

BUG-BYTES

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HOW TO PRINT ENVELOPES!

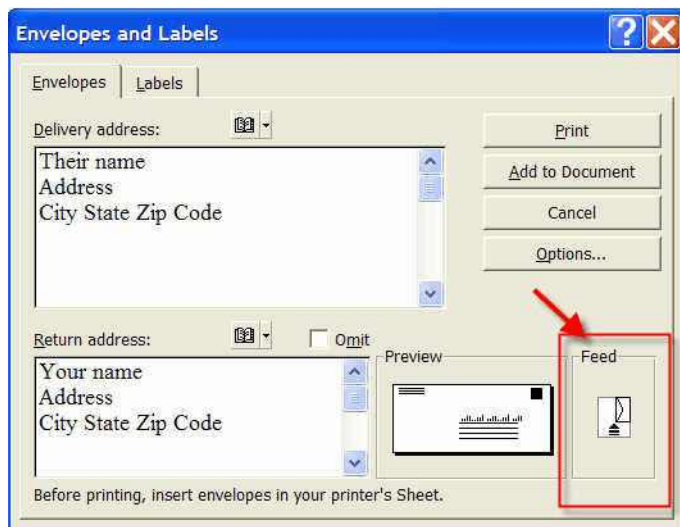
THEY'RE EASY TO READ AND TO PRINT



Printing envelopes is not much different than printing a letter. But let's walk through the steps.

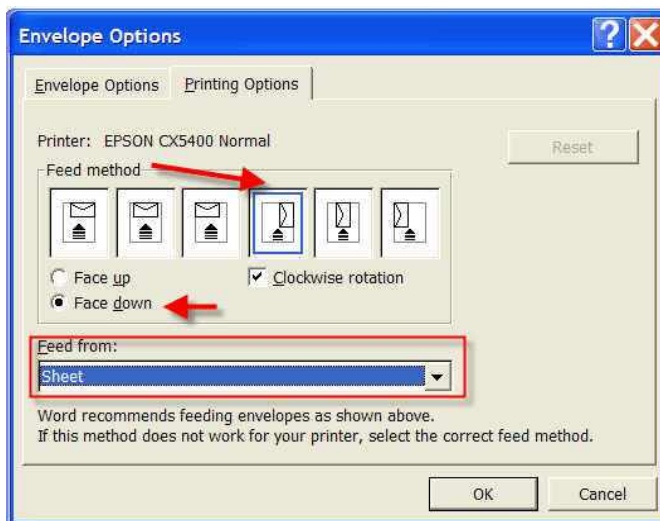
Notice how envelopes are inserted in your printer. Most printers include a diagram to show you which side of the envelope faces up, and where it goes in relation to the paper feed. If not, you'll have to experiment, or look in your printer manual. If you don't have a manual, you can quickly download one from your printer manufacturer, or look up just the information that you need on the Internet.

Use your word processor to prepare your envelope for printing. For instance, in Microsoft Word, open to a blank page. Click Tool, Envelope Labels. Enter your return address, and the address of the recipient of the envelope. You can also use the Envelope program from within a business document. Just cut and paste the address from the letter to the Delivery address field in the Envelope program.

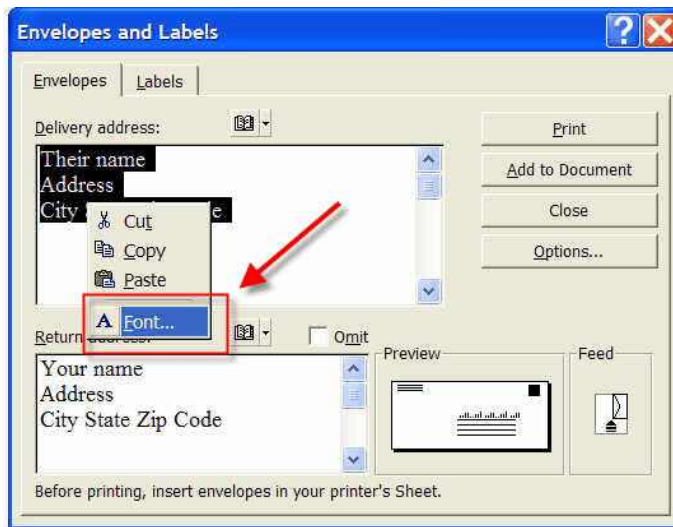


Click on feed (lower right of the dialog) and check whether Word's recommended envelope feed agrees with the way your printer works. If not, pick the correct feed pattern.

See the Envelope feed options below. This screen is for an Epson CX5400 all-in-one printer. The screen for your printer may look different, but the idea is the same.

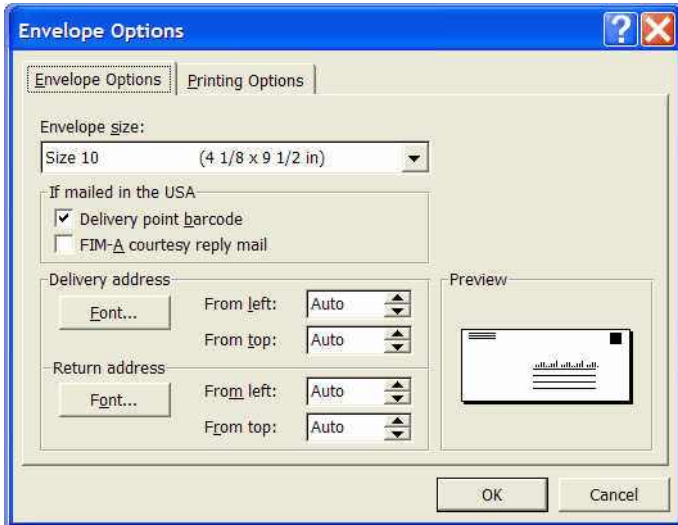


Block all lines of an address and Right-click on the block. Choose Font. Pick the font style and size of font that you want. See the Font dialog.



Click the Options button to turn on the printing of bar codes. It speeds the delivery of your letters. Check that the right size envelope is selected. In some cases, you may

need to make minor changes in the default alignment settings to work properly with your printer. However, once the settings have been made, they will be remembered for the next time. A size 10 envelope is selected in the screen shot below.



Place your envelope in your printer, move the sliding guide to keep the envelope straight, and click Print. Out comes your envelope. Unless your penmanship is superb, both your recipient and the Post Office will appreciate the fact that you printed your envelope on your printer. See the next article on how to determine the correct zip code for an address.

USE ZIP+4 TO EXPEDITE MAIL DELIVERY
IT IS EASY TO DO



Given how easy it is to type an envelope, and to include the bar code, why not use the ZIP+4 zip code favored by the Post Office? The Post Office uses automated equipment to sort the huge volume of letters they process. By using ZIP+4 (five digits followed by a dash and four more digits) the mail is sorted so it gets right to your letter carrier not just to the main post office.

Bookmark this address: <http://zip4.usps.com/zip4/>

Shown is the URL for the United States Postal Service Zip Code Lookup screen. Enter the address, city, and state. Click Submit.

The correct zip+4 zip code will come back. For instance, the correct zip code for our new meeting place is 97526-2035. Check and see if that is correct. Update your address book with the ZIP+4 ZIP Codes.

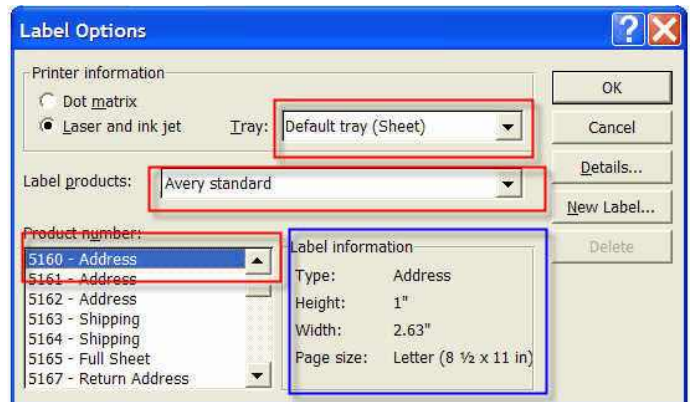
Even if you include only the ZIP+4 ZIP Code in your return address, you will help make a dent in the mail system, and will speed mail addressed to you.

HOW TO PRINT LABELS
Create your own mailing labels



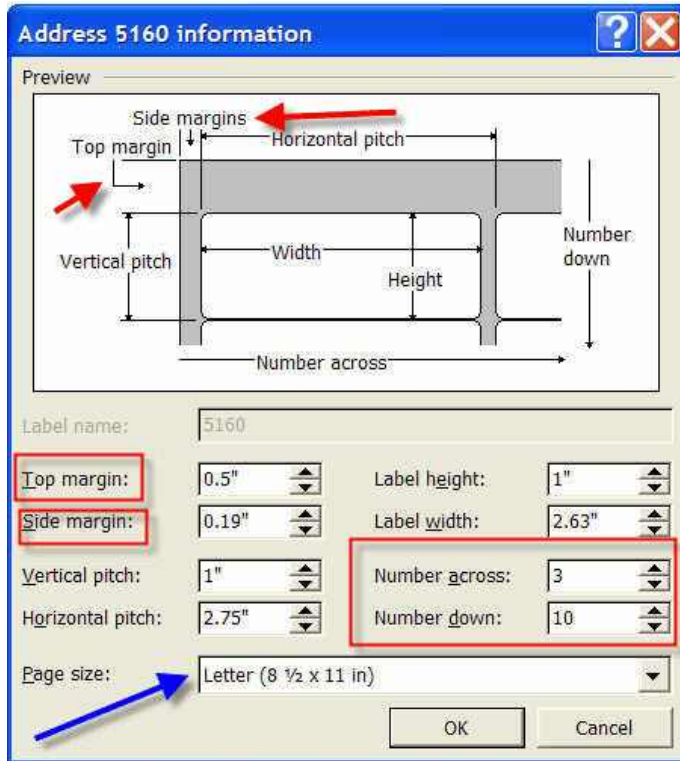
Avery and other sources produce sheets of label stock. You peel off the labels after you print them. Labels are treated as if they are individual pages on a sheet. For instance, Avery 5160 address labels come 30 to a sheet. The beauty of labels is that you can purchase stock that is designed for a particular purposes.

Select a label format before you start to create a database of addresses. In Word, click Tools, Envelope Labels, Labels. Choose whether you want a full sheet of the same labels, or one label. Click, Options. Pick the label format you want to use. Avery 5160 is selected below. Staples makes there own version of the different labels.



Click Details to make changes in layout of the labels, and to determine how many rows and columns of labels print. It is one way to limit how many labels print on a sheet. For instance, the 5160 labels are 10 rows of 3 columns. Therefore, there are 30 labels to a sheet. Whether you print just one label on a sheet or all 30 is up to you.

One use of the full sheet of labels is for your return address.



The screen shot above show the detail dialog. Note that you can fine tune how the text appears on the labels by adjusting the white space around it. The default settings may work just fine. If so, you are done.

Labels come in white, clear, weatherproof, and colored labels, and in many different formats.

Tip. When using labels for packages. Place a strip of clear cellophane tape over the label to keep it from smearing in wet weather.

Next time you are in your favorite stationery store, browse the label aisle. You will be surprised at what you find.

SOME TOOLBARS TOGGLE OFF AND ON

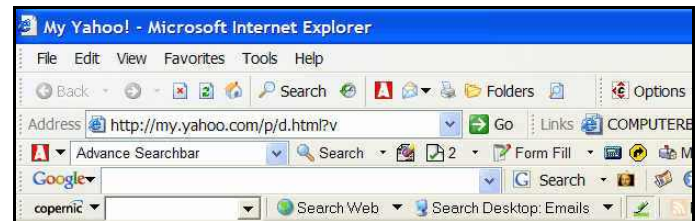
REMOVE THE IE TOOLBAR CLUTTER

Accessory Internet Explorer Toolbars are incredibly useful, but they involve space trade-offs. Each added toolbar reduces the amount of useful information that you can see on your screen by one line. Fortunately some toolbars allow you to toggle them off and on. For instance Advanced Searchbar allows this (<http://www.advancedsearchbar.com/>), as does an abbreviated version of the Google Search bar. The red ▲ in the screen shots at the right is for Advanced Searchbar, a free search utility.

If Google is your default search engine, click Search to toggle it off and on.

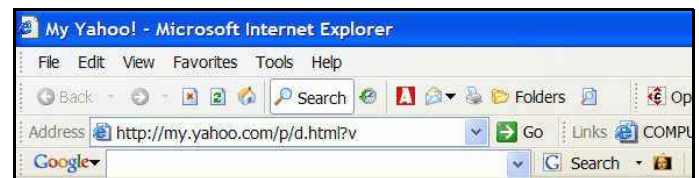
Some taskbar are very short and can be combined in a long string with other choices. However, major search engine toolbars tend to take up the whole width of your screen.

See this screen shot. Too many toolbars have been turned on as an example of what you probably do not want to emulate.



Note that the toolbars are three deep in addition to the three lines at the top of IE.

The second screen shot shows what it looks like with only one accessory toolbar—the Google toolbar. That can be closed if you only do standard web searches. The full toolbar is handy for doing image searches as well as web searches.



Examples of shorter toolbars include a links toolbar, and a toolbar for Powermarks. Powermarks (www.kaylon.com), is a high powered replacement for Favorites.

Check to see if your favorite toolbars, at least the long ones, will toggle off and on.

SHORT STUFF

Occasionally, run Chkdsk /F to automatically correct errors on your hard disk. In XP, right-click on the drive that holds Windows, select Properties, Tools, Check Now. Enable “Automatically fix file system errors” and “Scan for and attempt recovery of bad sectors. Acknowledge that the program will run when you next start your computer. Be patient. It takes time to run the test.

HOW HAVE HARD DRIVES CHANGED?

GREAT STRIDES HAVE BEEN MADE

The circa 1980's IBM personal computers (PCs) came with a one single-sided floppy drive, then with two single-sided floppy drives. That gave you a drive A and a drive B so that you could copy from one floppy to another without shuffling floppies back in forth in a single drive. Nirvana!

Then along came the first practical hard drives for PCs. They were 5.25 inch drives unlike the early drives for main-frame computers that were two feet in diameter and held a paltry (by today's standards) five megabytes. The 1980's hard drives were twice as thick as today's one-inch thick



MFM HARD DRIVE



LAPTOP DRIVE

3.5 inch drives. (It took two of today's drive bays for one drive.) Capacities climbed slowly to 10, 20 and 30 megabytes. Today, the largest capacity hard drive is a whopping 1,000 Gigabytes. Laptop computers include hard drives that are smaller and thinner than a pack of cards.

Hard drive specifications stress capacity, throughput, and the speed with which a drive accesses individual bits of data (seek). By 1994 hard drives could achieve throughput of 16.6 MB/s, by 1997 33.3MB/s, and by 1999 66.6MB/s. Today theoretical throughput continues to climb to 133MB/s, but actual numbers are less than that.

That means that recently built drives can store far more data in the same amount of space, and read and write the data to disk at faster and faster speeds. Spindle speeds have risen dramatically from 3,600 RPM to 7,200 RPM, with some hard drives operating at 10,000 RPM.



Newer drives are much more reliable than the early drives. They're constructed with built-in error correction, and near perfect disk surfaces. Early drives had bad areas on the disk that had to be mapped out, so that data was not written to those spots. Even

so, sometimes data ended up where it was not supposed to be. You could purchase software to move the data to safe regions of your hard drive. Today, you use the full capacity of hard drives, because they are virtually error free.

Hard drive manufacturers continue to find ever more ingenious ways to write data to their drives. As a result, they have achieved astonishing densities per inch with stored data. One of the newest methods of recording data is to write it perpendicular to the surface of each platter inside the hard drive.

SATA (Serial ATA) drives use a single thin cable to transmit data in place of the familiar wide ribbon cable. This aids cooling in a computer's case. SATA drives are ramping up throughput numbers for modern hard drives.

S.M.A.R.T TECHNOLOGY

New EIDE drives with the ATA-3 specifications come with a new technology called Self monitoring Analysis and Teporting Technology or Smart for short). The drives warn users of potential failure and report on the health of the drives. A SMART report can be viewed by third-party programs, such as Sandra or Everest Ultimate Edition, or from the BIOS software. Those two programs provide just about any information you might want about your hardware and software.

<http://www.sisoftware.net/> for Sandra

<http://www.lavalys.com/> for Everest Ultimate Edition

A sample Everest report is shown below.

ID	Attribute Description	Thre...	V...	W...	Data	Status
01	Raw Read Error Rate	51	200	200	0	OK: Value is normal
03	Spin Up Time	21	214	189	4258	OK: Value is normal
04	Start/Stop Count	0	99	99	1332	OK: Always passes
05	Reallocated Sector Count	140	200	200	0	OK: Value is normal
07	Seek Error Rate	51	200	200	0	OK: Value is normal
09	Power-On Time Count	0	99	99	1172	OK: Always passes
0A	Spin Retry Count	51	100	100	0	OK: Value is normal
0B	Calibration Retry Count	51	100	100	0	OK: Value is normal
0...	Power Cycle Count	0	100	100	826	OK: Always passes
BE	<vendor-specific>	45	54	27	46	OK: Value is normal
C..	Temperature	0	104	77	46	OK: Always passes
C..	Reallocation Event Count	0	200	200	0	OK: Always passes
C..	Current Pending Sector C...	0	200	200	0	OK: Always passes
C..	Off-Line Uncorrectable Sec...	0	200	200	0	OK: Always passes
C..	Ultra ATA CRC Error Rate	0	200	200	0	OK: Always passes
C..	Write Error Rate	51	200	200	0	OK: Value is normal

WHAT DOES THIS PROGRESS MEAN TO USERS?

You can buy new hard drives for a small fraction of what you would have paid many years ago. The better drives read and write data much faster than the old drives, and the new drives can provide all the storage space you need, even for the most data hungry applications (movies, photo libraries, and music collections). That's progress, and it hasn't stopped yet. The new drives are also more reliable.

In another ten years, we will look back and view similar progress. In fact, solid state flash devices may entirely replace hard drives, or at least supplement them.