

David

***** 25
From joachim Wed Sep 12 09:11:28 1990
To: bobo steve markche richardf rosh
Cc: billni bradsi hansa markche tomle
Subject: RE: Known Problems with DR DOS 5.0
Date: Wed Sep 12 08:53:20 1990

Love. Try to get it into publications asap.
>From markche Mon Sep 10 13:05:10 1990
To: bobo steve joachim richardf rosh
Cc: billni bradsi hansa markche tomle
Subject: Known Problems with DR DOS 5.0
Date: Mon Sep 10 13:01:57 1990

Bobo, pls distribute to ioem.

The following is a summary of compatibility problems that we have verified with DR DOS 5.0 based on internal testing and results from an outside test lab. This is a technical summary of confirmed problems with DR DOS 5.0. Comparisons between MS-DOS 5.0 and DR DOS 5.0 have been addressed in previous mail and so are not discussed here.

This information is being provided to assist in disproving DRI's claims that DR DOS 5.0 is 100% compatible with MS-DOS. It is, however, very confidential information and should be provided to customers only under non-disclosure.

General DR DOS 5.0 Compatibility Issues

1. Paradox/386

Paradox/386 fails when DR DOS 5.0 is loaded high with default parameters. A "Protection Error" message is displayed on invocation of Paradox/386.

2. Professional Oracle

Professional Oracle fails when DR DOS is loaded high with default parameter, resulting in the display of the "Protection Error" message on invocation.

3. SpinRite

SpinRite fails when DR DOS is loaded high with default parameters.

X 575655
CONFIDENTIAL

MS-PCA 1141663
CONFIDENTIAL

4. Peachtree Complete Accounting

Peachtree Complete Accounting cannot be invoked with the startup command (Peach) under DR DOS 5.0, whether DR DOS 5.0 is loaded high or low.

5. Other Problems in DR DOS 5.0

A) Misc: Problems caused by HMA Implementation

If DR DOS 5.0 fails to load high, the HMA (The memory between 1MB and 1MB+64K) is not deallocated. Thus no other application can use it. This is be a problem for LAN Manager and Novell environments set up to use the HMA.

B) Problem with the HIDOS driver

If the user loads the HIDOS driver, DR DOS 5.0 will try to move high even if the user specifies HIDOS=OFF. This becomes be very annoying if the user wants to load Novell or LAN Manager into the HMA.

C) Problem with HIMEM drivers

DR DOS 5.0 is not friendly to other HIMEM (or XMS) drivers. For example, the HIMEM.SYS driver shipped with Windows 3.0. DR DOS 5.0 will refuse to load high under this XMS driver.

D) Problem with loading DR DOS high in certain configurations

On machines with 512 Bytes of system memory and extended memory, the HMA exists, and the user will expect to be able to load DR DOS 5.0, but DR DOS 5.0 will refuse to load high in this situation.

Windows 3.0 Compatibility Issues

DR DOS 5.0 provides the ability to be loaded high (to reduce the amount of lower 640K memory occupied by DOS). However, there is no way to run DR DOS 5.0 high and run Windows 3.0 at the same time. This is because, to run high, DR DOS 5.0 requires the use of their EMM386.SYS, or their HIDOS.SYS - either of which causes problems for Windows 3.0.

DRJ's EMM386 is used on Intel 386 based computers and it maps Upper Memory Blocks into the DOS arena. This will cause Win 3 to get very upset. It will hang. DRJ states in their manual that in order to run Windows 3.0, you will need to remove their EMM386 from the system. This could be very painful as it forces the user to reboot in order to run Windows 3.0. This means that Windows 3.0 users can't get

X 575656
CONFIDENTIAL

MS-PCA 1141664
CONFIDENTIAL

the benefit of a Dos loaded high using DR-Dos.

Using their HIDOS.SYS causes Windows 3.0 to issue an unrecognized hmem driver message and terminate. DOS critical section handling is broken. DOS has a very sensitive mechanism for signaling when it enters and exits a critical section. Windows uses its knowledge of that critical section behavior to keep DOS from doing blocking I/O. DR DOS 5.0 fails to implement this properly and causes Windows trouble. The behavior will

be seen in a Dos VM running a program that calls Dos function 3fh (ReadChar from Console). In this scenario the user will experience what they believe is a system hang. Even though they are not actually hung, it will be tricky for them to figure out how to get out of the situation and they will likely reboot.

The following is a scenario under which problems would arise:

1. Run any communications app in Windows 3.0.
2. Now start a VM and run any of the following:
 - a. The C compiler
 - b. 4DOS (a very popular shareware utility)
 - c. The Macro Assembler
 - d. Link (which is included with MS-DOS)
 - e. Copy Con filename commands (which many setup programs use)

What the user sees is a start up banner and nothing else in the VM Window. Further, since the VM hang is now blocking windows apps from doing anything, all the windows apps freeze up too. The result in this case is loss of data coming in through the communications program.

There are a number of similar scenarios where the user will believe they

are hung, will then reboot and lose some data as a result. It is generally not a good idea to reboot when Windows 3.0 is running. Lost FAT clusters and cross linked allocation chains can result.

Password Protection Problems

This feature of DR DOS 5.0 is very poorly implemented. It simply marks the file as hidden. Running MS-DOS 5.0 or OS/2 to look at one of these files completely bypasses any security. Further, any shell program like PC-Shell from Central Point or the Norton shell (or the MS-DOS 5.0 Shell) will ignore the hidden attribute and allow the user to see and open these files. No attempt is made to try to make the files really secure, even from within the DR DOS 5.0 environment.

The result is that users who rely on this feature to provide real

X 575657
CONFIDENTIAL

MS-PCA 1141665
CONFIDENTIAL))

MS-PCA1141665

security for their data are severely misled, for there is no protection that is anything close to secure. The password protection can be very easily be defeated by anyone with MS-DOS 5.0, OS/2 or a common third party shell program.

26
From mikedr Wed Sep 12 09:11:29 1990
To: bradsi phlba
Subject: Flash EPROM and Flash File System discussion in PCMCIA
Date: Wed Sep 12 09:10:17 1990

From yoshia Wed Sep 12 00:28:55 1990
To: mikedr
Subject: Flash EPROM and Flash File System discussion in PCMCIA
Cc: alktok tomos
Date: Wed Sep 12 16:20:08 1990

At the JEIDA-PCMCIA I/O card meeting (with Sundisk), we found the next major activity would be the Flash EPROM and its file system. Is it correct ?

If so, I think that it would be better for some one from MS to attend the meeting about Flash EPROM and its file system. Are you going to ask someone who knows Flash File System to attend the PCMCIA meeting ?

Thanks,
Yoshi

27
From mikedr Wed Sep 12 09:11:29 1990
To: bradsi phlba
Subject: PCMCIA issues
Date: Wed Sep 12 09:10:22 1990

From yoshia Wed Sep 12 00:36:56 1990
To: mikedr
Subject: PCMCIA issues
Cc: alktok tomos yoshia
Date: Wed Sep 12 16:26:57 1990

I/O card:

I have one concern that there is no way to include BIOS in the I/O card. I think that now is the time for system engineer to join to I/O card subcommittee.

XIP:

There is no progress about this issue because Lotus does not attend the

X 575658
CONFIDENTIAL

MS-PCA 1141666
CONFIDENTIAL

MS-PCA1141666