

ComputerEdge™ Online — 06/05/09



This issue: Making Money with Your Web Site

Get your Web site ready for business with e-commerce shopping carts and credit card payment gateways. Plus, Wally talks about making money by putting ads on your Web site.

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Create a fully functioning online store. You don't have to create a cyber-store from scratch—there are countless shopping cart software packages available. CubeCart is one of the easiest low-cost e-commerce solutions available.

[iTransact Payment Gateway](#) by Michael J. Ross

A new service may challenge PayPal and the big guns. A new payment gateway may start to challenge some of the better-known gateway services. Here's what you need to know to get started with iTransact for your e-commerce site.

A purple rectangular banner with a white border. At the top left is a circular logo with a sunburst pattern. To its right, the letters 'CBL' are written in a large, bold, white font. Below the logo and text, it says 'CBL Data Recovery' in a smaller white font. Underneath that, it reads 'America's trusted data recovery specialist' in white. A red-bordered box in the center contains the text 'FREE Evaluation NO DATA, NO CHARGE' in white. At the bottom, the phone number '1.800.551.3917' and the website 'www.cbltech.com' are listed in white.

(Click Banner)

A blue rectangular banner with a white border. The word 'OVERTIME' is written in large, white, serif capital letters at the top. Below it, in smaller white text, it says 'You May Be Owed \$\$\$'. Underneath that, it reads 'Call CKS Lawfirm' and at the bottom, the phone number '(888)808-8358' is listed in white.

(Click Banner)

[Windows Vista \(and Windows 7\) Tips and Tricks](#) by Jack

Dunning

The ALT Key for Emotional Comfort

A tip on a quick way to view the menu bar in Windows Vista and Windows 7; a tip on registering your copy of Windows 7 RC; and Windows Vista Service Pack 2 news.

[Wally Wang's Apple Farm](#) by Wally Wang

Making Money on the Internet

Affiliate marketing simply gives you a chance to make money by doing nothing more than directing others to another Web site. Also, a look at Bling It!, which lets you take perfect auction pictures; and a tip on using the Stickies program to jot down notes.

[Little Linux Lessons: Tips and Tricks from Users](#) by

ComputerEdge Staff

Linux users share ideas and ask for help.

Tips on how to use 64-bit Firefox on Linux without giving up on Web sites that use Flash or Java.

[Rob, The ComputerTutor Does Microsoft Access](#) by Rob

Spahitz

Mailing List Revisited

This week, we return to our Access Mailing List application. Several weeks ago, we left it to go explore VBA, which will be a critical component in making Access do anything useful. We'll start to see how these two things converge.

[Worldwide News & Product Reviews](#) by Charles Carr

The latest in tech news and hot product reviews.

Pillow Click Edging Out Pillow Talk—A study says more workaholics are working in bed via an often-unsecured mobile device; Fine Art Printing for Photographers—A review of the book about making fine-art digital prints; Hauppauge Personal Video Recorder—A review of the nifty high-def device.

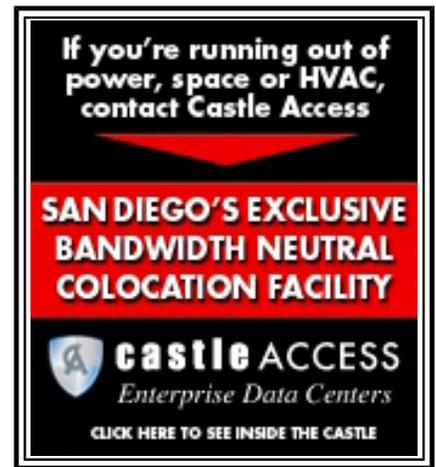
DEPARTMENTS:

[EdgeWord: Tips for Making Your Web Site More Effective](#) by

Jack Dunning

Take the time to make small improvements—it will pay off.

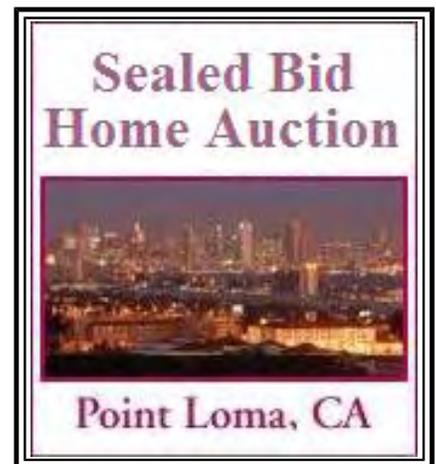
The key to making a Web site a valuable part of your business is first to design it properly, and second to monitor how well it is working.



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[Editor's Letters: Tips and Thoughts from Readers](#) by

ComputerEdge Staff

Computer and Internet tips, plus comments on the articles and columns.

"Not all 802.11n Is Really 802.11n!," "Digital Dave Comments," "Windows Live Mail"



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Digital Dave

“Digital Dave answers your tech questions.” by *Digital Dave*

A reader wonders, is it better to buy a 32-bit system or go for 64-bit?; what's the best way to maintain a laptop battery?; a reader's minimized window in XP is way too tiny.

Dear Digital Dave,

I have been told that only about 50 percent of applications will run on a 64-bit machine unless the program has been written especially for 64-bit. How fast is the trend toward 64-bit machines progressing?

If buying a new computer now, is it better to get a 64-bit machine and replace applications as needed, or should I stick with the "tried and true" 32-bit machine?

*Paul Lee
San Diego, Calif.*

Dear Paul,

The introduction of 64-bit computers is accelerating. In a couple of years, it may be difficult to buy a 32-bit computer—except in niche applications and possibly some low-priced netbooks. The operating systems are written in a manner that enables most 32-bit programs to run on the 64-bit machines. There will be a few programs that will never catch up, either because of driver problems or a general lack of support, but the best-known programs are already running in the 64-bit environment.

The primary difference in 64-bit computing is that you can break the four-gigabyte memory (RAM) barrier. With most of today's applications, memory is not an issue, but if you're a gamer or working with huge databases, it could be significant. Most people whose computer use is primarily e-mail, Web browsing and word processing don't need 64-bit processing, but it's getting harder to find a machine that's not 64-bit.

The newest, fastest processors are 64-bit because that's what everyone says they want. The number 64 is twice as high as 32, and people always want the higher number—if they can afford it. There will be no turning back.

Your decision should be based upon how you plan to use your computer and your budget. If your primary goal is to run older programs, or your current applications are the standard e-mail and browsing, there is no problem with using a 32-bit system. If you're looking to the future and planning to grow with the newer 64-bit applications (that as-yet-unknown new killer app), then don't lock yourself into the 32-bit box (both figuratively and literally). Other than possibly the price, there is very little downside to 64-bit systems.

Digital Dave

Dear Digital Dave,

I'd like to know the best way to maintain my laptop battery. I have an HP Compaq nc6120 with a six-cell battery. My practice has been to use the battery as little as possible, and to keep the computer plugged in most of the time, running or idle. But I recently bought a Panasonic camera with a lithium-ion battery, and its instructions were to let the battery run down before recharging it. To me, that sounds like NiCd advice. What's yours?

Bob Di Giorgio

Dear Bob,

So many different types of batteries have passed through the systems that it can be difficult to keep track of how to treat them. In older battery technology, there has been a "memory" problem, where batteries would lose capacity based upon not being properly cycled (discharged). In those cases, deep cycling (almost complete discharge) was recommended to prevent the problem from setting in. However, lithium-ion batteries do not have this problem and don't require deep cycling in order to extend their life.

The reason it is recommended that the Li-ion batteries be occasionally discharged is merely to recalibrate the battery meter. They should not be fully discharged too often, maybe once every 30 or 40 charges. (If a Li-ion battery is actually fully discharged, it will become useless. The computer circuitry should prevent this from happening, but if the battery actually does become drained, then it could be dangerous to attempt to recharge it. Again, the computer circuitry should prevent this, as well.)

The biggest threat to a Li-ion battery is heat. The higher the temperature, the quicker it will lose capacity. Also, the higher the charge that is maintained, the faster the battery will deteriorate. If you leave your laptop plugged in all of the time, then the battery will probably last about three to four years, depending upon how hot your computer runs. In this situation, discharging the battery to about 40 percent, removing it from the computer, and putting it into the refrigerator will be the best way to prolong the battery life.

The downside is that you no longer have the uninterrupted power supply provided by the laptop battery.

When traveling, running on battery can be good for the life of the battery, because at the lower charge levels there is actually less deterioration. There is no real advantage to discharging the battery below 40 percent, although the life of the battery will be much greater if it were possible to maintain the charge at that 40 percent rather than 100 percent. Of course, that would be self-defeating, since you would have much less operating time when running on battery.

Digital Dave

Dear Digital Dave,

As a self-taught computer user for the last few years, I have learned a lot from you and CE. I started using XP a while back, and find that when I minimize a window, it goes into a tiny square. With the older computers we have, minimizing creates about a half-size window, and I can click and drag from the minimized window to the other window.

Is there a setting I can change to remedy the tiny size of the minimized window in XP to make it larger?

Thanks so much,

*Sandy W.
San Diego, CA*

Dear Sandy,

I've received a number of questions regarding the default size of a window when opening a program in Windows. There are three modes for window sizes in Windows: minimize (only an icon on the taskbar appears), maximize (covers the entire screen), and size (movable and resizable window on the desktop). Only in the size (or resize) mode can you save a different default size.

The way it is supposed to work in both Windows XP and Windows Vista is the last window closed (X in the upper right-hand corner, ALT-F4, or Close from a right-click on either the top bar or icon in the taskbar) for a particular program is the default size for the next window to open.

If the last window closed was maximized, the next new window will be maximized. To change the default size of the floating window, when in the size mode, hover over the lower right-hand corner (or any corner) of the window until you see a double arrow pointing at an angle toward the opposite corner. Click and hold the left-mouse while you drag the window to the desired size. When you close this window, the new size will be saved as the default for any new window opened.

However, people get in trouble when they have multiple windows open for the same program. Even after you resize a window and close it, it is only the default until you close another window from the same program (either in size mode or maximized). That means you should close all other windows from the same program before setting your default window size, then close that last window. Otherwise, the default will always be the last window standing.

While this is how it's supposed to work, I've found many people who seem to have problems with saving defaults. The saved settings are program-specific. Other than resizing and closing windows, I know of no other way to set the default size. I have read about third-party programs that deal with the problem in XP, but I have never used one. My approach is to resize windows as I need them. The last setting is almost always different from what I want the next time I load the program.

The good news comes in Windows 7. The default setting for a sized window is no longer dependent upon closing the window. Rather, the act of resizing the window (without closing the window itself) automatically resets the default. Again, the last window resized will set the default, and closing another window will not change it.

Digital Dave

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CubeCart for E-Commerce

“Create a fully functioning online store.” by Michael J. Ross

You don't have to create a cyber-store from scratch—there are countless shopping cart software packages available. CubeCart is one of the easiest low-cost e-commerce solutions available.

There are numerous reasons why people choose to open a virtual store on the Internet, offering products and services to a worldwide audience, 24 hours a day. Some of these first-time entrepreneurs already have day jobs, but would like to make some supplemental income. Other people may have far more urgent reasons, such as having lost their full-time job. In addition, a growing number of stay-at-home moms and dads, as well as retired folks, would like to take advantage of their time at home, and make some money while caring for children or grandchildren.



Brian tries to figure out how to put a shopping cart on his Web site.

The software to run an online store can be coded from scratch, but most new business owners do not have the time or programming knowledge to create an e-commerce Web site from scratch, or even augment an existing site with shopping cart functionality. Fortunately, it is not necessary to create a cyber-store from scratch, because there are countless shopping cart software packages available.

Some of them are quite expensive, others far more reasonable, and some are completely free. Another consideration is the difficulty in configuring and customizing a shopping cart site. Again, there is great variation: Some packages are legendarily obtuse, while others are a snap

to set up. Thirdly, most of the heavyweight packages can be quite difficult to install and configure, while others are more lightweight, yet still encompass all the basic functionality that a budding online entrepreneur would need.

In this article, we will look at how to get started with one of the best-regarded of the lighter and more affordable packages available, CubeCart (www.cubecart.com/). It is created and distributed by Devellion Limited (www.devellion.com/), and is one of the easiest low-cost e-commerce solutions available. At this time, version 4 has a license fee of just under \$130, while version 3 is free. An additional \$89.95 for either version will remove the link to Devellion found in the footer of each store page.



Figure 1. CubeCart product home page.

CubeCart leverages the latest technology for creating dynamic Web pages—XHTML, CSS, PHP and MySQL. Unlike other, better-known products, CubeCart uses divs for page layout, and not HTML tables.

The pages are created on-the-fly using templates, making it easier for developers and third-party vendors to create custom themes for the pages (known as "skins"). Version 3.x offers product listings, options, categories, images, image gallery, order history, e-mail and print invoicing, multiple currencies, popular shipping and payment options, e-mail marketing, support for digital products, tell-a-friend links, product search, prebuilt skins, site documents, and a straightforward administrative panel.

Even though version 4 of CubeCart adds many new features, this article will focus on version 3, because that is the one most commonly used at this time, and thus most thoroughly tested by the vendor and by users worldwide. In addition, there are far more modules written and tested for version 3.

System Requirements

To run CubeCart, you will need some basic technologies: an Apache (www.apache.org/) Web server, a MySQL (www.mysql.com/) database, the PHP (php.net/) scripting language, and either Zend Optimizer (www.zend.com/en/products/guard/optimizer/) or ionCube PHP Encoder (www.ioncube.com/), for decoding protected files. cURL (curl.haxx.se/) with SSL support is required for some shipping and payment modules. The GD (www.libgd.org/) image library is recommended, for product image manipulation.

All decent Web hosting services provide these needed components. (My own site has step-by-step instructions (www.ross.ws/hosting) to get Web hosting, if you are unfamiliar with the process.)

Installing CubeCart

Your first step in installing CubeCart is to go to the version 3 download page (support.cubecart.com/index.php?_m=downloads&_a=view&parentcategoryid=5&pcid=0&nav=0).

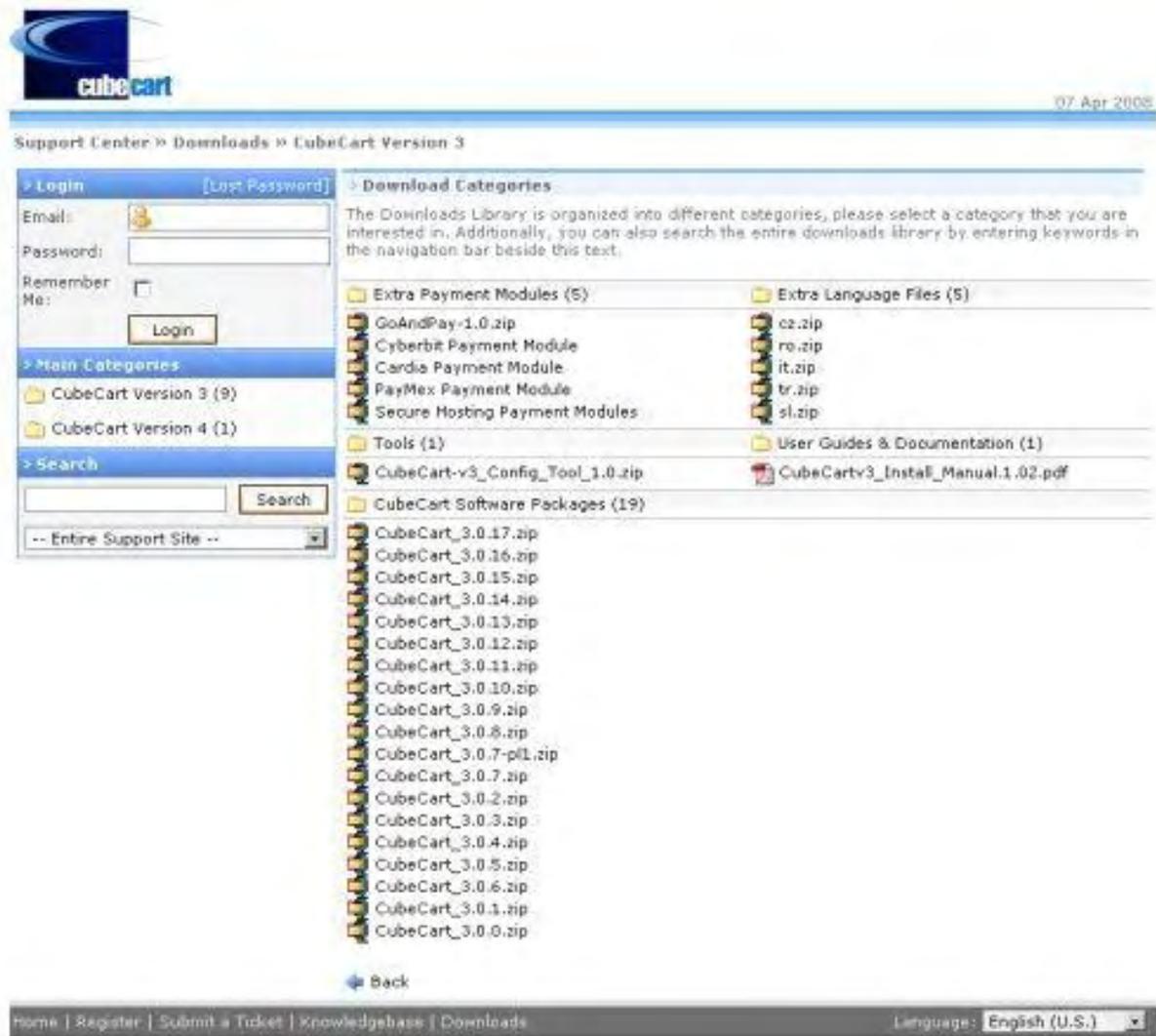


Figure 2. CubeCart v3 download page.

Click the link for the latest version, which as of this writing is 3.0.18—which is nearly identical to 3.0.17, seen in our screenshots. The 3.0.x page has more detailed information about this particular maintenance release.

Click the Download button, and save the archive file somewhere on your computer. If you have a broadband connection to the Internet, then the download process should take just a few seconds, because the installation file is only 2.5 megabytes in size. (The version detail pages indicate that 3.0.18 has been downloaded more than 26,000 times; 3.0.17 is well over 200,000; and 3.0.15 stands at greater than 7 million downloads! This gives you an idea as to CubeCart's popularity.)

Open up the archive file, and save the contents of the "upload" directory into a new CubeCart directory within your Web server's root. The entire CubeCart installation on disk comprises 1,125 files in 236 directories.

Next create a database on your MySQL server for CubeCart. The following commands will do this:

```
CREATE DATABASE cubecart_test;
GRANT SELECT, INSERT, UPDATE, DELETE, CREATE,
```

```
DROP, INDEX, ALTER, CREATE TEMPORARY TABLES,
LOCK TABLES ON cubecart_test.* TO cubecart_user@localhost
IDENTIFIED BY 'password;
```

[Editor's note: The preceding four lines, starting with the words "GRANT SELECT" are one continuous line.]

Here we are showing test values only, and you should use a far more secure password for any production installation.

Point your Web browser to the CubeCart index.php, which will begin CubeCart's installation process. For instance, if you had named the CubeCart root directory "CubeCart" and had placed it in the root directory of your local Web server, then the URL to use would be http://localhost/CubeCart/index.php. You can even leave off the "index.php" if your Web server has been configured to look for that filename as a default.



Figure 3. CubeCart installation 1 - license agreement.

At the license agreement page, click the agreement checkbox and then the Continue button.

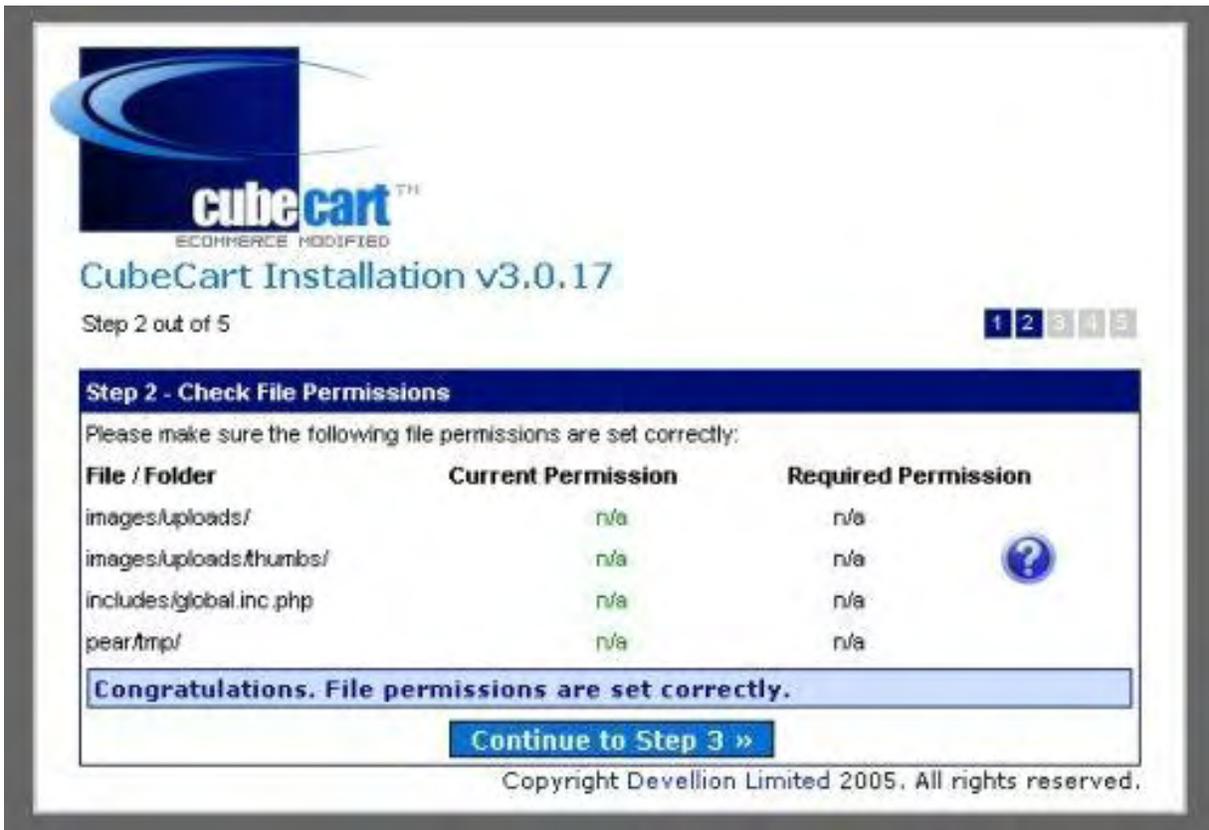
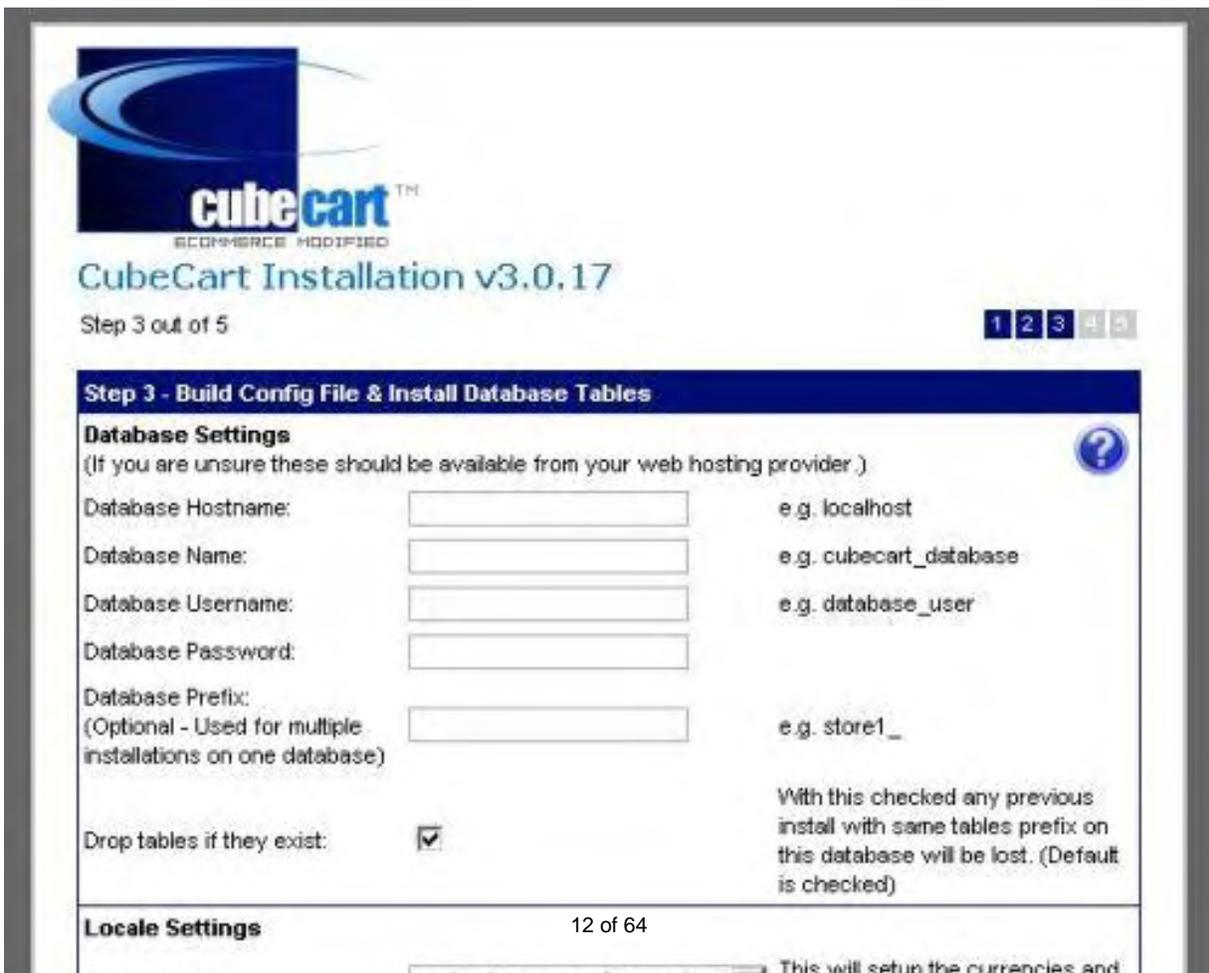


Figure 4. CubeCart installation 2 - file permissions check.

At the second screen, verify that all of the file permissions are set correctly. This applies only to Linux and Unix servers, and not a Windows server, which is used for these screenshots.



With this checked any previous install with same tables prefix on this database will be lost. (Default is checked)

Drop tables if they exist:

Locale Settings

Store Country: This will setup the currencies and other settings accordingly.

Administrator Configuration Settings ?
 (These details are used to access the admin control panel of your store)

Username: e.g. echo88
 Password: e.g. lufgRhpL
 Confirm Password:
 Email Address: e.g. yourname@yourdomain.com
 Full Name: e.g. Rachel Taylor

Skin - Click for Larger View
 (This can be changed at anytime)



Classic (Fixed Width)



Legend (Fixed Width)



Killer (100% width)

Advanced Settings ?
 (Leave these if you are unsure)

Store URL: e.g. http://www.domain.com/store
 Server Root Directory: e.g. d:\path\to\your\store
 Site Root Relative Path: e.g. /store/ (Including End Slash)
 GD Version: Click the phpinfo() link to check your server config.
 View phpinfo() (Opens in new window)

[Continue to Step 4 »](#)

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Figure 5. CubeCart installation 3 - configuration settings.

The third screen, shown above, is a critical one, because this is where you will enter the information needed by CubeCart to connect to the database you had created earlier. You should also set your country location and your administrative login information. CubeCart version 3.x comes preloaded with three skins: Classic, Legend and Killer. In this tutorial, we will use the first option, which is the default. You can click on any of the three thumbnails to see a larger image of each skin. Most likely, none of the advanced settings need to be changed.

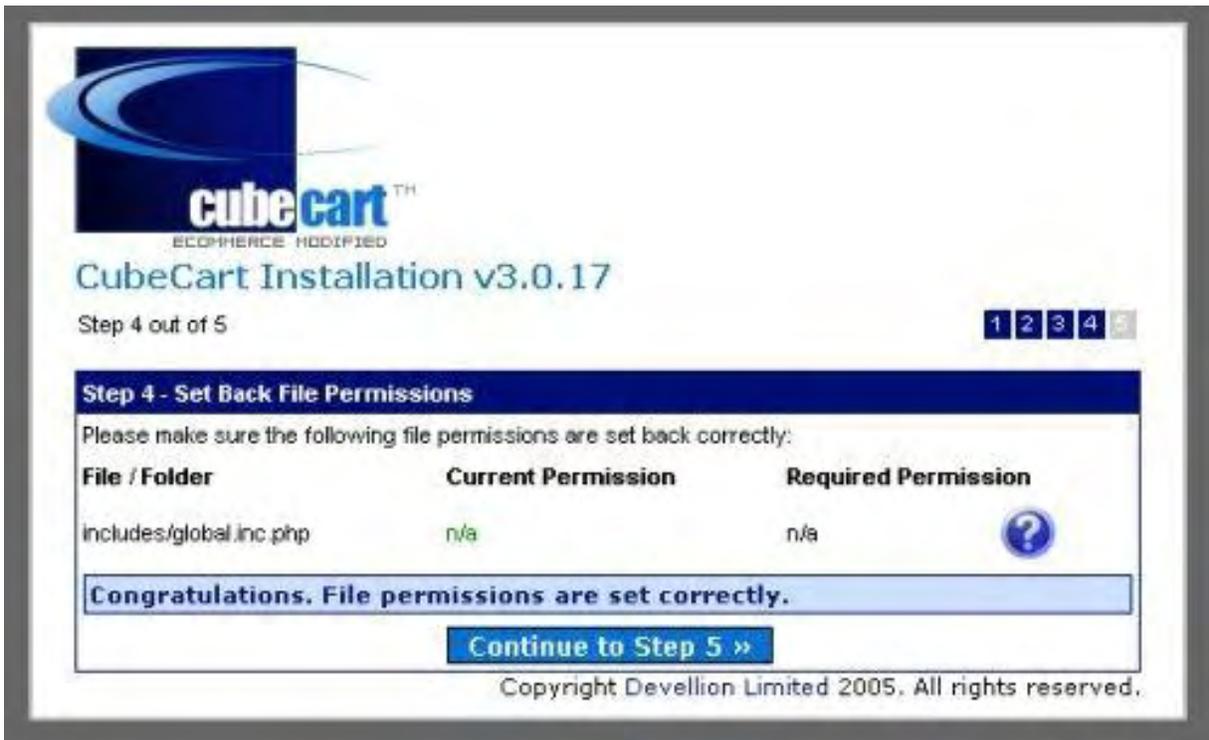


Figure 6. CubeCart installation 4 - file permissions set.

You are now past the stage of the installation process that gives beginners the most difficulties. If you are installing on a Linux or Unix server, you are now prompted to change the permissions of the configuration file `includes/global.inc.php`, making it not writable by others, for security reasons. Again, for Windows users, this is not applicable.



Figure 7. CubeCart installation 5 - installation complete.

You have now finished CubeCart's installation process.

Verifying Your Installation

If you now try to run CubeCart by going to the root directory of your store, you will receive the error message "WARNING - Your store will not function until the install directory and/or upgrade.php is deleted from the server." Delete or rename the directory "install," and then reload the page.



Figure 8. CubeCart store home page.

You should now see the initial CubeCart store home page, shown in the screenshot above. By default, the left-hand column contains boxes for categories, featured products, product information, currencies and languages. The right-hand column shows the customer's current shopping basket, the most popular products, products on sale, and a newsletter subscription form. The central area has a welcome message and a product list, which initially includes only a test product.

Clicking on the "Test Category" link takes you to a page showing all of the products in that category—again, just a single one at this point.

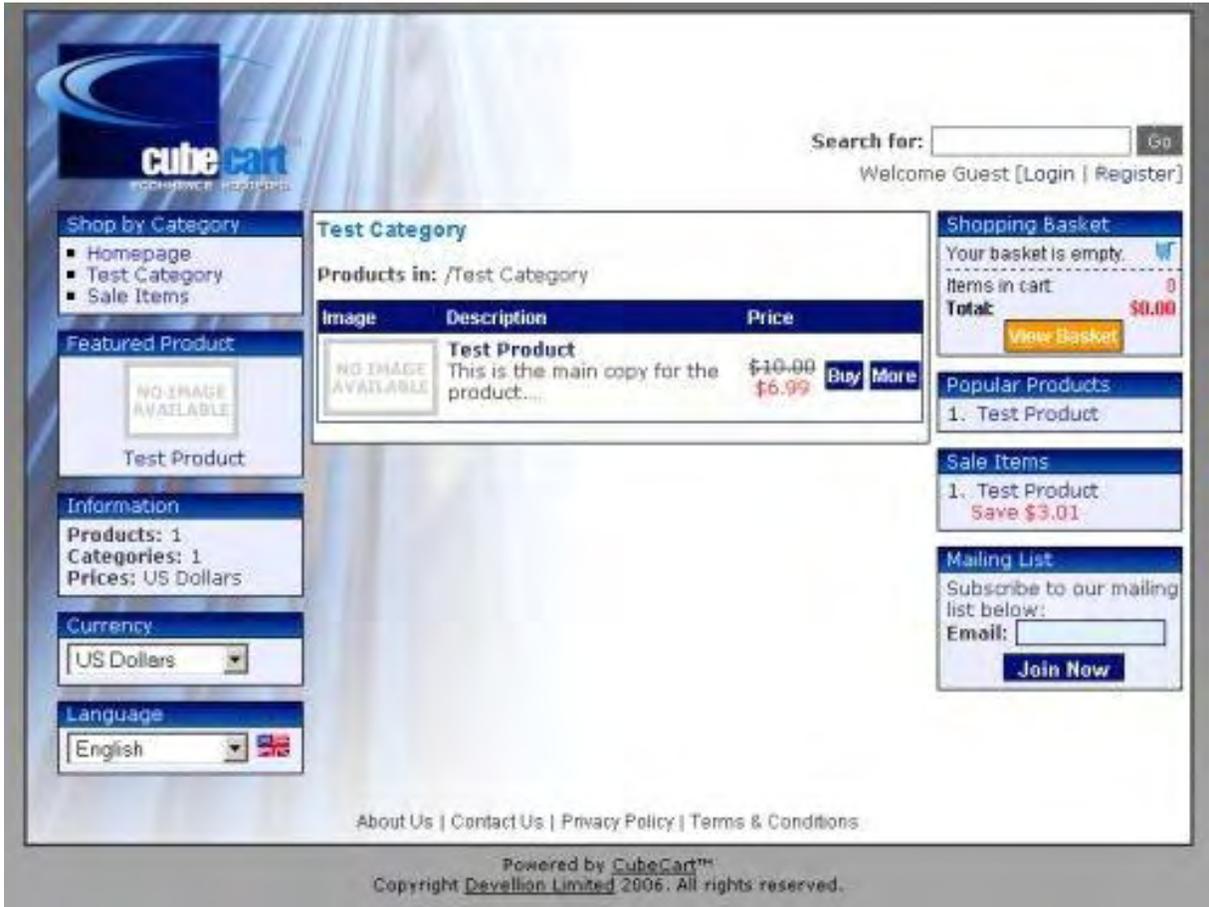


Figure 9. CubeCart store test category.

Configuring CubeCart

To access the admin panel, simply append the word "admin" after the CubeCart root directory path. Continuing our example mentioned earlier, the URL would be <http://localhost/CubeCart/admin/index.php>.

No administration session was found.



Please login below:

Username:

Password:

IP: 127.0.0.1

[Request Password](#)

[Login](#)

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Figure 10. CubeCart admin login.

Log in using the CubeCart administrator username and password that you specified in the third stage of the installation process.

Logged in as: **cubeCart_test** | [Logout](#) | [Change Password](#) | Monday, April 2008

Welcome to the CubeCart™ Administration Control Panel.

Store Overview:

CubeCart Version:	3.0.37	View Details
PHP Version:	5.2.5	Number of Products: 1
MySQL Version:	5.0.51a-community-nt	Number of Customers: 0
Image upload folder size:	628 bytes	Number of Orders: 0
Server Software:	Apache/2.2.8 (Win32) PHP/5.2.5	
Client Browser:	Mozilla/5.0 (Windows; U; Windows NT 5.1; en-US; rv:1.9.0.10) Gecko/20071029 Firefox/1.5.0.10	

Quick Search:

Order Number: [Search Now](#)

Customer: [Search Now](#)

Purchase CubeCart:

You appear to be running an unlicensed version of cubeCart. Please enter your license key below in order to remove copyright.

Purchase license key

License Key: [Submit Key](#)

- Navigation
 - Admin Home
 - Store Home
 - Store Config
 - General Settings
 - Taxes
 - Countries & Zones
 - Currencies
- Master
 - Shipping
 - Gateways
 - Affiliates
 - Catalog
 - View Products
 - Add Product
 - Product Options
 - View Categories
 - Add Category
 - Customers
 - View Customers
 - Email Customers
 - Orders
- File Manager
 - Manage Images
 - Upload Images
- Statistics
 - View Stats
- Documents
 - Homepage
 - Site Documents
- Misc
 - Server Info
 - Admin Users
 - Administrators
 - Admin Sessions

Figure 11. CubeCart admin panel.

The main section used for changing your store settings is appropriately named "General Settings," and is found in the "Store Config" menu area in the left-hand column.

Logged in as: cubecart_test | Logout | Change Password | Monday, April 2009

Store Settings

Please edit your store configuration settings below:

Navigation:

- Admin Home
- Store Home
- Store Config
- General Settings
- Taxes
- Countries & Zones
- Currencies
- Modules
- Shipping
- Gateways
- Utilities
- Catalog
- View Products
- Add Product
- Product Options
- View Categories
- Add Category
- Customers
- View Customers
- Email Customers
- Orders
- File Manager
- Manage Images
- Upload Images
- Statistics
- View Stats
- Reviews
- Homepage
- Site Documents
- Misc
- Server Info
- Admin Users
- Administrators
- Admin Sessions

Meta Data

Browser Title: My Store Ltd

Meta Description: This is the meta description.

Meta Keywords: (Comma Separated) keyword1, keyword2, keyword3.

Store/Company Name: My Store Ltd

Store Address: My Store Ltd, Street, City, State

Country: United States

County/State/Zone: Texas

Directories & Folders

Root SE (URL Public HTML Folder to store: e.g. /store/ (Include Trailing Slash))

Absolute SECURE URL to store: e.g. https://secure.domain.com/store (Excluding Trailing Slash)

Enable SSL: (Warning: This change takes place immediately after submit. Please ensure your secure Root Directories and Secure URL are correct and working before setting this to yes) No

Digital Downloads

Download Expiry Time: (Seconds) 172800

Download Attempts: (Number of times the customer can download the product) 5

Styles & Misc

Default Language: English

Store Skin: Classic

Show Latest Products on homepage? Yes

Number of latest products to show: 5

No. Categories Per Row: 2

Directory Symbol: /

No. Products per Page: 10

Length of product price: (Chars) 120

No. Items in Sale Items Box: 10

No. Items in Popular Items Box: 10

Email Name: (This is used as the send name of site emails.) My Store

Email Address: (This is used as the email address in site emails.) admin@example.com

Mail Sending Method: (SMTP recommended) Mail

SMTP Host: (Default: localhost)

SMTP Port: (Default: 25)

Use Authentication? Yes (Default: No)

SMTP Username:

SMTP Password:

Max Upload Filesize: (Under 2048kb Recommended) 504228

Max Session Length (Seconds) 172800

Enable Script/Bot Flood Control! Forces users to enter a code on registration, tell a friend etc. to prevent bot's from spamming the store. Yes

GD Settings

GD Version: 2

Allow GIF Support: (Please make sure this is enabled on your server) Yes

Thumbnail Size: 75

Max Image Size: 390

GD Image Quality: (50 - 90 Recommended) 80

Stock Settings

Show stock level? Yes

Allow out of stock purchases? No

Weight Unit: Lbs

Time & Date

Time Format: (See www.php.net/strftime) %b %d %Y, %H:%M

Time Offset: (Seconds - Used for servers in different timezones) 0

Date Format: (See www.php.net/date) jS F Y

Locale Settings

Default Currency: US Dollars

Include tax in prices? (With this enabled you must add tax into the price of the goods and it is applied to all customers) No

Sale Mode: Individual 18 of 64 or Item

Sale Percent Off: (Percentage to be knocked off all prices) 20

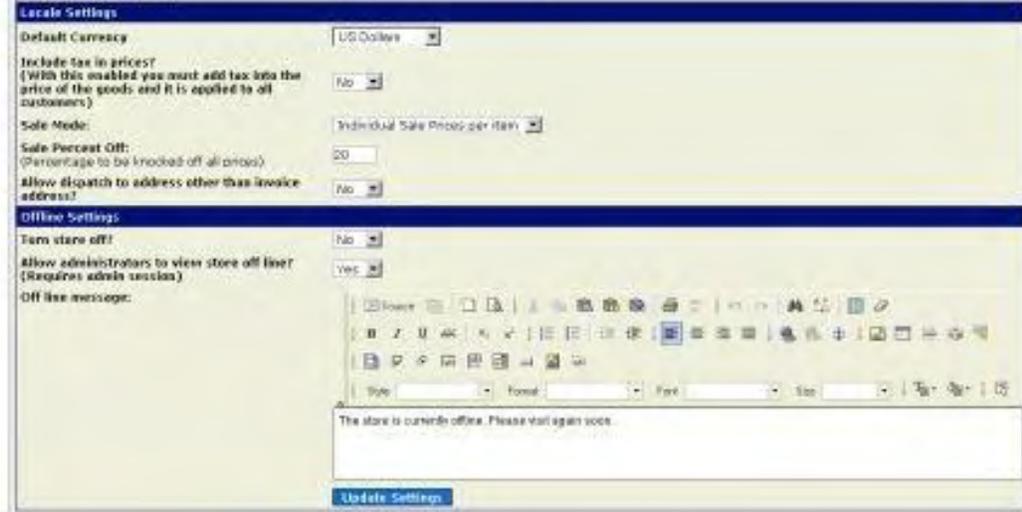


Figure 12. CubeCart admin panel - General Settings.

Do not be intimidated by the fairly large number of options on this page, because most of them will never need to be changed. However, you should customize all of the information in the "Meta Data" section at the top.

Confirm that the values in the "Locale Settings" section, near the bottom of the page, are correct. The other three menu items in the "Store Config" menu area can be used for: working with countries and the zones and states within them; tax rates that you wish applied to customers residing in those areas; and currencies that customers can view your products priced in, and at what foreign exchange rates.

Lastly, go to the "Site Documents" link in the "Documents" menu area in the left-hand column.

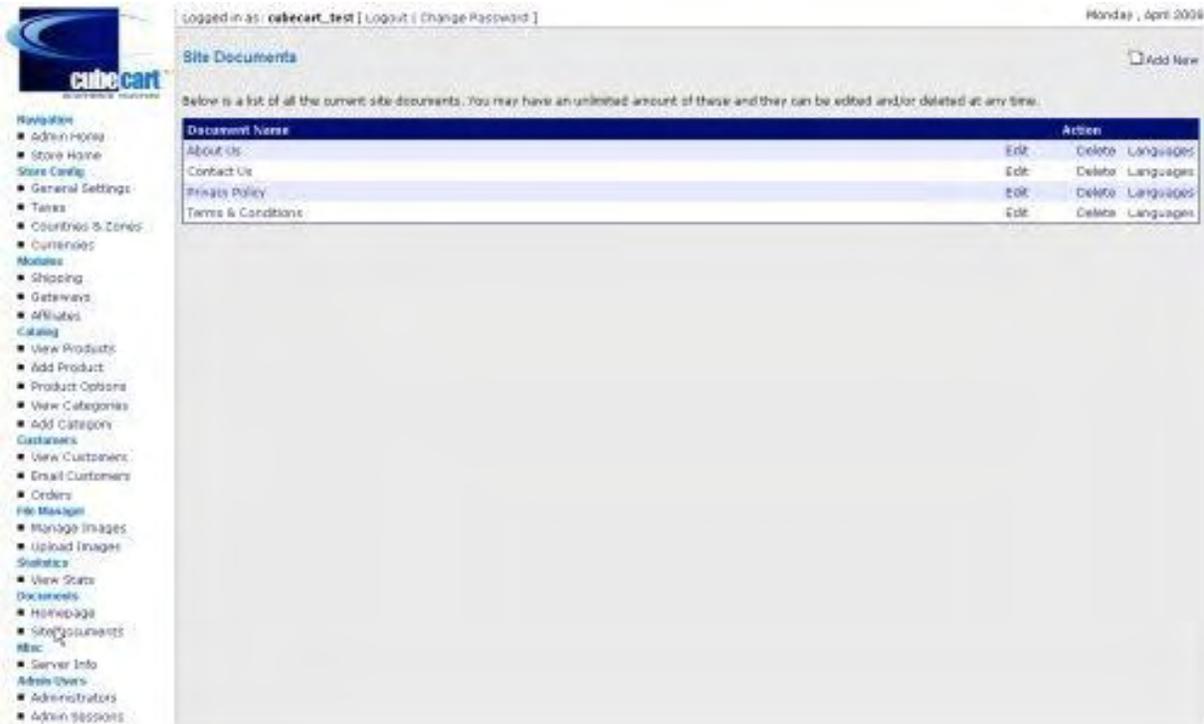


Figure 13. CubeCart admin panel - Site Documents.

Edit the contents of, or simply delete, the four default site documents: About Us, Contact Us, Privacy Policy, and Terms & Conditions.

If and when you wish to deploy your CubeCart store on the Web, upload all of the contents of the CubeCart directory into the root directory of your remote server. Then export the CubeCart database on your local computer into an SQL file, and import that into your remote MySQL server. Next, modify the site settings within "includes/global.inc.php" if needed. Finally, test the CubeCart store as well as the admin panel, to verify that everything is working.

You now have a fully functioning online store, ready for products to be added. If you need additional assistance, either request the help of a professional programmer or check out the CubeCart online support forums (forums.cubecart.com/?read=1).

Best wishes to anyone who starts their business online, and happy selling!

Michael J. Ross is a Web developer (www.ross.ws), writer, and freelance editor. He creates Web sites that help entrepreneurs turn their ideas into profitable online businesses.

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iTransact Payment Gateway

“A new service may challenge PayPal and the big guns.” by Michael J. Ross

A new payment gateway may start to challenge some of the better-known gateway services. Here's what you need to know to get started with iTransact for your e-commerce site.

The owner of an e-commerce Web site—or the developer she might hire to create that site—will invariably need to add some sort of online-payment functionality to the site, so a customer can purchase the items that he has put into his shopping cart. Common choices for such "payment gateways" are PayPal, Authorize.Net, Google Checkout, and VeriSign—all quite viable options for the smaller business. (Major corporations tend to go for more sophisticated providers, such as CyberSource.)

From the perspective of the online merchant who is trying to decide which one—or which set—to offer to customers, each choice naturally has some advantages over the other. For instance, PayPal has no setup fee (at least for the Standard plan), but charges a sizable percentage of each transaction. Authorize.Net charges only 10 cents per transaction, but also levies a setup fee, a monthly payment gateway fee, a merchant account monthly statement fee, and a merchant account transaction fee. It is certainly not always clear which of these providers, if any, offers the best combination of features for the price, given any particular merchant's needs.

However, there is an alternative provider that, in the future, may increasingly challenge some of these better-known gateway services, and in this article we will learn the basics of how to get started accepting payments for a Web-based business.

Internet Transactions

iTransact (www.itransact.com/) is a relatively small, privately held company located in Bountiful, Utah. Although it lacks the size and history of some of the major players, it has been providing payment-acceptance services for online and brick-and-mortar businesses internationally since 1994. In fact, the firm notes that it was the first provider of online check acceptance. iTransact currently supports more than 20,000 merchants worldwide.

iTransact, Inc.
Your Gateway to Commerce

Client Login
 ID
 password

Home | Products & Services | Set Up an Account | Become a Reseller | Support | About Us

Merchants

Credit cards and checks, debit and EFT. Process all your transactions in one place. And with quick payments and robust tools to get up and going right away, iTransact is your best choice for payment processing.

[Get Started Here](#)

Resellers

Sell iTransact merchant services alone or bundle them into your existing offering. You can even private-label iTransact's payment gateway as your own. We do the work. You get paid. Find out how.

[Become a Reseller](#)

Developers

Java, Ruby on Rails, Perl, Python. Our API and simple scripts make it easier than ever to integrate e-commerce. Give it a spin here.

[Visit Our Dev Center](#) | [Free Test Account](#)

Why iTransact?

No Hidden Fees.
Our rates make it simple to compare. Learn what others charge and we don't!

More payment options.
Accept credit cards, debit cards, e-checks, and even gift cards, online or in store (or both).

Easy account consolidation.
iTransact offers both merchant accounts and the payment gateway, eliminating the middleman to save you time and money.

Free Shopping Cart
See how easy it is to begin accepting orders online.

Security & Certification
iTransact is PCI compliant
What this means for you.

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Figure 1. iTransact home page.

A merchant account with iTransact offers many features: It allows the merchant to accept all major American credit cards, plus electronic checks. It combines a payment gateway and a merchant account, reducing cost and complexity—unlike most payment gateways, which require you to pay for a separate merchant account. iTransact supports recurring payments (i.e., subscription billing) at no extra charge. Its "split-form connection method" allows SSL-level security without your having to purchase a certificate for your site. iTransact is supported by 50 shopping carts, including its own free, simple cart. iTransact is certified with Visa's Cardholder Information Security Program (CISP), and complies with the Payment Card Industry (PCI) Data Security Standard.

The firm offers a full suite of fraud controls, at no extra charge: You can screen transactions by address, ZIP code, CVV code, IP address, transaction size, timeframe since a decline, and CAPTCHA. It also provides free customer support via phone or e-mail, by a staff member—not an agent, reseller, or telemarketer.

If you sign up with iTransact, then when you log in to your account from the company's home page, you will first see a pop-up window referred to as the Merchant Login Panel.



Figure 2. Merchant Login Panel.

In the screenshot shown above, the gateway ID has been redacted, for privacy reasons. It is best to not reveal your gateway ID to the public. More on that in a moment.

When you click the button to open the control panel, you should see a display similar to the screenshot below. We will not cover all of the options, but the most commonly used ones are discussed below: account settings, transaction listing and form wizard.

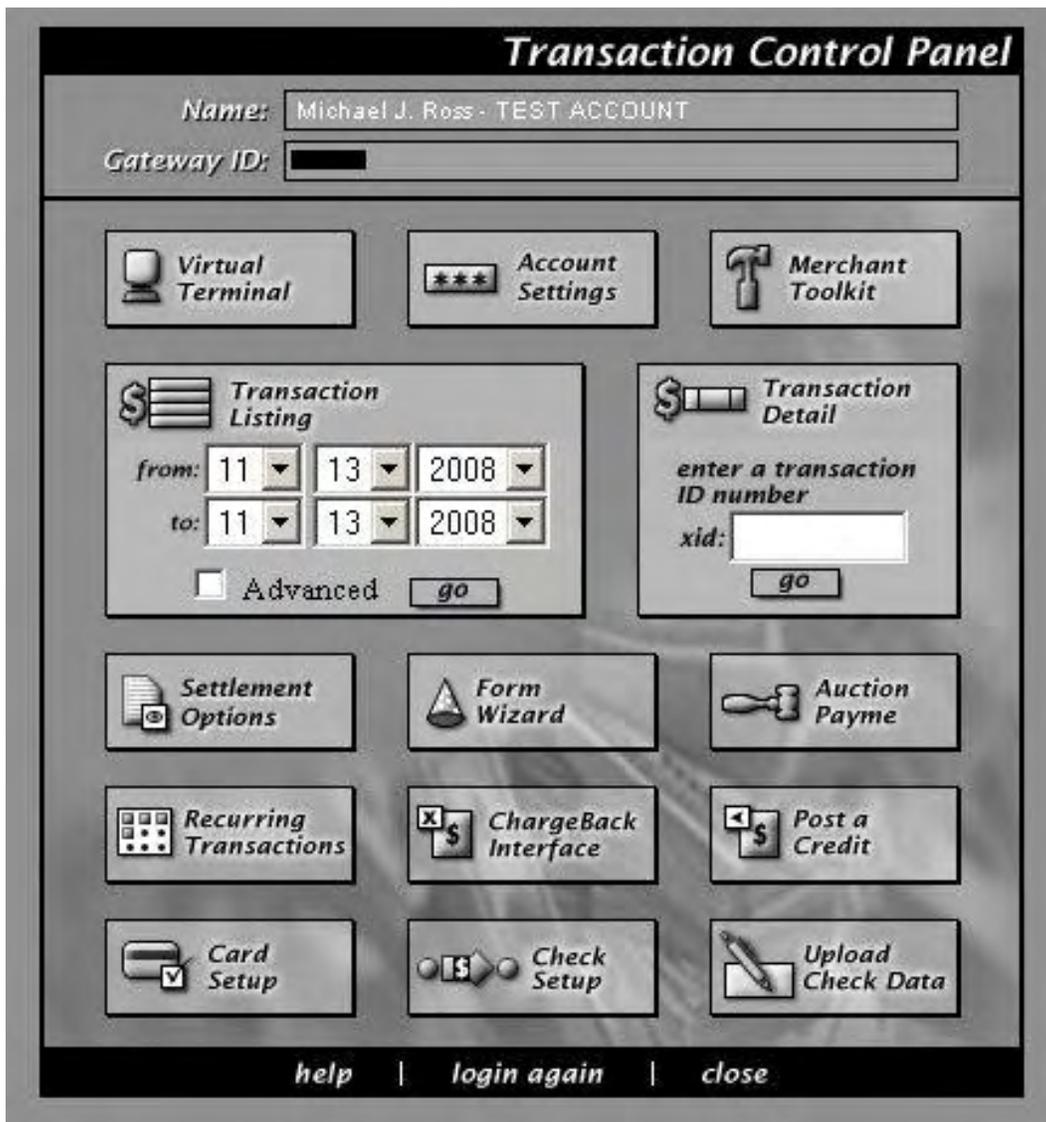
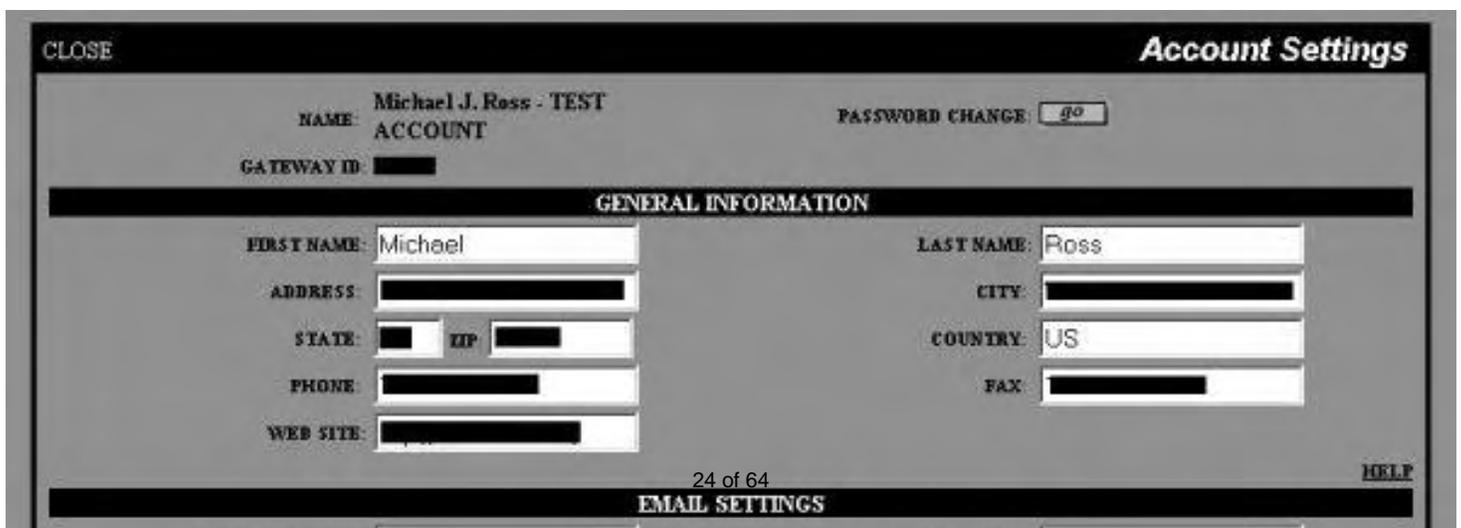


Figure 3. Transaction Control Panel.

Account Settings

Within the account settings panel, the first three sections are fairly self-explanatory. The fourth section, titled "Advanced Features," contains an order form UID. It is a lengthy string of alphanumeric characters, and can be used in the HTML forms on your Web pages, in place of your gateway ID, for greater merchant security.



PHONE: [REDACTED]

FAX: [REDACTED]

WEB SITE: [REDACTED]

[HELP](#)

EMAIL SETTINGS

CONTACT EMAIL: [REDACTED]

ERROR EMAIL: [REDACTED]

ORDER EMAIL: [REDACTED]

CUSTOMER REPLY EMAIL: [REDACTED]

RECEIVE FAILURE EMAILS:

[JOIN THE MERCHANT UPDATES EMAIL LIST](#)

[HELP](#)

ADVANCED FEATURES

RECURRING POST-BACK URL: [REDACTED] ACTIVATE

SETTLEMENT TIME: Auto MOUNTAIN TIME

ORDER FORM UID: [REDACTED] [RESET](#)

[HELP](#)

TEST TRANSACTION SETTINGS

TEST MODE: TEST ALL IS ON FIRST NAME: First

DEMO ACCOUNT INFORMATION

CUSTOMER CONFIRMATION EMAIL DELIVERY

SALE VOID CREDIT FORCE
RECURRING PREAUTH POSTAUTH

[HELP](#)

FRAUD CONTROL

ALLOW CREDITS? Yes (No prior sale) ALLOW REFUNDS? Yes (Via Trade Listing)

REFUNDS GREATER THAN SALE? Yes RESUBMIT GREATER THAN SALE? Yes

IP FILTER SETTINGS: go RESTRICT ORDER BY IP? Yes

RESTRICT ORDER USAGE? Yes for 5 minutes. PROOF OF LIFE? Yes

ALLOW CUSTOMER SALES? Yes REQUIRE VT CUSTOMER ID? Yes

REJECT DUPLICATES? Yes REQUIRE ORDER FORM UIDS? Yes

MAXIMUM SALE \$ [REDACTED] MINIMUM SALE \$ 2.01

AUTO-VOID OPTIONS: These settings will automatically void new authorizations if cardholder info doesn't match.

ADDR & ZIP VERIFICATION: No Auto-Void RECURRING AVS: No Auto-Void

CARD PROCESSING SETTINGS

CARD PROCESSING ENABLED: Yes

Card Types You Are Authorized To Accept

Visa/MC: Amex: Discover: Diners:

Acceptance of non-authorized card types may delay settlement of funds.

[HELP](#)

CHECK PROCESSING NOT ACTIVATED

STYLE SETTINGS

BACKGROUND COLOR: [REDACTED] BACKGROUND IMAGE: [REDACTED]

FONT COLOR: [REDACTED] HEADER BORDER COLOR: [REDACTED]

HEADER BACKGROUND COLOR: [REDACTED] HEADER IMAGE: [REDACTED]

[See Demonstration Page](#)

[HELP](#)

UPDATE

UPDATE

Figure 4. Account Settings.

The next section, "Test Transaction Settings," is extremely handy for testing new or modified transaction forms on your e-commerce site. (This is the iTransact closest equivalent of PayPal's "sandbox" development environment.) Be sure to disable this option when you are ready to open your online store for business.

All of the settings in the other sections can, for the typical merchant, be left as is.

Transaction Listing

In the control panel, one of the most commonly used capabilities is the Transaction Listing dialog, which allows you to specify a date range, and displays all of the transactions for your account that took place during that time interval.

In the screenshot below, we see a sample listing. (It may be difficult to read, as a result of the image width restrictions of this publication. But you get the idea.) For each transaction record, the listing shows the transaction date and time, ID, action, status, payment type, customer name, etc.

DATE & TIME	XID	PXID	CXID	ACTION	STATUS	AVS	CVV	TYPE	LAST FOUR	FIRST	LAST	AUTH #	BATCH	AMOUNT	RECUR	OPTIONS
12/12/2007 09:40:25	21455063			Order	Ok	Zip			6996	Children		018001	33	\$24.95		
12/12/2007 09:40:52	21455070			Order	Ok	Zip			6996	Children		048040	33	\$24.95		
12/12/2007 14:17:28	21467894			Order	Ok	NM			5340	Syzle Inc.		011764	33	\$40.35		
12/12/2007 14:18:41	21467915			Order	Ok	ABZ			2003	Green Grass Software		269300	33	\$39.95		
12/12/2007 14:18:58	21467923			Order	Ok	Zip			7507	RealData, Inc.		656926	33	\$55.00		
12/12/2007 14:19:04	21467925			Order	Ok	ABZ			0475	Palisade Corporation		512191	33	\$55.00		
12/12/2007 14:19:11	21467926			Order	Ok	ABZ			1002	DG Marketing		202276	33	\$35.00		
12/12/2007 14:19:16	21467928			Order	Ok	Zip			1232	Konold Kreations		498193	33	\$55.00		
12/12/2007 14:19:21	21467930			Order	Ok	ABZ			1012	Alpha Media Inc.		282153	33	\$39.95		
12/12/2007 14:19:26	21467931			Order	Ok	ABZ			1024	Eye and I Productions		012690	33	\$39.95		
12/12/2007 14:19:31	21467933			Order	Ok	Zip			4465	Management Simulations Inc.		123338	33	\$69.16		
12/12/2007 14:19:36	21467934			Order	Ok	NM			9487	Zubal Books		081247	33	\$55.00		
12/12/2007 14:19:42	21467935			Order	Ok	Zip			1003	Fontlab Ltd		207856	33	\$57.44		
12/12/2007 14:19:47	21467941			Order	Ok	ABZ			1046	Facial Concepts, Inc.		240058	33	\$39.95		
12/12/2007 14:19:53	21467946			Order	Ok	ABZ			4401	TPP		494458	33	\$39.95		
12/12/2007 14:19:58	21467948			Order	Ok	ABZ			4906	Encounters International		T45202	33	\$61.19		

Figure 5. Transaction Listing.

The dialog also offers an advanced transaction search, which allows you to limit the listed transactions by specific transaction type, action, payment type, status, card type, last four digits of the credit card number, etc.—in fact, every single datum that comprises a transaction record.

Form Wizard

All of the features already mentioned would be of little value if it were prohibitively difficult to add a form or button to any of the pages on your e-commerce site, such as the customer checkout page. iTransact's form wizard allows you to easily create three different types of forms: standard, split, and BuyNow.

The Form Wizard

This tool is designed to create a simple form for ease of integration of the gateway into a website. There are several ways to integrate the gateway's payment acceptance services into your website. Below, you can access the Form Creation Wizard for the three most popular ordering formats.

Standard Form

The Standard Form is suggested only if you have your own secure server. The customer's name, address, email address, and account information are requested on one form on your server. If you do not have a secure server, please use one of the other options listed below.

[Click here](#)

Secure "Split" Form

If you don't have a secure server of your own, the Split Form will provide the security you need. This exclusive technology enables you to accept payments online using our secure server. No CGI experience is necessary. All scripting is performed online by our transaction server.

[Click here](#)

BuyNow Format

The simplest ordering method available. You simply display an image and/or description of your product with an attached "Buy Now" button (or a similar button of your choice). No order form is required. When the "Buy Now" button is clicked, your customer is taken directly to an order form on gateway's secure server. When the order is complete, the customer is returned to your site. Please note that the BuyNow Format can be used for the purchase of **ONLY** one item at a time.

[Click here](#)

Figure 6. Form Wizard.

As explained in the screenshot above, a standard form is most appropriate for merchants who have an SSL (Secure Socket Layer) certificate on their site, which makes it possible for a customer to have a secure connection between their computer and your Web server (usually indicated by a yellow padlock in their browser). If you plan on doing any significant volume of transactions in your online store, it is definitely worthwhile to pay for such a certificate. If, for whatever reason, you choose not to purchase such a certificate, or you are locked into a hosting service that makes it impossible, then you can still accept customer orders securely, using Split forms, as noted earlier.

Lastly, you can create a BuyNow button, which is almost identical in functionality to PayPal's well-

known BuyNow buttons. iTransact's buttons are the best choice when your particular product or service is sold as a single item, as opposed to online stores where customers are putting multiple items into their shopping carts, prior to checkout.

Let's step through the process of creating a sample standard form. Begin by clicking the "Standard Form" link on the Form Wizard page.

Form Wizard: Standard Form

This Form Wizard was designed to help you create forms quickly and easily for use with the Standard Form submission format.

To begin, complete this form. When finished, press the **PROCEED** button.

Your ID:	██████
Merchant Name:	Michael J. Ross - TEST ACCOUNT
Return URL: (Thank you page or a CGI that your customer is sent to after a successful transaction.)	<input type="text" value="http://www.example.com/"/>
Order Form Type:	Standard Form
Payment Types To Accept:	<input checked="" type="checkbox"/> Credit Cards <input type="checkbox"/> Checks or <input type="checkbox"/> EFT
Credit Card Acceptance Options:	<input type="checkbox"/> Allow CVV Entry
Number of Items to Show On Order Page:	<input type="text" value="2"/> <input type="button" value="Proceed"/>

Figure 7. Form Wizard - Standard Form - step 1.

The first step is to decide where you would like the customer to be sent after they have made their purchase on the iTransact server. Most merchants will create a simple "thank you" page to inform the customer that their order has been received. Next, decide what type of payments you wish to accept from customers. This defaults to whatever you have specified in your account settings. In our example, only credit cards are accepted. Also, specify whether you want customers to enter in the three-digit CVV code, usually found on the back of their credit cards. Lastly, specify how many products you want to list in the standard form you are creating.

**ORDER FORM
ITEMS**

Step One: Select the desired layout. (A B C)

Step Two: Enter the item description and cost.

Step Three: Submit the form.

*** Try the various layout options to find those that you prefer.**

A B C	ENTER THE NAME OF EACH ITEM BELOW (As it will appear on the order form.)	COST OF EACH ITEM
<input checked="" type="radio"/> A <input type="radio"/> B <input type="radio"/> C	Name of Item 1: <input type="text" value="Name 1"/>	Cost of Item 1: <input type="text" value="10"/>
<input checked="" type="radio"/> A <input type="radio"/> B <input type="radio"/> C	Name of Item 2: <input type="text" value="Name 2"/>	Cost of Item 2: <input type="text" value="20"/>

After pressing the button below, you will be shown the order form that you have created. You will then need to view the source of the order form and copy the HTML code for use on your Web site.

Figure 8. Form Wizard - Standard Form - step 2.

In the second step, you type in the name and unit price for each of the products, as well as which of the three format choices you want (A, B, or C—described in more detail in the iTransact documentation).

Michael J. Ross - TEST ACCOUNT

Select the item(s) below that you would like to order. Your transaction will be confirmed by email.

- Name 1** (\$ 10 each)
- Name 2** (\$ 20 each)

GENERAL INFORMATION

First Name: **Last Name:**
Address:
City: **State:** **Zip:**
Country:
Phone Number:
E-Mail Address:

CREDIT CARD INFORMATION

Card Number: **Exp. Date:**

Submit this form ONCE ONLY. Your transaction should be completed in 10-60 seconds, depending on Internet traffic. In some cases, it may take longer.

Figure 9. Form Wizard - Standard Form - step 3.

In the third and final step, the page shows what your standard form will look like to the customer (aside from any additional styling that you do to the page in order to integrate it into your site's appearance). You can use the HTML of the form displayed as is, or you can copy the <form> HTML element into any of your site's pages.

Support

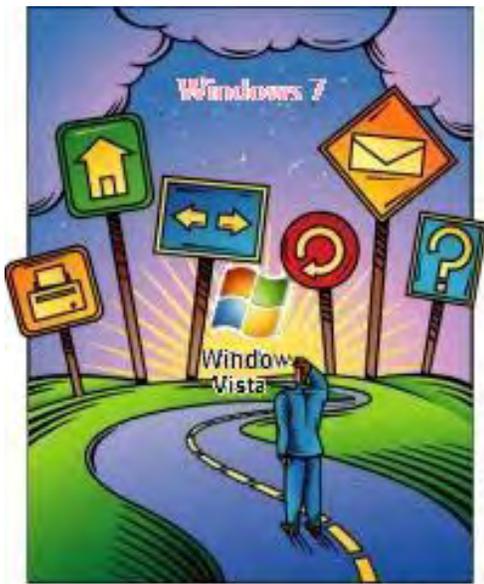
If you have any questions as to the usage of any of these settings, you can read the online documentation, or ask your iTransact representative. All of the documentation can be found on the support page (www.itransact.com/support/), including toolkits for merchants and developers, sample code, and additional information.

Unlike most, if not all, the other payment-service providers, iTransact assigns you a specific representative, so you don't have to explain your business and e-commerce needs every time you have a question. Speaking of which, I would like to acknowledge Rich Lane for his assistance in providing business information for this article. Anyone interested in learning more about how iTransact can be used on their own e-commerce site for accepting payments from customers can contact Rich at *r.lane@itransact.com*.

Even though this article can only serve as an introduction to iTransact, perhaps it is enough to provide current and future online entrepreneurs a good idea as to how well iTransact could serve as an alternative to the larger and more costly payment-gateway services.

Michael J. Ross is a Web developer (*www.ross.ws*), writer, and freelance editor. He creates Web sites that help entrepreneurs turn their ideas into profitable online businesses.

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Windows Vista Tips and Tricks

(and some Windows 7)

Windows Vista (and Windows 7) Tips and Tricks
“The ALT Key for Emotional Comfort” by Jack Dunning

A tip on a quick way to view the menu bar in Windows Vista and Windows 7; a tip on registering your copy of Windows 7 RC; and Windows Vista Service Pack 2 news.

The ALT Key for Emotional Comfort

One of the most disconcerting aspects of moving to Windows Vista (or for that matter, Windows 7) from XP is the seeming loss (by default) of the old File/Edit/View/Tools/Help menu bar from Windows Explorer, the Control Panel, and other some Windows programs (see Figure 1).



Figure 1. Windows Vista Control Panel with no menu bar.

It's not that it doesn't exist; it just doesn't appear when we first open the window. We can permanently open it with Organize/Layout/Menu Bar, but there is a quick way to view the menu bar without changing the settings. Press the ALT key, and the menu bar will pop up with all of your old favorite Windows XP choices (see Figure 2). A second push will make it disappear again. This works in both Vista and Windows 7.

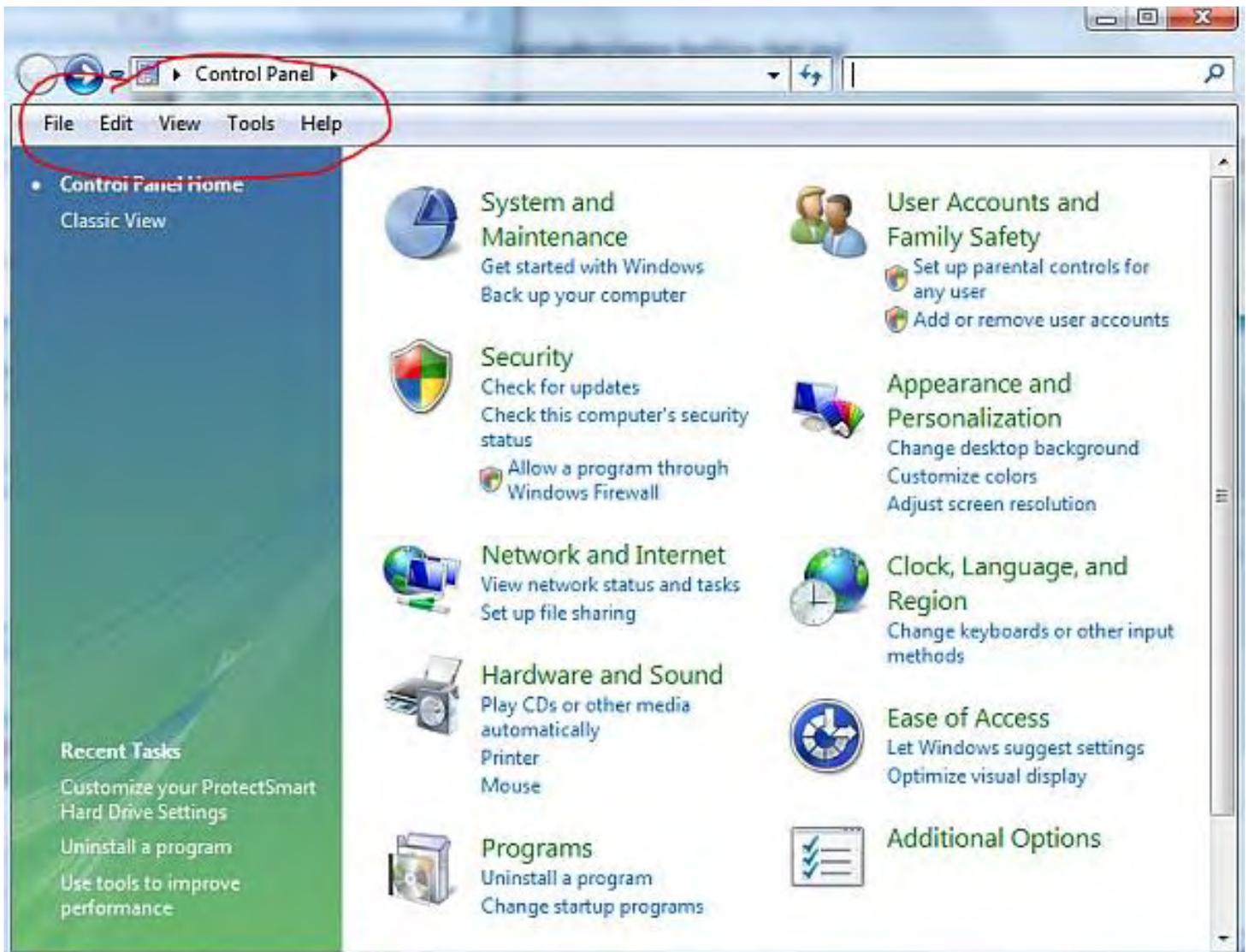


Figure 2. Windows Vista Control Panel after pressing the ALT key with the menu bar displayed.

If you're using Internet Explorer, you can use the ALT key in the same manner. If you don't see the File/Edit/View/Favorites/Tools/Help menu bar, hit the ALT key and it will appear. If you already have the menu bar displayed and want to save the space, right-click on the Command Toolbar and deselect Menu Bar. Then use the ALT key when you want to view the menu bar. Push the ALT key a second time and the menu bar will disappear—as it will after any selection from one of its menus.

Windows 7 RC 30-Day Registration

After you download and install Windows 7 RC (Release Candidate), you have 30 days to register it. (See "Windows Tips and Tricks" last week.) After that time, you can go to the download site to get a new registration number by rerunning the download process. I don't know if you actually need to download it again to get the new key. So the latest you will be able to install Windows 7 RC is toward the end of August, since you will need to download the ISO file just before the end of July.

Window Vista Service Pack 2

Windows Vista Service Pack 2 is now available. You can either wait until Microsoft pushes it to your computer over the next few weeks or download it yourself from the Microsoft download site (www.microsoft.com).

microsoft.com/downloads/details.aspx?FamilyID=a4dd31d5-f907-4406-9012-a5c3199ea2b3&DisplayLang=en). You will need Service Pack 1 installed in order to install SP2. It includes all of the updates since SP1. Most people have experienced few problems with the new upgrade. If upgrades make you nervous, you may want to wait to hear more. Most of the install problems seem to be related to people forgetting to turn off Norton antivirus protection prior to installation. If you have already installed SP2, please leave a comment on this column so we can share your experience. I've installed it on one of my Vista machines (32-bit) without problems. I'm working up the courage to install it on my workhorse (64-bit) computer.

The added capabilities include recording to Blu-ray discs, new wireless support programs (both Wi-Fi and Bluetooth), improvements to search engine and sidebar operation, and quicker startup and shutdown, plus numerous other fixes. Whether any of this will be significant, only you can judge.

Jack is the publisher of *ComputerEdge* Magazine. He's been with the magazine since first issue on May 16, 1983. Back then, it was called *The Byte Buyer*. His Web site is www.computoredge.com. He can be reached at ceeditor@computoredge.com

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Wally Wang's Apple Farm

“Making Money on the Internet” by Wally Wang

Affiliate marketing simply gives you a chance to make money by doing nothing more than directing others to another Web site. Also, a look at Bling It!, which lets you take perfect auction pictures; and a tip on using the Stickies program to jot down notes.

Wally Wang's Apple Farm

If you've ever heard of Amway or multilevel marketing, you may already understand the basic business model where somebody else creates a product and recruits a network of individuals to market the product to others. Since many people feel squeamish about selling products to their friends, there's a similar business model available called affiliate marketing.

The idea behind affiliate marketing is simple. Instead of selling products directly to others, you post links on your own Web site that lead to another company's Web site. If someone clicks on that link and buys something, you (as the referrer) get a commission from that sale.

Initially, affiliate marketing focused on niche products like registry optimizers and antivirus programs, but now affiliate marketing has spread to major companies such as MacMall (www.macmall.com), Symantec (www.symantec.com) and TigerDirect (www.tigerdirect.com).

The idea is simple. Out of all the people visiting your Web site, a small percentage of them will click on ads scattered around your site. Out of those people who click on an ad, a small percentage will actually buy something.

The secret is simply to attract as many people as possible (known as "traffic"). The more traffic your Web site generates, the more likely someone will click on an ad on your site and buy something.

Initially, most Web sites earn a few dollars a month, but popular Web sites can earn hundreds or even thousands a month through commissions. The best part about affiliate marketing is that you just need to focus on attracting people to your Web site without the fear of face-to-face selling (and rejection).

To get started in affiliate marketing, you need to sign up (for free) with an affiliate marketing company, which takes care of tracking sales and links. A company (such as Symantec or TigerDirect) pays the affiliate marketing company and they pay you. Some popular affiliate marketing companies include: Commission Junction (www.cj.com), LinkShare (www.linkshare.com), and ShareASale (www.shareasale.com).

Each affiliate marketing company works with different companies. For example, if you want to be an affiliate marketer for Symantec products, you'll need to sign up with an affiliate marketing company called Digital River (www.digitalriver.com). If you want to sign up to market MacMall products, you'll need to sign up with Commission Junction.

After you join a company's affiliate marketing program, you can get unique codes that link to that company's Web site. If you post this link on your Web site or blog, and someone clicks that link, your code will credit you if that person buys something from that company.

Affiliate marketing simply gives you a chance to make money by doing nothing more than directing others to another Web site. Obviously, the more traffic you can drive to view your affiliate links, the more potential customers you'll send — and the more likely someone will buy and generate a commission for you.

Affiliate marketing is just one of many ways to make money over the Internet. All you need is a Web site that attracts people, and you too can start earning money from anyone who clicks on your affiliate links.

Sell on eBay

One of the simplest and most straightforward ways to make money on the Internet is through online auctions, such as with eBay. Just find something in your garage or house that you don't want, but may still be valuable, and auction it online. This can include old books, toys, lunch boxes, computer parts, or anything that someone else might find useful. With eBay, you can essentially turn your trash into income.

To sell anything through an online auction, you need to write a captivating description of your item, plus include a flattering picture of your item. Fail to do either one of these and you could drive away potential customers.

While learning to write compelling descriptions can involve copywriting skills, taking flattering pictures of items can be made easier with a \$29.95 program called Bling It! (www.blingit.us).

The idea behind Bling It! is to edit your photographs by stripping away background images so your item appears all by itself or against a colorful background. In the past, doing this meant learning Photoshop skills, but with Bling It!, you just follow three simple steps.

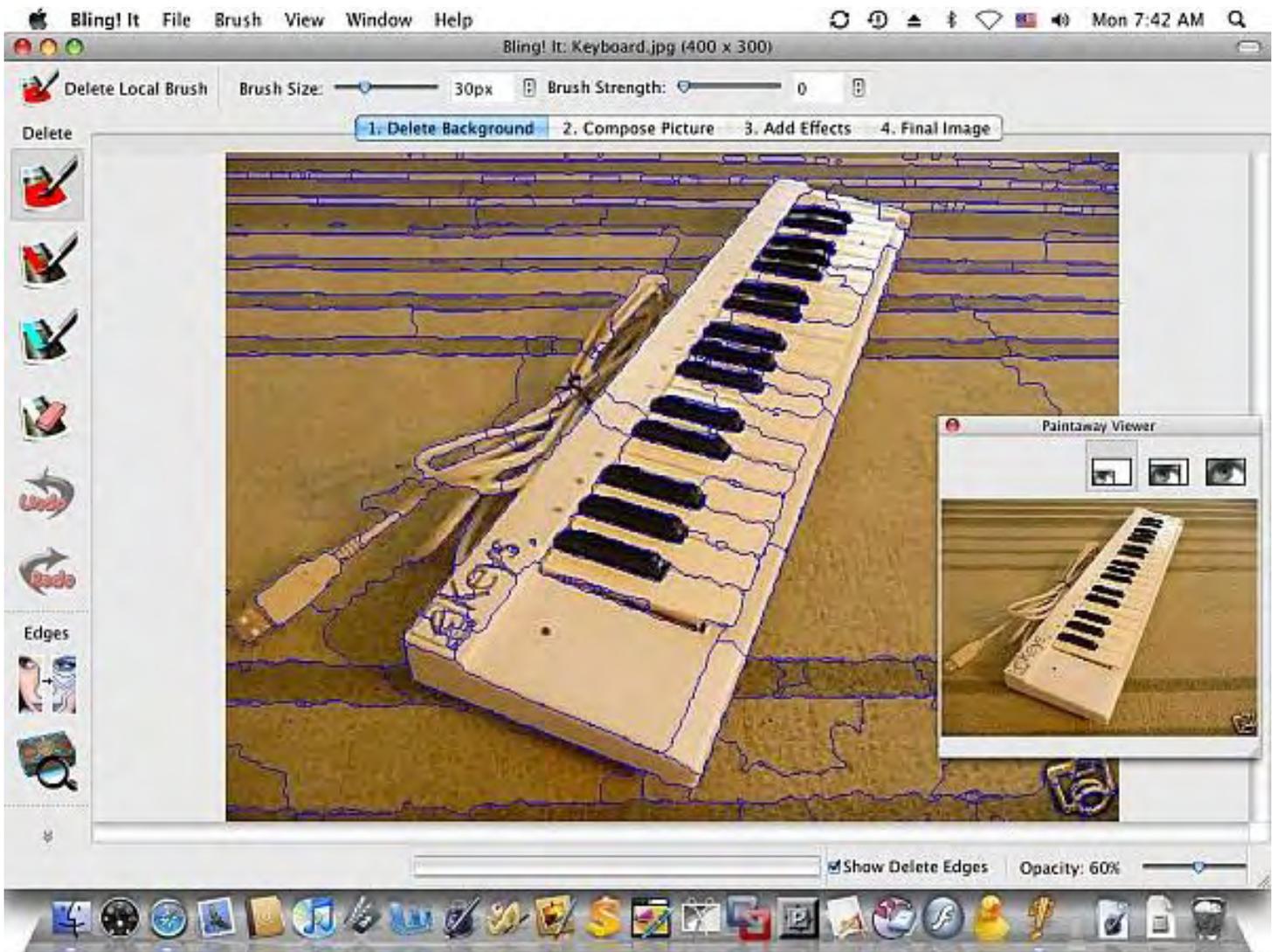


Figure 1. Bling It! divides an image into multiple color regions.

First, load a picture and the program automatically identifies similar color regions. Most likely, the background of your picture will (or should) appear dramatically different than the item itself. So if you're taking a picture of a white keyboard, you'd probably want to use a different background so your white keyboard doesn't "disappear" in your picture.

Second, you just drag the mouse to wipe out the color regions that you want to remove from your picture.

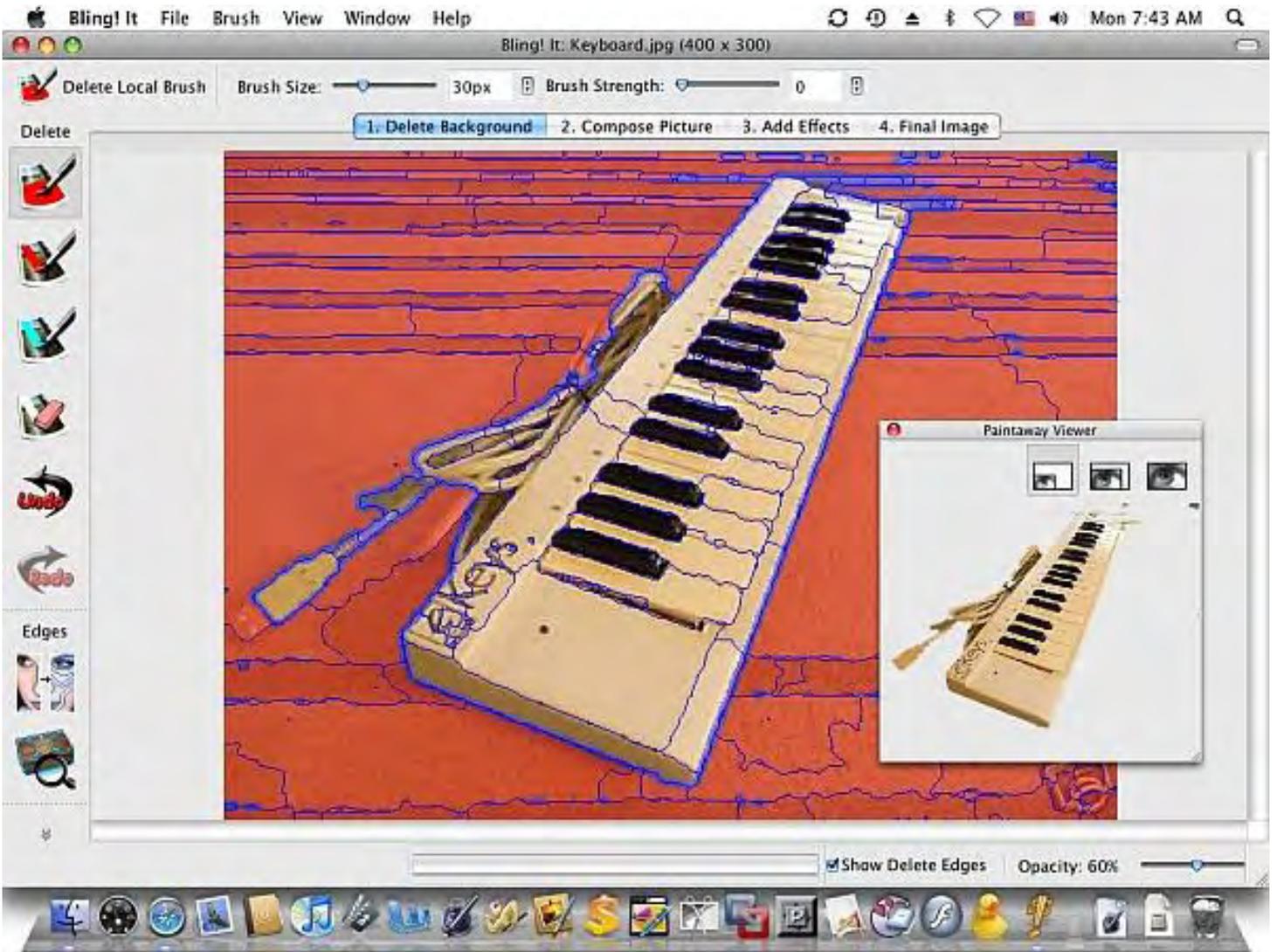


Figure 2. Removing background images is as easy as dragging the mouse.

Third, you can add unique effects such as a colored background or shadows on your image.

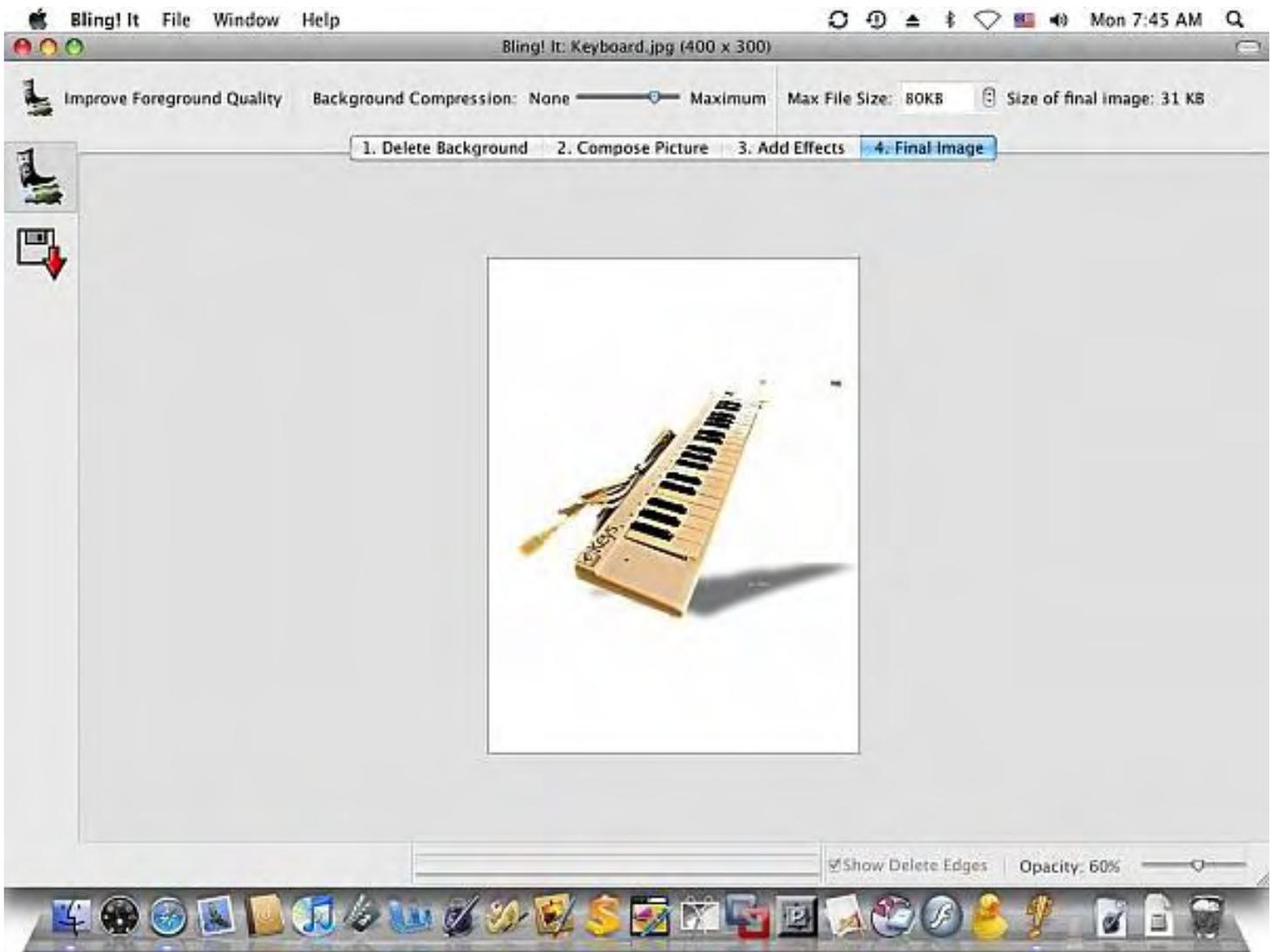


Figure 3. After cleaning up an image, you can add special effects to highlight it.

The whole process of cleaning up an image can take minutes, yet create a much more compelling picture that can highlight your product. If you want to earn the maximum amount of cash for your auctioned items, Bling It! can help you attract the highest bidders possible.

* * *

If you're the type to jot down stuff on sticky notes that you plaster around the edges of your monitor, stop that and start using the Stickies program buried inside the Applications folder of every Macintosh.

This program mimics multiple sticky notes where each window can appear in a different color, such as yellow or light blue. More importantly, you have the option of labeling each note as a floating window.

A floating window simply keeps the Sticky note displayed on the screen at all times, no matter what other programs you may load. To create a floating window, simply load the Stickies program, click on a Sticky note, and then choose Note/Floating Window.



Figure 4. Floating windows let your Sticky notes appear on the screen over any other running programs.

In the early days, before Wally became an Internationally renowned comedian, computer book writer, and generally cool guy, Wally Wang used to hang around The Byte Buyer dangling participles with Jack Dunning and go to the gym to pump iron with Dan Gookin.

Wally is responsible for the following books:

- Microsoft Office 2007 for Dummies (www.amazon.com/gp/product/0470009233?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470009233)
- Beginning Programming for Dummies (www.amazon.com/gp/product/0470088702?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470088702)
- Breaking Into Acting for Dummies with Larry Garrison (www.amazon.com/gp/product/0764554468?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0764554468)
- Beginning Programming All-in-One Reference for Dummies (www.amazon.com/gp/product/0470108541?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470108541)
- Steal This Computer Book 4.0 (www.amazon.com/gp/product/1593271050?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271050)
- Visual Basic Express 2005: Now Playing (www.amazon.com/gp/product/1593270593?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593270593)

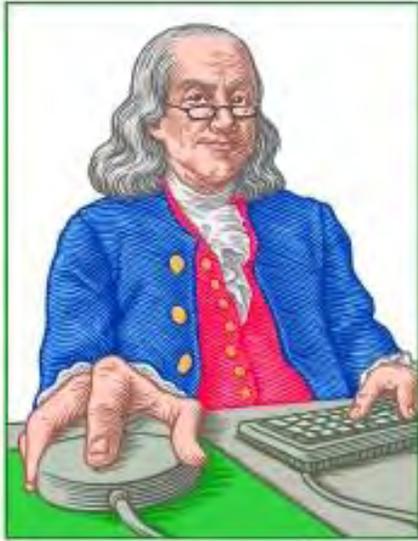
- My New Mac (www.amazon.com/gp/product/1593271646?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271646)
- My New iPhone (www.amazon.com/gp/product/1593271956?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271956)
- Strategic Entrepreneurism with Jon Fisher and Gerald Fisher (www.amazon.com/gp/product/1590791894?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1590791894)

Every Saturday morning from 9:00 am - 10:00 am in San Diego, you can hear Wally with fellow co-hosts Dane Henderson and Candace Lee, on the radio show CyberSports Today (cybersportstoday.com/), which covers the video gaming industry on ESPN Radio 800 AM. Wally covers the military history side of the video game industry.

When not performing stand-up comedy or writing computer books, he likes to paper trade stocks with the video game Stock Reflex (www.plimus.com/jsp/download_trial.jsp?contractId=1722712&referrer=wwang), using the techniques he learned from a professional Wall Street day trader.

Wally can be reached at wally@computoredge.com and at his personal web site (www.wallacewang.com/).

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LITTLE LINUX LESSONS

**"AN INVESTMENT
IN LINUX KNOWLEDGE
PAYS THE BEST
INTEREST."**

Little Linux
Lessons: Tips
and Tricks from
Users

**"Linux users share ideas
and ask for help."** by
ComputerEdge Staff

Tips on how to use 64-bit Firefox on Linux without giving up on Web sites that use Flash or Java.

Getting 64-Bit Firefox to Work Better in Linux

More and more people now have 64-bit-capable computers and are beginning to try out 64-bit operating systems, including Linux. In the Linux world, you sometimes realize some things still need some work and don't always "just work." One such application, and a critical one, is 64-bit Firefox.

A lot of Web sites today depend on external plug-in technologies, such as Adobe Flash (YouTube) and Java. Without these working, your Web/Internet experience can be severely hindered. In the past, you often had to resort to running 32-bit versions of Firefox, or using a 32-bit-to-64-bit plug-in wrapper, which did not always work. Fortunately, there are better solutions today if you prefer to run 64-bit Firefox on your 64-bit Linux.

Adobe Flash

Although not an official release, the "alpha" version of 64-bit Adobe Flash Player 10 for Linux is available for download. Even though this is an "alpha" pre-release, I have found that it works very well. First thing is to make sure you have the `nspluginwrapper` package installed. In the Red Hat/Fedora world, an RPM query should tell you:

```
$ rpm -q nspluginwrapper
```

If it isn't already installed, run this command to install it:

```
# yum install nspluginwrapper.x86_64
```

Next, download the 64-bit Flash Player from: labs.adobe.com/downloads/flashplayer10.html

What you will get is a tar.gz file that contains the `libflashplayer.so` file. Run this command to extract it:

```
$ tar zxvf libflashplayer-10.0.22.87.linux-x86_64.so.tar.gz
```

Next, move the libflashplayer.so file into the 64-bit Mozilla plugins directory:

```
# mv libflashplayer.so /usr/lib64/mozilla/plugins/  
# chown root:root /usr/lib64/mozilla/plugins/libflashplayer.so  
# chmod 755 /usr/lib64/mozilla/plugins/libflashplayer.so
```

Now, restart Firefox and verify that the plug-in is installed. You can get a listing of all installed plug-ins by entering "about:plugins" in the URL address bar and hitting Enter. If all is well, you can now waste more hours of your day viewing videos on YouTube with 64-bit Firefox.

Java

The latest Java Runtime Environment (JRE) from Sun is now compatible with 64-bit Linux and Firefox. Here are the steps:

1. Install the latest 64-bit JRE from Sun. Currently, this is version 1.6.0 update 14.
2. Find the Firefox Java plug-in library file named libnpjp2.so. This is usually at: /usr/java/jre1.6.0_14/lib/amd64/libnpjp2.so

If you can't find it, there is always this command:

```
# find / -type f -name libnpjp2.so
```

3. Create a symbolic link from the 64-bit Mozilla/Firefox plug-in directory to the Java plug-in library file:

```
# ln -s /usr/java/jre1.6.0_14/lib/amd64/libnpjp2.so  
/usr/lib64/mozilla/plugins/libnpjp2.so
```

4. Now restart Firefox. To verify the Java plug-in is working, type "about:plugins" in the URL address bar and hit enter. You should see a list of installed plug-ins, so look for Java.

Now you can enjoy a 64-bit Firefox on Linux without giving up on Web sites that use Flash or Java.

Bond Masuda (bond.masuda@JLBond.com)
Linux Consultant
JL Bond Consulting (www.JLBond.com)

Give Us Your Linux Tips and/or Questions

If you have an opinion on these or other Linux topics, then please let us know. Also, if you have another Linux tip that works for you and would like to pass it along (or have a question), please drop us a line at Linux Lessons (ceeditor@computoredge.com).

This is a column for Linux and Unix-like operating system users. The goal is to give Linux users an opportunity to share tips, tricks and ideas with both fellow users and the *ComputerEdge* Linux newbies. Each week in this column, we will highlight the thoughts you submit to us. This is your column. As long as a submission is dealing with the Linux/Unix-like world, we want to share it.

The tips and tricks may be short or long, and can include graphics. If there is a little technique or program that you use on a regular basis, then we want to hear about it. You may also pose questions for other Linux users to answer. E-mail your ideas or questions to Linux Lessons (ceeditor@computoredge.com). Be sure to put the words "Linux Lessons" in the subject line so it won't get lost in junk mail. We depend upon you to make this column a success.

Jack Dunning
ComputerEdge

ComputerEdge always wants to hear from you, our readers. If you have specific comments about one of our articles, please click the "Tell us what you think about this article!" link at the top or bottom of the article/column. Your comments will be attached to the column and may appear at a later time in the "Editor's Letters" section.

If you want to submit a short "ComputerQuick Review", or yell at us, please e-mail us at ceeditor@computoredge.com.

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Rob, The Computer Tutor

Rob, The Computer Tutor Does Microsoft Access “Mailing List Revisited” by Rob Spahitz

This week, we return to our Access Mailing List application. Several weeks ago, we left it to go explore VBA, which will be a critical component in making Access do anything useful. We'll start to see how these two things converge.

This week, we return to our Access Mailing List application. Several weeks ago, we left it to go explore a few things with VBA (Visual Basic for Application), which will be a critical component in making Access do anything useful. So in the next few weeks, we'll start to see how these two things converge.

As usual, if you'd like to see previous versions of the database, look for them at www.dogopoly.com/ce.

Applications

When working with Access, not only do you get a database and database features, you also get features that allow you to make your database file look and act like an application. So what is an application? In its simplest terms, it's a computer tool that lets you solve a problem. For example, if you need to write a letter, a word processor lets you solve that problem. If you need to do some calculations, a calculator helps you solve that. If you need to check out a Web page, a Web browser solves that. In this case, we want to work with data, including data entry and data reporting, so we use a data-manipulation tool called Access.

If you want to create, for example, a tool that lets people track their friends' names and addresses, you'll need a tool that lets you enter that information and retrieve it on demand. You'll probably also want to have features that make it easier to enter that information, like a state code lookup and maybe a validator to ensure that the ZIP code that was entered is consistent with the city and state that were entered. And don't forget the ability to search by first or last name, and maybe a report of everyone who lives in a certain city.

You could write a custom tool/application using a programming tool such as VB.Net or Java, but you'll probably need to connect those to a database somewhere. In this case, our development tool of choice is Access, and we'd like make our end product look like something that is *not* Access, but rather looks like a Mailing List application.

Let's start adding pieces that make our database look more like an application.

First, a few things. When you create an application, you typically have a place where users can interact. If this were a Web site, it might start with a splash page, then a link into the rest of the site, where you might have additional links to various areas. Somewhere, you would probably enter some data, maybe save it, and retrieve it at a later time or have it manipulate the data to transform it into something else (like convert miles to kilometers).

When we build our application using Access, we want similar things. We want a starting window/form, links to other forms, a way to enter data, and some way to generate reports and maybe transfer data from place to place.

Let's take these one part at a time, focusing on the main menu form this week.

Start-Up

When you double-click on an Access file (something ending in .mdb), you are really using the Access application to open the file. This is similar to double-clicking on a ".doc" file to open a Word processing file. Access examines the file and checks for various things, including whether it should show a custom form or just jump into the Access database window.

Let's make a custom start-up form. A start-up form is simply a form that you choose to be the first one that appears. Let's make a very simple menu-style form and use it as the start-up form.

In the Access Forms section, create a new form in Design view. Near the bottom middle, add a button from the tool box (menu View/Toolbox if needed); then, if the button wizard starts, select category Form Operations and action Close Form. On subsequent wizard pages, use text Close, then name the button cmdClose. Save the form as frmMainMenu, and it should look something like Figure 1.

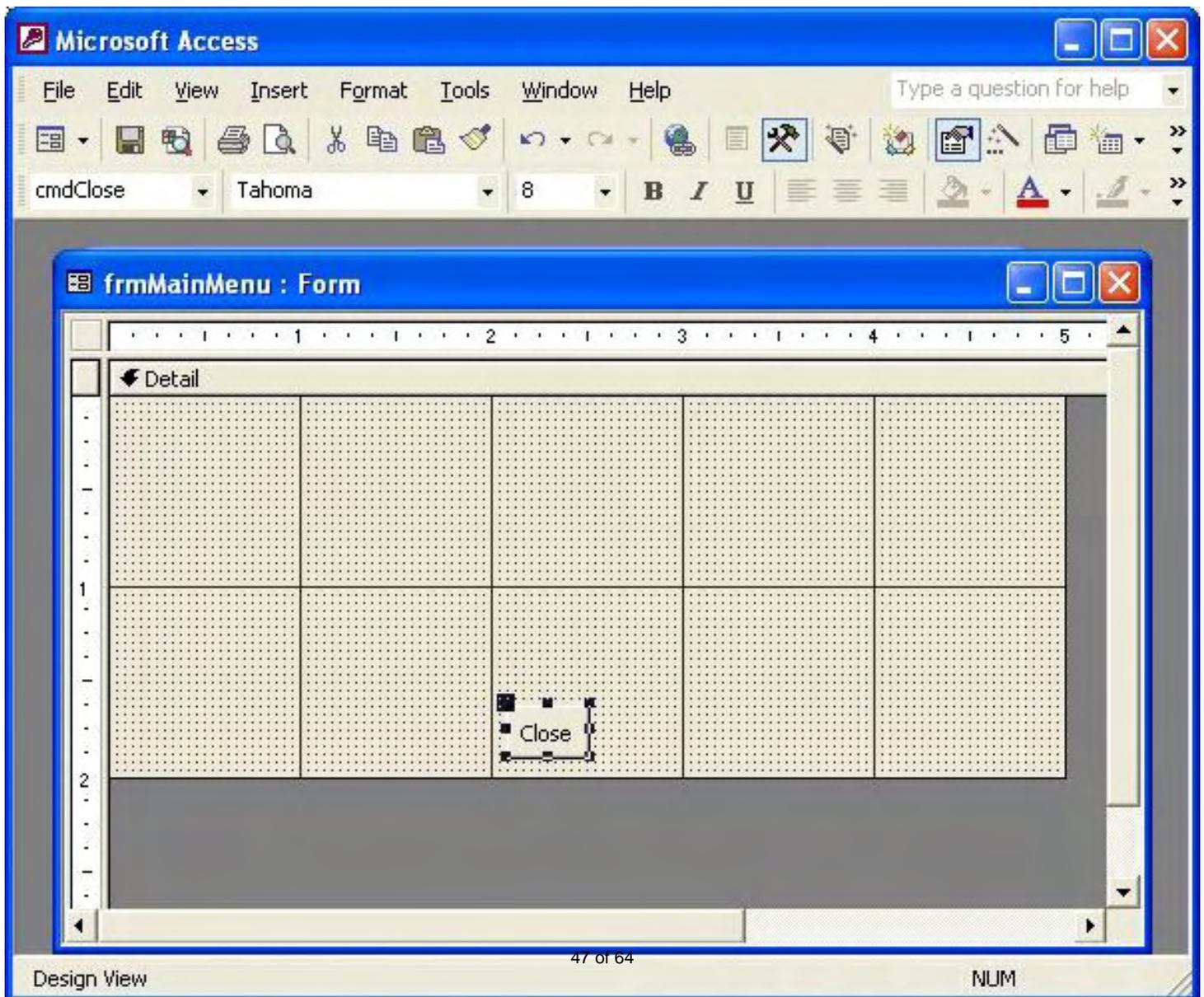




Figure 1. Main menu in Design view.

Right now, this isn't much. If you run it, it's just an empty form, except for a button that lets you close the form. We're going to make it the start-up form, and then expand on it to connect it to other forms.

Under menu Tools, select the option for Startup. You'll see something like Figure 2.

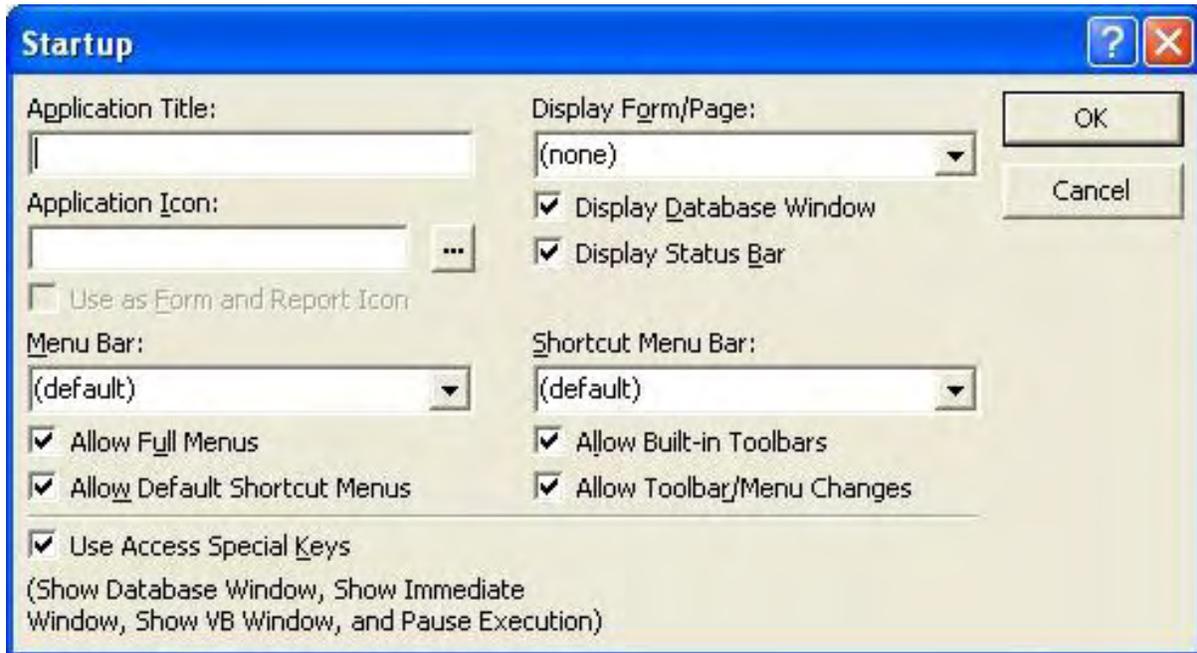


Figure 2. Start-up form settings.

Since our goal is to make this Access file look and act like an application, this is a good place to add additional settings to give that appearance.

In the Application Title box, enter Mailing List. Across the Display Form/Page, select the form we just made, frmMainMenu, from the list. Down in Application Icon, click the "..." button next to it and select an .ico (icon picture) or .cur (mouse cursor image) file from Windows. Since you may not have any of those that match what you want, and there doesn't seem to be many tools to create .ico files, here's a tip from one of my readers, Don R:

Many people do not know that it is relatively easy to make a Windows icon:

Open any JPEG file in Paint; Select, Crop and reduce property size to small 64-to-128-pixel square; Save as "MyMailingLabels.bmp"; finally rename MyMailingLabel.bmp simply changing the .bmp extension to .ico. You then can browse Access Startup Wizard to use that icon.

Thanks, Don! I think you can also start with any GIF, bitmap or PNG file too.

Interestingly, you can also snag an icon from an executable (just watch out for copyright issues). In this case, I'm going to suggest going to your Windows folder on the C drive and selecting Notepad.exe, so you

get something that looks something like an address book. If you have a better picture, or are motivated to make one or find one, certainly use that!

Although we can fiddle with the other settings, I'm going to leave them for now and return when our application is almost done. Click the OK button, and the title and icon should change.

Main Menu

Now that we've set the start-up form to be our main menu, let's investigate a few things related to form settings.

Make sure you're in the form's Design view and single-click on the Close button. Open the Properties window (F4) and click on the All tab. A few of the key properties that you should know include:

- **Name**—this gives this control a unique name. A good name here will help in using the control in VBA. A bad name makes your programming task a lot harder, since eventually you'll have several buttons and will likely forget the difference between the names Button1 and Button2 if you have to return to this form in the future, but cmdClose and cmdPersonForm are much less likely to be misinterpreted.
- **Caption**—this is the text that appears on the button. Obviously you shouldn't use the default text if the button will be set up for a user.
- **Default**—set this to Yes so the user can activate the button with the Enter key, even if the focus is not on the button. This is usually used with an "OK" or "Yes" function.
- **Cancel**—set this to Yes so the user can activate the button with the Escape key, even if the focus is not on the button. This is usually used with a "Cancel" or "No" function.
- **Visible**—this should usually be Yes, but sometimes you'll set it to No to hide it. If you do that, you'll probably want some VBA code to show it under certain conditions.
- **Enabled**—this should usually be Yes, but sometimes you'll set it to No to disable it. You would normally do that if the button should always be shown, but be available only for some situations.
- **Tab Stop**—this determines whether the control is activated while tabbing through controls on the form. Normally you want this set to Yes, but there may be some controls that you want available only via the mouse.
- **Tab Index**—this number determines the order in which the controls become active during tabbing. The number zero is first, then 1, etc., to the highest number, then it starts over. Shift-Tab would reverse the sequence of the controls. If a control cannot be tabbed to (like one with Tab Stop off), it still has a number in case you change your mind. Some controls, such as the Label, do not have Tab Index fields.
- **Left/Top/Width/Height**—these identify the relative location and size of the control.
- **Fore Color**—this lets you change the color of the caption of the button.
- **Font Name/Size/Weight/Italic/Underline**—these identify information about the appearance of the caption of the button.

- **ControlTip Text**—this text is used to display a little fly-out text box when the user moves the mouse across the control. Typically this is used to help explain additional features about the control to the user. For example, if the button caption is "Process," the ControlTip text might be "Click this button to process the current record and transfer information."
- **Tag**—this is used for holding arbitrary information that you might decide to use for other things later. Basically, it's a custom property.
- **On Click**—this event property will run some VBA code if defined.

Other properties may be useful, but they are much less likely to be used.

Now that we've looked at a few important properties of the button, let's look at a few more for the form. From the Properties window, in the drop-down list at the top, select Form.

Notice how some of the properties will have the same name and others will be new. On the form, we are controlling things related to all of the controls, including which record fields will be used with the database. Let's explore some of the important ones:

- **Record Source**—this defines the fields that will be available in the form. You can select a table, query, or an SQL command that defines the data you want to show.
- **Filter**—this tells it which records to show or ignore, using criteria like State = WA.
- **Order By**—this defines how to sort the records it's retrieving.
- **Allow Filters**—this specifies whether to use or ignore the Filter.
- **Caption**—this is the title of the form. If blank, it uses the form name.
- **Default View**—this will either show individual records (with specific fields) or all records organized in rows. Also some other things are available, which I won't discuss here.
- **Scroll Bars**—this will show scroll bars if needed. Probably not needed for our menu.
- **Record Selector/Navigation Buttons/Dividing Lines**—These are used when you are showing data in your fields. We don't need them for a menu form, and they actually make it confusing if you keep them on.

Most of the others you'll rarely use.

Turn off Record Selector, Navigation Buttons and Dividing Lines, and the form should be ready for use, except that the button may not be in the best place when you run it. For now, don't worry. We'll fix that next week.

Go ahead and add a button to connect to the following forms: frmPerson, frmAddress, frmPhone. When the button wizard appears, choose category Form Operations then Action Open form, and at this point have it "Open the form and show all the records," add a caption such as Person Maintenance, and then a name like cmdPersonLookup. Although you might be tempted to copy and paste the buttons, if you do that, they will not copy the VBA code that makes them work. We'll address that in a future article. When you're done, you should see something like Figure 3.

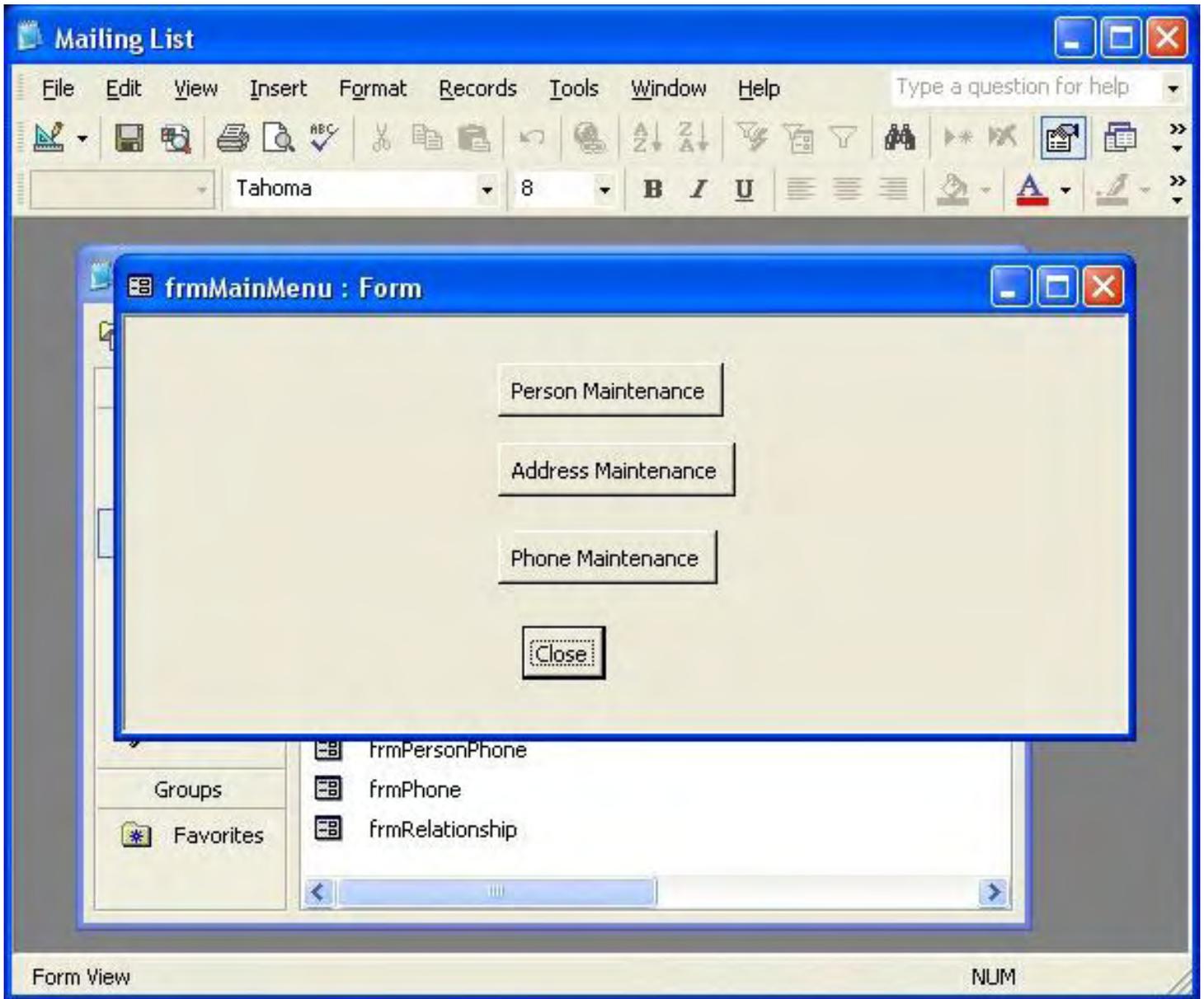


Figure 3. Main Menu with buttons to get to other forms.

At this point, we have something that will start up when this Access file is opened, then it will let users navigate around parts of our database.

Next week, we'll add a few more forms and look at how to use header and footer sections effectively.

Rob has been in the computer industry for over 25 years and is currently a part-time teacher, offering classes in Excel, Access, Visual Basic, and a variety of other technical tools. He has loved *ComputerEdge* since 1990 and can be contacted at RSpahitz@Dogopoly.com.

Looking for a great boardgame? Grab a copy from DOGOPOLY.com (dogopoly.com) and have a dog-gone great time.



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Worldwide News & Product Reviews

“The latest in tech news and hot product reviews.” by Charles Carr



Pillow Click Edging Out Pillow Talk—A study says more workaholics are working in bed via an often-unsecured mobile device; Fine Art Printing for Photographers—A review of the book about making fine-art digital prints; Hauppauge Personal Video Recorder—A review of the nifty high-def device.

Pillow Click Edging Out Pillow Talk

A recent study done in the UK by endpoint data-protection specialist Credant Technologies (www.credant.com) reveals that some workaholics work two to six hours a week in bed, much to their partner's annoyance. Over a quarter of respondents reported being so work obsessed they can't resist using a mobile device such as a laptop in bed before they go to sleep, according to the survey.

The survey discovered that of those people who do work in bed, 57 percent do so for between two and six hours every week—little wonder the survey also found that the majority of their bed companions found their partners' obsession with their mobiles "a very annoying habit." Of that group, eight percent admitted they spend more time on their mobile devices during the evening than talking to their partners.

Almost half the respondents (44 percent) admitted they are holding important work documents on their mobile devices, of which 54 percent were not adequately secured with encryption.



"This will sound alarm bells for the many in-house IT departments who are tasked with trying to secure an ever-increasing mobile workforce who are using data on the move and consequently losing more unsecured data than ever before," said Credant vice president Michael Callahan. "Additionally, snooping neighbors or even malicious infiltrators could hack into the devices that are being used in bed, as a fifth of people are not using a secure wireless network

as they busily tap away under their duvets. This survey confirms that there is a growing population that is no longer restricted by working hours or confined to the office building itself. People are mobile and will work anywhere—even in bed. Therefore, when sensitive and valuable data is being held on these devices and they get lost, it can have pretty detrimental and far-reaching consequences to both the worker and their employer."

The most favored way to connect to the Internet whilst lying in bed—and subsequently back to the office—is via a wireless network (87 percent). Disturbingly, almost a fifth of people spoken to are using a wireless network that they know is insecure, with 56 percent downloading/uploading company information.

When staying in hotels, people are happy to connect to the hotel's wireless network, expecting the hotel to ensure that it's secure. A hefty 47 percent admit that they do so without even considering the security implications.

Credant recommends the following simple hints and tips to ensure data remains secure, especially when working in your pajamas:

- If your laptop or mobile device contains important/sensitive data relating to your employer, especially clients' information, then the data protection act requires it be adequately protected. Ask your IT department to encrypt the mobile device.
- Always use a strong password—combining numbers, letters and symbols—to access your device or network.
- Don't make exposure easy. Be aware of all the points of connection and access so you don't risk disclosure.
- Don't leave your mobile device open to access (e.g., leaving Bluetooth or Wi-Fi turned on) somewhere visible and unsecured.
- Finally, use your bedroom for what it's designed for. And, if you're not feeling sleepy, the report notes, your laptop is the last thing you should be turning to.

When asked "What is the last thing you do before going to sleep" it is reassuring to learn that, for 96 percent of the people questioned, it is kiss their partners goodnight.

Fine-Art Printing for Photographers

When used together—and if you know what you're doing—modern inkjet printers and digital cameras are capable of producing stunning-quality prints of amazing tonal range and superior image permanence at a reasonable cost. *Fine Art Printing for Photographers Second Edition* (Rocky Nook, \$44.95, www.oreilly.com), by Uwe Steinmueller and Juergen Gulbins, is the perfect companion for a good camera and printer, providing the solid foundation needed to make digital magic.

"In the hands of knowledgeable and experienced photographers," the book contends, "artists can help create prints comparable to the highest quality darkroom prints on photographic paper."

This second edition of the popular book now includes information about the newest breed of printers and

papers, laying out from A to Z how to set up a productive printing workflow.

In a foreword to the book, R. Mac Holbert, co-founder of Nash Editions, notes, "It is information like this that has helped to raise the quality of digital output and reduce the traditional art world's resistance to the use of digital tools in art. It is a book written by someone who *knows* fine art digital printmaking. Uwe's style is concise and to the point. This comprehensive and complete guide to fine art digital printmaking should be included in the library of anyone who is serious about making fine art digital prints."

The book is broken into nine chapters: printing techniques, CMS management, fine-art workflow, inks and papers, fine art printers, printing packages and RIPs, image judgment, black and white, and presentation.

What's really great about this book is that they don't focus on specific brands of printers so much as telling you what you need to know about modern printers in general to create high-quality prints. So, rather than talk about this specific HP or Epson or Canon printer, you get intelligent information about different types of inkjets, be they thermal, Piezo, continuous flow or others. The book also gets into types of inks and papers and the effects external conditions have on the life of your photos. *Fine Art Printing for Photographers* will also help you set up your monitor and your printer to work together as a team.

If you want to create prints that rival the stuff that comes out of photo labs, this book will get you there. Don't worry about the price. You'll make that back in the paper and ink you save from the trash bin.



Review contributed by Kyle McSharrick

Hauppauge Personal Video Recorder

A lot of people have a lot of home videos sitting in closets waiting to be converted to a form that is more usable in the digital age. Hauppauge's diminutive (7.8 x 6.8 x 2.8 inches) HD-PVR (www.hauppauge.com/site/products/data_hdpvr.html) (about \$200) may have the answer for them—and lots more to boot.

In addition to high-quality component inputs (red, blue, green) and pass-throughs for sources like cable and satellite TV and DVDs, the unit also has both standard-definition composite and S-Video inputs so you can plug your old VCR (if it still works!) directly into the box and record those old home video tapes into your computer in Blu-ray-friendly AVCHD format. From there you can burn them onto standard DVD or Blu-ray DVD discs. Audio is recorded using AAC or Dolby Digital. But that's only the beginning. The HD-PVR has an H.264 high-definition encoder built-in for making high-performance, high-quality recordings at up to 1080i.



Hauppauge's diminutive (7.8 x 6.8 x 2.8 inch) HD-PVR.

Here's something pretty cool: Using the HD-PVR you can make HD Blu-ray DVDs using standard (cheap) blank DVD-R discs. I could get about an hour of AVCHD format HD video on a disc. Both my Blu-ray player and my PS3 saw the disc as a "real" HD Blu-ray disc and played it just fine. That means, if you're willing to accept the shorter record/play time, you don't need a Blu-ray burner while you're waiting for prices to come down. You can record at lower rates ranging from 1MB to 13.5MBs at both constant and variable bit rates.

The HD-PVR also includes Hauppauge's WinTV scheduler, which allows you to automatically record your favorite shows in high definition directly from cable TV and satellite set-top boxes. The built-in IR blaster automatically changes TV channels to match up with scheduled recordings.

Also included are a remote control, an IR Blaster transmitter cable, a component video cable and audio cable, a USB cable, and a power supply. Software apps included are Arcsoft TotalMediaExtreme, TotalMedia Theater and MediaConverter; and Hauppauge's WinTV Scheduler.

I wish the Hauppauge 1212 HD-PVR had an Ethernet port in addition to or in place of USB to send the data stream. That way I could send data to my computer (which is nowhere near my entertainment system) over my home network. Also—and I realize this is probably pushing it—an internal hard drive coupled with a neat little red Record button up top would be very handy, completely eliminating the need for a PC altogether.

All in all, though, the Hauppauge 1212 HD-PVR High Definition Personal Video Recorder is a pretty neat little box.



In addition to being an editor and columnist for *ComputerEdge* and *ComputerScene* Magazines, where he has written hundreds of feature articles and cover stories over the past decade, Charles Carr has also

penned well over 1,000 non-tech newspaper and magazine articles and columns for various publications, including two widely-read columns each week for San Diego's *North County Times* newspaper.

Carr has covered such diverse topics as pesticide use in area schools, invasive background checks for county volunteers, asthma awareness, the debate over standards-based grading, potential vulnerabilities in electronic voting machines, and Southern California's devastating 2003 and 2007 wildfires. He has also written many humorous pieces.

Carr has also edited dozens of stories and articles written by others which have appeared in major publications and web sites across the country.

He has been a contributor and technical advisor to *L.A. and San Diego Parent* magazines and receives dozens of requests a year to appear on Southern California television and radio stations to talk about important events in the tech world.

Carr has judged many writing competitions including San Diego Press Club and Time-Warner Communications contests and was sole judge for the national NAPPA Tech Toys awards for five years (which his kids really appreciated). He was recently a judge for the national "Poetry Out Loud" competition.

He has won many writing accolades, including Press Club awards for Best Column Writing, Consumer Writing and Best Arts and Entertainment, and has repeatedly taken top honors in San Diego Songwriter's Guild competitions for his original musical compositions.

Carr will soon publish his first book, *What a World*, a collection of his best writings.

Learn more at www.charlescarr.com.

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EdgeWord: Tips for Making Your Web Site More Effective



“Take the time to make small improvements--it will pay off.” by Jack Dunning

The key to making a Web site a valuable part of your business is first to design it properly, and second to monitor how well it is working.

Most businesses acknowledge that they should have a Web site, but it isn't until they put one up that they realize how much work is actually involved. Even when it's designed and up and running, most businesses have no idea whether their site is doing anything for them. The key to making a Web site a valuable part of your business is first to design it properly, and second to monitor how well it is working.

Design for Search Engine Optimization

One of the simplest steps is to make sure that your site takes advantage of the tools that can be built into it for better search engine placement. (In the examples used in this column, Google is the search engine of choice because it owns more than 80 percent of the market.) Every Web site should contain the HTML title tag and the meta tags (keywords and description) used by the search engines. More information on these tags can be found in the article "Designing Pages for Search Engines," dated September 5, 2008.

Most people put every possible keyword for their business into these tags. This is a mistake. Although there are very few people who know everything that goes into page relevancy for Google, it has become apparent that Google is not fond of sites that try to cover too wide a scope. It's likely that there is a balance between targeting and painting with a broad brush. It is better to give the tags in your Web page as narrow a focus as possible, while still covering a reasonable span of words. This will increase the odds that your site will appear toward the top of a listing—at least in one category.

If your geographic location is important (i.e., you're a local business), put it in the tags. Leaving it out will make you compete with all the national and international Web sites, thus not appearing in local searches.

Once you establish your target, don't tinker with it. The ranking and indexing of your page by the search engines does not happen overnight. It takes a long time to build up relevancy. When you change your tags in your Web page, you could actually be tossing away years of work and search engine exposure. Choose your keywords carefully, then stick with them. It is better to be near the top of the first page of one important category than on the fifth page in five categories.

Make sure that the text in your pages reinforces your keywords. Again, there is no benefit in overusing the words in the text. In fact, it could hurt. In the past, Web designers would install a background loaded with keywords. That is now a negative in Google relevancy.

Take advantage of other Web sites that will link to your site. While Google has taken steps to drop relevancy for sites that trade in link swapping, being listed in directories that allow links to your site (unless they use the "nofollow" parameter) will help with your Google PageRank and probability of a high listing—especially if the site has a higher Google PageRank than your site. While this practice of

selling links is controversial, because there were so many sites that only sold links, Google has not found an easy resolution. For more information on Google PageRank, see the article "Google PageRank," dated June 6, 2008. You can check the Google PageRank of Web sites by adding the Google Toolbar (*toolbar.google.com*) to one of your browsers.

Google Analytics

Know what your site is doing. Google has a free tracking tool called Google Analytics (*www.google.com/analytics*). It's free and will help you to know how you get traffic to your site. While there are many ways to measure traffic, and none of them are infallible, Google Analytics is one of the most comprehensive. As with most visitor-tracking systems, Google Analytics uses cookies to identify returning visitors. *ComputerEdge* has both its own internal tracking system, plus Google Analytics—implemented in the fall of 2008. (Based upon Google Analytics, since November 1, 2008, *ComputerEdge* has had 182,136 Visits, 95,802 Absolute Unique Visitors, and 828,255 Pageviews.) See Figure 1 for an example of data from Google Analytics.

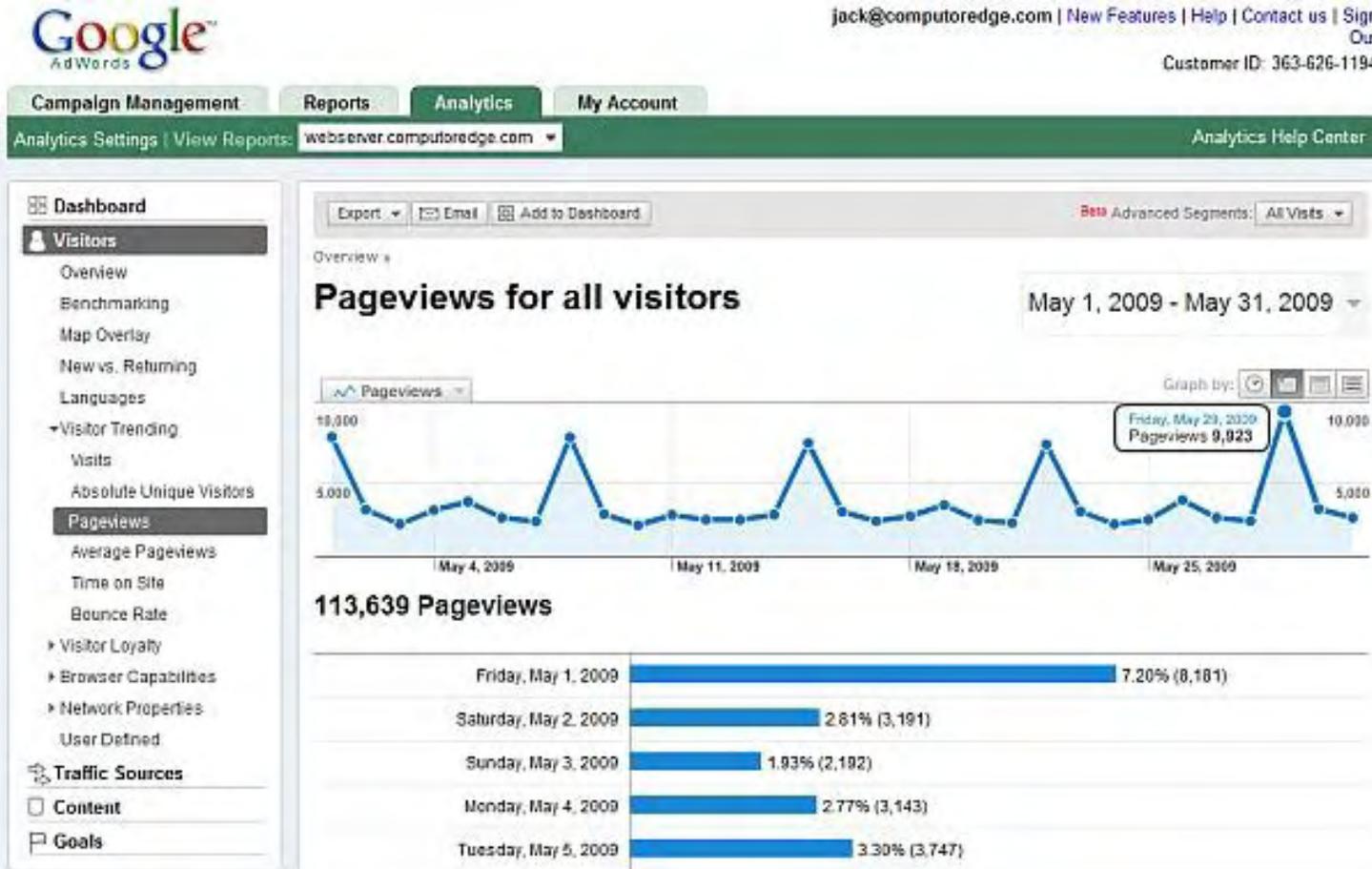


Figure 1. Google Analytics Pageviews for *webserver.computoredge.com* for May 2009.

Use Targeted Web Advertising

Google AdWords (*adwords.google.com*) is one of the most-used Web advertising programs. AdWords are the little text ads that appear on the right side of a Google search page. (See the circled ad on the right in Figure 2.) Many people say that they never look at those ads when they do a search, but there are enough people who *do* click on the links to make Google billions of dollars a years. One of the best things about the little text ads is that there is no charge if no one clicks on the ad. Placement of the ad is based upon

chosen keywords and how much the advertiser is willing to spend. For example, many low-demand categories can get first-page placement for as little as five or 10 cents a click. However, higher-demand search categories such as "computer repair" or "Internet service" may command \$3 to \$5 per click-through. In some businesses, the price can go much higher than that.

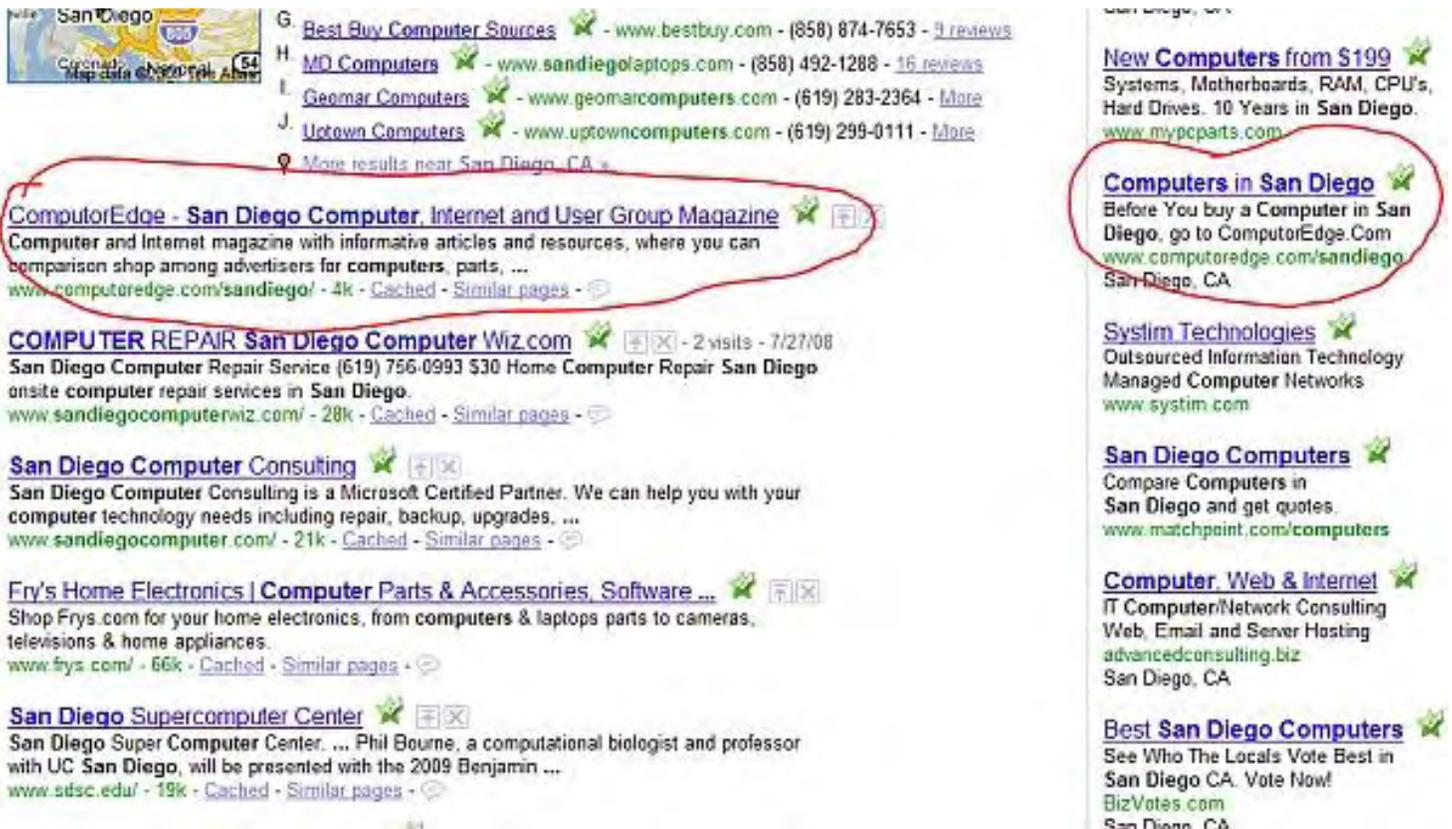


Figure 2. Google search "computers san diego" with ComputerEdge AdWords ad on the right and ComputerEdge free site listing on the left.

As shown in Figure 2, a Google search for "computers san diego" displays the *ComputerEdge* site as the first unpaid listing on the first page. This type of placement cannot be bought on Google. It is a function of many factors, which include many of those techniques mentioned in this column. Consistency is the word that best describes what's needed to maintain this type of standing.

For example, at one time ComputerEdge.com had a similar standing for the Google search "computers denver." I then changed the tags to be more encompassing with "Denver and Colorado" in the title tag. I felt that it would better reflect the entire state. I didn't know that Google gave higher priority to the Colorado than Denver. While we did start getting first-page placement for Colorado, we lost our Denver placement. The only consoling fact—although not quite as good—is that our Google AdWords campaign text ad will usually appear on the Denver search page. I haven't changed the title page back to Denver because that would violate the rule of consistency—no flip-flopping.

Helping Our Sponsors

One effect that I didn't expect is that most of our sponsor pages have obtained their own decent Google PageRank and often appear on targeted search pages with first-page placement—even when the sponsor's Web site doesn't appear. (See Figure 3 for a San Diego example.) I only noticed this when I was doing Google searches to test our AdWords campaign. It is difficult to predict how a sponsor page will do, and

it takes a good deal of time to climb into a decent position. On the downside, Google only allows one page from a site to appear in a search. That's fair, but it means a more popular sponsor (based upon Google's numbers) will displace other *ComputerEdge* sponsors in the same category search.

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Google [Advanced Search](#)
[Preferences](#)

Web [Show options...](#)

Local business results for [memory](#) near [Kearny Mesa, San Diego, CA](#)



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[4 reviews](#), [directions](#), [hours](#), and [more](#) »
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 7258 Clairemont Mesa Blvd, San Diego - (619) 325-6364
[Directions and more](#) »
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 Kearny Mesa Infiniti - Infiniti Dealer San Diego - San Diego Infiniti ... that you explained the various car functions and set **memory** positions for me. ...
[www.kearnymesainfiniti.com/testimonials.php](#) - 15k - [Cached](#) - [Similar pages](#) -

Figure 3. A ComputerEdge sponsor Web page gets excellent ranking with a "memory kearny mesa" Google search. (Kearny Mesa is an area of San Diego.)

One of the reasons the sponsor pages start moving toward the top is because, being a subset of ComputerEdge.com, they feed off the relevancy and PageRank of the *ComputerEdge* site. Although they don't move up in all categories, there are usually one or two Google searches that will pay off.

While it is getting more and more difficult to win in Internet marketing with your Web site, there are things that you can do to improve your odds. The Internet is becoming more important to business every

day. Those who take the time to make these small improvement will reap the benefits.

Jack is the publisher of *ComputerEdge* Magazine. He's been with the magazine since first issue on May 16, 1983. Back then, it was called *The Byte Buyer*. His Web site is www.computoredge.com. He can be reached at ceeditor@computoredge.com

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Editor's Letters: Tips and Thoughts from Readers

“Computer and Internet tips, plus comments on the articles and columns.” by ComputerEdge Staff

"Not all 802.11n Is Really 802.11n!," "Digital Dave Comments," "Windows Live Mail"

Not all 802.11n Is Really 802.11n!

[The following letters are in regard to Dawn Clement's May 22 article, "The New 802.11n Standard for Wi-Fi Routers."]

When buying 802.11n equipment, be sure you are getting "real" 802.11n. I bought a new router and laptop adapter card that had a big "N" on the box, and the box claims it is 802.11n, but after using it for a while and seeing no increase in speed, I see that it broadcasts and receives only on 2.4GHz. No 5GHz! What's up with this?

"NetGear RangeMax WNR834Bv2 (router) and WN511B (PCI card)"

-Jim Amos, Denver

Unfortunately, there are (and have been for the past couple of years) many products on the market claiming to be 802.11n compliant. However, until the IEEE ratifies the new standard in December or January, there is no guarantee that any of them truly are 802.11n compliant. The IEEE has a list of maybe six products that are "conditionally compliant," but even then it offers no guarantees. The best thing to do is to wait for the ratification and then do your shopping. —Dawn Clement

Whoopie! My D-Link DIR-615, advertised as a G router, suddenly announced that it's N with an annoying pop-up. "There's a new device on your system—an N router!" There is no new router on my system. I have two laptops with Celerons and an older desktop with a P4. Would any of these benefit from an N upgrade? Is it even possible with laptops?

-Bob Di Giorgio, San Diego

The D-Link DIR-615 wireless router is "draft 802.11n," which is a preliminary certification given out by the Wi-Fi Alliance. Devices that are given this certification implement most of the capabilities of the IEEE Draft 2.0 standard, may contain optional capabilities, and may be software upgradable to the IEEE standard when it is deployed. D-Link recommends using its Wireless N Adapter (DWA-130) to get the best performance (and it's probably a good idea to stay with the same manufacturer until the new standard is ratified).

So, to answer your questions: Yes, you can use the N portion of your router with your existing network, provided you upgrade your adapters to the draft standard. The speed of your processors should not be an issue as long as the OS is Windows XP or Mac OS X (or higher).

Congratulations on your discovery! —Dawn Clement

Digital Dave Comments

In response to Aimee's question in the May 22 Digital Dave column about slow shut-down times, the very first thing I would recommend is to download and install Process Explorer, from www.sysinternals.com. (The entire Sysinternals suite has been bought by Microsoft, so you'll be redirected to a technet.microsoft.com site). Process Explorer is like the Task Manager on steroids. You get much more information about each process, including its parent process, whether it was started by a service, the command line used to start it, its branding, performance, environment, strings, etc. And, you can right-click any process and select "Search online," and you'll get a Google search in your default browser.

-Chuck Edgin, Coronado, CA

Just a warning about something I encountered when developing my image-backup capability. Mainly, *never* allow two bootable Chicago partitions concurrently online. (You will create some difficult problems for yourself and may have to redo or repair the intended OS.) If you're going to access the old HDD as a secondary drive, then first make the Chicago partition on that drive non-bootable.

-Chris Romel, San Diego

Windows Live Mail

[The following letters are in regard to Jack Dunning's May 22 Windows Tips and Tricks column about Windows Live Mail.]

Jack, I think you're confused.

Windows Mail *is* the e-mail client for Vista, *and* apparently for Win7.

Windows Live Mail *is* the "new" Hotmail, and it's an e-mail *service*, that includes its own client. And from the comments I've seen, *not* a very good one, and totally *unnecessary*, *both* as a mail *service* and as an e-mail client, if you have *any* other e-mail service *or* client.

-Bud Jamison, San Diego, CA

I can't blame anyone for being confused about Windows Live Mail. I've certainly had my share of it. Hotmail is now called Windows Live Hotmail, and the follow-on e-mail client for Outlook Express/Windows Mail is Windows Live Mail (en.wikipedia.org/wiki/Windows_Live_Mail). I suppose that you could download Windows Mail (the version that comes with the Vista installation), although I didn't find it on the Microsoft site.

The point is that Windows 7 does not come with an e-mail client, and Microsoft offers Windows Live Mail as its entry in the competition.

I've read many of the comments about Windows Live Mail and have developed an opinion that there is a fundamental misunderstanding about the improvements in Windows Live Mail. It is just different enough from the previous e-mail clients that resistance to change causes many negative reactions—psycho-sclerosis. There may be some very real issues in Windows Live Mail; I just haven't encountered them yet.

—*Jack Dunning*

Jack, similar to you, I have many e-mail accounts that are normally forwarded to one account. After reading your article, I tried Windows Live Mail and experienced the following:

1. Windows 7 RC1 on dedicated machine reported errors downloading accounts; assume will be fixed in due time.
2. Using Windows XP on my fast test machine, Live Mail reported that Yahoo Mail had to be upgraded to paid version.
3. It wanted to change Gmail to IMAP.

Pikes Peak Computer Application Society members follow your publication. Keep up the good work.

Regards,

-Bill Everett, Colorado Springs

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