ROM-DOS 6.22

User's Guide

Datalight®

ROM-DOS

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Table of Contents

An Introduction To *ROM-DOS* 6.22

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Organization of This Manual

Following this **Introduction To ROM-DOS 6.22** section, are the two primary sections of this manual: the **Using ROM-DOS 6.22** and the **ROM-DOS 6.22 Command Descriptions**. These are followed by a section of **Additional References**.

Using ROM-DOS 6.22 provides a general introduction to basic DOS concepts including subjects such as file names and tree-structured subdirectories. This section will be particularly helpful for first-time DOS users.

ROM-DOS 6.22 Command Descriptions provides a complete stand-alone entry for each command available in ROM-DOS.

Additional References includes Error Message explanations and other helpful information.

Conventions Used in This Manual

Character Notation

When necessary, individual characters or strings will be surrounded by parenthesis to set them apart from surrounding text. For example, you might see a double quote indicated like this (").

Special function keys are marked with left arrow and right arrow brackets like this: <Shift>.

Simultaneous Keys

Often, one key must be held down while another key is pressed. In such cases, the keys are shown side-by-side like this: <Ctrl><Break>. In this example, the <Ctrl> key is pressed first and held down while the <Break> key is pressed.

If three keys are shown together, the first two in the row are held down while the third is pressed. A common example of this is the reboot keystroke sequence <Ctrl><Alt><Del>. <Ctrl> and <Alt> are held down while <Del> is pressed.

Lines Which You Type

Examples of lines of type, which you are to enter, are shown indented and in a different typeface, like this:

```
DEL MYLETTER.DOC
```

Syntax descriptions and other examples in this manual display either literal terms or representative terms.

Literal Terms

Character strings, which are to be typed in exactly as written, are shown in all capital letters in the typeface shown here:

```
DEL
```

Representative Terms

Expressions, which are not to be typed in literally but rather represent information which you supply, are indicated with italicized lower case letters. For example, where you see the word *filename*, you will type in your own file specification information. So, as an illustration, if the instruction says

DEL *filename*

you might actually type

```
DEL MYLETTER.DOC
```

All such italicized terms are fully explained in this manual.

Command Line Options

Anything shown on a command line between left and right square brackets ([ ]) is an optional entry. For example, in this line:

```
PAUSE [message]
```

the *message* portion may be left off and the command would still be complete.

Sometimes there may be a limited set of mutually-exclusive options from which to choose. In such cases, the possible choices are given, separated by a vertical bar (|). For example:

```
BREAK [ON|OFF]
```

In this case, if you elect to include anything more than the word BREAK, it must be either the word ON or the word OFF.

<Enter> Keystroke Assumed

One keystroke is not noted, but is assumed, at the end of each command described. The <Enter> key must be pressed to tell ROM-DOS that you want it to accept your line of input. Any exception to this rule will be made clear in this documentation.

To illustrate, rather than showing the line:

```
DIR <Enter>
```

we simply list the command:

```
DIR
```

with the understanding that you will type DIR and then press <Enter> to execute the command.

Using

ROM-DOS 6.22

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About DOS and ROM-DOS

What is DOS?

DOS is an acronym for Disk Operating System. Several brands of DOS' have been created by various companies. In all cases, DOS -- whether PC-DOS, MS-DOS, or ROM-DOS--is a set of commands or code which tells the computer how to process information.

DOS runs programs, manages files, controls information processing, directs input and output, and performs many other related functions.

What is ROM-DOS?

ROM-DOS is an operating system which can be embedded in ROM (Read Only Memory) and can run entirely from within ROM. ROM-DOS is functionally equivalent to other brands of DOS', and can run programs that are executable under a standard DOS (which executes out of RAM). With ROM-DOS, the executable program may reside in RAM or may be placed in ROM along with ROM-DOS.

Files

What is a File?

A file is a defined set of related information which is electronically stored for use by your computer. Examples of files include: a word-processed letter, a database full of accounting information, or a computer program. ROM-DOS itself is actually a collection of files.

A file may be stored on a diskette (also called a floppy), on a hard drive, or may reside in computer memory (RAM or ROM).

Naming Your Files

In order to maintain control of interaction between various computer files, each file must have its own name. A file's name gives it an identity which is recognizable by both you and the computer.

The File Name

Computer file names in the DOS environment consist of two parts -- something like a first name and last name.

The first part can be thought of as the primary file name, herein also referred to as

name

You can give a file any name you wish. The name can range from 1 to 8 characters in length and can consist of any combination of letters, numbers, and the following symbols: the underscore(_), the caret (^), the dollar sign ($), the tilde (~), the exclamation point (!), the number sign (#), the percent sign (%), the ampersand (&), the hyphen (-), the braces ({ }), parenthesis (( )), the at sign (@), and the apostrophe (‘).

The Extension

The second part of the file name is called the extension, herein referred to as:

ext

The extension can be from 1 to 3 characters long, with the same character limitations as the *name*. An extension is not required.

When used together, the *name* and *ext* are separated by a period:

name.ext

This manual uses the term:

filename

to refer to the *name*, plus the *ext* if there is one.

Extensions can be helpful in identifying the type of file. Commonly used filename extensions include DOC for documents, DAT for data, and TXT for text files.

You may use any extension you choose. However, certain extensions have a special meaning to ROM-DOS and should only be used when appropriate. These include: .COM, .EXE, and .BAT. .EXE is used for executable files. The .COM extension is for command files. The .BAT extension is used for DOS instruction batch files.

Some application programs, such as word processors, may use or require particular file extensions for output or input files. It is best to follow the application instructions regarding proper filename extensions for that particular program.

Examples

A file could be named simply:

```
LETTER1
```

The same filename could have an extension included:

```
LETTER1.DOC
```

-or-

```
LETTER.XYZ
```

An executable program might have the filename:

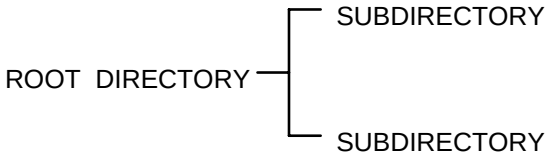
```
RUNME.EXE
```

It is possible to have several files with the same file name but different extensions. ROM-DOS will search for and access the file extensions in the precedence order of .COM first, .EXE second, and .BAT third, then all others. For example, you could have an executable file called MYPROG.EXE and a batch file call MYPROG.BAT. If you typed MYPROG at the command line, the file MYPROG.EXE would be executed. If you wanted to execute the batch file MYPROG.BAT, you would have to specify the .BAT extension on the command line.

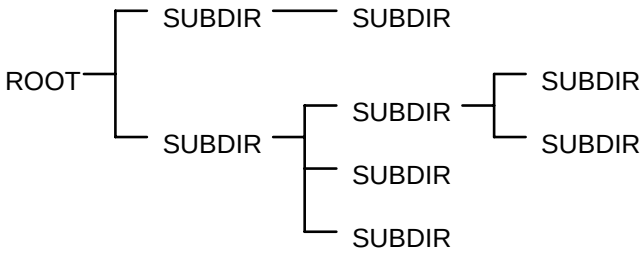
Tree-Structured Directory System

DOS stores files in what is called a tree-structured filing system. The different "places" where files are stored can be thought of as branches on a tree. Each branch, actually called a subdirectory, is either attached to the "root" directory or is attached to another branch.

This concept is often represented with a sideways tree when shown in graphic form. Here is a simple two-branch, “tree-structured” system of subdirectories:



The system may be as simple or complicated as necessary. Here is a more complex system ("ROOT" and "SUBDIR" are used to save space).



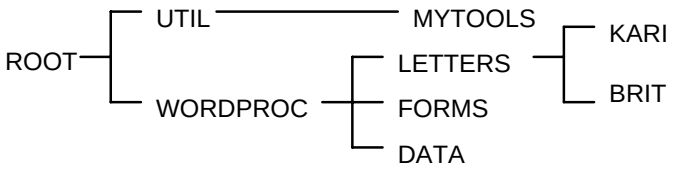
Each subdirectory has only one higher-level directory from which it stems. This single directory is called its "parent."

Also note that each one of the subdirectories within this system can contain files. A subdirectory with no files stored in it is said to be "empty."

Naming Subdirectories

Subdirectories are created by you, the user. You can create any structure you choose (within the tree system) giving each subdirectory the name of your choice. The naming of subdirectories is similar to the naming of files; there is an 8-character limit with the same character choice limitations as for file names (letters, numbers, and symbols). A subdirectory name can have an extension. Commonly the extension is not used so that subdirectory names look visually different from filenames.

Here is an example of the same directory structure used in the previous section; this time some actual subdirectory names are used:



Subdirectories are created and deleted with the MKDIR and RMDIR commands. For more information on creating and deleting subdirectories, see the MKDIR and RMDIR sections in this manual.

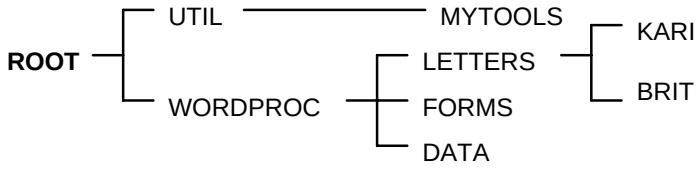
Moving Around the Tree

At any one time, ROM-DOS considers you to be working from one particular point in the tree-structured filing system. This one particular point, or "place" is called the default directory. When the computer is first powered on, operations begin in the root directory. Thereafter, you can change the default directory to be any subdirectory on your system. It is also possible to have the computer automatically move to a different directory upon system startup by adding commands into your AUTOEXEC.BAT file.

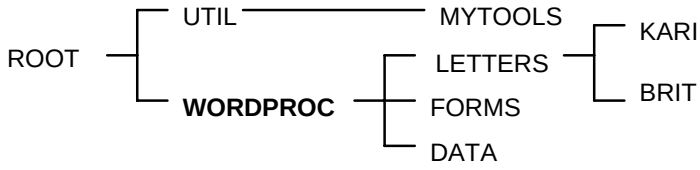
You move between directories (changing your default directory with each move) with the CHDIR (Change Directory) command. A complete explanation of CHDIR and its use can be found in the command description section of this manual. For the purpose of conveying a concept here, we will refer to changing directories without explaining specific command usage.

Example

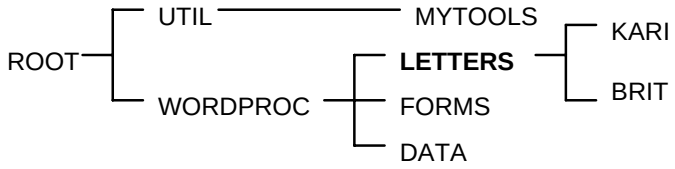
Let's use a piece of the example from the previous section. Boldface type marks the ROOT directory as our default directory upon starting up the system.



From the ROOT, we can move, or change directories, to the subdirectory called WORDPROC. (WORDPROC is now the default directory).



Another move could take us to LETTERS.



By using the CHDIR command it is also possible to move directly to any directory, without having to step through neighboring directories. We could have gone straight to the LETTERS subdirectory from the ROOT by specifying complete directions for reaching the desired directory.

The Path

The term "path" refers to the set of subdirectories between the root and the default directory. In the tree analogy this is a sequence of the names of the branches leading to the branch you are currently on. The names in the path are separated by a backslash (\).

In the preceding example, the path we ended with was called \WORDPROC\LETTERS. Note that the word "ROOT" doesn't appear in the path. To include it is unnecessary since all paths must begin with the root. The “ROOT” is represented by the first backslash (\) in the path.

By use of the path description we can immediately know where the default directory sits in relation to its parent, and its parent . . . and so on back to the root.

The Drive Specification

Since ROM-DOS can store and retrieve information from more than one disk drive, it is necessary to understand how drives are identified.

Disk drives are given letter names.

By convention, floppy disk drives are identified as drive A and drive B. Even on systems which have only one physical floppy drive, ROM-DOS can treat the one drive as either A or B.

The hard drive, if your system has one, is identified as drive C. Hard drives can be partitioned, or divided, into smaller sections. Disks exceeding 4 gigabytes in sizes must be partitioned into two or more areas, with a maximum size of 4 gigabytes per partition. Each partition of a drive will be identified by a separate drive letter. The first partition will be drive C, the next drive D, and so on. The highest available drive identifier is the letter Z.

Standard notation for the drive name in this manual is a small (d) and colon, italicized:

d:

To refer to the “C” drive, you would type:

c:

Note: The identifier letter may be entered in upper or lower case.

Complete File Identification

The full identity of each computer file includes:

1. The name of the drive on which the file is stored.

2. The "path" of subdirectories to the location of the file in the tree-structure system.

3. The filename, including extension, if any.

In the standard notation of this manual, the full file specification may be indicated as follows:

d:\path\filename.ext

Note that just as the names of subdirectories are separated by a backslash (\) in the path specification, a backslash is also used between the drive name and path and between the path and the filename.

To simplify notation the full file specification may simply be called:

filespec

Using Wildcard Characters

Wildcard characters can be used to reference groups of files without typing the complete filename for each file. A wildcard character can be used as a substitute for all or part of a filename or extension. Performing a task for a large group of files can be simplified by the use of wildcards.

The two wildcard characters are the asterisk (*), and the question mark(?). The asterisk represents an entire name or a group of characters found within a name. The question mark represents a single character.

Examples

```
DIR C:\TEST\*.exe
```

With the above command, DIR will output a list of all of the files in the \TEST directory that have the extension .EXE.

If you are searching for a file and only know that it starts with a particular letter, for example “D”, you could type:

```
DIR D*.*
```

This command would display all of the files in the current default directory that start with the letter “D” and have any extension.

If you wanted to copy a group of files so that you had reserve copies, you could copy an entire group with one simple command:

```
COPY C:\*.BAT B:\*.BAK
```

This command copies all of the files with a .BAT extension from the C: drive root directory onto the B: drive. The files on the B: drive will all have a new extension of .BAK.

The question mark will only substitute for a single character at a time. If you wanted to locate all of the files that had four character file names you could type:

```
DIR B:\????.*
```

With the above command, DIR would display a list of all of the files on the B: drive that have exactly four characters in the filename and any extension.

The question mark can also be used to match a single specific character in a filename:

```
REN TEST?.BAT TEST?.OLD
```

This command will rename all files that have “TEST” as the first four characters in the filename, followed by any single character and the .BAT extension. The files will retain the same “TEST?” filename, but will have a new extension, .OLD.

The System Prompt

After execution of each operation, ROM-DOS comes to a stable state of waiting for your next instruction. In this state, you will see the **system prompt** on your monitor.

By using the PROMPT command you can specify the information to be displayed in the prompt. Until you define the prompt otherwise, it includes only the letter name of the default disk drive and a right arrow (>). For example:

```
A>
```

One common choice for prompt line configuration is to include the default path in addition to the drive name and right arrow (>). After customization, your prompt could look like this:

```
A:\UTIL>
```

For more information, see PROMPT in the Command Description section of this manual.

The Command Line

Your keystrokes begin just to the right of the system prompt. The line of instruction you type at the prompt is called the **command line**.

Editing the Command Line

The characters of the last command entered on the command line are stored in a command line "buffer" and can be edited for re-entry.

Here are the keys you can use to edit the command line:

<F1>	Displays one character at a time from the command line buffer. The right-pointing direction key works in the same way.
<F3>	Displays entire contents of command buffer
<Ins>	Allows insertion of one or more characters in the command line.
<Del>	Allows deletion of a character from the command line buffer.

<Esc>	Cancels the current command line and returns you to a new, empty line.
<Backspace>	Deletes to the left. Allows "backing up" on the command line. The left-pointing direction key works in the same way.

Examples of Command Line Editing

Suppose you intended to enter the CHKDSK command, but accidentally entered:

```
CHKDSI
```

You would receive a message indicating that CHKDSI is a nonexistent command or filename. Rather than re-keying in the entire string, you could press <F3> which would re-display the entire string you had just entered:

```
CHKDSI_
```

Also note that at this point your cursor would be located just after the last character displayed, indicated here with the underscore (_). By pressing <Backspace> you would remove the letter (I) from the end of the line thus putting the cursor in its place:

```
CHKDS_
```

At this point you can type the correct character:

```
CHKDSK_
```

and press enter to execute the command.

As another example, suppose you enter a long string:

```
COP DATA1.DAT A:DATA1BAK.DAT
```

The command does not work. You realize that the first word, COPY, is missing a letter. To correct the command line, press <F1> three times to display the first three characters you had just entered:

```
COP_
```

Now press <Ins> followed by a letter (Y).

```
COPY_
```

You can now fill in the rest of the command by simply pressing <F3> once and you will see this:

```
COPY DATA1.DAT A:DATA1BAK.DAT_
```

which is the complete correct command, ready to be executed with the enter key.

Redirecting Input and Output

There are certain conventions indicating where each ROM-DOS function receives input and sends output. However, the input and output can also be redirected. This is accomplished with the right arrow (>) and the left arrow (<).

Input Redirection

The syntax for changing standard input source from keyboard input to file input is:

<filespec

When this is added at the end of the command line, ROM-DOS will begin to receive its instructions from the named file.

Caution: If input redirection is used and the input file is incomplete, the system will "hang" waiting for instructions from the input file and will not accept keystroke information from the keyboard (except for <Ctrl><Alt><Del> to reboot).

Output Redirection

The syntax for redirecting output to a file is:

>*filespec*

When this is added to the end of the command line, standard output will be temporarily directed to the file named in the *filespec*. If the named file already exists, its contents will be replaced with the ROM-DOS function's output. Otherwise, a new file will be created to hold the output. Output can also be redirected to a device such as PRN (the printer).

To append output to the receiving file, rather than replace its contents, the double right arrow (>>) is used:

>>*filespec*

This will add the ROM-DOS function's output after the existing contents of the named file. If the named file does not exist, ROM-DOS will create the file.

Example

Suppose you wanted to save a list of the current directory into a file. Normally, the command:

```
DIR
```

displays the directory list on your monitor. You can, however, redirect this command's output to a file by entering:

```
DIR > MYDIR.TXT
```

This will redirect the output of the DIR command into your file called MYDIR.TXT. Note that the redirection only holds for this one occurrence; subsequent running of DIR would return to normal on-screen listing.

 Batch Files

A batch file is a standard text file containing a list of commands which can be submitted to ROM-DOS for automatic sequential execution. Use of batch files helps you avoid unnecessary retyping of command sequences which are commonly repeated, complex, or difficult to remember.

The ROM-DOS command processor provides full batch file processing, compatible with standard DOS version 6.22. Batch files can include internal DOS commands, external DOS commands, special batch subcommands, names of other executable files or programs, or even the names of other batch files to which control will be transferred.

Batch File Names

When naming batch files, use the .BAT extension on the filename. This extension tells ROM-DOS to execute the batch file when its name is entered from the command line. The name of the batch file cannot

be the name of other internal commands (For example, COPY.BAT is an invalid batch file name).

To execute the batch file, type the file name on the command line. You need not include the .BAT extension. When you press <Enter> batch file execution begins.

Creating a Batch File

A batch file can be created using any word processor or text editor that will save output as unformatted text (pure ASCII). Batch files can also be created by typing directly from the keyboard into a file. This is done with the command:

```
COPY CON filename.BAT
```

Which tells ROM-DOS to copy the output from the console (keyboard) to the specified file. Once you have entered the above command you may begin to type in the contents of your batch file.

At the completion of each line press <Enter>. As you type each line, you can make corrections by using <Backspace> and retyping. If an incorrect line has been entered, or if you wish to discontinue for any other reason, press <Ctrl><C>. You will be returned to the command line and your work will not be saved.

When you have finished entering all the lines in your batch file, press <Ctrl><Z> and then <Enter>, which will complete the creation of the file and return you to the command line prompt.

Batch File Parameters

A batch file may use parameters placed on the command line. These parameters will be inserted as command line arguments for commands or instructions within the batch file prior to their execution.

A batch file called ARCHIVE could be set up as follows:

```
PRINT %1
COPY %1 \ARCHIVE\*.*
DEL %1
```

The batch file could be executed by entering:

```
ARCHIVE THISFILE.DAT
```

The parameter %1 takes on the name THISFILE.DAT and the batch file actually executes the following:

```
PRINT THISFILE.DAT
COPY THISFILE.DAT \ARCHIVE\*.*
DEL THISFILE.DAT
```

Special Batch Subcommands

In addition to standard ROM-DOS commands that can be run in batch files, there are also special batch subcommands, for use within batch files. See CALL, ECHO, FOR, GOTO, IF, PAUSE, REM, and SHIFT in the Command Description section.

Example

Suppose that you often run a program called MY_INFO1 followed by a program called MY_INFO2, each of which displays a screen full of information. After running each of these programs you always clear the screen before proceeding. Your normal keystroke sequence is:

```
MY_INFO1 <Enter>
CLS <Enter>
MY_INFO2 <Enter>
CLS <Enter>
```

You could create a batch file called `INFO.BAT` containing these lines:

```
MY_INFO1
PAUSE
CLS
MY_INFO2
PAUSE
CLS
```

Which is executed by simply typing:

```
INFO <Enter>
```

After execution of MY_INFO1, the system will pause. After you press any key, it will clear the screen and proceed to execute MY_INFO2, after which it will pause again. When you press a key, it will clear the screen and return control to you at the prompt line.

Bypassing AUTOEXEC.BAT Commands

ROM-DOS offers the ability to bypass some or all of the commands in your AUTOEXEC.BAT and CONFIG.SYS files during bootup. This is a useful feature for tracking system problems that may be related to one or more commands in either of these two files. For a complete description of this feature, please refer to "Bypassing CONFIG.SYS and AUTOEXEC.BAT Commands" in the section describing configuring ROM-DOS with CONFIG.SYS.

File Storage

The sections that follow provide a basic introduction to computer memory and disk drives.

Basic Terminology

Computer files are stored either in the computer's internal memory (RAM and ROM) or on magnetic media, typically disks (diskettes and hard drives).

Regardless of where it resides, computer information is stored in **bytes**. A byte can be thought of as the amount of space it takes to store one character. Amounts of computer memory are measured in three terms:

KB stands for Kilobyte. One kilobyte is thought of as one thousand bytes, although it is actually 1024 bytes in computer memory.

MB stands for Megabyte. One megabyte is thought of as one million bytes; the real number is 1,048,576 bytes.

GB stands for Gigabyte. One gigabyte is thought of as one billion bytes; the real number is 1,073,741,824 bytes.

Computer Memory: RAM and ROM

There are two basic types of internal memory in the computer: RAM and ROM.

RAM

RAM stands for Random Access Memory. This is the "working memory" in the system. Random access memory can be written to, read from, erased, rewritten, and so on. RAM is an electronic workspace for your computer's use during operation.

RAM is also called volatile memory. Its storage ability is temporary in nature, only holding information while the system's power is on. If the power is turned off or interrupted for any reason, everything stored in RAM is lost.

Within limits, the amount of RAM in a system can be changed. Typically, systems have 512KB, 640KB or 1MB of RAM. Greater amounts of RAM are also possible. In desktop systems 4 MB and 8 MB are common.

ROM

ROM stands for Read Only Memory. ROM is far more permanent in nature than RAM; information is electronically "burned" into a ROM chip before the chip is installed in the computer. Information stored in ROM remains intact whether the system power is on or off.

Disks and Disk Drives

Computer disks can be classified into two basic groups: Diskettes (the portable 5.25" "floppies" and 3.5" disks) and hard drives (also called fixed drives).

Diskettes

The physical storage media of a diskette is a circular disk-shaped piece of magnetic material much like audio recording tape. Most diskettes use both sides of this media, however, some early diskettes utilized only one side.

Information is stored on disks in concentric spirals, called tracks. These are subdivided into sectors. Each side of a 5.25" floppy for example could contain 40 tracks, each divided into 9 sectors. Standard diskette storage capacities range from about 180KB to 1.44MB, but the range is becoming more voluninous with technology and time.

The computer accesses information on the diskette using the read/write heads in what is called a floppy drive: or 3.5" drive, or 5.25" drive -- according to the type of disk.

Hard Drives

Hard drives work much like diskettes, but are fixed in the computer chassis and have a much higher storage capacity -- hundreds of megabytes. 250 MB to 500 MB hard drives are not uncommon. ROM-DOS is capable of utilizing hard drives of up to 4GB. Larger drives need to be partitioned into two or more drives.

Other Drives

Portions of RAM and ROM can be made to behave like disk drives, complete with tree-structured directories.

RAM Disk

When a "disk drive" is created in RAM it is called a virtual drive. Virtual drives can be read from and written to in the same manner as physical disk media. However, if system power is interrupted, all information on such a drive is lost.

ROM Disks

ROM drives are different from RAM drives in that they are written to only once -- upon original creation. Thereafter, they can only be read from, much like a write-protected floppy disk. If you attempt to write to a ROM drive the system will display an error message.

Configuring ROM-DOS (CONFIG.SYS)

Certain standard settings for your system's operation can be stored in a file called CONFIG.SYS. You may create or edit your own CONFIG.SYS file using a word processor or the COPY CON command. (See **Creating a Batch File)**.

ROM-DOS offers three levels of CONFIG.SYS processing, DOS 3.31 compatible, DOS 5.0 compatible, and DOS 6.22 compatible. The level of processing available is determined when ROM-DOS is configured.

DOS 3.31 compatible commands include: BREAK, BUFFERS, COUNTRY, DEVICE, FCBS, FILES, LASTDRIVE, NEWFILE, REM, and SHELL.

DOS 5.0 level processing includes all of the commands available with DOS 3.31 plus DOS, INSTALL, and STACKS.

DOS 6.22 commands include the commands from both the DOS 3.31 and 5.0 levels plus the addition of INCLUDE, MENUCOLOR, MENUDEFAULT, MENUITEM, NUMLOCK, SET, SUBMENU, and SWITCHES.

The CONFIG.SYS file must be placed in the root directory of the drive which is used for system startup or "bootup". If a CONFIG.SYS file is not found, the listed default values will be used for the following listed commands:

```
BREAK = OFF
BUFFERS = 2
COUNTRY = 001
FCBS = 4
FILES = 8
LASTDRIVE = E
NUMLOCK = ON
SHELL = COMMAND.COM /P /E:128
STACKS = 0,0
```

Examples

A typical `CONFIG.SYS` file might look like this:

```
DEVICE = RAMDISK.SYS 64
BREAK = ON
FILES = 15
BUFFERS = 15
```

Using Multiple Configurations

Your CONFIG.SYS file can be used to define multiple system configurations. This is handy when several people share a computer and require a different working environment. It is also useful for booting your own computer using different device drivers, paths, or settings depending on the intended computer tasks.

To define multiple configurations within the CONFIG.SYS file, you first will have to define a startup menu. Each menu item will represent a different system configuration option. Then, for each item on the menu, a configuration block will be defined. Each configuration block contains the specific commands to be implemented as the system completes its bootup.

Configuration Blocks

The menu item definition and all configuration blocks are marked with a block header. A block header is a descriptive label enclosed in square brackets ([]). The start of the menu items must be marked with the block header "[MENU]". Each configuration block may have a unique label of your choice. This label can be up to 70 characters long and can contain most printable characters: spaces, backslashes (\), forward slashes (/), commas, semicolons (;),and equal signs(=). Square brackets ([]) cannot be used in block names.

The menu block (or submenu block) can contain only the following commands (A full description for each command can be found in the next section):

Menuitem
Menudefault
Menucolor
Submenu
Numlock

Although numlock can be used outside of a menu/submenu block, it is useful in the menu block to enable the use of the keypad for menu choice selections.

A sample menu block might look as follows:

```
      [MENU]
menuitem=Research, Research and Development
      menuitem=WP, Word Processing
      menuitem=Games, Games
      menucolor=8,5
      menudefault=WP, 10
```

When the system boots, you will see the defined menu on your screen:

```
      ROM-DOS 6.22 Startup Menu

      1. Research and Development
      2. Word Processing
      3. Games

      Enter a choice: 1
```

Each menu item will have its own Configuration Block. Items that are common to all menu choices can be placed in a Configuration Block labeled "[COMMON]". All instructions in the common block will be carried out along with the specific instructions for any menu item. The "[COMMON]" block can also be placed at the end of your CONFIG.SYS file so that applications can append commands into this area as the application installs. You may have as many common blocks as you want. The instructions found in the common block(s) will be processed in the order they are listed in the CONFIG.SYS file.

When the CONFIG.SYS file is processed by ROM-DOS, first it will display the Startup menu that was defined in the "[MENU]" configuration block and then wait for your response. The choice made from the menu determines the configuration block whose commands will be implemented. After the menu selection, processing starts with any instructions in CONFIG.SYS prior to the menu block. Then, instructions in the selected configuration block (including instructions added in via an INCLUDE statement) and all common blocks are processed in the order they are listed in CONFIG.SYS. ROM-DOS will ignore the instructions in any nonselected configuration blocks or submenus.

To continue the above example, the configuration blocks might appear as follows:

```
[COMMON]
device=c:\romdos\himem.sys
dos=high
break=on

[RESEARCH]
files=20
buffers=50
device=vdisk.sys 128 /e

[WP]
files=10
buffers=10
lastdrive=m
device=c:\network\loadnet.sys

[GAMES]
include=wp
device=mouse.sys

[COMMON]
```

If choice number 3 were made, selecting “[GAMES]”, first the instructions in the “[COMMON]” configuration block would be processed, followed by the instructions in the “[GAMES]” configuration block. The "[GAMES]" section makes use of the INCLUDE command. All of the instructions provided for the "WP" menu choice also apply to "[GAMES]". If any instructions are in the final “[COMMON]” configuration block, they would be processed last.

Extending Menu Items To AUTOEXEC.BAT

The defined name of the menu item you have chosen will become the value of the Environment Variable “CONFIG”. For example, if you choose choice number 3, “GAMES”, from the preceding menu, the variable “CONFIG” would be set to "GAMES". The “CONFIG” environment variable can then be used in your AUTOEXEC.BAT file to further customize the startup sequence. This environment variable would be referenced by "%CONFIG%" in your AUTOEXEC.BAT file. For more on Batch Files, please refer to preceding sections.

An example of an AUTOEXEC.BAT file that continues the customization process from the preceding MENU, could look like this:

```
prompt $p$g
set temp=c:\mystuff\temp
c:\virus\scanit.com

rem Go to section that matches menu
rem choice made in CONFIG.SYS

goto %config%

:RESEARCH
path
c:\bin;c:\ROMDOS;c:\ROMDOS\utils;c:\BORLANDC
cd \ROMDOS
rem Skip other sections and move to end
goto end

:WP
path c:\bin;c:\ROMDOS;c:\wp
wp
rem Skip next section and move to end
goto end
```

(Example Continued)

```
:GAMES
path c:\bin;c:\ROMDOS;c:\gamedir
cd \gamedir
gamelist.bat
goto end

:end
```

Bypassing CONFIG.SYS And AUTOEXEC.BAT Commands

ROM-DOS offers the ability to bypass some or all of the commands in your AUTOEXEC.BAT and CONFIG.SYS files during bootup. This is a useful feature for tracking system problems that may be related to one or more commands in either of these two files.

To bypass the instructions in both your AUTOEXEC.BAT and CONFIG.SYS files, follow these steps:

1. Turn on, or re-start your computer if it is already on, and wait for the following screen message -

   ```
   Starting ROM-DOS...
   ```

2. As the above message is being displayed, press the F5 key or hold down the SHIFT key. The following message will be displayed -

   ```
   ROM-DOS is bypassing your CONFIG.SYS and
   AUTOEXEC.BAT files.
   ```

Your system will then continue the boot process using the basic default configurations. You will most likely notice differences in the way your system behaves. For instance, installable device drivers and memory device drivers will not be loaded, and system prompts and path will

have default values. If COMMAND.COM is not in the root directory, ROM-DOS may not be able to locate it without assistance.

If you suspect that only one or two CONFIG.SYS commands are causing problems in your system, ROM-DOS can prompt for a confirmation before running each individual command. For this option, follow these steps:

1. Turn on, or re-start your computer by pressing the <Ctrl><Alt>and <Del> keys, if it is already on and wait for the following screen message -

   ```
   Starting ROM-DOS...
   ```

2. While the above message is still displayed, press the F8 key. The following message will be displayed -

   ```
   ROM-DOS will prompt you to confirm each
   CONFIG.SYS command.
   ```

   For each command, ROM-DOS will display the command followed by a Yes/No prompt -

   ```
   FILES=40 [Y,N]?
   ```

   To carry out the FILES=40 instruction, press (Y) for Yes. To bypass the instruction select (N) for No. ROM-DOS will execute the command or bypass it according to your instruction and then move on to the next command in the CONFIG.SYS file. To bypass the confirmation prompt for the remaining instructions in the CONFIG.SYS file and skip the AUTOEXEC.BAT file, you can press ESC at any [Y,N]? prompt. To bypass all the remaining commands in both startup files, press the F5 key at the [Y,N]? prompt.

3. When ROM-DOS finished all of the commands in the CONFIG.SYS file, you will be prompted for processing the AUTOEXEC.BAT file.

```
Process AUTOEXEC.BAT [Y,N]?
```

If you select Yes (Y), all of the commands in AUTOEXEC.BAT will be processed. You will not be prompted for each instruction. If you select No (N), the AUTOEXEC.BAT file will be completely bypassed.

You can also be prompted for a single CONFIG.SYS command by using the question mark (?) prior to the equals sign (=) in the command line. Refer to the next section for a full description of the (?) command.

CONFIG.SYS Command Descriptions

For a complete description of each CONFIG.SYS command please refer to the "**ROM-DOS 6.22 Command Descriptions**" section.

Installable Device Drivers

The following device drivers can be installed using the CONFIG.SYS device command. In addition to the following device drivers, you can use device drivers that have been designed for DOS and included with your hardware and custom made special purpose device drivers.

DISPLAY

Purpose

DISPLAY is a device driver that allows you to view international letters and symbols (code pages) on EGA and VGA displays.

Syntax

`device =[`*d:*`][`*path*`]DISPLAY.SYS` *codepage*`[`*fontfilespec*`]`

Remarks

DISPLAY immediately re-configures your video adapter to display characters from the selected code page instead of those characters built into the hardware.

The *codepage* argument specifies the code page you wish to display. ROM-DOS supports code pages 437, 850, 852, 860, 863, and 865.

The *fontfilespec* argument, when included, tells ROM-DOS where to find the EGA.CPI font file. If EGA.CPI is in the same directory as CONFIG.SYS, this can be omitted.

For more information on DISPLAY, see the section on Configuring ROM-DOS for International Use.

Examples

```
device=DISPLAY.SYS 850
device=C:\DOS\DISPLAY.SYS 850 C:\DOS\EGA.CPI
```

Both of these examples configure the video adapter to display code page 850. The second example would be used if the DISPLAY.SYS and EGA.CPI files were in the C:\DOS directory instead of the same directory as CONFIG.SYS.

EMM386

Overview

The EMM386 device driver enables expanded memory support for systems capable of supporting expanded memory, typically 386 and higher CPU's.

Syntax

```
device=[d:] [path] HIMEM.SYS
device=[d:] [path] EMM386.EXE {xxxx-yyyy}
[Frame=seg[,memK]]

-or-

install=[d:] [path] EMM386.EXE {xxxx-yyyy}
[Frame=seg[,memK]]

-or-

[d:] [path] EMM386.EXE {xxxx-yyyy}
[Frame=seg[,memK]}
```

Remarks

The HIMEM.SYS driver must be loaded for the EMM386 utility to function properly.

Datalight's EMM386 driver is a subset of a typical DOS EMM Manager. No support is provided for VCPI. EMS and Upper Memory Block (UMB) support is included. Emm386 loads itself into the UMB area (between 640K and 1MB) if the first UMB range has enough room (about 8K required). This frees up all but 336 bytes of conventional RAM for the EMM386 driver.

This utility is limited to use with ROM-DOS 6.22 and greater versions. It will not function properly with older versions of ROM-DOS or other

manufacturer's operating systems. It will work with some older versions of ROM-DOS as an EMS manager only with UMB support.

Emm386 can be installed from CONFIG.SYS using a device statement, from AUTOEXEC.BAT with an install statement, or from the command line. In all cases, HIMEM.SYS must be loaded in the CONFIG.SYS file.

The *xxxx-yyyy* syntax option defines a range of memory to "fill-in" with extended memory. Up to four ranges can be specified. The range can be specified as an exact range, for example D000 to DFFF or as the starting and ending marks for the range, D000 to E000. In either of these examples, 64K has been defined.

The *Frame* argument defines the starting segment for four 16K "pages" t hat can be mapped in and out at will. The optional *memK* argument specifies how much memory to fill with 16K pages.

The int 67H calls that are supported by this EMM386 memory manager are as follows:

40H - Get Manager Status
41H - Get Page Frame Segment
42H - Get Number of Pages
43H - Get Handle and Allocate Memory
44H - Map Memory
45H - Release Handle and Memory
46H - Get EMM Version
4CH - Get Pages Owned by Handle
4DH - Get Pages for All Handles
5300H - Get Handle Name.

Examples

```
Device = EMM386.EXE C800-F000
```

This example will map RAM from extended memory into the address C800:0 to just under F000:0 and define an Upper Memory Block region there. The range could also have been specified as C800-EFFF.

```
Install = EMM386.EXE C800-D800 F000-F800
FRAME = E000,1024
```

The above example will map in RAM from extended memory into C800-D7FF and into F000-F7FF and define Upper Memory Block Regions there. Also, EMS support will be allowed with four 16K pages starting at E000:0 with 1024K (1 Meg) worth of 16K pages.

HIMEM

Overview

The HIMEM.SYS device driver manages extended memory and the High Memory Area (HMA) in a 286, 386, or greater or PS/2 system. HIMEM prevents programs from simultaneously using the same area of memory for two different purposes. HIMEM supports the eXtended Memory Specification (XMS) 2.0. HIMEM is installed as a device driver in CONFIG.SYS.

Syntax

```
device = [d:] [path] HIMEM.SYS [/machine:n]
```

Remarks

The HIMEM driver can be used to allow ROM-DOS to run in High Memory.

HIMEM supports a default of 32 handles.

HIMEM should not be used with older versions of Datalight VDISK. Current versions of VDISK will use XMS memory if it is available.

HIMEM will now recognize PS/2 style machines A20 line control. HIMEM determines whether to use the PS/2 A20 control or the AT A20 control method automatically by calling Int 15h, function C0h (get system configuration).

The automatic detection can be overridden with the "/Machine:*n*" command line switch. Replacing the "*n*" with 1 designates PC AT A20 control method. Replacing the "*n*" with 2 designates the PS/2 method.

Examples

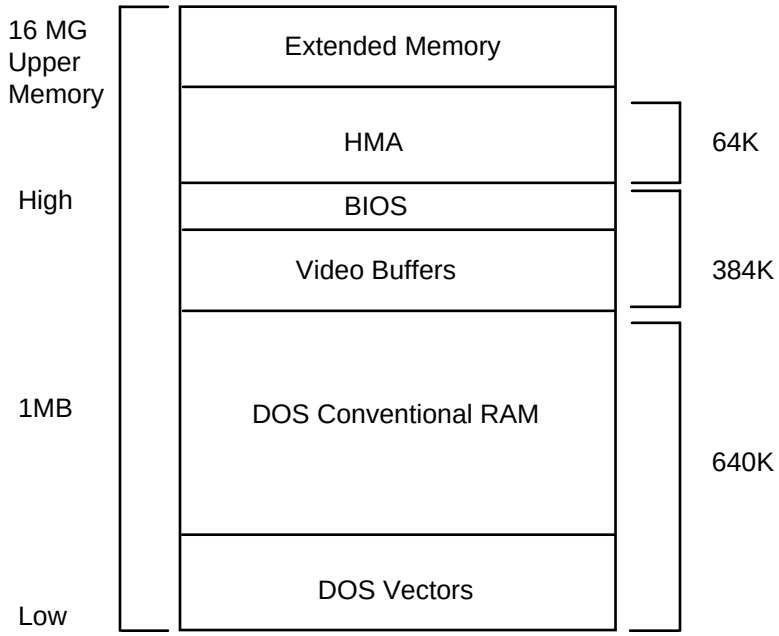
```
Device = HIMEM.SYS
```

The above command installs the XMS device driver. Once this driver is installed, accessing the HMA and Extended Memory (XMS) memory areas are legal. The Extended Memory area can contain up to 2 Gigabytes of memory. Typical systems have 4, 8, or 16 MB's XMS memory installed.

```
Device = HIMEM.SYS /machine:1
```

This example forces the use of the AT style A20 line control.

The HIMEM driver will fail to load if either the machine does not have memory above the 1 Megabyte boundary or the BIOS does not provide support for it. It will also fail to load if another XMS manager has been installed previously.



HIMEM Memory

HMA

Overview

The HMA.SYS device driver provides support for accessing special memory in 286, 386, and 486 computers. ROM-DOS can be loaded in this special memory freeing more of the standard 640K DOS memory for applications.

Syntax

```
device = [d:] [path] HMA.SYS
```

Remarks

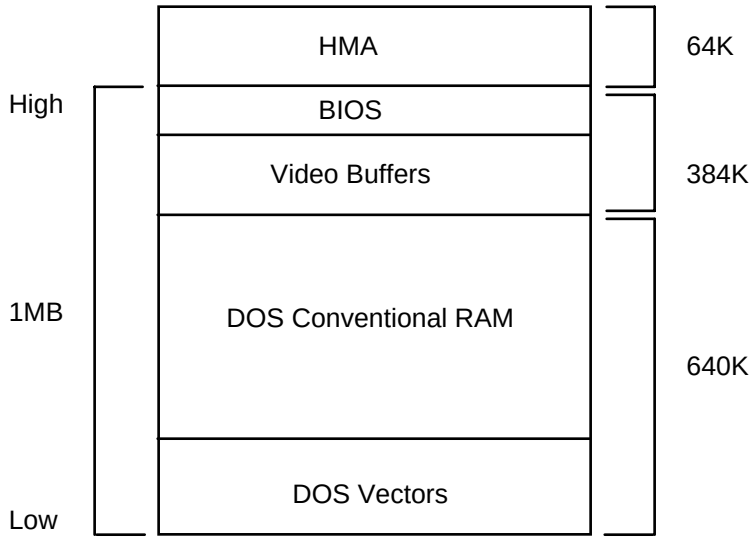
HMA.SYS is a limited memory driver. It only provides support for the HMA portion of the eXpanded Memory System (XMS) memory driver.

The High Memory Area or HMA provides an additional 64K bytes of memory that is addressable beyond the standard 1 Megabyte of the 8086.

Examples

```
Device = HMA.SYS
```

The above command installs the HMA device driver. Once this driver is installed, accessing the HMA memory area is legal.
The HMA driver will fail to load if either the machine does not have enough memory for HMA or provide support for it. It will also fail to load if another XMS manager has been installed previously.



HMA Memory

POWER.EXE

Purpose

POWER.EXE conserves power on a system that has APM (Advanced Power Managemtnt) by shutting down various subsystems (screen, disk drives, etc.) which are not being used. POWER.EXE can be used in an INSTALL command in CONFIG.SYS, in AUTOEXEC.BAT or on the command line.

Syntax

From command line or from AUTOEXEC.BAT:

```
[path]power[/C#][/D#][/P#][/S#][/H]
```

From CONFIG.SYS:

```
Install=[path]power[/C#][/D#][/P#][/S#][/H]
```

Remarks

The APM functions required to be supported by the system BIOS for POWER.EXE to work are:

Function	Description
00	APM Installed
01	Connect
04	Disconnect
05	CPU idle
06	CPU busy
07	Set Power State
08	Get PM Event

For each device, you can specify the length of time that the device must be inactive before it is turned off. If you specify a length of zero for a device, POWER.EXE will disable power management for that device.

The (#) argument for each command option defines the number of seconds the device can remain inactive before it will be powered down.

The /C# option allows you to set the inactive time for the COM Ports. The default is two seconds.

The /D# option allows you to set the inactive time for the Disks. The default is 30 seconds. Currently all disk drives are treated as a single device.

The /P# option sets the inactive time for printers. The default time is 2 seconds.

The /S# option set the inactive time for the screen. The default time is 9 seconds.

The /H option displays a user help screen.

Examples

```
POWER /S20 /C0 /P0
```

Run POWER, turning off the screen after 20 seconds of inactivity, never turning off the COM and printer ports, and use the default inactivity period for the disk drives (30 seconds).

VDISK

Purpose

VDISK is a device driver that allows you to use memory as a disk.

Syntax

`device = VDISK [`*size* `[`*secs*`[`*dirs*`]]] [/E]`

Remarks

VDISK allows you to partition some of your computers memory as a disk. This disk is called a RAM disk or Virtual Disk. A RAM disk is much faster than either a floppy or hard disk. The RAM drive can use either standard DOS program memory or extended memory (above 1 Megabyte) for the disk.

Any data on the VDISK is lost when the system power is turned off.

The *size* argument specifies the size of the VDISK in kilo (K) bytes. The default is 64K bytes. The memory selected will be allocated from the DOS memory pool, decreasing the amount of memory available for programs, unless the extended memory switch is used.

The *secs* argument specifies the sector size in bytes. The default is 512 bytes per sector. This value must be 128, 256, 512 or 1024. All other values are not valid and the default of 512 bytes will be used.

The *dirs* argument specifies the number of root directory entries. The default is 64 directory entries. There may be any number of root directory entries between 2 and 1024. If an odd number is given, it will be rounded up to the nearest multiple of 16, in order to fill the entire sector.

The /E argument causes VDISK to use extended memory (memory above the 1 Megabyte boundary) instead of DOS program memory for the disk.

Note: Interrupts are turned off during the transfer of data from extended memory to conventional memory.

The VDISK increases the resident size of DOS.

Examples

```
device = VDISK.SYS
```

The above example builds a 64K byte RAM disk in DOS memory.

```
device = C:\DOS\VDISK.SYS 220 /E
```

This example builds a 220K byte RAM disk in extended memory. The VDISK device driver is loaded from the C: drive and the \DOS directory. VDISK assumes the default 512 byte sector size, and 64 directory entries.

```
device = VDISK.SYS 45 128 18
```

The above example builds a 45K byte RAM disk in DOS memory. There will be 128 byte sectors and 18 root directory entries.

Environment Variables

A block of memory is reserved for the definition of certain strings used in the command processor environment -- called **environment variables**. These include the settings you may establish with the PATH and PROMPT commands as well as COMSPEC which is automatically defined by ROM-DOS at system startup.

Environment variables may be defined using the SET command which is explained in the **Command Description** section of this manual.

Configuring ROM-DOS for International Use

You can configure ROM-DOS to conform to local conventions for date, time and currency formats by giving the COUNTRY= command. You can also use the COUNTRY= command to select an international character set (known as a "code page") which will determine the sort order. Any code page can also be shown on EGA and VGA displays, by loading DISPLAY.SYS. And you can re-map a keyboard to provide support for various languages and layouts by running KEYB.COM.

ROM-DOS uses a country code to identify which country's conventions are to be used. In most cases, the country code is the same as the international long distance telephone dialing code.

A code page is a set of 256 symbols, including letters, digits, punctuation, and graphic characters. The first 128 symbols in a code page are the standard ASCII characters, and are identical in all code pages. The last 128 symbols vary depending on the code page. These symbols include the graphic line-drawing characters, plus many international letters, currency symbols, and other assorted symbols. Each code page is identified by a number, such as 437.

A computer display has one hardware code page built into it. Typically this is code page 437, which is the standard US code page. CGA and Monochrome monitors can only display the hardware code page in text mode. EGA and VGA monitors display the hardware code page unless you load special software (like DISPLAY.SYS).

Each country supports a default code page, and an alternate code page. Here are the valid combinations:

Country	Code	Code Page	Alternative Code Page
Australia	061	437	850
Belgium	032	850	437
Brazil	055	850	437
Canadian-French	002	863	850
Czech Republic	042	852	850
Denmark	045	850	437
Finland	358	850	437
France	033	850	437
Germany	049	850	437
Hungary	036	852	850
Italy	039	850	437
Japan	081	932	---
Latin America	003	850	437
Netherlands	031	850	437
Norway	047	850	865
Poland	048	852	850
Portugal	351	850	860
Spain	034	850	437
Sweden	046	437	850
Switzerland	041	850	437
United Kingdom	044	437	850
United States	001	437	850
Yugoslavia	038	852	850

Changing Conventions

The command to instruct ROM-DOS to use German conventions would be:

```
COUNTRY=049
```

The COUNTRY= command requires COUNTRY.SYS to be present in the root directory of the boot drive.

Setting a country code affects:

Date and time formats
The symbol used to denote currency

If you only specify a country code, ROM-DOS uses the default code page for that country. You can choose the alternate code page by including it in the COUNTRY= command. This command would tell ROM-DOS to use German conventions, for things like date and time, but using code page 437 instead of 850, the default code page.

```
COUNTRY=049,437
```

Setting a system code page affects:

The sort order for alphabetizing,
The rules for converting international letters to upper case.

It is up to individual application programs to make use of these conventions. For example, DOS itself uses the date format for displaying directories, and for showing and getting the current date and time. Some programs may choose to ignore the country information and continue to display dates in a specific format.

Displaying Different Code Pages

To display a code page other than the hardware code page, you must load DISPLAY.SYS in CONFIG.SYS. The following command would set the display to show code page 850, assuming both the

DISPLAY.SYS driver and the EGA.CPI font file were located in the C:\DOS directory:

```
DEVICE=C:\DOS\DISPLAY.SYS 850 C:\DOS\EGA.CPI
```

The only available font file is named EGA.CPI. It is used for EGA, VGA, and CGA systems.

If you have an EGA or VGA system, the character font will immediately be switched to the requested code page. Some characters may look different after you load DISPLAY.SYS because ROM-DOS uses its own font for all 256 characters. For example, your hardware font might use a square like zero character, but ROM-DOS might use a round like zero character. The differences should be minor, and are purely cosmetic.

Printing Different Code Pages

At this time, ROM-DOS does not support printing code pages other than those stored in the printer hardware.

Changing the Keyboard Layout

To alter the keyboard layout, you issue the KEYB command from within DOS. This can be done by running KEYB in AUTOEXEC.BAT or directly from a DOS prompt. You might use this command to switch to a German keyboard layout:

```
KEYB GR
```

For each country, there are two valid code pages. If you do not specify a code page, the default code page will be used. Here are the country identifiers, and the default and alternate code pages:

Country	Country Identifier	Code Page	Alternative Code Page
Australia	us	437	850
Belgium	be	850	437
Brazil	br	850	437
Canadian-French	cf	863	850
Czech Republic	cz	852	850
Denmark	dk	850	437
Finland	su	850	437
France	fr	850	437
Germany	gr	850	437
Hungary	hu	852	850
Italy	it	850	437
Japan	---	932	---
Latin America	la	850	437
Netherlands	nl	850	437
Norway	no	850	865
Poland	pl	852	850
Portugal	po	850	860
Spain	sp	850	437
Sweden	sv	437	850
Switzerland	sf	850	437
United Kingdom	uk	437	850
United States	us	437	850
Yugoslavia	yu	852	850

After you have loaded KEYB, your keyboard layout will reflect the country you chose. You can switch back to the US keyboard layout at any time by pressing <Ctrl><Alt><F1>. You can return to the modified keyboard layout by pressing <Ctrl><Alt><F2>.

You can also switch to a completely different layout by running KEYB again and specifying another country identifier.

Appendix A includes diagrams of the different keyboard layouts. The diagrams show native-language keyboards, which tend to have different layouts from US keyboards. KEYB does its best to map the available hardware keys to the desired layout. Some symbols may not be available when using a US keyboard and a non-US layout. In the diagrams, symbols appearing in the lower right corner of a key are activated by pressing the "AltGr" key along with the desired key. On keyboards without a right Alt key, Ctrl and Alt together represent the AltGr key.

Note: The “AltGR” key is not found on a standard U.S. keyboard.

Some keys are prefix keys which don't generate any symbol by themselves, but modify the following keystroke. For example, on most European keyboards, the apostrophe key (') will cause the next letter to be accented. To produce an apostrophe by itself, press the apostrophe key followed by the space bar. Other keys which may behave as prefixes, depending on the current keyboard layout, are the backward apostrophe (`), tilde (~), and caret (^).

Some keys represent symbols which are not available in all code pages. For example, the German keyboard can produce a capital A with a caret above it. In the default German code page (850) that symbol is represented by the code 182. However, in the alternate German code page (437) there is no such symbol. If you are using the German layout and code page 437, and you try to produce a capital A with a caret above it, you will get a caret character followed by a capital A (^A).

Note that the keyboard code page could be set to not match the display code page. This can lead to confusion, as the keyboard may produce characters which appear on screen as other symbols. Continuing the above example, if you are using the German layout with keyboard code page 850, but your display code page is 437, and you produce a capital A with a caret above it, you will instead see a graphic box drawing character on your screen.

Putting It All Together

To completely configure your system, you need to include commands in your CONFIG.SYS and AUTOEXEC.BAT files. The following sample files would set up a computer to use German conventions; to use code page 850 for sorting, upper-case conversions, and the display; and to switch the keyboard layout to German. The commands relevant to international issues are shown in bold type; other typical commands are shown in normal type.

COUNTRY.SYS is assumed to be in the root directory of the boot drive, and DISPLAY.SYS, EGA.CPI, KEYB.COM and KEYBOARD.SYS are assumed to be in the C:\DOS directory.

CONFIG.SYS

```
BUFFERS=20
FILES=20
COUNTRY=049
DEVICE=C:\DOS\DISPLAY.SYS                850
C:\DOS\EGA.CPI
```

AUTOEXEC.BAT

```
@ECHO OFF
PROMPT $P$G
PATH C:\DOS;C:\UTILITY
KEYB GR
```

ROM-DOS 6.22

Command Descriptions

Datalight®

Brief Description of Commands

Following are brief descriptions of all ROM-DOS commands, including batch file commands.

?	CONFIG.SYS command. It directs ROM-DOS to pause for confirmation before processing a command.
@	Is used to suppress the display of a single batch file command line.
;	The same as the REMark command. Identifies non-executing lines.
ATTRIB	Display or modify the attributes associated with a file.
BREAK	Turns on or off the ability to stop program execution at a non-I/O point.
BUFFERS	Sets the number of internal data buffers.
CALL	Batch subcommand. Invokes execution of a secondary batch file.
CHDIR	CHange DIRectory (also CD). Changes the default directory.
CHKDSK	CHecK DiSK. Checks integrity of data on a disk. Displays information.
CLS	CLear Screen. Clears all information from the monitor.
COMMAND	Spawn a second DOS command processor.
COPY	Copies files from one storage location to another.
CTTY	Change TeleTYpe. Changes the default terminal interacting with ROM-DOS.

DATE	Displays the date from the system's internal calendar. Allows revision.
DEL	DELete. Deletes specified files.
DEVICE	Installs a device driver into ROM-DOS.
DEVICEHIGH	CONFIG.SYS command. Loads a device into the upper memory area if available.
DIR	DIRectory. Lists contents of a specified directory.
DISKCOPY	Copy the contents of one floppy disk to another of the same type.
DOS	Installs ROM-DOS into High Memory Area (HMA).
ECHO	Batch subcommand. Turns on or off display of batch execution on the monitor.
ERASE	Erases specified files (same as DEL).
EXIT	Used to exit "nested" running of ROM-DOS within another program.
FCBS	Specifies the number of File Control Blocks (FCBS) open at one time.
FDISK	Initialize and partition a hard disk for DOS.
FILES	Sets the maximum number of files that can be open at one time on the system.
FIND	Works as a filter to display only lines that contain a specified string.
FOR	Batch subcommand. Performs one DOS command on a set of files.
FORMAT	Initializes a disk so that ROM-DOS can access files on that disk.

GOTO — Batch subcommand. Moves control to a specified line in the batch file.

HELP — Lists all available ROM-DOS commands along with brief descriptions.

IF — Batch subcommand. Performs a command based on a specified condition.

INCLUDE — CONFIG.SYS menu configuration command. Allows instructions in one configuration block to be included with instructions in another configuration block.

INSTALL — Loads terminate and Stay Resident (TSR) programs during CONFIG.SYS processing.

KEYB — Allows altering of the keyboard layout for a different language or nationality.

LABEL — Will create, change or delete a disk volume label.

LASTDRIVE — Sets the maximum number of drives.

LOADHIGH — Batch subcommand or command line command. Loads a program into the upper memory area if available.

MENUCOLOR — CONFIG.SYS menu configuration command. Allows setting of text and background colors for the startup menu.

MENUDEFAULT — CONFIG.SYS menu configuration command. Sets the default menu item choice and time-out value for making a selection.

MENUITEM — CONFIG.SYS menu configuration command. Specifies an item to be placed on the startup menu displayed during system boot.

MKDIR — MaKe DIRectory (also MD). Creates a new subdirectory.

MODE	Modifies the operation of the printer, serial port and active video display.
MORE	Displays a text file one screen at a time.
NEWFILE	Allows continuation of CONFIG.SYS processing from a new file.
NUMLOCK	Sets the NUMLOCK keyboard key to on or off when your computer starts.
PATH	Displays current command search path(s). A new path line can be specified.
PAUSE	Batch subcommand. Causes execution to halt until a key is pressed.
PRINT	Prints a list of files, up to ten files.
PROMPT	Resets the appearance of the system prompt line.
REM	REMark. A batch subcommand for identifying non-executing lines.
REN	RENname. Renames files.
RMDIR	ReMove DIRectory (also RM). Deletes a specified subdirectory.
SET	Sets environment variables and command processor strings.
SHARE	Installs the capabilities for file sharing and file locking on your hard disk.
SHELL	Allows selections of an alternate boot program other than the default COMMAND.COM command processor.
SHIFT	Batch subcommand. Shifts replaceable parameters one position "to the left."

SORT	Sorts a text file and displays the output to the standard device.
STACKS	Allows for the use of dynamic data stacks to handle interrupts. *Note: ROM-DOS does not utilize this command.*
SUBMENU	CONFIG.SYS menu configuration command. Defines a menu item that represents a secondary menu.
SWITCHES	Allows special CONFIG.SYS file options.
SYS	Transfers the hidden system files to a specified drive.
TIME	Displays current time from the system's internal clock. Allows revision.
TREE	Displays the path of each directory on a specified drive.
TYPE	Displays the contents of a text file on the monitor.
VER	Displays current version of ROM-DOS on the monitor.
VERIFY	Displays the current VERIFY state or set the VERIFY state to on or off.
VOL	Displays the VOLume label on a disk.
XCOPY	Copy multiple files and optionally subdirectories.
XDEL	Deletes files and subdirectories including empty subdirectories.

Full Description of Commands

The following pages provide complete description of each ROM-DOS command -- including batch subcommands.

The entries are in alphabetical order. Each entry includes a description of the command's purpose, command entry syntax, remarks, and examples as appropriate.

Each command also has a label to designate whether it is an Internal or External command. Internal commands are part of the command processor program COMMAND.COM. These functions are only available while COMMAND.COM is running. External commands are actually stand-alone utility programs. They are independent from COMMAND.COM. A special notation is also made for those Internal commands that are unique to CONFIG.SYS processing. These commands, labeled Internal/CONFIG.SYS, can only be used inside a CONFIG.SYS file.

For an explanation of typing conventions see **Conventions Used in This Manual** in the introductory materials of this book.

For on-line help information and syntax descriptions use the /? option with any command

Note: The file COMMAND.HLP must be available in the root directory on the boot drive to get help information for Internal commands.

Example

```
DIR /?
```

The above command will display information and syntax for the DIR command.

?

Internal

Purpose

The question mark (?) command is placed on a command line in the CONFIG.SYS file following the actual command. It directs ROM-DOS to pause and ask for confirmation before processing the command.

Syntax

```
[command]? = command_arguments
```

Remarks

The *command* can be any of the standard CONFIG.SYS commands in the following list.

BREAK=
DEVICE=
DOS=
FILES=
STACKS=
BUFFERS=
FCBS=
INSTALL=
LASTDRIVE=
SWITCHES=

The *command_argument* can be any of the available options defined for the command. Please refer to the individual command description for complete instructions.

The *question mark (?)* should be placed just before the equal sign (=) in the command line.

? (cont.)

Examples

```
DEVICE?=VDISK.SYS 64 /E
```

The above example causes ROM-DOS to pause and ask for confirmation before installing the VDISK. If Yes (y) is answered, the installation will continue. If No (n) is answered, the device will not be loaded and processing will move on to the External CONFIG.SYS command line.

@

Internal

Purpose

The AT sign @ is used to prevent a single command in a batch file from being echoed to the screen as the batch file is being run. The @ sign is placed in front of the command whose display is to be suppressed.

Format

```
@ [batch file command]
```

Remarks

The *batch file command* argument can be any executable line in your batch file.

Examples

In the following example, the COPY instruction will be executed but the instructions will not be echoed to the screen as the batch file runs.

```
@COPY FILE1.BAT FILE1.SAV
```

The ECHO OFF command differs from the @ sign in that it cause all commands following it to *not* be displayed on the screen. To prevent the ECHO OFF command from displaying itself, place the @ sign in front of the command.

```
@ECHO OFF
```

;

Internal

Purpose

The semicolon (;) command has two purposes: to allow comments in a batch or CONFIG.SYS file, and to temporarily disable a command without physically deleting the command from the file. See also the REM command.

Syntax

```
;any text here.
```

Remarks

The (;) command is used to functionally remove a command from the CONFIG.SYS file without actually deleting it from the CONFIG.SYS file.

Examples

```
;C:\BIN\VDISK.SYS 64 /E
```

The above example causes the VDISK command to not be executed until the (;) command is removed.

ATTRIB

External

Purpose

The ATTRIB command either displays or modifies the attribute of a file.

Syntax

```
ATTRIB [+ | -][option][filespec]
```

Remarks

The file attributes define the characteristics of a file. They determine if a file may be deleted or modified, or if it is archived. The ATTRIB command is used to manage these file attributes.

Wildcard characters may be used in the ATTRIB *filespec.*

The ATTRIB command will modify file attributes if modify commands are given to ATTRIB. The modify commands are:

Option	Description
+/-	Add(+) or remove(-) attribute
A	Archive attribute
C	Clear all attributes
H	Hidden file attribute
R	Read Only attribute
S	System file attribute

If no modify commands are found by ATTRIB, then the files are displayed along with the file names and their current attributes.

Examples

ATTRIB will add the Read Only attribute to the file `myfile.dat`.

```
ATTRIB +r myfile.dat
```

ATTRIB (cont.)

ATTRIB will remove the Read Only attribute and the Archive attribute of all files with the DAT extension.

```
ATTRIB -a -r *.dat
```

ATTRIB will display the attributes of all files with the DAT extension.

```
ATTRIB *.dat
```

BREAK

Internal

Purpose

Expands the list of operations that can be stopped by pressing <Ctrl><C> or <Ctrl><Break>. Alternatively, returns to the default setting of a limited number of "break-able" operations.

Syntax

```
BREAK [ON|OFF]
```

Remarks

In the normal default condition, the BREAK switch is off. In the off mode, the "stop" commands, <Ctrl><C> and <Ctrl><Break>, will affect activities that read from or write to the keyboard, the screen, or the printer. ROM-DOS will not look for these stop commands during any other activities.

With the BREAK switch set to ON, ROM-DOS looks for <Ctrl><C> and <Ctrl><Break> during other activities such as disk reads and writes.

Examples

```
BREAK ON
```

Expands the BREAK list.

BREAK (cont.)

```
BREAK OFF
```

Returns to limited BREAK list.

```
BREAK
```

Displays the current BREAK setting.

BUFFERS

CONFIG.SYS

Purpose

ROM-DOS has internal buffers to temporarily hold data read from the disk. Increasing the number of internal buffers will speed system performance.

Syntax

```
BUFFERS = number
```

Remarks

Each buffer used by **ROM-DOS** requires 512 bytes of RAM. The BUFFERS command will increase or decrease the amount of RAM used by the operating system.

The minimum number of buffers is 2 and the maximum number is 40. If a number less than 2 is given then the number of BUFFERS is set to 2. If a number larger than 40 is given then BUFFERS is set to 40.

Examples

```
BUFFERS = 10
```

This example causes ROM-DOS to have 10 buffers. These 10 buffers will use 5120 bytes of RAM.

CALL
Batch Subcommand

Internal

Purpose

CALL invokes execution of a secondary batch file without exiting the primary batch file. When the secondary batch file is done executing, control is returned to the primary batch file.

Syntax

CALL *batchfile* [*batchfile arguments*]

Remarks

Parameters for the secondary batch file may also be included, if appropriate.

Examples

```
CALL BATCH2
```

This command executes the batch file BATCH2.BAT.

```
CALL MYBATCH FILEX FILEZ
```

This command executes the batch file MYBATCH.BAT. The arguments passed to MYBATCH.BAT are:

```
%1 = FILEX
%2 = FILEZ
```

CHDIR
(CHange DIRectory)

Internal

Purpose

Changes the default directory.

Syntax

`CHDIR [`*d:*`][`*path*`]`*subdir*

`CD [`*d:*`][`*path*`]`*subdir*

Remarks

S*ubdir* is the name of the new default subdirectory. Note that "CD" may be used instead of "CHDIR."

The new directory which is to become the default must already exist. See MKDIR for creation of subdirectories.

A series of two periods (..) can be used to indicate a move back to the parent directory.

Specifying only the backslash (\) for the *subdir* argument will move you to the root directory of the current default drive.

Examples

```
CHDIR \TOOLS
```

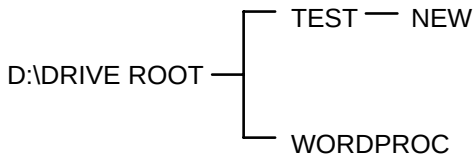
Entering of this command will move you into the subdirectory called TOOLS, whose parent directory is the root of the current default drive.

CHDIR (cont.)

```
CD A:
```

Entering of this command will display the current directory on drive A:. Any valid drive letter can be substituted to get the current directory on that drive.

The following examples will all use this directory tree structure:




```
CD D:\TEST\NEW
```

This command will move you into the subdirectory called NEW, located on the D: drive, under the parent directory TEST.

```
CHDIR ..
```

This command will move you back to the parent directory of the current subdirectory. If you were in the directory D:\TEST\NEW (from the previous example), this CHDIR command would move you from NEW back into the TEST directory.

```
CD ..\WORDPROC
```

This command will move you back to the parent directory and then into a subdirectory called WORDPROC. If we started in the TEST directory, we would move back to the ROOT directory and then into the WORDPROC subdirectory.

```
CD \
```

This command will move you back to the root directory, from any starting point in the directory tree.

CHKDSK
(CHecK DiSK)

External

Purpose

The CHKDSK command checks the disk directories and File Allocation Table (FAT) and displays a disk and memory report.

Syntax

```
CHKDSK [d:][path][filespec][/C] [/F] [/V]
```

Remarks

CHKDSK examines a disk and determines if the disk has any errors in the File Allocation Table(FAT) and will optionally fix errors.

Options

The /F option causes CHKDSK to fix errors on the disk if any were found. The errors that can be found are directory or FAT errors. If the /F is not specified then CHKDSK acts as if it will fix the disk, but the corrections will not be written out to the disk.

If errors are detected, you will be prompted with a message similar to the following:

```
15 lost allocation units found in 5 chains.
Convert lost chains to files?
```

If you answer Y for Yes, each lost chain will be written to a file in the root directory of the current default drive. Each file will have the name FILE*nnnn*.CHK. *nnnn* will be a sequential number. The first chain will be in FILE000.CHK. These files can be verified to see if they contain valuable information, and then deleted if desired. Answering N for No to the above prompt, CHKDSK will still make the corrections however the lost chains will not be saved to the disk.

CHKDSK (cont.)

The /C option allows CHKDSK to correct errors without user confirmation. This option must be used along with the /F option for corrections to be made.

The /V options causes CHKDSK to display each path and file as it is processed.

If a file specification is specified, then CHKDSK displays all files matching the specification that have non-contiguous data areas on the disk. Files that are stored in non-contiguous areas, especially .EXE files, have slower disk access times. If CHKDSK reports a large number of files with this problem, a utility program that optimizes the files and free space on your disk should be used.

After checking the disk, CHKDSK displays any error messages followed by a report on the state of the disk that was checked. An example of the report is shown below.

```
Volume ROM-DOS created June 1,1990 1:00a
Volume Serial Number is 190E-4AA2
   362496         bytes total disk space
        0         bytes in 1 hidden files
     6144         bytes in 2 user files
   356352         bytes available on disk

   655360         bytes total memory
   595360         bytes free
```

CHKDSK does not wait for a disk to be inserted before the checking is initiated nor does it repair any errors.

Examples

CHKDSK will check the integrity of drive A. The report will be printed to the console.

```
CHKDSK a:
```

CHKDSK (cont.)

CHKDSK will check the integrity of hard drive disk D. The report will be saved in a file called DRIVE_D.RPT.

```
CHKDSK d: >drive_d.rpt
```

CLS
(CLear Screen)

Internal

Purpose

Clears the monitor to display a blank screen.

Syntax

```
CLS
```

Remarks

CLS clears the screen except for the ROM-DOS prompt and the cursor in the upper left-hand corner. There are no additional options for CLS.

COMMAND
(Command Processor)

External

Purpose

Start a new Command Processor.

Syntax

COMMAND[*device*][*/e:number*][*/k:filename*][/p]
[/c *string*][*/msg*]

Remarks

This command starts a new copy of the ROM-DOS Command Processor. The Command Processor is the program that has all the internal DOS commands in it.

Starting a new Command Processor will also produce a new Environment. The size of the environment is 128 bytes by default, but can be changed using the /e switch.

Command and its arguments can also be used in a SHELL= statement in your CONFIG.SYS file. See the full description of SHELL for more details.

Options

The *device* option specifies that COMMAND.COM should use a different device, such as AUX, for input and output.

The */e:number* switch sets the environment size. *Number* represents the size of the environment in bytes. *Number* must be in the range from 160 to 32768. All other values will be ignored and the default value of 256 will be used. ROM-DOS will round the value entered up to the nearest multiple of 16.

COMMAND (cont.)

The */k:filename* option tells the command processor to run the specified filename and then display the ROM-DOS command prompt. It is not recommended that this option be used in a CONFIG.SYS SHELL= statement.

The */p* switch causes COMMAND not to exit, in other words, remain permanent. The /P switch should only be used when command is used in a CONFIG.SYS SHELL statement.

The */c string* switch causes COMMAND to execute the command in *string* and then terminate. The string-command can be any internal or external command.

The */msg* option indicates that all error messages should be stored in memory. This option is recommended only for diskette based systems. ROM-DOS keeps many of its error messages in the resident part of COMMAND.COM rather than using valuable memory to store them. If an error message is needed and you have loaded ROM-DOS from a diskette, the message will only be available if the boot disk is still in the drive. By using the */msg* option, the messages will be available in memory at all times. The */p* option must be used along with the /msg option.

Examples

The following command will cause a new copy of COMMAND to be executed. It will perform a DIR command on the C drive and then exit back to the previous Command Processor..

```
COMMAND /C DIR C:
```

The following example shows loading of a permanent copy of command with an environment size of 256 bytes.

```
SHELL=C:\COMMAND.COM /P /E:256
```

COPY

Internal

Purpose

Copies a file or set of files to a specified destination which could be on another disk, or on another subdirectory on the current disk, or on a completely different drive. COPY may also be used to alter the *filename* within the current directory. In addition, this command can be used to direct communication between files and devices (e.g. file contents to a printer, keyboard input to a file).

Syntax

This command has several possible formats. The essential structure of each command is:

COPY *source target option*

The *source* is the "copy from" *filespec* or *device*, and the *target* is the "copy to" *filespec* or *device*. Following are various configurations of the COPY command format.

COPY [*d:*][*path*]*filename*[/*option*]
[*d:*][*path*]*filename*[/*option*]

Where the first *filespec* indicates the source file(s) to be copied and the second *filespec* indicates the target area on which to copy.

COPY [*d:*][*path*]*filename*[/*option*] + ...
... + [*d:*][*path*]*filename*[/*option*]...
...[*d:*][*path*]*filename*[/*option*]

As shown, several source *filespecs* may be listed to be copied into the target *filespec* which is listed last. The source files will be concatenated one after the other into the target file.

COPY (cont.)

COPY [*d:*][*path*]*filename*[/*option*] *device*

The target *device* is a console or printer (PRN).

COPY *device* [*d:*][*path*]*filename*[/*option*]

The *device* is the source such as a keyboard or console, the output of which will be directed to the target *filespec*.

Options

The /A and /B options stand for ASCII and binary, respectively. They act as switches that allow each of these file types to be copied. When one of them is used, it applies the preceding *filename*, and remains in effect for any *filenames* following in the command line until superseded by another /A or /B.

Most of the time the /A and /B options are not necessary. They are only needed when you are combining ASCII and binary files.

/A
Indicates that the file is to be treated as an ASCII file (text file). When used with the source file, everything will be copied up to, but not including, the first <CTRL><Z> end-of-file marker. When /A is used on the target file, a <Ctrl><Z> will be added as the last character in the file.

/B
Indicates that the file is to be treated as a binary file. When /B is used with the source file, the entire file is copied regardless of any <Ctrl><Z> characters. When /B is used with the target filespec, no <Ctrl><Z> end-of-file mark is added.

/V
This is the Verify option. It tells COPY to compare what is written to the target file with the contents of the source file. If discrepancies are discovered, an error message is displayed. This option slows the execution of the COPY command. Since errors in copying are quite rare, this option is recommended as a safeguard only when copying critical data.

/Y
This option indicates that you want to copy the current file(s) over the existing file(s) of the same name(s) without confirmation. Using this option will override the setting made by the COPYCMD environment variable.

/-Y
This option indicates that you want to confirm the copy of one file over the existing file of the same name. Using this option will override the setting made by the COPYCMD environment variable.

The COPYCMD environment variable can be set using the SET command. This allows you to set confirmation on or off for the COPY command. If you always want to be prompted for confirmation when a file will copy over an existing file, set COPYCMD= /-Y. To automatically overwrite without confirmation during a copy instruction, set COPYCMD= /Y. Refer to the SET command for proper usage.

Remarks

When no filename is specified for the target, the new copy will be given the same name as the source file name.

When no *drive* or *path* is specified for the source, the current drive and directory is assumed. When no *drive* or *path* is specified for the target, the current drive and directory are assumed.

If a drivename only is specified without a *path*, the default directory for that drive is assumed.

COPY (cont.)

Both source and target *filespecs* may include wildcard characters (*) and (?) to specify a set of several files.

Examples

```
COPY LETTER.TXT A:
```

This command will copy the file LETTER.TXT (in your current default drive and path) to the default directory on the disk in drive A.

```
COPY *.DOC A:
```

Copies all files in the default directory with an extension of .DOC to the default directory of drive A.

```
COPY DATAORIG.DOC DATABACK.DOC/V
```

This example creates a backup copy, DATABACK.DOC, from the file DATAORIG.DOC, then verifies that the file was correctly copied. The new file will be located in the current default directory.

```
COPY JAN.DAT + FEB.DAT + MAR.DAT QTR1.DAT
```

Copies the files JAN.DAT, FEB.DAT, and MAR.DAT in sequence into the single file, QTR1.DAT.

```
COPY CON NEWFILE.TXT
```

Sets up your console (keyboard) to input directly to NEWFILE.TXT. <Ctrl><Z> followed by <Enter> closes the file and returns to normal command line operation.

COUNTRY

CONFIG.SYS

Purpose

ROM-DOS supports multiple country formats for time, date, and currency, as well as other basic country-specific information. A country is identified by a three digit international telephone country code.

Syntax

COUNTRY = *countrynumber* [*codepage*]

Remarks

The file COUNTRY.SYS must be present in the same directory as your CONFIG.SYS file.

If you do not specify a code page, ROM-DOS will use the default code page for the chosen country. If a code page is specified, it must be either the default or alternate code page for the chosen country.

The ROM-DOS DATE and TIME commands are affected by this command. Applications which use DOS functions to determine the date, time or currency format, or request that DOS provide character sort order, or uppercase information, will be affected as well.

The following table shows the currently supported countries:

Country	Code	Code Page	Alternative Code Page
Australia	061	437	850
Belgium	032	850	437
Brazil	055	850	437
Canadian-French	002	863	850
Czech Republic	042	852	850
Denmark	045	850	437
Finland	358	850	437
France	033	850	437
Germany	049	850	437
Hungary	036	852	850
Italy	039	850	437
Japan	081	932	---
Latin America	003	850	437
Netherlands	031	850	437
Norway	047	850	865
Poland	048	852	850
Portugal	351	850	860
Spain	034	850	437
Sweden	046	437	850
Switzerland	041	850	437
United Kingdom	044	437	850
United States	001	437	850
Yugoslavia	038	852	850

For more information on COUNTRY, see the section on Configuring ROM-DOS for International Use. The default country code is 001, for the U.S.A., code page 437.

COUNTRY (cont.)

Examples

```
COUNTRY= 049
COUNTRY = 049, 437
```

The next time you start ROM-DOS with either of these COUNTRY commands, the DATE and TIME will be displayed as follows:

```
DATE
      Current date is Wed 20.06.1990
      Enter new date (dd.mm.yy):

TIME
      Current time is 16:39:54,45
      Enter new time:
```

The first COUNTRY command above would use code page 850, by default, for sorting and case conversion. The second COUNTRY command example would use the specified code page 437 instead.

CTTY
(Change TeleTYpe)

Internal

Purpose

Allows you to direct input and output to a different device -- other than your computer's standard keyboard and monitor.

Syntax

`CTTY` *device*

Remarks

This command would be used in any situation requiring interaction with an alternate console.

Caution: The CTTY command only affects communication with ROM-DOS and with programs that work through ROM-DOS for input and output. For example, if you go into BASIC it will use standard keyboard input regardless of previous CTTY command usage.

Examples

```
CTTY COM2
```

Sets the device on COM2 as the input/output device.

```
CTTY CON
```

Returns control to the standard keyboard.

DATE

Internal

Purpose

Displays the current date (day, month, year) as known to ROM-DOS and also allows you opportunity to change it.

Syntax

DATE [*mm-dd-yy*]

Remarks

The date set by this command is used, among other things, for "date stamping" your file revision dates. This information is displayed when you execute a directory listing of your files.

You may want to include the DATE command in your AUTOEXEC.BAT file, to set the date at boot-up. If your computer has an internal battery-operated clock, you won't need to do so.

The format of the date command is also dependent on the Country specified in CONFIG.SYS. The date is displayed according to local standards for the specified country.

Also see the TIME command.

Examples

If the command is entered without the specification of *mm-dd-yy*, the current date as known to ROM-DOS will be displayed and you will be prompted to enter a new date. Like this:

```
Current date is Sat 6-10-1989
Enter new date (mm-dd-yy):
```

If you do not want to change the date, just press enter. Otherwise, key in the current date and press enter.

Alternatively, you may skip the display and prompting by simply entering the current date on the command line. To enter June 10, 1989, type the DATE command as follows (the century number 19 is assumed):

```
DATE 6-10-89
```

Valid entries for months, days, and years are:

mm = 1-12 *dd* = 1-31 *yy* = 80-99

(for years with 19 as the century)

ROM-DOS will figure out the day of the week; do not include it in your entry.

The earliest year that **ROM-DOS** can accept is 1980. **ROM-DOS** assumes that the century is 19 unless something different is entered, such as 20, next to the year. For example, February 18, 2014 would be:

```
DATE 02-18-2014
```

ROM-DOS will adopt your entry as the current date.

DEL
(DELete)

Internal

Purpose

Deletes a specified file or set of files.

Syntax

`DEL [`*`d:`*`][`*`path`*`]`*`filename`*`[/P]`

Remarks

The DEL command and the ERASE command are functionally identical.

When no drive is specified, the default is assumed. When no path is specified, the default path is assumed.

Global filename characters ? and * (wildcards) can be used in the *filespec*. This should be done with caution as it is possible to delete multiple files unintentionally.

When the *filespec* *.* is used to delete all files in the specified subdirectory, a verification message will be displayed:

```
Are you sure (Y/N) ?
```

Type Y only if you want all files in the specified subdirectory to be deleted.

Caution! There is no ROM-DOS command to "undelete" a file. Although utilities exist which can attempt an undelete, certain factors can cause the deleted file to be partially or totally lost. The DEL command should be treated as a permanent delete.

DEL deletes files within a subdirectory, not the subdirectory itself. For subdirectory removal, see the RMDIR command.

Options

/P
The /P option causes DEL to pause and prompt the user before each file is deleted. This option is most useful when deleting files with wildcards. A sample prompt is shown below:

Filename, Delete (Y/N) ?

Examples

This example deletes all files on the A: drive with a .DOC extension. Before each file is deleted the user is prompted to determine if that file should be deleted.

```
DEL A:*.DOC /P
```

Deletes the file MYLETTER.DOC from the current default subdirectory.

```
DEL MYLETTER.DOC
```

Deletes all files in the current subdirectory with a .DOC file extension.

```
DEL *.DOC
```

DEVICE

CONFIG.SYS

Purpose

A device driver may be installed into **ROM-DOS** via the DEVICE command.

Syntax

`DEVICE` = *device_driver arguments*

Remarks

A device driver is used to allow ROM-DOS to access hardware that is not common in all PC's.

The full drive path and file name of the device must be specified. The arguments are different depending on the device driver.

Examples

```
DEVICE=C\BIN\VDISK.SYS  120 /e
```

This example installs the ROM-DOS RAM disk driver, VDISK.SYS, via the DEVICE command. There will be 120K bytes of extended memory dedicated to the RAM disk in this example.

DEVICEHIGH

CONFIG.SYS

Purpose

Loads an installable device driver into the upper memory area if available.

Syntax

`DEVICEHIGH` = *device_driver arguments*

Remarks

A device driver is used to allow ROM-DOS to access hardware that is not common in all PC's. A device can be loaded into the upper memory areas if they are available and there is enough free upper memory to accommodate the drivers needs. To make high memory available, the EMM386.EXE and HIMEM.SYS utilities must be loaded. If these utilities are not loaded or there is not enough upper memory available, the device will load into conventional memory.

The full drive path and file name of the device must be specified. The arguments are different depending on the device driver.

Examples

```
DEVICEHIGH=C:\BIN\MYDEVICE.SYS  /20 /M
```

This example installs a driver called MYDEVICE with its command line arguments as specified. The device will load into upper memory if available.

DIR (DIRectory)

Internal

Purpose

Displays a list of the files that are in a directory.

Syntax

`DIR [`*d:*`][`*path*`][`*filename*`][`/*option*`]`

Remarks

The DIR command can be used to list all the files in a directory, or to show the directory entries of specific files. The standard directory display format includes columns for filenames, filename extensions, file sizes, and the dates and times the files were created.

Options

/A *attributes*
The /A option causes the DIR command to display only the files that match the specified *filespec* and have the given attribute. The list on the next page shows the legal attribute descriptions.

Letter	Description
A	Archive ready for archiving
D	Directories
H	Hidden files
R	Read only files
S	System files
X	Show attributes
-	The dash "-" symbol can be used to negate listed attributes. For example, to select all files that do not have the archive bit set, use /A-A option.

/B
The /B or bare option causes the display to be displayed without Volume label, date, time, or size information.

/L
The /L option causes the filenames to be displayed in lowercase.

/P
Selects page mode, which makes ROM-DOS pause the display each time the screen is full. Press any key to go onto the next page of entries.

DIR (cont.)

/O *SortOrder*
The /O option causes the filenames to be displayed in sorted order. The SortOrder can contain one or more of the following letters.

Letter	Description
D	By date and time newest first
E	Alphabetic order by extension
G	Directories grouped before files.
N	Alphabetic order by name
S	Size smallest first
-	The "-" symbol can precede the sort option to reverse the sort order. For example, to sort all files in the directory in reverse alphabetic order, use /O-N option.

/S
The /S option causes the display to include files in subdirectories also.

/W
Display list in a wide format without date, time, or size.

The DIRCMD environment variable can be used to set the default preferences for the DIR command. The SET command will assign the values to an environment variable. Refer to the SET command section for proper usage. For example, if you wanted to always have the "/P" option set for DIR, the statement "SET DIRCMD=/P" could be used. The default settings in DIRCMD can be overridden by using the minus sign (-) preceding the option. If you wanted to cancel the paging for a single use of the DIR command, you would enter "DIR /-P."

Examples

To see the directory entries of all files in the current drive and directory, type:

```
DIR
```

To see all files in the subdirectory MEMOS on drive B, type:

```
DIR B:\MEMOS
```

Display all files sorted by file name order.

```
DIR /ON
```

Display all hidden files.

```
DIR /AH
```

Display all files with a .DOC extension without file sizes, or volume labels.

```
DIR *.DOC /B
```

DISKCOPY

External

Purpose

The DISKCOPY command copies the entire contents of one disk to another.

Syntax

`DISKCOPY` <*drive1:*> <*drive2:*> [/*option*]

Remarks

The first drive specifies the source disk, and the second drive specifies the target disk.

The disks that may be copied are both 360KB, 720KB, 1.2MB, and 1.44MB disks. Both the source disk and the target disk must be of the same type. If the target disk is not formatted, or is formatted with another format, then it will be reformatted before copying.

If any problem occurs during the copy process, DISKCOPY will indicate the side, track, and sector where the problem occurred.

The source or the target disk may not be a RAM or virtual disk.

DISKCOPY only copies floppy disks; hard disks are not allowed.

Options

The /V option will verify the copy after completion.

Examples

Make a duplicate of the contents of the disk in drive A onto drive B. Drive B must support the same type of disk as drive A.

```
DISKCOPY A: B:
```

Make a duplicate of the contents of the disk in drive A. The user will be prompted for swapping the source and target disk as needed to perform the entire copy.

```
DISKCOPY A: A:
```

DOS

CONFIG.SYS

Purpose

ROM-DOS can be loaded in special memory, called the High Memory Area or HMA, freeing more of the conventional (lower 640K) DOS memory for use by applications.

Syntax

```
DOS=HIGH
```

Remarks

The DOS=HIGH command frees up more of the standard DOS memory for use by applications.

This command will only work on 286, 386, and 486 CPU's with extended memory and Datalight's HIMEM.SYS High Memory Manager, or equivalent, installed. It will not work on standard XT class PC's. Setting DOS=HIGH is ignored when **ROM-DOS** is in ROM.

The DOS=HIGH command will also work on Chips and Technology's PC/Chip, if it has extended memory and Chips and Technology's HIDOS.SYS device driver, or another memory driver is loaded.

See the HIMEM.SYS device driver description in this manual. See also 386MAX by Qualitas for more information.

Examples

```
DEVICE=HIMEM.SYS
DOS=HIGH
```

The above example loads the High Memory Area device driver and then loads ROM-DOS into the HMA for increased conventional memory. The high memory area device driver must be loaded first, before DOS=HIGH.

ECHO
Batch Subcommand

Internal

Purpose

Controls whether ROM-DOS commands and other messages are displayed during batch file execution.
ECHO also allows you to create your own messages for display.

Syntax

```
ECHO [ON|OFF]

ECHO message
```

Remarks

The ON option is the default ECHO setting. It causes commands in a batch file to be displayed as they are executed by ROM-DOS. Typing ECHO OFF turns off such display, after which the ON option will switch it back on again.

The ECHO command alone, typed without the ON or OFF option, displays the current ECHO setting.

The *message* option is a string of characters, such as a warning or a reminder, that you want ROM-DOS to display. Although your message will be displayed whether ECHO is on or off, the message display is useful only when ECHO is off.

To create a message, type ECHO followed by your message. If your message is more than one line long, the ECHO command begins each line of the message.

The @ symbol can be used to suppress the echoing of a single command when ECHO is off. Place the @ symbol first on the command line.

Examples

A batch file message of more than one line could be the following:

```
ECHO  This batch file moves files
ECHO  to another directory.
```

To set ECHO to off , enter the following command:

```
ECHO  OFF
```

ERASE

Internal

Purpose

Deletes a specified file or set of files.

Syntax

ERASE [*d:*][*path*]*filename* [/P]

Remarks

The DEL command and the ERASE command are functionally identical.

When no drive is specified, the default drive is assumed. When no path is specified, the default path is assumed.

Global filename characters ? and * can be used in the *filespec*. This should be done with caution as it is possible to delete multiple files unintentionally.

When the *filespec* *.* is used to delete all files in the specified subdirectory, a verification message will be displayed:

```
Are you sure (Y/N) ?
```

Type Y only if you want all files in the specified sub directory to be erased (deleted).

Caution: There is not any ROM-DOS command to "undelete" a file. Although utilities exist which can attempt an undelete, certain factors can cause the deleted file to be partially or totally lost. The ERASE command should be treated as a permanent delete.

ERASE deletes files within a subdirectory, not the subdirectory itself. For subdirectory removal, see the RMDIR command.

Options

/P
The /P option causes ERASE to pause and prompt the user before each file is deleted. This option is most useful when deleting files with wildcards. A sample prompt is shown below:

Filename, Erase (Y/N) ?

Examples

Erases the file MYLETTER.DOC from the current default subdirectory.

```
ERASE MYLETTER.DOC
```

Erases all files in the current subdirectory with a .DOC file extension.

```
ERASE *.DOC
```

This example erases all files on the A: drive with a .DOC extension. Before each file is erased the user is prompted to determine if that file should be erased.

```
ERASE A:*.DOC /P
```

EXIT

Internal

Purpose

Exits a secondary "nested" ROM-DOS operation, and returns control of the system to the primary program.

Syntax

```
EXIT
```

Remarks

The EXIT command has no effect if a secondary COMMAND.COM command processor has not been loaded since the primary COMMAND.COM is always loaded in a "permanent" mode. A secondary COMMAND.COM will be effected if it is loaded without the /P permanent option.

FCBS

CONFIG.SYS

Purpose

The FCBS command allows you to specify the number of File Control Blocks (FCBs) open at one time.

Syntax

```
FCBS = number [,minimum number]
```

Remarks

Number specifies the maximum number of FCBs open at any given time. The default for this value is 4. The value for *Number* must be in the range from 1 to 255. The *minimum number* specifies the minimum number of FCBs to be open at all times. The *Minimum number* argument has the same default and range value as the *number* argument.

Examples

Set the maximum number of FCBs to 8 and leave at least 4 open at all times.

```
FCBS = 8, 4
```

FDISK

External

Purpose

The FDISK command prepares a hard disk for use by ROM-DOS. It allows you to determine the number of logical drives that will be available using a single or multiple physical hard disks.

Syntax

```
FDISK
```

Remarks

The FDISK command will prompt the user with a command menu. The command menu is shown below.

```
FDISK v6.22(revision 2.10)
(C) Copyright 1989 - 1995 Datalight

V) View partition(s)
R) Raw display of partition sectors
C) Create DOS partition(s)
N) Create non-DOS partition(s)
D) Delete a partition
A) Delete All partitions
T) Toggle boot status
M) Write Master Boot Code
Q) Quit without saving
S) Save changes (and reboot)

Enter command [V]:
```

Enter the letter that describes the choice you wish to make. If you make a mistake press ESC and you will move back to the previous menu.

Most users will only want to initialize a hard disk once, the first time it is setup for use. This is done by using choice C (or possibly N). Choice C will display a description of available disk space and a recommendation for using that available space. Following these recommendations will initialize a hard disk with as many 32 Megabyte partitions as possible.

If choice C indicates that the hard disk has partitions already then they may be deleted if needed. The only reason for deleting partitions is for building more smaller sized partitions, or fewer larger sized partitions.

The M choice will write out the code for the Master Boot Record. By default, FDISK only writes out the disk partition information. If FDISK finds that the Boot Code is invalid, it will automatically write the boot record. If the existing Boot Code appears valid, it will not be re-written unless forced by the use of the M option.

After completing all desired modifications and/or additions, select S to save changes. Once FDISK has modified the disk, the following message will appear.

```
Press any key and ROM-DOS will reboot
```

After rebooting, each newly fdisked drive will need to be formatted prior to use. Note: format only those drives that are new or have been resized. Format will destroy any existing data.

If no changes were made with FDISK, or you wish to abandon the changes made, simply select Q to quit without saving.

FILES

CONFIG.SYS

Purpose

The maximum number of files that may be open at one time can be modified using the FILES command.

Syntax

`FILES` = *number*

Remarks

The number of files includes the standard files, *stdin*, *stdout*, *stderr*, *stdprn*, and *stdaux*. The minimum this value may be set to is 8, the maximum is 255. All other values are ignored.

Example

```
FILES = 10
```

This example causes the maximum for open files to be ten.

FIND

External

Purpose

FIND is a filter to display only lines that contain a specified *string*.

The input to FIND may come from a file, or it may be piped in from another filter or a DOS command.

Syntax

```
FIND [/option] match-string [filename]
```

Options

The /C option causes FIND to only display the count of lines found with the specified *string*.

The /N option causes FIND to display the line number of the line found containing the *string*.

The /V option causes FIND to display the lines that do not contain the string.

The *match-string* argument specifies the word or group of characters to search for.

The *filename* argument specifies the file or group of files to search in. The complete drive and path can be specified. Wildcard characters can be used in the filename.

Examples

The following example shows each line in the file JUNK.C that contains the *matchstring* "printf".

```
FIND printf junk.c
```

FIND (cont.)

Examples

The following example shows each line in a directory listing that contains a DIR. The command first executes a DOS DIR command with the output piped into the FIND command. The FIND command then displays each line that contains the "DIR" *string*.

```
dir | FIND DIR
```

The following example give a count of the lines in the file MANUAL.TXT that contain the string ROM-DOS.

```
FIND /C ROM-DOS MANUAL.TXT

      .....MANUAL.TXT: 105
```

FOR
Batch Subcommand

Internal

Purpose

FOR allows repeated execution of a ROM-DOS command applied to a set of files.

Syntax

`FOR` *%%variable* `IN (`*set*`) DO` *command %%variable*

Remarks

In execution, this command attaches the *variable* as an identifier to each file in the *set* of files described. It then applies the *command* to each of these identified files. The *set* may be an exact list of complete file names, or a global file specification using wildcard characters.

The FOR subcommand can be used directly on the command line as well as within a batch file. To use on the command line, substitute a single percent (%) symbol for the double percent signs (%%).

Examples

```
FOR %%N IN (Q1.TXT Q2.TXT) DOPRINT %%N
```

This command will print only the files Q1.TXT and Q2.TXT.

```
FOR %%N IN (*.TXT) DO PRINT %%N
```

This command will print all files, in the current default directory, with a .TXT extension.

FORMAT

External

Purpose

The FORMAT command initializes a disk so ROM-DOS can access files on that disk. A disk *must* be formatted before it is usable by ROM-DOS.

Syntax

`FORMAT` [*drive:*] [*/options*]

Remarks

FORMAT initializes the disk and directory of the specified drive. The size of the formatted disk will be the largest possible size the specified drive supports, unless a different size is specified via a command line option.

Options

The /4 switch causes the disk to be formatted as a 360 K byte disk even if the drive is a 1.44 or 1.2 Megabyte drive.

The /7 switch causes the disk to be formatted as a 720 K byte disk even if the drive is a 1.44 Megabyte drive.

The /B option causes FORMAT to used BIOS int 13h calls. By default, FORMAT checks the DOS version and if it is DOS 5.0 or higher, it will use the floppy device driver to do the format. Using the /B option forces FORMAT to bypass the floppy or hard disk controller and use BIOS calls. /B makes FORMAT device independent.

The /C switch causes FORMAT to format one disk without operator input. The disk is assumed to be in the specified drive, and FORMAT will exit immediately when the format is complete. This switch is useful in batch files or programs that require a formatted disk without user input.

The /F:# option is used to specify the size of the diskette to be formatted. Available size values are 360, 720, 1.2, 1.44, and 2.88 and would be entered as /F:*size*. For example, /F:1.2.

The /H switch will cause the system files to not be hidden. This can be used along with the /s option.

The /I option forces FORMAT to use IOCTL calls and never use BIOS calls. Normally FORMAT would first try to access the device driver IOCTL calls to format the diskette. If this failed, BIOS calls would be used (unless the /B option is specified, see above). BIOS calls are always used for DOS 3.3 and earlier.

The /Q option causes FORMAT to do a quick FORMAT. A quick format reinitializes the disk, deleting each file and subdirectory from the disk. A quick format can only be performed on a previously fully formatted disk.

The /S switch causes FORMAT to copy the ROM-DOS system files onto the disk. The system files are ROM-DOS.SYS and COMMAND.COM. You will not see ROM-DOS.SYS because it is hidden from view.

The /V switch causes FORMAT to place a volume label on the disk. The user will be prompted for the volume label once the format is complete.

FORMAT (cont.)

If FORMAT encounters an error, the exit code returned to DOS will indicate the type of error. The error codes are listed in the following table.

Error Level	Type of Error
0	No error encountered
1	Invalid drive
2	Unsupported drive format
3	Attempted hard-drive format (unsupported)
4	Write protect error

Examples

FORMAT the disk in drive A using the default drive parameters.

```
FORMAT a:
```

FORMAT the disk in drive B and place the system and a volume label on the disk.

```
FORMAT b: /S /V
```

FORMAT 360K diskette in drive A, without prompting for user confirmation.

```
FORMAT a: /4 /C
```

GOTO
Batch Subcommand

Internal

Purpose

The GOTO subcommand transfers control to another line of the batch file.

Syntax

```
GOTO label
```

Remarks

The *label* is another line in the batch file consisting of a string up to eight characters long. The label may be an environment variable.

If the specified *label* is not found, then the batch file terminates with the error message **Label not found**.

Examples

```
GOTO MESSAGE
```

This command will move the control of execution within the batch file to a line that says:

```
:MESSAGE
```

Note: A batch file label must be preceded by a colon (:).

HELP

Internal

Purpose

Provides on-line help of each ROM-DOS command.

Syntax

```
HELP <command>
```

Remarks

HELP serves as a memory aid. For complete information about ROM-DOS commands, always consult this manual.

HELP for each command can also be displayed by entering a "/?" following the command name.

Examples

To list the help of the DIR command you can type:

```
HELP DIR
```

or

```
DIR /?
```

All available batch file commands are also listed by HELP.

IF
Batch Subcommand

Internal

Purpose

The IF subcommand allows conditional execution of commands.

Syntax

`IF [NOT]` *condition command*

Remarks

The *condition* may be any one of the following:

`ERRORLEVEL` *number*

string1 == string2

`EXIST [`*d:*`][`*path*`]`*filename*

If the *condition* is true then the *command* is executed, otherwise the *command* is bypassed and the next command in the batch file is executed. The [NOT] option will test the opposite of any of the conditions.

The ERRORLEVEL *number* is true if the last program to execute had an exit code equal or greater than *number*. Using the [NOT] option with this condition will test if the exit code is less than the *number* argument.

The condition *string1 == string2* is only true when *string1* and *string2* are identical. The strings must match exactly; uppercase/lowercase mismatches are not allowed. Applying the [NOT] option will create a condition that is true only when the strings are not identical.

IF (cont.)

The EXIST *condition* is true if the specified *filename* is found. Wildcard characters are allowed in the *filename*. The [NOT] EXIST condition will be true if the *filename* cannot be found.

Examples

```
IF ERRORLEVEL 15 GOTO :EXIT
```

This command will GOTO the :EXIT label if the ERRORLEVEL was equal to or greater than 15.

```
IF %1 == CONFIG.SYS PRINT %1
```

This command will print the file stored as the %1 parameter only if its exact name is CONFIG.SYS.

```
IF NOT EXIST OLD COPY CONFIG.SYS OLD
```

If there is not a file named OLD, this command will copy CONFIG.SYS to OLD.

INCLUDE

CONFIG.SYS

Purpose

The INCLUDE command can be used to include the contents of one configuration block into another. The instructions from the originating instruction block, as well as the included block, will be carried out. This command can only be used within a CONFIG.SYS configuration block.

```
INCLUDE = blockname
```

Remarks

This command is useful for sets of instructions common to several system configurations. The commands can be defined once in a single configuration block and then inserted into other configuration blocks via the INSERT command. Please refer to the section on Using Multiple Configurations for more details.

Examples

```
:
:
[MISC]
device=mouse.sys
device=c:\network\loadnet.sys

[WORDPROC]
files=20
buffers=10
set path=c:\bin;c:\wp;c:\dict
INCLUDE=MISC
.
.
.
```

INCLUDE (cont.)

If "WORDPROC" was chosen from a CONFIG.SYS menu, the instructions in the configuration block labeled [WORDPROC] would be carried out. The instructions in the INCLUDED block labeled [MISC] would also be implemented as part of the [WORDPROC] block of instructions.

INSTALL

CONFIG.SYS

Purpose

The INSTALL command loads Terminate and Stay Resident (TSR) programs during CONFIG.SYS processing.

Syntax

`INSTALL =` [*d*:\][*path*] *TSR_Program TSR_Arguments*

Remarks

The TSR program is loaded much the same as if loaded from AUTOEXEC.BAT, except that an environment is not created. The lack of an environment may cause some programs to execute incorrectly. These programs must be loaded from the AUTOEXEC.BAT file.

Examples

```
INSTALL = C:\BIN\FLASHDSK.EXE H:
```

This example causes the Datalight FLASH Disk File Manager to be loaded from CONFIG.SYS using INSTALL. The program is specified with a full drive and path description, and also has an argument of "H:".

KEYB

External

Purpose

The KEYB command allows you to alter the keyboard layout for a different language or nationality.

Syntax

KEYB

KEYB *countryid*

KEYB *countryid*, [*codepage*] [,*keyboard filespec*]

Remarks

KEYB is a resident program (TSR). Running KEYB with no arguments simply shows the current settings of a resident copy of KEYB, if there is one.

The *countryid* argument is a two-letter code that specifies which country, region, or language should become current.

If no *codepage* is included, KEYB will use the default codepage for the *countryid*. You can specify either the default or the alternate code page for any *countryid*.

The *keyboardfilespec* argument tells KEYB where to find its data file (KEYBOARD.SYS). If no *keyboardfilespec* is given, KEYB will first look for KEYBOARD.SYS in the current directory, then in the directory containing KEYB.COM.

Here is a list of the supported *countryid* codes, along with their default and alternate code pages:

Country	Country Identifier	Code Page	Alternative Code Page
Australia	us	437	850
Belgium	be	850	437
Brazil	br	850	437
Canadian-French	cf	863	850
Czech Republic	cz	852	850
Denmark	dk	850	437
Finland	su	850	437
France	fr	850	437
Germany	gr	850	437
Hungary	hu	852	850
Italy	it	850	437
Japan	---	932	---
Latin America	la	850	437
Netherlands	nl	850	437
Norway	no	850	865
Poland	pl	852	850
Portugal	po	850	860
Spain	sp	850	437
Sweden	sv	437	850
Switzerland	sf	850	437
United Kingdom	uk	437	850
United States	us	437	850
Yugoslavia	yu	852	850

If a copy of KEYB has already been run, it will be reconfigured to the new specifications. While KEYB is active, you can switch back to a US layout at any time by pressing <Ctrl><Alt><F1>. You can toggle back to the alternate layout by pressing <Ctrl><Alt><F2>

For more information on KEYB, see the section on Configuring ROM-DOS for International Use.

KEYB (cont.)

Examples

```
KEYB GR

KEYB GR,437

KEYB GR,,C:\TOOLS\KEYBOARD.SYS
```

Each of these commands will establish a German keyboard layout. The first and third will use code page 850, while the second will use code page 437. In the third case, the KEYBOARD.SYS file is located in the C:\TOOLS directory.

LABEL

External

Purpose

The LABEL command sets or deletes a disk volume label.

Format

LABEL [*d:*]

Remarks

The volume label may be up to 11 characters in length. LABEL will only use the first 11 characters of a volume label that is longer than 11 characters.

The characters that are usable in a volume label are the same as used for a file name.

The label command will prompt you with the following prompt. Just enter the new label and press enter to modify the existing label.

```
Volume in drive C is xxxxxxxxxxx

Volume label (11 characters, ENTER for none)?
```

If a volume label has previously been assigned to a disk, and you do not enter a new volume label, the following message will be printed.

```
Delete current volume label (Y/N)?
```

If the disk did not have a volume label prior to running the LABEL command, the above message would not appear.

LABEL (cont.)

Examples

LABEL will display the volume label of drive A, if one exists, and allow it to be modified or deleted.

```
LABEL a:
```

LASTDRIVE

CONFIG.SYS

Purpose

Set the maximum number of drives.

Syntax

```
LASTDRIVE = letter
```

Remarks

The *Letter* may be any character between A and Z. It stands for the last drive letter that ROM-DOS will be able to access. The default value for *Letter* is E.

The minimum number LASTDRIVE may be is the number of drives in your computer. If *Letter* is less than number of drives in your computer, then the LASTDRIVE command is ignored.

LASTDRIVE is often used to cause ROM-DOS to make more space for non-standard drives that are not in your system. These drives may be CD-ROM drives, FLASH Disk drives, or network drives.

Example

```
LASTDRIVE = H
```

The above will cause ROM-DOS to allocate for eight drives. If your computer has five installed then there is room for three additional non-standard drives.

LOADHIGH

Internal

Purpose

Loads an executable or TSR into the upper memory area if available. LOADHIGH can be run as a batch subcommand or from the DOS command line.

Syntax

`LOADHIGH` = *executable [arguments]*

-or-

`LH` = *executable [arguments*]

Remarks

An executable or TSR program can be loaded into the upper memory areas if they are available and there is enough free upper memory to accommodate the program's needs. To make high memory available, the EMM386.EXE and HIMEM.SYS utilities must be loaded. If these utilities are not loaded or there is not enough upper memory available, the program will load into conventional memory.

The full drive path and file name of the device must be specified. The arguments are different depending on the device driver.

Examples

```
LOADHIGH=C:\apps\checkit.exe  /p
```

This example installs an executable called CHECKIT with its command line arguments as specified. The program will load into upper memory if available.

MENUCOLOR

CONFIG.SYS

Purpose

The MENUCOLOR command allows you to set the text and background colors for the startup menu. This command can only be used in a menu block within your CONFIG.SYS file.

Syntax

MENUCOLOR = *text_color* [,*background_color*]

Remarks

The *text_color* argument selects the display color for the screen text. The color numbers 0 to 15 can be selected from the list below for the text color.

The *background_color* argument is optional. If a value is not entered, the default color 0 (Black) will be used. Be sure to specify different colors for background and text and separate the numbers with a comma. For best results, choose contrasting colors. Only the color numbers 0 to 7 can be used as background color choices from the list which follows on the next page.

For systems whose BIOS does not directly support a video display, such as Datalight's miniBIOS, the standard CONFIG.SYS menu commands, which rely on BIOS screen support, would be unusable. In order to allow the use of these commands, the color number sequence of "0" for text_color and the default background color(black), or "0,0" for text and background colors can be selected. These numbers represent a color choice of black text with a black background which is an unusable choice for screen viewing. Using the black/black combination in the MENUCOLOR command line will signify to ROM-DOS to display the startup menu in TTY mode without using BIOS screen/cursor positioning or color changing commands.

MENUCOLOR (cont.)

Color Values:

0 - Black	8 - Gray
1- Blue	9 - Bright Blue
2 - Green	10 - Bright Green
3 - Cyan	11 - Bright Cyan
4 - Red	12 - Bright Red
5 - Magenta	13 - Bright Magenta
6 - Brown	14 - Bright Yellow
7 - White	15 - Bright White

Examples

```
MENUCOLOR=14,1
```

The above example will display the menu text in Bright Yellow on a Blue background.

```
MENUCOLOR=5
```

This example will display the menu text in Magenta with a default background of black.

MENUDEFAULT

CONFIG.SYS

Purpose

The MENUDEFAULT command allows you to set the default menu item choice and a time-out value for making a menu selection. This command can only be used with a menu configuration block in the CONFIG.SYS file.

Syntax

```
MENUDEFAULT = blockname[,timeout]
```

Remarks

The blockname argument specifies the default menu item. The value for blockname must match a configuration block name defined elsewhere in your CONFIG.SYS file.

The optional timeout argument represents the number of seconds ROM-DOS will wait for a user input selection before initializing your system with the default configuration. The timeout period can be set to a value between 0 and 90. If you select 0, the default menu item will automatically be implemented without a wait. If you do not enter a timeout value, ROM-DOS will not continue until an Enter key is pressed.

If your system BIOS does not support a Video display directly, such as Datalight's miniBIOS, please refer to the MENUCOLOR command for special instructions.

MENUDEFAULT (cont.)

Examples

```
[MENU]
menuitem=Word_Proc, Word Processing
menuitem=Network, Network
menuitem=Research, Research and
Development
menucolor=15,1
menudefault=Word_Proc,20
```

The above example makes the Word_Proc configuration block the default menu item. If the user fails to make a selection within 20 seconds, the Word_Proc block will be processed.

MENUITEM

CONFIG.SYS

Purpose

The MENUITEM command allows you to specify an item on the startup menu. This command can only be used within a menu configuration block in the CONFIG.SYS file.

Syntax

`MENUITEM =` *blockname* [,*menu_text*]

Remarks

The *blockname* argument is a user defined label given to a configuration block defined elsewhere in the CONFIG.SYS file. If a user selects the menuitem, all commands in the selected configuration block will be processed, along with the instructions that are common to all menu choices (denoted by block header [COMMON]). The blockname can be up to 70 characters long and may contain most printable characters. Spaces, backslashes (\), forward slashes (/), commas, semicolons (;), equal signs (=). Square brackets ([]) cannot be used in block names.

The *menu_text* option is a descriptive statement that defines the blockname. The menu_text will be displayed on the screen as a line item in the startup menu. The menu_text argument can be up to 70 characters long and can contain any characters. If this argument is left off, the blockname will be used for the startup menu display.

If your system BIOS does not support a Video display directly, such as Datalight's miniBIOS, please refer to the MENUCOLOR command for special instructions.

Examples

```
[MENU]
menuitem=Word_Proc, Word Processing
menuitem=Network, Network
menuitem=Research, Research and Development
menudefault=Word_Proc,20
```

The above example defines three menuitems, Word_Proc, Network, and Research. Each of these has descriptive text and a set of commands defined later in the CONFIG.SYS file. At boot time, these menu items would be displayed in the startup menu as follows:

```
ROM-DOS 6.22 STARTUP MENU

1. Word Processing
2. Network
3. Research and Development

Enter a choice: 1
```

MKDIR
(Make DIRectory)

Internal

Purpose

Creates a new subdirectory.

Syntax

`MKDIR [`*`d:`*`][`*`path`*`]`*`subdir`*

`MD [`*`d:`*`][`*`path`*`]`*`subdir`*

Where *subdir* is the name of the new subdirectory to be created. Note that "MD" may be used instead of the full "MKDIR."

Remarks

If no drive or path is specified, the new subdirectory will be created within (one level below) the current default directory.

If drive and/or path is specified, everything specified must exist or the command will display an error message.

Examples

```
MKDIR TEMPDIR1
```

Creates a new subdirectory called TEMPDIR1 within the current default directory.

```
MKDIR C:\UTIL\TOOLS
```

Assuming the UTIL subdirectory exists, this command creates a new subdirectory called TOOLS within it.

MODE

External

Purpose

The MODE utility modifies the operation of the printer, serial port and active video display.

Syntax

```
MODE LPT#[:]=COM#[:]
```

or

```
MODE COM#:baud[,parity[,databits[,stopbits[,P]]]]
```

or

```
MODE <video mode>
```

Remarks

The first format above causes the output sent to the specified line printer to be redirected to the serial port.

The second format above changes the operation of the specified Communications port. The options that can be modified are listed below. Invalid values for any of the options are flagged with an error message.

baud	110, 150, 300, 600, 1200, 2400, 4800, 9600
parity	N - None, O - Odd, E - Even
databits	Either 7 or 8

stopbits Either 1 or 2 stop bits

P Printer Port

The final format changes the active video mode for the display terminal. The valid choices for this version of the MODE command are as follows:

40 Indicates 40 characters per line.

80 Indicates 80 characters per line.

bw40 For a color graphics adapter with color disabled and 40 characters per line.

bw80 For a color graphics adapter with color disabled and 80 characters per line.

co40 Indicates a color monitor with color enabled and 40 characters per line.

co80 Indicates a color monitor with color enabled and 80 characters per line.

mono For a monochrome display. Assumes 80 characters per line.

Using the "P" option as the last argument will cause output to be sent repeatedly to the printer port until successfully received. Without the "P", output will be sent only once causing a critical error if unsuccessful.

Note: A serial port should be initialized before a LPT device is redirected to it.

MODE (cont.)

Examples

MODE modifies the settings for the COM1 device to a baud rate of 9600, no parity, eight data bits, and one stop bit.

```
MODE COM1:9600,n,8,1
```

MODE redirects the output from LPT2 to the COM2 serial port. All following output to LPT2 will actually go to the COM2 device.

```
MODE LPT2:=COM2
```

MODE is used to indicate a monochrome display adapter.

```
MODE mono
```

MORE

External

Purpose

The MORE utility displays a text file one screen at a time.

Syntax

`MORE` [*filename*]

<*command*> | `MORE`

Remarks

The input to MORE may come from a file, or it may be piped in from another filter or a DOS command. If the *filename* is present, then the file will be viewed; otherwise MORE reads from the Standard Input.

Once a screen has been viewed, a line is displayed on the bottom of the screen indicating the percent of the file that has been viewed. At this point, there are several options for the next lines of text to be viewed.

`B`	Display the previous full page.
`<enter>`	Display just one more line.
`T`	Display starting at the top of the file.
`Spacebar`	Display the next full page of text.
`Q`	Quit MORE

MORE (cont.)

Examples

The following example will display a directory one screen at a time.

```
DIR | MORE
```

The following will display the file READ.ME one page at a time.

```
MORE READ.ME
```

NEWFILE

CONFIG.SYS

Purpose

The NEWFILE command allows you to continue CONFIG.SYS file processing from a new file. The file can be located on in another directory or even on a different drive.

Syntax

`NEWFILE=`*filename*

Remarks

The NEWFILE command is especially useful when the CONFIG.SYS file is located on an inaccessible drive or in ROM. Additional device drivers or instructions can be added easily to the new file and will be processed along with the main CONFIG.SYS file upon starting the system.

When the NEWFILE= instruction is processed, control will be passed from the present file (the one containing the NEWFILE instruction) to the file specified in the command. Any commands placed after the NEWFILE instruction in the original file will not be processed. If for some reason the specified file name can not be located, CONFIG.SYS processing will be terminated (even if instructions were to be placed after the NEWFILE command) and the remainder of the startup process will be completed.

NEWFILE commands can be nested. That is, your original CONFIG.SYS can call a second set of instructions via the NEWFILE command. The second file can in turn call a third file by using the NEWFILE command, and so on. Be sure that each filename in the successive steps has a unique name, otherwise, an infinite loop will be created as control is passed back to the same file repeatedly.

Each filename given in a NEWFILE command line will have an environment variable of the same name.

NEWFILE (cont.)

Examples

```
NEWFILE=C:\BIN\NEWCFG.SYS
```

The above example will cause instructions in the file NEWCFG.SYS, located in the C:\BIN directory, to be executed as part of the CONFIG.SYS file. The contents of NEWCFG.SYS may include any of the commands listed in this section.

NUMLOCK

CONFIG.SYS

Purpose

The NUMLOCK command is used to set the Num Lock Key on the keyboard to ON or OFF when your computer starts.

Syntax

```
NUMLOCK=[on|off]
```

Remarks

Selecting ON designates that the Num Lock key is set to *on* when DOS boots. Selecting OFF designates that the Num Lock will be *off* when DOS boots. In either case, you will still have the ability to manually turn the Num Lock key on and off after boot up with the NUMLOCK command.

Examples

```
NUMLOCK=on
```

The Num Lock key will be set to on when the system boots.

PATH

Internal

Purpose

Sets the search path for command files that are not in the current directory.

Syntax

```
PATH [d:][path] [;[d:][path]] ...
```

Remarks

Without a specified search path, ROM-DOS will look for an external command file (i.e., one with an extension of BAT, COM, or EXE) only in the current directory. The PATH command tells ROM-DOS which other directories to search after searching the current directory.

Typing only the word:

```
PATH
```

by itself displays the current path.

If you want to cancel the command paths you set previously, type:

```
PATH ; or PATH =;
```

Examples

If your applications programs are loaded on a fixed disk, the PATH command enables you to start any of them from any drive or directory. Suppose you want to be able to access utilities, a word processor, and a spreadsheet in subdirectories C:\UTIL, C:\WP, and C:\123. You would set the path command as follows:

```
PATH C:\UTIL;C:\WP;C:\123
```

PAUSE
Batch Subcommand

Internal

Purpose

Suspends the execution of a batch file. Resumes operation when any key is depressed.

Syntax

```
PAUSE [message]
```

Remarks

A batch job may require that you perform some action such as changing disks, or choose to continue or terminate the operation. When the command processor encounters PAUSE it suspends execution, and displays the message:

```
Strike a key when ready...
```

After you perform the appropriate action, or make a decision, striking any key other than the combinations <Ctrl><C> or <Ctrl><Break> resumes the batch job.
If you press <Ctrl><C> or <Ctrl><Break> at this point, ROM-DOS asks:

```
Terminate batch job  (Y/N)?
```

Responding "Y" ends the batch job. Strategic placement of the PAUSE command, working with this query, allows you to divide the batch file into sections so you can end it at some intermediate point.

The *message* option allows you to display a reminder on the screen during the pause. Your message will precede the "Strike a key" message. Note, however, that your message will appear only if ECHO is off.

Examples

```
PAUSE Place blank disk in drive A:
```

The above command will alert the user of the need for a disk and suspend operation until a key has been hit.

PRINT

External

Purpose

The PRINT utility prints a single file or a list of files.

Syntax

```
PRINT [/d:] [filename] [/options]
```

Remarks

PRINT allows you to enter between one and 32 files for spooling to the printer. The files are output to the device in a spooled manner (while the user performs other operations).

If PRINT is entered without any parameters, then it displays all the files that are in the queue.

The first time PRINT is used the operator is prompted for the device to perform the operation. The following message is used to prompt the operator for the device.

```
Name of list device [PRN]:
```

The legal devices for printing are LPT1, LPT2, LPT3, LPT4, COM1, COM2, COM3, COM4, AUX, or PRN.

Options

The /B option allows the user to set the buffer size. The default buffer size is 512 bytes. A larger buffer size causes print to operate faster. The maximum buffer size is 32k bytes and the minimum size 256 bytes. This option is only allowed the first time PRINT is run.

The /C option cancels only the file names listed after the /C command.

The /F option allows the user to set the maximum number of files to be queued up at one time. The default number of files is 10. The minimum is 2 and the maximum is 32. Support for more files is often useful when using wild cards in file names. This option is only allowed the first time PRINT is run (or until the next system reboot).

The /P option causes all files listed after this option to be submitted for printing. This is the default for filenames encountered on the PRINT command line.

The /T option cancels all the files from the print queue (list). Think of this as a terminator.

The /H option will display the help screen.

Examples

PRINT puts three files into the print queue. The first file will start being printed after the command ends.

```
PRINT FILE1.TXT FILE2.TXT FILE3.TXT
```

The file FILE2.TXT will be removed from the print queue. All other files in the queue will print normally.

```
PRINT /C FILE2.TXT
```

All files in the print queue are canceled. Printing may continue for a short time because of the buffer in your printer.

```
PRINT /T
```

PROMPT

Internal

Purpose

Changes the ROM-DOS command prompt.

Syntax

`PROMPT` [*text*] [$*character*] [$*character*...]

Remarks

The prompt which ROM-DOS normally displays is the letter of the current drive followed by a right arrow (>) (the "greater-than" symbol). By use of the PROMPT command, this prompt can be changed to include any combination of a message, the current directory, the date, the time, and some other features.

Prompt Codes

Code	Corresponding Prompt
$T	Time
$D	Date
$P	Current Path
$V	ROM-DOS version number
$N	Current drive
$G	The > character
$L	The < character
$B	The | character

$Q	The = sign
$H	A backspace (which erases the previous character)
$E	ASCII code for Escape (X'1B')
$_	Start a new line
$$	The $ character

Examples

To show this prompt:

```
Current directory is drive:\path;
Ready for command>
```

You would type in:

```
PROMPT Current directory is $P;$_Ready for
command$G
```

To show on separate lines the date, time, and current directory followed by the greater-than character and a space, type:

```
PROMPT $D$_$T$_$P$G<space>
```

Where <space> refers to pressing the spacebar once. The resulting prompt will look like:

```
Mon 6-26-1989
10:17:45.99
A:\> _
```

REMark

Internal

Purpose

The REM command has two purposes: to allow comments in a batch or CONFIG.SYS file, and to temporarily disable a command without physically deleting the command from the file. See also the (;) command.

Syntax

```
REM [message]
```

Remarks

This REM command provides information for the user but has no effect on the execution of the batch file.

The comment may be made up of any set of characters. A blank line can also be created by omitting the *message* portion of the line.

REM can also be used to temporarily disable a command in a batch file or CONFIG.SYS, without having to delete the line from the file. For CONFIG.SYS files, the semicolon (;) can also be used in place of the REM command.

Examples

```
REM  This batch file created by
REM  T.J. Sherrill
```

These lines could be added at any point in a batch file as user information only.

```
DEVICE=HIMEM.SYS
DOS=HIGH
REM DEVICE=TESTDEV.SYS /P
```

The “DEVICE=TESTDEV.SYS” statement has been temporarily removed from these CONFIG.SYS instructions. This statement will not be processed again until REM is removed.

(REName)

Internal

Purpose

Changes the name of a file.

Syntax

`REN [`*`d:`*`][`*`path`*`]`*`filename1 filename2`*

Remarks

REN renames files within a directory; it will not move a file to a different drive or directory as part of the command.

The wildcard characters * and ? can be used to rename more than one file at a time.

ROM-DOS will not allow you to give a file a name that matches the name of an existing file in the same directory.

Examples

To rename the file NOTES.DOC in drive B to REPORT.DOC, type:

```
REN B:NOTES.DOC REPORT.DOC
```

To assign the extension TXT to all files with the current extension DOC, type:

```
REN *.DOC *.TXT
```

RMDIR
(ReMove DIRectory)

Internal

Purpose

Removes (deletes) a specified subdirectory.

Syntax

`RMDIR [`*d:*`][`*path*`]`*subdir*

`RD [`*d:*`][`*path*`]`*subdir*

Where *subdir* is the name of the subdirectory being deleted. Note that "RD" may be used instead of the full "RMDIR."

Remarks

If no drive or path is specified, RMDIR will look for the specified *subdir* within (one level below) the current default directory.

If a drive or path is specified, everything specified must exist or ROM-DOS will display an error message.

RMDIR will not remove a subdirectory unless it is empty. An error message will be displayed if you attempt to remove a subdirectory that still has files or other subdirectories within it.

Examples

```
RD TOOLS
```

Removes the TOOLS subdirectory from the current directory, assuming TOOLS is an empty directory.

SET

Internal

Purpose

The SET command is used to set, display, or remove environment variables.

Syntax

```
SET [variable = [string]]
```

Remarks

Environment variables can be used to control the behavior of programs and batch files and also the behavior of ROM-DOS. This command can be used in the AUTOEXEC.BAT and CONFIG.SYS files and on the DOS command line. The environment variables that can be defined with the set command include, but are not limited to, PATH, COMSPEC, PROMPT, and user defined variables.

Using SET *variable* = with no argument string will clear the current environment string for the named variable.

Examples

```
SET PROMPT = $p$g
```

This sets the prompt, although the prompt can also be set with the PROMPT command.

```
SET PROMPT =
```

This clears any previously set prompt settings and returns the prompt to its default state.

SHARE

External

Purpose

SHARE installs the capabilities for file-sharing and file-locking on your hard disk.

Format

```
SHARE [/options]
```

Or from CONFIG.SYS:

```
INSTALL=[d:][path]SHARE.EXE [/options]
```

Remarks

The SHARE utility is most commonly used in a network or multi-tasking environment where file sharing is necessary. When SHARE is loaded, DOS will utilize the SHARE utility to validate read and write requests from application programs and users.

The /L:*locks* argument specifies the maximum number of files that can be locked at one time. The default number of files is 20.

The /U option unloads the share utility and frees the memory. SHARE will not unload if other TSR's have been loaded on top of it. The other TSR's must be unloaded first before trying to unload SHARE.

Examples

The following example loads the SHARE program from the command line:

```
SHARE
```

SHARE (cont.)

The next example installs SHARE from the CONFIG.SYS file and changes the maximum number of locked files to 30:

```
INSTALL=C:\UTILS\SHARE.EXE /l:30
```

The final example unloads SHARE and frees the used memory.

```
SHARE /U
```

SHELL

CONFIG.SYS

Purpose

The SHELL command allows the user to specify a different boot program other than the default COMMAND.COM. **ROM-DOS** will boot this new program, with arguments, instead of the one specified internally.

Syntax

`SHELL =` *boot_ program arguments*

Remarks

The SHELL command is most often used to start the initial copy of COMMAND with special parameters. One parameter is used for providing a larger environment than the default 128 bytes.

The *boot_program* can be any executable program. The full path, including drive letter, should be specified if the program is not in the root directory of the default drive.

Arguments are optional and program specific. They will vary depending on the *boot_program* being executed by the SHELL command.

Examples

This SHELL command boots the standard Command Processor but sets the environment space to 512 bytes (up from the default 128). The /P parameter tells COMMAND that it is permanent (cannot terminate).

```
SHELL=C:\COMMAND.COM /E:512 /P
```

SHELL (cont.)

This example of the SHELL command boots a program called MYPROG.EXE, located in the directory TEMP, instead of the standard Command Processor.

```
SHELL = C:\TEMP\MYPROG.EXE
```

SHIFT

Batch Subcommand

Internal

Purpose

SHIFT moves each replaceable parameter for a batch file one position "to the left." Execution of the SHIFT command allows use of more replaceable parameters in a batch file--beyond the standard set of %0 through %9.

Syntax

```
SHIFT
```

Remarks

This command moves the string or value stored for each replaceable parameter one position to the left. Upon execution of SHIFT, the %0 argument assumes the value of the %1 argument, the %1 argument then assumes the value of the %2 argument, and so on.

SHIFT (cont.)

Examples

The following example batch file will read in a list of files (provided as arguments on the command line), and display each one to the screen. After displaying each one, the SHIFT command copies the next file in the argument list into the %1 slot, verifies the existence of the file and continues.

```
Command line argument:
TYPEIT autoexec.bat config.sys net.bat

TYPEIT.BAT batch file:
      :repeat
      if EXIST %1 goto doit
      goto end

      :doit
      type %1
      pause
      shift
      goto repeat

      :end
      @echo All Done
```

SORT

External

Purpose

The SORT filter sorts a text file and displays the output to the standard device.

Syntax

```
SORT [/options] [filename]
```

Remarks

SORT normally starts its comparisons at the first character in a line.

The input to SORT may come from a file or it may be piped in from another filter or a DOS command.

Options

The /+n option causes SORT to begin it's alphabetical sorting starting at the n^{th} position in the string.

The /r option causes SORT to sort in the reverse alphabetical order.

Examples

The following example sorts the file NAMES.LST and displays the output to the screen.

```
SORT NAMES.LST
```

The following example produces a directory and then sorts the directory by file size (the file size in a directory display starts on the 14th position each line or "string"). The output display is then shown one screen at a time. This is done by directing the output from SORT into the display utility MORE.

```
DIR | SORT /+14 | MORE
```

STACKS

CONFIG.SYS

Purpose

The STACKS command allows for the use of dynamic data stacks to handle hardware interrupts. ROM-DOS does not utilize this command, although it can be added to a CONFIG.SYS file without error. Using the STACKS command will have no effect on the number or size of stacks available.

Syntax

STACKS = *number,size*

SUBMENU

CONFIG.SYS

Purpose

The SUBMENU command defines a menu item that represents a secondary menu when selected. This command can only be used within a menu configuration block in the CONFIG.SYS file.

Syntax

SUBMENU=*blockname*[,*menu_text*]

Remarks

The *blockname* argument defines the name of the secondary menu block of commands. The block menu must be defined elsewhere in the CONFIG.SYS file, otherwise, ROM-DOS will leave this item off of the startup menu. The label can be up to 70 characters long and can contain most printable characters. Spaces, backslashes (\), forward slashes (/), commas, semicolons (;), and equal signs(=). Square brackets ([]) cannot be used in block names.

The optional *menu_text* argument specifies the text that ROM-DOS will display for this menu item on the startup menu. If this argument is left out, ROM-DOS will display the *blockname* as the text. The *menu_text* can be up to 70 characters long and can contain any character.

The submenu can be defined with any user provided descriptive label. It need not have the "[MENU]" label.

SUBMENU (cont.)

Examples

```
[MENU]
menuitem=Word_Proc, Word Processing
menuitem=Network, Network
submenu=Research, Research and Development
menucolor=15,1
menudefault=Word_Proc,20

[WORD PROC]
files=10
buffers=10
lastdrive=m
device=c:\network\loadnet.sys

[NETWORK]
include=Word_Proc
numlock=off

[RESEARCH]
menuitem=proj1, Project 1
menuitem=proj2, Project 2
menudefault=proj1

[PROJ1]
files=50
buffers=25
numlock=on

[PROJ2]
files=10
buffers=20
device=vdisk.sys 64 /e
numlock=off
```

In the above example, a submenu is defined as one of the startup menu choices. If you were to select Research and Development from the first menu, a secondary menu would be displayed offering the choices of

Project 1 and Project 2. The actual commands for Project 1 and Project 2 are defined in the configuration blocks labeled PROJ1 and PROJ2.

SWITCHES

CONFIG.SYS

Purpose

The SWITCHES command allows special CONFIG.SYS file options.

Syntax

```
SWITCHES=[/k][/n][/f]
```

Remarks

The /k argument makes an enhanced keyboard behave like a conventional style keyboard.

The /n argument prevents the use of the F5 and F8 function keys to bypass the startup commands.
The /f argument instructs ROM-DOS to skip the delay after displaying the "Starting ROM-DOS..." message at boot time. The delay allows the user time to use the F5 and F8 options to alter the processing of the startup files.

Examples

```
switches = /n
```

The above example prevents the user from using the F5 and F8 keys at boot time.

SYS
(SYStem)

External

Purpose

Copies the ROM-DOS system files ROM-DOS.SYS and COMMAND.COM from the disk in the default drive to the disk in the specified drive.

Syntax

SYS [*d:*] [*/options*]

Remarks

Use the SYS command to transfer the ROM-DOS system files to a floppy diskette or hard disk. The disk can be a formatted blank disk or can already contain files. With SYS, it is not necessary for the system files to be the first files on the disk. The only requirement is that there is enough contiguous free space on the disk for the new system files to be placed. The command processor, COMMAND.COM, will also be transferred to the diskette. The command processor does not have to be copied into the same contiguous space as the system files. There must be enough free space available for the file somewhere on the disk.

If the disk already had system files on it, after installing the new system files, the old ones are deleted.

Options

The /C options tells SYS to not confirm before transferring system.

The /H option tells SYS to **not** hide the newly transferred system files on the destination disk.

Examples

To copy the ROM-DOS system files from drive A to drive B, at the A> prompt type:

```
SYS B:
```

TIME

Internal

Purpose

Displays the current time as shown on the system's internal clock. Allows resetting of the clock.

Syntax

```
TIME [hh:mm:ss] [pm|am]
```

Remarks

The time set by this command is used, among other things, for "time stamping" your file revision dates. This information is displayed when you execute a directory listing of your files.

You may want to include the TIME command in your AUTOEXEC.BAT file, to set the date at bootup. If your computer has an internal battery-operated clock, you won't need to do so.

The format of the time command is also dependent on the Country specified in CONFIG.SYS. The time is displayed according to local standards for the specified country.

Also see the DATE command.

If you just want to check the time maintained by ROM-DOS, type the TIME command by itself. ROM-DOS will display something like:

```
Current time is 3:00:02.48p
Enter new time:_
```

after which you merely press <Enter> to return to an empty command line.

TIME (cont.)

If you want to change the time you can include the desired time on the prompt line after the word TIME. Or you may type the command with no option (as you do to check the time) and enter the new time before pressing <Enter>.

ROM-DOS displays the time according to the 24-hour clock with the a or p indicator to show AM or PM. The AM / PM indicator can be typed as “a” or “p” or as “am” or “pm”. The time may be entered in a 24 hour format or a 12 hour format with the AM or PM designator.

The allowed options for hours and minutes are:

hh = 0-24 *mm* = 0-59 *indicator* = a, p, am, or pm

ROM-DOS displays time to hundredths of seconds. When entering time, however, you needn't enter seconds or hundredths; ROM-DOS will assume a value of zero if they are not specified.

You may skip the display and prompting by simply typing the current time after the word TIME on the command line:

```
TIME 23:24
```

ROM-DOS will accept your entry as the current time.

Examples

To enter the time 11:15 pm, you can type:

```
TIME 23:15
```

-or-

```
TIME 11:15 p
```

To enter the time as 9:26 am, you can type:

```
TIME 9:26
```

-or-

```
TIME 9:26 am
```

TREE

External

Purpose

The TREE command displays each subdirectory and optionally the files within them for a specified drive.

Syntax

```
TREE [d:] [/options]
```

Remarks

The TREE command displays the full path of each subdirectory on a specified disk.

The [*d:*] specifies the drive that TREE will display the subdirectories from. This argument must be specified.

Options

The /F switch causes TREE to display the files in each subdirectory.

Examples

This command will display all subdirectories on drive C.

```
C:\DATA> TREE C:
```

This command will display all subdirectories on drive A: along with the files within each sub directory.

```
C:\DATA> TREE A: /F
```

TYPE

Internal

Purpose

Displays the contents of a text file on the screen.

Syntax

`TYPE [`*d:*`][`*path*`]`*filename*

Remarks

If a file containing formatting codes or other non-alphanumeric characters is displayed with TYPE, you will see unintelligible characters and possibly hear beeps. This will not harm the system.

Examples

To display the AUTOEXEC.BAT file on drive A, enter:

```
TYPE A:AUTOEXEC.BAT
```

VER

Internal

Purpose

Displays the version number of ROM-DOS in use. Allows revision of this version number.

Syntax

```
VER [n.nn] [/R]
```

Remarks

If a new version number is specified, two digits after the decimal are required. Note that this command revises only the record of the DOS version number; it does not change the actual Operating System loaded in the computer.

The version command shows both the version of the VER command itself and the version of DOS in operation.

Options

The /R option shows the full version and release number of ROM-DOS.

Examples

```
VER 5.0
```

Changes the record of current DOS version in use to DOS 5.0. Any programs that are executed, following this command, will recognize that DOS 5.0 is running.

VERIFY

Internal

Purpose

Display or modify the VERIFY state.

Syntax

```
VERIFY [ON | OFF]
```

Remarks

The VERIFY command will set the state to ON or OFF. When VERIFY is ON then each following disk write operation will be verified. This is usually used when critical data is being written to disks.

If VERIFY is ON, then each disk write operation will take longer. Due to this extra time for disk operations, most users leave VERIFY OFF during normal operations.

Examples

```
VERIFY
```

The above example will display the VERIFY state.

```
VERIFY ON
```

This example will set the VERIFY state to ON, causing ROM-DOS to verify each following write to a disk.

VOL

Internal

Purpose

Display the volume label on a specified disk.

Syntax

```
VOL [d:]
```

Remarks

If you do not specify a Drive, then the default drive is assumed. VOL does not allow the setting of volume labels. Refer to the LABEL command for instructions on setting the volume labels.

Examples

```
A>VOL
```

The above will cause ROM-DOS to display the volume label on the default drive which is the A: drive.

```
A>VOL C:
```

The above will cause ROM-DOS to display the volume label on the C: drive.

XCOPY

External

Purpose

The XCOPY command copies multiple files and optionally subdirectories from one disk to another.

Syntax

```
XCOPY [source] [target] [/options]
```

Remarks

The XCOPY command is used for copying multiple files and subdirectories, if they exist.

The *source* and the *target* parameter are complete drive path and file specification descriptions. If you do not specify a path, XCOPY assumes the default path. If a file name is not specified then "*.*" is assumed.

The ATTRIB command may be used to modify the archive bit for the various XCOPY options that check the archive status of files. Refer to the ATTRIB command description for instructions.

Options

The /A copies only source files that have the archive bit set in them. The archive is not reset.

The /D<mm-dd-yy> option causes XCOPY to copy only those files with a date later than the date specified in the /D option.

The /E option causes XCOPY to create subdirectories on the target even if they are empty.

The /M option causes XCOPY to copy only those source files that have the archive bit set. Once the source file is copied the archive bit is reset.

XCOPY (cont.)

The /P option causes XCOPY to prompt before each file is copied. The prompt appears as follows:

```
C:\COMMAND.COM (Y/N)?
```

If a Y is entered then the file is copied, otherwise, the file is not copied.

The /S option causes XCOPY to copy files in sub-directories of the source directory.

The /V option causes XCOPY to verify each write to the disk.

The /W option causes XCOPY to wait before starting to copy files. The following prompt is displayed.

```
Press any key to begin copying file(s)
```

Examples

XCOPY all files in the BIN subdirectory to the A: drive that have an EXE extension and that have the archive bit set.

```
XCOPY \bin\*.exe a: /a
```

XDEL

External

Purpose

The XDEL command deletes files and subdirectories including empty subdirectories.

Syntax

```
XDEL filespec [/options]
```

Remarks

The XDEL command allows the deletion of files and subdirectories in the same step.

The *filespec* arguments is the starting point for the deletion. The *filespec* argument can contain the drive and path for reaching the starting point and can also contain wild card characters to designate a group of file or directory names.

Options

The /D option deletes empty subdirectories. Deletion will not occur if there are any files in the subdirectory, unless the /S option is specified along with the /D option.

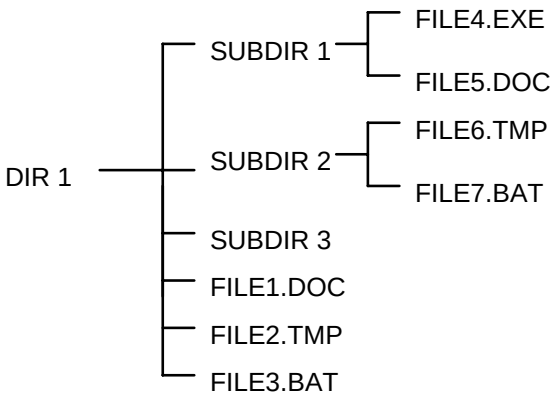
The /P option gives you a confirmation prompt before deleting each file.

The /R option allows deletion of Read-Only files without having to change the file attributes prior to the delete.

The /S option deletes files in subdirectories located below the specified starting directory. When used along with the /D option, it will delete the files within a subdirectory along with the subdirectory entry itself.

Examples

The following examples will all use the diagram below as a reference:



The following XDEL command would delete all of the files in the directories DIR1, SUB1, and SUB2 but not the directory headings themselves.

```
XDEL DIR1 /s
```

To delete the empty subdirectory heading for SUB3, use XDEL as follows:

```
XDEL DIR1  /d
```

To delete all of the files in the three directories and the directory headings at the same time, use the following command:

```
XDEL DIR1 /s /d
```

Appendix A - Keyboard Layouts

The following keyboard charts represent ten of the countries supported by **ROM-DOS**. If a keyboard layout is needed which is not displayed in this Appendix, please contact ***Datalight***.

Denmark

Finland

France

Germany

Italy

Norway

Spain

Sweden

United Kingdom

United States

Index

—%—

—A—

—B—

—C—

—D—

—S—

—T—

—U—

—V—

—W—

—X—

—Y—