Radio Guide

Radio's Technology Forum

September 1996

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We're always on the lookout for new **Radio Guide** writers. If you'd like to become a monthly columnist, or just want to contribute articles from time to time, give us a call at 507-280-9668.

We're looking for any articles dealing with installation, upgrade, repair, and maintenance of radio broadcast equipment and facilities. Articles regarding all aspects of Contract Engineering are also welcome.

Announcing the 42nd Annual Broadcasters Clinic and Midwest Regional SBE Meeting

The 42nd Annual Broadcasters Clinic will take place on October 29-30-31. This is the best and most informative small broadcast conference around, so make plans to attend now.

This year's conference will be held at the Ramada Capital Conference Center (formerly the Holiday Inn Southeast)

Tuesday, October 29 - Radio presentations, equipment exhibits, and engineering forum.

Wednesday, October 30 - Radio and television presentations, equipment exhibits, consultants.

Thursday, October 31 - Television day.

The cost for this seminar is $135.00 for any two days, and $165.00 for all three days.

For more information, contact Don Borchert, at 608-837-3462.

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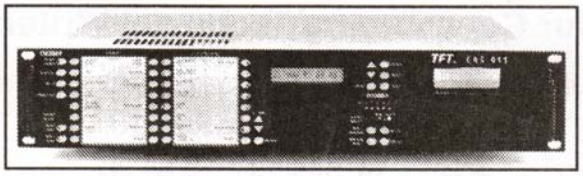

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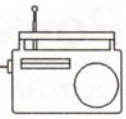
Inside This Issue

Radio and the Internet — Part 1



By Michael Gay, D.O.E., WGBD Radio, Lafayette, Indiana [317-474-1410]

"Web, Web, Web" this and "http" that, seems to be all you hear these days. E-mail, snail-mail, hypertext, UNIX, Internet, intranet, Ethernet, the net . . . Will this madness ever end? It has gotten to a point where you cannot even watch your favorite TV commercial without seeing their Internet web site address at the bottom.

More and more radio stations have an Internet address, and those who do not have at least heard of it. Those who got their station on the Internet early saw the marketing opportunity that the Internet presented. Those who recently have entered this instant information arena, are already behind the rest of the pack. The World Wide Web (WWW) has been the number one factor in making the Internet accessible to the mainstream public. WWW growth has been so fast that even Microsoft is playing catch-up.

In this column, I am going to give a brief idea of the differences between the Internet and the WWW. I am going to try to explain how to get access to the Internet and the WWW. Also, there are a lot more tools available via the Internet other than those available through the WWW. Newsgroups and Gopher servers can be valuable tools in digging through a virtual mountain of information.

The first thing you need to do is get access to the Internet. Obviously you will need a computer and modem, but it is not quite that simple. Unless you are a UNIX Guru, (I am not even close) you will want to use Windows -based applications. Most of the Internet applications for windows require a 486 or better processor, with at least 8 meg of RAM. Some apps will get by on 4 meg of RAM, but be prepared to wait while watching your hard drive light stay on almost constantly. VGA graphics are a requirement of Windows 3.1 and higher, but if you want to get into the really graphical sites you will want SVGA with at least 800X600 resolution. You will get more information on the screen and you will be able to enjoy the graphical sites a lot better. Modems help. I recommend a 28.8 BPS or higher, but you can get by with a 14.4 BPS. Any slower and you might as well get documents via the US Post Office.

Finding an Internet service provider (ISP) can be tricky. There are lots of ISP's out there just waiting to get you on-line. AOL and CompuServe are the best known and can be valuable to the new user because of their ease of use. They have access to the WWW and to Newsgroups and other services that ISP's do not offer. These are not always the best solutions for a radio stations because both of these services require a credit card or a direct debit from your checking account. This situation might be acceptable to an individual or a contract engineer. I have AOL myself because of its extra services and quick access to E-mail. I also travel a lot and there is a local access number in most major cities. This really saves on the long distance charges.

A local ISP might be the best solution for a radio station because of the methods of billing. Most will bill you, but I have found a large number of ISP's willing to trade services for advertising. This is usually a great situation for smaller market radio stations. Local ISP's can also be beneficial to an independent engineer, since they are sometimes less expensive than the larger companies.

Finding a local ISP can be a difficult task. Some are too large to care about your endeavors, while others are too small to provide you with the level of service you need. Here are some tips when searching:

1) How helpful were the representatives when you contacted them? I put in calls to several ISP's in my area. I got prompt responses to most, but one in particular took two weeks to return my call. Remember, when you experience troubles, these are going to be the people you need to call for help.

2) Find out what kind of connection the ISP has to the Internet. There was one provider in our area using a 28.8 BPS modem as its connection to a larger ISP. That ISP was using a 128kbps connection to the Internet. Look for an ISP with at least a T1 connection to the Internet. That is 1.5 Megabits per second. This can handle a lot of information so if there are a lot of users connected to your ISP, you will not get as bogged down waiting for their information to go through first.

3) Find out what kind of business customers the ISP is serving. Maybe some of these businesses are advertisers with your station. It would be no problem to find out from them what kind of service they are getting.

4) Find out who is willing to trade for services. While most ISP's have service plans for around $20 to $30 per month, it would be nice to not have to pay anything.

Once you find an ISP, they should be able to help you with finding and installing software for accessing the Internet and the Web. The software you use to connect to your ISP is largely dependent on whether you are sing Windows 95, Windows 3.11, or maybe a Mac. To get on the Web you will need browser software. Netscape Communications makes "Navigator," one of the most well known browsers, which comes with loads of features. Microsoft also has a browser called Explorer. Both of these are quality products and readily available. Next time, I'll cover some products, such as Internet Phones and Audio service players. RG

Radio Guide

Radio's Technology Forum — December 1996

Some Changes

This issue of **Radio Guide** completes our third year of publication. Your response to this technically-based format has been tremendous, and you've let us know that we're on the right track.

Over the last year, we've had a fair number of requests, for certain additions to the **Radio Guide** and **Radio Shopper** publications. So, here's some of the things we'll be adding in 1997.

Beginning with the January 1997 issue of **Radio Shopper**, we'll be publishing a directory of equipment manufacturers and dealers, parts and service suppliers, and contract and consulting engineers.

If you have a radio-oriented business or service, give us a call, and we'll get you listed in the new directory pages.

Beginning with the January 1997 issue of **Radio Guide**, we'll be adding a listing of unique sources of parts and specialized services, for out-of-production transmitters, and other radio broadcast equipment.

If you know of any businesses that specialize in service and parts for older broadcast gear, let us know. If you've come across a supply of unique parts or technical information for vintage equipment, give us a call. We'd like to tell the rest of our readers about it.

Website Changes

We've changed our on-line classified ads to list equipment, parts, and technical assistance — wanted only. These requests are usually made because of an immediate need, so our website is the best and fastest way to get the word out. You can find and list requests, at our website:

http://www.radioshopper.com/radioads

Ray Topp — publisher

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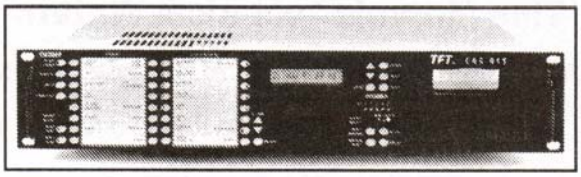

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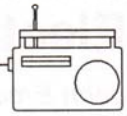
Inside This Issue

Next Month: Vintage Transmitter Parts

Internet Browsers and the Web

Michael Gay — Director of Engineering, WAZY, Lafayette, Indiana [317-474-1410]



By now, I assume you have heard of the Internet and the World Wide Web (WWW). I personally equate the explosion of the WWW with the explosion of television in the 50's. By the end of the 50's more than 90% of households had at least one television set. I am predicting that the same will be true with the WWW by the end of the 90's. Actually, televisions are now available with built-in WWW access. When this becomes more popular, it will be easier than ever for the non-technology-literate person to access the vast library of information on the WWW.

In my last article (RG Sept. 96) I explained briefly what the Internet was, what the WWW was, and what is needed to get access. This month I am going to discuss browsers and how the WWW works. If you are going to create a home page of your very own, or for your radio station, you will need to know how a browser renders a home page.

History of the Browser

Browsers?? Who's browsing anyway? Well browsing is somewhat of an understatement and overstatement, at the same time. A browser is a software program made for the purpose of viewing pages on the WWW. WWW pages are written in a special code called HTML (Hyper-Text Markup Language). This is a text-only file that is the base for every web page out there. This file contains the text that will appear on the page, in addition to tags telling the browser what to do with it. It also tells a browser where to find an image and what to do with it. The browser is a kind of decoder and file fetcher in one. It takes this text file and other information, then renders and displays what we know as a web page.

One of the first browsers out there was a UNIX-based browser (it has only been in the recent few years that it is common for home PC's to have access to the Internet). This browser is called LYNX. It is a solely text-based browser, and is still useful today at text-only terminals. You could go from page of text to page of text, with links (shortcuts to other pages) highlighted with inverse text. The whole purpose of this system of displaying information, and being able to hyperlink other documents within the text, was begun at CERN. This is the European Laboratory for Particle Physics. They created the WWW, and the protocol, for the purpose of making documents available to scientists around the world. They also wanted the navigation through the information to be painless because, believe it or not, not all scientists are computer geeks. Of course, we all hate looking through mounds of text. Why not add some pictures?

The next innovation was called Mosaic. It was created by a group of graduate students at University of Illinois, Urbana-Champaign. This software package was able to display graphic images along with text, making the pages more aesthetically pleasing. This is the innovation that made the WWW so popular among the mainstream population. There were a few other graphical browsers that came out soon after Mosaic, but were not ground-breaking. After the explosion of this graphical interface for the WWW, Mosaic and other graphical browsers were made available for Windows and Macintosh platforms.

Netscape's Navigator was the next browser to enter the browser market. This company was started by none other than one of those previous graduate students from UIUC. Spry, an Internet service provider, purchased the original license to Mosaic and made some improvements. Spry was then purchased by CompuServe who adapted the browser for use on their service. AOL, on the other hand, bought the rights to a smaller browser program to use on its service. Microsoft, meanwhile, was missing the boat and needed to play catch up. They introduced Internet Explorer to go with with the new Windows 95 platform. It has gone through a few versions, but has come along quite nicely and is now at the top, along with Netscape Navigator, as one of the two most used browsers. Netscape is still way ahead, but Microsoft will throw millions of dollars into Explorer to insure it will make it to the top.

What Does a Browser Do?

A browser renders a web page based on instructions from HTML code. A web page file is just a text-based file with tags, to tell the browser what to do with a piece of text. It can make text display larger, boldface, italicized, or even blink. There are also tags to make a section of text into a clickable shortcut to another page. This page can be another section of your site, or another site you like and want to direct people to. There are tags to tell the browser to insert a graphic somewhere in the text. The browser does not care where the graphic file is, it only cares that you tell it (in the HTML code) where it can find the file. This is done by using the URL (Uniform Resource Locator) of the graphic image. A URL can be the address of the image, or can also be what you type into the browser to tell it where to go.

If you have problems installing this software, your Internet Service Provider (ISP) can help you. Some will even install the software on your computer for you. If you use AOL, you have a choice of using the built-in web browser or using another browser such as Netscape Navigator. AOL, CompuServe, Prodigy and others, have online help to assist you, but it isn't the same as having the software installed for you..

Next Time I'll talk about HTML and how to start writing your own home page. In the mean time, browse the WWW and get an idea of what can be done on a web page. This will hopefully give you ideas about what you would like to do with your page. Here's a couple of helpful sites to look at: The most well known search engine at http://www.yahoo.com, and my WAZY site at http://www.wazy.mdn.com. Also be sure to check out MIT's list of other radio stations on the Internet at http://wmbr.mit.edu/stations/list.html. Feel free to E-Mail me at mike47906@aol.com, with any comments or suggestions. I would love to hear from you. RG