

DR DOS 6.0

Release Notes

Licensed from **NOVELL**®

Acorn 

DISCLAIMER

DIGITAL RESEARCH INC. PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. Further, Digital Research Inc. reserves the right to revise this publication and to make changes from time to time to the content hereof without obligation of Digital Research Inc. to notify any person of such revision or changes. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This publication could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. Digital Research Inc. may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time.

TRADEMARKS

Digital Research and DR DOS are registered trademarks, and MemoryMAX, TaskMAX, and ViewMAX are trademarks of Digital Research Inc. Novell and the Novell logo are registered trademarks of Novell, Inc. Microsoft is a registered trademark and MS-Windows is a trademark of Microsoft Corporation. Lotus 1-2-3 is a registered trademark of Lotus Development Corporation. PC-Kwik is a registered trademark and Super PC-Kwik is a trademark of Multisoft Corporation. SuperStor and AddStor are trademarks of AddStor Inc. All other trademarks are the property of their respective holders and are hereby acknowledged.

COPYRIGHT

Copyright © 1976, 1982, 1988, 1990, 1991, 1992 Digital Research Inc. All rights reserved. No part of this publication may be reproduced, or distributed without the prior written permission of Digital Research Inc., 70 Garden Court, P. O. Box DRI, Monterey, California 93942.

April 1992

Contents

Additional information	1
Microsoft® Windows® 3.1	1
Installation	2
System security Master password	2
System security and UNINSTAL	2
Compressed drives	2
Multi-boot utilities	3
Troubleshooting	3
Using AutoCAD R11	3
Using disk maintenance programs	4
Using Microsoft Windows 3.0 in Real mode	4
Troubleshooting information	4
Utilities	4
DISKOPT and UNDELETE	4
SCRIPT	4
FDISK	4
DELWATCH	5
LOCK and Microsoft Windows	5
Super PC-Kwik and Protected Mode Applications	6
SuperStor	6
MemoryMAX (HIDOS.SYS with LIM EMS)	6
TaskMAX	8
Mouse drivers	8
TASKMAX /F option	8
TASKMAX /M option	9
TASKMAX /V option	9
Free swap space	9
Using communications programs	9
Using disk editors	9

ViewMAX	9
Amended information	10
COPY command	10
DELPURGE command	10
MEM command	10
SuperStor error messages	10

Additional information

1	Additional information
2	Additional information
3	Additional information
4	Additional information
5	Additional information
6	Additional information
7	Additional information
8	Additional information
9	Additional information
10	Additional information
11	Additional information
12	Additional information
13	Additional information
14	Additional information
15	Additional information
16	Additional information
17	Additional information
18	Additional information
19	Additional information
20	Additional information
21	Additional information
22	Additional information
23	Additional information
24	Additional information
25	Additional information
26	Additional information
27	Additional information
28	Additional information
29	Additional information
30	Additional information
31	Additional information
32	Additional information
33	Additional information
34	Additional information
35	Additional information
36	Additional information
37	Additional information
38	Additional information
39	Additional information
40	Additional information
41	Additional information
42	Additional information
43	Additional information
44	Additional information
45	Additional information
46	Additional information
47	Additional information
48	Additional information
49	Additional information
50	Additional information
51	Additional information
52	Additional information
53	Additional information
54	Additional information
55	Additional information
56	Additional information
57	Additional information
58	Additional information
59	Additional information
60	Additional information
61	Additional information
62	Additional information
63	Additional information
64	Additional information
65	Additional information
66	Additional information
67	Additional information
68	Additional information
69	Additional information
70	Additional information
71	Additional information
72	Additional information
73	Additional information
74	Additional information
75	Additional information
76	Additional information
77	Additional information
78	Additional information
79	Additional information
80	Additional information
81	Additional information
82	Additional information
83	Additional information
84	Additional information
85	Additional information
86	Additional information
87	Additional information
88	Additional information
89	Additional information
90	Additional information
91	Additional information
92	Additional information
93	Additional information
94	Additional information
95	Additional information
96	Additional information
97	Additional information
98	Additional information
99	Additional information
100	Additional information

Additional information

This section describes features of DR DOS® 6.0 that are not explained elsewhere in the DR DOS 6.0 documentation.

Microsoft® Windows® 3.1

DR DOS 6.0 is fully compatible with Microsoft® Windows® 3.1.

The Windows 3.1 default drive for temporary swap files is the drive on which Windows was installed. If Windows is installed on a SuperStor™ drive it is recommended that users change the default drive for swap files to an uncompressed drive. This should be done for both temporary and permanent swap files. Use the “386 Enhanced” option from Control Panel to change swap files.

If Super PC-Kwik™ is already loaded when you install Windows 3.1, you are informed by the Windows SETUP program that SUPERPCK.EXE is running and you are warned that your system might fail; ignore this message and continue with the Windows installation procedure.

Windows 3.1 makes changes to **autoexec.bat** and **config.sys** on installation. It is recommended that you make a backup of these files.

By default, Windows installs the SMARTDrive disk cache program and the HIMEM.SYS memory manager. However, the DR DOS 6.0 disk cache, Super PC-Kwik, and the DR DOS 6.0 MemoryMAX™ drivers provide superior functionality over the Windows 3.1 SMARTDrive disk cache and HIMEM.SYS. To use Super PC-Kwik and the DR DOS MemoryMAX drivers, instead of SMARTDrive and HIMEM.SYS, you simply remove one line from your **autoexec.bat** and **config.sys** files. Edit **autoexec.bat** to remove the line

```
C:\WINDOWS\SMARTDRV.EXE
```

and edit **config.sys** to remove the line

```
DEVICE=C:\WINDOWS\HIMEM.SYS
```

The above lines should be removed after Windows 3.1 has been installed but prior to rebooting.

If you are using the DR DOS 6.0 EMM386.SYS MemoryMAX driver, Windows can also replace the EMM386.SYS line in your **config.sys** file with the Windows EMM386.EXE line. As a result of this change, your system might generate an error message when rebooting. The EMM386 line should be changed back to its original form after installing Windows 3.1 for your system to boot properly. Refer to the backup of your **config.sys** to be sure that you have the correct syntax.

The Windows 3.1 installation also inserts a STACKS command into **config.sys**. Even though DR DOS does not use a STACKS command, the line can remain in **config.sys**. No error will result.

DR DOS 6.0 is compatible with both the SMARTDrive disk cache and with HIMEM.SYS. If you want to continue using these drivers, you must run the DR DOS SETUP program, and remove MemoryMAX and Super PC-Kwik. However, if you do use SMARTDrive instead of Super PC-Kwik, do not use the SMARTDrive + option to enable caching on a SuperStor compressed drive. Unexpected errors can result when this option is used.

EMM386.SYS supports upper memory for Windows 3.1 running in Standard or Enhanced mode. You no longer need to use the /WINSTD option on the EMM386.SYS command line to run Windows 3.1 in Standard mode.

NOTE:

Some machines using NE2000 network cards being supported by IPX.COM version 3.26 and configured for I/O address 360 have occasionally "hung" or had trouble running DOS applications under Windows 3.1. If this is encountered, try setting the NE2000 for a lower I/O address or using IPXODI to support the card at I/O address 360.

Installation

System security Master password

Note that it is very important to keep your Master Key password secret and in a safe place. Once you have chosen the secure system option and specified a Master password, you will not be able to reinstall DR DOS or disable the security without the correct password.

System security and UNINSTAL

Once you have chosen the secure system option, you cannot use the UNINSTAL command to “uninstall” DR DOS and restore your old operating system until security is disabled.

Compressed drives

Before creating any SuperStor compressed drives, read section 13.3 of the *DR DOS 6.0 User Guide*. This section gives important information about the impact of (and procedure for) creating a compressed partition.

It is strongly recommended that you backup all your data before converting a drive to a SuperStor compressed drive. If you decide to remove the drive later, all the data contained on it will be deleted.

If you are using another operating system, be sure to check that it supports compressed drives, before creating SuperStor drives; earlier versions of DR DOS (and DR Multiuser DOS™ 5.0), for example, do not.

DISKOPT is a DR DOS 6.0 disk optimization utility, which is recommended for optimization of a SuperStor drive. DISKOPT can properly analyze the internal allocation tables of a SuperStor drive by letting the SuperStor driver act as interpreter to the drive.

Third party disk utilities might not be able to define the internal structure of a SuperStor drive. These utilities are **not** recommended as their effect on a DR DOS 6.0 SuperStor compressed drive are indeterminable.

Remove copy-protected software or position-dependent software before using SuperStor. Copy-protected software can be reinstalled after the drive has been compressed with SuperStor.

If DELWATCH is being used, run DELPURGE to remove pending delete files from a drive before using SuperStor.

Multi-boot utilities

“Multi-boot” utilities, such as OS/2® DualBoot, typically depend on re-writing the boot sector after DOS is installed. If you install DR DOS on top of a system using a multi-boot utility, the multi-boot might not work properly after installation.

Remove the multi-boot utility, install DR DOS, and then reinstall the multi-boot utility.

Troubleshooting

Using AutoCAD R11

Before running AutoCAD® R11, ensure that **Ctrl+Break** checking is OFF. You can display the current **Ctrl+Break** status with the BREAK command, and disable it by typing BREAK OFF. You can also disable it by changing the BREAK entry in **config.sys** using the SETUP command.

Using disk maintenance programs

Although DR DOS can create and read hard disk partitions of up to 2 Gigabytes, some older versions of disk maintenance programs (for example, Norton Utilities or PCTOOLS) only support disk partitions up to 32 Mbytes. When run on larger partitions, they will display a “Drive Not Ready” error message. Contact your software supplier for a more recent version of the disk maintenance program.

Using Microsoft Windows 3.0 in Real mode

Note that before you load Windows in Real mode, ensure that upper memory (and additional memory created by the /VIDEO option of EMM386.SYS or HIDOS.SYS) are disabled. Upper and Video memory are disabled by default, but you can also use the following MEMMAX command if necessary:

```
MEMMAX -U -V
```

Troubleshooting information

Refer to the following sections of the *DR DOS 6.0 User Guide* for “troubleshooting” information: Chapter 12, “Using MemoryMAX,” Chapter 13, “Optimizing your disk,” and Appendix A, “Error messages and troubleshooting.” You can also find the same information in DOSBook.

Utilities

DISKOPT and UNDELETE

Note that after you use DISKOPT to optimize your disk, you can only recover files saved by DELWATCH with UNDELETE.

SCRIPT

The SCRIPT utility now loads as a TSR on LPT1.

FDISK

The FDISK utility now has two additional options:

- Select the “Re-write master boot record” option if the SETUP program cannot install system security because of an incompatible existing “master boot record.” FDISK saves a copy of the existing record in a file called **oldmbr.bin** in the root directory of drive C and writes the standard DR DOS master boot record in its place.
- Select the “Restore original master boot record” option to restore the original record from **c:\oldmbr.bin**.

For a full description of the FDISK utility, refer to the *DR DOS 6.0 User Guide*.

DELWATCH

Some third-party memory managers might incorrectly report the amount of free disk space if they read the FAT directly because pending delete files saved when DELWATCH is active are not marked as “free” until the space is actually required or you delete them using DELPURGE.

LOCK and Microsoft Windows

You can use the DR DOS LOCK program to temporarily lock your system when you are running Microsoft Windows.

To install LOCK under Windows, do the following:

1. Load Windows and select the program group in which you want LOCK to appear (the ACCESSORIES group, for example).

2. Open the Program Manager File menu and select the "New" option. Then select "Program Item" in the dialogue box and press OK.
3. Enter "DRI Lock" in the "Description" field of the next dialogue box and "LOCK.EXE" in the "Command Line" field.
4. Press OK.
5. The LOCK icon, a red padlock, now appears in the program group you selected.

To use LOCK under Windows, do the following:

1. Click twice on the LOCK icon to run LOCK.
2. Press the "Lock system" button to lock the system.
3. If your system is secure (that is, you have installed system security), your computer locks immediately. Enter your existing User or Master password to unlock it. If your system is not secure, you are prompted for a password to lock it.

Note that if you want to hide the contents of your screen, select the "Hide Screen" option. The screen is restored when you enter the correct password.

Super PC-Kwik and Protected Mode Applications

If you get an "out of memory" error from protected-mode applications such as Lotus® 1-2-3 R3.1 or AutoCAD R11 (which uses DOS extender technology), make sure that Super PC-Kwik is configured with enough reserved memory in SETUP or use the /R:nnnn switch with the SUPERPCK command.

SuperStor

You can force the entire SuperStor driver, SSTORDRV.SYS, to load into conventional memory by using the /NOHI option in the DEVICE statement.

```
DEVICE = c:\sstordrv.sys /NOHI
```

This option is primarily of value when you want to manipulate memory configurations for diagnostic purposes.

CHKDSK and third party utilities do not normally portray the proper amount of available space on a SuperStor drive. CHKDSK and most third party utilities base their free

amounts on a perfect 2:1 compression ratio. However, free space on a SuperStor drive will actually vary due to the differing compression ratios of the files stored on a SuperStor drive.

Use DIR, XDIR, and the SSTOR “statistics” option to determine the current SuperStor free space. All three of these options have adjustments built into them to account for the differing compression ratios of the files stored on a SuperStor drive.

MemoryMAX (HIDOS.SYS with LIM EMS)

HIDOS.SYS now provides upper memory for any machine equipped with an Expanded Memory Specification (EMS) memory board together with its Expanded Memory Manager (EMM) device driver software. Note that expanded memory hardware is required; software that provides expanded memory using extended memory or disk storage will not work properly. HIDOS.SYS can use expanded memory in two ways:

1. If your expanded memory hardware/software provides mappable upper memory outside the page frame, then HIDOS.SYS will automatically detect and use this memory and no special HIDOS.SYS command line options are required (there is a command line option (/CHIPSET=EMSUMB) that tells HIDOS.SYS to use mappable upper memory outside the page frame). Mappable upper memory outside the page frame requires suitable hardware together with EMS 4.0 or Enhanced EMS (EEMS) software.
2. If your expanded memory hardware/software does not provide mappable upper memory outside the page frame, or if you do not want to use expanded memory for anything other than providing upper memory, then you can instruct HIDOS.SYS to use all mappable upper memory including the page frame. Because HIDOS.SYS will not do this by default, you need to specify /CHIPSET=EMSALL on the HIDOS.SYS command line. If you use this option, HIDOS.SYS will prevent any other programs from using expanded memory.

To let HIDOS.SYS use expanded memory, you must load your Expanded Memory Manager software before loading HIDOS.SYS, so the `DEVICE=` line in **config.sys** for the Expanded Memory Manager must be included before the `DEVICE=HIDOS.SYS` line.

For example, to use mappable upper memory excluding the page frame using an AST RAMpage board using AST's REMM.SYS Expanded Memory Manager, put the following in your **config.sys**:

```
DEVICE=REMM.SYS  
DEVICE=HIDOS.SYS
```

To use all mappable upper memory including the page frame:

```
DEVICE=REMM.SYS  
DEVICE=HIDOS.SYS /CHIPSET=EMSALL
```

To use the /VIDEO option of HIDOS.SYS so that conventional memory can be extended into video memory space, you might need to set the Expanded Memory Manager to provide mappable upper memory in this area. Some Expanded Memory Managers will provide this automatically, but some will not. Consult the documentation for your expanded memory manager software as required. For example, to use video memory space using HIDOS.SYS with later versions of AST's REMM.SYS Expanded Memory Manager, put the following in your **config.sys**:

```
DEVICE=REMM.SYS /L=A000-B7FF  
DEVICE=HIDOS.SYS /VIDEO
```

If you do not want HIDOS.SYS to use EMS at all, then either Load HIDOS.SYS before the Expanded Memory Manager, or use the HIDOS.SYS /CHIPSET=NONE command line option.

TaskMAX

When TaskMAX is unable to switch tasks, it waits for a few seconds and then sounds a "beep."

TaskMAX is unable to switch for one of the following reasons:

- There is not enough available swap space.**
Exit your current task or delete some unwanted files on the disk.
- You are running an application that changes hardware configuration.**
Exit the application.

- ❑ **You are using Ctrl+P or the COPY command to copy files to the printer.**

Wait for printing to finish if the printer buffer is full or turn the printer online if it is not ready.

- ❑ **You are running an application that talks directly to NetBIOS.**

Exit the application.

Mouse drivers

Configure all applications to use the Microsoft-compatible mouse driver interface as supplied with your mouse (**mouse.sys** or **mouse.com**, for example). Ensure that the mouse driver is loaded in **config.sys** or before TaskMAX in **autoexec.bat**.

TASKMAX /F option

For fastest performance, TaskMAX is configured so that user-defined fonts and code page information are not retained when you switch tasks. Applications that require this function for proper screen display might produce garbled results on the screen after task switching; should this occur, you can use the /F switch with TASKMAX to save the fonts when switching. Note that using /F slows down switching speed and causes a slight flashing (on some screens) during task switching.

TASKMAX /M option

Use the /M option when you load TaskMAX to select a specific task using the numeric keys on the main keyboard. This option supports keyboards that do not have separate numeric keypads.

You can also edit the **taskmax.ini** file to automatically enable the /M option by default. In **taskmax.ini**, add the following under the subsection “[keys]”:

```
MainNumKeys=1
0=use numeric keypad
1=use main
```

TASKMAX /V option

Use the /V option if any errors occur when switching between tasks on a VGA compatible display. The /V option forces the VGA to be accessed in the same way as an EGA display adaptor.

Free swap space

Use the "About TaskMAX..." option on the TaskMAX menu to check the amount of free space available. Refer to the TaskMAX documentation in Chapter 6 of the *DR DOS 6.0 User Guide*.

Using communications programs

Before you use TaskMAX with any communication program, configure both the modem and the communications program to ignore the status of the DTR line; this line forces the modem to break the current telephone connection when the communications program switches out.

Using disk editors

You **cannot** run applications that access the disk directly (disk editors) under TaskMAX when other tasks are loaded. You will get errors when the disk editor/application tries to write to the disk, if you attempt to do so.

ViewMAX

When ViewMAX is configured to use an EGA or VGA display, it automatically determines the current display type, either Monochrome or Color, EGA, or VGA. If, for any reason, a different display mode is required, ViewMAX can be forced to work with a specified display type by editing the VIDPATCH keyword in **viewmax.ini** (using the DR DOS EDITOR) with the following contents:

```
VIDPATCH = nn
```

where nn is replaced by a digit between 00 and 03.

- 00 Monochrome EGA Display
 - 01 Color EGA Display
 - 02 Monochrome VGA Display
 - 03 Color VGA Display
-

You can make additional memory available for ViewMAX by disabling the clock and calculator accessory. To do this, rename **viewmax.acc** to (for example) **viewmax.ack**. ViewMAX will then not attempt to load the accessory. Refer to the RENAME command description in the *DR DOS 6.0 User Guide*.

Amended information

This section of the Release Notes describes features of DR DOS 6.0 that are described incorrectly in the *DR DOS 6.0 User Guide*.

COPY command

When you specify the /A or /B switch before the first wildspec or filespec in the COPY command line, all files specified in the command line are treated as ASCII text (in the case of /A) or binary (in the case of /B).

DELPURGE command

The default for DELPURGE is to prompt before removing pending delete files; specify the /A switch to remove files without prompting.

The /S switch includes files in subdirectories below the specified subdirectories, but if you also include /L, the files in subdirectories are only listed (not removed). For example:

```
DELPURGE /SL
```

MEM command

The following switches are also available with the MEM command:

- /F Displays memory blocks in segment FFFF (high memory).
- /U Displays memory blocks in upper memory.

SuperStor error messages

The following SuperStor error messages are not included in the *DR DOS 6.0 User Guide*.

Boot files not found while compressing a bootable drive

Origin	SSTOR
Explanation	SSTOR was unable to locate the operating system files. Use SYS to copy the system files to your C: drive.

Cannot create empty bootable partition

Origin	SSTOR
Explanation	The C: drive cannot be converted to a compressed partition if there is not an operating system installed.

Cannot remove current default drive

Origin	SSTOR
Explanation	The current default drive cannot be removed; switch to another drive and run SSTOR again.

Cannot run with Windows or another active task switcher
Cannot run while TASKMAX has other sessions active

Origin	SSTOR
Explanation	SSTOR cannot be executed while Windows, TaskMAX, or another multitasking system is loaded.

CONFIG.SYS file not found

Origin	SSTOR
Explanation	SSTOR requires a config.sys file on a bootable drive. If you do not have a config.sys file, create an empty one using the EDITOR.

Disk structure errors encountered

Run CHKDSK to correct

Origin SSTOR

Explanation Errors have been encountered in the file allocation table on the host drive. Use CHKDSK to correct the errors, and run SSTOR again.

Error initializing FAT buffer

Error initializing Dir buffer

Origin SSTOR

Explanation The SSTOR program encountered an error while building the memory based copies of the file allocation table or the root directory structure. This is most likely caused by insufficient memory.

Error reading drive parameters IOCTL error

Origin SSTOR

Explanation SSTOR cannot get the parameters for the specified drive, or error on host drive. Use CHKDSK to verify the integrity of the drive.

Insufficient free disk space to continue

Origin SSTOR

Explanation When compressing a drive that already contains files, there must be approximately 1.5 Mbytes of free space on the drive for a temporary file.

Memory allocation error

Origin SSTOR

Explanation Insufficient memory exists to run the SSTOR program.

No non-compressed partitions available

Origin	SSTOR
Explanation	There are no drives that could be compressed that are not already compressed.

No SuperStor disks present

Origin	SSTOR
Explanation	No compressed drives are currently available.

Specified disk size too large

Origin	SSTOR
Explanation	SSTOR cannot create a compressed drive larger than 512 Mbytes (a physical drive of 256 Mbytes).

SuperStor driver not found
SuperStor device open error

Origin	SSTOR
Explanation	The SuperStor driver is not loaded, or is not responding. The SSTOR program requires the driver to convert drives that already contain files.

System area initialization error

Origin	SSTOR
Explanation	An error has been encountered while writing the system area of the compressed drive to the file.

Drive structure error - mounting read only

Origin	SSTORDRV.SYS
Explanation	An error has been detected in the internal SuperStor tables. You will not be able to write to the drive until this error has been corrected. Use CHDKSK to rectify the fault.

Host file structure error, not mounted

Origin	SSTORDRV.SYS
Explanation	The host file has an allocation or other error that stops the driver from loading correctly. Use CHKDSK to verify the integrity of the host file.

Incompatible DOS version

Origin	SSTORDRV.SYS
Explanation	The SuperStor driver cannot be used with the version of DR DOS or DR MultiuserDOS that you are running.

Invalid fragment maximum. Space for 128 reserved

Origin	SSTORDRV.SYS
Explanation	The host file contains too many non-contiguous blocks. The maximum number of allowable fragments is 128. To correct the problem, enter the following sequence of commands (where "x" is the drive):

```
ATTRIB -HS x:\SSPARTSS.*  
DISKOPT x:  
ATTRIB +hs x:\SSPARTSS.*
```

Reboot your system.

File Transfer Errors

<p>ERR0000000</p> <p>The host file has an allocation or other error that stops the driver from loading correctly. The CHKDSK to verify the integrity of the host file.</p>	<p>Origin</p> <p>Explanation</p>
---	--

Transfer Error: Disk Full

<p>ERR0000001</p> <p>The transfer driver cannot be used with the version of DR DOS or Windows 3.11 that you are running.</p>	<p>Origin</p> <p>Explanation</p>
---	--

Transfer Error: Invalid File Name

<p>ERR0000002</p> <p>The host file name is not valid for Windows 3.11. The maximum number of characters in the file name is 255. However, a path name may be up to 260 characters long. The following characters are not allowed in the file name:</p>	<p>Origin</p> <p>Explanation</p>
---	--

<p>ERR0000003</p> <p>The host file name is not valid for Windows 3.11. The maximum number of characters in the file name is 255. However, a path name may be up to 260 characters long. The following characters are not allowed in the file name:</p>	<p>Origin</p> <p>Explanation</p>
---	--

**THIS PRODUCT MUST BE
SOLD WITH HARDWARE**

10005696
0045-5424