

Bits & Bytes

A Publication of the Kern Independent PC Users Group

Volume 18, Number 08

August, 2000

KIPUG Meeting Schedule and Program Lineup

- Aug Member run
- Sept Caere Corp

Kipug Meeting

Aug 11.

KIPUG's General Meetings are held at the Kern Superintendent of Schools building downtown, at 17th and L Streets. Covered parking is available, enter on 18th street. Meetings are held the second Thursday of each month and run from 7:00 PM until 9:00 PM. The meetings are open to the public and guests are encouraged to attend.

Visit the KIPUG Website for more info:
www.kipug.org

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WANT TO LEARN HOW COMPUTER PROGRAMS REALLY WORK? TRY PUBLISHING A BOOK

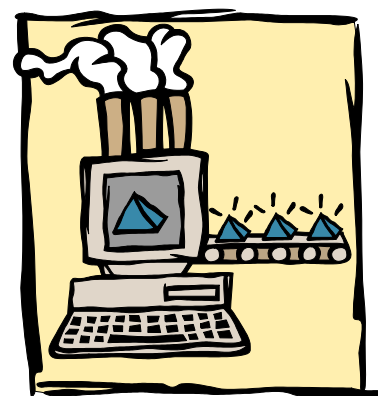
by Caroline Corser

It's amazing how we sometimes don't realize possibilities that are right before our eyes. It never occurred to me that I might write an article for our newsletter until I saw my name in Dave Chalmers' plea for "Club Member Articles" in this month's issue. He wondered what experiences I had publishing my new book, *Three Cheers for the Good Years: You're Not an Antique, But That Rocking Chair Is*. You bet I had experiences-some that drove me up the wall! All in all, it was a great adventure from start to finish, and this is the perfect opportunity to get it all off

my chest.

I started writing the chapters in Word Perfect 6 about three years ago. I wrote each chapter as a separate document, and I didn't always format them the same. In some chapters I indented the beginning story; in others I did not. I double spaced some; others I did not. I even used different fonts. Every change was a mistake I would later regret.

Then about six months ago, I got serious about finishing the book. A friend told me I should use Microsoft Word-that it would be much easier to format. Another major mistake! By then, I had done some later chapters in Word Perfect 8, and I needed to transfer the



Caroline's word factory

whole thing to Word. After several screwed-up attempts, I finally figured that I should combine all those random chapters into one document in Word Perfect so I could make just one big transfer to Word. Putting them together as one book was easy,

Cont pg2

New Prez Sez

As the new president I would like to share with you my impressions from the first meeting I attended.

The first general meeting that I attended was in January of 1996, I don't seem to remember what the program

was about but I do remember the Program Director, Sam Thompson. When the meeting was over I needed to ask some questions about what I was working on at home. Sam referred me to another gentleman, Stuart Ree. After talking to Stuart

and getting the answers to my questions Sam asked if I wanted to go with him and the others to the Pig SIG. A Pig SIG? I was new to the user group lingo so I asked, "What's a Pig SIG?"

Cont pg3



Board Members

President: Robert Stout 399-9505
rstout@delanoelem.k12.ca.us

Past President: Bill Peacock 328-0180
bpeacock@pacbell.net

Vice President: Stuart Ree 589-6172
rsrcomp@pacbell.net

Secretary: Tony Rizos 872-5622
trizos@ncinternet.net

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wlowell@bc.cc.ca.us

Director: Steve Garcia
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Director: Donna Plunkett 398-8304
Babypatches@earthlink.net

Director: Francia White

Director: Ray Stubbs 834-6166

Newsletter Editor: David Chalmers
dchalmer@kern.com

Education/SIG Coord
Del Jones 871-0598
delj@lightspeed.net

Elected June 1

Cont from "Try Publishing a book"
pg1

but I am not a computer techie, and I had to call several friends to discover that I needed to save the document on the hard drive in order for Word to pick it up.

Once the transfer was completed, then the troubles began. Commands that I had used in Word Perfect came out looking like marks on the side of a space ship. Margins and spacing had to be adjusted, and fonts had to be changed.. I thought I could set the font

. More than once, I literally paced the floor, shouted, and cried

once for the whole document, but that didn't work. I had to go through every page with a fine-tooth comb to set the font and retype all the weird marks that didn't transfer correctly.

The problem with writing in Word is that it is programmed to automatically format everything. That probably works fine for someone who wants to write a traditional book or report using a conventional format. But I had my own ideas about what I wanted it to look like. I was using an 8 1/2 by 10 page in landscape orientation with extra wide margins for sidebars. So I was bucking the system from the beginning.

One big frustration occurred when I started to number paragraphs in the exercises at the ends of the chapters. Word immediately indented the paragraphs into outline format. I couldn't get it to stop. I backspaced and tried again so many times it finally froze up and told me I had performed an "illegal operation." I

fooled it on that one, though. Instead of using numerals, I wrote out the words "Step One, Step Two," etc.

The greatest frustration for me was the absence of a "Reveal Codes" command like Word Perfect has. When the program pulled one of its automatic format tricks, I didn't know what command was used, so I couldn't tell it to undo it. I could only undo commands that I had created. More than once, I literally paced the floor, shouted, and cried, and I called everyone I knew who had worked with Word, including friends in KIPUG and instructors at B.C.

The final blow came when I had everything written and was in the final stages of making it all fit into the exact 100 pages that I had to work with. All of a sudden, it changed my 14 point font to 13.5 for the whole book! And it reduced the 12 point font that I had used for the rhymes and quotes in the margins to 11.5. As you can guess, that threw all the spacing off. I tried every possible command I could think of and finally called an instructor at New Horizons. She couldn't fix it either. She finally went through and scanned each page separately, changed the font size, and then saved it. That would have been fine, but that also changed every title and heading, too. I ended up going through the whole 100 pages again, scanning, changing fonts, and saving page by page.

I don't know what I would have done without the positive support of friends at B.C. and here in KIPUG. Dave Chalmers gave me invaluable help. Cont pg3

Special Interest Groups

Del Jones, ED/Sig Coordinator (661) 871-0598

SIG	Contact	Day/Time	Location/Sponsor
Geneology	Donna Plunkett 398-8304	3 rd Thursday 7:00 p.m.	Donna Plunkett's Home
Nerd Nite	Sam Thompson 399-1579	4 th Thursday 7:00 p.m.	Sam's House
Netware Users Inter	Robert Stout 399-9505	3rd Thursday 7:00 p.m.	New Horizons
Random Access	Bill Peacock 328-0180	2nd Thursday 6:30 p.m.	At Monthly Meeting
Beginning Internet	Sarah Perelli-Minetti 832-5437	Please call for details	Sarah's Place

Cont from pg 2

At the last minute, I decided to include pictures of the people I featured in each chapter. He scanned the photographs for me and helped me figure out how many pixels would equal the printer's limitation of no more than "200 lines per inch." Then he told me how to store the photos on my computer and retrieve them in the Word program.

Bill Peacock was a big help, too. When I tried to print the final copy to send to the print shop, my printer wouldn't print more than three pages at a time, and finally it quit altogether. I have an HP Laserjet IIP plus, which is several years old. Bill knew that the printer had only half a megabyte of memory, not enough to handle the text boxes and photos in the margins. He installed four more megs for me and told me how to change the setting in Windows so it would access the necessary memory.

The book is done now, and I only have a couple of dashes that didn't get properly converted to em dashes. I learned so much from the experience. I'm still not a computer expert, but I do know what not to do. Next time, I'll write my book in Word Perfect where I can see what commands were used, and I'll carefully plan my formatting before I begin. I'm sure I will still have to run to friends for help every time I try something new. I'm just grateful to have such good friends who manage to keep up with this technology explosion.

High Speed Fun

Written by,
James Wyatt
jwyatt@bak.rr.com

Ever since I got into Computing, the biggest problem I had was speed. From waiting for my Commodore 64 Disk Drive to load my software, all the way to getting



High Speed Fun

Cont from Prez Sez pg 1

I was told that it was a meeting at Carrows afterwards to eat and visit. WOW! The first meeting and I was invited to hang out with guys nerdy'er than I was. After sitting down at the table and being introduced to others, I was cautioned about the side effects of getting into the "computing business". It was at that time that a comment was made about someone at the table, that at first shocked me, but the laughter that came from the others filled the restaurant, and the loudest laugh of all came from the man who made the comment, John Smith. Then there was the guy that thought "who needed sound cards." and looking back I now know what Steve Garcia meant. There were others at the table that night that are still active in the group, that I now know better, what I found that night was more than a user group. I found new friends.

I have been a KIPUG member now for a little over 5 years and a board member for the last 3. Over the years I have made many friendships with our members, sharing the interest of computing. I can say without the help and friendship of the members of KIPUG I would not be where I am today, a network manager for Delano School District, a Novell Certified Engineer, president of the local chapter of NetWare Users International, and proudly the president of KIPUG.

I hope that as I serve as president, I will continue to make our members feel as welcome as the members of KIPUG have made me feel.

frustrated with Net Congestion. Modem speed has been the slowest part of the advances of modern computing. Gigahertz Processors, Gigabytes of Hard Drive Space, and Megs upon Megs of RAM. Recently, Bakersfield is getting up to speed. DSL, and Cable.

Now that we have all this speed, I wonder what

The following rates are for one insertion in the **KIPUG** newsletter. All copy must be received camera-ready, no later than the 15th day of any given month for publication in the following month's newsletter.

Camera-ready copy should be submitted to Bits & Bytes, c/o Tom Rabe, P.O. Box 2780, Bakersfield, CA 93303

KIPUG members who have computer related items for sale or trade or who have information they would like to share with other members may do so **FREE** of charge as space permits. Ads larger than business card size are subject to 50% of normal advertising fees. Non-members are subject to the normal advertising fees.

Business Card	\$ 5.00
Quarter Page	\$ 15.00
Third Page	\$ 20.00
Half Page	\$ 30.00
Full Page	\$ 60.00

ADVERTISERS

KIPUG will mail your direct computer user targeted mail advertisement (fully prepared for mailing, including postage) to our entire membership at a reasonable fee. For more information, please contact Robert Stout, President, at (661) 399-9505.

percentage of users knows what they can do? Continue the humdrum act of "Surfing the Web" as you have done since you got your first 14.4 bps modem? Or realize the potential of a High Speed Internet, and take advantage of it now?

Today, you can create your own Internet Radio Station, with you as the DJ. Today you can listen to Radio Stations and Contd on last page

The Truth About Buffer Underruns

The Truth About Buffer Under-runs

Thanks to Bob Starrett
<<http://www.cdpage.com>>

You've probably heard of buffer underruns, and maybe even had them happen to you, jut, just in case, let's first explain what a buffer underrun *is* :

Whatever speed you select for writing your CD, recording will proceed at exactly that speed until it is finished. This means that the flow of data from its source (hard disk, CD-ROM drive, network, etc.) to the recorder must be at least as fast as the selected recording speed. If you're recording data at 8x speed, your source must be able to keep up a steady data stream of at least 1200 kilobytes/second. If this speed is not maintained, writing halts, and the disc is ruined.

To help prevent this, every CD recorder has some internal RAM memory which temporarily stores data during recording, acting as a "buffer" against slowdowns in the data stream. The buffer stores a small amount of data which it can keep feeding to the recorder until the flow of data from the source resumes. If the interruption is so long that even the buffer is emptied, that's a buffer underrun, which is a major cause of coasters.

I hate to break the bad news, but on a properly configured Pentium (200 MHz or faster) with 32 megabytes of RAM, you will not suffer buffer underruns when recording a CD at 4x -- although a look at the newsgroups or support sites may lead you to believe that

CD recording is constantly beset by this problem.

First off, buffer underruns go hand in hand with CD recording. They happen for various reasons and always have, even in the early days when recording speed was limited to 1x and the host machine was likely an ISA-based 16 Mhz 386 with 4 or 8 megabytes of RAM. That setup might understandably underrun, although it usually did not.

Today, computers are faster, of course. And so are recording speeds. With 8x prevalent and 12x in the pic-

ture, it is easy to see that buffer underruns will continue to be a concern for CD-R/RW users. However, many buffer underruns are not buffer underruns at all, but some other phenomenon that causes the recording software to return that error. This can be the result of recorder command set errors poorly interpreted by software, or a faulty recorder.

We all know that buffer underruns occur when the computer is unable to transfer data to the recorder fast enough to keep the recorder's buffer full. Because recording is a real-time process, the data must flow in a steady uninterrupted stream to make recording successful. Many factors can affect the data stream, and slow it down or interrupt it completely. Some are true enemies of successful recording, and others are not.

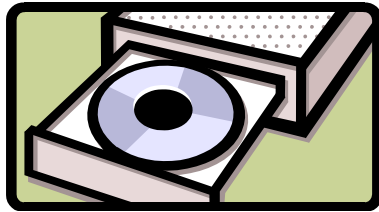
Hardware, software, and source media can all affect the recording process. On the hardware side, the culprit is usually the source you are

recording from, whether that is the hard drive holding the files to be recorded, or a CD-ROM drive, ZIP, JAZ, or other removable media.

A hard drive can cause buffer underruns if it's extremely slow, or (usually only if it's an older drive) it uses thermal recalibration. Thermal recalibration is a process by which the hard drive "takes a break" from data transfer to adjust itself to compensate for changes in operating temperature. During this "break" no data is transferred. It is unlikely in the modern desktop computing environment that either of these will be the case. Modern hard drives are plenty fast, and most manufacturers have remedied the thermal recalibration problem.

Another hard disk problem is fragmentation. As a new hard drive is used, and more and more programs are installed and uninstalled, files created and deleted, and data copied to and moved around on the disk, the drive becomes fragmented. This means that a file or program is not stored on the hard disk in contiguous sectors, but is spread out over several different areas, and must be reassembled before it can be used. When many files or programs are not contiguous on the disc, the disc is "fragmented". When your system accesses the data you want to write to CD, the hard disk heads must move around a lot to pick up the pieces of the fragmented files to assemble them for transfer to the CD, and this slows down the rate at which the hard drive can transfer data, possibly resulting in an underrun.

Other problems, too, can originate from the source drive. Windows and BIOS power management features may be good for the global



Caption describing picture or graphic.

environment, but in the CD recording environment, they are as destructive as a stagnant pool of pesticide-laced water. Turn off the power management features in your BIOS and in Windows, at least those that attempt to spin down hard disks and CD-ROM drives. One of the features introduced in Windows 95 and carried over to Windows 98 and Windows 2000 is hard drive read-ahead optimization.

Turning this feature off can help to prevent buffer underruns. Here are the steps:

1. Select Settings from the Windows Start menu.
2. Select the Control Panel item.
3. Double-click on System.
4. Click the Performance tab on the right.
5. Click on the File System button near the bottom left of the dialog box.
6. On the first (hard disk) tab you will then see a slider marked "Read-ahead optimization". Slide it all the way to the left to disable read-ahead optimization.

When using a SCSI controller, always check the settings to make sure that they are appropriate for CD recording. To change SCSI controller settings, press CTRL-A as your computer is booting, or run the software that came with the controller. The settings recommended by Adaptec technical support can be read at <http://www.adaptec.com/support/configuration/cdrecscsi.html>

It can be useful to check and update your drivers from time to time, both SCSI and IDE. Go to the manufacturer's Web site and

download and install the latest drivers, especially if you are having problems. The card or motherboard manufacturer would not release new drivers if they did not fix some problem. However, if your recorder and other programs are all working well, there is no need to take a chance on a driver that may do more harm than good.

Recording audio requires a faster data transfer rate than data recording. You may be able to record all day at 4x with data, but every time you try audio you get a buffer underrun. This is a sure sign that your data recording transfer rate was pretty close to

the edge. Set a lower recording speed and try again.

You can record from a network drive in many cases, but success depends on the setup (and speed) of your network. If it works, fine; if it doesn't, you'll need to copy all the data you want to record to a local hard drive.

Trying to record a damaged file may also cause a buffer underrun. Use Windows' hard disk error checking function regularly, to find and repair file damage.

Trying to record a file, which is open or in use during the recording process (such as system files or swap files) may also cause a buffer underrun with Easy CD Creator or Toast; these software applications are not designed to handle open files. Use backup software such as Take Two (included with Easy CD Creator 4 Deluxe) to make full system backups.

Recording many small files, especially if they are all in one directory, is a recipe for buffer under-

runs. Easy CD Creator can take care of this problem, however. Select "CD Layout Properties" from the File menu. Halfway down the General tab you'll see a checkbox with "Single data track only". Deselect that check box, and Easy CD Creator will cache all the small files in your layout to an image file which it will write to CD as a separate track, then it will go on to write the larger files directly from hard disk to CD as usual.

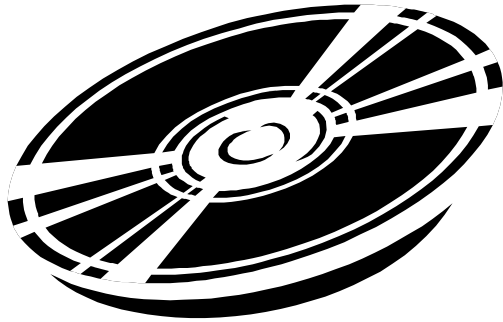
Caveat: You will be able to read this disc on a CD-ROM drive just like any other CD, but, because it contains multiple data tracks in a single session, such a disc may not be suitable as a master for factory replication.

The nature of the error correction and error detection code on CD-ROM is such that, if you are trying to copy data or audio from a disc that is damaged, scratched, dirty, or otherwise in poor physical condition, the CD-ROM drive will continue to try to reread and recalculate the data through ECC/EDC. This, too, may cause a buffer underrun.

Like any electronic device, a CD recorder can break. A damaged recorder can return many error messages, including buffer underrun, but a damaged recorder may return false messages. Don't assume that every error reported by the software is correct, especially if you suspect that the problem is with the recorder itself.

Finally, check your system.ini file and make sure the cache settings are set to MinFileCache = 512 and MaxFileCache = 4096.

Contributed by Stuart Ree



Caption describing picture or graphic.

Total E-call2 Review

Review: Total E-call2

by Sam Thompson

Product: Total E-call2

Company: American Networks, Inc.

Requirements: Pentium 60 or higher (see below)

Windows 95/98

8 MB RAM 9 16 recommended)

4 MB free hard disk space

3.5 in floppy drive

Free ISA slot

Standard analog telephone line

MS-compatible mouse

Internet connection (for Internet features)

Caller ID (for caller-id features)

Product Use: The product was originally designed for home offices with two lines. One line was to be used for Internet and fax while the voice line would have this product attached. The product provides automated telephone answering, automated telephone surveys, automated telephone dialing, and sending voice-messages through the Internet.

I'll have to admit that I have had this product for quite a while. I was always impressed with it, but I just couldn't figure out how it fit with my life or my computer setup. Now I think I may put it into use.

Do you have an older computer (even a higher speed 486 will do), and you don't really have a use for it? It's too slow to run the kids' games, and you just don't want to stick anyone in your household with using it? It's not worth much on the open market, so you have just hung onto it.

Well, make it into a fancy answering machine. Total E-call2 will let you do that. You install a standard ISA card in the machine and hook it to your voice line. Of course, you will have to keep it running all the time.

Even if you have migrated to DSL or cable for Internet, you still have that analog voice line. This product will take voice messages, and how! You can set up a mail box for every family member. That means you don't have to get the kids' messages anymore.

When you're away, you can access just your messages, or you can access a master mailbox with all of the messages. You can also have the computer alert you via pager or cell phone when a message is received. Another option is to forward the messages to another phone number or Internet e-mail address. With this latter option, you can access your messages from away from

home without incurring long distance charges if you have Internet access!

Most of us won't want to send automated surveys. In fact, if you do that to me, I'll get ticked really quickly! But I can see where sending voice-messages through the Internet might be kind of neat, and automated telephone dialing



Catch those calls!

might be a hoot for about a day or two. I guess a person who is on the phone all day might have a different take on that latter feature, though.

How does it work? I really didn't find it a drag to set up. Just follow

the instructions in the manual, and it works as promised. The down side? You have to leave a computer turned on all the time. You also need a way to hook another computer to the Internet. Those of us with home networks find that no problem. I have a server turned on already, so another computer probably isn't going to make a difference in my power bill. I guess it just comes down to whether you want to fiddle with a new toy. That's the kind of person a lot of us in KIPUG are. Right?

Rumblings from the editor

By Dave Chalmers

The picnic is now history for 2000. A good time was had by all. About 40 people showed up for a beautiful day. Even the Bakersfield summer heat took a rest. The



Rumblings from the editor

conversation as usual ranged from computers (of course) to everything else. The food was great and in large quantity. A pleasant surprise was some prizes from New Horizons that

were raffled off.

The articles in this newsletter cover a wide range of topics. I'm sure glad Caroline Corser took my verry subtle hint and wrote a great piece on her personal experiences. Cont pg 7

FM Radio from the Computer to your Radio

Computer Accessory Review

By, James M. Wyatt

I just love the Streaming Audio all around the Internet, but my biggest problem is the Computer. I mean, do I really have to sit on my uncomfortable computer chair all night to enjoy it? I think not.

So I started a project notebook, to come up with some ways to enjoy my Streaming Audio in other rooms in the house. My first idea was modifying a "Mr. Microphone" to plug into my soundcard and transmit the audio to a FM signal, and enjoy the music on my FM radio, but I didn't like the idea of mono. I wanted stereo. The next idea was to get a set of cordless speakers. But that idea was nixed by the \$200+ sticker shock. So I was left with the idea of running speaker wires under the house.

Then the other day I got a catalog from the C. CRANE COMPANY, and I flipped through it, and to my amazement, on page 81, I read,

Bring Internet Radio to Your Personal Radio!

The Fx-200 Is A Mini FM Broadcast Station. Can Be Used Any Time You Want To Transmit Clear Stereo Audio To Your Radio. Only 3" diameter



Fx-200

sound card be sure to order our exclusive.

AM radio: In an office building AM radio reception may not be available unless your radio is by a window. Any radio coupled to the FX-200 can transmit clear audio throughout the office.

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The FX-200 will also transmit the sound from your portable CD player to your auto radio.

OTHER USES:

Transmit any Walkman style radio, electric guitar, keyboard, scanner, tape recorder or ham radio to your home stereo or pocket radio.

The FX-200 normally transmits about 150'. If you have problems with the transmit distance please give us a call. The FX-200 includes power supply and two "AAA" batteries. Size: 3" diameter, 1" thick

FX-200 Item #FX ... \$39.95

Super FX-200 Item #SFX ... \$49.95
(Includes a splitter so you can hook up the FX-200 and Speakers.)

CCRANE.COM TO ORDER: 1-800-522-8863 (TUNE)

I ordered the Super FX-200 and after adjusting it to a frequency I chose (100.0 MHz), I started with www.spinner.com and it works just fine. Now I can set my alarm clock to wake me up with streaming stereo audio. I drool at the possibilities. Voice of America, BBC Radio, NPR, and Radio Stations from around the World...

I guess my "Mr. Microphone" Idea had some merit after all.

Rumblings from the editor cont.

Our new president piped in with some great observations about the club. We had a lengthy tech article from Stuart Ree on a subject that more and more of us will encounter (Thanks!). All of this tempered with some inter-

esting reviews.

If you will note, the newsletter is 8 pages long for August. This is in some ways kind of like a fireworks show. You have a lengthy period of time of small clusters and then the grand finale fol-

lowed by a deafening silence. Producing the August newsletter was kind of like the "grand finale". In other words, I'm empty of articles for the newsletter. September looks kind of quiet. Any other personal experiences out there?



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Cont from pg3
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www.microsoft.com/windows/windowsmedia - Download Windows Media Player to access more

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video.
www.rampt.com - broadband search engine
www.300kbps.com - broadband content guide. (Links to many good broadband websites)
www.liketelevision.com -



Caption describing picture or graphic.

Broadband streaming movies, classic TV, music videos, short films, comedy, sports, news, and weather.
www.atomfilms.com - Great short films. From Drama to Comedy.
www.movieflix.com - Classic Streaming Movies (Free and Pay Per View)
www.broadcast.com/broadband - Tons of Audio/Video Programs.
www.spinner.com - 130+ streaming music channels.
www.mycaster.com - a personal broadcasting tool that allows you to broadcast your own "radio station"

over the Internet, and broadcasting stations listings.
www.wwitv.com - World Wide Internet Television. (Live Television from around the world)
www.launch.com - Streaming Music & Mu-

sic Videos.
www.live365.com - Listen to thousands of user created Internet Radio Stations, and create one.

That's just a sample of what's out there on the net. Radio Stations from around the world available to you from the net. I myself likes to listen to Dr. Demento Sunday night at 6pm on the web, instead of getting up at 7am Sunday morning to hear it locally.

Audio & Video is only a small fraction of what's available on the net. Online Gaming, Video Conferencing, Avatar based Chat Rooms.

One can just imagine the future of Internet Streaming Media. User Created Television Stations online? I can't wait to watch Classic MTV Music Videos of the 1980's online... Drool...
James M. Wyatt - 6/5/00