

PSSideways 0.9
A Word for Windows 2.0 macro
To implement 2-Up and Booklet Printing

To

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You need a PostScript Printer to use PSSideways!

Some of the most requested features of WinWord involves its printing capabilities.....or lack of.

Amazingly, there's no option to print odd pages only or even pages only. Not so surprising is that it can't do squished sideways printing, where two pages prints side-by-side on one side of a physical sheet of paper. Least surprising of all is that it can't do booklet printing, where all pages are shrunk to print sideways on both sides of the sheets of paper such that you can fold them into a booklet.

WOPR's (Woody's Office POWER Pack™) **2 X 4** did an admirable job of providing this capability, purely by using WinWord features. It's probably the only macro that will print odd/even pages correctly for multiple-sectioned documents. Performing all this magic using only WinWord means that this capability is available to all printers that is supported by Windows.

WOPR's 2 X 4, however, is also hampered by limitations of WinWord. It's tough to grab and shrink and reposition complicated graphics and tables. It doesn't happen often, but every once in a while, you'll find a document that **2 X 4** will simply throw up its hands. Another consequence of shrinking and repositioning the entire document is that it can take quite a while.

That's where **PSSideways** comes in.

The good news is that **PSSideways** will handle Duplex, 2-Up, 2-Up, Booklet, Odd-Only, and Even-Only printing relatively quickly and with *complete* accuracy—doesn't matter how many tables, or columns, or graphics you have. The bad news is that you need a PostScript printer. Sorry.

Acknowledgments

Woody Leonhard, the WinWord wizard wrote the original **2 X 4**. It was the first to crack the "print all even, then all odd pages" Gordian knot.....but it was slow and cranky. With the appearance of Word for Windows 2.0, new WordBasic commands and a sudden change in paper handling made it possible to conceive of a new, better, faster, and more

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reliable 2 X 4.

Eileen Wharmby wrote this sleek, new, versatile version of 2 X 4, practically from scratch. This first version of **PSSideways** tries to retain the elegant features of this 2 X 4.

Thanks to Scott Krueger for pushing WordBasic bleeding edge. The macros here borrow liberally from his cutting-edge use of API calls from WordBasic.

Installation

Just double-click at the top red "button" at the top of this document to install **PSSideways**. Two macros will be installed called **PSSideways** and **PS4up**. **PSSideways** is also installed on your **File** menu for quick access (actually that's only the suggested menu; you can choose a different one during installation.) **PS4up** is the core engine for processing the PostScript files and sending it on to the printer driver.

The Installer saves installation info in **WOPR.INI** in your Windows directory. If you want to uninstall, double-click on the second red "button". The UnInstaller will use the info in **WOPR.INI** to do a complete uninstall.

(Actually, there's a chance that **PSSideways** may screw up if you're embedding an EPS file that contains the %%Page: and %%EndPage commands. EPS files are not supposed to have these, but.....)

Also make sure that your DOS TEMP variable points to a drive that's large enough to hold the entire PostScript print file. This file may get large if you use TrueType fonts. Use Type 1 fonts whenever you can to speed things up!

What Does it Do?

When you select **PSSideways** from the **File** menu, you'll be presented a dialog box that asks you how you want to print:

Duplex
2-Up
4-Up
Booklet
Odd-Pages Only / Normal Order
Odd-Pages Only / Reverse Order
Even-Pages Only / Normal Order
Even-Pages Only / Reverse Order

We'll take a look at what these mean in a moment. You can also check "Print a PostScript File" to select a PostScript file to process and print. Otherwise, the current WinWord document will be used.

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PSSideways will use the "Print to File" option in FilePrint to print a temporary PostScript file for post-processing, but there's no easy way to reset that in FilePrint without printing a blank page, so it isn't done. *You'll need to reset the "Print to File" setting manually!*

You can also click on **Customise** (that's how the Brits spell it) to reverse the printing order of the second side. The default printing order is for most LaserJet compatibles, except for the Original LaserJet. A little experimenting will show you how. (Yes, a better customisation is needed.....one thing at a time.)

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Let's describe the various printing options by using a 4 page document as an example.

Printing Mode	First Side	Second Side
Duplex	μ §	μ §
2-Up	μ §	(blank)
4-Up	μ §	μ §
Booklet	μ §	μ §
Odd-Pages Only / Normal Order	μ §	(blank)
	μ §	

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Odd-Pages Only / Reverse Order	μ §	(blank)
Even-Pages Only / Normal Order	μ §	(blank)
Even-Pages Only / Reverse Order	μ §	(blank)

How's it Work?

PSSideways utilizes the power of the PostScript language to scale, rotate, and reposition the pages *after* WinWord has printed it! It lets WinWord print to a PostScript file, then post-processes that file to perform its tricks. In fact, **PSSideways** can perform the same magic on *any* PostScript file that conforms to the Adobe Document Structuring Convention--that means you can run the post-processing on practically *any* file you print from *any* application.

Essentially, the Adobe Document Structuring Convention requires certain comments to be placed in the PostScript file, such as the start and end points of each page.

PSSideways just searches for those comments to separate and count the pages.

PSSideways can then send the pages to the printer in *any order* it wishes! Moreover, it can wrap the page inside a bit of PostScript code that rotates, scales, and moves the page to *anywhere* on the printed page.

Finally, **PSSideways** doesn't just use WordBasic's **Open** and **Output** commands to print to the port directly. That's what the early **Enveloper** did, but it ran the risk of trashing whatever printing was in progress, handled by the Print Manager. Instead, **PSSideways** uses the API printer Escape function to send the data directly to the printer driver. It uses

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PASSTHROUGH mode to prevent additional interpretation by the printer driver. Works like a charm! We wouldn't've believed it would be so easy, or we'd've done it *much* earlier!

If you'd like to find out more about PostScript and the Adobe Document Structuring Convention you *need* the "big red book", *PostScript® Language Reference manual, Second Edition*, © 1990 Adobe Systems Incorporated, ISBN 0-201-18127-4.

Neat Stuff

PSSideways will be part of **WOPR 3.0** (Woody's Office POWER Pack™).

You're getting to use an advanced version of the **WOPRInstaller** and **WOPRUnInstaller**. This pair of macros represents general-purpose routines for cleanly installing and uninstalling macro applications, menu assignments, Toolbar assignments, and Key assignments.

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