

Science Fiction Writer  
**ROBERT J. SAWYER**  
Hugo and Nebula Award Winner



SFWRITER.COM > Nonfiction > WordStar Under Windows

# WORDSTAR®

## Running WordStar for DOS Under Windows

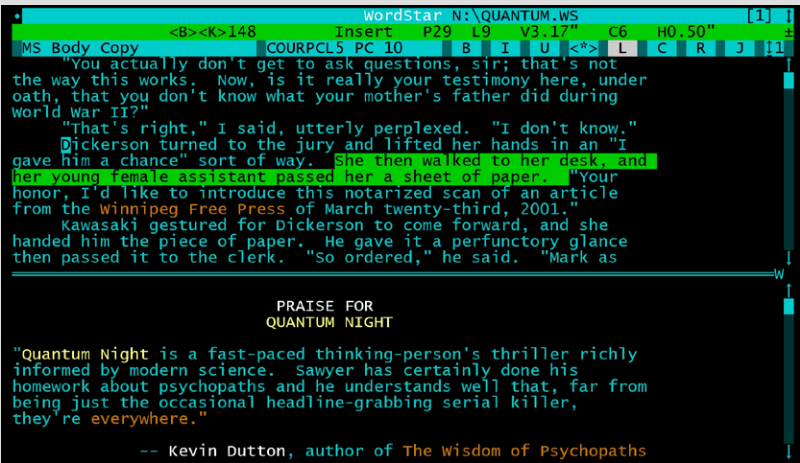
### vDos to the Rescue!

I'm a Hugo Award-winning science-fiction writer, and I've been using WordStar since 1983, writing all 23 of my novels with it. If you still have questions about getting WordStar to run under Windows after reading the notes below (updated in 2015), please email me.

—Robert J. Sawyer

[Introduction](#) | [vDos Installation](#) | [vDos Settings](#) | [Printing](#) | [vDos Quirks](#) | [Fonts](#) | [Screen Settings](#) | [WordStar Patches](#) | [On-Screen Underlining and Strikeout](#) | [Advanced Page Preview and Inset](#) | [Windows Clipboard Support](#) | [Edge Padding](#) | [SmartKey](#), [4DOS](#), [TameDOS](#), and [ZTree Win](#) | [More Information](#) | [Acknowledgments](#)

## Introduction



My favorite word-processing program is the versatile, customizable, and powerful **WordStar for DOS**, last updated in December 1992. Running it under Microsoft

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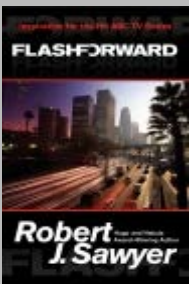
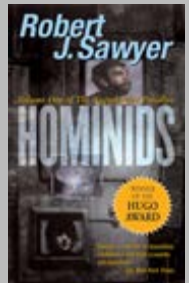
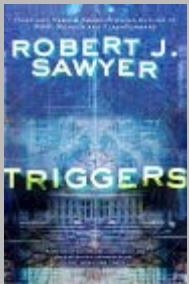
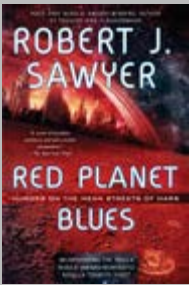
### NOVELS:

**STAND-ALONE:**  
[Red Planet Blues](#)  
[Triggers](#)  
[Rollback](#)  
[Mindscan](#)  
[Calculating God](#)  
[FlashForward](#)  
[Factoring Humanity](#)  
[Illegal Alien](#)  
[Frameshift](#)  
[Starplex](#)  
[Terminal Experiment](#)  
[End of an Era](#)  
[Golden Fleece](#)

**WWW TRILOGY:**  
[Wake](#)  
[Watch](#)  
[Wonder](#)

NEANDERTHALS:  
Hominids  
Humans  
Hybrids

QUINTAGLIOS:  
Far-Seer  
Fossil Hunter  
Foreigner



Windows can be difficult, particularly with 64-bit versions of Windows, and especially with recent versions (Vista, Windows 7, Windows 8, Windows 8.1, and Windows 10).

But a new, free, open-source MS-DOS emulator released in 2014 called **vDos** makes it easy to run WordStar for DOS (and many other MS-DOS programs) under all versions of Windows from XP through to Windows 10, whether 32-bit or 64-bit, with excellent printer and clipboard support. WordStar's graphical Advanced Page Preview and Inset work under vDos, too, although only at standard VGA resolution (640x480 pixels).

Most of the instructions below apply to using all of the later versions of WordStar for DOS: **WordStar 4.0**, **WordStar 5.0**, **WordStar 5.5**, **WordStar 6.0**, and the final release **WordStar 7.0**. You can see which version you have by hitting **[?]** at WordStar's Opening Menu.

**Note:** If you use Windows Vista, XP, or earlier (or the rare 32-bit version of Windows 7), you may find **TameDOS** to be an even better solution than vDos. However, TameDOS will not run at all under 64-bit versions of Windows. There's more about TameDOS [below](#).

vDos was created by **Jos Schaars** by modifying **DOSBox**. DOSBox, beloved by those who like MS-DOS games, has never been good for business applications. Jos changed that by stripping out the gaming flourishes (joystick support and so on), beefing up file locking, and vastly enhancing the screen display (plus allowing you to use any monospaced TrueType font you wished). His system supports XMS, EMS, and basic mouse functions (but not the scroll wheel), and it automatically converts PostScript or PCL (LaserJet) output into Adobe Acrobat PDF files that can be printed on any printer.

## vDos Installation

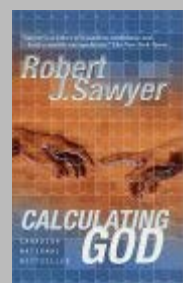
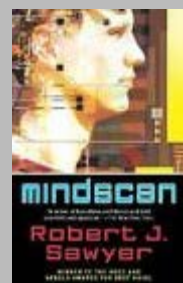
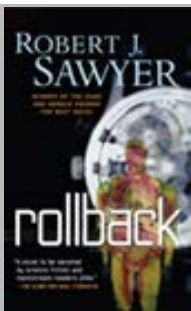
First, a notice from **Jos Schaars**, the creator of vDos:

Notice: As of version **2015.10.01**, vDos is hosted on [www.vdos.info](http://www.vdos.info).

This to prevent eventual problems with SourceForge's conditions, due to including the third party products **4DOS** (freeware) and **DOSPrinter** (shareware), static linking of the Microsoft C++ libraries, and excluding a small part of vDos' proprietary source code.

The new vDos version is a little less freeware; vDos will check if the PC is joined to a domain, or a networked drive is addressed. In such a situation a popup is displayed, so vDos has become sort of nagware for some targeted business users. Still being freeware, one can just ignore the eventual nag. Certainly if vDos isn't used that often, this shouldn't pose a real obstacle.

If you don't like this, you can of course still download the older versions and source codes of vDos at [SourceForge](http://SourceForge).


[Home](#)

[More on the optional registration process is [here](#).]

Okay, let's begining installing vDos on your system.

Download the current **vDosSetup.exe** from the website **vDos.info** [here](#) or, if you have trouble using the latest version for whatever reason, download an older version from **SourceForce** [here](#).

The [www.vdos.info](http://www.vdos.info) versions have replacement command processor **4DOS** integrated; the older **SourceForce** versions do not. Personally, to date, I've found the SourceForge versions more stable with WordStar; I recommend SourceForge version **2015.04.10**; again, you want file **vDosSetup.exe**.

For help from other users (including vDos creator Jos Schaars himself) and for general discussion about vDos, see the [vDos discussion forum](#) at SourceForge and Jos Schaar's website at [vDos.info](http://vDos.info).

vDos comes with very little in the way of documentation. When you install vDos, the setup program *does* give a little help — but the help message disappears as soon as you press "Next," and there's no way to see it again. So, for reference, here it is; *do* read it:

Please read the following important information before continuing.

- To get a quick impression, start the desktop vDos shortcut. This should launch the DOS DataPerfect Testdrive program. Play with it to confirm vDos is working correctly on your system and exit it (by pressing **F7**).
- Next have a look at vDos - Autoexec in your start menu on how to start your own application.
- To uninstall, just remove the vDos folder and menu entries.

After you've finished installing vDos, read the Adobe Acrobat document **vDos.pdf**, which is included with the program. ***This is the vDos manual. Please read it.***

Additional documentation is in the comment lines in the **autoexec.txt** and **config.txt** files that are also included with the vDos program.

## vDos Settings

Once you've installed vDos, have a look in the supplied **autoexec.txt** and **config.txt** files for various parameters you can set (these correspond to the **autoexec.bat** and **config.sys** files used by MS-DOS).

## Editing AUTOEXEC.TXT

As distributed, vDos is set up to simply run a program called DataPerfect Testdrive (DP26YI.EXE in the \DPTEST folder installed by vDos), so that you can see that vDos

works on your computer. By default, vDos is also set up to terminate your vDos session the moment you exit DataPerfect (by pressing **F7**), without ever letting you see the vDos command prompt.

So: **the very first thing you will want to do** when setting up vDos so that you can actually use it to run WordStar or any other MS-DOS software is edit the vDos file **autoexec.txt** (in *Nondocument* mode, if you choose to edit it with WordStar), and put the letters "rem" followed by a space in front of these three lines ("rem" is short for "remark," and it comments out — that is, deactivates — these three commands):

```
CD DPTEST
DP26YI /s
EXIT
```

They should now read:

```
rem CD DPTEST
rem DP26YI /s
rem EXIT
```

Next, assuming your main hard drive is **C:**, add this line:

```
USE C: C:\
```

From then on, vDos will have access to any directory/folder on your **C:** drive that has a name that conforms to DOS 8.3-character naming standards (so, vDos will be able to access **C:\FILES**, but not **C:\Program Files**). Assuming WordStar is already installed on your **C:** drive (in **C:\WS** or wherever), it'll work just fine now without changing any of WordStar's internal pathing.

(If you need to access files or folders that don't conform to DOS 8.3-compatible filename standards, see [vDos Quirks](#) below.)

If have other hard drives as part of your system, you can make them accessible to vDos here. For instance, if you have an external hard drive named **F:**, make it accessible to vDos by adding this line:

```
USE F: F:\
```

**Note:** If your WordStar program files are on a drive other than **C:**, it's imperative that you add that drive to vDos, using the above syntax.

And if you've been using the DOS/Windows SUBST command to assign a drive letter to a folder name, you can get the same effect under vDos with the USE command. I've long employed **SUBST N: C:\NOVELS** to make logging to drive N: the equivalent of logging to folder C:\NOVELS. To get the same thing under vDos, I added this line to **autoexec.txt**:

```
USE N: C:\NOVELS
```

Here in **autoexec.txt** you can also set a PATH command (just like the MS-DOS PATH you might have in your old MS-DOS **autoexec.bat** file) if you need one. For instance:

**PATH=C:\WS;C:\UTILITY;C:\DBASE**

(or whatever else you normally use).

If you're using an older version of vDos that doesn't already have JPSoft's terrific (and free) **4DOS** command processor built in, you can load **4DOS.COM** here in **autoexec.txt**. See [these instructions](#).

## Editing CONFIG.TXT

Next, have a look at **config.txt** (in *Nondocument* mode, if you're using WordStar):

For **WordStar 7.0** (which can use EMS memory, as [discussed below](#)), or if you want EMS memory for TSR (memory-resident) programs, I suggest these settings.

**LOW = ON**  
**XMEM = 4 EMS**  
**MOUSE = ON**  
**WINDOW = 100**  
**FRAME = OFF**

For **WordStar 4.0, 5.0, 5.5, or 6.0**, which can't use EMS, don't include the

**XMEM = 4 EMS** line:

**LOW = ON**  
**MOUSE = ON**  
**WINDOW = 100**  
**FRAME = OFF**

Each of the above options is documented with "rem" comment lines in vDos's **config.txt** file.

Contrary to usual Windows practice, programs running under vDos will still show a cursor or insertion point even if the vDos window isn't the active one. When you use vDos's **FRAME = OFF** setting in **config.txt** (which is what both Jos Schaars and I prefer), you'll need to pay attention to the very slight dimming of the top line of characters in WordStar to tell you when your vDos window isn't active (that is, when it's not the window that's going to receive your keyboard input). **FRAME = ON** will get you back an approximation of the normal Windows frame, including a title bar that will indicate active/inactive status by its color.

---

## Printing

### Getting the Files You Need

Trying to print directly to your printer with any DOS application can be tricky under Windows, but by using components of the freely available **Ghostscript** and **GhostPCL** under vDos, an elegant workaround is possible.

The redoubtable **Edward Mendelson** has made things easy for us by creating a



convenient archive of the necessary files — thanks, Ed! Download this file:

[vDosPCLPS.zip](#)

Unzip the contents, and put all three files into your vDos folder (where **vDos.exe** is located):

**gsdll32.dll**  
**gswin32c.exe**  
**pcl6.exe**

## Installing a Printer Under WordStar

To print under vDos, we need to tell WordStar that you have an appropriate printer hooked up to your system (even if you don't actually have such a printer).

**WordStar 5.0**, **WordStar 5.5**, **WordStar 6.0**, and **WordStar 7.0** support both LaserJet and PostScript printers. **WordStar 4.0** doesn't support PostScript printers. Again, note that you do not actually have to own a LaserJet or PostScript printer to use the methods described below; you can send the output to *any* dot-matrix, inkjet, or laser printer.

(If you prefer the output from an Epson or Epson-compatible dot-matrix printer, see the Adobe Acrobat file **DOSPrinter.pdf** supplied with vDos and the comments about DOSPrinter in vDos's **config.txt** file.)

If you use **WordStar 5.0**, **WordStar 5.5**, **WordStar 6.0**, or **WordStar 7.0**, and don't already have a LaserJet or PostScript printer installed under WordStar, run the program **PRCHANGE.COM**, which should be in your main WordStar folder, and select a choice from either "HP LaserJets and compatibles" or "PostScript Lasers."

I recommend you choose **LaserJet 4P**, if it's listed for your version of WordStar, or **LaserJet III** if it isn't. If neither of these are listed (which will be the case with **WordStar 5.0** and **5.5**), then choose **LaserJet II**.

If you have **WordStar 4.0**, you set your default printer with **WSCHANGE.COM** (not **PRCHANGE.COM**) at menu **B**, **A**, **A**. Choose option **2** ("Printer Menu #2, Epson LQ - IBM").

On that menu, the choices you'll see depend on which release of **WordStar 4.0** you have. If you see this option, choose it: **HP LaserJet II, F & P Cartridges**. If not, choose this instead: **HP LaserJet, U & V Cartridges**. Either should give you the full normal suite of accented characters as well as the PC-8 box-drawing characters. For information on selecting fonts, run the **README.COM** program that comes with **WordStar 4.0** to view the compressed ReadMe file, or download the extracted ReadMe file as plain-ASCII text from my public Dropbox folder: [READMEWS.TXT](#).

## Printing a File

With **WordStar 5.0**, **WordStar 5.5**, **WordStar 6.0**, or **WordStar 7.0**, select any LaserJet or PostScript printer and print as normal — and, by "as normal," I mean just print to printer port LPT1 or COM1.

(Your WordStar printer description file will likely have the parallel port LPT1 or the serial port COM1 selected by default; if not, you can specify one of those ports in WordStar's "Print" dialog under "Redirect to," or select one of them permanently for your printer with **PRCHANGE.COM**, under "Change printer adapter port".)

With **WordStar 4.0**, which only allows you one installed printer, just go ahead and print.

No matter which version of WordStar you're using, vDos will intercept the output as it goes to the printer port, and instead of sending it to the printer directly, it will create a beautiful Adobe Acrobat PDF document, which will open automatically in your system's default Acrobat PDF viewer — and from there you can print it to any printer (even one that doesn't normally support DOS applications, and even one hooked up to a USB port).

Given that vDos only supports low-resolution VGA graphics (640x480 pixels), rather than using WordStar's Advanced Page Preview, "printing" to PDF using this method also gives you a wonderful high-resolution preview of your document, which you can have open in a separate window; you don't have to actually print the PDF document unless you want to.

(You probably won't need it, but some technical documentation about all this is available via **Edward Mendelson**, although the above installation instructions are my own. See [here](#).)

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**If you've followed the instructions above, you should now have WordStar up and running just fine under vDos: you should be able to create, edit, save, and print WordStar documents.**

Everything that follows is optional: either extra information you might find useful or instructions for customizing or enhancing your use of WordStar under vDos.

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## vDos Quirks

vDos is idiosyncratic in the way it handles (a) long filenames and (b) hidden files and folders.

### Long and Short Filenames

vDos author Jos Schaars has chosen not to support long filenames, or even their short-filename equivalents. Under other DOS-like environments — Windows's own Command prompt, JPSoft's 4DOS and 4NT, TameDOS, and DOSBox — either long filenames such as **Book Manuscript.ws** or their corresponding short filenames such as **BOOKMA~1.WS** show up in all file directory listings. But not under vDos. It instead suppresses — that is, completely hides as if they weren't even there — any long filename (or long directory name), and won't show you the short version. Files and directories with names that aren't in the DOS 8.3-character format won't show up when you do a DIR listing at vDos's command prompt, and they won't show up in

WordStar's "Files" list.

(**Warning to Dropbox** users: this means that if you have a file-synchronization conflict, you'll never see evidence of that under vDos, since Dropbox will give the conflicted copy a long filename and vDos will completely hide that file.)

But vDos was completely open source until October 1, 2015, and is still almost completely open source. A programmer named **Wengier** has providing a modified version of **vDos.exe** that he calls **vDos-lfn.exe** that *does* supports long filenames and long directory names.

You can get Wengier's **vDos-lfn.exe** — functionally identical to the latest Jos Schaars version of **vDos.exe**, but *with* long-filename support — [here](#) (the **2015-10-19** version).

(The above link was to the current version of **vDos-lfn.exe** as of 24 November 2015; if Wengier has subsequently created a more-recent version, it'll probably be noted at the end of [this discussion thread about vDos and long filenames](#).)

If, after installation, when trying to run vDos, you get an error message about **MSVC100.DLL** not being found on your system, then install the **Microsoft Visual C++ 2010 Redistributable Package (x86)**, available for free [here](#).

In addition, for **vDos-lfn.exe** (but not **vDos.exe**), you'll also need the files **MSVCR100.DLL** and **MSVCP100.DLL**. They may already be present on your system. If not, you can get them from [here](#). Put them in either your vDos folder or C:\WINDOWS\SYSTEM32; either will work.

## Hidden Files and Folders

**vDos.exe** (and therefore **vDos-lfn.exe**) has an odd quirk that Jos Schaars is aware of but doesn't intend to change: it shows files and folders with the DOS "hidden" attribute in all directory listings, including WordStar's file lists (without vDos, these files normally wouldn't be visible to you). You may see filenames (such as, for instance, 4DOS's **descript.ion**) or folders displayed that you are not used to seeing.

(Yes, this means in aggregate that vDos shows you files and folders that Windows intends to have hidden and yet refuses to show even the short filenames of files and folders that have long filenames that would normally be visible.)

---

## Fonts

The customized **built-in vDos font** created by Jos Schaars does not handle double-line box-drawing characters in the normal fashion: instead of double lines, it shows dim single lines; for those characters where, in a normal font, double and single lines would intersect, Jos's font has glyphs that are partially bright and partially dim. He likes this customized look better, but, if you don't share his taste, you can use any monospaced TrueType font with vDos.

I suggest these fonts for use with vDos, in addition to the **built-in vDos font** (which is what you get if you comment out FONT = in **config.txt**):



- **DejaVu Sans Mono** (from BitStream)
- **Lucida Console** (from Bigelow & Holmes)
- **Consolas** (from Microsoft)

Each of these has its advantages and disadvantages:

- The **built-in vDos font** has a tiny period, an okay comma, a narrow hyphen, a weird lower-case "L", and a faintly dotted zero
- **DejaVu Sans Mono** has a good period, a good comma, a narrow hyphen, a weird lower-case "L", and a faintly dotted zero.
- **Lucida Console** has a good period, a good comma, a good hyphen, a normal lower-case "L," and an undotted/unslashed zero.
- **Consolas** has a good period, a good comma, a narrow hyphen, a normal lower-case "L," and a slashed zero.

The built-in vDos font shows multiple underscores (\_\_\_\_) as discrete characters; the others listed above all show them as one continuous line.

You can get **DejaVu Sans Mono** for free [here](#).

Copy DejaVu Sans Mono (regular weight only, no need for bold, italics, or bold-italics) to your vDos folder as **DEJAVU.TTF**,

If you have any version of Microsoft Windows from XP through to 8, you should already have **Lucida Console** on your system. It's likely in **C:\Windows\Fonts** or **C:\Windows\System32\Fonts** as **Lucon.ttf**, but note that most versions of Windows hide the **\Fonts** folder (by setting the "hidden" attribute). Ironically, vDos, which doesn't hide any folders, will be your friend in getting access to it, if you don't have a better tool for seeing the contents of hidden folders. From the vDos command prompt, issue these commands (substituting the actual location of your own vDos folder, if different):

```
C:
CD \Windows\Fonts
Copy Lucon.ttf C:\vDos
```

(Again, you only need the regular weight; there's no need for bold, italics, or bold-italics.)

If you have Windows Vista, 7, or 8, then versions 5.00, 5.22, and 5.32 respectively of the **Consolas** font came with your system, and should work fine with vDos. Earlier versions of Consolas (0.90, 1.00, and 2.00 were bundled with various Microsoft products) don't include the graphic PC-8 line- and box-drawing characters WordStar needs to make its menus and dialog boxes. If you don't already have a version 5.00 or better of Consolas, Microsoft will sell it to you [here](#) for US\$49 (for just the one regular roman weight, the only one vDos needs).

You can copy **Consola.ttf** to your vDos folder the same way you copied **Lucon.ttf**.

Sadly, I've found these monospaced TrueType fonts are *not* generally suitable for use

with vDos, because they lack some or all of the graphic characters WordStar needs to make its menus and dialog boxes:

- **Anonymous Pro** (by Mark Simonson)
- **Cousine** (from Google)
- **Dark Courier** (from Hewlett-Packard)
- **Lucida Sans Typewriter** (from Bigelow & Holmes)
- **Vera Mono** (from BitStream)

Most American users will have their system [codepage set to 437](#), which displays the original IBM PC "PC-8" character set. If you use a different codepage, you might see accented alphabetic characters on screen where you'd expect to see some or all of the line- and box-drawing characters. If your external font actually has all the line- and box-drawing characters in it, but isn't displaying them properly (none of the four named above do have those characters), try putting a minus sign or hyphen ("-") in front of the vDos `FONT =` directive in **config.txt**. That will cause vDos to map ASCII codes 176 through 223 to line- and box-drawing characters in your chosen font as if your system had codepage 437 selected:

`FONT = -[fontname]`

(If your font is showing little empty boxes or question marks where line- and box-drawing characters should be, it's probably a lost cause for use under vDos. Generally, font files smaller than 100 kilobytes and/or very old TTF font files tend not to have the line- and box-drawing characters included.)

---

## Screen Settings

Below are the combinations of fonts and screen sizes I like best. Of course, this is subjective, and, as we say in Canada, *ykmv* — your kilometrage may vary.

Use the highest resolution your monitor supports that's appropriate for its aspect ratio; the higher the resolution the better the TrueType fonts used by vDos will look (although they look very nice even at lower resolutions). Most widescreen 16x9 monitors max out at 1920x1080, and most 4x3 squarish monitors max out at 1024x768.

That said, using a lower resolution will make Windows icons, dialog boxes, and other things that don't matter when using vDos, look larger; I actually often use 1280x720 when hooking up my laptop to a large HDTV monitor.

(If you're buying a new monitor and use WordStar with a black background, I recommend getting a monitor with a black bezel, so that the bezel itself will provide additional visual blank space at the edges of the screen.)

## Widescreen Monitors

**For widescreen monitors** with 16x9 / 1.78 aspect ratios (including HD TV sets), often used with graphic resolutions of 1280x720, 1600x900, or 1920x1080 pixels, try Consolas with the default screen dimensions of 80x25 (although the font is [called](#)

"Consolas," the actual filename, which is what you cite when setting vDos's `FONT =` parameter in **config.txt**, lacks the final S).

Note that the vDos parameter for setting the number of lines is `LINS =` not `LINES =`.

If you like the look of the font **Consolas** (which you specify by the file name **CONSOLA** without the final "S"), these combinations are good:

For large text and a standard MS-DOS 80-column by 25-line screen:

```
COLS = 80
LINS = 25
FONT = CONSOLA
WINDOW = 100
FRAME = OFF
```

Medium text (this one, and the two that follow all have screens wider than 80 columns, which may cause some MS-DOS applications to not work well):

```
COLS = 94
LINS = 29
FONT = CONSOLA
WINDOW = 100
FRAME = OFF
```

Smaller text (this is my favourite):

```
COLS = 104
LINS = 31
FONT = CONSOLA
WINDOW = 100
FRAME = OFF
```

Even smaller text:

```
COLS = 118
LINS = 35
FONT = CONSOLA
WINDOW = 100
FRAME = OFF
```

(When using the Consolas font, the setting `COLS = 118` gives you a six-column WordStar file-directory display, plus a tiny bit of blank space on either side of the screen; a setting of `117` or lower only gives a five-column directory display but more room around the window's edges.)

If you prefer the look of **Lucida Console** (which you specify by the filename **LUCON**), you'll get a nicer display by using 28 lines instead of the default of 25:

```
COLS = 80
LINS = 28
FONT = LUCON
WINDOW = 100
```

**FRAME = OFF**

For smaller type, try this:

**COLS = 94**  
**LINS = 31**  
**FONT = LUCON**  
**WINDOW = 100**  
**FRAME = OFF**

## Squarish Monitors

For **squarish old-style monitors** with 4x3 / 1.33 aspect ratios, often used with graphic resolutions of 640x480, 800x600, or 1024x768 pixels, you'll want to use more than 25 lines (otherwise, you'll have large amounts of unused screen real estate at the top and bottom). Try these settings in **config.txt**:

**COLS = 80**  
**LINS = 35**  
**FONT = DEJAVU**  
**WINDOW = 100**  
**FRAME = OFF**

or:

**COLS = 80**  
**LINS = 36**  
**FONT = CONSOLA**  
**WINDOW = 100**  
**FRAME = OFF**

If you want more text on screen, I find these settings work well with a squarish monitor:

**COLS = 105**  
**LINS = 50**  
**FONT = LUCON**  
**WINDOW = 100**  
**FRAME = OFF**

---

## WordStar Patches

To patch WordStar, use the **WSCHANGE.COM** program, which should be in your WordStar program folder.

**WSCHANGE** provides on-screen help. If you're technically inclined, you'll find extensive documentation on patching WordStar in the file **PATCH.LST** in your WordStar program folder (depending on what version of WordStar you have, you may have to run the program **PATCHLST.EXE** once to expand the compressed **PATCH.LST** file).

## Screen Sizing

If you have **WordStar 7.0**, you can make WordStar automatically adapt to whatever your vDos screen dimensions are. Go to WSCHANGE menu **A, A, C** (Screen sizing) and set both **Height** (WordStar user-area address label **HITE**) and **Width** (**WIDE**) to **0** (zero); WordStar will now autosize to fit the current dimensions.

If you have **WordStar 4.0, 5.0, 5.5, or 6.0**, and you are using vDos at anything other than its default values of 25 lines by 80 columns as specified by the **LINS =** and **COLS =** directives in **config.txt**, then you have to manually set **Height** (WordStar user-area address label **HITE**) and **Width** (label **WIDE** or, in **WordStar 4.0**, **WID**) to have the same numeric values as the **LINS =** and **COL =** settings you've specified for vDos; these values are set at WSCHANGE menu **A, A, C** (Screen sizing).

## Cursor Sizing

**WordStar 5.0, 5.5, 6.0, and 7.0** users may also want to jiggle the cursor shape a bit, since the way vDos handles the cursor can cause it to sometimes disappear (for instance, during spellchecks) or to not highlight the first character when highlighting choices in a list of filenames or fonts (**WordStar 4.0** doesn't support changing the cursor shape). Go to WSCHANGE menu **E, =** (Enter User Area address), type **CURSIZ**, and enter these six bytes if you like a block cursor for insert and an underscore for otype:

0E 02 07 07 07 06

If you prefer an underscore cursor for insert and a block for otype, instead enter:

07 07 0E 02 07 06

(Depending on your vDos screen-size settings this may cause what looks like an underscore cursor to appear *above* rather than below the first character in the word being spellchecked — but that's better than no cursor at all, which is what you might get without this patch.)

## EMS and XMS

**WordStar 4.0, 5.0, 5.5, and 6.0** do not support either **EMS** (expanded memory) or **XMS** (extended memory); if you have one of those versions, you can skip to the [next section](#).

Enabling WordStar's **EMS** support frees an extra 18K of the 640K of low DOS memory; that additional low DOS memory can be used by WordStar itself or by TSR memory-resident programs (although note that not all TSRs work under vDos).

(You shouldn't need it under vDos, but if you're having trouble accessing **EMS** on your computer, the free product **EMS Magic** will be your friend.)

To enable **EMS** in **WordStar 7.0**, go to WSCHANGE menu **C, C, 2** (Memory Usage Menu #2), and set option **G** ("EMS Usage (16K pages)," which is user-area address



label **EMSMEM**), to **16**.

The values of 16 suggested above have never given me any problems, but, for the record, the README file that comes with **WordStar 7.0** says, "It's generally best to use a total of 8 to 35 pages of **EMS**. Using fewer than 8 pages or more than 35 pages may slow WordStar down. You can try different settings within this range to find the optimum efficiency on your system."

You then must activate **EMS** in vDos; to do that, you must have this line in vDos's **config.txt**, file as indicated under **vDos Settings**, above:

**XMEM = 4 EMS**

(The numeral in the above line tells vDos to provide 4 megabytes of **EMS**; you can specify any number between 1 and 63.)

You can confirm that WordStar is in fact using **EMS** memory by issue **?** from the Opening Menu, or **^O?** while editing.

**WordStar 7.0 Rev. A, Rev. B, and Rev. C** support only **EMS** but not **XMS**. Support for **XMS** was added (in addition to the existing **EMS** support) in the final revision, **WordStar 7.0 Rev. D**, which allows using **EMS**, **XMS**, or both simultaneously (or neither, if you prefer). You can see which revision you have by hitting **?** from WordStar's Opening Menu.

Unless you have **WordStar 7.0 Rev. D**, you can skip to the **next section** now.

If you do have **WordStar 7.0 Rev. D**, and prefer to use **XMS** instead of **EMS**, then, since **XMS** is the vDos default, either comment out the **XMEM =** line in **config.txt**, or explicitly set it to **XMS**, like so:

**XMEM = 4 XMS**

Then go to WSCCHANGE menu **C, C, 2** (Memory Usage Menu #2), and instead set option **J** ("XMS Usage (16K pages)," label **XMSMEM**) to **16**.

As I said above, enabling WordStar's **EMS** support frees an extra 18K of the 640K of low DOS memory. Enabling **Rev. D's XMS** support, on the other hand, uses up an additional 4K of the 640K of low DOS memory. As vDos creator **Jos Schaars** explains, "To access **XMS** memory, a program requests DOS to swap a chunk of memory from **XMS** to conventional memory and back again, so some conventional memory has to be set aside as a buffer. **EMS** memory has its buffers in upper memory and no swapping is involved; a buffer is simply set to point to some part of the **EMS** memory." Because of this, unless you have a specific need for **XMS**, I recommend you use **EMS** instead.

You can confirm that WordStar is in fact using **EMS** or **XMS** memory by issue **?** from the Opening Menu, or **^O?** while editing.

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## On-Screen Underlining and Strikeout

The following instructions should work for **WordStar 4.0**, **WordStar 5.0**, **WordStar 5.5**, **WordStar 6.0**, and **WordStar 7.0**.

Jos Schaars has very kindly added some special video support for WordStar to vDos — many, many thanks, Jos! (You need a version of vDos dated on or after 17 October 2014 for this WordStar support.)

This support allows WordStar to display underlining and ~~strikeout~~ within WordStar. If you'd like to try this out, add this line to **config.txt** (and remember that in a WordStar document, you fence text to be underlined between ^PS codes and text to be struck out between ^PX codes):

WP = WS

(That stands for "word processor is WordStar.")

To get onscreen underlining and strikeout, you must also patch a copy of the WordStar program **WS.EXE** or a WordStar configuration file **\*.CFG** to use these color settings for special attributes (this won't affect your choices for menus, lists, title bar, style bar, status line, scroll bar, or ruler). To do that, write all three of these lines out to a plain text (nondocument) file called **VDOS.PAT** (with each line ending with a hard carriage return):

UPDATE=0C,1F,5B  
VCOLOR=00,07,FF,C0,FF,00,00,02,FF,90  
VCOLOR+0E=FF,08

Or simply download **VDOS.PAT** from my public Dropbox folder: VDOS.PAT

Place **VDOS.PAT** in your master WordStar program folder (normally C:\WS), and then run WSCHANGE, go to menu **E, A** ("Patch from file"), and specify **VDOS.PAT** as the filename to be read in).

This gives white text on a black background (with bold showing as bright white on black). If you prefer other colors, you might look at modifying the COLOR variable in **config.txt** rather than changing the WordStar colors; calculating the first of the two bytes in each VCOLOR word is a bit tricky (but see below).

Savvy WordStar patchers will note that the above autopatcher file skips over changing the user's choices for subscript (two bytes starting at label VCOLOR+0A) and superscript (two bytes starting at label VCOLOR+0C). vDos doesn't support half-height characters for those attributes (although TameDOS, discussed below, does).

Likewise, **VDOS.PAT** make no specification for italics (or "italics/color," as **WordStar 4.0** calls it); that would be set by two additional bytes in the last line.

You may set whatever foreground and background colors you wish for subscript, superscript, and italics at WSCHANGE menu **A, C, A** in **WordStar 4.0**, **WordStar 5.0**, **WordStar 5.5**, **WordStar 6.0**, or at menu **A, B, A** in **WordStar 7.0**.

If you like using a black background for WordStar documents, you can skip to the next section. If not, or if you just want technical details, read on:

`WP = WS` has this effect, according to Jos Schaars:

If you invoke `WP = WS`, and the high bit of the background color is set (8-15 = 0x8-0xf), which means you can't use bright background colors anymore, and:

- If bit 0 (1) is also set, the text is underlined.
- If bit 2 (4) is also set, the text is ~~struckthrough~~.

You can add a decimal numerical argument to the `WP = WS` statement to specify the background color you use for the WordStar editing window as set in **WSCHANGE.EXE**; vDos will only provide text enhancements against the specified background color. Black is the default, or you may specify one of the following:

<code>WP = WS,0</code>	= Black
<code>WP = WS,1</code>	= Blue
<code>WP = WS,2</code>	= Green
<code>WP = WS,3</code>	= Cyan
<code>WP = WS,4</code>	= Red
<code>WP = WS,5</code>	= Magenta
<code>WP = WS,6</code>	= Brown
<code>WP = WS,7</code>	= White
<code>WP = WS,8</code>	= Gray
<code>WP = WS,9</code>	= Bright Blue
<code>WP = WS,10</code>	= Bright Green
<code>WP = WS,11</code>	= Bright Cyan
<code>WP = WS,12</code>	= Bright Red
<code>WP = WS,13</code>	= Bright Magenta
<code>WP = WS,14</code>	= Yellow
<code>WP = WS,15</code>	= Bright White

So, `WP = WS` and attribute 0x97 will display white (7) underlined text (8+1) on a black background.

`WP = WS,8` and attribute 0xdf will display bright white (F) underlined and struckthrough (0xd) text on a dark gray (8) background.

## Block-Marking Colors

The **vDos.pat** autopatcher file described above makes WordStar show marked blocks as black text on a green background. If you want inverse video (which can look odd with the special attributes patched above), go to WSCHANGE menu **E**, = ("Enter User Area Address"), and specify `VCOLOR+6`, then enter these two bytes:

FF 00

If you prefer a color combination other than black on green, patch `VCOLOR+6` as follows — a great tip from **Karl Fuss**, who was a mainstay of the CompuServe WordStar Forum.

WordStar usually displays marked blocks by using a simple reversal of the normal text colors. Depending on the background and foreground colors chosen for text display,

large areas of reverse video can often be ugly or uncomfortably bright. The color-setting menu in WSCHANGE does not permit altering the marked-block colors, although the **VCOLOR** area does include a two-byte slot called "Reserved (reverse video)" that serves the purpose quite well.

To control the marked-block colors, set the two bytes starting at **VCOLOR+6** (default **FF 00**) to **00 nn**. Get **nn** from the following table:

Background----		Black	Blue	Green	Cyan	Red	Magenta	Brown									
		White															
=====																	
Foreground	Black		01		02		03		04		05		06		07		
	Blue		10		12		13		14		15		16		17		
	Green		20		21		23		24		25		26		27		
V	Cyan		30		31		32		34		35		36		37		
	Red		40		41		42		43		45		46		47		
	Magenta		50		51		52		53		54		56		57		
	Brown		60		61		62		63		64		65		67		
	White		70		71		72		73		74		75		76		
=====																	
	Gray		08		09		0A		0B		0C		0D		0E		0F
	Bright Blue		18		19		1A		1B		1C		1D		1E		1F
	Bright Green		28		29		2A		2B		2C		2D		2E		2F
	Bright Cyan		38		39		3A		3B		3C		3D		3E		3F
	Bright Red		48		49		4A		4B		4C		4D		4E		4F
	Bright Magenta		58		59		5A		5B		5C		5D		5E		5F
	Yellow		68		69		6A		6B		6C		6D		6E		6F
	Bright White		78		79		7A		7B		7C		7D		7E		7F
=====																	

To make the change, go into WSCHANGE, press **E** for patching, then **=**. Type **VCOLOR+6** as the label to edit. You should see **FF 00** as the first two bytes. Change them to **00 nn** (taking the appropriate value of **nn** from the table above), press **X**, and then save the file.

## Advanced Page Preview and Inset

**WordStar 4.0** is solely a text-mode program; if you have that version, you can ignore this entire section and skip to [Printing](#).

### Advanced Page Preview

Starting with **WordStar 5.0**, and continuing with **WordStar 5.5**, **WordStar 6.0**, and **WordStar 7.0**, the ability was added to graphically preview the layout of documents with the fonts and colors that would be used when printing. WordStar's makers called this feature **Advanced Page Preview**, and rightly so: it was light-years ahead of the competing features in the DOS versions of Word and WordPerfect.

Although, with the right graphics card, Advance Page Preview can support resolutions as high as 1600x1280 pixels, vDos only supports the standard VGA resolution of 640x480 pixels, and so that's the best you're going to get out of WordStar when running under vDos.

Try invoking Advanced Page Preview under vDos (while editing a document) with the **AOP** command. If it works, great. If either of these two things happen, though, you need to make a little tweak:

- You get a blank screen; if so keep pressing **Esc** until you're out of preview and back into your document.
- You get the WordStar error message "Must have graphic display to run Preview;" if so, press **Esc** to return to your document.

If either of those errors occur, you'll need to go to the folder that contains your Advanced Page Preview files. Depending on how you set up your WordStar program, that might be C:\WS or C:\WS\PREVIEW or whatever location you chose when installing WordStar for the first time.

In that folder, you'll find a file named **FONTID.CTL**. Edit this in WordStar's nondocument mode (or with any ASCII editor) and find the line that begins:

**CRT\_TYPE=**

The **=** may or may not be followed by a number (if it isn't, that told WordStar to auto-detect your display-adapter type, a function that fails under vDos). Edit the line to specify adapter type **6**, which is (as documented in the **FONTID.CTL** file) "640 X 480 IBM VIDEO GRAPHICS ADAPTER (VGA) (16 COLOR)." The line should now look like this:

**CRT\_TYPE=6**

Save and exit the **FONTID.CTL** file.

### Inset

If your version of WordStar came with the **Inset** graphics editing program (it was



included with **WordStar 5.5**, **WordStar 6.0**, and **WordStar 7.0**), or you acquired it as a standalone add-on for use with **WordStar 5.0**, you also need to tell Inset to use standard VGA resolution. Find the WordStar folder containing **INSET.EXE**. In the same folder, you should also find Inset's installation utility, **SETUP.COM**.

Run **SETUP.COM**.

Change option **A** ("Screen") to "VGA."

Change option **B** ("Screen Mode") "VGA\_HIGH."

Inset, which you invoke while editing with **^P&**, should now work properly under vDos.

## Windows Clipboard Support

As documented in the file **vDos.pdf** that Jos Schaars provides with vDos, you can copy and paste to and from the Windows clipboard with these commands:

- **[Win][Ctrl]+C** copies the currently open document to a text file, which will automatically be opened by the Windows program that normally handles such files.
- **[Win][Ctrl]+V** pastes the Windows clipboard into the DOS keyboard.
- **[Win][Ctrl]+mouse click** starts selecting a rectangular block of text. Drag the mouse and release the mouse button, and the selected text will be copied to the Windows clipboard.

In addition, I suggest you add this line to vDos's **config.txt**:

**LPT4 = clip**

With it, anything that is printed to or copied to LPT4 will be intercepted by vDos and instead be copied onto the Windows clipboard. So, if you want to send a large block of text from WordStar to the clipboard, write that text to its own file (perhaps called **TOCLIP.TXT**) using WordStar's **^KW** "Copy to Another File" command (selecting "Copy in ASCII format" in the dialog box), and then use WordStar's **^KF** "Run DOS Command" function issue an instruction like this to copy the contents to the Windows clipboard:

**COPY TOCLIP.TXT LPT4**

And, as an alternative to using **[Win][Ctrl]+V** to paste text from the Windows clipboard to WordStar, install the program **VPASTE.EXE** in your vDos folder. You can get **VPASTE.EXE** here (my personal Dropbox public folder): **VPASTE.EXE**

Running VPASTE.EXE from the vDos command-line prompt or WordStar's **^KF** "Run DOS Command" command produces a file, located in the same folder as the VPASTE program, named **#CLIP.TXT** that contains a plain-text version of the contents of the Windows clipboard. You can then read the file **#CLIP.TXT** into a WordStar document via WordStar's **^KR** "Insert File" command.

Many thanks to **Edward Mendelson** for the VPASTE.EXE program. See his excellent page on using WordPerfect for DOS under Windows [here](#).

## WordStar 7.0 Macros

If you have **WordStar 7.0**, both copying to LPT4 and reading (pasting) from VPASTE.EXE can be automated with macros. You can download the two macros described below compiled and ready to run from my public Dropbox folder: [WINCOPY.WSM](#) and [WINPASTE.WSM](#).

Simply place these files in whatever folder normally contains your WordStar macros. You can then assign whatever hotkeys you wish to them with WordStar's ⌘ME "Rename Macro" command.

Note: The macros assume you have a folder named C:\vDos on your system; if you don't, then edit the macros with WordStar's ⌘MD "Edit/Create Macro" command to change all occurrences of that location in both macros.

---

This **WordStar 7.0** macro copies the marked block from WordStar to the Windows clipboard under vDos; perhaps call it **WINCOPY** (macro filename [WINCOPY.WSM](#)):

---

```
REM Copy to Windows clipboard under vDos
REM by Robert J. Sawyer (sawyer@sfwriter.com)
```

```
REM Without using WordStar's ^K] command, this
REM macro copies the existing marked block
REM (with accented and graphics characters
REM properly converted) from WordStar to the
REM Windows clipboard by writing the block to
REM temporary file C:\vDos\TOCLIP.TXT, and then
REM copying that file to LPT4. For this to
REM work, vDos's CONFIG.TXT file must contain
REM this line (without the leading "REM"):
REM    LPT4=clip
```

```
Sub Main
  Key("^KW")
  Key("C:\vDos\TOCLIP.TXT")
  Key("{Alt+A}")
  Key("+")
  Key("^K")
  IfException
    ACK: Key("O")
  End IfException
  Key("^KF")
  Key("copy C:\vDos\TOCLIP.TXT LPT4:")
  Key("^K")
End Sub
```

---

This **WordStar 7.0** macro pastes from the Windows keyboard into a WordStar document under vDos; perhaps call it **WINPASTE** (macro filename

**WINPASTE.WSM):**

---

REM Paste from Windows clipboard under vDos  
REM by Robert J. Sawyer (sawyer@sfwriter.com)

REM Requires program VPASTE.EXE in C:\vDos -- if you  
REM put VPASTE.EXE somewhere else, then the #CLIP.TXT file  
REM will be created in that folder instead, requiring  
REM changes below.

REM VPASTE.EXE is provided courtesy of Edward Mendelson  
REM and can be downloaded from Robert J. Sawyer's public  
REM Dropbox folder at:

REM <https://dl.dropboxusercontent.com/u/20915278/VPASTE.EXE>

REM Delete old #CLIP.TXT file first; otherwise vDos  
REM might be lagging behind and accidentally paste that  
REM one in instead:

```
Sub Main
  Key("^KJ")
  Key("C:\vDos\#CLIP.TXT^K")
  IfException
    ACK: Key("{Enter}")
  End IfException
```

REM Run the VPASTE.EXE program, which produces #CLIP.TXT:

```
  Key("^KF")
  Key("C:\vDos\VPASTE^K")
```

REM vDos sometimes lags behind a bit, so keep trying  
REM to read in #CLIP.TXT until vDos catches up:

```
TryAgain:  Key("^KR")
           Key("C:\vDos\#CLIP.TXT^K")
           IfException
             QRY: Key("{Enter}")
             Key("^Y{Esc}")
             GoTo TryAgain
           End IfException
End Sub
```

---

## Edge Padding

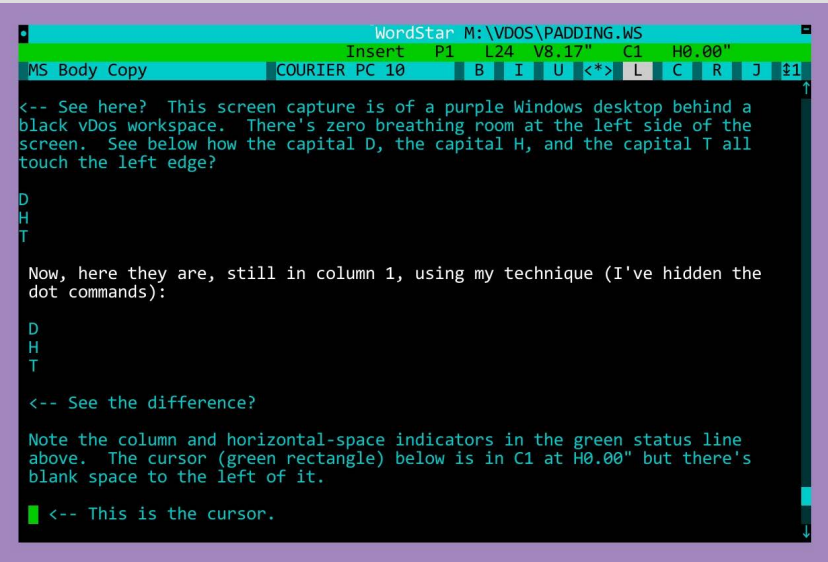
When using WordStar for DOS under Windows, I dislike the way the first character in each line of a WordStar document is pushed up against the inside of the window border (window frame) or monitor bezel.

Under TameDOS (discussed below), you can set an edge-padding value to give a little breathing room there, but if you use vDos, the first character in each line (assuming a left margin of zero) will, as I said, be crammed right up against the edge of the

window.

The simplest solution, which may or may not work depending on your screen parameters, is to set **FRAME = OFF** and **WINDOW = 100** in vDos's **config.txt** file. If you use a black document background in WordStar, playing around with your **COLS** and **LINS** values can give you the appearance of various amounts of blank space at all four edges of the WordStar window (such as in the [screen capture](#) at the very top of this page).

But if you're not using a black background for WordStar, or if you prefer a **WINDOW** value less than 100 and/or **FRAME = ON**, and if you have **WordStar 5.0**, **WordStar 5.5**, **WordStar 6.0**, or **WordStar 7.0**, what follows is a workaround that will give you a little breathing room, as you can see in the screen capture below ([click image](#) for larger view):



The technique below will give you one full character-cell-width of blank space at the beginning of each line. To set this up you have to make a couple of small **WSCHANGE** tweaks and add a few dot commands at the top of your document.

(The alternative of setting a left margin greater than zero has a couple of negative consequences. First, it adds a 13-byte-long soft-tab character at the beginning of each line, and second, it changes the cursor-movement behavior at the beginning of lines.)

This trick makes WordStar think it's editing in snaking-column (newspaper-style column mode) even when it isn't, causing it to pad the left edge of the line with an invisible snaking-column indicator.

First, use **WSCHANGE.COM** to modify your copy of WordStar so that the snaking-column indicator is indeed invisible. Go to the menu that selects screen colors. In **WordStar 5.0**, **WordStar 5.5**, and **WordStar 6.0**, that's **A**, **C**, **A**. In **WordStar 7.0**, it's **A**, **B**, **A**.

In **WordStar 5.0**, **WordStar 5.5**, and **WordStar 6.0**, make sure the background color for the "Ruler line" is the same as the "Normal text" background color.

In **WordStar 7.0**, make sure the background color for "Ruler line, scroll bar" is the same as the "Normal text" background color.

Exit the menu with **X** then issue **^X** to get to the WSCCHANGE exit prompt. Answer "N" to the "Are you through making changes?" question.

Next, no matter which version you have, go to menu **D, B, F** ("Lines and Characters Menu #1"), and change option **G** ("Snaking column character") to a space.

Exit WSCCHANGE.

Now, here's the trick: add these dot-commands to the beginning of any new file:

```
.if 1=0
.pl 0
.co 2 1"
.ei
```

Since WordStar assumes all **.if** expressions are true while editing, it will activate the **.pl** page-length and the **.co** snaking-column commands while editing, putting a snaking-column indicator — which, because of the modifications we just made with WSCCHANGE, will appear as a blank space the same color as your normal WordStar background — at the left of each line. That will give you a little padding there, which looks much nicer.

At print-time, WordStar will actually evaluate the expression **.if 1=0**, find that it's false, and so ignore all dot commands until the **.ei** end-if command; it'll print your document at the normal page length and as a single column.

The downside of this technique is that you won't have an accurate page-number display in your status line; on the other hand, if you're a **writer like me**, and put a **.pa** hard page break at the end of each chapter in your manuscript file, then the page number in the status line will correspond to the chapter number, and the line number will give you a rough-and-ready sense of how long each chapter is (the standard rule-of-thumb is to count ten words for each 65-character line).

---

## SmartKey, 4DOS, TameDOS, and ZTree

### SmartKey

Although Borland's **SuperKey** was perhaps the best-known terminate-and-stay-resident (TSR; memory-resident) keyboard-macro program for DOS, **SmartKey** by Australia's FBN Software was more powerful, in part because it added a "supershift" key: a user-selectable key that could be used as a macro lead-in. If your supershift key was tilde (**~**), then in addition to redefining **Ctrl-M** and **Alt-M** as macros (the two special versions of **M** you could define with SuperKey), you could also define **~m**, **~M**, **~Ctrl-M**, and **~Alt-M** (four more versions, for a total of six).

But regular vDos, although letting normal macros run under SmartKey, does not support the supershift-key feature. It simply fails to recognize the user-defined



supershift key as having any special function (and so, if that key is tilde, pressing it simply inserts a tilde).

However, to my delight, I find that **vDosXy3**, a special fork of the vDos project, created to support the DOS word- processing program **XyWrite 3**, supports the supershift key just fine.

(In **config.txt**, you can have the "special keyboard handling necessary for XyW3," option **KBXY3**, either "ON" or "OFF" — supershifting will work either way.)

**vDosXy3** also shows short filenames for files that have long filenames (showing **REPORT~1.WS** for a file with the long name **Report on Conference.ws**), rather than suppressing any display at all of such files, as regular vDos does. **vDos-lfn** (described earlier) has fuller long-filename support for those few DOS applications that can in fact deal with long filenames directly, but WordStar is not able to do that; for WordStar users, either **vDosXy3** or **vDos-lfn** will give as much long-filename support as WordStar is capable of handling.

I've tested testing **vDosXy3** with **SmartKety 6.0g Advanced** and found it very stable.

You can get **vDosXy3** [here](#), and find support for it in [this discussion group](#).

## 4DOS

Starting with vDos version **2015.10.01** (1 October 2015), vDos replaces its own earlier limited command processor with the much more robust one known as **4DOS**. If you're using any version of vDos with this or a later date, [you may skip to the next section](#); if you prefer earlier versions of vDos, read on:

Regardless of whether you use vDos or TameDOS (discussed next), I recommend **4DOS**, a replacement command processor that adds a lot of wonderful command-line functionality. Formerly a commercial product from JPSoft, it's now free. Info is [here](#), and the latest version ("4DOSs 8.0 binaries") is [here](#).

Prior to version **2015.10.01**, vDos's native command shell only supported these commands:

**CALL**, **CD** (and its synonym **CHDIR**), **CHCP**, **CLS**, **COPY**, **DATE**, **DEL** (and **DELETE**), **DIR**, **ECHO**, **ERASE**, **EXIT**, **GOTO**, **IF**, **LH** (and **LOADHIGH**), **MD** (and **MKDIR**), **MEM**, **PATH**, **PAUSE**, **PROMPT**, **RD** (and **RMDIR**), **REM**, **REN** (and **RENAME**), **SET**, **SHIFT**, **TIME**, **TYPE**, **USE** (a vDos-specific command), and **VER**.

Most are more limited than the real MS-DOS versions of the same commands. For instance, **TIME** will echo the time, but not set it. Jos Schaars didn't intend the vDos command prompt to be used for complex tasks.

But 4DOS works well under vDos, and allows for much more sophisticated operations at the command line and within batch files. A few 4DOS commands, notably those involving 4DOS's CLIP: pseudodevice, don't work under vDos, but most do; I have some sophisticated batch files running fine under the 4DOS/vDos combination that wouldn't work under just vDos.

I invoke 4DOS under vDos with a line like this at the end of vDos's **autoexec.txt**:

```
c:\4dos\4dos.com c:\4dos c:\4dos\bootup.bat
```

The first part is the command to load 4dos.com, the second specifies the 4DOS working directory, and the third loads **bootup.bat**, my batch file containing additional commands I want to execute upon loading 4DOS, including putting TSR programs into memory, loading an alias definition file, setting the path, and so on.

And then follow that line in **autoexec.txt** with one final line that merely says "exit" so that when you exit 4DOS, vDos will terminate, too:

```
exit
```

## TameDOS

If you use an older version of Windows (the 32-bit but not 64-bit versions of Windows 7, Vista, 2003 server, XP, 2000, Citrix, or NT), you might consider **TameDOS** rather than **vDos**: it provides many more enhancements, and, since it works on top of Windows's own buried MS-DOS, rather than trying to emulate DOS in Windows, application programs run much faster under TameDOS than they do under vDos. Unfortunately, TameDOS has seen no new releases or support since July 2013, but it's still available for US\$20, and I do recommend it; it's what I use myself daily to run WordStar under the 32-bit versions of Windows XP and Windows 7: [TameDOS.com](http://TameDOS.com).

## Ztree Win

Finally, if you don't just fondly remember WordStar for DOS but also the great DOS-era file manager **Xtree**, then I highly recommend **ZtreeWin**, which is so much more powerful and easier to use than Windows Explorer: [ZtreeWin](http://ZtreeWin).

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## More Information

There's a [discussion thread about WordStar and vDos](#) over at vDos's home on SourceForge.

Using WordStar under vDos is also discussed in [various threads](#) in the Yahoo! Groups WordStar Discussion Group.

And **Bruce Hartford** has put together detailed beginner-friendly instructions on using **WordStar 6.0** (his favorite version) under vDos and Windows 7. Get his PDF [here](#).

**Edward Mendelson** has tons of information on using WordPerfect, his preferred word-processing program, under vDos. See [his page devoted to that](#) for more tips and tricks, and some excellent explanations related to vDos.

For more information about WordStar, see:

- My essay [WordStar: A Writer's Word Processor](#)
- Alec Nevala-Lee's blog post [A Song of DOS and WordStar](#)

- Michael Petrie's [WordStar Resource Site](#)
- The Yahoo! Groups [WordStar Discussion Group](#)
- My system for getting [high-resolution page preview](#) with any graphics card
- [A potted history of WordStar](#)
- [What ever happened to WordStar?](#)
- [Wikipedia on WordStar](#)
- Victor Frank's [WordStar command summary](#)
- The official WordStar 7.0 [file-format description](#)

And for an explanation of why one might not want to use market-leading Microsoft Word, see the essay [Why Microsoft Word Must Die](#) by my colleague Charles Stross.

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## Acknowledgments

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**Robert J. Sawyer**, a former sysop of CompuServe's WordStar Forum, won the Science Fiction and Fantasy Writers of America's [Nebula Award](#) for Best Novel of 1995 and the World Science Fiction Society's [Hugo Award](#) for Best Novel of 2003. The ABC TV series [FlashForward](#) was based on his novel of the same name. He writes all of his books in WordStar for DOS.

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[Introduction](#) | [vDos Installation](#) | [vDos Settings](#) | [Printing](#) | [vDos Quirks](#) | [Fonts](#) | [Screen Setttings](#) | [WordStar Patches](#) | [On-Screen Underlining and Strikeout](#) | [Advanced Page Preview and Inset](#) | [Windows Clipboard Support](#) | [Edge Padding](#) | [4DOS TameDOS, and ZTree Win](#) | [More Information](#) | [Acknowledgments](#)

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## More Good Reading

[WordStar: A Writer's Word Processor](#)

[Rob's system](#) for getting WordStar 7.0 to preview pages at high resolution with any graphics card

[Rob's sixth "On Writing" column](#), outlining tricks you can do with your word processor — whatever it may be — to help you with your writing.

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## Twitter Feed

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