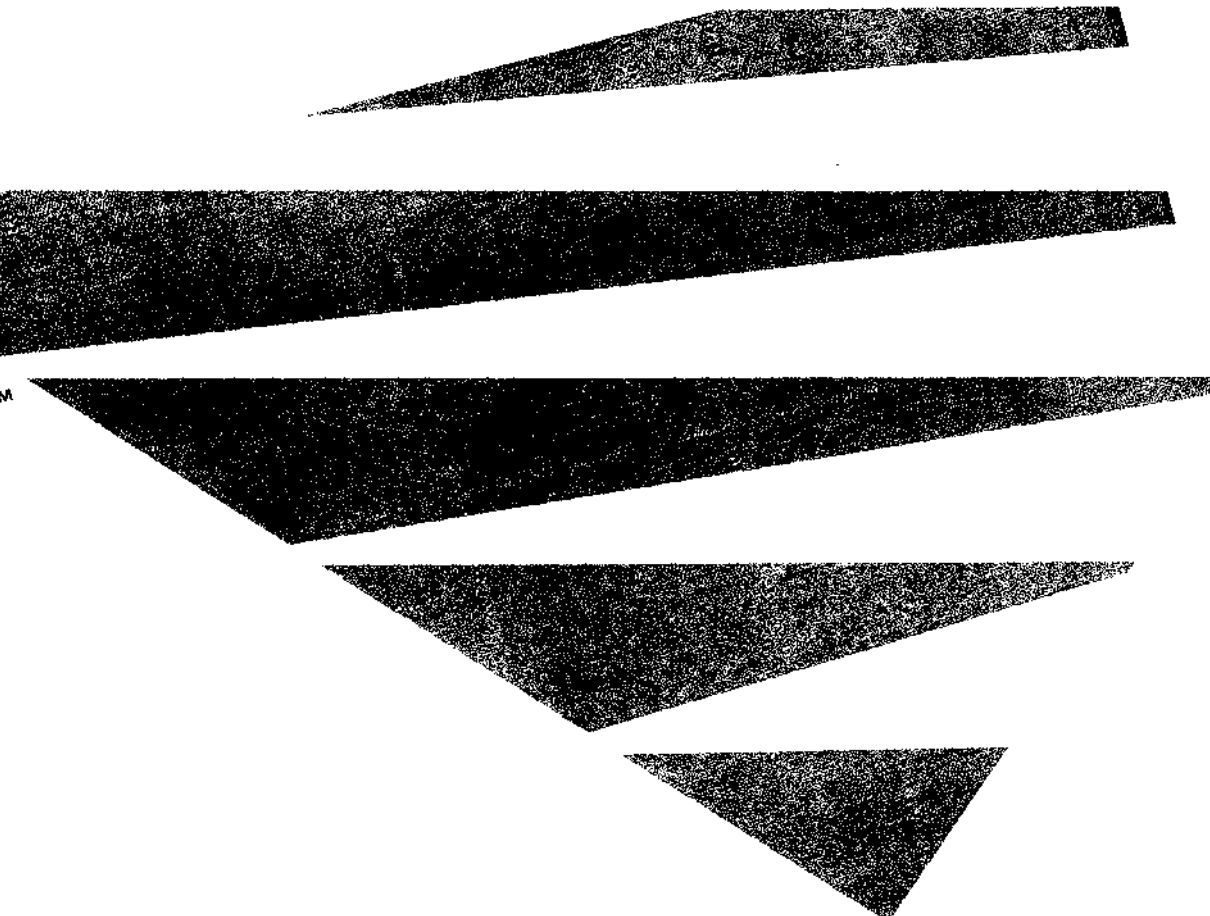




NOVELL®

DR Multiuser DOS v.5.1

Release Notes

DR Multiuser DOS

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THESE Release Notes describe features of DR Multiuser DOS™ that are not explained elsewhere in the *DR Multiuser DOS User Guide*.

The KEYB command

The KEYB command, which is described in the *DR Multiuser DOS User Guide*, is not supplied with this version of DR Multiuser DOS. KEYB is only supported in the international version of DR Multiuser DOS. Please ignore all references to KEYB in the DR Multiuser DOS documentation.

Integrated NetWare® support

DR Multiuser DOS provides integrated support for client access to a NetWare server. The workstation software supplied with DR Multiuser DOS allows multiple DOS sessions to access the server simultaneously, as if each session was a self-contained workstation. This software makes a single multiuser machine act as a cluster of NetWare client workstations.

Workstation installation

Two files allow the multiuser workstation to talk to the file server. The first file, usually called **ipxname.com**, where *name* is dependent on the type of hardware used, contains the IPX/SPX protocol linked with a LAN driver. The file **ipxname.com** manages communications between the workstation and the file server. The second file, the shell, which is usually called NETM, redirects messages from the DOS session to the network via the IPX.

To install the correct workstation LAN driver for your hardware, select the Novell NetWare option during the INSTALL process or by running SETUP. INSTALL or SETUP generates the *name* for **ipxname.com**, for example, **ipx2000.com** and both insert a line into the **cconfig.sys** file that loads the **ipxname.com** driver.

If the workstation LAN driver is not one of the pre-built drivers, select the `Other` option from the SETUP menu. Then you must manually edit **cconfig.sys**, using EDITOR, in order to include a line similar to the one below.

Example

```
INSTALL = c:\OSUTILS\IPXname.com [On] [switches]
```

where *name* is the name you specify for the **ipx.com** file and *On* is the hardware option.

Running a NetWare session

Once the workstation LAN driver has been installed, reboot the system to load the driver. Note that the driver **ipxname.com** is installed from **cconfig.sys**.

To access the NetWare server, run the NetWare shell NETM and log into the server in the same manner as under DR DOS® or other DOS systems. Users can have separate logins from each DOS session, up to a total of 16 DOS sessions in the whole system. At the command prompt type:

```
C>NETM
```

and the shell loads, making the drive after the LASTDRIVE the LOGIN drive. If the LASTDRIVE is E:, the LOGIN drive will be F:; if the LASTDRIVE is P:, the LOGIN drive will be Q:.

NetWare Support files

The following files are supplied with DR Multiuser DOS:

Pre-built IPX drivers

Pre-built IPX drivers are included with DR Multiuser DOS to allow true NetWare-ready operation. These drivers are designed for use with commonly available network hardware such as Ethernet NE1000 and NE2000, and Arcnet cards. This

makes it unnecessary for the system supervisor to build a special **ipx.com** for most installations.

IPX.OBJ

This is a DR Multiuser DOS IPX protocol handler that you can use with an appropriate LAN driver to generate **ipx.com** if one of the pre-built drivers does not support your hardware. Refer to the section “DOS Workstation Installation” in the *Novell NetWare Installation Manual* for more information on generating an **ipx.com** using the shell generation utility SGEN or WSGEN.

NETM.COM

This is the DR Multiuser DOS Novell NetWare Shell that is designed for use with the DR Multiuser DOS IPX driver.

Command Switches

The DR Multiuser DOS IPX driver must be loaded using the `INSTALL=IPXname.com` statement in `CCONFIG.SYS`. It can be run at the command prompt to display configuration information only. Both IPX and NETM have command switches. You can display a list of these switches by typing the command followed by `/?` or `/H`, for example:

`C>NETM /?` or `C>IPXname /?`

IPX command switches

<code>/?</code> or <code>/H</code>	Displays online help text.
<code>On</code>	Loads alternate hardware option. (INSTALL)
<code>/D</code>	Displays hardware options.
<code>/I</code>	Queries the IPX/SPX type.
<code>/BH</code>	Attempts to allocate buffers from upper memory. (INSTALL)
<code>/BL</code>	Allocates buffers from lower memory. (INSTALL)
<code>/CH</code>	Attempts to load IPX into upper memory. (INSTALL)
<code>/CL</code>	Loads IPX into lower memory. (INSTALL)

Examples

If you type

```
C>IPXname /D
```

you see a display on screen, similar to the following:

```
LAN option: NetWare NE2000  v1.05EC (900718)
*#  0. IRQ = 3, I/O Base = 300h, no DMA or RAM
#   1. IRQ = 2, I/O Base = 320h, no DMA or RAM
#   2. IRQ = 4, I/O Base = 340h, no DMA or RAM
#   3. IRQ = 5, I/O Base = 360h, no DMA or RAM
#   4. IRQ = 2, I/O Base = 300h, no DMA or RAM
#   5. IRQ = 3, I/O Base = 320h, no DMA or RAM
#   6. IRQ = 5, I/O Base = 340h, no DMA or RAM
#   7. IRQ = 4, I/O Base = 360h, no DMA or RAM
#   8. IRQ = 4, I/O Base = 300h, no DMA or RAM
#   9. IRQ = 5, I/O Base = 320h, no DMA or RAM
#  10. IRQ = 2, I/O Base = 340h, no DMA or RAM
#  11. IRQ = 3, I/O Base = 360h, no DMA or RAM
```

Type the following to query the IPX/SPX:

```
C>IPXname /I
```

You see a display similar to the following:

```
LAN Option: NetWare NE2000 v1.05EC (900718)
Hardware Configuration: IRQ = 3, I/O Base = 300h,
no DMA or RAM
```

NETM Command Switches

/? or /H	Displays online help text.
/I	Displays shell version and type.
/U	Unloads the NetWare shell from memory.
/F	Forcibly unloads the NetWare shell, regardless of any TSRs loaded after the shell.

WARNING Use the /F switch with care! It may hang your workstation.

NETM command switches (continued)

<code>/PS=server</code>	Specifies the preferred server.
<code>/C=filespec</code>	Names your NetWare shell configuration file.

Security and DR DOS 6.0

The security features added to DR DOS 6.0 are compatible with DR Multiuser DOS 5.1.

To install both systems on the same hard disk as secure systems:

- 1** Install a secure DR Multiuser DOS system but do not enable the fixed disk security (see the description of SECURITY, Chapter 11, "Commands", in the *DR Multiuser DOS User Guide*).
- 2** Install DR DOS 6.0 as a secure system.

Both systems then have fixed disk security enabled.

To support multiple users and groups on a DR DOS 6.0 system, you can use the **user.inf** file created on DR Multiuser DOS by editing the LOGIN command in the DR DOS 6.0 **config.sys** file.

For example, change the following line in **config.sys** from:

```
INSTALL = \DRDOS\LOGIN.EXE \DRDOS
```

to read

```
INSTALL = \DRDOS\LOGIN.EXE \OSUTILS\SECURITY
```

where the subdirectory **\osutils\security** contains the file **user.inf** from DR Multiuser DOS.

New cconfig.sys commands

CHAIN

Format

CHAIN = *filespec*

Explanation

The CHAIN command transfers control to another configuration file. CHAIN checks that the specified *filespec* exists, and if it does, CHAIN closes the current configuration file and begins executing the statements in the configuration file defined by the *filespec*. It does not return to the original configuration file.

Example

The following line executes the file, **cconfig1.sys**, at the root of drive C:

```
CHAIN = C:\CCONFIG1.SYS
```

HIDEVICE

HIDEVICE = [SIZE=nnn] filespec

Explanation

The HIDEVICE command loads specified device drivers into upper memory. If there is insufficient upper memory for the specified driver, it is loaded into conventional memory.

You can specify HIDEVICE with the SIZE option; in this case HIDEVICE does not attempt to load the device driver into upper memory unless the amount of space you specify (at least) is available.

Options

<i>filespec</i>	The device driver you want to load into upper memory.
SIZE = <i>nnn</i>	The minimum number of bytes in upper memory that must be available before HIDEVICE loads the device driver, where <i>nnn</i> is the number of bytes (in hexadecimal format).

Device drivers that require more memory than the device driver image should not be loaded into upper memory without using the SIZE option, because they cannot determine the amount of free memory available for their use.

Note

DR Multiuser DOS is a larger operating system than DR DOS. Usually there is much less upper memory available for device drivers.

HIINSTALL

HIINSTALL = [SIZE=nnn] filespec [options]

Explanation

The HIIINSTALL command loads specified TSRs into upper memory. If there is insufficient upper memory for the specified TSR, it is loaded into conventional memory.

Options

<i>filespec</i>	The TSR you want to load into upper memory.
<i>SIZE=nnn</i>	The minimum number of bytes in upper memory that must be available before HIIINSTALL loads the TSR, where <i>nnn</i> is the number of bytes (in hexadecimal format).
<i>options</i>	This indicates the options to pass to the program given in the <i>filespec</i> .

TSRs that require more memory than the TSR image should not be loaded into upper memory without using the SIZE option, because they cannot determine the amount of free memory available for their use.

Note

DR Multiuser DOS is a larger operating system than DR DOS. Usually there is much less upper memory available for TSRs.

LOCKS

Format

LOCKS = *nnn*

Explanation

The maximum number of locked records per process defaults to 32. You can use the LOCKS command to alter this default so that *nnn* is within the range 0 - 255.

Example

The following example sets the maximum number of locked records per process to 100:

```
LOCKS = 100
```

SLICE

Format

SLICE = *nnn*

Explanation

Use the SLICE command to change the time slice ratio between the foreground and any background process running at each physical console. The default ratio of 5, which allocates 5 time slices to a foreground process against 1 to a background process, can be modified by using the SLICE = *nnn* statement where *nnn* is a decimal value between 1 and 255.

Example

The following example sets a ratio of 20 time slices for a foreground process against 1 for any background process.

```
SLICE = 20
```

TIMEOUT

Format

TIMEOUT = nn

Explanation

TIMEOUT sets a time limit for the amount of time allowed to respond to a ? prompt. If you do not respond within the TIMEOUT limit, the command is ignored.

Example

The following example sets a time limit of 10 seconds for ALL ? prompts which follow it in **cconfig.sys**:

```
?device = c:\osutils\vdisk.sys 1024 128 64  
TIMEOUT = 10  
?device = c:\osutils\cache.exe /s=768
```

Additional utilities

This section contains details of utilities, and features of utilities not described elsewhere in the DR Multiuser DOS 5.1 documentation. The command syntax corresponds to that used in Chapter 11, “Commands”, section 11.2 “Command syntax explained”, in the *DR Multiuser DOS User Guide*.

There are complete descriptions of the following utilities given in these release notes:

- ☐ LOADER
- ☐ MOVE
- ☐ RENDIR
- ☐ SCRIPT

Only the extra features for the following utilities are described in these release notes. For a full description refer to the *DR Multiuser DOS User Guide*:

- ☐ DISKCOMP
 - ☐ DISKCOPY
 - ☐ PRINTMAP
-

LOADER

Format

LOADER [/?|/H] [bootlist] [program] [/U]

Explanation

LOADER is an operating system loader. It gives you the opportunity to boot DR Multiuser DOS or any other operating system that may be present on the main console hard disk.

LOADER is run automatically, without any parameters, by the DR Multiuser DOS INSTALL program. The primary hard disk partition is modified to allow for the booting of DR Multiuser DOS, without affecting the availability of any other operating systems.

When you next boot the system, DR Multiuser DOS will be loaded automatically if it is the only operating system on your disk. If there is a second operating system on the disk, you receive the prompt `Load Multiuser DOS (Y or N) ?` Type `Y` to load DR Multiuser DOS. If you type `N`, or the loader cannot locate DR Multiuser DOS, the operating system occupying the primary bootable partition, for example DR DOS or MS-DOS®, is loaded.

If you have a number of operating systems on your hard disk, and wish to have a choice of operating system at boot time, you can invoke LOADER from the command line, accompanied by the *bootlist* parameter. The next time that you rest the system, you are prompted to identify the operating system you wish to load.

The *bootlist* is a text file, which must reside in the root directory of the primary DOS partition, containing a list of the available operating systems. You can create the *bootlist* file using EDITOR. Each line in this file should have the following format:

```
filespec type [[num]] [comment]
```

where *filespec* gives the name of an operating system file, for example **drmdos.sys**, and *type* identifies the nature of the operating system.

For *type*, enter one of the following single-character codes:

Type	Meaning
C	Concurrent DOS
D	DR DOS (without secure fixed disk)
F	FlexOS®
M	Multiuser DOS (with or without a secure disk partition)
O	OS/2®
P	CP/M® (DosPlus)
3	MS/PC DOS (prior to Version 3.3)
B	Binary file
S	DR DOS (with or without secure fixed disks)

The optional [*num*] parameter represents the number of seconds delay, after which the corresponding operating system file will be loaded, in the absence of any other active selection by the user. The square brackets around the number are mandatory.

The optional *comment* parameter represents any text you wish to have displayed at boot time.

Spacing and case are not significant in the *bootlist* file.

So, for example, a *bootlist* file could look like this:

```
drmdos.sys M [60] Multiuser DOS 5.1
ccpm.sys C Concurrent DOS
abcd.efg C An old version of Concurrent DOS
```

In this case, the **drmdos.sys** file will be booted up after 60 seconds, if another operating system has not been selected first.

LOADER associates each operating system you include in the *bootlist* file with one of the function keys on your keyboard. When you next come to reboot your system, LOADER prompts you to press the function key associated with the operating system of your choice.

Command switch

`/?` or `/H` Displays online help text.

`/U` Uninstalls the loader.

When run for the first time, **LOADER** backs up the contents of your current master boot loader to a file called **loader.sav** in the root directory of the primary DOS partition.

To unload **LOADER**, type **LOADER /U**. This restores the contents of your disk to their former state.

MOVE

Format

```
MOVE [/?|/H] [@]wildspec dirpath [/A] [/D:date] [/H]  
[/M] [/P] [/R] [/S] [/T] [/U:name] [/V] [/W]
```

Explanation

Use the MOVE command to move a file or group of files to another location on the same disk or another disk. You can also use the command to move an entire subdirectory.

MOVE copies each specified file to the specified subdirectory and then deletes the original file. MOVE does not delete subdirectories that are empty after moving, unless you specify the /T switch.

Moving files

The *wildspec* is the drive, path, and name of the file or files you want to move. You can also specify a file containing a list of files to move by typing the @ character immediately before the *wildspec*.

The *dirpath* is the drive and path to which you want to move the file or files. You must specify a single *dirpath*; wildcard characters are not allowed.

WARNING

If you specify a destination for a file that already contains a file with the same name, MOVE overwrites the file on the destination. The only exception is a read-only file, in which case MOVE does not move, or copy, the file you specified. You can override this exception by using the /R command switch.

Moving subdirectories

To move the entire contents of a subdirectory and the directory structure, the *wildspec* is the drive and path of the subdirectory you want to move and the *dirpath* is the destination drive and path. You must also include the /T switch to specify that you are moving a subdirectory rather than a file, which is the default for MOVE.

Command Switches

<i>/? or /H</i>	Displays help text. Note that /H must be the only parameter you type, if you are using it to show help.
<i>/A</i>	Moves only those files for which the archive attribute is set, without changing the attribute setting. The archive attribute indicates that the file has been changed. Refer to the ATTRIB command in the <i>DR Multiuser DOS User Guide</i> for information about file attributes.
<i>/D:date</i>	Moves only those files modified since the specified date. The format of the date depends on your current country code. Refer to the DATE command in the <i>DR Multiuser DOS User Guide</i> for more information.
<i>/H</i>	Moves hidden and system files. Without /H these files will be ignored. Refer to the ATTRIB command in the <i>DR Multiuser DOS User Guide</i> for information about the hidden and system attributes.
<i>/M</i>	Moves only those files for which the archive attribute is set and resets the attribute after moving.
<i>/P</i>	Prompts before moving each file.
<i>/R</i>	Overwrites read-only files on the destination that have the same name.
<i>/S</i>	Moves all the files in a subdirectory but not the subdirectory structure.
<i>/T</i>	Moves all files in the specified subdirectory, including all files in all subdirectories below it. Note that when you use /T, most of the other MOVE switches, which apply to files, are not allowed. Use only /P, /V, and /W with /T.
<i>/U:name</i>	Moves only the files that belong to the user or group name. This option is only available if you have enabled system security.

Command switches (continued)

/V	Compares the moved file or subdirectory on the destination with the data before it was moved to verify the accuracy of the move. If there is any inaccuracy, the move aborts.
/W	Waits for a diskette to be inserted before starting to search for files to move.

Examples

Assume you have a diskette in drive A: that contains a subdirectory called **\text** and that **\text** contains a number of files with the extension **.txt**.

The following command moves all the files with extension **.txt** to a subdirectory called **\txtfiles** on drive C:

```
C>MOVE a:\text\*.txt c:\txtfiles
```

The next command would move the entire subdirectory **\text** into subdirectory **\txtfiles** on drive C: and prompt you before moving each file in **\text**:

```
C>MOVE a:\text c:\txtfiles /T /P
```

RENDIR

Format

```
RENDIR [/?|/H] [d:] [dirpath]olddirname  
[dirpath]newdirname
```

Explanation

The **RENDIR** command allows you to change the name of a subdirectory.

Type the command followed by the current name and the new name. You must also type the drive/path specification before the current name and the new name if the subdirectory you are renaming is not on your current drive or is not your current directory.

Note that if you try to specify a new subdirectory name that already exists, you receive an error message, the command prompt returns, and the subdirectory is not renamed.

Command switches

/? or /H	Displays help text.
------------------------	---------------------

Example

The following example would rename a subdirectory **\france**, which is on the current drive but which is not the current directory, as **\french**:

```
C>RENDIR clients\foreign\france clients\foreign\french
```

SCRIPT

Format

```
SCRIPT [/?|/H] [/U] [source_specification  
[destination_specification]]
```

Explanation

SCRIPT provides PostScript® support for DR Multiuser DOS and programs running under it.

Use SCRIPT to translate ASCII text to PostScript. SCRIPT also translates all data that conforms to the Hewlett-Packard LaserJet II standard, to PostScript.

You can use SCRIPT from the DR Multiuser DOS command line, to take input from a file, the console device, CON, or another program, translate it, and then send it to a printer or file. You can also use SCRIPT as a filter command, to pipe data from another command through the SCRIPT program.

You can install SCRIPT as a TSR that intercepts all data intended for a printer, translates it, and then sends the data to a PostScript printer. When SCRIPT is installed as a TSR, using the SCRIPT command at the command line changes the parameters in the resident part of SCRIPT for the device you specify.

Command switches

/?	or /H	Displays help text.
/U		Uninstalls SCRIPT, if installed as a TSR.

The following table describes the options you can specify in *source specification* and *destination specification*:

Options

device | filename

The source or destination device or file.

/O[RIENTATION]=P[ORTRAIT] | L[ANDSCAPE]

PORTRAIT is the default.

/P[OINTSIZE]=*nn*

The character height in points; 11 is the default.

/TI[MEOUT]=*nn*

The inactivity timeout in seconds; 10 is the default. This timeout overrides the normal timeout for the spooler or printer and prints any information remaining in the spool file or printer. Specify TIMEOUT when the spooler or printer is timing out and attempting to print incomplete data before all the data for the printer has been collected by the spooler.

/T[OP]=*nn*

Sets the top margin in inches.

/L[EFT]=*nn*

Sets the left margin in inches.

/R[ESET]

Resets the printer.

If you specify an output device (LPT1, LPT2, or LPT3) as the source, SCRIPT is automatically installed as a TSR and intercepts all data intended for the source.

Specify SCRIPT with a source only and LPT1 is assumed as the destination. Specifying SCRIPT without a source or destination will display help information, unless you are using SCRIPT as a pipe; in this case, input is assumed to be standard input and output is assumed to be LPT1.

Example

The following command takes input from **report.lst**, translates it, and prints it to LPT1, with the specified orientation and point size:

```
C>SCRIPT report.lst LPT1: /O=LANDSCAPE /P=8.5
```

The next command uses **SCRIPT** as a filter, taking the input from a **DIR** command and sending it to LPT1, by default:

```
C>DIR | SCRIPT
```

The following example shows how to install **SCRIPT** as a TSR using LPT1 as both the source and destination.

```
C>SCRIPT LPT1 LPT1
```

DISKCOMP

Format

```
DISKCOMP [/?|/H] [drive1|filespec] [drive2|filespec]
[/1] [/8] [/A] [/M] [/V]
```

Explanation

DISKCOMP compares two entire diskettes track by track. DISKCOMP has two new switches which are /A and /M.

Making better use of memory

DISKCOMP automatically makes use of expanded memory, and temporary files (in that order) to hold diskette contents so that it does not have to access the diskette so many times. This is particularly useful if you have a single disk-drive, because you do not have to change diskettes so often. DISKCOMP automatically uses a temporary file specified with the environment variable TEMP.

Comparing image files

You can use DISKCOMP to compare an image file (created using DISKCOPY) with a diskette. Note that you cannot compare an image file with another image file.

New command switches

- | | |
|----|--|
| /A | Causes the console to sound a “beep” when the comparison is complete or when you need to change diskettes. |
| /M | Allows you to make multiple comparisons of a single image file or diskette. You are prompted to insert the first diskette to be compared. When the comparison is complete you are asked if you want to compare another diskette. If you type Y for yes, you are prompted to insert the next diskette and so on, until you have completed all the comparisons you want to make. |

Example

The following command compares a diskette against multiple copies using drive A: only:

```
C>DISKCOMP a: a: /M
```

DISKCOPY

Format

```
DISKCOPY [/?|/H] [source-drive|filespec]  
[destination_drive|filespec] [/1] [/A] [/M]
```

Explanation

The DISKCOPY command copies entire diskettes of the same format. There are two new switches /A and /M.

Making better use of
memory

DISKCOPY automatically makes use of expanded memory, and temporary files in that order to hold diskette contents so that it does not have to access the diskette so many times. This is particularly useful if you have a single disk-drive because you will not have to change diskettes so often. DISKCOPY automatically uses a temporary file specified with the environment variable TEMP.

Copying to image files

You can use DISKCOPY to store an image of a diskette into a file; that is, an exact copy of the diskette's contents. This image file can then be copied to or compared against (using DISKCOMP) another diskette. For example, if you type

```
C>DISKCOPY a: c:\image\diska.img
```

the contents of drive A: are copied to the file **diska.img**, in directory **c:\image**. Using the /M switch, you can use the **diska.img** image files as a source for multiple copies to diskettes.

New command switches

/A	The computer will “beep” when the copy is complete or when you need to change diskettes.
/M	Allows you to make multiple copies of a single source. The source must be an image file or drive and the destination must be a drive. The source is copied into memory and you are prompted to insert the destination diskette. When the first copy completes, you are asked if you want to copy another diskette. If you type Y for yes, you are prompted to insert the next destination diskette, and so on, until you make the desired number of copies.

Example

The following command makes multiple copies of a diskette using drive A: and beeps when the copies are completed.

```
C>DISKCOPY a: a: /M /A
```

PRINTMAP

Format

PRINTMAP

```
[/?] [/H] [LPTn=PRN[n] | NUL] ... [COMn=AUX[n] | NUL] ... [:t]  
[/A] [/P] [/*] [/T]
```

Explanation

The PRINTMAP utility lets you map physical printer and serial ports to logical device names.

The new *:t* option allows a timeout period for serial device ownership to be established. The *t* represents the decimal number of seconds before timeout occurs. The /T switch displays the current timeout value. If you have not specified a timeout value, /T displays the default value of 5 seconds.

Any application that accesses a serial port directly is automatically attached to that port until the process terminates, or no attempt to access the port is made for the duration of the timeout period.

If timeout occurs, the application is detached from the port, and other applications are allowed access. If the timed-out application requires further access to the port, such access is given, providing no other application has attached to the port.

Example

The following example maps the serial port COM1 to the logical device AUX0 and sets a timeout limit of 10 seconds.

```
PRINTMAP COM1 = AUX0 :10
```

Color graphics support on terminals

DR Multiuser DOS supports color graphics on the appropriate serial terminals.

To produce color graphics, you can use Wyse 370s, with PC Gr/CGA scan personality, or similar compatible terminals.

Alternatively, PCs running in terminal emulation mode through PCTERM can be configured for color graphics use. To do this, select the `EMULATION = PC/CGA` option in the PCTERM utility.

Either way, you should select the appropriate option in `INSTALL` or `SETUP` to identify your serial terminals as supporting color graphics. Answer YES in response to the Terminal supports graphics option.

Note that you **must not** select the Terminal supports graphics option for standard monochrome terminals such as the Wyse 60/150 or compatibles.

The color graphics support on terminals is suitable for applications that use color text and static graphics, for example, Page Preview mode options in word processors and graphs in spreadsheets and graphing packages.

If you use an application that requires you to select a monitor type during installation, choose the CGA monitor option.

Microsoft Windows™ support

DR Multiuser DOS supports Microsoft Windows 3.0 running in real mode.

Printing from Microsoft Windows

The recommended way of configuring Microsoft Windows for printing under DR Multiuser DOS is to choose LPT1.OS2 as your Ports option from within Printers Configuration. This allows printer output to be redirected via PRINTMAP and CSPPOOL.

Using a mouse

It is recommended that you choose the “Mouse required” option in DR Multiuser DOS SETUP. Then, to install and configure the DR Multiuser DOS **mouse.sys** driver, configure Windows to use a PS/2 mouse.

Multiport board support

In addition to the boards listed in Appendix C of your *DR Multiuser DOS User Guide*, DR Multiuser DOS has built-in support for the DigiCHANNEL PC/8™ 8-port multiport board supplied by DigiBoard, Inc. Use the board’s default switch settings:

- ☐ Set the status register address switch to 140H.
- ☐ Set the I/O port address switches as follows:

Port 1	100H
Port 2	108H
Port 3	110H
Port 4	118H
Port 5	120H
Port 6	128H
Port 7	130H
Port 8	138H

If you are using a multiport board via a generic loadable device driver, there is no support for communications applications that access COM1 and COM2 hardware directly.

Many serial board vendors, such as Arnet, Control, Specialix, Computone, and Maxpeed, supply drivers with their hardware to support DR Multiuser DOS. For details on supported multiport hardware, contact the hardware supplier.

Silent login

Normally on a secure system, the name a user types in response to the `Enter your login name:` prompt displays on the screen.

To hide this display, edit the **login.txt** and **lock.txt** files (described in Chapter 2 of the *DR Multiuser DOS User Guide*), replacing `<NAME>` with `<SNAME>`.

Similarly, to hide the display of asterisks that normally appears in response to a password entry, edit the same two files to read `<SPASSWORD>` instead of `<PASSWORD>`.

To hide the text of any error messages that may be generated by the LOGIN and LOCK utilities, change `<ERROR>` to `<SERROR>` in **lock.err** and **login.err**.

Programmable Function Keys (PFKeys)

Programmable Function Keys (PFKeys) form a part of previous Digital Research operating systems such as Concurrent DOS. The feature allows certain keys on the keyboard to stand for operating system command lines.

DR Multiuser DOS supports pre-existing **.pfk** files containing such settings, in order to maintain compatibility with the previous generation of operating systems.

To make use of a **.pfk** file, first make sure the file is available to the system on disk. Then invoke the KEYS utility in the format:

```
KEYS filespec
```

where *filespec* represents the **.pfk** file that contains the settings you wish to activate.

Note

When KEYS is used on the main console, only the function keys for the particular DOS session are affected.

When KEYS is used on a PC terminal, the function keys for ALL the PC terminals are affected.

System memory pool

It is recommended that, on large multiuser systems, you increase the amount of additional system memory pool in **SETUP** to allow for the additional required system structures.

Batch file examples

To assist users running popular applications in the multiuser environment, there is a suite of example batch files provided in the subdirectory **\batch** on the last disk of the master disk set. To use these batch files, create a subdirectory called **batch** in your **osutils** (or equivalent) directory and copy the contents of **\batch** on the last disk to **\osutils\batch**. Remember to include this directory in your **PATH** statement.

The batch file **menu.bat** exemplifies a simple menu-driven interface. This file uses several of the batch commands available with DR Multiuser DOS 5.1.

CSPOOL and mouse support

Where serial ports are allocated for use by the mouse driver, amend the CSPOOL **config.cpl** file option **NOT_PRINTER** to remove these ports from the CSPOOL list of printers.

CD-ROM support

DR Multiuser DOS can use standard DOS device drivers for CD-ROMs that support the MS CDEX CD-ROM file extensions. If these are supplied, load the driver in **cconfig.sys** as it is loaded in **config.sys** under DR DOS or MS-DOS.

For example, you can configure the Hitachi CD-ROM driver by adding to **cconfig.sys** a line such as:

```
DEVICE = C:\CDROM\HITACHIA.SYS /D:MSCDD000 /W:1 /P:300
```

Then run the MSCDEX TSR program from the command line.

```
C>\CDROM\MSCDEX.EXE /D:MSCD000 /M8
```

Using MAIL.EXE

To set automatic notification of incoming mail, include the **\$m** variable in the **PROMPT =** statement and set the environment variable **MAIL**.

For example, include the following line in **cconfig.sys**:

```
SET MAIL = Mail has arrived!
```

and include in **autoexec.bat** a line such as:

```
PROMPT = %console% $m$p$g
```

Then, whenever the prompt is redisplayed, the message **Mail has arrived!** is displayed, if new mail has been sent to you.

Note that **MAIL** is only available on secure systems.
