) It is a bad sector 2) The software used on a false parameter HDD 15 Write error 1) Again, due to a bad sector or 2) false parameter 16 Recordings of a relative file ("Records added") were added Current recording a relative file is valid ("Seek ok") 17 No open file ("File not open") 18 Unknown file ("Unknown file") 19 An environment variable is not found, or ENV is disabled ("Env not found") 20 21 Setting Missing or incorrect additional units ("No valid config") An additional unit is not available or invalid ("Invalid drive") 22

The error codes may be reported by the RSX command | HERR (see above). By

Please note that not all operations BonnyDOS generate an error code.

## The system disk

#### **SETUP - System Software Installation**

The SETUP program is in the Face A system disk. It will help in the installation programs accompanying BonnyDOS. SETUP and partitioned disk requires formatted, and BonnyDOS ROM installed with at least the Extra-ROM # 1. To start, reset the computer, side A in the drive, which can be | A or | B and type RUN "SETUP"

First, see if your hard drive has been configured and if the ROM-Extra # 1 is available. Yes this is the case the directories "COMMAND" and "ENV" will be created in the first partition if no existed.

SETUP copies the contents of the two sides of the disk in the COMMAND directory. After copy, you have the option to assign function keys ("KEYBOARD.SYS"), and install a boot menu. Just follow the instructions. It is recommended after finishing the SETUP enable DirectorioDOS feature on the computer to restart.

Before BonnyDOS system makes use of floppy or hard disk after installation, you should reset the CPC to avoid memory conflicts or errors.

### The boot menu

With help from the boot menu and you'll knock the computer more easily. The joystick You can choose freely between definable menu options that can be programs and snapshots. BonnyDOS comes with two different menus in the B-side system disk are:

#### All CPCs

BOOTN BOOTNORM.SYS

## **CPC Plus**

BOOTP

BOOTPLUS.SYS To use a boot menu you can copy BOOTN or BOOTP - depending on your model

CPC - in the main directory of the first partition and rename it to "#". Similarly you must put SYS file associated on the route, or if the function is active DirectorioDOS in COMMAND directory. To get the maximum benefit that the software you can provide, You should enable the autoboot function. Left: Right version for all CPCs: CPC Plus Version The two menus can be tailored to the needs of each. Both programs share part in BASIC (BOOTP or BOOTN). The DATA lines that determine the content of the menus are located on lines 10000 and following. DATA type%, \$ path, \$ file, \$ títulomenú <Type%>: Actually, way to start the file. 0: start with RUN 1: start with | SNA, " 254: BASIC again 255: end of menu <Path \$>: Before a file starting with changes to BonnyDOS | CD directory specified with <path \$>. <File \$>: Specifies the name of the file that start with that menu item. <Títulomenú \$>: this text focuses on the menu appears.

Up to 21 menu items in the BASIC part may exist. Also, the menu will be completed with a final entry (type = 255%).

You can not only change the menu, but also the colors. This is different in both menus. Load the binary BOOTNORM.SYS or BOOTPLUS.SYS to edit and then burn it again according to the original address file. BOOTPLUS.SYS Load direction: & 8000, Length: & 1550 & 831A 4 colors for Pen 0, Pen 1 Pen Pen 2 and 3 & 8322 255 colors - for each line of the plot. Determines the appearance of the background. & 8522 15 colors of sprite (sprite-pen 1, ..., Sprite-Pen 15) & 8542 8 colors for selection bar & 8552 Data-Sprite 0 & 8652 Data-Sprite 1

.

## & 9452

Data-Sprite 15

The colors in the CPC Plus are expected as a 16-bit. This is the scheme & 0GRB (G = green, R = Red, B = Blue - each value from 0 to 15) seen in the storage of & RB0G. Sprites consist of 256 bytes each, and have a size of 16 \* 16 points. An byte encodes the color of a pixel (color value 0 to 15). Sprites are placed in blocks 4 \* 4, with Sprite 0 in the upper left corner of the block, the Sprite 1 to its right, and so on. The Sprite 15 is therefore that of the lower right part of the block. The boot menu for all CPCs is customizing a little easier since there are fewer options available:

BOOTNORM.SYS Load direction: & 4000, Length: & 300

## & 41C6

8 colors for selection bar.

## & 41CE

255 colors - for each line of the plot. Determines the appearance of the background. The color values should be considered as indicating the color code of 6 bits of Gate Array because otherwise it will crash. Pens inks 1 to 3 can be changed in the part BASIC "BOOTN". Feel free to bring your settings beyond.

Use Plus software only appropriate computers. Another mode, the system will hang, display corrupted graphics or similar errors. The software for all CPCs, is on the other hand, executes the CPC Plus series.

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#### **Drive Mapping - Configuration and setting units**

For external drives, you must use the new "DRVMAP" Disk Utility System (Side A). Type:

RÜN "DRVMAP"

And after a while, the program will load and run. Note that files are needed CRC.SYS and SPREPHD.SYS. Using the cursor keys <up> / <down> and the spacebar select a drive and select Setup. The program requires the direction dispatcher addresses in the ROM, and the number of ROM. You can cancel at any entrance just typing [ENTER] or zero ("0"). Otherwise, all types of numeric entry will be announced BASIC. To delete a mapped into the DEL key is used. The unit shall be marked then restarted.

When you have all your units, you should use the "S" key to save. After recording the new settings the computer is restarted for the changes to take effect. To avoid unwanted errors, if the configuration of the unit is accidentally overwritten by external applications or drive failure, BonnyDOS gives this particular area of the sector system with a CRC checksum. If this occurs, not the external units may use. "DRVMAP" will alert you that the current sum is invalid.

BonnyDOS does not know if you're actually using a valid dispatcher routine! Moreover, the configuration is updated as soon as you make changes to your system and ROMs recorded.

## Mapping Units for programmers - Including other ROMs

One of the novelties of BonnyDOS V1.70 is the possibility of up to five units (D, E, F, G and H) redirected by external ROMs. Not only are the normal vectors DOS but Also some of the deviations of the RSX routines. For programmers "drive ROMs" is important to know exactly how the mechanism works call. Basically, the "ROM shipped" feature number in the accumulator. You decide the next process. The Here are the options:

#### **Number Meaning Function**

It is a call & BCxx a CAS xxx vector. BC contains the vector-direction. 255 One I COPY | RE 2 Three | RD | DEL 4 5 | CD 6 MD 7 SNA 8 TYPE VERSION 9 254 Initialize External Drive At the time of the call, the current storage bank (usually & C0) is not changed. To make one BFS16 External ROM drive, you need autocomprobarse if it was established and formatted. **Function 255** If one of the external drive is active, the ROM-Extra # 2 BonnyDOS makes evaluation xxx CAS vector. Directs the number of function, along with table in the ROM BC external. Before the AB, BC, DE and HL registers on the stack are established. Continuing with the Battery: Return to & BE82 (= RET) OS: Temporary BC OS: Temporary IY Return OS / BASIC OS: return to RST & 18 AF Registry Register BC LOG Register HL OS: Return ROM-Extra No. 2 **OS: Temporary BC** OS: Temporary IY Return ROM-Extra No. 2 OS: return to RST & 18 From here, Heap dispatcher

The dispatcher or vector routine is applied as follows: first, the registers from the stack. To end routines that have - if you want the return of the ROM-Extra # 2 - registration is will place again in the same location on the stack (Return Parameters) and the accumulator will load an error code. Then return to the ROM-Extra # 2, the error code appropriate location Ram BDOS, and records are brought from the stack. Then Vector processing ends with RET.

#### **The RSX Functions**

This operation is similar to the function 255. The exception is that the role of dispatcher if the RSX command does not have to return because it would be your job normal in BonnyDOS unit. The RSX commands are normal in the first call to the BonnyDOS ROM. It is checked whether there are enough parameters. If applicable, shall be charged AF, BC, DE, HL and IX in the stack and the accumulator with the function number, and begin CALL User table & BE7F. The ROM-Extra # 2 has a RST & 18 in the unit next to the external ROM. The dispatcher must now evaluate the function number, logs from the stack and take parameters RSX (IX). After finishing must ensure that records the old values are brought from the stack and return to the OS / BASIC or who called. Follow the stack: Returns to address called **OS: Temporary BC OS:** Temporary IY Return OS / BASIC OS: Return to RST & 18 **AF Registry Register BC** LOG Register HL **Register IX** Return address RSX **OS: Temporary BC OS: Temporary IY OS: Return to BonnyDOS** From here, stack dispatcher

If the routine dispatcher notes that the call from a RSX BonnyDOS external, should not return to it. This would have unpredictable consequences for BFS16 data in the unit!

#### Function 254 - Initializing an external drive

Each time the user switches to an external drive (for example, | D) calls the ROM-Extra First, the dispatcher with the number 254. Here, the external ROM fail, "going" to the unit to examine memory to initialize, etc. Of course, this should not happen every time the user switches on the same drive - could even fail twice. But this is no problem. Along with the accumulator (= 254) achieved the dispatcher in the direction of HL and C the number ROM. It also contains Einsprung & BE83 the current address of the shipper and & BE85 ROM number. If & BE7F added to the list Opcode & DF (= RST & 18), data and & BE83 and & BE85 valid - with active appropriate drive. Now the ROM decides to do in this case. Yes 254 ends the function will return an error code in the accumulator and simple RET. If the error code is zero, the ROM-Extra No. 2 assumes that the dispatcher initialized external drive and he added. Otherwise, nothing happens. The Init function decides launch error messages. The error code is stored in any case in Byte-results BonnyDOS and can then be read with | MR (see above).

#### Renaming partitions with relabel

To start the utility introduces Cara B system disk. Go to unity (| AMS | A or | B) and type

RUN "relabel"

After a moment, the list of existing partitions are displayed, and the number of names partners. Selected by the <Up> / <Down> and spacebar partition whose name you want to change. A cursor will appear instead of the name. Enter the new name up to 10 characters. If you do not enter anything the old name will be maintained.

### The Text Editor Simpledit

The current version of BonnyDOS comes with a small text editor called "Simpledit". With their help you can easily edit text with a length of about 35K. Remember, however, This editor cannot replace a full word processor. The editor runs RUN "SIMPLED"

## Printer settings and macros function keys

Inside the file there SIMPLED BASIC instructions to add the code for your printer and initialized. Would be lines 40 to 100. A typical statement of this kind would 40 PRINT # 8, CHR \$ (27) + "@";

For more information, please refer to the documentation for your printer, and Manual CPC (command "PRINT # 8" / "PRINT").

With the help of the BASIC KEY statement (see Manual CPC) can range from line 100 even text blocks the function keys. The program already includes two macros example. Thus, the F0 key contains the text "Simpledit" and F1 is busy with "Noob Inc.".

To see text blocks in the editor, you must change line 230

230 KEYDEF = 0 to 230 KEYDEF = 255

Record the new program SAVE "SIMPLED" on the system disk or hard disk.

## The Main Menu

After loading, or by pressing Ctrl + Q, go to the main menu. You Here you can press a number to choose any of the following functions:

## **Key Function**

- 1 Load File Loads a text file from disk
- 2 New File Deletes the stored text (equivalent to restart the editor)
- 3 QuickHelp shows the possible combinations of keys for text entry
- 4 Find Search for specific strings (from the line where the cursor)
- 5 Savefile Record the text on disk
- 6 Print Prints text
- 7 Quit Terminates the program and restart the computer
- 8 Editor This option takes you back to the editor
- 9 Path / Drive Change the default drive or path on the hard disk

## The Editor

As we enter text, the cursor meuve librementen in all directions with keys arrows. If you stand in a line position not previously used, will be filled completely with spaces, and later possibly stored / printed. To avoid this, before saving / printing must place the cursor in the first free line after the text and press

Ctrl + K

. As a result, the remaining text memory is erased.

During text entry the following shortcuts are also available:

CTRL + N - Removes the line where the cursor is currently located.

CTRL + I

- Add a space at the current cursor position.

CTRL + Q - Opens the main menu.

CTRL + T

- Go to the beginning of the text in memory.

CTRL + L

- Add a blank line at the current cursor position.

You have more information in the file SIMPLED.TXT Face A system disk.

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# WAV Player

With this small program you can play audio files in WAV format.

The new player supports WAV files with a total length of 128 MB. To begin,

Face To enter the system disk. Go to the relevant unit (| A or | B), and type RUN "PLAY"

After a while you start the program. With & 1000, \$ filename, delay you from reproducing% a file from the hard disk. With you increase <% delay> or you decrease the speed of the reproduction. A sample rate of 11025 Khz corresponds to the speed value Normal 8. If increase the value, playback will be slower.

After loading the software is not enough space available to CAT. Use Therefore | FIND. Plays only files from the hard disk.

You'll get better results if you leave the files with a sample rate 11025 Khz 8-Bit Mono and speed 8.

You have more information in the file WAVE.TXT Face A system disk.

## HELP - The Online Help

Once in position, you will catch quickly syntax BonnyDOS RSX commands. But also accounts with the help of the HELP program. Only works from the hard disk and needs Extra-ROM # 2. To start typing HELP RUN "HELP"

If necessary, go with | CD to the directory where you are. After loading HELP will retrieve the index - this process will take a few seconds. It will show then the Table of Contents. You can select each chapter with the cursor keys and spacebar. Back to the Table of Contents at any time by pressing CTRL + I. Are exit the program with CTRL + Q.

HELP works only regard is installed on the hard disk. To exit the program always use CTRL and Q. Only then the file is properly closed Help.

#### Change Supervisor Password PATCHER

If you forgot your password as Supervisor, accounts with the help of PATCHER (Cara B system disk). Start the program RUN "PATCHER" and follow the onscreen instructions.

## Run Burning Rubber in CPC Plus systems ROMbox

To play "Burning Rubber", included in the BASIC cartridge CPC +, having a ROMbox or external hard drive, you have to use the program RUBBER Cara B Disco system ( RUN "RUBBER"

).

## **AMSDOS Defrag**

Defrag will help you defragment data discs AMSDOS 3 "(drive A :). It fix tickets sequences directory and data blocks. The program is located on Side B of your system disk, and starts with

RUN "DEFRAG"

Insert the disk defragment in drive A: and press a key. After a while,

DEFRAG show a view of the disk blocks. After answering the security question with "J" will start the defragmentation.

Be sure to make a backup of the drive before defragmenting. Yes

They happen any errors during DEFRAG operation, data will be lost!

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## **Drvtest - Testing Compatibility**

Once you have your hard drive partitioned and formatted, it is recommended to run the program Drvtest on Side B system disk by typing

RUN "Drvtest"

The program writes data to the various IDE drives, and tries to recover. If you give errors, immediately turn off the computer and the hard drive and check the cables and hard drive. Try try other hard drives.

## The memory manager EXTMEM.SYS

The program provides a uniform interface to access extended memory available. The programs therefore do not have to worry about the management / response of an extension of RAM. Even if the memory is fragmented. EXTMEM.SYS comes on Side B Disco BonnyDOS (Inicron version and compatible with maximum magnification of 512K RAM).

#### Onset

The driver must be loaded into & 3C00. It is automatically initialized after startup and may by Therefore overwritten.

CALL & 3C00

Start EXTMEM.SYS and returns the complete memory.

CALL & 3C00, <direccióntransferencia>, <tamañotransferencia>

As before, but also indicating the storage area transfer between banks 0

<-> Extended RAM, and page size (256 bytes). Usually the transfer area

is in the direction & AC8A and has the size of a page.

CALL & 3C00, <páginatransferencia>, <tamañotransferencia>, <listabancosbloqueados> You can block additional memory banks for EXTMEM.SYS - cannot be used by other applications.

Under BonnyDOS must initialize EXTMEM.SYS with the following program: 10 OH = HIMEM: Current REM Save HIMEM

20 MEMORY & 3BFF

30 LOAD "EXTMEM.SYS" & 3C00

40 CALL & 3C00, & AC8A 1.3: REM start - Block Bank 3, since it is there BonnyDOS 50 MEMORY OH: REM restores previous HIMEM

60 NEW

## The functional interface to the programmer

Before a program back in EXTMEM.SYS functions must be checked if always present. It is made in the directions & B0D7 and B0D8 &. Follow the value of EXTMEM.SYS & 1234 if installed. 10 REM CHECK IF WAS INSTALLED EXTMEM.SYS PEEK = 20 W% (& B0D7) +256 \* PEEK (& B0D8) 30 IF W% <> 1234 THEN PRINT "THIS PROGRAM REQUIRES EXTMEM.SYS": END 40. 50.

60.

With the help of the program in machine code will access the functions of managers memory. You must include the function number in the accumulator. The call is to CALL & B0D9.

Functio Meanin Transfe Return	on Ig er
0	Reading version EXTMEM
1	Sets the transfer area HL = Address, DE = Pages
2	Select transfer area HL = Address, DE = Pages
3	RAM configuration determines HL = 1K blocks, DE = RAM available in kilobytes
4 5	init - Starts the memory manager and releases all occupied blocks. Copy of bank 0 in expansion RAM IX = Handler copy
6	Copy expansion RAM bank 0 IX = Handler copy
7	Memory Book HL = Block number 1K E = Handler HL = Blocks Reserved, A = Error Code
8	Shared memory E = Handler
5 and 6 followin Offset Content	functions in IX require directing a copy handler. You must have the g structure:
0	Management
1, 2	Address in bank 0
3, 4	Transfer length
5,6	Reserved
	plete a transfer to the length (remaining) there is an Offset 3 & 0000. Otherwise the
case, il	may have been too lew units reserved and has been exceeded
Functio	n 7 will Accumulator one of the following error codes:
The me	mory was reserved. HL valid value. The function 8 can be used to free memory.

Three

There was not enough memory available. HL specifies how many units there really reserved. To free (including blocks 0) must use the function 8.

6

The 20 possible handlers are busy. The function 8 could not be returned to the Manager (E) used.

# Advanced Operation Guide

Note that the handlers are allowed Copy and transfer areas between the 16384 addresses (& 4000) and 32767 (& 7FFF). The size of the transfer area can be only 1, 2 or 4 pages. To achieve higher transmission speed, it is recommended to work with 2 or 4 pages.

To remove EXTMEM.SYS memory is not enough to restart the computer.

You must have the CPC off at least 5 seconds to clear them all memory locations.

**EXTMEM.SYS - RSX interface for BASIC programmers** The RSX "BASMEM.SYS" extension is an extension RSX enables various functions EXTMEM to be available also in BASIC. The file comes in the face of the disc B System and runs 38999 MEMORY LOAD "BASMEM.SYS" 39000: CALL 39000 Provides you with the following RSX commands: EXT.TST, @ inst% Checks EXTMEM.SYS has been loaded and initialized (inst% = 255). EXT.GV, version% @, @ revision% It is the version and revision EXTMEM.SYS file used. EXT.ST, áreatransferencia%, pages% It is the transfer area and size. EXT.GT, @ áreatransferencia% @ page% Read act it setup for the transfer area. EXT.CFG, memory @% @ block% Specifies the size of extended memory installed in Kilobytes (<memory%>), and number of 1K blocks free (<block%>). EXT.INIT EXTMEM.SYS starts again and releases all memory occupied areas. EXT.RES, blocks% @ handler% @ error% Book <block%> memory blocks. EXT.FRE, handler% Shows free memory. EXT.CTE, direcciónorigen% length% handler% @ error% Copy memory bank 0 in the memory upgrade. EXT.CFE, direccióndestino% length% handler% @ error% Copy of extended memory to memory bank 0. In the previous pages you have more detailed information on individual functions.

## **Technical Terms**

## BFS16

The file system used by BonnyDOS - the acronym comes from "Bonny File System 16-bit".

### **Data Block**

BonnyDOS low partitions are divided into blocks or blocks data. A block consists of a group of related sectors. An always occupies a block directory, a file at least two.

File system management scheme according to the data - and directories - in a unit.

## FCB

BFS16 not know allocation table to know which block is assigned to each file. Instead, each file has its own concatenation. It is stored is a special block, FCB (File Control Block)

## Partition

Part of hard disk used as an independent unit. The creation a partition improves clarity of use on the one hand, and on the other is capable to overcome technical barriers (eg, the maximum capacity of storage file system).

# Responsibility Copyright and Terms of Use Definitions

"Software"

BonnyDOS, the ROM-Extras and all related programs - no matter in what form (EPROM, source code, image ROM, diskette or floppy image, etc.) is available.

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#### BONNYDOS2.0 \*

The system disk to your computer Amstrad / Schneider! The new version 2.0 offers enhancements over its predecessor - and even more! Thanks to the new open system, you can integrate devices Special and file systems on your system - all commands and applications will work immediately with the hardware installed. The new concept of driver managed dynamic storage areas - no more areas specified RAM! And for users of older versions BDOS are also supported - just continuous working with the file system known BFS16 of BonnyDOS V1.xx while new data are conveniently stored in FAT16 or FAT32. OS not notice the change - taking time. *Software for people ...* 

\* Available in the first quarter of 2008. Although there are possible delays in the release date.