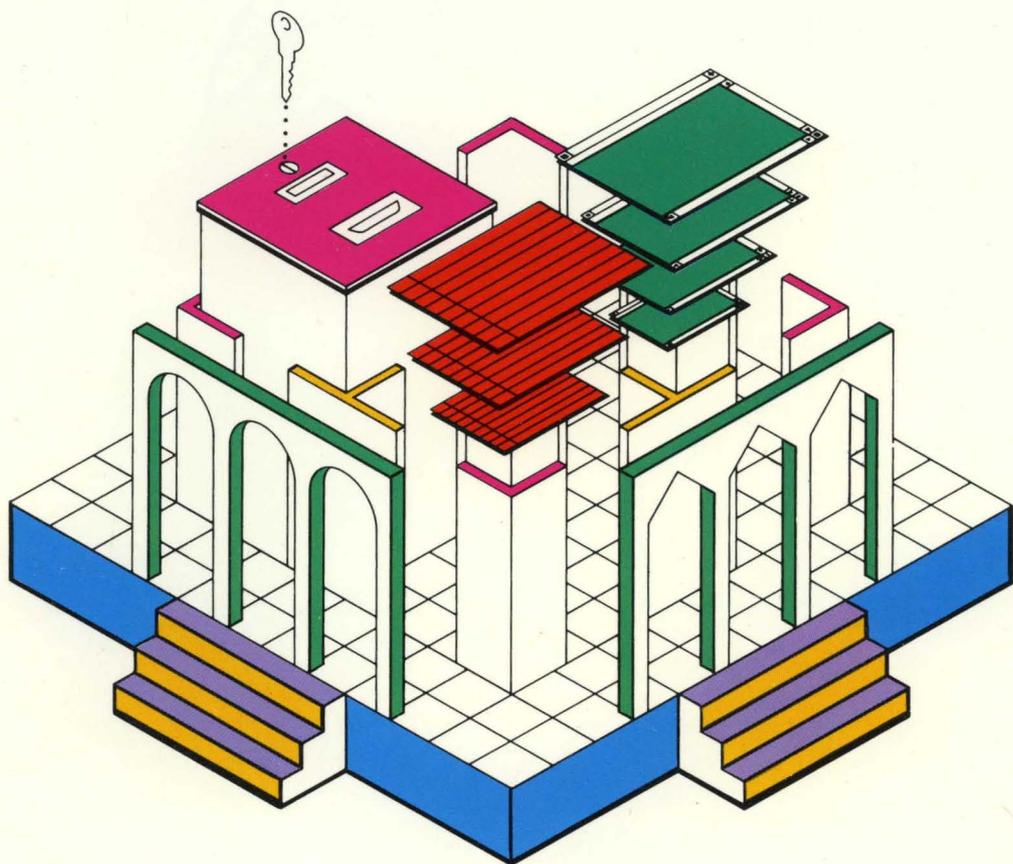


Concurrent™ DOS

Multuser/Multitasking Operating System

RUNNING APPLICATIONS GUIDE



 DIGITAL RESEARCH®

Concurrent[™] DOS

**RUNNING APPLICATIONS
UNDER
CONCURRENT DOS**

 **DIGITAL RESEARCH[®]**

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1 General Guidelines

Concurrent DOS is a flexible operating system designed to run a wide variety of programs in a multi-tasking and multi-user environment. In the majority of cases the programs can be run without any special setup other than the vendor's normal installation process for the program.

In some cases it may be necessary to adjust the parameters of the operating system to run the programs in an optimal way on your computer.

This guide provides information to help you select the best parameters for a number of popular programs, allowing you to get the best performance from your system.

1.1 Using Windows

The default setting for the Concurrent SUSPEND command is ON and is appropriate for most programs. Using the default setting suspends the operation of programs in switched-out windows. Programs resume operation when their windows are switched-in.

There is no harm in setting SUSPEND to OFF; however, with SUSPEND set to OFF, programs running in switched-out windows can output characters that appear in other windows.

Until you become familiar with how your programs run, you should use SUSPEND's default setting.

1.2 Running Copy-Protected Programs

Some copy protection schemes are based on timing loops and will not recognise valid disks when run on fast processors. Most computer manufacturers provide a "slow-down" feature to allow floppy disks to access at the standard speed. Please consult your manufacturer's documentation if you have trouble running any such program.

1.3 Commands Used To Change Application Programs' Run-Time Behaviour

The following commands can be used before running each program to optimise its performance under Concurrent DOS :-

MEMSIZE
LIMSIZE
BANK
SUSPEND
8087
NETDRIVE

The use of many of these commands can be avoided by using the PIFED or CHSET utilities on the programs. Parameters set by these utilities will be tagged onto the program, so that each time the program is used, it will start with the correct parameters. There will then be no need to use the above commands before running the program.

The settings made by PIFED or CHSET for BANK, SUSPEND, or 8087 will override any prior settings of those commands.

For ".EXE" and ".COM" programs use the PIFED utility.

For ".CMD" programs use the CHSET utility.

The Concurrent DOS operating system will use the safest default attributes for a DOS program if PIFED has not been used on that program. Performance of the system can be improved if PIFED is used to set the correct parameters for a program.

1.4 MEMSIZE

MEMSIZE can be used to restrict the amount of memory allocated to ".EXE", ".COM" and ".CMD" programs.

This command does not affect the amount of LIM memory available.

By using MEMSIZE 0 you can allocate all the available memory to your program, up to the maximum allowed for a program. This setting is recommended to allow easier initial installation of programs. You may later wish to restrict the amount of memory available with MEMSIZE or PIFED.

Programs that have had memory use specified by PIFED will not be allowed more memory than is set by MEMSIZE for that window.

1.5 LIMSIZE

Concurrent DOS XM (with SCEPTER and the Expanded Memory Driver e.g. REMM.SYS) or Concurrent DOS 386 can support programs written to use expanded memory conforming to the LIM (Lotus- Intel-Microsoft) specification. This memory is often used by

spreadsheet packages to enlarge the useable spreadsheet size (eg by SuperCalc4 and Lotus 123).

If not restricted with a suitable setting of LIMSIZE, to define the maximum amount of extra memory that should be used for LIM memory, a program using LIM memory could take all the free memory in the machine.

On Concurrent DOS 386 the SETUP program can be used to set the upper limit on the LIM memory per process that can be used. This will be the default setting for LIMSIZE when the system starts.

On Concurrent DOS XM with the Expanded Memory Driver (eg REMM.SYS) the SCEPTER parameters will set the upper limit on the LIM memory that is available per process.

1.6 Running in Banked Memory

The BANK command controls how a program runs in banked memory. The default setting is BANK=ON. With BANK=OFF Concurrent DOS cannot page the program in and out of conventional memory. This means that the memory used by the program may be removed from the total memory available for paging. Using BANK=OFF can severely limit the memory available for other programs.

Some programs which do direct access to the COM1 and COM2 serial ports must not be allowed to run in banked memory and should be configured with PIFED to specify direct access to COM1 and COM2 so that Concurrent DOS will enforce system integrity by setting BANK=OFF for that program while it is running.

1.7 Program Idle Detection and Keyboard Polling

Many interactive DOS programs are written without considering the effect of running on a multi-user system. These programs look repeatedly to see if a key has been pushed, and waste a lot of processor time that could be used by the other users and programs running on the system, and hence improving their performance.

Concurrent DOS usually detects this idle processing (if that option is selected by PIFED) and allows other programs to use that processor time. In some instances this approach is not appropriate, and the idle detection should be disabled with the PIFED utility.

The default state is IDLE detection OFF.

If the program when switched into the background is just performing idle checking, waiting for keyboard input, then it is sensible to ensure that SUSPEND=ON for that program so that it does not waste the processor time.

1.8 Running DOS LAN Programs

Concurrent DOS allows you to use many programs which are designed to run on a DOS Local Area Network (LAN).

On a DOS LAN the program would run on several DOS workstations using both data local to the workstation and data on the LAN server, shared between various users, with appropriate file and record locking on the LAN server to make multiple access safe.

Concurrent DOS will allow one computer, with its main console and serial consoles to function both as multiple workstations and a LAN server.

The NETDRIVE command is used to tell the operating system which physical drives are to be regarded as local or remote by applications written to work on a DOS LAN.

Some DOS LAN programs need to determine if the file is on the "LAN server" with the possibility that several different users could be accessing the files, requiring the program to use file and record locking.

NETDRIVE d: /L sets drive d: to local
NETDRIVE d: /R sets drive d: to remote or networked
NETDRIVE /A displays current settings for the drives.

where d: is the drive ID for a valid physical drive (often C:)

The NETDRIVE command is GLOBAL, i.e. it applies to all users and windows and hence should best be placed in the AUTOEXEC.BAT file or in one of the STARTnnn.BAT files.

1.9 Using a numeric co-processor

The 8087 command is used to specify that the program wishes to use the numeric co-processor and that the operating system should ensure that two programs operating at the same time will not conflict with their use of the numeric co-processor.

If you have a numeric co-processor installed in your computer and run a program that uses the co-processor, change the setting from the default of OFF to ON.

1.10 Load Drive, L:

Concurrent DOS assigns drive L: to the drive and path from which the program is loaded.

Programs that need to load their overlays from the same subdirectory as the main program, could where the program allows, be configured to load from drive L: . This is appropriate for those programs that do not support subdirectories.

1.11 Using the DOS command interpreter

Concurrent DOS allows a program to invoke the command interpreter using the name and path specified by the COMSPEC variable in each window's environment.

The Concurrent DOS command interpreter is called CDOS.COM .

The COMSPEC variable is set by default to C:\CDOS.COM

The command interpreter can be invoked at the command prompt just like any other program, by entering its name.

Most programs use the COMSPEC variable to find the command interpreter, although one or two programs do assume that it is called COMMAND.COM.

If this situation occurs then you can rename the command interpreter to COMMAND.COM and set up the COMSPEC variable to point to the renamed command interpreter using the command

```
"SET COMSPEC = C:\COMMAND.COM".
```

1.12 Configuration Parameters in CONFIG.SYS and CCONFIG.SYS

Some programs during their installation procedure put parameters that are required by MS-DOS or PC-DOS into the CONFIG.SYS file for use when the operating system starts.

Concurrent DOS uses a file, CCONFIG.SYS, for similar parameters when the system starts. It is recommended that the appropriate parameters in CONFIG.SYS are copied from CONFIG.SYS into CCONFIG.SYS so that Concurrent DOS can start with the correct parameters.

Further details of the CCONFIG.SYS parameters are contained in the Concurrent DOS Installation Guide.

When adding device drivers to CCONFIG.SYS, or altering any other values in CCONFIG.SYS do consider the effect on other users of the system if you are running in a multi-user environment, as these parameters affect the whole system.

1.13 Running Monitor-dependent Programs

If your system has both a color graphics and a non-graphics monochrome adapter, you must start a program on the monitor attached to the kind of adapter for which the program was designed or installed.

If you are using Concurrent DOS 386 on a serial PC console then the program should be configured so that it will run on one of the following :-

- IBM monochrome display adapter.
- IBM ROM BIOS interface.
- ANSI or VT52 escape sequences.

1.14 Running Multiple Copies of a Program

Many programs have been written for a single user environment, and the supplied documentation with the program does not always describe how the program can be run in a multi-user environment.

The simplest way to run multiple copies of most programs is to create a subdirectory for each user, and then install multiple copies, with each user running the program from their own subdirectory. This directory would be the default directory when starting the program.

There are several disadvantages to this method of running multiple copies :-

1) It is not the correct approach for DOS LAN programs because the program will not be fully aware of interactions with other users. DOS LAN programs usually provide example installation instructions, using a common program subdirectory shared between different users.

2) Space is wasted with multiple copies of files.

To avoid using more disk space than necessary it is recommended that the program and operating environment is set up in a way which allows multiple users to share access to program and common files in shared subdirectories, while maintaining private directories for their own information.

1.15 Using a shared program-subdirectory.

a) The program and its overlays can usually be shared and loaded from one subdirectory specified via the PATH and APPEND commands, allowing the default directory to be the one used for work files and the users own private data.

The program overlays should be set to read-only with the ATTRIB command so that APPEND can allow access to the overlays by multiple users.

b) If the program creates temporary work-files, check that there is no conflict between multiple users with the creation and naming of the work-files.

The work-files are usually created in the user's private directory if that was the default directory when the program was invoked, in which case a problem is unlikely to occur.

If the files are created in the shared program-subdirectory then these files must have unique names. If there is a conflict on the names then the program will need to be configured to put the work-files in the user's private subdirectory. If that is not possible then the program will need to be installed so that each user has a complete copy in his own private subdirectory.

1.16 Sharing Printers

If the programs allow, it is recommended in a multi-user environment to print from the program to a disk file, and then to use the PRINTMGR command to send those files to the printer.

If this is not possible, or not convenient, then the printer output will go to the printer defined with the PRINTER command. By default this is printer 0. Only one program can use the printer at a time. If there are multiple printers attached to the system then it is necessary to use the PRINTER command to select the appropriate printer before running the program.

The Concurrent DOS operating system will ensure that two programs cannot access the same printer at the same time.

Programs written for Concurrent DOS are aware of how to attach and detach the printer which leads to friendlier use of the printer.

Programs written for DOS do not try to free the printer when they have finished printing. The operating system doesn't know when the printer is free so it keeps it attached to that program until the program terminates.

The PIFED utility should be used where appropriate to tell Concurrent DOS how the program will access the printer.

Use of PIFED is essential for programs that go directly to the hardware, which is mainly for serial port access (COM1 or COM2); and may be desirable for other programs.

If the PIFED utility has been used to say that a DOS program requires direct use of the printer and such a program is invoked while the printer is in use by another user, then that program will not load, and a "Loading Conflict" error message will be given.

If PIFED has not been used to define that the program uses the printer, and the printer is in use by another user then the program loads and runs until a printer access is attempted and then the program will wait until the printer is free. Some programs will recognise this and say printer busy, other programs will just wait.

1.17 Running programs from Serial Terminals

1) Serial PC Terminals on Concurrent DOS 386

If the program has any display configuration options then the program should be configured for an IBM Monochrome Display Adapter or for ANSI or VT52 terminal types.

Any options for the program selecting graphic output should be disabled.

Concurrent DOS will convert the program's display output into the control sequences and characters required by any of the supported terminal types.

2) Simple Serial Terminals on Concurrent DOS XM or Concurrent DOS 386

The program should be configured with its own configuration program to output characters and control sequences, and to input characters and function keys, according to the type of attached serial terminal.

Many programs should not be allowed to run on Simple Serial Terminals because they require display and keyboard features that are not supported by these terminals. The programs should be configured with PIFED to use a screen type of 1 to 5.

If the program can be run on a Simple Serial Terminal then use PIFED to choose screen type zero. Any other choice will stop that program loading on a Simple Serial Terminal with the error message "Loading Conflict".

Pifed screen options:

- 0 Program has no special requirements (24 line)
This PIFED option is for the main console and Simple Serial Terminals running "well behaved" programs.
- 1 Program has no special requirements (25 line)
- 2 Program uses ANSI escape sequences (24 line)
- 3 Program uses ANSI escape sequences (25 line)
- 4 Program makes ROS calls (25 line)
- 5 Directly writes to screen (ANSI, ROS, 25 line)

These PIFED options are for the main console, and any Serial PC Terminals on Concurrent DOS 386 running "badly-behaved" programs.

Section 2 contains guidelines for running the following DOS applications

Application	Publisher
dBASE II™ v2.43*	Ashton-Tate
dBASE III™ PLUS LAN Pack v1.1 International	Ashton-Tate
Framework II™ v1.1	Ashton-Tate
GEM Desktop™ v2.2 International	Digital Research Inc.
GEM Desktop Publisher™	Digital Research Inc.
GEM Draw Plus™	Digital Research Inc.
GEM First Word Plus™	Digital Research Inc.
GEM Graph™	Digital Research Inc.
GEM Paint™	Digital Research Inc.
GEM Wordchart™	Digital Research Inc.
GEM Write™	Digital Research Inc.
IBM Display Write 4	IBM Corporation
IBM Personal Computer BASIC vA3.30	IBM Corporation
Lotus® 1-2-3™ v2.01	Lotus Development Corp.
Lotus® Manuscript™ v1.0	Lotus Development Corp.
Lotus® Symphony™ v1.2A	Lotus Development Corp.
Microfocus Professional Cobol™ v1.2.1	Microfocus Ltd.
Microsoft BASIC Compiler v5.36	Microsoft Corporation
Microsoft Word™ v3.10	Microsoft Corporation
Microstuf Crosstalk XVI™ v3.6	Microstuf Inc.
Migent Ability™ v1.2E	Migent Inc.
MultiMate™ Advantage v3.60	MultiMate International Corp.
Nantucket™ Clipper™ data base compiler (Aug 1986)	Nantucket Inc.
Paradox® v2	Ansa Software
Pegasus™ Senior (Accounts) Network (Novell Version)	Pegasus Software Ltd.
QuickSilver™ Data Base Compiler v1.0	WordTech Systems
R:BASE System V	Microrim®, Inc.
R\M Cobol-85 v2.01 (PC Network DOS)	Ryan-McFarland
Smart LAN Pack v3.1	Innovative Software Inc.
SuperCalc© 2 v1.00	Computer Associates
SuperCalc© 3 v2.00	International Inc.
SuperCalc© 4 v1.10)
TAS-Plus™ multi user v2.07	Business Tools Inc.
Turbo Pascal® v3.01a	Borland International
Word Perfect 4.2	Word Perfect Corporation
Wordstar© 2000 v2.0b	MicroPro International
Wordstar© Professional 3.40	MicroPro International

2 Running Applications

Example information for running selected programs under Concurrent DOS

2.1 dBASE II version 2.43*

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console Serial Console

Memsize 128
Uses LIM memory : No
Bank ON
Suspend ON
DOS LAN Application Support : Not applicable
Run multiple copies : Yes

2.2 DBASE III PLUS LAN PACK version 1.1 INTERNATIONAL

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console

Memsize 300
Uses LIM memory : No
Bank ON
Suspend ON
DOS LAN Application Support : Yes (Administrator)
Run multiple copies : Yes (DBASE III PLUS)
Network Drive Attribute : Remote (if using Administrator)

Example installation

C:\DBFILES should contain DBASE Administrator.

(Use the "ATTRIB +R *.*" command to allow users to share access to the DBASE Administrator command files.)

C:\ should contain DBNETCTL.300

C:\DBFILES\DBDATA could contain dBASE IIIPlus example files.

Running Applications

To simplify running use a batch file, eg DBNET.BAT containing :-

```
@echo off
netdrive c: /R
set savepath = %path%
subst f: c:\dbfiles\dbdata
f:
path %path%;c:\dbfiles
dba #df = c:
c:
subst f: /d
path %savepath%
set savepath =
```

The use of f: as a working drive ID can be replaced with any other valid drive which is not yet defined.

2.3 Framework II v1.1

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console

Memsize 384
Uses LIM memory : No
Bank ON
Suspend ON
DOS LAN Application Support : Not applicable
Run multiple copies : No

Note : Framework should be configured for IBM Monochrome Display Adapter to work on the serial PC consoles. Graphic features cannot be used on the serial PC consoles.

To run multiple copies of Framework, use ATTRIB to make the *.DAT and *.OVL files read-only. Files like the *.DIC dictionary files will need to be read-only to be shared, but remember that some of the additional files may need to be written to, during some operations of Framework, typically when saving various changes to the configuration, or dictionary maintenance.

You may find it preferable to keep entirely separate copies of Framework, in different subdirectories, for each user to overcome these restrictions of setting files to read-only.

2.4 GEM Desktop v2.2 International

Concurrent DOS 386 : Main Console
Concurrent DOS XM : Main Console

Memsize 512 (Make Memsize as large as possible)

The memory required depends on the programs to be used under GEM. GEM will run in less memory but some features of the programs may be restricted (in which case the use of Desktop Accessories is not recommended).

To obtain maximum free memory it will be more efficient to use a Hercules or compatible monochrome graphics adapter or a colour graphics adapter (CGA), rather than an EGA.

Uses LIM memory : No
Bank ON
Suspend ON
DOS LAN Application Support : Not applicable
Run multiple copies : No

If a mouse is required, configure GEM for a serial mouse.

2.5 GEM Desktop Publisher v1.01

Requires GEM to be invoked with at least Memsize 502k.

2.6 GEM Draw Plus

Runs under GEM Desktop

2.7 GEM First Word Plus

Runs under GEM Desktop

2.8 GEM Graph

Runs under GEM Desktop

2.9 GEM Paint

Runs under GEM Desktop

Running Applications

2.10 GEM Wordchart

Runs under GEM Desktop

2.11 GEM Write

Runs under GEM Desktop

2.12 IBM DisplayWrite 4

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console

Memsized 300
Uses LIM memory : No
Bank ON
Suspend ON
DOS LAN Application Support : Not applicable
Run multiple copies : Not applicable
Mouse Support : No

The installation process assumes that the operating system command interpreter (shell program) is called COMMAND.COM and does not use COMSPEC to find it. It searches only in the root (eg C:\) for COMMAND.COM.

It will be necessary to copy CDOS.COM to a file called COMMAND.COM.

2.13 IBM Personal Computer BASIC version A3.30

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console

Memsized 102
Uses LIM memory : No
Bank ON
Suspend ON
DOS LAN Application Support : Not applicable
Run multiple copies : Yes

Note : Running multiple copies is only possible when the BASIC programs don't make use of devices on the computer hardware such as the sound/music generator which can only sensibly be accessed by one program at a time.

2.14 Lotus 123 v2.01

Concurrent DOS 386 : Main Console Serial PC Console
 Concurrent DOS XM : Main Console

Memsize 300
 Uses LIM memory : Yes
 Bank ON
 Suspend ON
 DOS LAN Application Support : Not applicable
 Run multiple copies : Yes

2.15 Lotus Manuscript v1.0

Concurrent DOS 386 : Main Console Serial PC Console
 Concurrent DOS XM : Main Console

Memsize 470
 Uses LIM memory : Yes
 Bank ON
 Suspend ON
 DOS LAN Application Support : Not applicable
 Run multiple copies : Yes

Note : Graphic features cannot be used on serial PC console. You can configure Manuscript for no graphics display driver to avoid inadvertent selection of features that require graphics.

Note : Manuscript uses files with the extension ".CMD". These however are not executable program files which can be invoked like the Concurrent DOS program files with extension ".CMD".

2.16 Lotus Symphony v1.2a

Concurrent DOS 386 : Main Console Serial PC Console
 Concurrent DOS XM : Main Console

Memsize 320
 Uses LIM memory : Yes
 Bank ON (or OFF if you want to use Communications)
 (unless you use PIFED to override BANK setting)
 Suspend ON
 DOS LAN Application Support : Not applicable
 Run multiple copies : Yes

Note : Graphic features cannot be used on a serial PC console.

Running Applications

2.17 MicroFocus Professional Cobol version 1.2.1

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console

Memsize 300
Uses LIM memory : No
Bank ON
Suspend ON
DOS LAN Application Support : Not applicable
Run multiple copies : Yes

2.18 Microsoft Basic Compiler v5.36

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console Serial Console

Memsize 100
Uses LIM memory : No
Bank ON
Suspend ON
DOS LAN Application Support : Not applicable
Run multiple copies : Yes

2.19 Microsoft Word v3.10

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console

Memsize 300
Uses LIM memory : No
Bank ON
Suspend ON
DOS LAN Application Support : Not applicable
Run multiple copies : No

Note : Graphic features cannot be used on a serial PC console. On a serial console use "WORD/C" to force operation in text mode as described in the WORD documentation.

2.20 Microstuf CROSSTALK XVI version 3.6

Concurrent DOS 386 : Main Console Serial PC Console
 Concurrent DOS XM : Main Console

Memsize 100
 Uses LIM memory : No
 Bank ON
 Suspend ON
 DOS LAN Application Support : Not applicable
 Run multiple copies : No

It is preferable to configure Crosstalk to use COM1, allowing the other serial ports for serial consoles. COM2 will not be available if any multi-port serial cards are installed.

Use PIFED to define XTALK.EXE as using COM1.

2.21 Migent Ability v1.2E

Concurrent DOS 386 : Main Console Serial PC Console
 Concurrent DOS XM : Main Console

Memsize 280
 Uses LIM memory : No
 Bank ON (or OFF if you want to use Communications)
 (unless you use PIFED to override BANK setting)
 Suspend ON
 DOS LAN Application Support : Not applicable
 Run multiple copies : Yes

Note : Graphic features cannot be used on a serial PC console.

Running Applications

2.22 Multimate Advantage v3.60

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console

Memsized 300
Uses LIM memory : No
Bank ON
Suspend ON
DOS LAN Application Support : Not applicable
Run multiple copies : No

Note : It is necessary to configure Multimate Advantage so that the Multimate System Defaults for Keyboard Acceleration Rate and Keyboard Acceleration Responsiveness are 0.

2.23 Nantucket CLIPPER database compiler (August 1986 version)

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console Serial Console

Memsized 360
Uses LIM memory : No
Bank ON
Suspend OFF
DOS LAN Application Support : Yes
Run multiple copies : Yes
Network Drive Attribute : Remote

To use a Clipper-compiled program through a serial console on Concurrent DOS XM it is necessary to use a serial terminal which will recognise ANSI escape sequences, and to link ANSI.OBJ with the Clipper-compiled application.

2.24 PARADOX version 2

Concurrent DOS 386 : Main Console Serial PC Console
 Concurrent DOS XM : Main Console

Paradox2.EXE (Paradox main program)

Memsize 380 with Limsize 64
 Memsize 420 with Limsize 0 (No LIM memory)
 Uses LIM memory : Yes
 Bank ON
 Suspend ON
 DOS LAN Application Support : Yes
 Run multiple copies : Yes
 Network Drive Attribute : Remote

PPROG.EXE (Paradox Personal Programmer)

Memsize 520 with Limsize 64
 Uses LIM memory : Yes
 Bank ON
 Suspend ON
 DOS LAN Application Support : Yes
 Run multiple copies : Yes
 Network Drive Attribute : Remote

It is necessary for each user to configure Paradox so that the ".CFG" configuration file is written to each user's private subdirectory using the Paradox PLAY - SCRIPT - CUSTOM - SET DIRECTORY command.

Paradox should be installed using the Paradox NUPDATE utility so that the PARADOX.NET file is in e.g. F:\

To run Paradox in the DOS LAN form it then requires :-

SUBST F: C:\PDOXDATA (see Paradox installation instructions ...)
 PATH C:\PARADOX2
 PARADOX2

Running Applications

2.25 Pegasus Senior (Accounts) Network (Novell version)

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console Serial Console

Memsize 150
Uses LIM memory : No
Bank ON
Suspend ON
DOS LAN Application Support : Yes
Run multiple copies : Yes

To run on a simple serial console it may be necessary to get the appropriate module from your dealer to allow configuration of Pegasus Senior for your terminal type.

2.26 QuickSilver database compiler v1.0 (WordTech Systems)

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console

Memsize 360
Bank ON
Suspend OFF
DOS LAN Application Support : Yes
Run multiple copies : Yes
Network Drive Attribute : Remote

Use an environment variable with SET e.g. "SET LANID = usern" from each window so that each window has a unique LAN ID.

Within the database program (source '.PRG' files) use the command "SET LASTLOCAL TO A:" (or such other drive ID which is the last to be regarded as local). For example if drive C: is to be networked then use "SET LASTLOCAL TO B:".

2.27 R:BASE System V

Concurrent DOS 386 : Main Console Serial PC Console
 Concurrent DOS XM : Main Console

Memsize 443
 Uses LIM memory : No
 Bank ON
 Suspend ON
 DOS LAN Application Support : Yes
 Run multiple copies : Yes
 Network Drive Attribute : Remote

If using PIFED to set parameters on the programs please note that the memory size set for RBSYSTEM will apply to those programs invoked through RBSYSTEM so ensure that RBSYSTEM is set for the maximum of the settings required by any of the invoked programs.

2.28 Ryan-McFarland RM/COBOL-85 version 2.01 (PC NETWORK DOS)

Concurrent DOS 386 : Main Console Serial PC Console
 Concurrent DOS XM : Main Console

Memsize 200
 Uses LIM memory : No
 Bank ON
 Suspend ON
 DOS LAN Application Support : Yes
 Run multiple copies : Yes
 Network Drive Attribute : Remote

2.29 SMART LAN PACK version 3.1

Concurrent DOS 386 : Main Console Serial PC Console
 Concurrent DOS XM : Main Console

Memsize 190
 Uses LIM memory : No
 Bank ON
 Suspend ON
 DOS LAN Application Support : Yes
 Run multiple copies : Yes
 Network Drive Attribute : Remote

Running Applications

2.30 SuperCalc 2 v1.00

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console Serial Console

Memsize 128
Uses LIM memory : No
Bank ON
Suspend ON
DOS LAN Application Support : Not applicable
Run multiple copies : Yes

Use of SuperCalc2 on a serial console requires a version of SuperCalc2 which can be configured for the escape sequences required by the serial console.

2.31 SuperCalc 3 v2.00

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console

Memsize 128
Uses LIM memory : No
Bank ON
Suspend ON
DOS LAN Application Support : Not applicable
Run multiple copies : Yes

2.32 SuperCalc 4 v1.10

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console

Memsize 200
Uses LIM memory : Yes
Bank ON
Suspend ON
DOS LAN Application Support : No
Run multiple copies : Yes

2.33 TAS-Plus multi-user (Business Tools Inc.) v2.07

Concurrent DOS 386 : Main Console Serial PC Console
 Concurrent DOS XM : Main Console

Memsize 340
 Uses LIM memory : No
 Bank ON
 Suspend ON
 DOS LAN Application Support : Yes
 Run multiple copies : Yes
 Network Drive Attribute : Remote

2.34 Turbo Pascal v3.01a

Concurrent DOS 386 : Main Console Serial PC Console
 Concurrent DOS XM : Main Console

Memsize 70
 Uses LIM memory : No
 Bank ON
 Suspend ON
 DOS LAN Application Support : Not applicable
 Run multiple copies : Yes

Note : Graphic features cannot be used on a serial PC console.

2.35 WordPerfect 4.2

Concurrent DOS 386 : Main Console Serial PC Console
 Concurrent DOS XM : Main Console

Memsize 300
 Uses LIM memory : No
 Bank ON
 port : Yes
 Run multiple copies : Yes

For multi-user use it is essential that work files required by Word Perfect are in separate subdirectories, one for each user.

This can be achieved using the environment variable "WP" as described in the Word Perfect documentation.

e.g. "SET WP =/D-c:\userdirn"

Running Applications

The SET command defines the WP environment variable , which provides default parameters for Word Perfect , such as the name of the subdirectory to be used for the work files.

The working subdirectory should initially contain the files from PRINTER 1 and 2 diskettes of Word Perfect.

After configuring the printers with Shift-F7,4,3 from within Word Perfect, as described in the Word Perfect manual, it should be possible to reduce the files in the working directory to WPFEEED.FIL, WPRINTER.FIL, WPFONT.FIL .

2.36 Wordstar 2000 v2.0B

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console

Memsize 250
Uses LIM memory : No
Bank ON
Suspend ON
DOS LAN Application Support : Not applicable
Run multiple copies : No

2.37 Wordstar Professional Release 3.40

Concurrent DOS 386 : Main Console Serial PC Console
Concurrent DOS XM : Main Console

Memsize 60 (increase to 180 kb to run CorrectStar)
Uses LIM memory : No
Bank ON
Suspend ON
DOS LAN Application Support : Not applicable
Run multiple copies : Yes

Appendix A

Memory usage - Transient Program Area

The upper useable limit on MEMSIZE is that of the TPA (Transient Program Area - the "Window" of memory that the program can use) which is the memory between the top of the operating system and the bottom of video memory (which is itself dependent on the type of video card installed).

The "Maximum Memory Per Process" which is set by SETUP will limit the size of TPA, and hence the maximum useable MEMSIZE.

In a system with plenty of banked memory (expanded memory with Concurrent DOS XM or ordinary memory with Concurrent DOS 386) the maximum memory per process should be set to be equal or greater than the largest TPA available (the largest amount of memory as shown by the STOP command), e.g. by setting "Maximum Memory Per Process " to 640k.

Example Display from STOP command run under Concurrent DOS 386

Entry Number	Program Name	Memory Used	Window Number	
**	STOP	16K	2	(Banked Memory)
1.	WS	416K	1	(Banked Memory)

Type of Free Memory	Size	Address	
Conventional	2K	2B76:0	
Banked Window	528K	2C00:0	< LARGEST TPA
	96K	2C00:0(Empty)	

In systems where memory is limited, particularly multi-user systems, it may be necessary to restrict memory with "Maximum Memory Per Process" to below that of the largest possible TPA so that a few greedy users cannot take all the memory, and hence stop other users from running programs. Reducing the memory would however stop a user being able to run some programs.

Appendix B

Problem solving on Multiple Use of Application Programs

If you have any problems while trying to run a second copy of a program from a shared program-subdirectory, it is possible that the file attributes on some of the program files are incorrect.

Determine which files are created during the program installation. These are the files that may need to be left as they are, allowing both read and write. They may contain information related to the configuration of the program, and may change when any program parameters are altered.

These files can usually be identified by the date and time shown by the DIR/L command. The date and time will be that of the system date and time at the time of installation, so it is necessary to ensure that the system date and time are correct before installation.

Usually the program files and subsidiary parts such as program overlays, help message files etc. will keep the date and time, as on the original program disks, because the date and time are only updated when the files are changed, or written to, and not when copied.

With the ATTRIB command, make those files read-only where the date and time have not changed. This should include the files with extensions ".COM", ".EXE", (possibly the overlays ".OVR", ".OVL" as well).

Try running the program from one window. When the program is running switch to a second window, use DIR to see if any new files have been created either in the private subdirectory or in the subdirectory from which the program is loaded (via PATH and APPEND). These could be the temporary work-files.

From the second window try running the same program, while it is still running in the first window. If any errors occur it is possible that they are caused by incorrect settings of read-only on some of the files. Try experimenting using the ATTRIB command.

A symptom of the program having a conflict with loading overlays is that often, when attempting to start the second copy of the program from the hard disk, the program can't find the overlay because it is already in use, NOT in read-only mode. The program then thinks that because it can't find the overlay that the user is running on a floppy-disk based machine and gives a message something like the following :-

"Insert System Disk 2 and press ENTER or press Ctrl-C to abort."

Other messages could be given, the wording being dependent on the program in use. For example "Disk Not Ready" as it tries to access a floppy disk looking for the overlay if no disk is inserted in the drive, or "Sharing Conflict" for those programs which expect that someone else may be accessing the files, (eg DOS LAN programs). In these circumstances try to identify which file is causing the problem, and set it to read-only.

