

A Million Maps A Day

By Kevin C. Flynn, Reprinted from ACSM Bulletin, November/December 1996

Log onto the internet these days and you are more than likely to see a map. As a familiar way of portraying spatial information, maps have been a tremendous hit on the internet, particularly the world wide web.

Maps on the Web have become so popular that Etak, one developer of digital maps, estimates that maps using its databases are generated on the Web more than one million times each day.

The first stop for Web users is usually a search engine such as Yahoo or Lycos. The developers of these sites have forged partnerships with a variety of digital mapping companies to offer all manner of maps.

The arrangements - usually called "strategic partnerships" - are almost as complex as the Web itself. Some of the most popular mapping sites don't actually make the maps - that is done at another server. A third server might supply the local tourist information.

The harnessing of digital map data, combined with the interactivity of the Web and the unlimited creativity of Web page designers, is producing an unprecedented amount of mapping information. Much of it is focused on popular uses, like finding (and mapping) the nearest Thai restaurant to any location in Palo Alto. We have included some of these sites on the next few pages.

The underlying spatial information used in many of these maps has an interesting history, based solidly in work done by the U.S. Census Bureau in the 1960s and early 1970s. One of the pioneers in that effort, ACSM member Marvin White, is now involved in the web revolution.

The information here is only the tip of the mapping iceberg on the web. If you check on Oddens Bookmarks you could very well get lost in myriad map collectors, publishers, libraries, interactive atlases, and even one site that is nothing but views of globes.

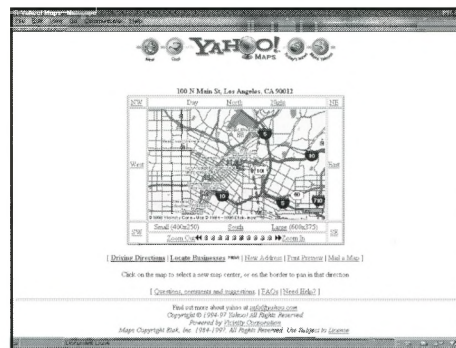
Where it begins: Etak, one of the leading suppliers of maps on the world wide web, maintains an extensive database of information used to create digital maps. The company pioneered the cartographic

image capture, involving scanning and plotting spatial data. Recently acquired by Sony Corporation, Etak is currently involved in a massive effort to update the databases for vehicle navigation products, as well as the Web. Etak has a staff of 650, more than half of whom are involved in data capture and mapping, along with a large field staff checking every intersection in the U.S. The company still maintains a large collection of paper map products used for digitizing and reference.

MAPS ON THE WEB Making Maps On-Line

SITE: **Yahoo**

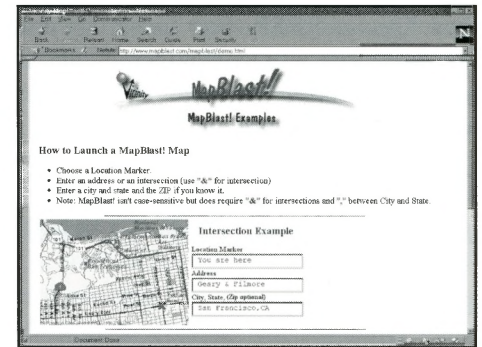
ADDRESS: <http://www.yahoo.com>



This site allows you to map any location based on address, city, state, and zip code. Enter the locations and you can see a street-level view of the site. Yahoo is one of the leading search engines used on the Web. The mapping service is an integrated part of the search site. Yahoo is also developing local versions of its service to capture community information (see also CitySearch, on the right). Yahoo and another search site, Lycos, are both licensees of Etak mapping databases. Lycos allows you to create a hot link back to its web server and offers users choices of a map with a frame. Lycos and Yahoo are in partnership with Vicinity, a web developer that does "private label" services for more than 18 different web servers, from search sites to golf course directories. Vicinity's own service is called "MapBlast."

SITE: **Map Blaster**

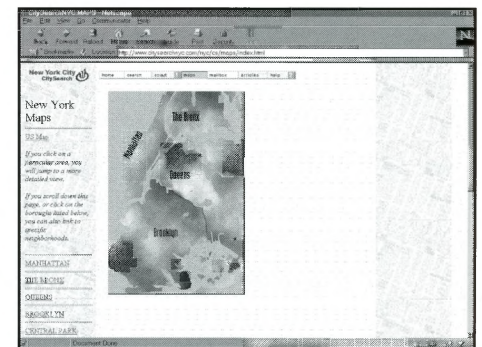
LOCATION: <http://www.mapblast.com>



This site offers to "blast" a map to anyone who signs on to the site. It also is unique in that it gives specific directions on how to copy the map to your own site, or send it by e-mail to someone else. The code for each map is shown on the screen, along with simple directions ("cut and paste here"). Map Blaster's maps allow you to zoom in, pan, and zoom out, with street-level resolution.

SITE: **City Search**

LOCATION: <http://www.citysearch.com>



This location has maps for many sites in certain locations. It uses a combination of map data and other information to provide a complete and current guide for selected communities. CitySearch also provides tools to personalize activities, businesses, and purchasing. Searches can be conducted by keyword, location, or time. Partners in the project include Illustra databases, Database America, Etak, Silicon Graphics, and Borland. Currently there are CitySearch locations in New York, Los Angeles, and Phoenix, Arizona.

SITE: **BigBook**

LOCATION: <http://www.bigbook.com>

The "Big Book" is an electronic yellow pages that includes a powerful mapping feature. It will deliver maps along with other information about selected businesses. BigBook is the largest of the yellow pages sites on the web, with more than 11 million businesses in its databases. It is one of the most popular websites, with hundreds of thousands of hits every day.

BigBook uses software that locates a site with five different levels of "pinpoint quality." These range from exact address, zip+4, zip code only, or "no match." The results are indicated on the map.

SITE: **Oddens Bookmarks**

LOCATION: <http://kartoserver.frw.ruu.nl/html/stuff/oddens/oddens.htm>

This site isn't flashy. It doesn't have a lot of content. In fact, it doesn't have any content. But if you are interested in a worldwide scope of maps and mapping on the internet, it is a required stop.

Roelof P Oddens is a member of the geographical sciences faculty at Utrecht University in the Netherlands. Several years ago, he began to collect a Netscape bookmark list of sites of interest.

The list has grown. As of July 1997, it listed links to more than 1750 sites of cartographic interest. Here is a sampling of the categories indexed by Professor Oddens:

- Maps and Atlases-New
- Maps of the Netherlands
- Maps-Old
- Electronic Atlases
- Cartographic Curiosities
- Map Collections
- Map Collections and Catalogues
- Sellers of Maps and Atlases
- Sellers of Electronic Atlases
- Antiquarian Sites
- Carto- and GeoServers
- Cartographical Societies
- Departments of Cartography
- Government Cartography Agencies
- Netherlands Organizations
- Libraries
- Library Classification Systems
- History of Cartography
- Journals of Cartography
- Gazetteers
- Geodesy, Projections, Etc.
- Miscellaneous
- Educational Mapping Sites
- Dictionaries
- Bicycles and Cartography
- Genealogy
- Statistics

Temporary Sites

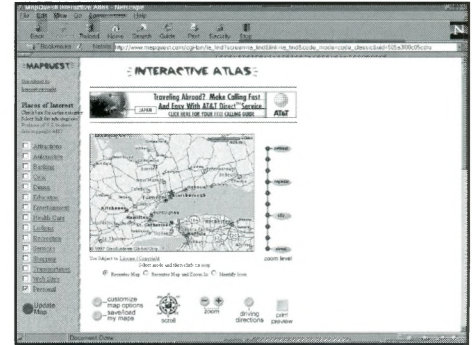
Search Engines

Touristic Sites

The site receives about 2,500 visits per month. It will lead you places you never knew existed.

SITE: **Map Quest**

LOCATION: <http://www.mapquest.com>



MapQuest has an interactive atlas, tours, and other features. MapQuest uses the GeoSystems United States Digital Map Database (USDB) and the US Census Bureau's 1994 release of the U.S. TIGER files.

One feature of MapQuest is the ability to select a display showing points of interest. A screen allows the mapmaker to choose from 15 different categories,

POPULAR MAPPING PRODUCTS: HOOK UP YOUR GPS ANTENNA AND GO

The latest generation of mapping software for personal computers combines the Web, CD-ROM, and GPS technologies to plot routes and describe sites of interest. Among the offerings:

Map'n'Go from Delorme has a unique feature that allows you to hook up your GPS receiver and see where you are on your computer. If you are in a moving vehicle, the feature shows a "breadcrumb" trail that indicates where you have been, what direction you are headed, and even your average speed. Map'n'Go comes with a complete list of historical and recreational sites from the AAA guidebooks and prints a travel package with maps and route information. List price is \$40. The GPS hookup requires a Garmin 30 or 45, a Trimble Scoutmaster, or an NMEA receiver. Delorme, <http://delorme.com>

Tripmaker 1997 Edition. The latest version has very detailed and easy-to-print maps. More than one million business listings in 37 categories are available, including such items as locations of ATM machines, barbers, and dry cleaners. The 1997 edition includes videos, pre-planned scenic tours, and customization features to control and track travel costs. A "walking guide" feature allows you to plot walking directions. Updates are available from the Rand McNally web site. Approximate price: \$50. Rand McNally, <http://www.randmcnally.com>

Road Trips Door-To-Door doesn't have the multimedia files of Tripmaker, but it does have a complete street atlas of the U.S. and will plan your directions from one exact address to another. The program has two CD-ROMs (one for the data and one for the program). The data includes 95 million home and business street addresses, 200,000 cities and towns, and seven million miles of highway and street maps. Not bad for \$50. TravRoute Software, www.travroute.com

including restaurants, automotive, transportation, shopping, health care and even nearby Web sites. If you become a member by filling in a form, you can personalize and save maps, and receive free updates. A "TripQuest" feature of the site plots driving routes. MapQuest is owned by GeoSystems Global, which is partially owned by the R. R. Donnelly & Sons Company, the largest printer in the U.S.

SITE: The U.S. Cartography Site

LOCATION: <http://geog.gmu.edu>

By Jeremy Crampton

Our web site began in November 1994. I had actually discovered the web the previous winter, but due to lack of a server could only begin that fall. I think we had about 200 hits a day for most of the first month until we got going more properly the next summer.

At that time, I listed our site with the search engines and usage has crept up to

around 4-5,000 hits per day. The latest stats are available at: <http://geog.gmu.edu/sstat.html>

Our most "famous" product is the Bosnian Virtual Fieldtrip (BVF), which I originated and co-authored with Beth Rundstrom (now a Ph.D. candidate at Penn State). The BVF was conceived as a way to get beyond the stereotypes about Bosnia (that it's really difficult to understand, that they've been continually fighting for hundreds of years and are doomed to fight each other forever). This site uses many maps (in the "Map Library") in addition to text, exercises, pictures, and biographies of key people. It is targeted at the public in general and has received about 80,000 visitors by October 1996, as well as being profiled on Voice of America and several newspapers (Seattle Times and Washington Post).

The site is located at: <http://geog.gmu.edu/gess/jwc/bosnia/>

[bosnia.html](http://geog.gmu.edu/gess/jwc/bosnia.html)

The site is maintained by myself. Many subareas are "maintained" and/or built by the adjunct professors and students themselves. For example, the "GIS and Internet" course area can be edited by the adjunct professor at George Mason University who teaches it, and the student projects are uploaded in the usual way (FTP) by the students themselves with a special FTP account set up for that purpose.

Other notable features:

- Cartography Resources on the Web
- GIS Weather Project
- Everglades Project
- Class/faculty listings
- Discussion boards for geography classes
- Syllabi and exercises in cartography classes

