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## **Welcome to**

# ***The Harlow Report - GIS***

Welcome to the seventh issue of 2002!

We added something new. It is a new mini poll. As soon as you submit your answer, you get to see the results. We'll change the question with each issue, and show you the results of the past issue. Additionally, you can view the results of the previous polls whenever you wish. Just click on "view stats", then "View Archive." If you have an idea for a poll question, please let me know at: [charlow@charter.net](mailto:charlow@charter.net)

[ArcPad 6: Par for the Course?](#) RainBird, the irrigation company, has a new handheld wireless GIS app, that may actually make sense for a field supervisor.

[A New Intergraph?](#) A short report about my meetings with Preetha Pulusani and others while at GeoSpatial World.

[GeoTargeting Delivers for Local Business](#) Contributed by Sharon Fling, the article describes ways in which geo-targeting is used for Web marketing. Yes, they know where you live on line!.

[3 Opportunity Killers To Knock On The Head!](#) Noel Peebles tells us how to answer the door when opportunity knocks

As always, we provide you with the latest links to new topics, products, services and oddball ideas that either pertain to GIS, or seem like fun. You know that is located in GIS Net Surfing. If you just want the latest in GIS news, then click on over to News to Use.

Thanks for your interest and support.

*Chris Harlow*



## ***ArcPad 6: Par for the Course?***

**G**ardeners around the world are familiar with the name Rain Bird. If you own a lawn, walked on a lawn, mowed a lawn, or just know someone who has a lawn, chances are the [RainBird](#) company has had a role in keeping it green.

O.K., you live in the desert or in the rain forest and are wondering who the heck Rain Bird is. They are among the leading irrigation manufacturers in the world. Founded in 1933, with the first patent coming in 1935. Then in 1990, the original impact sprinkler was designated a historic landmark. Yeah, they are the ones who invented the impact sprinkler. According to the company, “Orton Engelhart filed patent number 1,997,901 for his novel watering device described as ‘spring-activated horizontal impact arm driven sprinkler’” Unconfirmed rumors state that his evil twin brother invented the timer mechanism that will not begin until a human being is in direct line with the sprinkler head. But, that is just a rumor

### **... and this has what to do with GIS?**

While you and I might be familiar with Rain Bird for our own lawns, professionals



responsible for golf courses really rely on their products. Recently, I discovered that they just introduced a new hand-held device called the **FREEDOM-Pad™** Officially, the company describes this new device as “The **FREEDOM™** handheld remote control system, manufactured by Rain Bird Corporation Golf Division for its Windows® - based irrigation central control products, has added the **FREEDOM-Pad™** for the industry’s leading remote irrigation system operation and central control database management”

What this means is that they incorporated their remote golf course management software, linked it to ESRI’s [ArcPad 6](#) mapping software to deliver a hand held golf course management tool. It is a GIS field device that makes sense because it is taking an operational function and making it better with GIS. Too often we run into companies trying to make GIS better by force feeding operational applications.

The system gives the maintenance engineer the ability to visualize the entire course, or just a specific area, then activate station, program and/or schedule functions Without the Freedom

Pad, Rain Bird customers do not have a visual communication device to quickly communicate to their irrigation computer from remote areas.

“The Rain Bird FREEDOM-Pad handheld PC is completely innovative technology” says Pat Loper, manager of Golf Central Control, Rain Bird Corporation Golf Division. “The power of the ArcPad Application Builder fulfilled our need to create a mapping function compatible with our central control application and the Pocket PC”

### **Other features include:**

Just in case you have a very big lawn and may be interested in this gizmo, here are some more features

- Retro-fits to any Rain Bird map-based central control system using a FREEDOM System
- Provides standard FREEDOM hand-held radio functions
- Transfers central control map layers for easy reference of station locations
- Activates quickly using Map or Explorer style view

### **Conclusion**

Mobile GIS computing devices are the things of the future. I think. It seems obvious that people who use a computer system to manage outdoor assets should not be tethered to their indoor workstation. Many GIS mobile computing (GMC) applications seem to benefit the back office more than the actual field user. Once true benefit is shown to the field work, watch out for the GMC market. Until then, the search for the right application continues.

Freedom PAD seems to be going in the right direction by making the map a reference feature. Its most impressive feature to me is that it provides the golf course maintenance crew with a useful tool that makes keeping the greens green, just a bit easier. The key to success in the IT industry is to remember that there are more users than developers. So while it is neat to show off the latest high tech toy, remember to make it useful for the end user. Applications such as Freedom PAD are headed straight down the fairway.



## ***A New Intergraph?***

Since its inception, it seems that [Intergraph](#) becomes a new Intergraph every few years. From NASA graphics to CAD and AM/FM/GIS to this chip, that chip, this hardware, no the other one. We heard how they made they best Wintel machines, to not making them at all. But now comes a new Intergraph with a twist: they have cash. Lots of it..

### **Battle in the courts**

Several years ago, Intergraph claimed that Intel infringed on its Clipper patents. While most of the world considered Intel as the leader in chip design, those of us familiar with Intergraph new that a lot of new technology flowed from Huntsville, Alabama into the Silicon Valley. Frankly, though, when Intergraph sued Intel over the infringement, the odds seemed to be in favor of Intel, unless you really understood the chip business.

April 15th is a day most Americans dislike – it is tax day. But this year, the folks at Intel were overjoyed to learn that Intergraph settled the one of their major suits with Intel. Known as the Alabama case, Intel agreed to pay Intergraph and whopping \$300 million cash, and the companies signed a cross licensing agreement.

The second suit, known as the Texas suit began in early July, but Intergraph is optimistic that too will be settled in their favor to the tune of another \$150 million. No wonder the folks at Intergraph are so chipper these days. Intergraph chairman and CEO Jim Taylor stated, “Intergraph has been building its portfolio of intellectual property for 30 years. We believe that this settlement demonstrates the validity and value of our patents. Now that we have resolved the Alabama litigation, we can realize additional value for our intellectual property through open licensing agreements with others in the computer and electronics industries.” Taylor added, “The settlement also establishes a current value for the parallel instruction computing (PIC) patents at issue in the Texas suit. If we succeed in that case, the liquidated damages will enable us to realize the value of the PIC patents immediately, rather than having to rely upon the commercial viability of future Intel products in years to come.?”

For all the gory details, head on over to <http://www.ingr.com/press02/settlement.asp>

### **Intergraph with money**

It has been a long time since the Intergraph pockets could be heard jingled hard cash. For so many years the company reminded me of the kid’s college friends: bright, but broke.

Before the settlement I heard rumors that Intergraph was getting out of the GIS business. Naturally when I ran into Preetha Pulasani the company’s vice president for GIS, I asked her about it. “If it is true, I don’t know about it. Besides, the reality is that now that we have money, you may have it backwards - we are in a position to acquire technology, not get rid of it.” Preetha and I were standing in the hallways of the 2002 GeoSpatial World gathering of the

Intergraph faithful, and she was feeling darn good about the future prospects of the company. See related story from Vol 24, Issue 8 [Preetha is President](#)

As for the keynote address by Jim Taylor, it can be summed up in four words: Intergraph is financially stable.

## **So now what?**

Optimism is the key word these days in Huntsville. The economy and buying patterns may temper that optimism a bit, but with cash in hand, the company can make some strategic moves. One move that will lead the company, is their new division called [IntelliWhere™](#). I had a chance to sit down with Lee Finnear the managing director (lee.finnear@intelliwhere.com). Headquartered about as far away from Huntsville as you can get - Brisbane Australia to be exact, Intelliwhere specializes in location based software (LBS), and to that end, wireless GIS apps.

LBS has four target markets, according to Finnear. The first is LBS for the current GIS market, next is LBS for business market, third, is LBS for the consumer, and finally, there is LBS for the Telecom industry. Within Telecom, some want just text messages, and consumers want a good handheld that will provide adequate screen size and function.

For Intelliwhere, the focus is on LBS for business. In fact, at SpatialWorld, they demo'd such an application. It was a handheld application that allowed highway workers inspect, and repair, using a combination of GIS, LBS, and workorder systems. It is an impressive application, but like so many wireless apps these days, it saves time in the backoffice, but may not give the field crew something they can really use. However, you have to start somewhere, and Intelliwhere is moving in the right direction.

## **GIS at Intergraph**

While at the show, I had a chance to sit quietly with Preetha Pulasani to learn more about where she was taking Intergraph GIS. Naturally, I began the conversation beating up yet another Intergraph exec for insisting on separating GIS and their AM/FM offerings. It is a question that needs an answer, but I doubt we will ever figure it out. Now that the core technology between GIS and AM/FM is no longer the same, I doubt they will put the two together. So, when I address the issue of GIS at Intergraph, I mean the stuff Preetha does - not the work being done at Public Safety (where our AM/FM friends reside).

Preetha sees her market as primarily government

### **\* State and Local Government**

- \* Land Management
- \* Tax Assessors
- \* Geo Spatial Apps throughout municipal markets

\* **National Government**

- \* Military
- \* National Maps

Not to confuse you, but within this government market, the GIS group will work on public works, water/wastewater, and other municipal utilities. Toss in a few DOT's, some pavement management, and operation and maintenance applications and you understand their market.

**Conclusion**

Intergraph has a lot going for it. Now that it has some cash, I hope they will go out and hire a great marketing team so the world can find out about them.

It is clear that GIS in Intergraph is focused, and being driven by the workflow. They understand that GIS is a means to an end. That is a big step. As Preetha put it: **“Focus is important: it means success in the new Intergraph.”**



# **GeoTargeting Delivers**

for

## **Local Business**

by Sharon Fling

### **Editor's note**

Sharon Fling is the author of "How To Promote Your Local Business On the Internet" (available at <http://as.localbizpromo.com>), and publishes an electronic newsletter that gives business owners tips, tools and resources for targeting local customers. To join her mailing list, visit <http://www.geolocal.com> or send a blank email to: [subscribe@localbizpromo.com](mailto:subscribe@localbizpromo.com).

**F**or all we hear about the global reach of the Internet, the fact remains that most people's lives - both business and personal - are local. We live in cities and towns planted firmly on planet Earth.

While worldwide information is great, people need to know what's happening where they live. Life is LOCAL. If the Internet is to be useful for everybody, it must be too.

Thankfully the local online market has finally started to take off. As more local information becomes available online, people are starting to look at the Internet as something useful instead of a passing fad.

And where people go, advertisers are sure to follow. The amount of money spent on local online advertising has steadily increased in the last few years. According to The Kelsey Group (<http://kelseygroup.com>), geocommerce, or local advertising revenues, are expected to reach about \$50 billion by 2006.

Here's another reason the local online market is heating up: technology. The ability to target online users by geography - *GeoTargeting* - allows websites to present ads only to consumers who live in certain geographic location. Local advertisers can now be sure that only local eyeballs will see their ad.

Localized advertising is very targeted, and can be used to quickly and cheaply test online campaigns. Local merchants can use a combination of online and offline advertising to drive traffic to their store and website.

## **Common GeoTargeting Methods**

GeoTargeting has great promise, but it's not without problems. The main issue is accuracy. There is a big difference in the accuracy of methods used to target based on user location.

The two most common methods are targeting based on I.P. address (a unique string of numbers that identifies a computer on the Internet) and targeting by zip code:

### **I.P Address**

This method works by using the I.P. address to identify a user's geographical location. It can home in on a user's city - sometimes even their zip code - within the U.S. and internationally.

Many of the major geotargeting vendors use this method, including Quova a major player in the geolocation market.

There are a couple of weaknesses in the I.P. method. The biggest problem: for various reasons, not all I.P. addresses can be mapped to a geographic location.

A good example is the AOL user population. Because of the way AOL handles their web requests, all of their users appear to be coming from Virginia. Of course that's not true.

So when it comes to geotargeting by I.P. address, all AOL users have to be eliminated. That's a big chunk of the American population.

### **ZIP Code**

Since all ZIP Codes can be easily matched to a location, geotargeting by zip code works fine - as long as the person is telling the truth. People lie all the time when signing up for free services and filling out survey forms.

Still, what we have now works most of the time, and as the technology improves, so will the results.

## **GeoTargeting Solutions**

Geotargeting is done in a number of ways, but they all fall into one or more of the following four basic categories:

1. Localized content - This is advertising or information that applies to a local or regional area. Some providers of localized advertising include online versions newspaper, television, and radio; also includes city guides, yellow pages and directories.
2. Banner advertising - Most banner ads are sold through one of the online ad networks, and all of them provide some sort of geographic targeting and demographic selection. Some ad networks include DoubleClick, ValueClick, and Commission Junction.

3. Registration Data - Most sites that provide services such as email or internet access require users to register. That process often includes zip code, which can be used to target by city or even street.

These types of sites can also use cookies (small bits of data stored on the user's computer) to recognize the user each time they return by matching it to their registration data. Examples include AOL, Hotmail, Yahoo, Netzero, etc.

4. Geographic Data Providers - Providers of geographic specific data, such as phone directories and map services, can easily serve up local ads. That's because to get the information they need, people have to give either zip code or area code, which is easily mapped to location. Examples include MapQuest, Switchboard.com and The Weather Channel.

New sources for geotargeting are popping up all the time, as traditional postal list owners such as magazines and catalog vendors realize they're sitting on a goldmine of customer information. As the technology gets better, you can expect geotargeting to become even more widespread.

The bottom line? For local business, geotargeting will help to deliver on the oft-repeated promise of a level playing field. Forget the global economy ....the future of the Internet is local.

GeoTargeting Delivers For Local Business  
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## 3 Opportunity Killers

to

## Knock On The Head!

### Editor's note

Noel Peebles who runs Home Selling Secrets Revealed The secrets to selling your home in the shortest time - for more money... even in a tight market. [www.instantsellhome.com](http://www.instantsellhome.com) tells us just where it is that opportunity knocks!

*"Some men dream of things as they are, and say why? I dream of things that never were, and say why not?"*

*George Bernard Shaw*

Life is full of opportunities. Yet, despite this, we often don't recognize opportunities when we see them. The scary part is; when opportunities fail to get acted upon, it is usually because we have fallen victim to one, or all 3, of these deadly opportunity killers:

**Opportunity Killer #1** : We have all suffered from it - that human emotion called 'fear'. It may be fear of failure, fear of success, fear of making a decision, fear of change, or even the fear of what people might think. Fear is infectious and will kill any opportunity...if we let it!

**Opportunity Killer #2** : The second deadly culprit is procrastination. A lot of people spend a lifetime dreaming about what they could do. One day they will do this, and then they're "gonna" do that... but never quite get around to it. In the words of singer Rita Coolidge "Too often the opportunity knocks, but by the time we push back the chain, push back the bolt, unlock the locks and shut off the burglar alarm, it's too late."

And for those who are still waiting for opportunity to knock, my advice would be, to build a door. In other words - we need to make our own opportunities!

**Opportunity Killer #3** : Lack of commitment completes this deadly trio. Many people fail to make determined moves to fulfill their dreams and desires. These people often consider themselves to be unlucky and blame anyone and anything else for their lack of good fortune and success.

Trouble is; failure usually rears its ugly head when we give up trying to reach our goals and realize our dreams. That's why we should never lose sight of our goals or dreams. That's right - circumstances, obstacles and problems are just there to test us.

The bottom line is; we must accept some responsibility for our plight in life. In many situations we create circumstances that result in either favorable or unfavorable outcomes. We are responsible because we all make choices in life!

Although we won't always admit to it - we tend to make our own fortune - be it good or bad.

Indeed, we must knock these opportunity killers on the head before they infect our lives. We must prepare ourselves in every way we can by increasing our knowledge and adding to our experience. It's only when we recognize that there is little difference between obstacles and opportunity, that we can turn both to our advantage. That way, when opportunity does knock, we are ready to make the most of it.

3 Opportunity Killers To Knock On The Head!

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## **GIS Net Surfing**

### **DD Viewer**

<http://plue.sedac.ciesin.org/plue/ddviewer/>

DDViewer lets you create maps and calculate statistics for 220 demographic variables from the 1990 U.S.Census

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### **Havard Map Collection**

<http://plue.sedac.ciesin.org/plue/ddviewer/>

The Harvard Map Collection is the oldest map collection in America. The collection has grown to include 400,000 maps, over 6,000 atlases, and several thousand reference books.

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### **The Arkansas Interactive Mapper**

<http://www.cast.uark.edu/products/MAPPER/>

The Arkansas Interactive Mapper is a Web-based program which allows any user to generate maps of any area in Arkansas. This project is sponsored by NASA AGI GIS Dictionary

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### **Nuclear waste routes**

<http://www.mapscience.org/>

The US Senate could vote soon on allowing nuclear waste shipments Travel through major US cities. Check to see if you're near a proposed route. Talk about a "Catch-22" - we want to safely dispose of our nuclear waste, but how do you get it from point A to point B? The MapScience.org "Nuclear Waste Route Maps" Web site is a project of Environmental Working Group and EWG Action Fund. According to a note I found on their web site, ESRI was instrumental in helping them with the development of the mapping portion of the site. You will be pleased to note that world HQ for your favorite GIS newsletter is 85.9 miles from the nearest nuclear waste route. Ironically, the ESRI HQ building is a mere .3 miles from the nearest nuclear waste route.

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### **National Archives and Records Administration (NARA)**

<http://www.archives.gov/>

This site offers access to historic documents. Among the treasures available are the cornerstone documents of the US Government --

- the Declaration of Independence,
  - the Constitution of the United States,
  - the Bill of Rights
-

**National Geographic for Kids**

<http://www.nationalgeographic.com/kids/>

Why just bring your kids to work one day of the year? Link them up to this site and let them play in your backyard all day long. There is lots of kid type entertainment here, and because it is sponsored by National Geographic, there's lots of that geography stuff here too!

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**GeoPoint**

<http://quova.com/>

Quova provides GeoPoint, a geolocation service that can tell you where your online traffic is coming from - what country, what state, what region, what city.

URISA Job Markets



## **News to Use**

**ArcGIS 8.2**, ([www.esri.com/software/arcgis/](http://www.esri.com/software/arcgis/)) is available from ESRI. The company says that “ArcGIS is a scalable family of software products (ArcView, ArcEditor, ArcInfo, ArcSDE, and ArcIMS) comprising a complete GIS built on industry standards that is rich in functionality and works out of the box. The ArcGIS 8.2 release improves integration with ArcIMS, adds two new extensions, and also includes a portfolio of enhancements and new features.” Also, ESRI released ArcPad 6 and ArcPad Application Builder 6. This is the release of ESRI’s mobile mapping and GIS technology. It includes a new development product, extended GPS receiver support, enhancements to key functions, internationalization and localization, and continued growth as the mobile client in the ArcGIS family of products.

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**Alliant Energy** ([www.alliantenergy.com/](http://www.alliantenergy.com/)) went into production using [ArcGIS8.1](#) geographic information system (GIS) technology. Alliant is currently in the process of finalizing migration of all legacy data and applications. “Our goals are to consolidate and deploy information throughout the enterprise using ArcGIS with Miner and Miner's ArcFM,” says Ted Wadzinski, team leader, GIS systems and services, Alliant Energy. “We’re now rolling into production with the new environment and a host of related applications.” Alliant provides electric, gas, water, and steam services to more than three million customers worldwide. Created in 1998 through the merger of Wisconsin Power & Light Co., IES Industries, and Interstate Power Co., and strategic investments, Alliant today serves more than 1,000 communities in Iowa, Wisconsin, Minnesota, and Illinois.

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**Consumers Energy (CE)**, ([www.consumersenergy.com](http://www.consumersenergy.com)) will implement 1,800 seats of Tadpole-Cartesia’s ([www.tadpole.com](http://www.tadpole.com)) field information system solution, which was developed using ESRI's ArcPad software. Field employees in CE's service, distribution, and line groups will benefit from this large-scale deployment of a field geographic information system (GIS). Consumers Energy is one of the nation's largest utilities, providing electric and natural gas service to more than six million residents in all 68 counties of Michigan's Lower Peninsula.

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**Citizens Gas & Coke Utility** ([www.citizensgas.com](http://www.citizensgas.com)) headquartered in Indianapolis, has selected a spatial technology solution from GE Network Solutions ([http:// www.gepower.com](http://www.gepower.com)) to design and manage its gas network. The solution will allow Citizens Gas & Coke Utility to design its network Within the GIS environment, eliminating duplicate tasks and data sets. “Citizens Gas chose GE Network Solutions as our Geographic Information Systems (GIS) software provider and conversion vendor for a variety of reasons,” said Jeff Bremer, Superintendent of Engineering and Construction and GIS Project Manager at Citizens Gas & Coke Utility.

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**IntelliWhere™** ([www.Intelliwhere.com/](http://www.Intelliwhere.com/)), a division of Intergraph Mapping and GIS Solutions, announced **IntelliWhere OnDemand**. It is a mapping software product for PDAs. IntelliWhere OnDemand is targeted at organizations with a mobile workforce, such as government, transportation, utilities, and the military. Lee Finniear, managing director of IntelliWhere told us "Out in the field, the full functionality of a desktop GIS is unnecessary - the top priorities are ease-of-use, stability, and performance. IntelliWhere OnDemand is intuitive and requires minimal training, runs reliably on hand-held devices, and uses highly compact file formats without sacrificing the performance benefits of advanced spatial indexing."

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**Past Time, Past Place: GIS for History** is the latest book released by folks behind the presses at ESRI. According to ESRI's Karen Hurlbut, the new book "brings the spatial and visual revelations of geographic information system (GIS) technology to the study of history. Chapters cover a range of topics, from the Greek and Roman eras to the Salem witch trials to the Dust Bowl of the early 20th century, written by a number of leading scholars in the United States and Great Britain." If you head on over to [Amazon.com](http://Amazon.com) you can pick it up for about \$20.00 (US).

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***If you change your  
Email address,  
tell us!***

[Mailto:Charlow@charter.net](mailto:Charlow@charter.net)

