Running Wordstar 6 on Windows 7 Using vDOS

Version 2.0

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Thanks to Dennis McCunney and Robert J. Sawyer for helping me learn how to set vDOS up.

Contents:

DISCLAIMER #1: I am running Wordstar 6 for DOS on a Windows 7 (64-bit) computer using vDOS. I assume this same procedure will work on a 32-bit Windows 7 system and quite possibly later versions of Windows. But I've not totally solved the printer problem which I explain at the end of this post, so getting from onscreen Wordstar text to old-fashion "*black marks on dead trees*" requires some contortions and work-arounds. Since I use Wordstar for coding, this doesn't much bother me because, there are adequate work-arounds I can use if I need to. But if printing formatted Wordstar documents to paper is important to you, know that you'll have go through a couple of hoops to get the results you want.

DISCLAIMER #2: I apologize if these instructions seem overly detailed, while at the same time omitting many options, alternatives, and tantalizing possibilities. My goal is to present *one* example way to run Wordstar using vDOS that can (hopefully) be followed by anyone, even someone who is not all that computer-savvy. For additional and more sophisticated information, there is are Wordstar discussion groups and resources at: https://groups.yahoo.com/neo/groups/WordStar/info http://www.wordstar.org/

Getting Wordstar to run on Windows 7 using vDOS is a one, two, or three-phase process:

1 Set up vDOS
2 If necessary, configure wordstar to run in the vDOS environment
3 If desired, address the printing problems

Phase 1: Setting up vDOS

vDOS is free Open Source software that you download (though they would appreciate a donation).

1 **Install vDOS**. Download vDOS from https://sourceforge.net/projects/vdos/ and install it as you would any other piece of downloaded software. (I save it to file, double-click on the saved file, and follow the onscreen directions.)

After installation, you should have a vDOS software folder that contains a vDOS icon. What happens when you click on the vDOS icon is determined by the contents of the `autoexec.txt` and `config.txt` files which should also be in the vDOS folder. (These two files perform functions similar to the old DOS `autoexec.bat` and `config.sys` files.) To set up vDOS to run Wordstar, you edit the `autoexec.txt` file and (optionally) the `config.sys` file. To edit this file, open it with a text-editor like Notepad. (If you use a word processor like Word, be sure to save the file as unformatted plain-text.)

2 **Designate a virtual drive for vDOS**. Edit the `autoexec.txt` file to assign a virtual drive letter for the file system that Wordstar will need to access. Assuming that your Wordstar software and data files are all stored on your Windows C: drive, the easy way to do this is to add the following line to the `autoexec.txt` file:

```
USE C C:\
```

This line should be the first line after `@ECHO OFF` (ignoring the lines that begin with `rem`).

(If you wish, you can assign virtual drive letters to specific folders and their sub-folders by entering USE statements into the `autoexec.txt` file in the format *letter*: *folder*. But that's for advanced users who probably don't need these basic instructions.)

3 **Specify a path**. DOS programs like Wordstar rely on a path to identify where needed software is located. This path must lead to where the Wordstar software files are stored. For example if your Wordstar software lives in the Windows `c:\dosapps\ws` folder, enter the following line in the `autoexec.txt` file after the `USE C C:\` statement:

```
set path=c:\dossapps\ws;
```

This `set path` statement works the same as the old DOS PATH command, so if for some reason you need to access some other software from within Wordstar just add the appropriate directories to the line, separating each one with a semi-colon (`;`).

4 **Specify Loading Wordstar**. Enter commands to load Wordstar in the `autoexec.txt` file below the `SET PATH` statement. The normal way to do this is to first instruct vDOS to go to the directory where your Wordstar data files are stored, and then invoke Wordstar. For example, if you want to work in your `c:\myfiles` folder you would add the following two lines to the `autoexec.txt` file:

```
c:
cd \myfiles
ws
```

The `c:` statement takes vDOS to the C drive, `cd \myfiles` changes your working location to the `c:\myfiles` folder, and ws starts up Wordstar in that folder.

As you'll recall, `ws` is the traditional method of loading Wordstar from a command line. However, if you've renamed your WS.EXE file to something else, you use that name instead of `ws`. For example, if you've used WSCHANGE to create a Wordstar version tailored for writing HTML code and named it WSHTML.EXE the line would be `wshtml`.

CAUTION: Microsoft wants everyone to store their data files in some subfolder of `My Documents`. But Wordstar was created before spaces were allowed in folder names. Wordstar can't find documents stored anywhere in, or under, `My Documents`. So you have to defy Microsoft's assumption by storing your Wordstar data files in some folder with no space in the name. For example, `c:\myfiles`. Because Wordstar can't handle spaces in filenames, you cannot use something like `c:\My Documents\myfiles`.

At the very end of the `autoexec.txt` file there needs to be an `EXIT` statement. This closes out vDOS when you exit Wordstar. The default `autoexec.txt` file has this statement, so just leave it alone.

So our example `autoexec.txt` file should now look like this (ignoring the `REM` lines):

```
@ECHO OFF
USE C C:\
set path=c:\dossapps\ws;
c:
cd \myfiles
ws
EXIT
```

If you now try to run Wordstar by clicking on the vDOS icon, it very well *might* work. If it does, congratulations, you're good to go. But if Wordstar doesn't work, don't panic, Wordstar probably needs to be configured for the vDOS environment. Proceed to Phase Two below.

Phase 2: Configuring Wordstar

You may need to configure Wordstar to run in vDOS.

PROBLEM: These steps require you to run the old Wordstar WSCHANGE program. But WSCHANGE won't run on a 64-bit system. Feh! If you're using a 64-bit version of Windows 7, there are two ways to solve this problem:

- **Run WSCHANGE within vDOS**. To temporarily use vDOS from the command line, delete the `ws` and `EXIT` lines from the `autoexec.txt` file. Then click on the vDOS icon. vDOS will come up in the directory where your Wordstar software files are stored. Then run WSCHANGE.

- **Run WSCHANGE on a different computer**. Transfer **all** of your Wordstar software files to a 32-bit Windows system. For example, a computer running good old reliable Windows XP. Run WSCHANGE on that system to complete the steps in this section. Then transfer the updated Wordstar files back to your 64-bit system. It doesn't matter how you do the transfer — a USB flash drive, or copy them to a CD, or use LapLink, or even an ancient external floppy drive if you have one in the attic.

(These steps assuming you're running Wordstar 6. If you're trying to configure Wordstar 7 the menu option letters are slightly different, but the basic principles are the same.)

To configure Wordstar for the vDOS environment:

1 Open a Command Prompt Window. One way to do this with Windows 7 is click the Start button, click on All Programs, click on Accessories, and then click on Command Prompt. (Folks who use the command line a lot usually place a shortcut icon to it on their desktop.)

2 Go to the Windows folder where your Wordstar software files are stored. For example:

```
cd c:\dosapps\ws
```

3 Load the Wordstar configuration program:

```
wschange ws
```

(The example above assumes that your Wordstar program is WS.EXE. If it's something else, WSHTML.EXE for example, you'd enter wschange wshtml.)

The WSCHANGE Main Menu should be displayed.

This kind of menu system was created before computers came with a mouse and cursor, before you could "click on" something. To use it, you select a menu item by typing in the letter of the item you want. For example, to select the Computer submenu, you type C in the lower-left box. To work your way back up a menu structure, you enter X.

You keep typing menu letters until you get down to the item you want. At that point, you'll usually be told what the current setting is, and you'll be asked if you want to change it. Enter Y for "Yes" (or N for "No"). If you enter Y you'll see some instructions on how to do whatever it is. (The letters you enter are not case-sensitive.)

4 Configure Wordstar to recognize where your Wordstar software is. This example assumes that you've added USE C C:\ to the autoexec.txt file.

   a Go to the Valid Disk Drives configuration menu from the Main Menu by entering:

   ```
   C A A
   ```

   Your valid drives will be listed. If you're doing this for the first time, most likely only your C hard drive will be listed, plus maybe one or more floppy drives. If your C drive is listed, you don't need to change anything, so enter "N" for no changes and go on to Step 5.

   (You can list additional hard or flash drives other than C if you have them and want Wordstar to access them, but in that case you also have to add an appropriate USE statement for each one in your autoexec.txt file.)

   b If your C drive is NOT listed, enter Y for "Yes" you want to change the drives.

   Note that once you say you want to make changes, all drive listings are eliminated. You can't just add a drive.

   c Enter the first drive letter you want to add. For example, drive C. (Note that you just enter the letter, no colon or backslash.) You are asked if this is a floppy drive. Enter N for "No."

d Now use the same process to enter any other drives you've specified USE statements for. If your computer actually has a floppy drive you can try to add it's letter (usually A), but since my Windows 7 system don't got no floppy drive, I don't know if Wordstar using vDOS will be able to read or write to a floppy.

e When you're done entering your drive letters, press [Return].

You're taken back to the list of drives. If the list is now correct, enter N for "No" you don't want to make any more changes. You're taken back to the Computer menu. Enter X and you're taken back to the Main Menu. Enter X again, and you're back to the Main Menu.

5. Specify the search path for the Wordstar software files.

a Press "X" until you're back at the WSCHANGE Main Menu.

b Go to Wordstar Files Menu #1. From the Main Menu enter:

```
C D
```

c Go to the Define Default Search Path menu.

```
A
```

d Go to Default Search Path for Wordstar Files Menu.

```
A
```

The current search path is displayed.

e You're asked if you want to change it. You probably do. Enter Y.

You're asked to enter a new value.

f Assuming that your Wordstar software files are in a Windows folder named `c:\dosapps\ws` and that's where you're running WSCHANGE from, simply type a period followed by [Return].

```
.
```

(Or you could enter an actual path such as, `\dosapps\ws`.)

g Return to Wordstar Files Menu #1 by entering X.

h Go to Reassign Drive and For All Wordstar Files.

```
B
```

i Enter the drive letter where the Wordstar files are stored. In this example, that would be C followed by [Return].

j Return to the Main Menu by pressing X until you get there.

k   Finish the configuration by pressing X again and then Y for "Yes," you're finished.

l   If necessary, transfer all your Wordstar files back to your 64-bit Windows 7 system.

Wordstar should now (hopefully) run in your `c:\myfiles` folder when you double-click on the vDOS icon or choose Open from the icon menu.

6. **Customize Wordstar appearance (optional).** You can use the `config.txt` file to adjust Wordstar. This is for things that WSCHANGE does not address. The `config.txt` file describes your options. For me, I only use the following:

```
LOW = ON
EMS = ON
FRAME = ON
```

The `LOW` and `EMS` statements give Wordstar a little additional memory for efficient use.

The `FRAME` statement creates a standard Windows-type window for Wordstar to run in. It has borders and a minimize button in the upper right corner. Note that you cannot adjust the window size by dragging the corner, but you can move the entire window around your screen as with any other window. Nor can you exit Wordstar by clicking on the X button in the upper right corner (an error message telling you that you have "files open" is a reminder that you cannot use the X button).

Other possibilities include:

- **Window size**. By default, the Wordstar window occupies about 70% of your screen. You can change this by entering *WINDOW* = %. For example, `WINDOW = 50` would occupy half your screen. `WINDOW = 100` would occupy the whole screen.

- **Rows and Columns**. By default, Wordstar displays 24 rows which are 80 characters across. You can use `ROWS = `*number* and `COLS =`*number* to customize this. For example `ROWS = 48` will display 48 rows (minimum is 24, maximum is 60). `COLS = 90` will display 90 characters across (minimum is 80, maximum is 160).

- **Other stuff**. As you can see from the `config.txt` file there are other aspects you can customize. Including, maybe, printing to a printer (see Phase 3: the Printer Problem on page 6).

Phase 3: the Printer Problem

By default, Wordstar assumes that your printer is connected to your computer's Parallel port (LPT1). But modern computers don't come with a parallel port, and neither do modern printers. Ooops. It's possible from within Wordstar to specify using an old-style Serial port (COM1, COM2, etc) instead of the Parallel port, but some of today's computers don't come with old-style Serial ports either — and neither do printers. Moreover, I've never been able to figure out how to actually configure Wordstar to use a serial printer. Drat! So when you try to print something, Wordstar can't find a Parallel or Serial port to send your words to, so printing fails (and probably crashes the program). Bah!

If you only use Wordstar for writing code and don't need to print anything to paper (black marks on dead trees are so 20th Century) this is nothing to worry about, so ignore the printer problem.

If you do need to print something to paper, there are three possible work-arounds to address this problem:

- The PDF printing trick
- The TXT printing work-around
- Tricking out your computer with a parallel printer port

(Check out http://sfwriter.com/ws-vdos.htm, for other possible methods of solving the printer problem.)

The PDF Workaround

With this workaround you create a PDF file and then print that file. This method can be used for printing both plain and formatted text on any printer you want, BUT you must have Acrobat Distiller installed on your system. Acrobat Distiller comes with certain Adobe products. For example, the full version of Acrobat includes Distiller (the free Acrobat Reader does NOT include distiller). You have to buy an Adobe product that includes distiller, install that product, and then you'll have access to Distiller.

Note that while a new copy of the full version of Acrobat costs a hefty chunk of change, you don't need a new version. You can probably pick up an older, used, version of Acrobat from someone who has upgraded to the latest version at a reasonable cost.

1 Use whatever Wordstar dot commands suit your fancy.

2 Go to Wordstar's Print screen and enter the name of the file you want to print.

3 Go down to the Printer Name field and choose APPLEW.

4 Continue on through the Print screen to the last field which is named "Redirect output to port." Enter the name of the file you want to print to. It's best use the same name as the file you're printing BUT add .PS after the name. So, if you're printing a file named FUBAR, you'd enter FUBAR.PS. The resulting output file is a PostScript format file.

5 Assuming that Adobe Distiller is properly installed on your computer, double-click on the output PostScript file you've just created (FUBAR.PS, for example). Distiller will then transform it into a PDF file (FUBAR.PDF) with all of your Wordstar formatting (fonts, bold, underline, etc) intact.

6 Now just open it with Acrobat and print it like any other PDF file.

The TXT Printing Work-Around

With this workaround you create a plain text (ASCII) file, open that file with some other word processing or text editing program and then print from that program. This method can be used

for printing both plain and formatted text on any printer you want, and it does not require expensive Distiller software, but it is a little more complex and may require more work.

1 Make sure that your Wordstar file begins with the correct dot commands. Personally, I use:

```
.mb0
.mt0
.po0
.pl 28"
.lh a
```

You can use whatever dot commands suit your style, but if you don't use the first three shown above your output will be shifted for margins that may annoy you.

2 Go to Wordstar's Print screen and enter the name of the file you want to print.

3 Go down to the Printer Name field and choose ASCII.

4 Continue on through the Print screen to the last field: "Redirect output to port." Enter the name of the file you want to print to. It's best use the same name as the file you're printing BUT add .TXT after the name. So, if you're printing a file named FUBAR, you'd enter FUBAR.TXT. The resulting output file is a "plain text" or "ASCII text" format file.

5 Then open the output text file (for example, FUBAR.TXT) with whatever word processor suits your fancy. such as Microsoft Word, WordPad, or the free Notepad utility. You can then use that application to print it to paper. But if you want special formatting like *bold* or *italic*, or different font sizes, you have to input all that formatting from scratch with the other application (Word, Notepad, etc.)

Printing Directly From Wordstar to a Parallel Printer

With this workaround, you equip your computer with a parallel printer card, and then print from Wordstar to a printer with a parallel printer port (assuming you have one).

This method works fine for plain, unformatted text. It may be possible to print fully formatted text by also obtaining and installing PDF printing software such as GhostScript, but I have not yet experimented with that.

1 Make sure you have a printer with a parallel port.

2 Buy and install a parallel port card in your computer.

I bought a Syba card for $15. It was easy to install and works fine. Note that different computers come with different types and sizes of expansion slots, so be sure to get a card that fits your kind of slot.

3   Go to Wordstar's Print screen and enter the name of the file you want to print.

4 Go down to the Printer Name field and choose DRAFT and then print as you normally would.

This method produces plain, unformatted text (though underlining might come through).

Note that if on Step 4 above you choose APPLEW you get an error message referring to a GSWIN32 file which may imply that there's a way to use such a file to get formatted text. Also, if you choose EPSON, you do get formatted text (bold, italic, etc), though what font it will be in is hard to predict, you'll have to experiment around to see.

Issues & Problems

Working From the Command Line.

You can configure the `autoexec.txt` file so that when you click on the vDOS icon you get a Command Prompt window rather than automatically loading Wordstar. You can then run Wordstar (or some other program) from the command line.

To configure the `autoexec.txt` file to bring up a Command Prompt window, delete the line that loads Wordstar (`ws`) and the `EXIT` statement at the end of the file. Change the `cd` statement to identify whatever directory you want to start in. For example, `cd \data`.

A couple of points to note:

- If you're running different DOS programs from the vDOS Command Prompt window, you have to have *already* added software directories to the `PATH` statement as explained in Step #3 on page 2.

- If you run a program from the command line, it will use the `config.txt` file that's in the current directory. If there's no `config.txt` file in that directory, the program will run with default settings (ugly). If you have different programs that require different `config.txt` file settings, you have to launch them from different directories which contain an appropriate `config.txt` file.

To quit a vDOS Command Prompt window, just enter `EXIT` followed by [RETURN]

File Issues

Wordstar is very, very old school. In olden days, all filenames had to follow the 8.3 rule. Which meant that no filename or folder name could have more than 8 characters to the left of the period, and no more than 3 characters to the right of the period. And no spaces in the name at all. For example, the filenames

- `12345678.TXT` is allowed.
- `12345678.TEXT` is not allowed — more than 3 characters to the right of the dot.
- `WAYTOOLONG.TXT` is not allowed — more than eight characters to the left of the dot.
- `)MY POEM.TXT` is not allowed — because there's a space in the name.

Since Wordstar can't handle files or folders with names that violate the 8.3 rule, if you want to use Wordstar to edit such a file you have to first rename the file. Nor can Wordstar navigate to, or make use of, folders with names longer than 8 characters or that have spaces in their names, such as MY DOCUMENTS.