The Winsock Client Listing

August 1995

Introduction

Winsock: a Windows Internet standard ("Windows Sockets"). The Winsock standard essentially defines an interface between Windows applications and a network such as the Internet.

This is a detailed listing of Winsock based Freeware and Shareware packages used in connecting to the Internet, either through a modem or a direct network connection. I have indicated if there is a prime or preferred location where the latest version of each package is usually available. Alternatively, with the file names and associated data supplied, most of these packages can also be readily found elsewhere on the Internet with search and retrieval tools like Archie, FTP, Gopher and WAIS.

At the present time the better of these are at least equivalent to and even superior to the corresponding modules in commercial packages that you can buy, although there is not really a lot in the marketplace to begin with. This situation will dramatically change over the next year or two, but for now, and in particular for the home based user, Freeware/Shareware is usually the best choice. You can try out different packages until you find the ones with the features you want, and that you are comfortable with. Where registration is required the fees are usually quite reasonable and can bring additional benefits in additional documentation, technical support and upgrades with additional or uncrippled features.

Using these packages with a modem requires at a minimum:

1. **Windows 3.1**.

2. **A "SLIP" or "PPP" account with an Internet provider.** Some providers charge extra for this feature. If this is not available or too expensive from your service provider, the innovative program TIA (The Internet Adapter) provides an alternate option.

3. A special communications package or a combination of *compatible* packages installed on your PC which can provide the following:
   a. Modem **dialing capability**
   b. Support for a **SLIP or PPP** connection.
   c. Support for the Winsock standard (i.e. a **winsock.dll** file included).

   Unfortunately most of the regular commercial and Shareware communications software commonly used to access other on-line services do not currently have these features and therefore cannot be used for a Windows connection to the Internet. This is quite surprising considering how popular the Internet has become and reflects poorly on these commercial software providers. The best communications package currently available which does work is Peter Tattam's Shareware package **Trumpet Winsock**. It has both manual and automated dialing, supports both SLIP and PPP (in the latest versions) and includes a winsock.dll file to enable Winsock compatible programs to function. The automated dialing does require you to create a suitable and rather archaic login "script", or alternatively to use a better separate stand alone dial program. See the Index for the section providing additional information on the very popular and widely used Trumpet Winsock.

I have tried to keep the terminology as simple as possible, but, as Einstein discovered, everything is relative. At the end of this listing I have included a series of chapters containing references to some supplemental reading material. For a better understanding of the Internet terms "Winsock" and "SLIP", a follow up on the suggested reading material is a beginning.

Why Windows ?

Typically when you sign up for an Internet account from a service provider you receive a UNIX shell account.

This account on your provider's server gives you access to a mail program, Usenet news, Archie, File Transfer Protocol, Gopher, etc. Everything you will need is usually available to you through your shell account. Why then Windows?

1. Reduction in some connection charges. A shell account is an on-line account - you must be logged on to use it. Some Windows programs enable activities to be done offline. For example, while you read and compose your mail on a shell account you are paying connection charges for the time taken. Windows mail programs allow you to read and compose mail offline, connecting only long enough for uploading and downloading.

2. Windows may be a familiar environment. If you are comfortable working with Windows with other applications in the past then Windows provides a friendlier environment than UNIX based programs with their archaic keyboard commands and unfriendly and clunky interfaces.

3. Freedom of choice. There is an increasingly wide variety of Winsock software available. With this freedom of choice, if one program doesn't have the features or performance you want you can look for another to install.

4. Multimedia capabilities. Sound. Graphics. Video.

5. Multitasking. You can be downloading a file with FTP from a remote site, downloading your mail and be browsing through newsgroup postings all at the same time with Windows software. The ability to perform multiple operations with different Winsock programs simultaneously over the same single modem connection is one of the key features of the Winsock standard.

The downside to all these advantages of Windows packages is the sometimes considerable setup and configuration time which may be required for each individual one. Most of the above advantages are of course equally applicable to other graphical based platforms such as Mac and OS/2 Warp. The Winsock software described in this listing is only usable with Windows, or with OS/2 Warp through its Windows interface, although not all Winsock programs will work with Warp.

One final note. The Winsock standard is currently set at version 1.1. This version number refers to the documented industry standard only. Individual software programs which comply with this standard have their own separate version numbers. For example Trumpet Winsock is available in an older version 1.0 (SLIP only) and in a newer version 2.0 (SLIP/PPP). Both of these *comply with* the Winsock 1.1 standard. The version number of any individual program is more a reflection of its other features and capabilities and does not change the fact that it complies with the 1.1 standard. There is often confusion between the version number of the Winsock standard and the version numbers of individual programs which are designed to use that standard.

Some Details About This Listing

The 'Life is Cruel' standard disclaimer - As with everything you use these programs at your own risk. I accept no responsibility. In virtually all cases the authors of these programs similarly accept no responsibility if their creations trash your hard drive or crash your system. Such occurrences are very rare, but they can happen. Whether the fault of the program, your failure to read and follow the documentation or unforeseen factors, in using these programs you accept full responsibility for any consequences.

Feedback on this listing is always appreciated. I am constantly looking for ways to improve it and welcome suggestions as well as information on items which I may have missed and which deserve to be included.

B*U*G*S. Bugs are almost in^%evitable in any kind of software under development as many of these are. Please give the author a chance. If you have carefully followed the instructions and are sure that there is a problem with a particular program which is not already mentioned in the documentation, contact the author first, AND give him some reasonable time to respond. If you don't tell him about it he can't fix it! It's rather a bit impolite and counterproductive to flame the author and his program publicly in a newsgroup for something he's not even aware of. Ultimately it may even turn out not to be his problem. Most authors include their email addresses in the program documentation for this reason and also to encourage suggestions for improvement.

Looking for something? I realize that this listing is getting a bit large, and if you are looking for something in

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particular try using the Edit/Find menu item in MS Word or the Find command in Windows Write. Other word processors usually have something similar available.

Recommended: I have added this comment to some items. This is based upon both my personal opinion and comments from others. Criteria I primarily look for are:
> 1. One of the leaders in its category in operation, functionality and features. This does not imply perfection.
> 2. Reasonable cost compared to other comparable programs. This does not mean that it's free or even cheap (although cheap is much appreciated).
> 3. Supported by its authors and under continued development. This should mean that it has a future.

This does not mean that other programs don't have better features or won't work better in your particular situation. All I am suggesting is that if these appear to fit your needs, they should be looked at first. They shouldn't necessarily be the only thing you look at. Current recommendations are:

Winsock
Trumpet Winsock - dialer, SLIP/PPP, Winsock
WSARCHIE - Archie file search client
WS_FTP - File transfer client (16 bit version)
WSGopher - Gopher client
E-Mail Connection - email
Pegasus - email
Free Agent (tm) - news reader
News Xpress - news reader
WinVN - news reader
Netscape - WWW browser

Non-Winsock
NetDial - telephone dialer
ACDSee - image viewer
LView Pro - image viewer
WFXCOMM.DRV - Windows 3.1 serial port replacement driver
Stiletto - Tool bar application launcher
Tardis - time synchronizer
(Added) UU - UU decoder [DOS]
(Added) SnapShot/32 - screen capture utility [32 bit]

Recently removed: Chameleon Sampler, Eudora Mail, Trumpet News, WSIRC

Win 32s, **Windows95**, and **Windows NT**. With the movement towards these newer 32 bit operating systems I am including more 32 bit applications in this listing. Some of these can only be run on **Windows95/Windows NT**, but a few of these are in fact usable on Windows 3.1/3.11 with the Microsoft's **Win32s** extension installed. The **Win32s** extension gives Windows 3.1 a **limited** 32 bit capability enabling it to run 32 bit programs specifically written for this extension, the best known of which is NCSA Mosaic, the World Wide Web (WWW) browser. More information on **Win32s** is included elsewhere in this listing. I have hi-lited references to these 32 bit operating systems in **green** (in the MS Word document).

NEW. New items added this month are hi-lited in **blue** (in the MS Word version).

Vbrun300.dll Many of the programs in this listing were written in Microsoft's Visual Basic and require the vbrun300.dll file in your \windows\system directory in order to run. Some programs include copies this file in case you don't already have it, and some don't because of its size (231K) and ready availability at many sites. If you happen need a copy of this it can be obtained from: ftp://oak.oakland.edu/SimTel/win3/dll/vbrun300.dll.

Latest updates of this listing under file name **winterXX.zip** (where XX is the version) are available from the following prime location: ftp://oak.oakland.edu/SimTel/win3/winsock/winterXX.zip

NEW: An HTML version of this document is now available at:
http://www.mbnet.mb.ca/winter/index.html

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CLIENT LISTING

1. BUNDLED APPLICATIONS - SUITES

If in the past developers focused on bringing a single application to market, in 1995 on the commercial side we're seeing considerable effort to develop integrated multi-function packages, typically with Web browser, mail, and news clients, and as often as not a built in dialer and Winsock. While this simplifies the configuration process and makes perfect sense, such efforts tend to be less than successful with weaknesses in individual clients forcing the user to search to install stand alone replacements, defeating the purpose of the package.

1.1   <u>**Chameleon Demo**</u>
<u>FUNCTION</u>......   Suite of Internet applications.
<u>FILE SIZE</u>........   Total approximately 5,003,764 bytes.
<u>VERSION</u>.........   January 1995
<u>RETRIEVAL</u>....   ftp://ftp.netmanage.com/pub/demos/chameleon/**readme.txt**, **chameln1.exe**, **chameln2.exe**, **chameln3.exe**, **chameln4.exe** (5 files)
<u>STATUS</u>...........   Demo. Time crippled.
<u>DOCUMENTS</u>..   N/A
<u>FEATURES</u>......   This is the full featured professional package with all the clients, FTP, Telnet, Gopher, Ping, Mail, News etc. and network features like ethernet and NFS support.
<u>COMMENTS</u>....   The readme file contains the password needed for installation. Because of the size of this package and the time and effort required to get it running, this package should only be looked at by those who are seriously interested in buying this (a couple hundred dollars and up depending on features). This commercial version is fairly complex and is intended for a network installation rather than the individual user. For others the Chameleon Sampler may be a better choice. Although it only has some basic clients, it is free, not crippled and will run forever. These are intended for use under Windows 3.1/3.11 only.

       NOTE: A demo version of Internet Chameleon 4.11 which includes the new WebSurfer WWW browser is available from the same location in directory /pub/demos/inet_cham. There are several files to retrieve totaling just under 4 meg. A telephone dial up access is required to activate the program. You have the choice of either purchasing the program or obtaining a free 30 day demo activation. The registration requires credit card information even if you only want the 30 day no charge demo. Again, unless you're serious, don't bother.

1.2   <u>**Chameleon Sampler**</u>
<u>FUNCTION</u>......   Suite of Internet applications.
<u>FILE SIZE</u>........   1,697,021 bytes
<u>VERSION</u>.........   April 1995
<u>RETRIEVAL</u>....   ftp://ftp.netmanage.com/pub/demos/sampler/**websampl.exe**
<u>STATUS</u>...........   Freeware for personal and educational use.
<u>DOCUMENTS</u>..   Start up instructions and online help
<u>FEATURES</u>......   Supports both SLIP/CSLIP and PPP and has its own built in Winsock and telephone dialer built in. WebSurfer browser and Ping client are included.
<u>COMMENTS</u>....   Completely revised from the original very widely distributed package. This beginner's Freeware package is intended to provide an introduction to the commercial version of Chameleon and is built around their new WebSurfer browser (the original sampler didn't have a WWW client). Additional FTP and Telnet (Hey, what happened to mail?) clients can be retrieved through the browser by registering (no charge) with NetManage. This program will work with most other Winsock clients in this listing - there is no need to use the ones which come with it if all you want is the dialer and winsock connection capability. If you want to try this out and you have Trumpet Winsock installed on your system you will have to temporarily hide the winsock.dll which comes with Trumpet in a non path directory or rename it to something else to avoid conflict with the winsock.dll which is installed with this package.

       Quibbles. During installation the program will make changes to your autoexec.bat program (and possibly other key files) without permission and without notifying you (typical of NetManage programs). Secondly, and rather surprisingly there is no manual dial/logon capability. You must go to the trouble of setting up an automatic script first to log on to your service provider (unless you're using one of the providers they've included scripts for). If you don't get your script working you don't get to log on with this program. Documentation covering this is however quite good. SLIP/PPP support is limited to a maximum speed of 19,200 bps.

1.3   <u>**Emissary**</u> (tm)
<u>FUNCTION</u>......   Suite of Internet applications.
<u>FILE SIZE</u>........   2,505,416 bytes
<u>VERSION</u>.........   beta-4 July 1995
<u>RETRIEVAL</u>....   http://www.twg.com/Emissary/eftp.html File name: **emis_b4.exe**

STATUS...........	This beta version will expire September 1, 1995. Registration $US 99.
DOCUMENTS..	Online help.
FEATURES......	Integrated Web browser, FTP, Telnet, Mail, News.
COMMENTS....	Released by the Wollongong Group Inc. There's a lot of hype associated with this product ("At the heart of the architecture is a patented Client Object Linking Technology.......access to Internet resources seamless and intuitive...."). Although I haven't looked at the beta 4 version, beta 2 was a bit rough, but the the mail client in particular looked like it would be interesting once its multimedia capabilities are implemented. A recent announcement seems to indicate that Wollongong has chosen to provide most of its support efforts through the WUGNET user group's WINCON forum on CompuServe.

1.4   **InterAp**

FUNCTION......	Suite of Internet applications.
FILE SIZE........	Combined total for the 4 files, approximately 5.3 megabytes.
VERSION.........	June 1995
RETRIEVAL....	http://www.calsoft.com File names: **disk1.zip**, **disk2.zip**, **disk3.zip**, **disk4.zip** (total 4 files). Fill in form registration brings a return email with the pricing details, FTP site and other information. Or you can bypass this and go directly to ftp://www.calsoft.com.
STATUS...........	Demo, 30 days. Full price $US 99.95, with special price until August 31, 1995 of $US 49.95 with proof of purchase showing that you are switching from a competing product.
DOCUMENTS..	Online help in the individual modules.
FEATURES......	A complete integrated suite of applications designed to work together for a complete Internet solution: mail, news, FTP client and server, FSP client, Telnet/Async terminal, Ping, WWW browser, and a launchpad toolbar, etc. A couple of popular viewers are included such as WPLANY for sound and LView Pro for graphics. There are other features such as OLE2 support, file drag and drop, and script support.
COMMENTS....	Although individually there are better clients available, this is a nicely integrated set of applications. You'll need about 12 meg of hard disk space for the installed files. A winsock application is not included. From California Software Inc.

1.5 (NEW!)   **NETcetera**

FUNCTION......	Suite of Internet applications
FILE NAME.....	netcetra.zip
FILE SIZE........	2,731,230 bytes
VERSION.........	1.162a
RETRIEVAL....	ftp://ftp.airtime.co.uk/netcetera/netcetra.zip
STATUS...........	Evaluation copy, 21 day evaluation, nag screen only when loading, otherwise no crippled features. Registration £UK 49.50 or $US 79.50.
DOCUMENTS..	Fairly extensive documentation including online help with a tutorial.
FEATURES......	Mail, Finger. Designed for multiple users with hot switching, UUencode/UUdecode both built in to clients and stand alone, MIME, mail import module (KA9Q support). Unlimited technical support (email) for all users! The program does not include a dialer/winsock - it is designed to work with a wide variety of existing stacks, including Trumpet.
COMMENTS....	At the present time there are only a couple clients included (early July) so it's a bit early to really comment on this, but the strong technical support will make this worth trying. A few days after downloading this I received a followup email from the company asking for feedback and impressions which is a nice touch. News, Telnet, Gopher, Archie, WAIS and a WWW browser clients will all be added over the coming months, probably at about monthly intervals and the next version should add spell checking and text search to the mail and news clients.

1.6   **Quarterdeck InternetSuite**

FUNCTION......	Suite of Internet applications.
FILE SIZE........	3,226,134 bytes When downloading you are given the option of choosing this large file or 3 smaller separate files.
VERSION.........	Pre-release 4 (final) June 1995

RETRIEVAL....	http://www.qdeck.com File name: **isuite04.exe** (single large file)
	    ftp://ftp.qdeck.com/pub/normandy/toolbox
	    Retrieval is a bit of a nuisance since you have to go through an online registration and

screening process. I subsequently was refused download access and got the boot for not having a reversible IP address (??) which I guess makes me some kind of criminal. I had to log in through my UNIX shell account and retrieve this through the lynx browser and then a Z-modem download. You can bypass the registration stuff by going directly to the ftp site but the same reversible IP address criteria applies there.

STATUS........... Pre-release. This copy expires August 31, 1995.
DOCUMENTS.. Considerable documentation (various files) and online help.
FEATURES...... Includes SLIP/PPP dialer/winsock, Ping, WWW browser, Telnet (VT52, VT100, VT220), FTP, Mail and News. Support for proxy servers. The multi-threaded browser is capable of displaying multiple documents at the same time. Internal support for GIF, XBM and JPEG images, AIFF, AU and WAV sounds.
COMMENTS.... These clients can be used either with the built in Winsock SLIP/PPP connection or with a separate program such as Trumpet Winsock. I did momentarily fall out of a tree when I noticed the unexpected "TAR/Compress" utility in the mail program to optionally supplement UUencode for file attachments. There's no mention of MIME which would be far more useful and relevant. The browser seemed very fast at retrieving and displaying documents. It has been favorably mentioned by others, but I would rate it behind the current Netscape and Mosaic. From Quarterdeck Office Systems Inc.

1.7 (NEW!)   **Turnpike**
FUNCTION...... Suite of Internet applications.
FILE SIZE........ 2,287,454 bytes
VERSION......... 1.03 July 1995
RETRIEVAL.... http://www.turnpike.com/   File name: **evals103.zip**
STATUS........... Evaluation copy. Good for 10 days. Commercial version available for £UK 99
DOCUMENTS.. Installation instructions and online help.
FEATURES...... Mail, News, FTP, Telnet, Ping, Finger, built in SLIP/PPP dialer and Winsock. MIME and UUdecode, drag and drop. A Web browser will be included in a future version.
COMMENTS.... Turnpike was designed primarily for use in England with a preconfigured listing of service providers. I did not find this very intuitively easy to set up or use, I didn't like the interface, and I didn't like its 3d lettering. I never did figure out how to make its built in dialer/winsock work with the provider I wanted, although most functions did work (except for FTP which gave an error message) once I established a PPP connection with another program. Technically a lot of features here, but the overall result just didn't impress me. From Turnpike Ltd.

2. CYBERCHATTER - KEYBOARD

Through your keyboard "talk" to others on the Internet.
See also **WSIRC** in the **CYBERCHATTER - VIDEO AND WHITEBOARDS** section.

2.1 (NEW!)   **ALP**   (Asynchronous Link Protocol)   [Windows 3.11 and **Windows NT**]
FUNCTION...... RealTime World Wide Web chat/data client
FILE SIZE........ 1,454,528 and 672,995 bytes
VERSION......... July 1995
RETRIEVAL.... http://www.theworld.com/alp/alp.htm
              alp16a.exe for Windows 3.1
              alp32a.exe for **Windows NT**
STATUS........... Shareware. ?? Price not stated. An ALP server is also available for $US 585.
DOCUMENTS.. Start up instructions and online help.
FEATURES...... ALP users can control each others web browsers remotely, transfer files between each other, and display real time data streams such as sports scores or stock market quotes.
COMMENTS.... This program requires Windows 3.11 (or did they mean WFW 3.11??? Not clear.) and must be used with a WWW browser - currently both Netscape and NCSA Mosaic/Air Mosaic have been tested with it. Released by WorldWide Net Corporation.

2.2 (NEW!)   **Global Chat** (tm)

FUNCTION......	IRC client
FILE SIZE........	191,257 bytes
VERSION.........	Beta .95 July 1995
RETRIEVAL....	http://www.prospero.com/globalchat/ File name: **gc0712.exe**
STATUS...........	Trial version. License to use this expires once (and if) a commercial version is released.
DOCUMENTS..	Basic startup instructions. Online handbook available online at their Web site.
FEATURES......	
COMMENTS....	Global Chat is designed to work through a Web browser. It enhances standard IRC keyboard communications by adding sound and graphics capabilities. This program works on Windows 3.1, **Windows95** and **Windows NT**. Released by Prospero Systems Research Inc.

2.3   Internet TeleCafe

FUNCTION......	Keyboard chat program
FILE SIZE........	662,417 bytes
VERSION.........	1.01 May 1995
RETRIEVAL....	http://idirect.com/TeleCafe/index.html File name: **teleconf.exe**
STATUS...........	Shareware. "VIP membership" required. Annual fee $US 29 or $CDN 35.
DOCUMENTS..	Online help. Documentation describes the functionality of the control buttons but nowhere (initial announcement, program documentation or home page) could I find much mention of what this program actually does and where it connects to (the Big Picture details) which was a bit annoying.
FEATURES......	
COMMENTS....	A proprietary keyboard chat program with sound and other special effects. You can move around to different rooms and interact with other members. Very well done graphical interface and an interesting program once you get into it. Easy to use and well worth trying. There are limitations on unregistered users. From ComputerLink OnLine Inc. **Note:** This current version only works with Trumpet Winsock.

2.4   IRC4WIN

FUNCTION......	Internet Relay Chat II (IRC II) client.
FILE SIZE........	91,039 bytes
VERSION.........	1.10 beta October 1994
RETRIEVAL....	ftp://ftp.cyberspace.com/pub/win95/winsock/**irc4win.zip**
STATUS...........	Shareware $US 50 single user, $US 450 site license
DOCUMENTS..	Very minimal, with nothing much included in this unregistered version.
FEATURES......	
COMMENTS....	An upgrade of this program from David Elkind.

2.5   mIRC

FUNCTION......	IRC client
FILE SIZE........	209,981 bytes
VERSION.........	3.42 June 1995
RETRIEVAL....	ftp://ftp.demon.co.uk/pub/ibmpc/winsock/apps/mirc/**mirc342.exe**
STATUS...........	Freeware
DOCUMENTS..	Start up instructions and online help
FEATURES......	Includes DCC Send/Get/Chat, some basic fonts, a Finger client.
COMMENTS....	Designed to be quick and easy to use, it contains only a partial implementation of IRCII. This program has gathered very favorable comments and strong support from users.

2.6   PowWow

FUNCTION......	Internet chat, file transfer and Web Browser interface program.
FILE SIZE........	98,678 bytes
VERSION.........	1.5 June 1995
RETRIEVAL....	http://www.tribal.com/ File name: **powwow15.zip**
STATUS...........	Freeware
DOCUMENTS..	Start up instructions and online help.
FEATURES......	Allows up to five (5) people to chat, send and receive files, and browse the World-Wide Web together as a group using the Netscape browser. All you need to know to reach

another PowWow user is his or her email address. You do not need to know their IP address as PowWow automatically resolves both dynamic and fixed IP addresses. It will automatically alert them that a connection has been requested; provided PowWow is running on their computer.

COMMENTS.... PowWow does not work with firewalls. It does works with Windows 3.1**, Windows95,** or **Windows NT**. It has not been tested with SLIP emulators such as TIA, Slirp, or SlipKnot. Released by Tribal Voice, an organization of Native Americans, dedicated to the development of a Native American technological presence in the world of information science.

2.7   **Winsock IRC**
FUNCTION...... Internet Relay Chat (IRC)
FILE SIZE........ 96,000, 313 and 8,276 bytes
VERSION......... .1 Beta
RETRIEVAL.... ftp://oak.oakland.edu/SimTel/vendors/trumpet/winirc/**winirc.exe**, **winirc.doc** (Windows documentation), **irc.doc** (DOS version documentation). Three files.
STATUS........... No mention of any charges for using this program.
DOCUMENTS.. Negligible/inadequate. Only documentation is in a separate file winirc.doc (MS Word format), 313 bytes, found in the same directory as the program file which should be downloaded at the same time.
FEATURES......
COMMENTS.... A very basic package which does not appear to be undergoing further development.

2.8   **WinTalk**
FUNCTION...... Two way on-line communications
FILE SIZE........ 127,108 bytes
VERSION......... 1.24 April 1995
RETRIEVAL.... ftp://ftp.elf.com/pub/wintalk/**wtalk124.zip**
STATUS........... Freeware (limited). A more advanced version called WinTalk Pro is available for $US 20
DOCUMENTS.. Installation and start-up instructions, and on-line help.
FEATURES...... Uses the UNIX "ntalk" protocol.
COMMENTS.... WinTalk will not work properly with older Trumpet Winsock 1.0A, (Winsock bugs) and it will generally not work with pseudo SLIP programs like TIA. Released by ELF Communications.

2.9   **World's Chat**
FUNCTION...... Keyboard chat program
FILE SIZE........ 2,835,533 bytes
VERSION......... July 1995
RETRIEVAL.... http://www.worlds.net   File name: **wchat06c.exe**
STATUS........... Freeware.
DOCUMENTS.. n/a
FEATURES...... n/a
COMMENTS.... "World's first networked 3D software.....". According to some of the literature I've read, this is a 3D virtual world with visual representations of people and rooms which you can move around in and participate in discussions taking place. Heavy hardware required: minimum 486-50 PC, 8 meg RAM, 16 bit sound card, 256 colors; recommended pentium with 16 meg RAM. Proprietary technology from World's Inc. which connects to their servers. They have indicated an intention to continue to distribute this program freely. It has been tested with a number of TCP/IP stacks, but NOT Trumpet Winsock. Future versions will add voice capability. This seems to work with Windows 3.1 only.

2.10   **WS_CHAT**
FUNCTION...... Real time bi-directional chat program.
FILE SIZE........ 499,253 bytes
VERSION......... 3.00 May 1995
RETRIEVAL.... ftp://oak.oakland.edu/SimTel/win3/winsock/**ws_cha30.zip**
STATUS........... Freeware.
DOCUMENTS.. Basic startup instructions and online help.

FEATURES......	Event driven programming: uses almost no processor time when not in use.
COMMENTS....	Released by Danny Brands. Source code available for $US 5. Works with Windows 3.1/3.11, **Windows NT** and TIA. It also should work over any TCP/IP network.

2.11 (NEW!)   **XTalk**

FUNCTION......	Ntalk (UNIX talk protocol) client/server.
FILE SIZE........	145,536 bytes
VERSION.........	.4 alpha June 1995
RETRIEVAL....	http://www.ugrad.cs.ubc.ca/spider/q7f192/branch/tools.html File name: **xtalk04.zip**
STATUS...........	Freeware.
DOCUMENTS..	Very basic instructions.
FEATURES......	
COMMENTS....	From George Xie.

3. CYBERCHATTER - MISCELLANEOUS MEDIA

3.1   **Sticky**

FUNCTION......	Electronic notes exchange.
FILE SIZE........	394,232 bytes
VERSION.........	.8 March 1995
RETRIEVAL....	ftp://ftp.sun.ac.za/pub/misc/sticky/**sticky08.zip**
STATUS...........	Freeware.
DOCUMENTS..	Basic installation instructions and on-line help..
FEATURES......	
COMMENTS....	Based on 3M's yellow sticky post-it notes that are so popular. This program contains separate talk and listen modules which allows you to exchange quick notes with another PC which also has the program running. New development of this program has been taken on by John Dovey.

4. CYBERCHATTER - SOUND, VOICE

From out of nowhere 6 months ago some increasingly sophisticated programs have sprung up offering two way voice communications. Quality is not up to the standards of a telephone, and these programs usually do not offer simultaneous live two way communications, but at times it certainly beats using a keyboard. For those who are deeply concerned that these voice conversations will drive the telephone companies out of business, I'm sure that your concern is appreciated by the phone company suits, but there's no need to worry. The Internet is a nice place for random conversations with strangers but for the moment at least it is likely to remain somewhat less than convenient or reliable for two people specifically wanting to communicate with each other.
See also **WSIRC** in the **CYBERCHATTER - VIDEO AND WHITEBOARDS** section.

4.1   **Internet Phone**

FUNCTION......	2 way Internet voice communications.
FILE SIZE........	633,400 and 770,806 bytes
VERSION.........	Build 9 and build 13 April/June 1995.
RETRIEVAL....	http://vocaltec.com File name: **iphone09.exe** (half duplex version for most sound cards) and **iphone13.exe** (full duplex version, special sound card requirements)
STATUS...........	Demo version. A registration code must be obtained from the VocalTec site to fully use the demo. Without it you are limited to a session of only 60 seconds of speech. Registration $US 69.
DOCUMENTS..	Installation instructions and on-line help.
FEATURES......	This newest build 13 supports full duplex (simultaneous two way conversation) conversations for *certain* sound cards.
COMMENTS....	Requires sound card, microphone, and preferably a fast (486) computer with 8 meg ram. This program has created enormous enthusiasm because of its capability to allow live high quality conversations through the Internet. The time lag is small and sound quality while

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not at telephone standards is nonetheless reported as impressive. This program will now also run as a 16 bit application under **Windows NT**. One serious controversy has arisen in that Internet Phone connections (a voice communications product) were being initiated through IRC servers (intended for keyboard communications). The IRC people took exception to this extra burden and begun cutting off their uninvited guests. As a result VocalTec has had to begin setting up their own sites which are listed in a file included with the program.

4.2   **Internet Global Phone Project**
FUNCTION......   2 way Internet voice communications.
FILE SIZE........   89,771 and 89,727 bytes
VERSION.........   Internet Global Phone version 2.1 BETA
                 UMIST distribution version 1.02 December 1994
RETRIEVAL....   ftp://ftp.cica.indiana.edu/pub/pc/win3/demo/**ig16_102.zip**   This is the 16 bit version. An 8 bit version **igp8_102.zip** is also available at the same location for 8 bit sound cards.
STATUS...........   Limited Freeware.
DOCUMENTS..   Basic start up and use instructions.
FEATURES......
COMMENTS....   Messages must first be recorded, compressed, then sent. Sound quality is better with a more powerful machine. Briefly popular for a few months it has now been overshadowed by the more advanced Internet Phone program from VocalTec.

4.3   **Internet Voice Chat**
FUNCTION......   2 way Internet voice communications
FILE NAME.......   ivc11.zip
COMMENTS....   **Avoid.** IVC has been sold to a commercial company. No new Shareware registrations are being accepted and no support will be provided except to existing registered users. The author Richard Ahrens has requested FTP site administrators to remove copies of this program.

5. CYBERCHATTER - VIDEO AND WHITEBOARDS

5.1   **CU-SeeMe**
FUNCTION......   One way / two way / multiple video(!) conferencing.
FILE SIZE........   175,557 bytes
VERSION.........   W.65b2   July 1995
RETRIEVAL....   ftp://gated.cornell.edu/pub/video/PC.CU-SeeMeW0.65b2/**cuseeme.zip**
STATUS...........   Freeware
DOCUMENTS..   Installation instructions and on-line help included. A Frequently Asked Questions (FAQ) document is also available from the same location.
FEATURES......   Audio now! 4-bit grayscale video at 160x120 pixels.
COMMENTS....   Developed by Cornell University. Even if you don't have the capability to send, there are several reflector sites available where you can use this package to sneak a peek. The low data transfer speeds on modem connections are a big problem, but this is nevertheless quite interesting. Try it!

5.2   **Insitu Conference**
FUNCTION......   Document conferencing software
FILE SIZE........   1,390,532 bytes
VERSION.........   1.0 March 1995
RETRIEVAL....   ftp://ftp.std.com/vendors/insitu/demo/**iconf10.zip**
STATUS...........   30 day demo. Commercial price starting at $US 269 for a single user with volume price breaks.
DOCUMENTS..   Start up instructions and on-line help.
FEATURES......   OLE 2.0 compliant. Shared whiteboard allows group editing of any document or image. Integrated voice link (currently one to one only) through Microsoft/Intel TAPI standard. Automated installation. Some features are crippled in this demo version.
COMMENTS....   From Insitu Inc.

5.3   **NCSA Audible Collage for Microsoft Windows**
FUNCTION...... Multi-platform collaboration tool.
FILE SIZE........ 203,546 bytes
VERSION......... 1.2 beta 1   December 1993
RETRIEVAL.... ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**col_12b1.zip**
STATUS........... No mention of any charges.
DOCUMENTS.. Installation and start up instructions.
FEATURES......
COMMENTS.... Collage is a whiteboard program which allows users to collaborate and share data across the three supported platforms: X-Windows workstations, Apple Macintosh systems, and Windows systems. "You must have a Macintosh or an X-Windows workstation running a server in order to use the network collaboration capabilities."

5.4 (NEW!)   **Wanvas**
FUNCTION...... Shared whiteboard.
FILE SIZE........ 258,003 bytes
VERSION......... 1.00 June 1995
RETRIEVAL.... ftp://oak.oakland.edu/SimTel/win3/winsock/**wanvas10.zip**
STATUS........... Shareware $US 40.
DOCUMENTS.. Basic startup instructions and online help.
FEATURES...... Up to 11 participants working on the same whiteboard. Shared chat window, bitmap image insertions. The registered version adds a recorder function, printing capability and bitmap saving.
COMMENTS.... Similar to many paint shop programs this program was very compact, easy to use, and fun. There are a few problems with it most annoying of which is if you exit the program and try to reboot it you get an error message that it's already running. This only seemed to be a problem with Windows 3.1/3.11. Released by Ember Software.

5.5   **WSIRC**
FUNCTION...... Internet Relay Chat (IRC) keyboard, audio and video communications.
FILE SIZE........ 566,557 (keyboard version), 740,269(video version) bytes
VERSION......... 2.00 June/July 1995
RETRIEVAL.... ftp://cs-ftp.bu.edu/irc/clients/pc/windows/wsirc/**wsirc20.zip**   This contains the original keyboard based IRC client with a choice of executive files, wsirc.exe (Shareware version), and wsircg.exe (Freeware version).
        ftp://cs-ftp.bu.edu/irc/clients/pc/windows/wsirc/**wsirc20v.zip**   This contains the new DCC audio/video version. Again there are two executive files wsircv.exe (Shareware) and wsircvg.exe (Freeware).
        Home page http://www.clark.net/pub/csamsi
STATUS........... The Freeware versions are feature crippled but may be freely used forever. The Shareware (60 day evaluation) version is slightly feature crippled. The registered version has the greatest capabilities and documention. Registration: keyboard version $US 39.95, audio/video version $US 59.95. One disk and one manual are included with registration. Site licenses are also available.
DOCUMENTS.. Fairly extensive with a variety of text and online help files.
FEATURES...... Video version: DCC Video provides up to 1 frame every 2 seconds on a modem line. Audio is sent at 1300 bps. These numbers will improve with direct or ISDN connections. Audio is half duplex (one talks, one listens). Multiple connections supported. Uninstall button.
COMMENTS.... DCC video requires an Intel Smart Video Recorder Pro video capture board and Video for Windows (version 1.1e) software or any capture board that supports Intel's Indeo video compression format. This major new version (audio/video) has just been released by Caesar Samsi. There *may* be some compatability problems with TIA.

6. DIAGNOSTIC TOOLS

The increasing size and complexity of networks and their communications links attracts increasing problems. Fortunately, specialized tools are beginning to appear to deal with some of the problems.

6.1   **Socket Wrencher**
FUNCTION......   Winsock testing tool
FILE SIZE........   59,345 and 6,144 bytes
VERSION.........   1.0   April 1994
RETRIEVAL....   ftp://ftp.netmanage.com/pub/demos/sockwrench/**socketw.exe** and **sockread.wri**
STATUS...........   Free.
DOCUMENTS..   Installation and start up instructions.
FEATURES......
COMMENTS....   "Socket Wrencher provides a suite of performance tests over TCP and UDP as well as several tests to check characteristics of a Winsock based protocol stack." Released by NetManage Inc.

6.2   **TracePlus(tm) Winsock**   (formerly X-Ray Winsock)
FUNCTION......   Winsock API trace/debugger for Windows 3.1
FILE SIZE........   430,799 bytes
VERSION.........   2.00   June 1995
RETRIEVAL....   http://www.webcom.com/~sstinc   File name: **tpwins.zip**
STATUS...........   Demo version. $US 99.95
DOCUMENTS..   Installation instructions and on-line help included
FEATURES......
COMMENTS....   "Traces and displays the parameters of all Winsock API functions. Works with any version of Winsock." Some features crippled on this demo version. From Systems, Software, Technology Incorporated.

6.3   **Windows Socket Test**
FUNCTION......   Socket tester/debugger.
FILE SIZE........   83,422 bytes
VERSION.........   November 1993 ?
RETRIEVAL....   ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**wsatest.zip**
STATUS...........   Unknown.
DOCUMENTS..   None.
FEATURES......
COMMENTS....   A very interesting program. It seems fairly straightforward although some documentation would have been nice. I wish I knew more about this, including the developer's name.

7   E-CA$H

7.1   **CyberCash**
FUNCTION......   Encryption system for secure payment across the Internet.
FILE SIZE........   591,016 bytes
VERSION.........   0.8.1   June 1995
RETRIEVAL....   http://www.cybercash.com/   file name: **wincyber.exe**
STATUS...........   Free use, subject to certain conditions.
DOCUMENTS..   Basic instructions.
FEATURES......   There is no cost to you for the CyberCash software, and CyberCash does not impose any additional fees on credit card users for taking advantage of the CyberCash service. Fees for the CyberCash credit card service are paid by merchants as part of their standard credit card transaction costs.
COMMENTS....   CyberCash encrypts the specific data regarding your credit card (card number, name, expiration and amount of transaction **only**) so that it can be safely transmitted over the Internet and to your financial institution. Other information will not be protected. The ability to pay cash will be covered in a future release. It works with most major TCP/IP

stacks including Trumpet Winsock. It has been designed to work with Netscape, NCSA Mosaic and many of the Enhanced Mosaic versions, and may work with others by manually configuring them. Installation is a bit flaky though since the program will automatically search for such a browser and update it's .ini file with the necessary changes. Unfortunately, it does not inform you which ones it's found and updated, if any.

7.2   **Ecash for Windows**
FUNCTION......   Encryption system for secure payment across the Internet
FILE SIZE........   414,275 bytes (international version, US version similar size)
VERSION.........   2.1.1 June 1995
RETRIEVAL....   http://www.digicash.com/ecash/ecash-home.html   File name: **ec211i16.exe**
                      This is the international version - there is a slightly different US version.
STATUS...........   Beta test software.
DOCUMENTS..
FEATURES......
COMMENTS....   The ecash-software is only available to beta-testers participating in the DigiCash experiment, who must registering at DigiCash for a personal account. You must fill out a registration form at their Web site and then wait for about 3 days for a userid and password to be emailed to you in order to enable you to go back and download this. Ecash operates by exchanging your real money for electronics cash credits which can then be used online through a browser to purchase items from participating merchants. Ecash works with most standard TCP/IP packages, such as Trumpet, Chameleon, and the Microsoft TCP/IP stack, and with virtually all browsers. Released by DigiCash BV, the Netherlands.

8. FILE SEARCH AND TRANSFER PROTOCOLS

File searches on the Internet can be done through the use of **Archie** programs which send queries to special Archie servers. The search can be done for a very specific file/program name or fragment of a name. The server will return information listing "anonymous" FTP sites which carry the corresponding file. Most Archie servers are located in Europe, North America and the Pacific Rim. Since Archie servers are usually backlogged with a large number of requests during the local prime time hours, knowledge of world geography and time zones comes in handy in jumping to other sites elsewhere in the world which are more likely to be available. Ah yes, this is your punishment for snoozing through those grade school geography classes. The information available on different Archie servers is not necessarily the same and sometimes a search of more than one Archie server is necessary.

An Archie server is also accessible through the WWW at:
http://www.pvv.unit.no/archie

File Transfer Protocol (FTP) is a means of transferring files between your PC and a remote server. Typically this is through so called "anonymous" FTP where you log on with user id "anonymous" and give your email address as the password. **Never** give your real password when logging on to an anonymous server. Anonymous FTP is a method many Internet sites use to allow users who don't have an actual account with them to access their files. An FAQ on FTP file retrieval along with a listing of all known FTP sites and some limited information about the files carried is available from: ftp://oak.oakland.edu/SimTel/msdos/info/ftp-list.zip

Typically you will use an Archie program to search for a known file you are looking for if you don't already know where to find it, and then an FTP program to retrieve it.

The search program WSARCHIE and John Junod's file retrieval program WS_FTP (16 bit) are the standards by which ALL Archie and FTP clients should be measured. I am referring to commercial programs, not just Shareware. Not only do they have features and performance, but they work well together for a one two punch.

8.1   **Auto WinNet Lite**
FUNCTION......   FTP file retrieval (volume oriented).
FILE SIZE........   771,295 bytes
VERSION.........   1.6   June 1995
RETRIEVAL....   ftp://oak.oakland.edu/SimTel/win3/winsock/**autown16.zip**

http://www.computek.net/autownet

STATUS...........	Shareware, some features crippled. Registered users get Auto WinNet Professional for $US 69.95 by supplying the serial number from this Lite version, otherwise $US 130. The original DOS version of this program is available for $US 40 but only works with shell access and not SLIP.
DOCUMENTS..	Comprehensive instructions.
FEATURES......	Provides mass mailing and mailing list capabilities. Considerable flexibility for script creation to automate retrieval and sending functions. The registered version, Auto WinNet Professional provides run later script capabilities, mail ability to send up to 2000 mail messages at once, post unliminted numbers of messages across Usenet news groups (hmmm...), fax capabilities, Web page retrieval from sites (text only) and built in PKZIP, LZH, ARJ, ZOO, ARC support.
COMMENTS....	Designed primarily for use by BBS operators this program enables mass file retrieval from Internet sites with minimal effort. From David Smith and Jim Husband. A heavy duty price for heavy duty users.

8.2   **CuteFTP**

FUNCTION......	File retrieval (FTP)
FILE SIZE........	200,300 bytes
VERSION.........	1.4 beta 4 July 1995
RETRIEVAL....	ftp://papa.indstate.edu/winsock-l/ftp/CuteFTP.Betas/**cftp14b4.zip**
STATUS...........	Freeware (now).
DOCUMENTS..	Basic instructions and online help.
FEATURES......	Caching of recently visited directories, robust STOP command, capable of stopping any operation without loosing connection, directory tree downloads, selectable display font.
COMMENTS....	A new FTP program recently released by Alex Kunadze with a file manager style interface.

8.3 (NEW!)   **FSP4WIN**

FUNCTION......	FSP client.
FILE SIZE........	206,461 bytes
VERSION.........	.70 beta March 1995.
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/uploads/**fsp4win.zip**
	Note: This will eventually be moved to the /winsock directory.
STATUS...........	Freeware. When final version 1.0 is released it will be Shareware at $US 15.
DOCUMENTS..	Very minimal.
FEATURES......	
COMMENTS....	This is the first new Windows based FSP client in 2 years. Released by Ben Youngdahl.

8.4 (NEW!)   **FTP-GM**

FUNCTION......	File retrieval (FTP)
FILE SIZE........	90,935 bytes
VERSION.........	1.0 June 1995
RETRIEVAL....	ftp:oak.oakland.edu/SimTel/win3/winsock/**ftpgm10.zip**
STATUS...........	Shareware $US 12 or $CDN 15
DOCUMENTS..	Basic start up instructions.
FEATURES......	File search/filter capabilities.
COMMENTS....	Nice distinctive graphics for those who are tired of the usual gray. The program however is too lean. It can not be expanded to full screen and there's no provision for storing repetitive sites or log in information - having to manually typing the site, user id and password with every login gets rather tiring. Released by Guy Michaud.

8.5   **NetRover**

FUNCTION......	Automated FTP, Finger, Gopher, and WWW (text) retrieval.
FILE SIZE........	61,879 bytes
VERSION.........	1.1b June 1995
RETRIEVAL....	http://www.aquila.com/kent.behrens/netrover.htm File name: **netrover.zip**
STATUS...........	Shareware $US 25. The event scheduling function does not work in the unregistered version.
DOCUMENTS..	Basic instructions are not overly detailed, but the program is fairly easy to figure out.

FEATURES......	Completely adjustable for a one time execution, hourly, daily, weekly, monthly, etc., with activation date and time settings. For functions such as FTP files can be sent or received.
COMMENTS....	A very interesting program which allows you to automatically schedule an event such as the retrieval of a certain WWW page at a certain date and time, or for example to perform repetitive Finger checks at specified intervals. Released by Kent D. Behrens

8.6   WINFSP

FUNCTION......	File Service Protocol (FSP)
FILE SIZE........	57,956 bytes
VERSION.........	1.2 August 1993
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**winfsp12.zip**
STATUS...........	Freeware
DOCUMENTS..	Brief setup and use instructions. Information about FSP can be found in the Frequently Asked Questions (FAQ) document available from: ftp://ftp.germany.eu.net/pub/network/inet/fsp/FAQ.
FEATURES......	
COMMENTS....	This was the first Windows FSP file retrieval program, and it appears to have been abandoned. FSP is sometimes nicknamed "File Slurping Protocol" and is only usable on certain servers which support it. FSP operates similar to a Web browser - it only logs on to a site long enough to retrieve necessary information and thus provides a minimal burden on that site. Once tooted as a potential replacement for FTP, it just doesn't seem to be going anywhere.

8.7   WinFTP

FUNCTION......	File retrieval (FTP)
FILE SIZE........	177,738 bytes
VERSION.........	Jan. 1994
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**winftp.zip**
STATUS...........	Released to Public Domain.
DOCUMENTS..	Installation instructions, but no on-line help.
FEATURES......	Based on an earlier version of WS_FTP with some added features . Program contains both 16 and 32 bit execution versions, (winftp.exe and win32ftp.exe).
COMMENTS....	Quite usable, but a bit dated now.

8.8   WSARCHIE

FUNCTION......	File search client (Archie)
FILE SIZE........	255,724 bytes
VERSION.........	alpha .8 July 1995
RETRIEVAL....	ftp://ftp.demon.co.uk/pub/ibmpc/winsock/apps/wsarchie/**wsarch08.zip** ftp://oak.oakland.edu/SimTel/win3/winsock/**wsarch08.zip**
STATUS...........	No charge for non-commercial use.
DOCUMENTS..	Installation instructions and on-line help included.
FEATURES......	Display shows file sizes and file dates. This latest version now has the capability to save search results to a text file for later viewing.
COMMENTS....	Visually well laid out and functioning main screen. Can be configured to work with WS_FTP to retrieve files. **Recommended**

8.9   WS-FTP

FUNCTION......	File retrieval (FTP)
FILE SIZE........	122,850 bytes
VERSION.........	July 1995. **Note:** Unfortunately the various versions to date are indistinguishable by file name, but latest version is always in the site listed below.
RETRIEVAL....	ftp://ftp.usma.edu/pub/msdos/winsock.files/**ws_ftp.zip** This site can be hard to access.
STATUS...........	No charge for non-commercial use by individuals or for use by US government organization.
DOCUMENTS..	Installation instructions and on-line help included.
FEATURES......	Can store repetitively used locations/directories for easy call up, and comes pre-

configured with a number of the more popular sites. Can be set to a number of "redials" if unable to connect although there is unfortunately no time delay allowed between these redials. Supports firewalls. Multiple copies of this program can be activated for simultaneous downloads.

COMMENTS.... The best and most popular FTP program in use today. This site is rather small and difficult to access but worth the effort since all of John Junod's latest versions of his various programs are here. See also the matching file search package WSARCHIE above.

Recommended

8.10   **WS-FTP32**   [**Win32s, Windows95, Widows NT,** version by John Junod]
FUNCTION...... File retrieval (FTP)
FILE SIZE........ 154,333 bytes
VERSION......... July 1995
RETRIEVAL.... ftp://ftp.usma.edu/pub/msdos/winsock.files/**ws_ftp32.zip**
STATUS........... No charge for non-commercial use by individuals or for use by US government organizations.
DOCUMENTS.. Installation instructions and on-line help included.
FEATURES...... Contains similar features to the 16 bit version, WS_FTP.
COMMENTS.... John Junod has ported his latest code to a 32 bit version for **Windows NT**. The latest release of this version also now runs on Windows 3.1 with the **Win32s** 32 bit extension installed (see the Non-Winsock section), **Windows NT**, and **Windows95**. There is no data transfer speed advantage in running this 32 bit version in a 16 bit machine even with **Win32s**. *File transfers will not be faster* although there may be other feature differences and advantages of the 32 bit version over the 16 bit one.

8.11   **WSFTP32**   [**Windows NT** version by Larry Kahn**]**
FUNCTION...... File retrieval (FTP)
FILE SIZE........ 309,513 bytes
VERSION......... July 1995
RETRIEVAL.... ftp://ftp.cica.indiana.edu/pub/pc/win3/uploads/**wsftp32.zip**
          Note: This program will eventually be moved to either the /nt or /winsock directories to replace older versions there.
STATUS........... Freeware.
DOCUMENTS.. Installation and startup instructions but no on-line help.
FEATURES...... This latest version now supports drag and drop.
COMMENTS.... This is an updated and recompiled version for **Windows NT** based on WS_FTP source code from December 1993 originated by John Junod. Some bugs have been fixed and some features added by the new author Larry Kahn who created this version. Technically, in many ways this is a superior version in many ways to John Junod's 32 bit version because, just for starters it supports long filenames and can display large text files (30k +) with the NT notepad (things Junod's version can't do). Unfortunately it does have some offsetting shortcomings beginning with the inability to enlarge its window to full screen size. Neither program is significantly superior to the other and both are under active development.

9. FINGERS

No, not the kind you give other motorists. A program such as Finger is used to check servers for information about the users logged on at a particular location. Sometimes little more than their real name is available, and sometimes a brief profile. The Finger function can also be found included in some other packages such as more recent versions of Eudora, a popular mail program. A few service providers have begun to shut down their Finger servers because of concerns that the information provided could be misused by outsiders.
For a combined Finger / Ping / Echo client, see also **WSNWUTIL** in the PING section.

9.1   **CFinger**
FUNCTION...... Finger and Echo client/daemons, Whois client.
FILE SIZE........ 153,464
VERSION......... 1.1 beta   March 1995

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RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**cfing11.zip**
STATUS...........	Shareware $US 5.
DOCUMENTS..	Installation instructions and on-line help.
FEATURES......	
COMMENTS....	A nicely done Windows implementation just released by Charles Wells. Full featured and not crippled.

9.2   **Finger: A Windows Socket Finger Client**

FUNCTION......	Finger query
FILE SIZE........	68,108 bytes
VERSION.........	3.1 March 1993
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**finger31.zip**
STATUS...........	No mention of any charges for using this program.
DOCUMENTS..	Minimal, but little required.
FEATURES......	
COMMENTS....	Contains two executables, one for Berkeley style synchronous blocking (finger.exe), the other for asynchronous Winsockets (mfinger.exe).

9.3   **FINGER 3.0**

FUNCTION......	Finger query
FILE SIZE........	70,135 bytes
VERSION.........	3.0 February 1995
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/winsock/**finger30.zip**
STATUS...........	Shareware $US 10. Volume discounts available.
DOCUMENTS..	Start up and use instructions.
FEATURES......	Enables multiple finger sessions at the same time - includes timer for re-fingering opened finger sessions every 1-60 minutes.
COMMENTS....	From Zoran Dukic, a contribution from Europe. Fairly straight forward and easy to use as are most finger clients.

9.4   **Finger32   [Windows NT]**

FUNCTION......	Finger query
FILE SIZE........	37,196 bytes
VERSION.........	May 1994
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/nt/**finger32.zip**
STATUS...........	No information - not specified by the author.
DOCUMENTS..	Nil.
FEATURES......	
COMMENTS....	This is a 32 bit version of the program Finger. It does appear to work with Windows 3.1 with the **Win32s** upgrade.

9.5   **Finger and Host Lookup** (2 programs)

FUNCTION......	Finger query and host name to IP number lookup/converter.
FILE SIZE........	17,017 bytes
VERSION.........	January 1994
RETRIEVAL....	ftp://ftp.cyberstore.ca/pub/Windows/Apps/**iwork.zip**
STATUS...........	Freeware.
DOCUMENTS..	Minimal.
FEATURES......	
COMMENTS....	

9.6 (NEW!)   **Fingerer/32   [Win32s, Windows95, Windows NT]**

FUNCTION......	Finger , Whois, CCSO Ph, ICMP Ping, Name/IP number lookup.
FILE SIZE........	483,249 bytes
VERSION.........	.31 beta July 1995
RETRIEVAL....	http://www.pitt.edu/~akist1 File name: **fing031b.zip**
STATUS...........	Shareware, 10 day evaluation. Registration $10 pre-release price until August 30, 1995 or until final release of version 1.0, whichever comes first.
DOCUMENTS..	Start up instructions and online help.

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FEATURES......
COMMENTS....   This is an impressive and convenient combination of a handful of Winsock lookup clients well worth the current asking price if you have a 32 bit operating system. The nag screen is a bit of a pain in the unregistered version. The Ping client only will not function with **Win32s**. From AKI Software Solutions.

9.7   **FingerPlan**
FUNCTION......   Finger support utility (but not a Finger client)
FILE SIZE........   46,296 bytes
VERSION.........   2.0 beta 4   July 1995
RETRIEVAL....   http://www.ior.com/lamplight   File name: **fp2_0b4.zip**
STATUS...........   Shareware $US 20. Time crippled. A code must be obtained by email in order to activate the program.
DOCUMENTS..   Basic instructions.
FEATURES......
COMMENTS....   A unique program designed to solve a problem caused by dynamic IP addresses. FingerPlan provides a means of making a user's current dynamic IP address readily available so that it can be fingered by other users. From Scott Chapman.

9.8   **IE's Finger**   (Imagination's End)
FUNCTION......   Finger client and basic Finger daemon.
FILE SIZE........   345,786 bytes
VERSION.........   .98   May 1995
RETRIEVAL....   ftp://wuarchive.wustl.edu/pub/MSDOS_UPLOADS/winsock/**iefngr098_complete.zip**
STATUS...........   Almostfreeware. Send the author some feedback on the program.
DOCUMENTS..   Basic start up instructions.
FEATURES......   Batch capabilities.
COMMENTS....

9.9   **WS Finger**
FUNCTION......   Finger and Whois query
FILE SIZE........   65,584   bytes
VERSION.........   1.5   April 1995
RETRIEVAL....   ftp://sparky.umd.edu/pub/winsock/**wsfngr15.zip**
STATUS...........   Shareware $US 10
DOCUMENTS..   Installation instructions, on-line help. A list of Whois servers is also included.
FEATURES......   A major new rewrite. Support now included for Finger, Whois and command line fingers, Finger address book, history, save to file, etc.
COMMENTS....   From Tidewater Systems, Shareware as of version 1.2. Previous versions Freeware.

9.10   **XFINGER**
FUNCTION......   Automatic finger query
FILE SIZE........   194,106 bytes
VERSION.........   .6 July 1995
RETRIEVAL....   http://www.ugrad.cs.ubc.ca/spider/q7f192/branch/tools.html   File name: **xfing06.zip**
STATUS...........   Freeware.
DOCUMENTS..   Basic info.
FEATURES......   Automatic fingering at adjustable intervals (default 40 seconds), useful if you want a running check made to see if a friend has logged on. Can be configured for a number of targets.
COMMENTS....   As mentioned in the documentation excessive hammering on a host may affect your popularity with the systems administrators. Released by George Xie.

10. GAMES - MUDS

One interpretation from the introductory text in MUD Man: "MUD, short for Multi-User Dungeon, is a fantasy world where people can interact and fight monsters, go on quests, etc..." And then there's MUSH, a "Multi-User Shared Hallucination". And then there's MOO........

10.1   **<u>AvPlay</u>**
FUNCTION...... MUD client
FILE SIZE........ 451,714 bytes
VERSION......... 4.01 beta July 1995
RETRIEVAL.... ftp://ftp.avalon.co.uk/AvPlay_Windows/**avw_401.zip**
STATUS........... No information.
DOCUMENTS.. Online help.
FEATURES......
COMMENTS.... Although specially designed for Avalon (a mythical world MUD) it can be used elsewhere. Intended for use with Trumpet Winsock. Released by Dave Austin.

10.2   **<u>GeNewIc Mud Client for Winsock</u>**   **[Win32s, Windows95, Windows NT]**
FUNCTION...... MUD client
FILE SIZE........ 126,001 bytes
VERSION......... 1.0 beta July 1995
RETRIEVAL.... ftp://papa.indstate.edu/winsock-l/mud/**gmd3210d.zip**
STATUS........... Shareware $US 20
DOCUMENTS.. Very basic instructions, not very much information.
FEATURES...... Separate input and output windows, Multiple hosts in different windows active simultaneously, Scroll back buffer, Macros, and a dockable/floating macro bar, user selectable fonts.

COMMENTS....

10.3   **<u>MUD Man</u>**
FUNCTION...... MUD client
FILE SIZE........ 78,834 bytes
VERSION......... 1.2   August 1994
RETRIEVAL.... ftp://ftp.cica.indiana.edu/pub/pc/win3/misc/**mudman12.zip**
STATUS........... Shareware $US 9, non-USA users $US 15. Registration benefits include an upgraded version of the program.
DOCUMENTS.. Basic start up instructions and on-line help included.
FEATURES......
COMMENTS.... According to author Samuel Ross: " The goal of MUD Man is to end the laborious typing required to move around and perform actions. Once initialized, every command can be issued from the click of a button."

10.4   **<u>MudWin</u>**   (Mud Windows Client)
FUNCTION...... MUD client
FILE SIZE........ 74,368 bytes
VERSION......... 1.0.6 beta   January 1995
RETRIEVAL.... ftp://ftp.microserve.com/pub/msdos/winsock/**mudwin.zip**
STATUS........... Copyright by the author but no mention of any charges for use.
DOCUMENTS.. Extensive start up and usage information.
FEATURES......
COMMENTS.... Nice graphical toolbar. Continued development by author Sam Denton.

10.5   **<u>MUDManager</u>** **[Win32s, Windows NT]**
FUNCTION...... MUD client
FILE SIZE........ 160,492 bytes
VERSION......... 2.0 May 1995
RETRIEVAL.... ftp://wuarchive.wustl.edu/pub/MSDOS_UPLOADS/winsock/**mudmgr20.zip**
                ftp://ftp.uwp.edu/pub/incoming/games/**mudmgr20.zip**
STATUS........... Shareware $US 10
DOCUMENTS.. Basic instructions and online help.
FEATURES...... Multiple document interface allowing you to connect to several sites at once, dockable toolbar for quick access to common functions, true 32-bit performance, automatic connecting to host sites when enabled, connect string logic allowing you to configure your system to automatically log you on, printing, splitter windows, etc.

COMMENTS....	A major rewrite from Bill Hyman. The program should also work with **Windows95** but for some reason doesn't appear to at the moment. A commercial version of this program will be released towards the end of June.

10.6   **MUTT(tm) Lite** (Multi-User Trivial Terminal client)

FUNCTION......	MUD/MUSH/MU* client.
FILE SIZE........	49,905 bytes
VERSION.........	.1j February 1995
RETRIEVAL....	ftp://caisr2.caisr.cwru.edu/pub/mud/**mutt_01j.zip**
	ftp://ftp.graphcomp.com/pub/msw/mutt/**mutt_01j.zip**
STATUS...........	Freeware (limited).
DOCUMENTS..	Installation and start up info in a file "readme.bnd". No on-line help and none planned for the Lite version.
FEATURES......	Multiple character connections with an MDI presentation. Separate send and receive windows with dialogue logging. Drag & drop support for sending files and command-streams. User-definable hot keys, including cursor key definitions.
COMMENTS....	The is the first public release of MUTT(tm) Lite, a client that provides Winsock access to MU* hosts. Design criteria: the executable will remain below 32K in order to minimize Internet traffic and FTP site impact and therefore features are limited. A full featured version called MUTT(tm) Elite is planned for future release by the author Bob Free. More information on MUTT is available through the WWW from: http://www.graphcomp.com

10.7   **VWMUD Master**

FUNCTION......	MUD client
FILE SIZE........	93,655 bytes
VERSION.........	1.20b July 1995
RETRIEVAL....	http://vaughan.pic.net/ **File name:** vwmud120.zip
STATUS...........	Basic package now Freeware. Optional registration brings 6 months of support and updates for $US 15. Source code $US 50.
DOCUMENTS..	Start up instructions and on-line help. On-line help includes Scott Geiger's listing of 340 MUDS, MUSHES and MOOS.
FEATURES......	Sound support now added along with some options affecting colors and fonts.
COMMENTS....	Telnet client designed specifically for "Outlaws" - players who kill other players. From author Vaughan Wynne-Jones.

10.8   **WinWorld** (formerly Winfugue)

FUNCTION......	MU* client
FILE SIZE........	72,771 bytes
VERSION.........	.2 alpha November 1994
RETRIEVAL....	ftp://ftp.mgl.ca/pub/winworld/**wworld02.zip**
STATUS...........	Donationware - contributions welcome but not mandatory.
DOCUMENTS..	Very basic start up and installation instructions.
FEATURES......	Auto-login, multiple simultaneous worlds - but only one world displayed at a time (no window clutter!), definable function keys, built in bug report mailer (doesn't require any other software)
COMMENTS....	Program formerly known as Winfugue. This is at an early stage of development and is being released by the author Eric Stern for further testing purposes.

11. GAMES - OTHER

Perhaps because Winsock is such a new standard, outside the MUD grouping there have been few games developed so far. In time we can expect to see others.

11.1   **CHESSBD**

FUNCTION......	Internet chess client.
FILE SIZE........	307,459 bytes
VERSION.........	2.0i April 1995

RETRIEVAL....	ftp://unixd1.cis.pitt.edu/group/chess/UTIL/**slics20i.zip**
STATUS...........	Shareware $US 5.
DOCUMENTS..	Start up instructions and online help.
FEATURES......	Considerable flexibility in selecting fonts and colors.
COMMENTS....	This program is capable of running scripts but is primarily intended to observe/play chess on the Internet Chess Server (ICS) or on the Free Internet Chess Server (FICS). Released by Don Fong. This program only works with Winsock. It has not been tested with TIA.

11.2   **COW-lite**   [**Win32s** and **Windows NT**]

FUNCTION......	Netrek client.
FILE SIZE........	215,242 bytes
VERSION.........	1.20 October 1994
RETRIEVAL....	ftp://esoteric.agron.iastate.edu/pub/netrek/COW-lite/bin/**COW-lite-1.20.Win32.zip**
STATUS...........	Not mentioned.
DOCUMENTS..	Extensive documentation on using the program and the game in general.
FEATURES......	
COMMENTS....	Netrek is a multiplayer team based Internet game with a Star Trek/Star Wars theme. The basic goal is to slaughter the enemy and conquer the galaxy (naturally!). There is a newsgroup specifically devoted to this game, rec.games.netrek. This Windows port of this program was done by Jonathan Shekter.

11.3   **First International Backgammon Server For Windows** (FIBS/W)

FUNCTION......	Backgammon server.
FILE SIZE........	218,095
VERSION.........	1.30 January 1995
RETRIEVAL....	ftp://sunsite.unc.edu/pub/micro/pc-stuff/ms-windows/winsock/apps/**fibsw130.zip**
STATUS...........	Shareware $US 40
DOCUMENTS..	Start up information and on-line help.
FEATURES......	Works with dial-up dumb-terminal-server access, TCP/IP, SLIP and PPP. Built in dialer with script.
COMMENTS....	An Internet server which allows users to play against human opponents all over the world.

11.4   **SWINE**   [**Win32s** and **Windows NT**]

FUNCTION......	Netrek client
FILE SIZE........	261,924 bytes
VERSION.........	1.30 beta January 1995
RETRIEVAL....	ftp://esoteric.agron.iastate.edu/pub/netrek/COW-lite/beta/**swine-1.3beta.win32.zip**
STATUS...........	Not mentioned.
DOCUMENTS..	Extensive documentation on using the program and the game in general.
FEATURES......	
COMMENTS....	This Windows port of this program was done by Jonathan Shekter who also did the same for COW-lite, the other Winsock based Netrek game. The documentation with both programs is very similar.

11.5   **TeleChess**

FUNCTION......	Chinese chess.
FILE SIZE........	50,440 bytes
VERSION.........	1.1 March 1995
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**tchess11.zip**
STATUS...........	Shareware $US 15
DOCUMENTS..	Installation instructions but nothing on the game itself.
FEATURES......	
COMMENTS....	This game is designed to be played by two people over any TCP/IP network, including the Internet.

11.6   **WIGC**

FUNCTION......	Winsock client for the Internet GO Server (IGS).
FILE SIZE........	156,940
VERSION.........	1.3 March 1994

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RETRIEVAL....	ftp://ftp.demon.co.uk/pub/ibmpc/winsock/games/go/**wigc1_3.zip**
STATUS...........	Shareware $US 5
DOCUMENTS..	Minimal start up instructions.
FEATURES......	
COMMENTS....	File winmgt38.zip a utility for recording GO games (and replaying games from the IGS) is also available at the same location.
	Information on the game GO can be obtained from:
	http://ltiwww.epfl.ch/~warkent/go/golinks.html

11.7   **WinIGC**

FUNCTION......	Winsock client for the Internet GO Server (IGS).
FILE SIZE........	249,554 and 317,028 bytes
VERSION.........	.61 July 1995
RETRIEVAL....	ftp://ftp.cc.umanitoba.ca/pub/umhuang4/**winigc61.zip** and **runtime4.zip**
STATUS...........	Shareware $US 25.
DOCUMENTS..	Start up instructions and online help.
FEATURES......	
COMMENTS....	The runtime4.zip file contains additional Microsoft and Borland dll files which you will need. They had been included in earlier versions of the program.

11.8   **Winsock Chess**

FUNCTION......	Internet chess client.
FILE SIZE........	163,546
VERSION.........	Beta test release March 1994
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**wschesb1.zip**
STATUS...........	Copyright Freeware.
DOCUMENTS..	Basic usage instructions.
FEATURES......	
COMMENTS....	Winsock Chess is a chess implementation allowing two players to play chess over a Winsock supported network. Nice clear graphical display.

11.9 (NEW!)   **WS Empire Client**

FUNCTION......	Empire client.
FILE SIZE........	124,860 bytes
VERSION.........	2.0 alpha 2 July 1995
RETRIEVAL....	ftp://ftp.empire.net/pub/empire/player/clients/**wse20a2.zip**
STATUS...........	Donationware.
DOCUMENTS..	Start up instructions and online help.
FEATURES......	It supports multiple connections, automatic login, I/O redirection, a capture buffer, executing command scripts, the clipboard, printing, command repeating, command history, an adjustable size listbox for viewing I/O.
COMMENTS....	A strategy game. From the FAQ: "BSD Empire is a global economic/political/military simulation game wherein players, representing national governments, make "real-time" decisions concerning resource allocation, national goals, international diplomatic efforts, etc. Extensive records are kept for all players." This is a 16 bit version for Windows 3.1 released by Jonathan Butler. A 32 bit version is in progress. Further information on the game of Empire is available in newsgroup rec.games.empire and on the WWW at: http://www.empire.net/~children/

12. GOPHERS

The gophers and ground squirrels which periodically move into my front lawn love to dig mazes of tunnels which go all over and seem to pop up everywhere. In a more benign manner the computer client called Gopher tunnels throughout the Internet for us, using a friendly **menu based system** to take us to places we would otherwise have difficulty reaching. The Gopher system was originally developed at the University of Minnesota.

Gopher programs also provide easy access to a number of sites which contain Veronica search programs which

enable you to do a broadly based search for all information, files, graphics etc. which correspond to the search word. The results of the search are listed and specific selections can then be retrieved/viewed/saved. This search and retrieval is more broadly based than the Archie/FTP system in that search words in the Gopher system do not have to correspond to a file name, and the results displayed include document based files which would not be picked up by Archie.

12.1   **BCGopher**   (Boston College Gopher)
FUNCTION......   Gopher search tool
FILE SIZE........   170,469 bytes
VERSION.........   .8ba3   May 1994
RETRIEVAL....   ftp://bcinfo.bc.edu/PUB/BCGOPHER/**bcg08ba3.exe**   **Note:** This is not a true anonymous FTP server, you must use "guest" as the password rather than the normal email user id.
STATUS...........   Freeware.
DOCUMENTS..   Start up information and on-line help file with a brief explanation of the term "Gopher".
FEATURES......   Supports the newer Gopher+ protocol found on some servers. Support for HTML, MIME.
COMMENTS....   Deserves an award for best Gopher icon I've seen.

12.2   **Gopher Book**
FUNCTION......   Gopher search tool
FILE SIZE........   888,666 bytes
VERSION.........   1.1   May 1993
RETRIEVAL....   ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**gophbk11.zip** (at CICA) or gophbook.zip
STATUS...........   Freeware. Winjpeg image viewer, Shareware $US 20.
DOCUMENTS..   Installation instructions and on-line help included.
FEATURES......   Interesting concept with menus displayed as pages in a book. Image viewer Winjpeg included.
COMMENTS....   A rather large package for a Gopher. Development has stopped.

12.3   **HGopher**   (Hampson's Gopher)
FUNCTION......   Gopher search tool
FILE SIZE........   199,833 bytes
VERSION.........   2.4   Jan. 1994
RETRIEVAL....   ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**hgoph24.zip** at CICA. Also found elsewhere as: hgopher2.4.zip, hgopher24.zip, hgopher2.zip, and goph24.zip. Take your pick.
STATUS...........   No charge for non-commercial use.
DOCUMENTS..   Online help.
FEATURES......
COMMENTS....   HGopher has gone commercial and is now the property of FTP Software Inc. Although version 2.4 has officially been withdrawn and will be used as the basis for the commercial version, copies of it are still widely available on many servers. Version 2.3 will remain in the public domain but will no longer be maintained or enhanced. Translation: dead gopher, avoid.

12.4   **The PNL InfoBrowser** (Pacific Northwest Laboratory)
FUNCTION......   Gopher search tool
FILE SIZE........   259,342 bytes
VERSION.........   1.05   November 1994
RETRIEVAL....   ftp://ftp.pnl.gov/pub/pnlinfo/win/**ib105.exe**
STATUS...........   No charge for non-commercial use.
DOCUMENTS..   Installation instructions and on-line help. On-line tutorial available through the PNL home site.
FEATURES......   Supports the newer Gopher+ protocol found on some servers.
COMMENTS....   This program was developed under contract from the US Department of Energy (why?).

12.5   **WGopher**
FUNCTION......   Gopher search tool
FILE SIZE........   136,707 bytes
VERSION.........   2.3.2   January 1995

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RETRIEVAL....	ftp://ftp.cuhk.hk/pub/gopher/PC/**wgoph232.zip**
STATUS...........	No charge for non-commercial purposes.
DOCUMENTS..	Minimal, no on-line documentation yet.
FEATURES......	Built in TN3270 telnet capability.
COMMENTS....	This is a minor upgrade to what once was a promising Gopher client from Hong Kong. It does not support Gopher+ at present although this planned for the future.

12.6   WSGopher

FUNCTION......	Gopher search tool
FILE SIZE........	367,860 bytes
VERSION.........	1.2 December 1994
RETRIEVAL....	ftp://dewey.tis.inel.gov/pub/wsgopher/**wsg-12.exe**
STATUS...........	No charge for non-commercial use.
DOCUMENTS..	Good. Now has an on-line help file.
FEATURES......	Supports the newer Gopher+ protocol found on some servers.
COMMENTS....	This is one of the better gopher clients currently available although it does not support firewalls. It also works with **Windows NT** and OS/2 Warp.
	Recommended

13. HOST LOOKUP CLIENTS

Host lookup programs do things like taking alphabetical site location information (such as ftp.cica.indiana.edu) and convert them into IP addresses (like 129.79.26.27) which for some reason computers absolutely insist on having. Or vice versa. For example, if you've been using FTP to download offensive pornographic images from that notorious and secretive site 127.0.0.1 and wanted to learn more about that location, you could input these numbers into one of these programs and see what information comes back.

13.1   **Hopcheck and Ghostname**   [Windows NT]

FUNCTION......	Two programs: a route tracer and a get host name program.
FILE SIZE........	24,917 bytes
VERSION.........	May 1994
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/nt/**hop.zip**
STATUS...........	No mention of any charges.
DOCUMENTS..	Negligible.
FEATURES......	
COMMENTS....	Two **Windows NT** programs from Larry Kahn.

13.2   **Host-Scanner**

FUNCTION......	Name server information lookup.
FILE NAME.....	hscan.zip
FILE SIZE........	5,054 bytes
VERSION.........	April 1995
RETRIEVAL....	Available by email only. Send an email to:
	fileserver@tetrix.internet-eireann.ie with HSCAN.ZIP in the subject line.
STATUS...........	Freeware.
DOCUMENTS..	Basic instructions for this easy to use program.
FEATURES......	
COMMENTS....	Just released. More than just an IP to name lookup utility, this program does a scan on a block of numbers the first of which you must supply. Block size is adjustable. A newer twist on an old idea. From Tetrix Engineering in Ireland.

13.3   **Local Host DNS-Look-Upper**

FUNCTION......	Host lookup.
FILE NAME.....	lhost.zip
FILE SIZE........	3,285 bytes
VERSION.........	April 1995
RETRIEVAL....	Available by email only. Send an email to:
	fileserver@tetrix.internet-eireann.ie with LHOST.ZIP in the subject line.
STATUS...........	Freeware.

DOCUMENTS..   Basic instructions.
FEATURES......
COMMENTS....   From Tetrix Engineering. A simple utility which retrieves the name of your host.

13.4   **<u>NSLOOKUP</u>**
<u>FUNCTION</u>......   Name server information lookup.
<u>FILE SIZE</u>........   110,428 bytes
<u>VERSION</u>........   1.1   August 1994
<u>RETRIEVAL</u>....   ftp://ftp.demon.co.uk/pub/trumphurst/nslookup/**nslookup.zip**   **Note:** same file name was
                    used for version 1.0. If downloading from a different location match file size to verify
                    correct version.
<u>STATUS</u>...........   Copyright, but no charge..
<u>DOCUMENTS</u>..   Installation instructions, but no on-line help.
<u>FEATURES</u>......
<u>COMMENTS</u>....   From Ashmount Research Ltd.

13.5   **<u>NSLOOKUP</u>**   **[Windows95** and **Windows NT]**
<u>FUNCTION</u>......   Name server information lookup.
<u>FILE SIZE</u>........   16,840 bytes
<u>VERSION</u>........   1.0   February 1995
<u>RETRIEVAL</u>....   ftp://ftp.usma.edu/pub/msdos/winsock.files/**nslookup.zip**
<u>STATUS</u>...........   Not mentioned, but presumably no charge for non-commercial use.
<u>DOCUMENTS</u>..   Minimal.
<u>FEATURES</u>......
<u>COMMENTS</u>....   From John Junod. This runs in a DOS window under **Windows95** and **Windows NT**. It
                    bears no relation to any other programs with the same name from other authors.

13.6   **<u>Sockinfo</u>**
<u>FUNCTION</u>......   DNS query utility
<u>FILE SIZE</u>........   10,747   and 307,136 bytes
<u>VERSION</u>........   1.1   March 1995
<u>RETRIEVAL</u>....   ftp://wuarchive.wustl.edu/pub/MSDOS_UPLOADS/winsock/**sckinf11.zip** and **bor402.zip**
<u>STATUS</u>...........   Almostfreeware. Send the author some feedback on the program.
<u>DOCUMENTS</u>..   Basic start up instructions.
<u>FEATURES</u>......
<u>COMMENTS</u>....   A DNS number to name converter (and vice versa). The Borland dll files required to run
                    this are not included with the program and must be downloaded separately which can be a
                    bit annoying if you miss them the first time around.
                         NOT AVAILABLE

13.7   **<u>WORMHOLE</u>**
<u>FUNCTION</u>......   DNS query utility
<u>FILE SIZE</u>........   32,256 bytes
<u>VERSION</u>........   1.0
<u>RETRIEVAL</u>....   ftp://ftp.cyberstore.ca/pub/Windows/Apps/**WORMHOLE.ZIP**   (Do not confuse with
                    wormhole.zip which is an unrelated and totally different program available on the
                    Internet.)
<u>STATUS</u>...........   Not specified
<u>DOCUMENTS</u>..   None
<u>FEATURES</u>......
<u>COMMENTS</u>....

13.8   **<u>WS Host</u>**   (Windows Socket Host)
<u>FUNCTION</u>......   DNS query utility
<u>FILE SIZE</u>........   5,124   bytes (gasp!)
<u>VERSION</u>........   1.1   October 1994
<u>RETRIEVAL</u>....   ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**wshost11.zip**
<u>STATUS</u>...........   Postcardware (Freeware for non-commercial use - just send the developer a nice
                    postcard.).

DOCUMENTS..	Minimal, an intuitively simple program.
FEATURES......	
COMMENTS....	This nifty compact utility can convert an IP number into a host name, or vice versa. Everyone should have one of these in their tool box. This new version makes the program fully asynchronous, correcting a shortcoming in the original version.

14. HYPER - G

Hyper-G is a large scale distributed hypermedia information system very similar to the World Wide Web. It's capable of accessing the WWW, WAIS and Gopher systems, and conversely WWW and Gopher clients can access Hyper-G. The big difference between Hyper-G and other networks is that Hyper-G servers track all links in their universe. If an object is deleted, the server can find and delete all links pointing to that object. The existence of a link server provides capabilities not possible in the WWW and Gopher space. Developed in Europe it doesn't have a lot to offer in comparison with the WWW which has reached critical mass now. Not surprisingly, current development plans appear to be aimed at increasing the WWW browser capabilities of this product.

14.1   **Amadeus**

FUNCTION......	Hyper-G browser.
FILE NAME.....	There are a number of zipped files in this directory to be downloaded depending on features required. Expect a total download of up to 7 megabytes. See the latest notes in the same directory.
VERSION.........	.87 beta July 1995
RETRIEVAL....	ftp://iicm.tu-graz.ac.at/pub/Hyper-G/Amadeus/
STATUS...........	I didn't see anything mentioned, but presumably no charge for non-commercial use.
DOCUMENTS..	Extensive documentation and help files included. The separate zipped documentation file is almost 2 megabytes unzipped and will be painfully to view with a less powerful PC.
FEATURES......	Automated installation with the choice of maximum, custom, or minimum install. This program comes with some familiar clients such as WS_FTP32 for FTP, and EWAN for Telnet included.
COMMENTS....	Requires **Win32s** which is included in the program and will be installed automatically if you do not already have it. This is the only Windows browser available for Hyper-G.

15. MAIL and MAIL ACCESSORIES

One writer recently gushed that electronic mail is the killer application for the 90's. He's probably right (and you thought that it was going to be the WWW). The development of electronic mail (email) and its rapid deployment and availability to the general public will have an enormous impact on our lives for years to come.

System info stuff. There are two types of servers necessary in most mail systems: **SMTP** and **POP**. The SMTP (Simple Mail Transfer Protocol, or as I prefer: Send Mail To People) server is primarily used to deliver mail. When you originate an email message it is sent via your local SMTP server which passes the message on to a chain of SMTP servers in other locations which route the message to the end destination. Unfortunately, the SMTP servers are only capable of delivering mail. If you are not connected to the network when delivery is attempted they will go away and try again later, perhaps repeatedly every few hours for several days or for however long they have been programmed. Eventually they just give up and bounce the mail back to the sender as undeliverable. To overcome this problem most sites also use a POP mail server (current vintage POP3). The POP (Post Office Protocol, or as I prefer: Post Office Pickup) server acts like a mailbox, receiving incoming mail and storing it until such time as the user initiates retrieval/viewing.

A newer mail protocol with the potential to displace POP is **IMAP** (Internet Message Access Protocol or Interactive Mail Access Protocol). IMAP is more of a server based protocol. Unlike POP, messages are intended to remain primarily on the server where they can be stored, filed in folders, or selectively downloaded (complete, headers only, without attachments, etc.) or archived.

IMAP is particularly suitable in an environment such as a university where there might be shared machines where downloading and storing mail on a local PC is not practical anyway. It has a few other advantages in other areas including better handling of MIME mail attachments. It does permit viewing of headers and selective downloading. Perhaps the biggest advantage of IMAP is that it has equivalent POP functionality built in allowing users to retain their download, offline reading and storage habits if they wish.

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IMAP's biggest disadvantage is that it is server intensive for storage space and access to mail as opposed to the simpler download and delete activity common to POP. For modem users offline storage of mail on the local PC with POP is more desirable for reasons of convenience as opposed to the nuisance of having to repetitively log back on to the server to view or retrieve something (busy signal...busy signal...busy signal......). I'm not sure that I see any major advantages of IMAP here that would appeal to many service providers or dialup users and perhaps not surprisingly implementation on the Internet does not appear to have been significant (pure opinion - no statistics). Mail client programs with only POP capabilities will not work with IMAP servers and there are few Windows clients with IMAP capabilities yet, although their numbers are increasing.

In connection with email one issue cannot be emphasized enough. **There are major security risks with the current Internet mail system.** There are three points worth remembering. Let's call these the three monkeys, or perhaps more appropriately, the three mail monkeys:

Monkey #1. Information is not secure. There is no guarantee that any mail to or from you will not be intercepted and read by others while it is in transit. It may pass through many sites, many potential "hands" while in route. Even when it reaches its destination it may be vulnerable to hackers while stored on the POP server. For this reason confidential information such as credit card numbers should never be sent through the Internet without some type of secure encryption system which can guarantee confidentiality. Lack of any current universal standard on the Internet for this has been a limiting factor for companies trying to do business on the Internet.

Monkey #2. No guarantee of delivery. There is no guarantee that any email message you send will ever reach its destination, and no guarantee that that anyone will ever be notified of the delivery failure. Normally, undelivered mail will be bounced back to the sender. Normally.

Monkey #3. No user authentication. There is no guarantee that that any email message (or newsgroup posting for that matter) is really from the person listed as the sender. There is no user authentication system to confirm that person's real identity, and false identities are easily created and have been used from time to time by people on the Internet.

It is worth noting that email business transactions through the Internet *by themselves* are of questionable legal standing since it is difficult to mutually verify the identities of the contracting parties. It is currently too easy for one party to repudiate a contract by claiming that someone had been impersonating them. And it is also too easy for this impersonation to occur. ("Not me. I didn't order those 12 pizzas.")

One feature to watch for in email programs is the ability to send attached documents (zip files, spreadsheets, graphics, etc.) through the Internet mail system with **UUencode** or **MIME** (Multipurpose Internet Mail Extensions). MIME is the newer and better Internet mail standard and is gradually displacing UUencode. MIME should be used whenever possible. Because the two systems are not compatible a good mail program should ideally have both to be able to handle sending or receiving in either format for the time being. **BinHex** is a Macintosh standard for file attachments, handy if you expect to be communicating with *those people*.

The proper choice of a mail program depends upon availability of features that are important to you, and your comfort level with the mechanics of how the program works. A good beginner's program is Eudora which is easy to learn to use and very stable although the free version is lacking in features. I have removed Eudora from my recommended list and added a new program called E-Mail Connection, which has a more feature rich user interface but still a very easy to use program. Another very rated highly and popular mail program is Pegasus. It is also very feature rich, but somewhat more difficult to setup and to become familiar with.

15.1   Atis Mail For Windows

FUNCTION......   Electronic mail
FILE SIZE........   1,572,877   bytes
VERSION.........   1.04   May 1995
RETRIEVAL....   ftp://oak.oakland.edu/SimTel/win3/winsock/**atism104.zip**
STATUS...........   Shareware $US 50.
DOCUMENTS..   Basic installation instructions.
FEATURES......   SMTP send, POP3 or Imap2/2b receive. Supports MIME mail. Built in X.500 DUA. Can

	also send and receive (rfc822) mail in a Novell Netware Network. Automated installation.
COMMENTS....	All drop down menu commands - no shortcut toolbar icons. This program originates in the Netherlands.

15.2 **E-Mail Connection (tm) Internet Edition**

FUNCTION......	Electronic mail
FILE SIZE........	1,355,136 bytes
VERSION.........	2.5.03 June 1995
RETRIEVAL....	http://www.connectsoft.com File name: **emcsetup.exe**
STATUS...........	Free for personal use.
DOCUMENTS..	Online help.
FEATURES......	MIME, UUencode, spell checker. Configurable address books, folders, drag and drop, polling.
COMMENTS....	Wow! Loads of features and free!!!!!!! Excellent user interface and you have a configuration choice of selecting the default simple one (recommended) or a more advanced version for power users. Only noticeable shortcoming is that it does not appear to support signatures. OOPS! Spoke too soon - they have just released a newer version 2.5.3 which fixes this. This is the Internet portion of an award winning commercial program which has now been released as Freeware by ConnectSoft.
	NOTE: The MAPI server provides the ability to send mail directly from a MAPI aware program such as MS Word or MS Excel. It otherwise serves no purpose and if it's existance annoyed you as much as it did me then it can be prevented from booting up by changing MapiServer=1 to MapiServer=0 in the prof0001.ini file.
	Recommended

15.3 **Eudora**

FUNCTION......	Electronic mail
FILE SIZE........	292,942 and 376,851 bytes
VERSION.........	1.4.4 December 1994
RETRIEVAL....	ftp://ftp.qualcomm.com/quest/windows/eudora/1.4/**eudor144.exe** and **14manual.exe**
STATUS...........	Postcardware (Send the developers a nice postcard.). The upgraded commercial version $US 65.00. Further information in the Help menu under About Commercial Eudora.
DOCUMENTS..	Documentation in a separate file in the same directory..
FEATURES......	POP3/SMTP protocol. BinHex and Mime capability but does not support UUencode in the free version. Built in directory services (Ph and Finger). This latest version adds the ability to have multiple messages open at the same time.
COMMENTS....	A very basic and very popular mail program from Qualcomm. Not a lot of features, but easy to configure and easy to use. Latest version also now runs under **Windows NT** and OS2. The registered commercial version 2.0 has the capability to send and receive mail remotely via modem without SLIP. No further development seems likely for this free version.

A third party HTML version manual for the PC and Mac covering versions 1.4.2 and 1.4.3b1 from Mark Branigan of the Staffordshire University, School of Computing is available through the WWW from: http://www.soc.staffs.ac.uk/eudora/contents.html

A variation of the Staffordshire manual has been made available by Leopoldo Saggin covering version 1.4.4: http://www.bio.unipd.it/html/eudora/contents.html   (new address!)

15.4 **Mi'Mail**

FUNCTION......	Electronic mail
FILE SIZE........	1,395,621 bytes
VERSION.........	1.04 June 1995
RETRIEVAL....	ftp://ftp.eunet.be/pub/EUnet/dos/**mimail.zip**
STATUS...........	Demo, time crippled. Commercial Internet version $US 125. Full commercial version with additional X.500 access and DDE server $US 165.
DOCUMENTS..	Start up instructions and online help.
FEATURES......	MIME, UUdecode/UUencode, filters, address books, folder system, drag and drop, automated mail checking (polling), multi-user capabilities, etc. Built in X.500 DUA.

COMMENTS....	Capability of identifying from incoming mail if the sender had MIME capabilities. A well done MIME compliant mail program. Nice interface and some good features. Mi'Mail works with a wide variety of TCP/IP stacks and should work with any Winsock (it does work with Trumpet). Released by IRISoft Works. A future version will have (public key) encryption capabilities.

Warning: As stated in its documentation this program will automatically send the user's name and email address, server info and other non-confidential (but unspecified) information to the owners of this program for possible registration follow-up. The software also appears to have the capability to be remotely deactivated if unregistered use continues. If this offends you then avoid this program.

15.5   **Pegasus Mail**

FUNCTION......	Electronic mail
FILE SIZE........	1,076,492 bytes
VERSION.........	2.01 June 1995
RETRIEVAL....	ftp://risc.ua.edu/pub/network/pegasus/**winpm201.zip**
STATUS...........	Free! Manuals, if required, are sold by the author to support development costs.
DOCUMENTS..	Installation instructions and on-line help included. Look for a self extracting DOS (yuck!) display file **wguide.exe** which contains some of this information.
FEATURES......	SMTP/POP3 protocol. Supports UUencode, BinHex, and MIME, and now contains a spell checker and a polling feature giving it the capability to operate in the background constantly checking for mail at specified intervals. Floating toolbar capabilities. It finally adds the ability to re-edit outgoing queued mail.
COMMENTS....	Pegasus is designed as an email program for use on a Novell Netware network, or for stand alone use on a PC with a TCP/IP wWinsock such as Trumpet Winsock. The latest major upgrade to a very popular and versatile package. Most of the features you might want in at least some form. It will take longer to set up than most other mail programs.

Recommended

15.6   **Pronto/IP** and **Pronto Remote**

FUNCTION......	Electronic mail [Demo]
FILE SIZE........	1,124,198 and 1,430,325
VERSION.........	May and February 1995
RETRIEVAL....	ftp://commtouch.com/pub/commtouch/**prontoip.exe** for TCP/IP networks or SLIP dialup connections (Pronto/IP)
	ftp://commtouch.com/pub/commtouch/**pronto.exe** for UNIX shell dialup connections (Pronto Remote)
	There are also documentation files at the same location for each program which should be retrieved at the same time: **pronto.txt** and **prontoip.txt** etc.
STATUS...........	These are 30 day evaluation copies. Registration $US 69 for Pronto/IP and $US 99 for Pronto Remote. Both packages $US 139.
DOCUMENTS..	On-line help and separate documentation files available at the commtouch site.
FEATURES......	Pronto/IP supports MIME, UUencode and MAPI (has MAPI server capabilities). Pronto Remote supports MIME, SUN and UUencode attachments. Automated installation. Toolbar can be customized by adding or deleting toolbar icons - a rare feature in Internet programs to date.
COMMENTS....	From CommTouch Software. Pronto Remote is similar to Pronto/IP but can access mail by directly dialing into your shell account - no SLIP. Some very nice features here, but not cheap. A beta version of the next release is also available at the same location under filename pip15b.exe.

15.7   **RFD Mail**

FUNCTION......	Electronic mail
FILE SIZE........	813,495 bytes
VERSION.........	1.23 September 1994
RETRIEVAL....	ftp://ftp.std.com/customers/software/rfdmail/**rfdmail.zip**
	ftp://garbo.uwasa.fi/windows/comm/**rfdmail.zip**
STATUS...........	Shareware $US 29.95

DOCUMENTS..	Installation instructions and on-line help included.
FEATURES......	Has direct dial (shell) mail access capabilities but creating or modifying script files for this can be very cumbersome unless you are fortunately using one of the on-line services for which script files are provided. Automatic polling (background checking for mail at scheduled intervals).
COMMENTS....	This package's strength lies in it's capability for dialup email access to a wide variety of service providers, from BBS's to commercial networks like CompuServe and Genie, to the Internet, and it contains all the necessary programs, scripts, instructions, etc. to support this. SMTP/POP capability has just been added. Program seemed slow when executing commands, and more features are needed (such as MIME/UUencode capability).

15.8 **Small SMTP Client For The Winsock API**

FUNCTION......	Electronic mail (send only)
FILE SIZE........	15,568 bytes
VERSION.........	1.1 March 1993
RETRIEVAL....	ftp://dorm.rutgers.edu/pub/msdos/winsock/apps/**smtp11.zip**
STATUS...........	Public domain.
DOCUMENTS..	Some introductory information.
FEATURES......	
COMMENTS....	Of historical interest only. An example of an early, simple, mail client.

15.9 **Winelm**

FUNCTION......	Electronic mail
FILE SIZE........	259,553 bytes
VERSION.........	Second release, March 1994
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**winelm.zip**
STATUS...........	No mention of any charges for using this program.
DOCUMENTS..	Inadequate, none.
FEATURES......	
COMMENTS....	This package has nothing to offer.

15.10 **WS Beeper**

FUNCTION......	Mail (send only)
FILE SIZE........	72,563 bytes
VERSION.........	2.6 December 1994
RETRIEVAL....	http://wgg.com/wgg/best/ ftp://ftp.best.com/pub/cbntmkr/**wsbeeper.zip**
STATUS...........	Shareware $US 8.
DOCUMENTS..	Basic instructions.
FEATURES......	
COMMENTS....	A simple command line style mail send program. It has very limited features and capabilities, possibly usable in special situations. From Willow Glen Graphics.

15.11 **WS-Gmail**

FUNCTION......	Electronic mail client/server.
FILE NAME.....	ws_gmail.zip
FILE SIZE........	192,176 bytes
VERSION.........	April 03/94
COMMENTS....	No longer available. Originally developed by John Junod (noted for his popular WS_FTP package) this had both client and server capabilities. It has gone commercial now under the name IMAIL. Some early development versions including this one can sometimes still be found and are fairly functional. Not that you would ever do an Archie search to try and find it.

15.12 **XFERPRO**   (Information Transfer Professional)

FUNCTION......	Internet mail file transfer add-on feature.
FILE SIZE........	134,025 bytes
VERSION.........	1.0 July 1994
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/util/**xferp100.zip** .

STATUS...........	Shareware. Registration $US 10.
DOCUMENTS..	Includes on-line help.
FEATURES......	Fully supports Mime, UU, and XX encoding.
COMMENTS....	An add-on for mail programs lacking the ability to send attached documents through the Internet. From Sabasoft Inc.

15.13   **Z-Mail**   **[Win32s, WIndows95, Windows NT]**

FUNCTION......	Electronic mail
FILE SIZE........	1,634,880 bytes
VERSION.........	3.2.1 September 1994
RETRIEVAL....	ftp://ftp.z-code.com/pub/z-code/zmail/zm-win/**w321rel.exe**
STATUS...........	Commercial demo. The documentation gives instructions on sending away for an activation key required for installation. Up to a 30 day demo. Purchase price approximately $US 165.
DOCUMENTS..	Installation instructions and online help.
FEATURES......	MIME and UUencode for attachments, message sorting options, and searching capabilities, filters for automatically placing mail into appropriate folders, aliases/address book, access to program code for editing purposes, header/body printing options, etc., etc.
COMMENTS....	From Network Computing Devices Inc. This is perhaps the BMW of mail programs with features (lots), performance (great) and price (oh oh!). This program (and this particular version) was chosen as a PC Mag editor's choice in a comparison of mail programs in the recent April 25, 1995 issue of PC Magazine. Excellent graphics and loads of options. For the price I was surprised to find a spell checker missing. This program includes a version of **Win32s** which will be required for Windows 3.1 if you do not already have it installed. The **Win32s** should **not** be installed if you are using this program under **Windows95** or **Windows NT**.

16.   MAIL NOTIFICATION UTILITIES

16.1   **ChkMail**   **[not Winsock]**

FUNCTION......	Mail check utility.
FILE SIZE........	35,686 bytes
VERSION.........	1.2 May 1995
RETRIEVAL....	ftp://ftp.demon.co.uk/pub/ibmpc/winsock/apps/chkmail/**chkmail.zip**
STATUS...........	Freeware for non commercial use.
DOCUMENTS..	Start up instructions.
FEATURES......	
COMMENTS....	ChkMail is designed to notify users of Pegasus Mail of unread email. It is intended mainly for stand alone machines shared by several users, such as the members of a family. It avoids the need to run Pegasus for each user in turn to see if anything has been received. It is aimed mainly at people using Pegasus and WinDIS (which has a built in Pegasus gateway). From Barry Savell.

16.2   **E-Mail Notify**   **[Win32s, Windows95, Windows NT]**

FUNCTION......	Mail notification and header retrieval (only)
FILE SIZE........	210,352, 211,230, and 211,230 bytes
VERSION.........	.99.7 July 1995
RETRIEVAL....	http://olympe.polytechnique.fr/~zic/english/email.html
	Files: **e966w32s.zip [Win32s], e997w95.zip [Windows95]**, **e997nt35.zip [Windows NT]**
STATUS...........	Freeware, but use must stop once final version is released.
DOCUMENTS..	Startup instructions and online help.
FEATURES......	
COMMENTS....	New, just released by Ludovic Dubost. This program is designed to run automatic checks on a mail server and notify you if there is mail waiting. The headers may be retrieved, but the program cannot retrieve full messages or delete mail on the server and as such is intended to supplement a normal mail program. These are 32 bit versions for each of the 3 Microsoft flavors.

16.3   **Ladybird**
FUNCTION......   Mail notification
FILE SIZE........   85,704 bytes
VERSION.........   1.2 July 1995
RETRIEVAL....   ftp:// 139.175.1.10/UPLOAD/jenwen/**lbird12x.exe**
                    http://www.seed.net.tw/~jenwen/ladybird.htm
STATUS...........   Shareware. $US 5 in local postage stamps (new). This version expires August 31, 1995.
                    Program may not be reposted to other sites without permission.
DOCUMENTS..   Basic instructions.
FEATURES......   Chinese version also available. Sound alert added now.
COMMENTS....   Released by Jenwen, Chien-Wen Huang.

16.4   **Pegasus New Mail Check**
FUNCTION......   Add on mail notification for Pegasus mail.
FILE SIZE........   20,138 bytes
VERSION.........   March 1995
RETRIEVAL....   ftp://ftp.xmission.com/pub/users/o/orenp/**pegachck.zip**
STATUS...........   Freeware, source code included.
DOCUMENTS..   Basic start up instructions.
FEATURES......
COMMENTS....   This utility was written to enhance the mail polling (automatic checking for mail at regular
                    intervals) capability of Pegasus mail version 1.22. Released by Oren Peli.

16.5 (NEW!)   **P.O.**   (Post Office)
FUNCTION......   Mail notification
FILE SIZE........   167,449 bytes
VERSION.........   1.24 beta2 July 1995
RETRIEVAL....   http://www.cis.ksu.edu/~novak/po.html File name: **po_124b2.zip**
STATUS...........   Shareware $US 5
DOCUMENTS..   Basic instructions.
FEATURES......   An email notification program designed specifically to operate with a low (less than 3%)
                    burden on system resources. Adjustable polling to keep a connection alive, visual and
                    audio alarms, message count reported and icon can change to show the presence of new
                    mail. Auto mail program launch on receipt of new mail.
COMMENTS....   Well designed and simple to use. Released by Michael Novak.

16.6   **WinBiff**
FUNCTION......   Windows mail notification utility (for Pegasus Mail and others).
FILE SIZE........   86,267 bytes
VERSION.........   3.0   July 1995
RETRIEVAL....   ftp://risc.ua.edu/pub/network/pegasus/misc/**wnbff30.zip**
STATUS...........   Shareware $US 15 with volume discounts and site licenses available.
DOCUMENTS..   Installation instructions and on-line help included.
FEATURES......   Adjustable polling (mail checking) interval. Optional audible alarm.
COMMENTS....   This utility adds the ability to operate in the background periodically checking for new
                    mail to mail clients lacking this feature. Usable with Waffle, FirstMail, Novell MHS, Mini-
                    Host, FSUUCP, or Sendmail (with PC-NFS). Not really required for the newer Pegasus or
                    Eudora.

16.7 (NEW!)   **WinBiff**
FUNCTION......   Windows mail notification utility
FILE SIZE........   117,687 bytes
VERSION.........   .3 July 1995
RETRIEVAL....   http://www.ugrad.cs.ubc.ca/spider/q7f192/branch/tools.html   File name: **wbiff03.zip**
STATUS...........   Freeware.
DOCUMENTS..   Minimal instructions, simple program.
FEATURES......   This program runs in the background and produces a visible icon change to indicate that
                    new mail is waiting. No sound.

COMMENTS.... An unfortunate choice of names duplicating and existing program with a similar function. From George Xie.

17. MISCELLANEOUS

Or more specifically, a little bit of this, and a little bit of that.

17.1 **Keep Alive** **[Windows NT]**
FUNCTION...... Repetitive "ping" to server to keep connection alive; Rexec client also included.
FILE SIZE........ 25,924 bytes
VERSION......... August 1994
RETRIEVAL.... ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**kalive.zip**
STATUS........... Not stated.
DOCUMENTS.. Very minimal instructions..
FEATURES......
COMMENTS.... This is a 32 bit program which does **not** work with Windows 3.1. Command line format: "keepalive hostname interval". From Larry Kahn. The same purpose can also be accomplished with some mail programs by using their polling feature to check for mail at a set intervals.

17.2 **Panda**
FUNCTION...... Mostly a mail program and newsreader at the moment.
FILE SIZE........ 336,765 bytes
VERSION......... 2.0b   February 1995
RETRIEVAL.... ftp://chop.isca.uiowa.edu/pub/Panda/**WinPanda.Modem.BETA.zip**
STATUS........... No mention of any charges.
DOCUMENTS.. Nothing with the package, but logging on as "public" with the default configuration allows you to retrieve some basic information from an Iowa server
FEATURES......
COMMENTS.... New version. Panda is a multipurpose customized program being developed at the University of Iowa for campus network use. It will include a Gopher, Usenet, mail, FTP, etc.

17.3 **Tcpmeter**
FUNCTION...... Unknown.
FILE SIZE........ 19,200
VERSION......... October 1994
RETRIEVAL.... ftp://papa.indstate.edu/winsock/**tcpmeter.exe**
STATUS........... No information.
DOCUMENTS.. None.
FEATURES......
COMMENTS.... From Peter Tattam, the Trumpet Winsock author. This provides a chart recorder type graphical readout of bi-directional data flow. Received bytes/second are shown from the top down in green and send bytes/second are from the bottom up in red. Clicking right and left mouse buttons increases or decreases the vertical display scale from the default 1 kbyte/second. Possibly useful for monitoring the effective data transfer rates while communications settings are being adjusted. The graphics are kind of neat. This is designed to work only with Trumpet Winsock.
        Note: This version was only intended for the various Trumpet Winsock 2.0 versions. A newer version of this was created for the Trumpet 2.1 versions and is included with that package. According to the author Peter Tattam the two versions should only be used with the stacks they were intended for. Mixing them apparently introduces a risk of "corrupting stacks & windows etc...".

17.4 **WINAPPS2**
FUNCTION...... A comprehensive client startup package.
FILE SIZE........ 169,370
VERSION......... 2.1f July 1995 Released to coincide with the release of the newest Trumpet Winsock

version. Individual clients range in date from 1993 to the present.

RETRIEVAL.... ftp://oak.oakland.edu/SimTel/vendors/trumpet/winsock/**winap21f.zip**
ftp://ftp.trumpet.com.au/ftp/pub/winsock/**winap21f.zip**
STATUS........... Shareware. No mention of any charges for use, but not to be resold or distributed for sale.
DOCUMENTS.. Negligible.
FEATURES...... Includes Telnet, Archie, Chat, IRC, FTP and viewer clients.
COMMENTS.... A basic starter package from Peter Tattam, the Trumpet Winsock author. Some of these are fairly old, while a couple are newer versions.

17.5   **WinLab** and **NetProto**
FUNCTION...... Advanced image processing/photo retouch with file transfer module.
FILE SIZE........ 855,660
VERSION......... 3.0 October 1994
RETRIEVAL.... ftp://hp750.dibe.unige.it/pub/PHD/**wlabv30b.zip** (Prime site: Italy)
           ftp://ftp.cica.indiana.edu/pub/pc/win3/desktop/**wlabv30b.zip**
STATUS........... Shareware WinLab: ITL 120.000 (~ 80 $US)
           NetProto   ITL 30.000 (~20 $US)
DOCUMENTS.. Start up instructions and on-line help.
FEATURES......
COMMENTS.... Package contains both the image processor (WinLab) and has the capability to remotely send or receive documents (NetProto) from another machine (also running NetProto) through Winsock.

17.6   **Windows Sockets Net Watch**   **[Win32s, Windows95, Windows NT]**
FUNCTION...... Network Monitor.
FILE SIZE........ 289,418 bytes
VERSION......... Alpha 21   May 1995
RETRIEVAL.... ftp://ftp.usma.edu/pub/msdos/winsock.files/**ws_watch.zip**
STATUS........... May be freely distributed and used, but not sold.
DOCUMENTS.. Basic startup instructions.
FEATURES...... Lookup, Finger and Whois tools now added. Traceroute and Ping support only if you are using the Microsoft TCP/IP 32 stack.
COMMENTS.... This is a working alpha version of a graphical network monitor. It checks the status of equipment connected to a small network, primarily to determine if any sites are down. Still at an early stage of development, but interesting.

17.7 (NEW!)   **XPlan**
FUNCTION...... Dynamic IP address update to .plan file.
FILE SIZE........ 129,543 bytes
VERSION......... .5 July 1995
RETRIEVAL.... http://www.ugrad.cs.ubc.ca/spider/q7f192/branch/tools.html File name: **xplan05.zip**
STATUS........... Freeware.
DOCUMENTS.. Basic startup instructions.
FEATURES......
COMMENTS.... This program posts your dynamic IP number into the .plan file in your UNIX account which your friends can "finger" to "find" you. Released by George Xie.

18. NEWS

The Usenet news system has become one of the cornerstones of the Internet Usenet is like a series of thousands of electronic bulletin boards, each oriented to a specific area or topic of interest where users can post messages or respond to other postings. You subscribe to specific groups which interest you and your news program retrieves all the articles associated with those groups. Typically Usenet news is accessed by logging onto your service provider's news or NNTP (Network News Transfer Protocol) server.

There is no "best" news reader. Different programs present different strengths in areas like speed, features, stability, ease of use and "personality". There are differences in what is important to a newcomer versus what an experienced power user demands. Trumpet News and WinVN provide good overall choices in a basic

online news program. Trumpet is beginning to show its age whereas WinVN is still being actively developed. Both have basic capabilities for threading (following the postings on a particular topic). A powerful new program, News Xpress, is a significant improvement over both of these in speed, threading and other features. For advanced features and performance there is also the new program Free Agent. It was especially designed for **offline** reading to help reduce connection costs. It enables you to retrieve all new headers in selected groups, go offline, select those of interest and then log back on to retrieve the corresponding bodies and then log off again to read them. Although usually not well documented and not always easy to use, many of the other programs do have some kind of offline capability.

18.1   AutoNews

FUNCTION......   Usenet news.
FILE SIZE........   393,363 bytes
VERSION.........   95.03   March 1995
RETRIEVAL....   ftp://ftp.cityscape.co.uk/users/ay89/**autonews.zip**
STATUS...........   Commercial demo UKP 26, $US 52. This demo program "eventually stops working".
DOCUMENTS..   Minimal on-line help.
FEATURES......   Automated installation.
COMMENTS....   Designed as an offline news reader this program has a tough sell on the price with several
                          other equivalent or better news programs being literally given away.

18.2   dMail for Windows

FUNCTION......   Usenet news, mail (send and receive)
FILE SIZE........   339,018 bytes
VERSION.........   1.0b (July 1994)
RETRIEVAL....   ftp://papa.indstate.edu/winsock-l/mail/**dmailwin.zip**
STATUS...........   Freely distributed for testing purposes.
DOCUMENTS..   Installation instructions and on-line help included. Terminology sometimes confusing and
                          frustrating, especially with initial setup.
FEATURES......   Handles UUCP-g protocol (modem or TCP/IP), POP3, SMTP, and NNTP news reading.
                          The news reader has UUdecoding, article sort by size, date, or subject. Drag and drop
                          capability, etc.
COMMENTS....   There is a novel replacement for the traditional hourglass cursor - a man digging with a
                          shovel. The installation is a nuisance since an older version of Trumpet Winsock is
                          included and will cause a conflict if you already have a newer version loaded. Since this
                          was produced somewhere in the former Soviet Union and probably only intended for
                          distribution there it is best avoided.

18.3   Free Agent (tm)

FUNCTION......   Usenet news, mail (send only)
FILE SIZE........   734,757   bytes
VERSION.........   Public release 1.0 July 1995
RETRIEVAL....   http://www.forteinc.com/forte/agent/dlmain.htm File name: **fagent10.zip**
STATUS...........   Free Agent is free to individuals for personal use at home and to students or staff of
                          educational institutions and non-profit organizations.
DOCUMENTS..   Brief start up instructions and on-line help.
FEATURES......   Multiple configurable font colors. Single split window design with many enhancements
                          including the ability to change screen layout. Includes the unusual and very welcome
                          ability to extract necessary network configuration, existing newsgroup listing as well as all
                          your subscribed group information from an existing new readers such as Trumpet or
                          WinVN which is already installed on your system. This latest version contains flexible
                          article purging and the much requested database compaction capability.
COMMENTS....   Very impressive! This is the best off-line reader currently available for cutting your
                          connection time costs. It is also one of the best news programs in general. Good threading
                          capability. Decoding (pictures) has been criticized as somewhat inferior to News Xpress.
                          Recommended

Note: The commercial version Agent .99 is also available brom the same location for the special price of $US 29 until August 31, 1995, then $40 thereafter. It adds a multi-lingual spell checker and 6 months of upgrades and email technical support. The forthcoming upgrades will include the addition of basic email capabilities

(August).

18.4   <u>**NEWS**</u>   [**Windows95** and **Windows NT.** A version for the **Alpha** platform is also included]
<u>FUNCTION</u>......   Usenet news, mail (send only)
<u>FILE SIZE</u>........   594,728 bytes
<u>VERSION</u>.........   X1.0-70 June 1995
<u>RETRIEVAL</u>....   ftp://ftp.ksedb.no/ftpshare/NTNews/**news070.zip**
<u>STATUS</u>...........   Demo version expires December 15, 1995.
<u>DOCUMENTS</u>..   Set up instructions.
<u>FEATURES</u>......   Built in UUdecode.
<u>COMMENTS</u>....   Released by Olav Tollefsen. If using pkunzip use the "-d" option.

18.5   <u>**News Xpress**</u>
<u>FUNCTION</u>......   Usenet news, mail (send only)
<u>FILE SIZE</u>........   212,424 June 1995
<u>VERSION</u>.........   1.0 beta #3
<u>RETRIEVAL</u>....   ftp://ftp.hk.super.net/pub/windows/Winsock-Utilities/**nx10b4-p.zip**
<u>STATUS</u>...........   Public Domain
<u>DOCUMENTS</u>..   On-line help.
<u>FEATURES</u>......   Good threading capability. Supports kill and auto-selection, local folders for storing
                articles, and outbox for queuing posts and mails. Built in UUencode/UUdecode. Many
                unique features, but not always well documented.
<u>COMMENTS</u>....   A very popular program which has consistently generated strong favorable comments from
                its users in spite of the fact that previous releases were usually buggy and unstable. This
                latest version seems to be quite different - an impressive improvement in a program which
                is on the bleeding edge of development in this area. For features and performance it is one
                of the two (Free Agent) best news readers currently available. Developed by Ken Ng as a
                University project in Hong Kong.
                Recommended

18.6   <u>**PC-Pine for Winsock**</u>
<u>FUNCTION</u>......   Usenet news, mail (send and receive)
<u>FILE SIZE</u>........   528,763 bytes
<u>VERSION</u>.........   3.91 beta   October 1994
<u>RETRIEVAL</u>....   ftp://ftp.cac.washington.edu/pine/pcpine/**pcpine_w.zip**
<u>STATUS</u>...........   Copyright, but freely available.
<u>DOCUMENTS</u>..   Installation instructions and on-line help included.
<u>FEATURES</u>......   Supports SMTP/MIME/IMAP/NNTP protocols, but not POP3.
<u>COMMENTS</u>....   Unfortunately this Winsock version is quite disappointing because it is not a true Windows
                GUI application but has the same user interface as the UNIX and DOS versions of Pine.

18.7   <u>**Qnews**</u> (tm)
<u>FUNCTION</u>......   Usenet news, mail (send only)
<u>FILE SIZE</u>........   378,463 bytes
<u>VERSION</u>.........   .9b3 (beta) April 1995
<u>RETRIEVAL</u>....   ftp://oak.oakland.edu/SimTel/win3/winsock/**qn09b3.zip**
                http://www.magi.com/~rdavies/qnews.html
<u>STATUS</u>...........   Shareware $US 10.
<u>DOCUMENTS</u>..   Installation instructions and online help.
<u>FEATURES</u>......   Built in UUencode/UUdecode. Multi-threaded execution. Messages can be read, or posted
                while newsgroups and messages counts continue to update in the background.
<u>COMMENTS</u>....   From Robin Davies.

18.8   <u>**SlipStream Jet**</u>
<u>FUNCTION</u>......   Mail and news packet downloader.
<u>FILE SIZE</u>........   382,290 bytes
<u>VERSION</u>.........   1.014 (Alpha) April 1995
<u>RETRIEVAL</u>....   ftp://oak.oakland.edu/SimTel/win3/winsock/**sl1014.zip**
                ftp://ftp.cts.com/pub/rwilson/SlipStream_Jet/ **sl1014.zip**

STATUS...........	Shareware. Registration $US 42. Unregistered version only allows 5 newsgroups to be selected.
DOCUMENTS..	Installation instructions. Online help not available yet, but is being worked on. Nice disclaimer warning message in fairly plain English and understandable for a change - obviously this company needs to hire more lawyers. Perhaps Netscape could loan them some.
FEATURES......	Uninstaller utility included (thank you!)
COMMENTS....	This program downloads newsgroup postings and mail through your SLIP/PPP access, converting them to QWK format for use with separate QWK offline readers. It will upload news replies. This appears to be a well designed package (though still alpha). Price is a negative.

18.9   **Tetrix Reader Plug (TRP)**

FUNCTION......	Usenet news, mail (send and receive)
FILE SIZE........	617,292 bytes
VERSION.........	1.1.0 March 1995
RETRIEVAL....	ftp://ftp.internet-eireann.ie/pub/ie_access/dos/winsock/**trp110.zip**
STATUS...........	Shareware 20 Irish pounds, $US 30. Registration is for life. This unregistered version seemed to be limited to about 20 articles per newsgroup.
DOCUMENTS..	Start-up information and on-line help.
FEATURES......	UUencoding, many viewing filter options. Good graphics. Includes an RUIP client (Finger daemon) which supplies controlled information to anyone fingering you.
COMMENTS....	This latest release is fairly stable and works well but a lack of so many features makes this a tough sell. No threading, no sorting, no display font control, no adjustment of display window sizes, etc.

18.10   **Trumpet News Reader**

FUNCTION......	Usenet news, mail (both send and receive)
FILE SIZE........	96,305 bytes
VERSION.........	1.0 rev B final beta #4 September 1994
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/vendors/trumpet/beta/wintrump/**wt_wsk.zip**
STATUS...........	Shareware $US 40. Site licenses also available.
DOCUMENTS..	Good.
FEATURES......	Can decode UUencoded files. Threading capabilities, but could be better. Offline reading. If you have along list of article headers and you're searching for something in particular you can just start typing a key word and the program will jump you down to the header containing a matching word (undocumented feature).
COMMENTS....	No razzle dazzle here - this last version is just a very nice general purpose news reader, fairly slow, but easy to use and stable, a good program for beginners or light users. Split window design as opposed to the more common multiple windows style. It does not seem to be under active development now.

18.11   **WinDis**

FUNCTION......	See Features.
FILE SIZE........	246,532 and 314,181 bytes
VERSION.........	April 1995
RETRIEVAL....	ftp://ftp.demon.co.uk/pub/ibmpc/winsock/apps/windis/**windis.zip** [Windows 3.1, WFW 3.11] ftp://ftp.demon.co.uk/pub/ibmpc/winsock/apps/windis/**windis32.zip** [for **Windows NT**, **Win32s**, and **Windows95**]
STATUS...........	Freeware. Source code available.
DOCUMENTS..	Help file.

FEATURES......	NNTP News Client - downloads news for reading with an off-line reader.
	      SMTP Mail Client - downloads waiting mail for an off-line e-mailer.
	      SMTP Mail Server - uploads mail as individual e-mail, or to a news group.
	      Finger Client - fingers servers as appropriate.
	      Time Client - gets server time.
	      On-line time logging, auto log out feature, built in Pegasus mail feature.

COMMENTS....	This new version has just been released and has many features.

18.12   **WinNET Mail and News**

FUNCTION......   Usenet news, mail (both send and receive)

FILE SIZE........   948,710 bytes

VERSION.........   2.51   May 1995

RETRIEVAL....   ftp://oak.oakland.edu/SimTel/win3/internet/**wnmai251.zip**

STATUS...........   Free if using WinNET Communications as your Internet provider, otherwise Shareware @ $US 39.95.

DOCUMENTS..   Installation instructions and on-line help included.

FEATURES......   Direct dialup to any system providing UUCP (unix-unix-copy, a shell type connection) service. UUencode for attached documents supported (but no MIME). Mail server daemon can be programmed to call your Internet provider and download mail on certain days at specific times. There is search capability within a single newsgroup or across newsgroups.

COMMENTS....   WinNET now supports both UUCP and PPP connections, although configuration for PPP which has been recently added must be done by directly editing an .ini file. This crippled unregistered version is limited to only 2,400 bps, the registered version goes to 57,600 bps. The price of this package has come down considerably from when I last looked at it a year ago, and the features have gone up - it is now a good value. Installation is very easy if using WinNET as the service provider, otherwise more difficult. It works with Windows 3.1, **Windows NT** and OS/2.

18.13   **WinQVT/Net**

FUNCTION......   Mail (send and receive), Usenet news reader, Telnet, FTP file transfers, FTP/rcp server, network printer, SMTP server.

FILE SIZE........   395,445 and 491,759 bytes

VERSION.........   3.989   January 1995

RETRIEVAL....   ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**qvtw3989.zip** [Windows 3.1 versions]. and ftp://ftp.cica.indiana.edu/pub/pc/win3/nt/**qvtn3989.zip** [**Windows NT** version].
        biochemistry.cwru.edu: gopher/pub/qvtnet   (This can be a difficult site to access.)

STATUS...........   Shareware $US 40, only $20 for students. Registered users receive complete set of fonts, a full 85-page user manual, and upgrades for 1 year.

DOCUMENTS..   Installation instructions and on-line help included.

FEATURES......   VT52/VT102/VT220 terminal emulation capable of supporting up to 15 simultaneous virtual terminal sessions. SMTP/POP3 send and receive mail, with polling (timed background mail checking). Capability to also operate as a server for FTP. A basic SMTP server daemon has also been added which allows direct receipt of mail for network users who are always logged on or for those who don't have POP mail. An RCP server allows file transfers to and from the remote user's UNIX command line.

COMMENTS....   This is a very full featured package. Telnet is highly rated, other modules often much less so.

18.14   **WinVN**

FUNCTION......   Usenet news, mail (send only)

FILE SIZE........   285,470 and 303,336 bytes

VERSION.........   .99.05   June 1995

RETRIEVAL....   ftp://ftp.ksc.nasa.gov/pub/winvn/win3/**wv16_99_05.zip** [Windows 3.1]
        ftp://ftp.ksc.nasa.gov/pub/winvn/nt/**winvn_99_05_intel.zip**   [**Windows95** and **Windows NT]**

STATUS...........   Public Domain. Source code available.

DOCUMENTS..   Installation instructions and on-line help included.

FEATURES......   Can also send (but not receive) mail using SMTP or MAPI. Built in UUdecoding which is especially useful and convenient in downloading and viewing pictures. ROT13 decoding.

COMMENTS....   A fairly popular online newsreader which continues to get considerable development effort although the old code it was originally written with somewhat limits its capabilities and potential. Still, a good solid program.
        Recommended

19. NFS CLIENTS

Ha! Fooled you! There aren't any true Winsock NFS (Network File System) clients. The current Winsock 1.1 spec apparently doesn't support NFS. Therefore there won't be any until some future time when the spec is updated (a version 2.0 of the Winsock spec is expected later this year) and the new compliant products begin to appear. Best interim solution is to try and find an NFS client specific to your TCP/IP stack. This information on NFS is condensed from a variety of newsgroup postings from People Who Know About These Things. Some good possibilities for some specific systems:

19.1   **WINDOWS SOCKETS NFS CLIENT ADD-ON FOR WINDOWS**
FUNCTION......   NFS (Network File System)   [DEMO - Function or time crippled]
FILE SIZE........   440,897
VERSION.........   April 1995
RETRIEVAL....   ftp://ftp.cica.indiana.edu/pub/pc/win3/demo/**nfs-demo.zip**
STATUS...........   Demo trial version. Registered Shareware version $US 49 per user ($30 for educational
                       users), with volume discounts and site licenses available.
DOCUMENTS..   Startup instructions and on-line help.
FEATURES......   Automated installation.
COMMENTS....   Runs over Microsoft Workgroups TCP/IP-32, Trumpet TCP/IP, Novell TCP/IP, TCPOpen
                       TCP/IP, and XLink's TCP/IP. From Xlink Technology Inc. Demo version has warning
                       messages every 20 minutes. For installation purposes the unzipped files must be located
                       either on the main directory level of the C drive or on a diskette. If you put the files in a
                       subdirectory on your hard disk the install program can't find them when you run it and will
                       abort.

19.2   **XFS** (16 bit)
FUNCTION......   NFS client
FILE SIZE........   215,698   bytes
VERSION.........   1.91   January 1995
RETRIEVAL....   ftp://papa.indstate.edu/winsock-l/Misc-Winsock/**xfs191.zip**
STATUS...........   Shareware $US 15 for educational users and $US 25 for business users. Site licenses also
                       available.
DOCUMENTS..   Start up documentation
FEATURES......
COMMENTS....   XFS is a Network File System (NFS) client implementation for PC's running MS-DOS.
                       It works with most recent versions of MS-DOS. It is *compatible with* Trumpet Winsock,
                       but must be loaded first. It may also be used with Microsoft Windows For Workgroups,
                       Microsoft LAN Manager, and Novell Netware IPX & ODI. It does NOT operate over a
                       SLIP connection. Released by Robert Juhasz.

19.3   **XFS32** (32 bit)
FUNCTION......   NFS client
FILE SIZE........   106,134 bytes
VERSION.........   1.20   December 1994
RETRIEVAL....   ftp://papa.indstate.edu/winsock-l/Misc-Winsock/**xfs32120.zip**
STATUS...........   Shareware $US 15 for educational users and $US 25 for business users. Site licenses also
                       available.
DOCUMENTS..   Start up documentation and on-line help
FEATURES......
COMMENTS....   XFS32 is an NFS client for PC's running MS-DOS, Microsoft Windows For Workgroups
                       (WFW) and Microsoft TCP/IP-32. It does NOT operate over a SLIP connection. Released
                       by Robert Juhasz.

20. NULLSOCK

Opening most Winsock applications offline is not a problem as long as a winsock.dll (such as Trumpet Winsock) is installed in a path directory on that machine. If you attempt to open an application and it cannot find a winsock.dll available for use an error message will usually be generated. There are occasionally times when this is the case, and to overcome the error problem a dummy Winsock or nullsock can be used to fool the program into thinking that a network connection exists.

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20.1   **Mozock**

FUNCTION...... Nullsock.
FILE SIZE........ 5,568 bytes
VERSION......... N/A
RETRIEVAL.... ftp://ftp.mcom.com/unsupported/windows/**mozock.dll**
STATUS........... Unsupported
DOCUMENTS.. A brief note, mozock.txt is at the same location.
FEATURES......
COMMENTS.... Rename this file winsock.dll and place it in a path directory. Although intended primarily for Netscape it should work with just about any Winsock program (?).

21. PH CLIENTS

Ph clients are used to access CSO nameservers which contain a database primarily used for the storage and retrieval of telephone and email directory information. Huh? Well, in other words, Ph is simply like an electronic phone book. Ph is another protocol similar to Finger. Ph clients are designed to access sites running a CSO server to obtain email addresses. If for example you only had a person's name and location but needed their exact email address, and there was a CSO server at that site, you could query it to obtain the necessary information. The database can also be used to store other general information such as weather data and be used for security purposes to validate users. Ph clients are increasingly being incorporated as components of other Winsock packages such as mail packages and WWW browsers. CSO was the acronym for the University of Illinois Computing Services Office which originally developed this. CCSO = Computer and Communications Services Office, formerly known as just CSO (I guess they got a promotion).

21.1   **IRL CCSO Phone Windows Client**

FUNCTION...... CCSO Windows Ph Client
FILE SIZE........ 399,110 bytes
VERSION......... Beta 2.3.2 September 1994
RETRIEVAL.... ftp://papa.indstate.edu/winsock-l/Misc-Winsock/**irlphwin.zip** or **irlph23.zip**
STATUS........... Freeware
DOCUMENTS.. Startup instructions and on-line help included.
FEATURES...... Contains both 16 and 32 bit executives, your choice, although for the 32 bit version you must have Microsoft's **Win32s** extension installed (and the latest version, 1.15a. See the Non-Winsock Miscellaneous section below for more info.).
COMMENTS.... This program by Graeme Campbell.

21.2   **PHWIN**

FUNCTION...... CCSO Windows Ph Client
FILE SIZE........ 119,378   bytes If downloading from another location, watch the file size. For some strange reason useless fragments about 5k in size are found under this file name in many locations and should be avoided.
VERSION......... beta 2.2   November 1993
RETRIEVAL.... Try: ftp://ftp.cac.psu.edu/pub/access/unsupported/windows/**phwin22.zip**
STATUS........... Freeware
DOCUMENTS.. Startup instructions and on-line help included.
FEATURES......
COMMENTS.... This program by Graeme Campbell. It appears to be an early version of the IRL CCSO Phone Windows Client listed in this section.

22. PING

Do you remember those old World War II movies where the crew of the submarine is huddled over the sonar watching the echoes coming back? Ping is kind of the computer equivalent of sonar. Ping clients are used to provide echo like checks of servers to confirm that a good connection exists. Basically, a Ping client sends data packets to a host which (if it supports Ping, and most do) bounces a reply packet back. Packets are numbered so that any dropout can be identified and the quality of the connection determined. Nothing at all coming back = no connection. If there is a good connection you can go ahead and launch the torpedoes.

22.1   **ICMP Ping for Windows   [Windows NT]**

FUNCTION......   Ping client, Trace client and Lookup (name to IP number etc.) client.
FILE SIZE........   55,980 bytes
VERSION.........   July 1995
RETRIEVAL....   ftp://ftp.usma.edu/pub/msdos/winsock.files/**wsping32.zip**
STATUS...........   Free for non-commercial use.
DOCUMENTS..   None
FEATURES......
COMMENTS....   From John Junod, the 32 bit version of WS Ping.

22.2   **WSNWUTIL**

FUNCTION......   Echo, Ping, FTP clients, Echo Server
FILE SIZE........   163,824   bytes
VERSION.........   January 1995
RETRIEVAL....   ftp://rmii.com/pub2/mclouden/**wsnwutil.zip**   (very latest version)
STATUS...........   Freeware (limited) - may not sold.
DOCUMENTS..   Installation instructions and on-line help.
FEATURES......
COMMENTS....   Previously called WSNWDEMO this new release does not include the Finger client and
                      server which are planned for a future release. Interesting product being actively developed
                      by its author Mark Clouden.

22.3   **WS Ping**   (Window Sockets Ping Client)

FUNCTION......   Ping client
FILE SIZE........   60,496
VERSION.........   October 1994
RETRIEVAL....   ftp://ftp.usma.edu/pub/msdos/winsock.files/**ws_ping.zip**
STATUS...........   Public Domain
DOCUMENTS..   Almost none.
FEATURES......
COMMENTS....   From John Junod. Source code included.

23. PRINTER CLIENTS

These are primarily intended to enable the sending of an output file to a remote network printer through a
modem connection.
See also **WinQVT** in the **NEWS** section.

23.1   **CSMLPDW** (Computer Software Manufaktur Line Printer Daemon for Windows)

FUNCTION......   Winsock based line printer daemon   [Demo]
FILE SIZE........   213,290
VERSION.........   February 1995
RETRIEVAL....   ftp://ftp.eunet.co.at/pub/vendor/csm/**csmlpdw.exe**
STATUS...........   Demo trial version.
DOCUMENTS..   Basic start up instructions and on-line help.
FEATURES......   Automated installation. Supports up to 10 Printer queues on your Windows PC. RFC 1179
                      compliant. Uses Windows Print Manager.
COMMENTS....   Full functional demo which ends at 50 print requests.

23.2   **NIPrint Bi-Directional Print Services for Winsock**

FUNCTION......   Bi-directional print utility.
FILE SIZE........   124,423 bytes
VERSION.........   1.2   February 1995
RETRIEVAL....   http://www.ptgs.com/links/ni/niprint.htm   File name: **NIDEMO.EXE**
STATUS...........   Demo with 21 day evaluation period. Prices starting at $US 29 / £UK 29 for a single user.
DOCUMENTS..   Extensive documentation with online help.
FEATURES......   NIPrint uses industry standard LPD/LPR protocol to transfer print jobs to and from remote
                      UNIX hosts and Windows PCs. Because each NIPrint program contains both a complete
                      server and client, any Windows PC with NIPrint installed can become a local print server

for any other Windows PC or any UNIX system on the LAN. NIPrint's Local Print can receive multiple print requests - up to 32 simultaneously - from multiple UNIX hosts or Windows PCs.

COMMENTS.... Some tremendous network print capabilities here according to the documentation. Works with both Windows 3.1 and **Windows NT**. Released by Network Instruments, LLC.

23.3	**Windows LPR Spooler**
FUNCTION......	Network printer spooler.
FILE SIZE........	216,548 bytes
VERSION.........	4.0c December 1994
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/winsock/**wlprs40c.zip**
STATUS...........	Shareware. 30 day evaluation. Registration cost available by contacting the authors.
DOCUMENTS..	Start up and usage instructions in postscript (.ps) or text (.asc) files.
FEATURES......	
COMMENTS....	This program allows an application to print to remote network printers, and to check the print queue, etc.

23.4	**WinLPR**
FUNCTION......	Network printer.
FILE SIZE........	152,419 bytes
VERSION.........	2.0c January 1995
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**wlpr20.zip**
STATUS...........	Shareware. Registration cost available by contacting the authors.
DOCUMENTS..	Start up instructions.
FEATURES......	
COMMENTS....	

24. RCMD, RCP, RSH and TAR

Winsock versions of UNIX functions.

24.1	**Windows Socket RCP client**
FUNCTION......	RCP client
FILE SIZE........	55,734
VERSION.........	.91 January 1995
RETRIEVAL....	ftp://stoner.eps.mcgill.ca/pub/windows/winsock/**wrcp091.zip**
STATUS...........	Freeware.
DOCUMENTS..	Basic installation and start up instructions.
FEATURES......	
COMMENTS....	Author Steve McCauley.

24.2	**WinRSH / WinRSH32 - Remote Shell for Windows**
FUNCTION......	Remote shell for Windows.
FILE SIZE........	146,005 bytes
VERSION.........	1.6 November 1994
RETRIEVAL....	ftp://datacom.ee.ubc.ca/pub/pc/winsock/**wrsh16.zip**
STATUS...........	Freeware
DOCUMENTS..	Basic start up instructions.
FEATURES......	Now supports multiple simultaneous sessions. Both 16 and 32 bit execution files are included.
COMMENTS....	Requires a UNIX host supporting RSH or REXEC daemon. Written by William Cheung.

24.3	**Winsock RCMD.DLL**
FUNCTION......	Remote command function.
FILE SIZE........	67,596
VERSION.........	1.5 March 1995
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/winsock/**wrcmdl15.zip**
STATUS...........	Shareware $US 29.95
DOCUMENTS..	Startup and usage instructions.

FEATURES......
COMMENTS....   "Winsock RCMD.DLL provides a function similar to the Berkeley Sockets "rcmd"
                function for Windows Sockets. This provides the ability to initiate UNIX commands from
                within your Windows program and process any output from that command. Winsock
                RCMD.DLL is a Dynamic Link Library (DLL) callable from almost any language that
                allows DLL calls, such as C, C++, or Visual Basic." From Denicomp Systems.

24.4   Winsock RCP.DLL
FUNCTION......   RCP client
FILE SIZE........   67,596 bytes
VERSION.........   1.5 March 1995
RETRIEVAL....   ftp://oak.oakland.edu/SimTel/win3/winsock/**wrcpdl15.zip**
STATUS...........   Shareware $US 34.95
DOCUMENTS..   Startup and usage instructions.
FEATURES......
COMMENTS....   "Winsock RCP.DLL provides a function that allows you transparently copy files to and
                from remote hosts or between two remote hosts from within your programs, just like the
                "rcp" command. Winsock RCP.DLL is a Dynamic Link Library (DLL) callable from
                almost any language that allows DLL calls, such as C, C++, or Visual Basic." From
                Denicomp Systems.

24.5   Winsock RCP/RSH
FUNCTION......   RCP/RSH clients
FILE SIZE........   119,258   bytes
VERSION.........   1.5 March 1995
RETRIEVAL....   ftp://oak.oakland.edu/SimTel/win3/winsock/**wrcprs15.zip**
STATUS...........   Shareware $US 29.95
DOCUMENTS..   Startup and usage instructions.
FEATURES......
COMMENTS....   "Winsock RCP, or Remote Copy, copies files from your Windows PC to a UNIX system,
                from a UNIX system to your PC, or between two UNIX systems. You can copy individual
                files or recursively copy entire directory trees. Winsock RSH, or Remote Shell, runs a
                specified command on the UNIX system.". From Denicomp Systems.

24.6   Winsock RSHD
FUNCTION......   Remote Shell Daemon (server)
FILE SIZE........   190,046 bytes
VERSION.........   1.5 March 1995
RETRIEVAL....   ftp://oak.oakland.edu/SimTel/win3/winsock/**wrshd15.zip**
STATUS...........   Shareware $US 34.95
DOCUMENTS..   Startup and usage instructions.
FEATURES......   Security mechanism to allow/deny access for hosts and users.
COMMENTS....   From Denicomp Systems. It has been tested on the following TCP/IP stacks: Microsoft 32-
                Bit TCP/IP for Windows, Wollongong Pathway Access and Novell LAN Workplace for
                DOS Version 4.2

24.7   WinTAR   (Windows Tape Archive)
FUNCTION......   Network tape drive archiving program.
FILE SIZE........   148,789 bytes
VERSION.........   1.4 January 1995
RETRIEVAL....   ftp://oak.oakland.edu/SimTel/win3/winsock/**wtar14u.zip**
STATUS...........   Shareware. Single copy registration $US 20 or $CDN 25. Volume discounts.
DOCUMENTS..   All instructions included in the on-line help.
FEATURES......
COMMENTS....   This program can use a Winsock connection to archive files on a network tape drive. It can
                either create or open files and can control the tape drive mechanism. It is not limited to just
                tape drives, and can also archive to a local hard drive or floppy. Nice colorful toolbar.

25. SNMP

SNMP = Simple Network Management Protocol. SNMP is defined in a series of official Internet documents covering management of network services across a network such as the Internet.

25.1   **NetGuardian**
FUNCTION......   SNMP program
FILE SIZE........   419,597 bytes
VERSION.........   2.0 beta 3   February 1995
RETRIEVAL....   http://www.fc.ul.pt/software/netguard.html   File name: netg2b3.zip
STATUS...........   Not mentioned
DOCUMENTS..   Minimal start up instructions.
FEATURES......
COMMENTS....   NetGuardian is a SNMP package that includes a manager, an agent and a graphic analyzer. It was developed at the University of Lisbon. According to the documentation this program was tested with an older beta version of Trumpet. It will also run under the Microsoft TCP/IP

25.2   **SNMP Manager**
FUNCTION......   SNMP network client
FILE SIZE........   143,424 bytes
VERSION.........   1.1   June 1994
RETRIEVAL....   http://www.fc.ul.pt/software/snmpman.html   File name: **snmpman.zip**
STATUS...........   Not mentioned.
DOCUMENTS..   Minimal start up instructions.
FEATURES......
COMMENTS....   Supports SNMP v1 protocol. According to the documentation this program was tested with an older beta version of Trumpet

25.3   **SNMPtest for Winsock**
FUNCTION......   SNMP tools for Windows
FILE SIZE........   98,849 bytes
VERSION.........   1.02 May 1995
RETRIEVAL....   ftp://oak.oakland.edu/SimTel/win3/network/**snmpwin.zip**
STATUS...........   Shareware DM 25 (German currency). Registered users receive a help file and other documentation and material.
DOCUMENTS..   Negligible.
FEATURES......
COMMENTS....   Released by Martin Bayreuther.

26. TCP / IP

Things primarily for network groupies. Modem users can fast forward. TCP/IP = Transmission Control Protocol/Internet Protocol. This is the networking standard used by the Internet for the transfer of data packets. It's a standard which essentially allows two computers to talk to each other.

26.1   **Internet-Connect**
FUNCTION......   TCP/IP networking package
FILE SIZE........   956,460   bytes
VERSION.........   2.2 March 1995
RETRIEVAL....   ftp://oak.oakland.edu/SimTel/win3/winsock/**inetv22.zip**
         ftp://cais.com/pub/lvuong/ **inetv22.zip**
STATUS...........   Evaluation copy.
DOCUMENTS..   Extensive installation and use information, on-line help.
FEATURES......   Full support for SLIP/CSLIP/PPP. PPP has client and server modes, userid/password authentication (UPAP), dynamic address assignment, built in DNS support, etc. There is a Windows based dialer with scripting and terminal emulation utility and Windows based automatic installation program. For developers there is Winsock API trace, Winsock developers kit, SLIP and PPP data trace etc.
COMMENTS....   This very, very full featured package which is intended to provide a powerful platform

primarily oriented towards network professionals and developers. Compatible with Novell Netware, Novell Personal Hardware, Microsoft Lan Manager and WFW 3.11.

26.2	**Microsoft TCP/IP-32 for Windows For Workgroups**
FUNCTION......	TCP/IP networking package
FILE SIZE........	690,031 bytes
VERSION.........	3.11b July 1995
RETRIEVAL....	ftp://ftp.microsoft.com/bussys/clients/wfw/**TCP32B.EXE**
STATUS...........	Free to users of Windows For Workgroups 3.11.
DOCUMENTS..	Online help.
FEATURES......	Includes basic applications like FTP and Telnet, and diagnostic tools like Ping and Tracert
COMMENTS....	For network users, this only works with WFW 3.11. New version contains additional (and enhanced) TCP/IP utilities, along with speed and performance and performance improvements. I do not believe that this supports dialup access.

27. TELNET

A Telnet, or terminal emulator is a program which transforms your PC into a particular brand of dumb terminal (keyboard and display but no brain) which is capable of logging on to a remote server. There are many sites which can only be accessed with a Telnet connection. The emulation is chosen to accommodate the host being accessed, and on the Internet (and probably off) this most commonly means the Digital Equipment (DEC) series of terminals VT100, VT102, VT220, etc.

The best terminal emulations seem to be found on commercial communications programs, programs which unfortunately do not support a SLIP/PPP connection. For many users nothing has provided more frustration than the search for a good Shareware/Freeware Telnet program (the "Holy Grail"). A unique solution comes from David Yon, whose COMt program provides the usually powerful Telnet functions of your commercial communications program with bridge access to the Internet.
For Telnet see also **WinQVT** in the **News** section.

27.1	**Anzio Lite**
FUNCTION......	Telnet (terminal emulator)
FILE SIZE........	73,557 bytes
VERSION.........	10.3d July 1995
RETRIEVAL....	http://www.teleport.com/~rsi/anzioscl.html File name: **anzl103d.zip**
STATUS...........	Shareware. Registered version with extra features, $US 25.
DOCUMENTS..	Basic instructions.
FEATURES......	VT100/220, SCO, ATT, Wyse 60, and Viewpoint emulation.
COMMENTS....	It has been tested with a variety of winsock stacks: Trumpet, Microsoft, Novell, Wollongong, and Chameleon. Released by Rasmussen Software.

27.2	**CommNet**
FUNCTION......	Telnet
FILE SIZE........	1,065,304 bytes
VERSION.........	1.5 July 1995
RETRIEVAL....	ftp://ftp.radient.com/**cmnet15d.exe**
STATUS...........	Demo version, with many features crippled. Registration $US 34.95
DOCUMENTS..	Startup instructions and online help.
FEATURES......	VT100, ANSI, TTY emulation. Supports Y-modem and Z-modem file transfers (Z-modem over Telnet). Phonebook, built-in dialer. Drag and drop file transfers, customizable fonts, colors and sounds, multiple sessions.
COMMENTS....	What appears at first to be a very simple program in fact has some nice features in a very easy to use interface. CommNet can be used for dialup access to your shell account with its built in dialer, or it can be used as a Winsock Telnet application if you have established a SLIP/PPP connection through another program. Released by Radient Software.

27.3	**COMt: the Telnet Modem**

FUNCTION......	Modem telnet interface utility.
FILE SIZE........	115,644 bytes
VERSION.........	1.05 April 1995
RETRIEVAL....	ftp://ftp.std.com/customers/software/rfdmail/**comt.zip**
STATUS..........	Shareware $US 15.95
DOCUMENTS..	Installation instructions and on-line help included.
FEATURES......	A fairly flexible package: Connect using IP addresses or host names, selectable terminal type options, baud rate options, serial port number etc. etc. Limited support for transparent TCP/IP access to modem pools. Automated installation.
COMMENTS....	COMt acts as an interface permitting the terminal emulators in your commercial communications package to access the Internet. It is compatible with Trumpet Winsock. This latest version now works with CompuServe's WinCIM version 1.3, although it will not work with Reflections (HP). It comes from the same company which produces RFD Mail and is deservedly proving to be popular.

27.4   **CSMRLW** (Computer Software Manufaktur Remote Login for Windows)

FUNCTION......	Telnet (terminal emulator) [DEMO - Function or time crippled]
FILE SIZE........	429,995 bytes
VERSION.........	February 1995
RETRIEVAL....	ftp://ftp.eunet.co.at/pub/vendor/csm/**csmrlw31.exe**
STATUS..........	Demo trial version.
DOCUMENTS..	On-line help included.
FEATURES......	AT386 / IBM HFT(5151) / IBM 3151 / SCO (Ansi) terminal emulation. Automatic logon, windows cut and paste support, ISO to ASCII conversion. Automated installation.
COMMENTS....	Not tested under Trumpet Winsock. This demo version is fully functional, but has a time limit. From Computer Software Manufaktur GmbH in Austria.

27.5   **EWAN**

FUNCTION......	Telnet (terminal emulator)
FILE SIZE........	256,032 bytes
VERSION.........	1.052 January 1995
RETRIEVAL....	http://www.lysator.liu.se/~zander/ewan.html File name: **ewan1052.zip**
STATUS..........	Freeware. Email support available for governments and institutions for a fee.
DOCUMENTS..	Simple startup instructions and on-line help.
FEATURES......	ANSI/VT52/VT100 emulation. Each stored site can have a customized configuration.
COMMENTS....	Ewan continues to be improved by its author and has developed a strong following. A short description on how to create emulations for EWAN is available in a Windows Write format through the WWW from: http://www.lysator.liu.se/~zander/ewan.html

27.6   **NCSA WinTel**

FUNCTION......	Telnet (terminal emulator)
FILE SIZE........	55,834 bytes
VERSION.........	Unsupported beta 3 1993
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**wintelb3.zip**
STATUS..........	No charge for use.
DOCUMENTS..	Minimal, no on-line help.
FEATURES......	
COMMENTS....	Not supported, not currently under development.

27.7   **NetTerm**   [Windows 3.1 and **Windows95]**

FUNCTION......	Telnet
FILE SIZE........	300,731 bytes
VERSION.........	2.2 July 1995
RETRIEVAL....	ftp://ftp.neosoft.com/pub/users/z/zkrr01/ file name: **neterm22.zip**
STATUS..........	Shareware $US 20
DOCUMENTS..	Startup instructions and online help.
FEATURES......	VT100 and ANSI terminal emulation, built in phone dialer with scripts, file transfers using Z-modem, X-modem, Y-modem and Kermit. Designed either for UNIX shell access to a service provider or BBS, or Telnet capabilities through a Winsock program such as

Trumpet.
COMMENTS.... Released by InterSoft International, Inc.

27.8 <u>**PC-340**</u>
FUNCTION...... Terminal emulator
FILE SIZE....... Total 2,411,635 bytes
VERSION......... 2.45 February 1995
RETRIEVAL.... ftp://ftp.wpine.com/pub/product/demo/**pc340_1.exe**, **pc340_2.exe**, and **pc340_3.exe** (3 files)
STATUS........... Commercial demo. It is not limited in any functional way but will expire after 30 days of use although I don't believe that this is mentioned in the documentation. Suggested retail price $US 349.
DOCUMENTS.. Start up information and online help. Documentation a little weak (one screen shot in the online help didn't exactly match the real thing when I needed some help with the configuration), and Winsock support was there although I didn't recall seeing any mention in anything I read other than at the FTP site.
FEATURES...... VT52, VT100, VT102, VT220, VT320, VT340, TEK4014 terminal emulation. Built in dialer. Built in default for Hayes compatible modems. It can accommodate other types but not easily.
COMMENTS.... I logged onto my local provider with a PPP connection and started this up and it worked well. Good display and lots of configuration options to play around with. I'm not much of a telnet user, but I did enjoy my brief use of this package. From White Pine Software Inc.

27.9 <u>**PowerVT**</u>
FUNCTION...... Telnet (terminal emulator)
FILE SIZE....... 609,096 bytes
VERSION......... 1.04 February 1995
RETRIEVAL.... ftp://ftp.cica.indiana.edu/pub/pc/win3/demo/**vt220.exe**
STATUS........... Commercial demo, 30 day trial. Purchase price not stated in the package.
DOCUMENTS.. Basic startup instructions and on-line help
FEATURES...... VT52 / VT100 / VT220 / TTY terminal emulation.
COMMENTS.... Built in dialer for dialup shell access. A replacement for an older demo program called VT-220.

27.10 <u>**QWS3270 EXTRA**</u>
FUNCTION...... Telnet (terminal emulator)
FILE SIZE....... Freeware version: 73,365 bytes, Shareware ("extra") version: 117,470 bytes
VERSION......... Freeware (limited): 3.2e October 1994,   Shareware: 2.3 July 1995
RETRIEVAL.... Freeware: ftp://ftp.ccs.queensu.ca/pub/msdos/tcpip/**qws3270.zip**
       Shareware: ftp://oak.oakland.edu/SimTel/win3/winsock/**qws3270.zip**
STATUS........... Shareware $US 35.00. 10 minute nag screen for unregistered users.
DOCUMENTS.. Set-up instructions and on-line help
FEATURES...... Shareware version has support for IBM 3270 and Tektronix 4010 terminals, 1024 character type ahead buffer and support for about a dozen foreign language character translation sets. Full customized keyboard with scripting supported and limited DDE.
COMMENTS.... Both the Freeware and enhanced ("extra") Shareware versions have been circulated with the same filename and each new release of each also continues to be circulated under the exact same filename making this program in its two flavors and their various versions is very difficult to identify. For the best features get the newer Shareware version which is being very actively developed by its author, Jim Rymerson. Released by Jolly Giant Software Inc.

27.11 (NEW!) <u>**Tera Term**</u>   (Japanese)
FUNCTION...... Telnet (terminal emulator)
FILE SIZE....... 219,202 bytes
VERSION......... 1.1 July 1995
RETRIEVAL.... ftp://utsun.s.u-tokyo.ac.jp/PC/terminal/teraterm/ttermv11.lzh
STATUS........... Freeware
DOCUMENTS.. Start up instructions and online help.

FEATURES......	VT100/VT100J/VT101/VT102/VT102J/VT220J/VT282/VT320/VT382, TEK4010 emulation. X-modem and Kermit file transfers.
COMMENTS....	Ok, ok, so it's a Japanese telnet program, but there is some English in the documentation, the menus are mostly English and it's fairly intuitive to use. The error message about a missing "winnls.dll" file seemed related to the fact that I was using the North American (English) version of Windows, but I didn't notice any problems - the program seemed to work fine on the limited testing I did with it. Nice fast display. Note that I looked at version .9 and it is alraedy at 1.1 now which I have not looked at. Released by T.Teranishi.

27.12 **Trumpet Telnet**

FUNCTION......	Telnet (terminal emulator)
COMMENTS....	See **Winapps2** in the **Miscellaneous** section. The latest version of this program is now bundled in a package with other basic Winsock applications from Peter Tattam.

27.13 **UNIBOL/Desktop Terminal**

FUNCTION......	Telnet (terminal emulator) [DEMO - Function or time crippled]
FILE SIZE........	580,701 bytes
VERSION.........	March 1995
RETRIEVAL....	http://www.unibol.com/html/terminal.htm File name:**unitel.zip**
STATUS...........	Demo trial version with an expire date.
DOCUMENTS..	Start up and on-line help.
FEATURES......	VT100/Uniboll 100 emulation. Record/playback script capability to automate sessions, keyboard re-mapping, dual character set support.
COMMENTS....	Full featured demo from Unibol Ltd. Compatible with a variety of stacks including Trumpet. There is also a program called wscheck.exe at the same location which should be retrieved. It's an interesting little program (90k) which checks for a winsock.dll on your system and checks its compatibility with Unibol's terminal program.

27.14 **UW Term**

FUNCTION......	Telnet (terminal emulator)
FILE SIZE........	Approximately 20 files, 1,261,000 bytes.
VERSION.........	.97g November 1994
RETRIEVAL....	ftp://ftphost.cac.washington.edu/pub/winsock/uwterm_0.97g
	An upgrade to version .97i is in the directory /pub/winsock/uwterm_0.97i and it should also be retrieved.
STATUS...........	Freeware.
DOCUMENTS..	Good, but no on-line help.
FEATURES......	VT52/VT100/VT200 emulation. Adjustable colors, fonts, save & restore of configurations, auto login. Multiple terminals can be active simultaneously.
COMMENTS....	Available only as a cluster of files in a directory, all of which should be downloaded. Some of the files such as vbrun300.dl_ may create duplicates on your system and can be deleted after installation if you already have an existing equivalent version in a path directory. Slightly customized for intended use at the University of Washington and outside use is not supported by the author. **Note:** This program does NOT work properly with Trumpet Winsock 1.0a, but does appear to work with more recent Trumpet releases such as 2.0b.

27.15 **VT420**

FUNCTION......	Telnet (terminal emulator)
FILE SIZE........	438,811 bytes
VERSION.........	April 1995
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/demo/**vt420.zip**
STATUS...........	Demo. Sessions limited to 10 minutes. Prices starting at $US 35 for an individual user, $US 30 academic users.
DOCUMENTS..	Basic start up instructions.
FEATURES......	VT100, VT220, VT 320, and VT420
COMMENTS....	Released by XLink Technology, Inc.

27.16	**YAWTEL** (**Y**et **A**nother **W**indows Socket **TEL**net)
FUNCTION......	Telnet (terminal emulator)
FILE SIZE........	25,523 bytes
VERSION.........	.7 beta April 1995
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/uploads/**yawtel07.zip** .
	Not this latest version is actually in the /uploads directory at the moment and should hopefully be moved to /winsock to replace the older version soon..
STATUS...........	No charge for now while being developed. A low cost Shareware version will eventually be available.
DOCUMENTS..	Negligible, no on-line help in this early version.
FEATURES......	A VT100 emulator
COMMENTS....	This package was designed with Mosaic and Netscape in mind.

28. TIME LOGS

If you've just gotten the bill from your Internet provider and you're having serious breathing problems, you might want to look at the programs in this section.

See also **ModemSta** in the **Modem Accessories** section.

28.1	**Log In Log**
FUNCTION......	Connection time and cost log.
FILE SIZE........	217,159 bytes
VERSION.........	1.00 revision 17 June 1995
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/winsock/**lil1b17s.zip**
STATUS...........	Shareware $US 15
DOCUMENTS..	Start up instructions and online help.
FEATURES......	Supports multiple configurations. Configurable for local currencies, the hourly cost of phone charges during peak and off-peak hours, the timings of off-peak hours. Handles other costs such as computer rental. Connection time alarm.
COMMENTS....	An easy to configure, easy to use program. This can be a handy for outside North America where phone company charges are based on connection time and are an additional factor which some similar programs can't handle. This program has been specifically designed for use with Trumpet Winsock. Released by Ray Selby of Goahead Imagination.

28.2	**SLIP db**
FUNCTION......	Connection time and cost log.
FILE SIZE........	426,014
VERSION.........	1.01 September 1994
RETRIEVAL....	ftp://ollc.mta.ca/pub/slip/**slipdb10.zip**
	ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**slipdb10.zip**
STATUS...........	Shareware $CDN 30.00
DOCUMENTS..	Start up instructions and on-line help.
FEATURES......	Automated installation. SLIP db records the date and time of each connect and disconnect from your Internet service provider. It calculates elapsed time and figures out a cost based on a per minute charge. The program has a browse mode that lets you see a log of your calls, print a report, and delete records.
COMMENTS....	A nice all purpose SLIP bean counter. This program is specifically designed to work with a SLIP dialup connection such as is provided by Trumpet Winsock.

28.3 (NEW!)	**SmartSurf**
FUNCTION......	Connection time log
FILE SIZE........	207,969 bytes
VERSION.........	1.1 June 1995
RETRIEVAL....	http://www.smartcode.com/freesoft.html File name: **smtsrf11.zip**
STATUS...........	Freeware.
DOCUMENTS..	Online help.
FEATURES......	Tracks both telephone and service charges by time unit or flat rate. Automatic totalling, reports, etc. Some of the automatic features do not work with **Windows NT**.
COMMENTS....	Released by Oakley Data Services. The most interesting thing about this program is not the

program itself but the fact that it runs on "virtual" batteries they call SmartCells which over time run down and have to be "recharged" at the developers home site. There is no charge for a recharge/replacement (well, at least not at present) but this is the first Winsock application I've seen using this concept which potentially could provide Shareware developers with another method of charging for their products - in effect a renewable useage fee. Programs could be released with initially charged batteries which the user would eventually have to recharge by logging on to a service site. The online site would use an electronic payment method to collect a fee, from which they would deduct their commission and remit the balance (with a statement) in lump sums at regular intervals to the individual Shareware authors. The need to register programs is eliminated freeing up some of the developers time. A fee for useage also potentially provides better ongoing cash flow albeit less money up front.

28.3   **UpTime for Windows 3.1**
FUNCTION......   Connection time log.
FILE SIZE........   29,900
VERSION.........   3.0   May 1995
RETRIEVAL....   ftp://ftp.cica.indiana.edu/pub/pc/win3/util/**uptime30.zip**
STATUS...........   Copyright, but no mention of any charges for use.
DOCUMENTS..   Basic startup and usage info.
FEATURES......
COMMENTS....   Very simple utility designed to track session logon time. Primarily intended for use with a dialup SLIP connection but not limited to that. Released by Creative Element.

28.4   **WS-TIMER**
FUNCTION......   Connection time log
FILE SIZE........   199,241 bytes
VERSION.........   4.05   July 1995
RETRIEVAL....   ftp://ftp.sentex.net/pub/incoming/**wstmr405.zip**
                          ftp://oak.oakland.edu/SimTel/win3/commprog/**wstmr405.zip**
STATUS...........   Freeware for non-commercial use
DOCUMENTS..   Basic instructions
FEATURES......   Automated installation. WS-TIMER keeps track of your time on-line and also keeps track of your daily and monthly connection history, using two separate files that can be viewed from within the program or any text editors. The registered version adds a number of features including a built in mail (send only) client.
COMMENTS....   My kind of program: easy to install, easy to use, nice digital readout. It can be started and stopped from the Trumpet (or other) script. From Louis Aube.

29. TIME SYNCHRONIZERS

Is the clock on your PC always wrong? Too lazy to be bothered resetting it? Here's the solution! These packages can access your local Internet server (and others) and compare their time settings to your PC, and either report the difference or, if you choose, do an automatic update for you. Features and operation vary somewhat from package to package. For most users synchronization with your local server is more than adequate for most purposes. If you have a critical requirement and are not satisfied with the accuracy of your local server, an atomic clock is available for access at location:
time-A.timefreq.bldrdoc.gov (132.163.135.130).
Remember though that time delays in transferring information across the Internet will probably limit the accuracy achievable to something less than the clock's one gazillionth of a second precision (Yeah, like you needed that kind of accuracy anyway). A detailed list of other high precision sites is found in the document clock.txt available by FTP from location: louie.udel.edu in directory /pub/ntp/doc.

29.1 (NEW!)   **Netdate**
FUNCTION......   Time synchronizer
FILE SIZE........   75,271 bytes
VERSION.........   1.04 July 1995
RETRIEVAL....   http://www.eps.mcgill.ca/~steeve/   **File name:** ndate104.zip
STATUS...........   Freeware

DOCUMENTS..	Basic instructions
FEATURES......	Fairly flexible in configuring for different time zones, including "half hour" locations.
COMMENTS....	An easy to use time client. Released by Steeve McCauley.

29.2   NTTardis   [Windows NT]

FUNCTION......	Time synchronizer
FILE SIZE........	53,795 bytes
VERSION.........	1.0 September 1994
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/nt/**nttardis.zip** .
STATUS...........	Shareware $US 20
DOCUMENTS..	Start up documentation.
FEATURES......	The Tardis Server for **Windows NT** implements the older RFC 868 (TCP only, no UDP) protocol. It acts as both a RFC 868 server and client. i.e. It can get the time from a timeserver with the 'correct' time and then make the 'correct' time available to local clients. Can run in the background checking at defined intervals. Contains an adjustable maximum adjustment filter.
COMMENTS....	Other than the fact that both packages come from Demon country across the ocean, and they have similar names, this package has nothing in common with the Tardis, the Windows 3.1 version, listed below. Appears to be different authors.

29.3   Tardis

FUNCTION......	Time synchronizer
FILE SIZE........	36,602 bytes
VERSION.........	2.0a January 1995
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**tardis2a.zip** .
STATUS...........	Shareware $US 20, site license $US 40
DOCUMENTS..	Startup instructions and on-line help included.
FEATURES......	Can run in the background checking at defined intervals. Contains an variable maximum adjustment filter.
COMMENTS....	Well done. A noticeably improved version from the first release. I was particularly impressed with the author's simple solution to the time zone problem this time around (a notable problem in the first release). An excellent choice for a time client.
	Recommended

29.4   Timesync

FUNCTION......	Time synchronizer
FILE SIZE........	399,725 bytes
VERSION.........	1.8 July 1994
RETRIEVAL....	ftp://ftphost.cac.washington.edu/pub/winsock/**tsync1_8.zip**
STATUS...........	Public domain.
DOCUMENTS..	Setup instructions.
FEATURES......	
COMMENTS....	Automated setup. Timesync is a simple Winsock app that sets your PC's clock to match the time on a remote host. The remote host must be provide the UNIX time service on port 37 (timesync does NOT use NTP). This should make the time setting accurate to at least 1 second.

29.5   Windows Time Client

FUNCTION......	Time synchronizer.
FILE SIZE........	86,527
VERSION.........	1.01 August 1994
RETRIEVAL....	ftp://sunsite.unc.edu/pub/micro/pc-stuff/ms-windows/winsock/apps/**wstim101.zip**
	ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**wstim101.zip**
STATUS...........	Freeware, all source code included.
DOCUMENTS..	Startup instructions and on-line help included.
FEATURES......	Last five time servers accessed are added to host menu for easy access. Option to modify local system's time or simply report time returned from the time server. TCP or UDP connection option.
COMMENTS....	This package can access your local Internet server (and others) and compare your PC to

their time settings, and either report the difference or, if you choose, do the automatic update for you. Tested only on Trumpet Winsock, but should work on most stacks. A basic program with very limited features and options. There are better available.

29.6	**WinSNTP**
FUNCTION......	Time synchronizer.
FILE SIZE........	157,926 and 164,465 bytes
VERSION.........	1.5f November 1994 and 2.2f May 1995
RETRIEVAL....	ftp://louie.udel.edu/pub/ntp/**wsntp15f.zip** [Windows 3.1]
	ftp://louie.udel.edu/pub/ntp/**ntsntp22.zip** **[Windows95, Windows NT]**
STATUS...........	Shareware $US 25
DOCUMENTS..	Startup instructions and on-line help included.
FEATURES......	Will operate over a wide range of different network connections from SLIP to high speed local area networks. WinSNTP can periodically poll the NTP server in order to keep the PC clock accurate within a configurable limit. Programmable daylight savings time cut over.
COMMENTS....	This program is an implementation of the Simple Network Time Protocol (SNTP) and is designed to keep a computer clock synchronized to the correct time with a very high degree of accuracy for critical applications. Requires access to an NTP server.

30. TRACEROUTE

When you log on to a distant server on the Internet the data packets being sent out through your modem do not go directly to the end destination, but starting with your service provider are handed off through a series of servers and routers on their way to this destination, like a stone skipping across the surface of a pond. As in any network problems can occur in certain links. Traceroute programs literally trace the route a packet of data takes as it moves through the Internet, identifying each site which handles the packet and the time taken to cross each link between these sites. A good explanation of how this process works is provided by Lutz Schroeer (reprinted by permission from a newsgroup posting):

"If you send a package via TCP/IP to another host the packet contains a field called TTL (time to live). Each host on the route from the source to the destination decreases this field by one. If the field reaches the value of 0 the host sends an error message to the source (including the host's name). This is normally used to prevent packets from traveling around the net forever if they can't be delivered to the destination host (for whatever reason).

Traceroute "abuses" this security feature:
The first packet Traceroute sends has a TTL with a value of 1, so the first host on the route to the destination sends the error message back and we've got the name of the first host. Then Traceroute sends a packet with TTL=2 so we get the name of the second host, and so on, until we reach the destination host."

(Me again:) Traceroute programs tend to be stack specific. As I understand it this is because of problems with the current Winsock spec. Thus, for example, a program which is designed to work with Trumpet Winsock will probably not work with any other.
See **Windows Sockets Net Watch** in the **Miscellaneous** section.
See **ICMP Ping for Windows** in the **Ping** section.
See the section on **Trumpet Winsock**. Versions 2.1b/c include a traceroute client (trumphop).

30.1	**Trumpet Hopcheck**
FUNCTION......	Traceroute
FILE SIZE........	27,392 bytes
VERSION.........	1992
RETRIEVAL....	Does not seem to be available anymore, probably because it is now included with newer Trumpet Winsock packages.
COMMENTS....	This only works with Trumpet Winsock. It displays IP names, addresses and intervals for each "hop" towards the final location.

31. TRUMPET WINSOCK

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As mentioned in the introduction, Trumpet Winsock is essentially provides an all purpose Windows based connection to the Internet. Many of its interim releases tended to be troublesome and it is not unusual to find that users who were quick to install the latest released have been just as quickly back to the older version because of bugs. The best best of the various versions are detailed below.

Version 1.0a of Trumpet Winsock is available under a couple of names (typically twsk10a.zip) from different locations. Unfortunately, apparently due to some bugs in this version, the odd Winsock client did not properly work with this version. It has however been around for a while and proven to be fairly durable and widely popular for establishing a SLIP (but to PPP) connection. There is no advantage in using this older version since contrary to some beliefs it was never "free" - it has always been Shareware $US 25. This version should no longer be used since it is no longer officially being distributed and has been replaced by version 2.0 which adds PPP connection capability for the same price.

Version 2.0b of Trumpet Winsock, released in November 1994, is available from many locations including:

ftp://oak.oakland.edu/SimTel/win3/winsock/**twsk20b.zip**   179,015 bytes

The biggest advantage of this version is that it now has a functioning PPP capability **if** your service supplier supports it. This latest full release contains improvements in stability and operability. Worth noting: addition of PPP support (but no CHAP or LQP yet) and firewall support for SOCKS 4.2. This Shareware had a registration cost of $US 25.00.

Version 2.1 of Trumpet Winsock was released June 1995 and replaces all previous versions. Unlike previous versions it is limited to 30 days use (really) without registration ($US 25). It includes online help, supposedly better error handling capabilities, and TRUMPING (Ping), TRUMPHOP (traceroute), TCPMETER (input/output performance) and TRUMPDIG (IP lookup) clients. These are probably customized for use only with Trumpet winsock. There have been some problems with this version though and some minor releases to try and fix them. In particular version 2.1d (twsk21d.zip) was seriously flawed and corrupted files during FTP downloads and should not be used. The latest version is:

ftp://oak.oakland.edu/SimTel/vendors/trumpet/winsock/**twsk21f.zip**   307,478 bytes
ftp://ftp.trumpet.com.au/winsock/**twsk21f.zip**

Newer 32 bit operating systems such as OS/2 Warp, **Windows95**, and **Windows NT** have built in SLIP/PPP and 32 bit Winsock capabilities (for running 32 bit Winsock programs). If you have one of these newer operating systems you should use the built in capabilities. There is no reason or need to use Trumpet Winsock. For some strange reason some people have tried removing the 32 bit winsock.dll file in these operating systems and replacing it with the 16 bit Trumpet winsock.dll in order to continue using Trumpet. Limiting yourself to running 16 bit Winsock programs in a 32 bit multi-threading capable operating system is a dubious accomplishment.

32. WAIS - Wide Area Information Server

The Wide Area Information Server (WAIS) project was initially started by Thinking Machines, Apple Computer, and Dow Jones News Retrieval. It is now being operated by the Clearinghouse for Networked Information Discovery and Retrieval. There are about 300 servers available world wide as part of the network. WAIS is an information search system which has never became very popular. In addition to these specific clients, WAIS searches can also be done through WWW browsers which is perhaps why development of WAIS clients seems to have stopped. There are a number of ways of doing a WAIS search with your browser, one of which is through the following URL:
http://server.wais.com

32.1   **EINet WinWAIS**
FUNCTION...... WAIS search client
FILE SIZE........ 1,451,068 bytes
VERSION......... 2.04   June 1994
RETRIEVAL.... ftp://ftp.einet.net/einet/pc/**EWAIS204.ZIP**
STATUS........... Shareware $US 35.00 after 30 day evaluation period.
DOCUMENTS.. Startup instructions and some on-line help included.

FEATURES......	Automated installation procedure. Two graphics viewers (gfxVIEW and winECJ) included, or can be configured to use your own.
COMMENTS....	

32.2   **USGS WinWAIS** (US Geological Survey WAIS for Windows)

FUNCTION......	WAIS search client
FILE SIZE........	591,071 bytes
VERSION.........	2.4 March 1994
RETRIEVAL....	ftp://wais.com/pub/freeware/dos/**wwais24.exe**
STATUS...........	Free
DOCUMENTS..	Start up instructions and on-line help included and includes simple basic instructions/examples on how to use.
FEATURES......	Automated installation procedure. Includes a separate optional SLIP dialer, and a VT100 telnet application.
COMMENTS....	No graphics viewers included.

32.3   **WAIS Manager**

FUNCTION......	WAIS search client
FILE SIZE........	851,085 bytes
VERSION.........	3.1 June 1993
RETRIEVAL....	ftp://ftp.cnidr.org/pub/NIDR.tools/wais/pc/windows/**waisman3.zip**
STATUS...........	Free for non-commercial purposes
DOCUMENTS..	Includes startup instructions and on-line help.
COMMENTS....	If using the DOS program pkunzip, use the "-d" option when unzipping this file to create proper subdirectories, i.e. "pkunzip -d waisman3.zip". According to information in a recent newsgroup posting this program is apparently no longer supported by its author.

33. WEBSTER DICTIONARY, etc.

Spell checking and looking up word definitions can be accomplished through several methods. One is by accessing the Webster service on a server through a client package like WinWebster. Since there appears to be few sites where this can be done, another alternative is to install a dictionary package right on your PC which will work with your mail and other such programs. A fast and dirty alternative if you have a word processing with spelling, thesaurus and/or grammar checking capabilities is to cut and paste text into the program, do the checking and correcting, and then cut and paste back to the source. Well, OK, so maybe it's not that fast.

33.1   **WinWebster**

FUNCTION......	A Webster client for accessing a network Webster dictionary server.
FILE SIZE........	40,881 bytes
VERSION.........	.8 July 1995
RETRIEVAL....	ftp://stoner.eps.mcgill.ca/pub/windows/winsock/**wwebst08.zip**
STATUS...........	Postcardware - send a postcard to the author.
DOCUMENTS..	Basic installation and start-up instructions.
FEATURES......	
COMMENTS....	Written by Steeve McCauley. To use this, or even to find out if it's even usable on your local server you'll have to talk to your local support people for server and port information, if available.

34. WHOIS

Whois clients use the Whois protocol for looking up people, hosts, and organizations in the database kept by the Network Information Center (NIC) at SRI International or at other Whois servers. The information available is limited.
Also see the section on Finger clients for programs which also have Whois clients built in..

34.1   **WinWhois**

FUNCTION......	Whois identification.
FILE SIZE........	37,877 bytes
VERSION.........	1.1 September 1994

RETRIEVAL....	ftp://bitsy.mit.edu/pub/dos/potluck/winsock/**winwhois.zip**
STATUS...........	Copyrighted, but no mention of any charges.
DOCUMENTS..	Minimal. There is a brief explanation of the protocol and how to use it, but there are no installation instructions or on-line help. Some additional information is available from the default server by doing a Whois search on the word "help".
FEATURES......	This version has a history feature, which saves up to the last 10 servers looked up in an ini file.
COMMENTS....	

34.2   **WinWhois 32**   **[Windows NT]**

FUNCTION......	Whois identification.
FILE SIZE........	24,656 bytes
VERSION.........	Beta version 1 May 1994
RETRIEVAL....	ftp://ftp.microserve.net/pub/msdos/windows/winsock/**whois32.zip**
STATUS...........	Copyrighted, but no mention of any charges.
DOCUMENTS..	Minimal
FEATURES......	
COMMENTS....	A 32 bit version of this program for **Windows NT** by Larry Kahn. It does appear to work with regular Windows 3.1 with a **Win32s** upgrade.

35. WORLD WIDE WEB BROWSERS

What's the most popular Web browser? If you were to go to a bookstore and read through sections in books devoted to Web browsers you would form the firm conviction that Mosaic is THE Browser to have, an overwhelming favorite on the Internet. Unfortunately, while this was true a year ago when many such books were being written, there has been a dramatic change since then. Numerous bugs in Mosaic, long intervals between new versions, and the annoyance of having to install Microsoft's **Win32s** 32 bit extension in order to run Mosaic (on Windows 3.1) combined with the appearance of a variety of equivalent or better competing products has led to its dramatic fall in popularity.

Current the most popular Windows browser in use is Netscape Navigator, released by former Mosaic developers. Repeated user surveys have typically shown Netscape with 80%++ of the Windows market, NCSA Mosaic with at best 5 - 10% and all other browsers fighting for a share of the leftovers. Netscape's formula for success involved developing an innovative product that worked well, fast continual improvement with new features, and a willingness to take risks, setting new standards rather than being be bound by the old ones. Dramatic improvements in recent versions of Mosaic, although very welcome, are unlikely to change its status. Netscape will remain the leader and "the bellwether for future directions on the Web".

35.1   **AIR Mosaic**

FUNCTION......	World Wide Web (WWW) Browser [DEMO - Function or time crippled]
FILE SIZE........	1,003,793 bytes
VERSION.........	1.1 October 1994
RETRIEVAL....	ftp://ftp.spry.com/vendor/spry/demo/AirMosaicDemo/**AMOSDEMO.EXE**
STATUS...........	Demo trial version.
DOCUMENTS..	On-line help file included.
FEATURES......	Customized toolbars, pre-configured hot lists, user definable hot lists, full screen kiosk mode, etc. Automated installation looks for an already installed Winsock stack (such as Trumpet). Program includes its own nullsock.dll file for offline viewing.
COMMENTS....	This is a fully functional demo except for the fact that it will only allow for the viewing of up to 6 external documents. The uncrippled 16 bit version is available for $US 29.95. A 32 bit version of this program for that price would be more desirable.
	NOTE: This is a licensed commercial version of the NCSA Mosaic browser developed by Spry. This demo is a regular Windows 3.1 16 bit program. Spry has just been purchased by CompuServe and will contribute to their effort to offer their customers increased Internet access.

35.2   **Cello**

FUNCTION......	World Wide Web (WWW) Browser
FILE SIZE........	328,429 bytes

VERSION.........	1.01a	March 1994
RETRIEVAL....	ftp://ftp.law.cornell.edu/pub/LII/Cello/**cello.zip**	
STATUS...........	No charge for non-commercial use.	
DOCUMENTS..	Installation instructions and on-line help included.	
FEATURES......		
COMMENTS....	Cello was at best a very basic WWW browser when it first came out. A year later it is dead dead dead. A new version has been imminent imminent imminent for some time and is overdue overdue overdue.	

35.3   HotJava   [Windows NT]

FUNCTION......	WWW Browser
FILE SIZE........	4,009,933 bytes
VERSION.........	1.0 alpha 2 May 1995
RETRIEVAL....	http://webrunner.neato.org/ filename: **hotjava-alpha2-nt-x86.zip**
	ftp://java.sun.com/pub/**hotjava-alpha2-nt-x86.exe**
	Note: The nice folk at Sun believe in l-o-n-g filenames. Unfortunately virtually all commonly used unzip programs truncate files down to the standard 8.3 format (that DOS heritage) as they unzip them which is unacceptable in this case. Unless you feel lucky (or know you are), take their hint and download the Info-ZIP program (217 kbytes) they've made available with a link on their page. It retains full filenames and directory structures when unzipping and worked just fine, unlike the other 3 programs I tried.
STATUS...........	May be freely used for personal, academic or internal business purposes.
DOCUMENTS..	A wide variety of HTML documentation included. Be sure to read the installation instructions and other information on their home page when downloading.
FEATURES......	
COMMENTS....	From Sun Microsystems Inc., this product has created considerable interest in that it appears to represent a leap forward in browser technology. Written in a new programming language called Java(tm) (origin: C++), HotJava goes beyond the current ability to retrieve text, sound and image date and adds the capability to retrieve and run executive files (programs). In effect this gives the browser the capability to become a dynamic and interactive application rather than just a viewing tool. This **Windows NT** version has just come out and is still fairly rough (beginning with no desktop icon) and is subject to crashes (sound card problems for one). It comes with some interesting documentation (HTML) on the subject of Java and HotJava and a variety of sample programs to try out. Great attention has been paid to security for HotJava since, needless to say, exec based files are an ideal host for spreading viruses. This version does **not** run on **Windows95** - a version for that will be available later in the year. You'll need upwards of 9+ meg on your hard drive to install this; it unzips to just under a thousand files.

35.4   I-Comm   [NOT Winsock- operates on normal UNIX shell]

FUNCTION......	WWW Browser
FILE SIZE........	235,008 bytes
VERSION.........	1.06 July 1995
RETRIEVAL....	ftp://ftp.best.com/pub/icomm/**icomm106.zip**
	ftp://ftp.netcom.com/pub/ic/icomm/**icomm106.zip**
STATUS...........	Evaluation copy. Expiry date not specifically stated.
DOCUMENTS..	Basic start up instructions included.
FEATURES......	Supports forms, FTP and Gopher protocols. Built in sound player. Local disk caching. Can save HTML pages to disk with inline images. Does not yet support inline JPEG images.
COMMENTS....	Very similar to SlipKnot in concept, it requires access to your UNIX shell account and does not require SLIP/PPP. A built in dialer/modem program is included. You must have Lynx or other WWW browser access on your shell account, or if not a separate program is mentioned and can be retrieved and placed on your shell. An FAQ is available from the same location under the name icommFAQ.
	From Talent communications Inc., home page at:
	http://www.best.com/~icomm/icomm.htm

35.5   InternetWorks Lite / GNNWorks

FUNCTION......	WWW Browser, and mail.

FILE SIZE........	2,239,530 bytes
VERSION.........	Beta 7 February 1995
RETRIEVAL....	ftp://ftp.cyberspace.com/pub/win95/winsock/**iwbeta7.exe**
STATUS..........	Demo preview version. This is of limited value since the company was subsequently taken over by America Online and there are unlikely to be any more freebies. See note on version 1.0 below.
DOCUMENTS..	Start up instructions and on-line help.
FEATURES......	Automated installation. Multitasking support with separate windows created for each activity. No news yet in this version.
COMMENTS....	The browser's background color (which will be white on most machines) is tied to Windows desktop settings and is not separately adjustable. Similar to Mosaic and Netscape, InternetWorks displays text first, allowing you to begin reading immediately while the graphics are being retrieved. The default pages provided are primarily menu driven and easy to use. This demo version works with SLIP only - there is no PPP support.

Note: Newer version 1.0.4 (setup24a.exe, 2,282,050 bytes, June 1995) is available from ftp://ftp.megaweb.com/beta. This newer version is intended for use with The GNNWorks Service which you are supposed to sign up with and provide with credit card info etc. This proprietary version is best avoided unless you are specifically interested in this Internet service provider. You can probably temporarily try this program out with your existing service provider by deleting the proprietary dialer/winsock.dll which comes with it and using something like Trumpet instead. InternetWorks is now owned by America Online (AOL) and with this version there has been a name change to GNNWorks. This is the version which is being distributed on diskette as part of a trial membership with their online Internet service.

35.6   **Microsoft Internet Assistant For Word** (Word 6.0 extension)

FUNCTION......	HTML editor and WWW browser (Based on the InternetWorks browser from Booklink.)
FILE SIZE........	1,120,361 bytes
VERSION.........	1.0Z April 1995 This "Z" version adds additional language capability to support French and German versions of Word 6.0a. It adds no functionality improvements over the previous "1.0" release.
RETRIEVAL....	ftp://ftp.microsoft.com/deskapps/word/winword-public/ia/**wordia.exe**
STATUS...........	Not mentioned, but I believe it will be freely available to licensed users of MS Word.
DOCUMENTS..	Start-up info and on-line help.
FEATURES......	
COMMENTS....	Final release, this is Microsoft's entry into the HTML document creation market. This template also gives Word capability as a Web browser to access WWW sites. It is fairly basic and represents no threat to other existing major Web browsers. You must at least have MS Word 6.0a in order to install and use this. A 32 bit version for **Windows NT** will not be available until late this year. Same thing for the Macintosh version. This template provides another example of how Microsoft has succeeded in turning Word into the industry leader in word processing, on or off the Internet. Besides this, there are now at least half a dozen Shareware and Freeware HTML add-on creation templates available for MS Word.

35.7   **NCSA Mosaic (16 bit)**

FUNCTION......	World Wide Web (WWW) Browser
FILE SIZE........	243,749 bytes
VERSION.........	2.0 alpha 2 March 1994
RETRIEVAL....	ftp://ftp.ncsa.uiuc.edu/Web/Mosaic/Windows/old/**wmos20a2.zip**
STATUS...........	No charge for non-commercial use.
DOCUMENTS..	Good
FEATURES......	
COMMENTS....	Old 16 bit version. Not compatible with WFW 3.11. See 32 bit version below. NCSA = National Center for Supercomputing Applications. Quite dated now, there is no reason to use this.

35.8   **NCSA Mosaic**   [**Win32s, Windows95** or **Windows NT**]

FUNCTION......	World Wide Web (WWW) Browser
FILE SIZE........	1,584,886 bytes
VERSION.........	2.0 final beta July 1995

RETRIEVAL....	ftp://ftp.ncsa.uiuc.edu/Web/Mosaic/Windows/**mos20fb.exe** (self extracting)
STATUS...........	No charge for non-commercial use.
DOCUMENTS..	Installation and setup instructions included. On-line help is precisely that, downloaded from the NCSA server as required and thus only available to you when you are logged on.
FEATURES......	This final release fixes a large number of bugs and adds functionality including the ability to use background color and image information in HTML documents, substantially closing the gap with Netscape.
COMMENTS....	If you have Windows 3.1 or WFW 3.11 then you must first install a special OLE compatible version of **Win32s** on your system before installing these newer versions of Mosaic. Details on it are in the Miscellaneous Non-Winsock/ **Win32s** section much further down this listing. **Win32s** is not required if you have a "true" 32 bit operating system like **Windows95** or **Windows NT**. This program may not run well if you only have 4 meg RAM memory.

       Note from NCSA: "If you are experiencing startup problems with NCSA Mosaic for Windows 2.0 Final Beta, here is what's going on. The default mosaic.ini file has a mistake in it that assigns the initial disk cache directory to be "D:\MOSAIC\CACHE\". If your machine doesn't have a D: drive, then the program will not start. Edit your mosaic.ini file and look for "Cache Directory=". If it says "D:\..." then change it to a drive that does exist, C:, for example." (Personal comment: This is typical of the very simple and stupid bugs which Mosaic has always been notorious for - E.S.)

35.9	**Netscape Navigator (tm)** ("Mozilla")
FUNCTION......	WWW Browser
FILE SIZE........	1,652,904 and 1,339,223 bytes
VERSION.........	1.2 beta 3 July 1995
RETRIEVAL....	ftp://ftp2.mcom.com/pub/**ns1612b3.exe** [Windows 3.1]
	ftp://ftp2.mcom.com/pub/**ns3212b3.exe** [**Windows95** and **Windows NT**]
STATUS...........	This is just an interim test version which expires in September by which time a final 1.2 version will be available. Free for use by students or members of educational institutions or charitable non-profit organizations (but not government). All others $US 39, although this program may be evaluated free for 90 days by employees of commercial companies and for an indefinite period by others.
DOCUMENTS..	Basic installation instructions only. Almost all other information is available online from the Netscape home page through the help menu while logged on.
FEATURES......	This latest version has an improved interface and drag and drop capabilities. The bookmark has been rewritten and it has a built in capability to import URL lists from other files, such as the hotlist from NCSA Mosaic. The 32 bit version is specially optimized for Windows95 with multi-user customized preferences and replacement of the ini file with the registry.
COMMENTS....	New and impressive versions continue to be released - easy to see why this is the overwhelming leader in this area. One quibble though - the default screen color in this latest version is the Windows default screen color now - typically a blinding white instead of the traditional gray. You must go in and specifically configure a different color which most won't bother to do. This will mess up a few existing Web pages with colors chosen and optimized for the gray background.

       Recommended

35.10	**Pythia**
FUNCTION......	WWW Browser
FILE SIZE........	476,065 bytes
VERSION.........	2.31 June 1995
RETRIEVAL....	http://pythia.com File name: **demo.zip**
STATUS...........	Demo version, evaluation period 45 days. This browser is "site locked" to their home server only.
DOCUMENTS..	Extensive.
FEATURES......	Kiosk stand alone mode, database link capabilities, easy print capabilities, advances security with electronic signature, vector graphics (oh!) business graphics including bar charts, etc. Internal support for audio (WAV).
COMMENTS....	This is a new browser developed by Lanark Technologies and marketed by Appian

Interactive. Unlike most current browsers it is not aimed at general Internet users, but is instead oriented towards commercial and institutional customers. For this reason Pythia introduces a number of radical and new HTML extensions (oh oh!). A lot of unique features, but the execution was fairly crude by any standard in an earlier version I looked at and not of any great interest in that condition. This newer version might be better. Microsoft TCP/IP is not supported.

35.11 **SlipKnot** [NOT Winsock - operates on normal UNIX shell]

FUNCTION......	WWW Browser
FILE SIZE........	1,270,597 bytes
VERSION.........	1.11 June 1995
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/internet/**slnot111.zip**
STATUS...........	Shareware. $US 29 for USA, Canada, Japan, Western Europe. $US 20 elsewhere. 10% of all fees are donated to refugee relief. Registered users get some additional features such as Gopher support.
DOCUMENTS..	Start up information and on-line help.
FEATURES......	Up to 5 different documents can be displayed on the screen simultaneously. You can ask for the retrieval of many documents, and these requests will be queued up to be activated one-by-one. X, Y and Z protocol downloads are all now supported. You are allowed to switch between WWW and your UNIX terminal session (except when downloading documents). You can choose not to retrieve the pictures embedded inside documents and speed up the downloading process significantly. Then, if you change your mind, ask SlipKnot to get the same document with the pictures.
COMMENTS....	An interesting and innovative program, a WWW browser which uses Windows, but not Winsock or Slip. It is designed for modem users with ordinary dial-up UNIX shell accounts. It does require a 386 processor or better and at least 4 meg of RAM. As well, your service provider must have certain software on the server (e.g. Lynx, which is quite common). It has not yet been tested on **Windows NT**. Released by MicroMind. This is a unique and very welcome addition to browser ranks. It is also strongly supported by its author Peter Brooks.

35.12 **SuperHighway Access**

FUNCTION......	WWW browser, Gopher+, WAIS, CSO, basic FTP client.
FILE SIZE........	1,079,067 bytes
VERSION.........	March 1995
RETRIEVAL....	http://www.frontiertech.com/demo.htm File name: **shademo.exe**
STATUS...........	Demo. I believe that this has a built in expiry date.
DOCUMENTS..	Start up information, brief tutorial and on-line help.
FEATURES......	Multi-session (30) capability. Can import Mosaic bookmarks.
COMMENTS....	From Frontier Technologies, this is primarily the WinTapestry Web portion of their commercial package Super Highway Access For Windows. This integrated package is designed as a very easy to use menu driven system. The commercial version adds Telnet, Mail and News clients, and a better FTP.

35.13 (NEW!) **UdiWWW**

FUNCTION......	World Wide Web (WWW) Browser
FILE SIZE........	264,841 and 322,916 bytes
VERSION.........	1.0 July 1995
RETRIEVAL....	http://www.uni-ulm.de/~richter/udiwww/index.htm
	File name: **udiw1e01.exe** (16 bit for Windows 3.1/3.11) and **udiw1e03.exe** (32 bit for **Windows95** and **Windows NT**)
STATUS...........	n/a
DOCUMENTS..	None.
FEATURES......	
COMMENTS....	These are the latest English (well, mostly) versions of a German language WWW browser. Unfortunately these are rather buggy. They need more development time. Nonetheless their release is a notable accomplishment from Bernd Richter. The 32 bit version is multi-threaded and will not work with **Win32s**.

35.14   <u>**Video On Line**</u>
<u>FUNCTION</u>......   World Wide Web (WWW) Browser
<u>FILE SIZE</u>........   1,417,467 bytes
<u>VERSION</u>.........   1.0 June 1995
<u>RETRIEVAL</u>....   http://www.vol.it/VOLB/browser.html   File name: volb-int.exe
<u>STATUS</u>...........   n/a
<u>DOCUMENTS</u>..   Nothing with the program. There is some installation info at the Web site.
<u>FEATURES</u>......   Built in dialer and Winsock.
<u>COMMENTS</u>....   From Italy a browser available in 3 different versions: Italian, Arabic and International. Supposedly up to 12 language versions are currently available. It is intended for use primarily in Europe and primarily with a particular service provider although the documentation states that this can be easily changed (not believable since there are no provisions at all to handle login variations). The configuration screens are extremely rigid and not fully or properly developed for locations outside of Europe. This program can only be used with its own dialer/winsock. A frustrating program which I found disappointing and unusable - I never did get it working.

35.15   <u>**WinWeb**</u>
<u>FUNCTION</u>......   World Wide Web (WWW) Browser
<u>FILE SIZE</u>........   598,873 bytes
<u>VERSION</u>.........   1.0A2.1.1   December 1994
<u>RETRIEVAL</u>....   ftp://ftp.einet.net/einet/pc/**winweb.zip**
<u>STATUS</u>...........   No charge for non-commercial use.
<u>DOCUMENTS</u>..   Documentation somewhat weak - there is provision for on-line help but none included with this current version.
<u>FEATURES</u>......   This latest version now supports loading local documents and reading them offline. Flexible cache can automatically adjust to use any additional memory available
<u>COMMENTS</u>....   This installs easily and should run well even on less powerful machines with only 4 meg. This browser has fallen far behind in the development race.

36.   WORLD WIDE WEB BROWSER ACCESSORIES

36.1   <u>**Indexer**</u>   [not Winsock]
<u>FUNCTION</u>......   Netscape cache file viewer
<u>FILE SIZE</u>........   39,570 bytes
<u>VERSION</u>.........   1.1 April 1995
<u>RETRIEVAL</u>....   ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**indxer11.zip**
<u>STATUS</u>...........   Freeware
<u>DOCUMENTS</u>..   Start up instructions.
<u>FEATURES</u>......   Sort by name, by size, by file type and by host.
<u>COMMENTS</u>....   Indexer is a program which reads your Netscape disk cache which contains copies of Web pages you have been viewing. Indexer creates a listing of these in a new file called cache.htm which you can view in Netscape and use to retrieve individual pages from the cache. The number of pages in the cache and how far back they go will be dependent on the size of the cache (bytes) setting in a Netscape configuration menu. The cache is not normally directly accessible without a program such as this. Released by Anders Lindh.

36.2   <u>**Netscape Menu Editor**</u>   [not Winsock]
<u>FUNCTION</u>......   Netscape bookmark editing utility
<u>COMMENTS</u>....   ***DISCONTINUED**** Obsoleted by those pesky developers at Netscape who keep improving their product.

36.3   <u>**SETMOS**</u>   [not Winsock]
<u>FUNCTION</u>......   Configuration set up utility for NCSA Mosaic .
<u>FILE SIZE</u>........   349,321 bytes The program itself is actually very small, but the zip file does contain the obligatory vbrun300.dll standard visual basic file. You probably have at least half a dozen

duplicates of this scattered across your system already if you've installed any number of Shareware packages.

VERSION......... 1.2 alpha   September 1994
RETRIEVAL.... ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**smosaic.zip**   .
STATUS........... Nothing stated.
DOCUMENTS.. Negligible.
FEATURES...... Automated installation.
COMMENTS.... Designed to simplify the process of configuring the mosaic.ini file with all the necessary viewers and connection info required. Not required any more with newer Mosaic versions.

36.4   **WebWatch**
FUNCTION...... Scanner utility for monitoring URL's to identify Web pages which have changed.
FILE NAME..... ww10d_16.zip [Windows 3.1 and 3.11]
            ww10d_32.zip [**Win32s**, **Windows95** and **Windows NT**]
FILE SIZE........ 92,768 and 132,854 bytes
VERSION......... 1.0   May 1995
RETRIEVAL.... http://www.specter.com/users/janos/specter/webwatch.html
STATUS........... Shareware $US 18. Free registration for every new bug found!
DOCUMENTS.. Start up instructions and online help.
FEATURES...... Full proxy support.
COMMENTS.... Given an HTML document referencing URLs on the Web, WebWatch produces a filtered list, containing only those URLs that have been modified since a given time. The input file can be a Netscape or Mosaic bookmark/ hotlist or any other, standard HTML document. The output is a local HTML document which contains links to the pages which have been updated. A fairly unique program. Released by Specter Inc.

36.5 (NEW!)   **YABE** (**Y**et **A**nother **B**ookmark **E**ditor)
FUNCTION...... Netscape bookmark editor.
FILE SIZE........ 15,932 bytes
VERSION......... .01 May 1995
RETRIEVAL.... http://www.ugrad.cs.ubc.ca/spider/q7f192/branch/tools.html   File name: **yabe01.zip**
STATUS........... Freeware
DOCUMENTS.. Very basic instructions.
FEATURES......
COMMENTS.... Obsoleted by newer versions of Netscape which have improved bookmark editing. From George Xie.

37.   X.500 (DUA) CLIENTS

From the help file in WaX500: "X.500 is an international standard for providing on-line directory services. The easiest way to think about X.500 is as a world-wide, distributed, electronic, telephone book. The X.500 Directory can contain information about people, organizations, documents, and just about anything else. At the present time, there is a pilot world-wide X.500 Directory in which the information available is mostly about people and organizations."

37.1   **piXie** (originally called **seXie** - name changed for obvious reasons)
FUNCTION...... X.500 DUA (Directory User Agent)
FILE SIZE........ 194,165
VERSION......... 2.2b   January 1994
RETRIEVAL.... Try: ftp://ns.uab.es/pub/msdos/X500/**pixie22b.zip**
STATUS........... Free for non-commercial purposes.
DOCUMENTS.. Fairly comprehensive with on-line help.
FEATURES......
COMMENTS.... Should also work with OS2 and **Windows NT**.

37.2   **Swix**
FUNCTION...... X.500 DUA (Directory User Agent)
FILE SIZE........ 237,005 bytes
VERSION......... 2.2   February 1995

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RETRIEVAL.... ftp://papa.indstate.edu/winsock-l/X.500/**swix22.exe**
STATUS........... Public Domain.
DOCUMENTS.. Installation instructions and on-line help included.
FEATURES......
COMMENTS....

37.3 **WaX500**
FUNCTION...... X.500 DUA (Directory User Agent)
FILE SIZE........ 476,613 bytes
VERSION......... 2.05 beta   May 1995
RETRIEVAL.... http://www.umich.edu/~sgr/wax500.html   File name:**waxr205.zip**
STATUS........... Copyright.
DOCUMENTS.. Startup instructions and on-line help included.
FEATURES......
COMMENTS.... A Mac version is also available from the same site.

37.4 **Windows Directory User Agent** (WDUA32)   [Win32s, Windows95, Windows NT]
FUNCTION...... X.500 DUA (Directory User Agent)
FILE SIZE........ 889,131 bytes
VERSION......... Release 2.1B   January 1995
RETRIEVAL.... http://centaur.arc.nasa.gov
STATUS........... Not stated.
DOCUMENTS.. Start up documentation and on-line help.
FEATURES...... User definable filters, supports exact or approximate searching.
COMMENTS.... One of the better programs in this section. Developed under contract to NASA. Minor enhancements and bug fixes for this program will continue to appear, but there are no major upgrades currently planned. Released by Kevin Lussier.

38. X-WINDOWS

38.1 **Micro X-Win** / **Micro X-Win32**
FUNCTION...... X-Windows emulator.
FILE SIZE........ 1,402,864 (16 bit version) and 1,751,410 (32 bit version) bytes
VERSION......... 2.8.8 April 1995 (16 bit) and 3.1.4 June 1995 (32 bit version)
RETRIEVAL.... ftp://ftp.ipac.net/pub/starnet/public/**xwindemo**   [Windows 3.1/3.11]
             ftp://ftp.ipac.net/pub/starnet/public/**xdemo32.zip [Win32s, Windows95, Windows NT]**
STATUS........... Demo.
DOCUMENTS.. Basic start up instructions and online help.
FEATURES......
COMMENTS.... Released by StarNet Communications.

UTILITIES LISTING

Viewers, decoders, modem accessories, etc., these general purpose items are often used in conjunction with Winsock applications and are listed here for convenience.

40. ADDRESS BOOK / DATABASE PROGRAMS

It's sometimes not easy keeping track of all the locations you visit on the Internet and might want to again. There are many ways of doing this from the hotlist tracking in individual programs to something like the more generic Windows cardfile. As well, there are a few programs specifically written for this purpose. My thanks to Dr. Richard MacLennan for pointing these out to me, leading to the creation of a new category (yes, another one!).

40.1 **Internet Database**

FUNCTION......	Internet address book.
FILE SIZE........	541,922 bytes
VERSION.........	1.1 May 1995
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/database/**netdb11.zip**
STATUS...........	Shareware $CDN 10 if you live in Canada, $US 10 if you live in the US or elsewhere.
DOCUMENTS..	Basic instructions
FEATURES......	
COMMENTS....	Storage program for Internet addresses (URL's). Designed for cut and paste operation. The database is in Microsoft Access 1.1 format. Released by John Luciani of Fusion Design.

40.2   **Internet Navigator for Windows**

FUNCTION......	Internet address book.
FILE SIZE........	1,258,446 bytes
VERSION.........	1.0 October 1994
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/util/**internav.zip**
STATUS...........	Shareware $US 10. The registered version contains many enhancements.
DOCUMENTS..	Start up instructions and online help.
FEATURES......	
COMMENTS....	A simple address book designed for cut and pasting of information into other applications.

40.3   **IP Manager**

FUNCTION......	Internet address book.
FILE SIZE........	758,316 bytes
VERSION.........	2.1a November 1994
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/database/**ipmgr21a.zip**
STATUS...........	Shareware $US 20. Unregistered version limited to 25 entries.
DOCUMENTS..	Start up instructions and online help.
FEATURES......	
COMMENTS....	Stores IP numbers and matching information and allows the launching of external FTP, Telnet and Ping programs based on that data. Nice interface.

40.4   **NetMinder**

FUNCTION......	Internet address book.
FILE SIZE........	908,893 bytes
VERSION.........	1.0 October 1993
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/demo/**netdemo.zip**
STATUS...........	Demo version limited to 1 group with 12 entries. Registration $45. Funds not stated but probably $Canadian.
DOCUMENTS..	Start up instructions and online help.
FEATURES......	Stores information is standard DBase IV format.
COMMENTS....	From CPProgma Software. Cut and paste operation. Nice interface with large record storage capability, but the price is a hard swallow.

41. CONTROL PANELS AND TOOLBARS

With so many Winsock programs required to do everything it's nice to have the convenience of a toolbar to launch and switch back and forth between them. Curiously enough probably half of the toolbars I look at are discarded and never listed because they either simply don't work or are so poorly designed. Fortunately there are many to choose from and still more appearing almost daily..............

41.1   **Internet Control Center**

FUNCTION......	Toolbar (control panel/launcher) for Winsock Applications
FILE SIZE........	526,145 bytes
VERSION.........	1.19 July 1995
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/winsock/**icc119.zip**
	ftp://ftp.userware.com/users/jfoltz/**icc119.zip**
	http://www.usefulware.com/~jfoltz/clients.html
STATUS...........	Shareware $US 24. Unregistered version limited to 75 sessions.
DOCUMENTS..	Basic start up instructions.

FEATURES......	A large floating toolbar with about a dozen labeled buttons for the most common Internet applications (mail, WWW, news Gopher, etc.) which allows you to quickly switch between them. Some customization allowed. Can be used with a Lan connection.
COMMENTS....	A good implementation for this type of program, but certainly not cheap.

41.2   **Internet Wizard**

FUNCTION......	Toolbar (control panel/launcher) for Winsock Applications
FILE SIZE........	333,098 bytes
VERSION.........	March 1995
RETRIEVAL....	ftp://ftp.cityscape.co.uk/incoming/**netwiz.zip**
STATUS...........	Shareware $US 1.
DOCUMENTS..	Basic startup instructions.
FEATURES......	Up to 15 folders can be created.
COMMENTS....	From Adam Allard .This program creates a set of folders representing the various Internet programs (Trumpet, FTP, Eudora, etc.) allowing them to be quickly launched. There is no configuration setup menu - all configuration has to be done by directly editing the .ini file only.

41.3   **SlipBar**

FUNCTION......	Toolbar (control panel/application launcher)
FILE SIZE........	115,210 bytes
VERSION.........	1.1 May 1995
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/winsock/slipbr11.zip
STATUS...........	Shareware $US 10.
DOCUMENTS..	Basic instructions.
FEATURES......	7 configurable buttons for Winsock applications. Does not require vbrun300.dll.
COMMENTS....	Very easy to set up and use. Released by Dean Tessman.

41.4   **Stiletto**

FUNCTION......	Toolbar (control panel/application launcher)
FILE SIZE........	159,856 bytes
VERSION.........	1.9m July 1995
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/desktop/**stile19m.zip**
STATUS...........	Freeware but may not be sold nor be used in any profit-oriented endeavor.
DOCUMENTS..	Start up instructions and online help.
FEATURES......	One of the smallest footprints I've seen (fits in title bar), up to 16 configurable buttons (each with left, center and right mouse button commands), font and color configuration, drag and drop positioning, drag and drop file capabilities, system resource usage display, sound/alarm capabilities, balloon button captions, etc., etc.
COMMENTS....	Wow! Not only is this program well designed and loaded with features, but it also comes in my price range (free). The configuration options available are initially overwhelming. According to the author you can even load a second bar at the same time if you really need it (!). This program continues to improved with regular new releases by Bruce Switzer.
	Recommended

41.5   **WSTBar**

FUNCTION......	Toolbar (control panel/launcher) for Winsock Applications
FILE SIZE........	117,554 bytes
VERSION.........	2.5 beta July 1995
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/winsock/**wstbar25.zip**
STATUS...........	Shareware $US 10.
DOCUMENTS..	Basic startup instructions.
FEATURES......	
COMMENTS....	

42. CONVERTERS - DOCUMENT (HELP/HTML -> TEXT)

42.1   **HLP2DOC**

FUNCTION......	Windows help file to doc (MS Word 2.0) converter.
FILE SIZE........	45,523 bytes
VERSION.........	1.37 July 1994
RETRIEVAL....	ftp://ftp.virginia.edu/public_access/**hlp2doc.zip** This contains both the DOS executable file (hlp2doc.exe) and the Windows front end (h2dstart.exe).
STATUS...........	Freeware
DOCUMENTS..	Basic instructions.
FEATURES......	
COMMENTS....	A handy utility for converting Windows help files into a flat easy to print version for MS Word 2.0 (and other text viewers and word processors which can handle this format). Released by Wolfgang Beyer.

42.2	**HTMLCon** **[DOS]**
FUNCTION......	HTML to Ascii document converter.
FILE SIZE........	35,543 bytes
VERSION.........	2.1 July 1995
RETRIEVAL....	http://www.crl.com/~mikekell
	ftp://ftp.crl.com/ftp/users/ro/mikekell/ftp/**htmlco21.zip**
STATUS...........	Shareware $US 7
DOCUMENTS..	Basic instructions.
FEATURES......	
COMMENTS....	Fairly easy to use DOS program for stripping out the tags from marked up HTML files to produce a text file for reading or printing purposes.

43. DECODERS - BinHex, MIME, UU, and XX

UU (Unix-to-Unix) encoders/decoders convert 8 bit binary files (which most are, such as zip, exe, com, gif, jpg, and wav files) to 7 bit ASCII text files (or vice versa). And, you ask, why would we want to do that? Well, we don't, but we have to because the Internet forces us to do it. The archaic Internet Mail and News systems were designed to handle only ASCII text format. To send anything else, such as a graphics image, a spreadsheet or a compressed zip file we have to convert these from their natural 8 bit state to 7 bit "text" which can then be mailed or posted. The process will of course have to be reversed at the other end to convert the file back to its natural and usable format. XX, MIME and BinHex are other processes for doing the same thing as UU through their own methods. MIME (Multipurpose Internet Mail Extensions) is a newer Internet standard most frequently used in email programs to send attached documents or programs. It is newer, superior to, and should quickly replace UU in the email area. UU will continue to totally dominate the newsgroups. BinHex is an encoder format for the Mac world. All of these different formats are of course not compatible with each other - silly of you to ask.
See also **VuePrint** in the **VIEWERS-GRAPHICS-STILL PICTURE** section.

43.1	**PC BinHex** [DOS]
FUNCTION......	BinHex encoder/decoder
FILE SIZE........	45,638 bytes
VERSION.........	1.3 March 1993
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/msdos/mac/**binhex13.zip**
STATUS...........	Not mentioned.
DOCUMENTS..	Basic information.
FEATURES......	
COMMENTS....	This is from the University of Minnesota. Compatible with the Macintosh version of BinHex.

43.2	**UU** [DOS]
FUNCTION......	UU Decoder.
FILE SIZE........	37,206 bytes (Unzipped the actual program is only 10,140 bytes - the rest is all documentation).
VERSION.........	4.0 April 1995
RETRIEVAL....	ftp://ftp.io.com/pub/usr/zboray/coding/**uu40s.zip**
STATUS...........	Shareware. $US 10. (The previous version 3.3 was Freeware)
DOCUMENTS..	Very extensive.

FEATURES......	This program can be used on as little as an 8086/8088 and down to DOS 2.0.
COMMENTS....	From author Ben Jos Walbeehm this is one of the best UUdecoders money can buy. A very compact and very fast DOS program capable of sorting through and decoding files UUencoded by a wide variety of other packages. It is capable of dealing with some of the variations and glitches sometimes found. As much as I hate DOS, the ability to go into a directory where I have downloaded a large number of encoded files and just type uu *.* and watch it finish spitting out the viewable files in seconds makes this indispensable. It's great for chomping through Trumpet News archive folders (.mfl) and decoding and putting together coded files and pictures which have been archived from newsgroups. This is the first and only Shareware version which will be released - all enhancements from now on will be done to the registered version.

<p align="center"><u>Recommended</u></p>

43.3   **<u>UUCODE</u>**

FUNCTION......	UU and XX Encoder/decoder
FILE SIZE........	177,030
VERSION.........	3.1.4 July 1994
RETRIEVAL....	Try: ftp://ftp.demon.co.uk/pub/ibmpc/windows/uue/**uucod314.zip**
STATUS...........	Shareware $US 10. Manual and latest version add $US 6.
DOCUMENTS..	Start up instructions and on-line help.
FEATURES......	Supports UU and XX.
COMMENTS....	UUCODE requires a minimum of a 386 processor. From Sabasoft Inc.

43.4   **<u>UNMACIT</u>** (UNSIT and UNHQX)

FUNCTION......	Mac BinHex (HQX) decoder and file decompression (SIT)
FILE SIZE........	64,434 bytes
VERSION.........	N/A
RETRIEVAL....	ftp://ftp.demon.co.uk/pub/ibmpc/unmacit/**unmacit.zip**
STATUS...........	Freeware
DOCUMENTS..	Introductory comments only.
FEATURES......	
COMMENTS....	A pair of no frills Windows programs for decoding and decompressing Macintosh formats.

43.5   **<u>Wincode</u>**

FUNCTION......	Encoder/decoder.
FILE SIZE........	266,083
VERSION.........	2.6.1 October 1994.
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/util/**wncode26.zip**
STATUS...........	Freeware, but not Public domain. Help file available for $US 5 but should really not be required. Mailing list available for automatic program updates (Price: Postcardware).
DOCUMENTS..	Introductory documentation only.
FEATURES......	Supports UU, XX and MIME encoding and decoding. Drag and drop support, automated installation.
COMMENTS....	Wincode does not have built in zip capability, but it will provide a Windows front end if you have such a program installed on your system (i.e. DOS). Released by Snappy_Inc.

44. DECOMPRESSION - ZIP

There are many standards for compressing files to save on space for storage or transmission purposes. The DOS/Windows standard is ZIP. Files ending in .zip require an unzip utility program such as these to restore them to their original usable format. Self extracting zip files can also be created which do not require the additional help to "explode". They have a .exe ending and are inconveniently indistinguishable from other execution files with that ending.

See also **ZR FileWorks Turbo** in the **DECOMPRESSION** section.

44.1   **<u>ACZAR</u>**

FUNCTION......	File zip/unzipper and all purpose file decompression shell.
FILE SIZE........	1,299,346
VERSION.........	2.2 September 1994

RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/util/**aczar220.zip**
STATUS...........	Shareware $US 35. Lots of bonuses upon registration
DOCUMENTS..	On-line help
FEATURES......	Built in ZIP/UNZIP. Windows shell support for other compression schemes such as LZH, PAK, ARC, ARJ, SQZ ZOO, and HYP but only if you have the individual DOS programs for these installed on your system - they are not included in this program. Extensive drag and drop features. This program was designed to be kissed by your mouse - you might never have to touch the keyboard. Nicely done automated installation and configuration process.
COMMENTS....	If you work with a lot of different compressed file formats this program is easy to use and can potentially simplify your life. I am however bothered by its size (installation doesn't make it any smaller), the system resources required to run it (recommended minimum of a 486 processor with a graphics accelerator), and the fact that for all this the ZIP functions are the only ones built in - you will still have to find and add extra programs (usually DOS versions) for the others. This is a bit of a pig suitable only for those who can afford it.

44.2   **PKZIP**   [DOS]

FUNCTION......	File zip/unzipper
FILE SIZE........	202,574
VERSION.........	2.04g January 1993
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/msdos/zip/**pkz204g.exe**
STATUS...........	Shareware $US 47
DOCUMENTS..	Extensive, although I really wonder how many people will have the interest to wade through the 200 page manual in addition to several other files (all in MS Word format). Or am I the only one with a short attention span?
FEATURES......	
COMMENTS....	Self extracting file. From PKWARE Inc., this is the real thing. Registered version contains several additional utility programs. When using pkunzip it is often a good idea to use the "-d" option, i.e. "pkunzip -d filename.zip". Some zipped files actually contain more than one directory and if just normally unzipped all the files will be mixed together in a common directory. If there are files with the same name they may overwrite each other when being unzipped. The "-d" option will create all the appropriate directories and place the files where they belong.

44.3   **WinZip**

FUNCTION......	File unzipper
FILE SIZE........	294,736 and 307,981 (NT) bytes
VERSION.........	5.6 February 1995
RETRIEVAL....	ftp://ftp.winzip.com/winzip/**winzip56.exe** (for Windows 3.1) and **wznt56.exe** (for **Windows95** and **Windows NT**)
STATUS...........	Shareware $US 29.
DOCUMENTS..	Extensive, and includes on-line help.
FEATURES......	Unique uninstall feature give you a chance to try a program, and then, if desired, it will restore your system to its original state. The uninstall step can selectively remove files, icons, or program groups created by an install program, and can restore any altered INI files. The program will even uninstall itself! A WinZip pull-down menu can be added to the Windows File Manager for quick access. In addition to handling ZIP files, WinZip provides a Windows front end for decompression of LZH and ARJ files when the corresponding dos utilities (such as lha213.exe and arj241.exe) are installed. The new version 5.6 adds the capability to handle Z, TAR and gzip formats.
COMMENTS....	Some incremental features such as encryption are not built in and are only supported if a copy of pkunzip (DOS) is also installed.

44.4   **ZipMaster for Windows**

FUNCTION......	File unzipper.
FILE SIZE........	131,581 bytes
VERSION.........	1.0 May 1994
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/util/**zmw10.zip** .
STATUS...........	Shareware $US 25

DOCUMENTS..	Basic instructions with online help.
FEATURES......	
COMMENTS....	A very nice user interface with well done graphics (for a change). This program does not require the DOS program Pkunzip unless you need the pkzipfix function. Released by New-Ware.

44.5   **ZipWhacker for Windows**

FUNCTION......	File unzipper.
FILE SIZE........	105,183
VERSION.........	1.0 June 1994
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/util/**zipwhack.zip** .
STATUS...........	Shareware $US 9.95
DOCUMENTS..	Start up instructions and on-line help.
FEATURES......	ZIP 2.x and Microsoft Compress (used on distribution disks) file decompression. Unzip all files or single files. View and unzip self-extract zip files.
COMMENTS....	

45. DECOMPRESSION - OTHER

Although ZIP has become an overwhelming favorite and the standard compression format for the DOS/Windows world, there have been other efforts at introducing alternate compression schemes, including some which are very popular on other platforms such as Unix. These can cause serious heartburn when unexpectedly encountered, unless of course you have the right utility handy.

45.1   **Archive Viewer**

FUNCTION......	File extraction/decompression ARJ, GZip, LHARC, PAK, PIT, SIT, TAR, ZIP, Z, ZOO and Microsoft COMPRESS.
FILE SIZE........	64,550 bytes
VERSION.........	April 1995
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/util/**av.zip** .
STATUS...........	May be freely used without registering. Registration $US 21 provides technical support and source code. This program is intended for private use and may not be included in commercial products or resold
DOCUMENTS..	Basic start up instructions.
FEATURES......	Compact (bytes), simple (to use), versatile (many formats), real cheap (free) and Windows.
COMMENTS....	Yes, but can it bake a cake? A simple Windows based decompression utility for handling the most common versions of the major archive formats. It allows viewing of the contents of an archive without decompressing it. Released by Joe Oliphant.

45.2   **ZR FileWorks Turbo**

FUNCTION......	Multi-function decoder, decompression and viewer utility.
FILE SIZE........	492,123 bytes
VERSION.........	6.51 April 1995
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/graphics/**zrfw651.zip**
STATUS...........	Shareware. Registration $US 22 + $4 shipping. 3 week evaluation of unregistered version. Registered users also receive copies of ZR FileWorks, ZR Photo Pro with built-in ZR IconWorks etc.
DOCUMENTS..	Startup information and online help.

FEATURES......	Viewer: JPEG, GIF, BMP, PCX, DIB
	    Decompress: ZIP, ARC, ARJ, LZH, ZOO
	    UUencode/UUdecode.
	    These capabilities are all built in - no need to install other programs. If you want to, supplemental programs can be installed and can be used to upgrade the built in capabilities if you can find something better.

COMMENTS....	An unusually complete package for unzapping and viewing just about anything you're likely to run across in the Internet. Nice graphical interface too. An impressive effort from Scandere Software.

46. MODEM ACCESSORIES

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In the old days hundreds of years ago modems were primarily external devices. They came in their own boxes encrusted with red and green flashing indicator lights. No one's really sure what the lights were for but it was very reassuring to see them blinking, confirmation that something must be happening. It's reminiscent of that scene from an old Frankenstein movie where the mad scientist is shouting "It's alive!!! It's alive!!!" In those days of old telephone systems, noisy lines and not always reliable service such joys could be the hi-lite of one's day. Today things are different. Modems are primarily internal devices squirreled away in the main computer case, out of sight and out of mind. No visible lights, no joy in our lives. Fortunately there are high tech solutions to this deplorable state of affairs.

46.1   **ModemSta**

FUNCTION......   Modem status lights.
FILE SIZE........   158,635 bytes
VERSION.........   1.7   April 1995
RETRIEVAL....   ftp://oak.oakland.edu/SimTel/win3/commprog/**modsta17.zip**
STATUS...........   Shareware $US 15
DOCUMENTS..   Start up documentation and on-line help.
FEATURES......   Automated installation now. Multiple copies can be run to monitor more than 1 port. Fully adjustable RGB LED colors. Can send initialization string to the modem. On-line help. Incoming log file tracks connect time. Can play a WAV sound file when there is an incoming ring - handy if there's no telephone hooked up such as for a fax mode. Shows commport summary with configuration, UART info etc. for DOS and Windows, 3d-looks on all displays, auto exit when connection ends, etc.
COMMENTS....   This new version has just been released by Ted Johansson. For use with internal, external and PCMCIA modems on any port. This is a well executed full featured product which is probably the leader in this category. It works with Cybercom and Winfax replacement comm drivers.

46.2   **WinModem**

FUNCTION......   Modem status lights.
FILE SIZE........   165,705 bytes
VERSION.........   4.0   May 1994
RETRIEVAL....   ftp://ftp.cica.indiana.edu/pub/pc/win3/util/**wnmdm4.zip**.
STATUS...........   Shareware $US 10. Site licenses available.
DOCUMENTS..   Start up and usage instructions.
FEATURES......   Automated installation. Works with both Windows 3.1 and Windows For Workgroups (WFW) 3.11.
COMMENTS....   WinModem requires a minimum of a 386 PC. Particularly appropriate for internal modems, this is a nice simple program, easy to install and use and it works well.

47. MISCELLANEOUS UTILITIES

The following few programs, while perhaps straying far from the subject of Winsock, are nonetheless worth noting.

47.1 (NEW!)   **SnapShot/32**   **[Windows95, Windows NT]**

FUNCTION......   Screen capture utility.
FILE SIZE........   218,386 bytes
VERSION.........   July 1995
RETRIEVAL....   http://198.207.242.3/gregko/snap32.htm File name: **snap232.zip**
STATUS...........   Shareware $US 20, site license $US 500.
DOCUMENTS..   Start up instructions and online help.
FEATURES......   Captures areas can be saved as GIF or BMP formats. In addition, there are options to save GIF images as interlaced. Transparent background capability is available on the registered version. There is a repeat feature for a sequence of shots either manually with a hot key or automatically with a timed interval.
COMMENTS....   Although screen captures can be done with a variety of graphics programs from Paint Shop Pro to LView Pro, these is a dedicated utility with an extra feature or two over the larger multi-purpose programs. It also has the advantage of being a 32 bit program which will work with the newer 32 bit operating systems. It does not work with with the older version NT 3.1. A separate version is available from the Web site for the **DEC Appha NT**

platform. There are plans for a future version to create AVI movies from sequenced snapshots. Released by Greg Kochaniak.
Recommended

48. SERIAL PORT REPLACEMENT DRIVERS

At a time when a new international standard (V.34 - non-standard V.Fast modems should be avoided) has just been established to make the 28.8 kbps (28,800 bits per second) modem speed a leading edge reality for PC communications, the contradictory reality is that the current Windows 3.1 was never designed to support such speeds. Reliability deteriorates above 9.6 kbps. Compounding the problem is the fact that some of the hardware found in some PC serial ports is also incapable of handling the higher speeds. If incoming data bytes are not processed quickly enough by the PC's hardware and software then newer bytes of incoming data will overwrite previous bytes and result in what's known as comm port overrun errors (data loss). This problem increases as the data speed increases. The data loss will be detected and replacement packets retrieved, but this duplicate transmission of data effectively slows the overall transfer down. Keep in mind that the loss of a single byte of data due to an overrun will require the entire packet (consisting of hundreds of bytes) to be sent again.

Software. When 14.4 kbps modems became popular a few years ago, a number of third party serial port drivers were produced to replace the standard (slow) Windows comm.drv to overcome some of the reliability problems being experienced at that speed. Remember that data compression capabilities of modern modems can substantially increase the data transfer speed above the nominal rating of the modem (up to 4 times). Overrun errors are a direct result of data coming in faster than it can be handled. A number of commercial communications software packages such as Winfax Pro also now sometimes include replacement Windows serial comm drivers for optional installation. Replacement drivers are of less value if you have a slower modem (e.g. 9600 bps) and are *possibly* not needed if you have Windows For Workgroups (WFW) which installs its own apparently very good comm driver. If you are experiencing problems with WFW, make sure that you have the latest version driver:
ftp.microsoft.com: /Softlib/MSLFILES/WG1001.EXE

Hardware. Changing software is not enough - to use these higher speed serial port drivers you must also have the corresponding hardware which is capable of handling higher speeds - a 16550 serial port UART (Universal Asynchronous Receiver/Transmitters) chip. The prime advantages of the 16550 are in its 16 byte FIFO (First-In-First-Out) buffer and its high speed capabilities. The older 8250 and 16450 UARTs only had a 1 byte buffer making them very susceptible to data overruns and errors if that single byte wasn't offloaded quickly enough. Adding to the problem the 8250 is also the slowest of the three, the 16450 slightly faster, the 16550 the fastest.

Internal modems come with their own serial port UART "on board" and fortunately with most better quality 14.4 internal modems this is a 16550 chip. External modems on the other hand do not have built in UARTs and rely upon the existing UART in your system. To find out if you have a 16550 serial port, exit Windows and run the DOS command MSD (although unfortunately the MSD command does not always produce accurate information, but that's another story). Finding an older 8250 UART chip at the comm port used by your modem is not good news if you are interested in speeds above 9.6 kbps. If you do not already have a modem then buying an internal one with a 16550 UART will overcome your system deficiencies. The MSD command also provides other useful information about your system. The UART chip simply processes the parallel data flow used internally in your PC to a serial data flow (and vice versa) required externally for transmission.

Windows configuration settings. If you have a 16550 UART and are running Windows 3.1, the following statements should be in the [386Enh] section of your system.ini file which is usually in the \windows directory. These statements activate the incoming data storage buffer on that UART and set the point at which incoming data is removed from this buffer.

COMnFIFO=1   Where n = the port number your modem is connected to. The "1" enables the 16 bit FIFO buffer in the 16550 UART. A "0" value would disable it.

COMnRXSize=8   Again n=port number. This statement sets the interrupt trigger level in the 16 byte FIFO (first in first out) buffer at 8 bytes. When the port fills up with 8 bytes of incoming data an interrupt request will be sent to the CPU prompting it to offload the data. If for some reason the CPU is tied up on other activities the buffer can fill up with an additional 8 bytes of incoming data to its 16 bytes maximum capacity. If overruns are a problem at this

level then the trigger level could be reduced to 4 which would result in an request to the CPU at only 4 bytes leaving a safety buffer of 12 bytes. In an extreme case the level could be set to 1 with a safety buffer of 15 bytes, but this would add to the burden on the CPU forcing it to service the port with every single incoming byte and could affect other activities. This particular statement is only relevant with a replacement comm driver such as the Winfax one which supports these adjustable trigger levels. In the CyberCom driver the setting is fixed (I believe at 8) and you cannot adjust it.

One final note. Even with the right UART and a good comm driver, overruns are still possible if your computer's processor (CPU) is momentarily tied up doing other intensive tasks and is unable to offload data in time. The PC speaker driver is notorious for tying up the CPU when being used, and it is possible that some video (and certain video cards) and disk activities could potentially have a similar impact.

OK, so I lied. A few more notes. There are a number of Web pages dealing with the issues of modem problems and overruns, of which a couple of the best are::
http://www.best.com/~malch/comfaq.html
http://www.aimnet.com/~jnavas/modem/faq.html

Another document worth retrieving is A Basic Modem FAQ from author Arnim Littek. This has a lot of general information on serial communications, modems and modem development and standards. It is available by FTP from:
ftp://ftp.whnet.com: /pub/wolfgang/info/modem.FAQ.arnim.littek

48.1   **Cherry Hill VM COMM Buffer Driver**
FUNCTION......   Windows replacement serial port communications driver.
FILE SIZE........   5,981 bytes
VERSION.........   May 1993
RETRIEVAL....   ftp://ftp.cica.indiana.edu/pub/pc/win3/util/**chcomb.zip**   .
STATUS...........   Donationware ($US 10) or Postcardware.
DOCUMENTS..   Basic instructions.
FEATURES......
COMMENTS....   This is a Windows 3.1 replacement driver which is only intended to improve the performance of DOS applications running under Windows. From Cherry Hill Software.

48.2   **CyberCom**
FUNCTION......   Windows replacement serial port communications driver.
FILE SIZE........   8,237 or 7,766 bytes
VERSION.........   1.1.0.0P November 1993
RETRIEVAL....   ftp:oak.oakland.edu/SimTel/win3/commprog/**cybercom.zip**
                 ftp://ftp.demon.co.uk/pub/ibmpc/windows/cybercom/**cyberc.zip** or cyberdrv.zip at some other sites. In spite of different names these have absolutely identical content. The zip files appear to have been created with different compression ratios which adds to the illusion of two different files which can be found in various locations.
STATUS...........   No charge for non-commercial use.
DOCUMENTS..   Simple installation instructions. Once installed, usage is transparent.
FEATURES......
COMMENTS....   This is a replacement for the standard Windows driver (comm.drv) and enables data transfers up to 115 kbps if you have a 16550 serial port chip. This is a basic package from CyberSoft Corporation, very popular and very effective. For Windows 3.1 only.

48.3   **Fix16550 Device Driver**
FUNCTION......   To fix problems with AMI BIOS and 16550 UARTS
FILE SIZE........   3,915 bytes
VERSION.........   1.05   November 1993
RETRIEVAL....   ftp://oak.oakland.edu/SimTel/msdos/io_util/**fx16550d.zip**
STATUS...........   Shareware $US 10
DOCUMENTS..   Basic information and instructions. This is fairly simple to install.
FEATURES......
COMMENTS....   This device driver was written to overcome a problem which occurred in systems with an

AMI BIOS combined with a 16550 UART serial port chip. Under certain circumstances and on some systems a failure may occur after a soft reset when the system becomes unable to recognize the serial commport, necessitating a hard restart to clear up the problem. This driver fixes that problem and should only be installed if you have specifically experienced this. As a secondary feature, this driver also can be installed to enable COM3 and COM4 capability on older systems lacking these ports (mostly older 286 and 386 machines from certain manufacturers).

48.4   **WFXCOMM.DRV**
FUNCTION......   Windows replacement serial port communications driver.
FILE SIZE........   7,556 or 7,604 bytes
VERSION.........   March 1993
RETRIEVAL....   ftp://ftp.demon.co.uk/pub/ibmpc/windows/comms/**wfxcom.zip**
                         ftp://ftp.cica.indiana.edu/pub/pc/win3/misc/**wfxcomm.zip**   .
STATUS...........   No charge.
DOCUMENTS..   Installation instructions.
FEATURES......
COMMENTS....   A replacement communications port driver for Windows 3.1 which will allow higher speed data transfers if you have the modem. Even though it's top speed capability is only 57,600 bps compared to CyberCom's 115,200 bps, It is preferred over the CyberCom driver for most situations because some of its parameters are adjustable. The CyberCom *might* be a better choice for newer 28,800 bps modems. From Delrina (WinComm Pro and WinFax) this was originally included in WinFax Pro 3.0 for optional installation.
                         Recommended

49. TELEPHONE DIALERS

Never got that archaic dialing script for Trumpet to work properly? Well at least there are other options. Be forewarned that as good as many of these dialers are they can't always anticipate all of the logon quirks of the various Internet service providers. Be prepared to try more than one package. The good news is that there are some significant improvements being made in some of these.

49.1   **Dialer**
FUNCTION......   Telephone dialer
FILE SIZE........   31,072 bytes
VERSION.........   2.0a May 1994
RETRIEVAL....   ftp://ftp.demon.co.uk/pub/ibmpc/windows/utilities/**dialexe.zip**
STATUS...........   No indication of any charges for use.
DOCUMENTS..   No startup instructions or on-line help.
FEATURES......   Easy to create logon script.
COMMENTS....

49.2   **GoSlip!**
FUNCTION......   Telephone dialer
FILE SIZE........   1,237,954 bytes
VERSION.........   2.0 alpha 2   October 1994
RETRIEVAL....   ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**goslip2.zip**
STATUS...........   Free for non-commercial use.
DOCUMENTS..   Negligible.
FEATURES......   Auto logon with easy to use scripts. Automated setup. Supports multiple configurations. Configurations options, scripts and app launch controls can be tweaked while the system is running,
COMMENTS....   This major new revision of this program aims to add many features including direct handling of dynamic (randomly assigned when you log on each time) IP addresses. In alpha release at the moment primarily for testing purposes, this is currently very difficult to use and buggy, and is best avoided. The previous version may still be found under filename goslip11.zip. It was very functional and stable, but the inability to handle dynamic IP's limited it's appeal.

49.3   **NetDial**

FUNCTION...... Telephone dialer
FILE SIZE........ 640,958 bytes
VERSION......... 2.50   November 1994
RETRIEVAL.... ftp://oak.oakland.edu/pub3/win3/winsock/**nd250s.zip**
         ftp://ftp.demon.co.uk/pub/ibmpc/winsock/apps/netdial/**nd250s.zip**
STATUS........... Shareware $US 20
DOCUMENTS.. Very comprehensive documentation, much of it in a MS Word format. On-line help also
         included.
FEATURES...... Auto logon with easy to use scripts. Supports up to 5 separate configurations. Re-dial up to
         99 times. Supports modem speeds up to 256 kbps. Can run minimized with audible
         notification on connect. Newer version adds an optional carriage return kick when logging
         on which some host systems require. Automated installation. Now includes a connection
         logging capability which keeps track of on-line time. Many other features.
COMMENTS.... Supports dynamic IP addresses (randomly assigned when you log on each time). This is a
         well designed, easy to use, albeit a rather large program. This is the best stand alone dialer
         currently available. It works very well with Trumpet Winsock/SLIP. I have not tried it with
         PPP but would not expect any problems.
                 Recommended

50. VIEWERS - DOCUMENT

Occasionally you will run across documents in the Internet which you wish to retrieve and read but which are
not in the basic text format. Special viewers may be required. A lot of recent hype has been aimed at the so
called platform independent document viewers which enable someone to create a document with text and
graphics which can be viewed exactly as it was created on any hardware platform, assuming of course that the
company supporting that format has chosen to make a viewer available for that platform. For some reason I am
reminded of Quadraphonic (4 speaker) sound from over a decade ago where competing and incompatible
proprietary products from several companies so confused the public and fragmented the emerging technology
that everyone ended up being flushed down the proverbial toilet. Speaking of Quadraphonic, amongst other
things, we have in this section four such platform independent document viewers.........

50.1   **Adobe Acrobat (tm) Reader**

FUNCTION...... Acrobat file PDF ("Portable Document Format") viewer
FILE SIZE........ 1,438,059 bytes
VERSION......... 2.0   October 1994
RETRIEVAL.... http://www.adobe.com/Software.html   File name: **acroread.exe**
STATUS........... Freeware (limited).
DOCUMENTS.. Basic start up instructions. Online help file in .pdf format.
FEATURES......
COMMENTS.... The necessary Adobe fonts are included with this and will be automatically installed. This
         program only works with Windows 3.1. To actually create Acrobat files you have to buy
         an upgrade program from Adobe for $US 195. Adobe is promoting PDF as a platform
         independent industry standard format for documents.

Note: Although Adobe states that this program does not run under **Windows NT**, there is a partial fix. After
installation look in the \windows or \winnt directory and find the file acroread.ini. Edit it to read as follows:

[Oem]
OEM1=For product information and online help,
OEM2=please see the file HELP_R.PDF in
OEM3=the Acrobat(tm) Reader Help folder.
[AdobeViewer]
ATMOption=1

Delete all other material in the file and save this new version as acroexch.ini in the same directory, and then
delete acroread.ini. These changes will allow Acrobat to run under Windows NT using truetype fonts instead
of the postscript ones (Adobe Type Manager) which is where the problem is. This substitution might cause
some display problems at times depending on the document and the fonts being called up. I have seen no

information on whether this program runs under **Windows95** but if not you could try the same fix. There is the PDF format help file in an Acrobat subdirectory which can be viewed to ensure that the program is working. This information (slightly rewritten) courtesy Todd Needham.

50.2   <u>**Common Ground MiniViewer**</u>
<u>FUNCTION</u>......   Document viewer for DP files.
<u>FILE SIZE</u>........   96,643 bytes
<u>VERSION</u>.........   1.03   June 1994
<u>RETRIEVAL</u>....   http://www-portfolio.stanford.edu/100854   File name: **101002**
<u>STATUS</u>...........   Free for non-commercial use.
<u>DOCUMENTS</u>..   Online help.
<u>FEATURES</u>......
<u>COMMENTS</u>....   From No Hands Software Inc., another in a series of platform independent document viewers. Limited functionality, an upgraded viewer is available for a price. Although not obvious, this is a zip file.

50.3   <u>**Envoy Distributable Viewer For Windows**</u>
<u>FUNCTION</u>......   Document viewer for EVY files.
<u>FILE SIZE</u>........   738,770 bytes
<u>VERSION</u>.........   1.0a   April 1995
<u>RETRIEVAL</u>....   http://wp.novell.com/npiwp/elecpub/edv.htm   file name: **edvwin.exe**
<u>STATUS</u>...........   Freeware (limited).
<u>DOCUMENTS</u>..   Basic instructions and online help. Rather sparse information.
<u>FEATURES</u>......
<u>COMMENTS</u>....   Envoy Viewer from Novell/Wordperfect is another in a series of platform independent document viewers competing with Adobe Acrobat. As with Acrobat, to actually create documents in this unique format you have to buy the full package with the document creation capablilty. It would have been nice if they had at least included a sample document in this format so that after installation you could try out the viewer like Adobe did in their package. This did not work well with **Windows NT**.

50.4   <u>**GSview for Windows**</u>   [Windows 3.1, **Win32s**, **Windows NT**]
<u>FUNCTION</u>......   Postscript viewer.
<u>FILE SIZE</u>........   590,524 bytes
<u>VERSION</u>.........   1.3   May 1995
<u>RETRIEVAL</u>....   http://www.cs.wisc.edu/~ghost/index.html
                   ftp://fyp.cs.wisc.edu/ghost/rjl/**gsview13.zip**
<u>STATUS</u>...........   Freeware
<u>DOCUMENTS</u>..   Start up instructions and online help.
<u>FEATURES</u>......   Program contains both 16 bit and 32 bit versions. View pages in arbitrary order (Next, Previous, Goto), selectable display resolution, page size can be selected using the menu, orientation can be selected using the menu (Portrait, Landscape), print selected pages using Ghostscript, extract selected pages to another file.
<u>COMMENTS</u>....   Postscript is a major language used by laser printers. This program provides a Windows graphical interface for viewing and printing postscript (.ps) documents. Use the "-d" option to unzip if using pkunzip. You must first install the program Ghostscript version 3.12 or later to use this. Released by Russell Lang.

Note: This program requires that another program called Ghostscript, a postscript interpreter, be installed first. It is also available from ftp.cs.wisc.edu in directory /ghost/aladdin and, depending on which version of Windows you are running, the following must be retrieved:

gs333win.zip   (439,703 bytes)   16 bit version required for Windows 3.1/3.11
gs333w32.zip   (324,666 bytes)   32 bit version required for **Win32s** or **Windows NT**.
gs333ini.zip   (500,811 bytes)   Additional file required for all versions of Windows.
gsfn312fn1.zip   (1,365,916 bytes)   Ghostscript fonts required for all versions of Windows.

Although Ghostscript can in theory be used by itself, its user interface is very primitive which is why Ghostview must be used with it. Ghostscript is a Freeware (with some restrictions) program released by Aladdin. Needless to say, adding Postscript capabilities is not something easily done.

50.5   <u>**Microsoft Word Viewer**</u>

<u>FUNCTION</u>......   Viewer for MS Word 6.0 files (such as this!).
<u>FILE SIZE</u>........   1,442,072 bytes
<u>VERSION</u>.........   6.0 February 1995
<u>RETRIEVAL</u>....   ftp://ftp.microsoft.com/Softlib/MSLFILES/**wordvu.exe**
<u>STATUS</u>...........   Free for personal use.
<u>DOCUMENTS</u>..   Installation and use.
<u>FEATURES</u>......   Print but of course no editing capabilities.
<u>COMMENTS</u>....   For those who don't have Word, this viewer for Word 6.0 documents (.doc) provides a simple means of viewing these documents with full formatting and features - exactly as they look on the Word processor on which they are created.

50.6   <u>**Replica(tm)**</u>

<u>FUNCTION</u>......   Document viewer for RPL files.
<u>FILE SIZE</u>........   706,990 bytes
<u>VERSION</u>.........   1.01   October 1993
<u>RETRIEVAL</u>....   http://www.farallon.com/www/gen/ftvpage.html File name: **repwin.exe**
<u>STATUS</u>...........   Free use.
<u>DOCUMENTS</u>..   Online help
<u>FEATURES</u>......
<u>COMMENTS</u>....   Released by Farallon Computing Inc. Another platform independent document viewer.

50.7 (NEW!)   <u>**SoftQuad Panorama Free**</u>

<u>FUNCTION</u>......   SGML (.sgm, .sgml) document viewer
<u>FILE SIZE</u>........   1,263,596 bytes
<u>VERSION</u>.........   1.06   May 1995
<u>RETRIEVAL</u>....   http://www.ncsa.uiuc.edu/SDG/Software/WinMosaic/Viewers/panorama.htm
                                  File name: **panofr10.exe**
<u>STATUS</u>...........   Freeware. A more elaborate commercial version SoftQuad Panorama PRO (tm) is available for $US 139 and allows the creation and modification of SGML documents.
<u>DOCUMENTS</u>..   Basic instructions for installing and using with Mosaic. Noticable absent in the documentation is any mention of Netscape or any other browser. Anyway, this can be added on to Netscape as a viewer for these types of documents although I didn't check to see if all the features were compatible.
<u>FEATURES</u>......
<u>COMMENTS</u>....   Panorama was designed as an add on viewer for NCSA Mosaic version 2.0.0b4 or better, or corresponding commercial versions. Released by SoftQuad Inc. SGML = Standard Generalized Markup Language, an official ISO standard. HTML which is the standard for Web pages on the WWW was originally derived from SGML as a simplified subset and has now far exceeded its parent in fame and popularity.

51. VIEWERS - MOVING PICTURE - MPEG

MPEG (Moving Pictures Expert Group) is a video compression format standardized by the International Organization for Standardization (ISO). It has become the moving picture standard used on the Internet. The prime importance for MPEG players is as an add-on clients to Web browsers (like Mosaic) to allow these files to be played when found on the World Wide Web.

51.1   <u>**MPEGPLAY**</u>   [**Win32s, Windows95, or Windows NT**]

<u>FUNCTION</u>......   Moving picture player, MPEG (.mpg) format.
<u>FILE SIZE</u>........   641,988 bytes
<u>VERSION</u>.........   1.65   September 1994
<u>RETRIEVAL</u>....   ftp://ftp.ecel.uwa.edu.au/users/michael/**mpegw32h.zip**. A faq.txt file in the same directory should also be retrieved. It provides more information regarding potential installation and viewing problems, the MPEG format, etc.

STATUS...........	Shareware $US 25 single user, $US 250 site license
DOCUMENTS..	Installation instructions and on-line help included, which also contains some interesting technical information/history on the MPEG format.
FEATURES......	Support for the Microsoft WinG(tm) Windows gaming library.
COMMENTS....	A good MPEG player for Mosaic. Unregistered version is crippled and will not play MPEGs greater than 1 megabyte. A sample video rocket.mpg is included. **Note:** this is a 32 bit player. You must at least have **Win32s** version 1.15a or better installed with Windows 3.1 before you attempt to install/use this. See the listing for **Win32s** further down in this section.

51.2   **VMPEG Lite**

FUNCTION......	Moving picture player, MPEG (.mpg) format.
FILE SIZE........	465,256 bytes
VERSION.........	1.6a May 1995
RETRIEVAL....	ftp://ftp.netcom.com/pub/cf/cfogg/vmpeg/**vmpeg16a.zip**
STATUS...........	Demonstration version. Audio is restricted to 15 seconds, and stereo decoding, DCI support and Video CD playback have been disabled.
DOCUMENTS..	Start up instructions and online help..
FEATURES......	The program includes WinG (Microsoft add-on to accelerate graphics) for optional installation.
COMMENTS....	A full version is still being tested and is not available yet. Released by Stefan Eckart.

52. VIEWERS - MOVING PICTURE - QUICKTIME, VIDEO FOR WINDOWS

QuickTime is a proprietary format for storing and viewing moving pictures and corresponding sound developed and controlled by Apple Computer. Files can be stored in either an Apple format or a DOS/Windows format (.mov) to enable viewing on either platform. The Windows version must be created as a special "flattened" file and this creation and editing can only be done on Macintosh based software. Once the picture file has been created and saved in the Windows format it can be incorporated into other Windows applications (through OLE embedding in word processing, spreadsheet or presentation documents for example). QuickTime sound cannot be played through the PC speaker - a sound card is required.

AVI is Microsoft's video format (.avi) which competes with Apple's QuickTime. It supports up to full color (24 bit), any screen resolution, 1 to 30 frames per second, and sound. It is primarily viewed through Microsoft's Video For Windows player. It has not proven as popular as QuickTime partially because up until now it has been a single platform system whereas the Apple product has cross platform play capabilities.

FLI/FLC are older Autodesk Animator formats with limited resolution, colors and frame speed. There is no sound.

As the world turns: Apple Computer has recently filed a lawsuit against Intel and Microsoft alleging that Microsoft's video products use pirated code originally developed for QuickTime. The lawsuit originated last year when Apple sued The San Francisco Canyon Company alleging that this company which had originally been hired to help develop Apple's QuickTime products had subsequently used some of the same code in Video For Windows (VFW) products it had sold to Intel which in turn sold them to Microsoft. Apple's lawsuit originally aimed at just Canyon has recently been expanded to include all three companies. As part of the suit Apple is seeking to stop distribution of Microsoft's Video For Windows product. The legal uncertainties may create a serious problem for independent developers working on VFW products. This may further widen the gap between VFW and the more popular QuickTime. Microsoft has issued an open letter to developers declaring that Microsoft will vigorously defend VFW 1.1d (current version) against Apple's lawsuit, and furthermore will defend any developers who might also be sued by Apple for distributing VFW 1.1d. Subsequently Microsoft withdrew version 1.1d from distribution and replaced it with 1.1e which does not contain any offending code.

52.1   **AVI Pro**

FUNCTION......	AVI video player
FILE SIZE........	491,467
VERSION.........	2.01 July 1994

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RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/desktop/**avipro2.exe**
STATUS...........	Shareware $US 15
DOCUMENTS..	On-line help panel to explain all functions and controls.
FEATURES......	Automated installation, continuous loop function, zoom function.
COMMENTS....	Console display imitating a VCR or tape player with functioning controls if you like that kind of thing. Has a 15 second time delay at bootup but not otherwise crippled.

52.2   **QuickTime for Windows 2.1**

FUNCTION......	QuickTime movie player for Windows .mov files.
FILE SIZE........	1,212,483 bytes
VERSION.........	2.01
RETRIEVAL....	http://www.scs.usna.navy.mil/Students/C96/m962520/viewers/**qtw201.zip**
STATUS...........	Copyright by Apple and may NOT be freely distributed. I'm not sure that this is even supposed to be on an Internet FTP site.
DOCUMENTS..	Start up documentation and online help.
FEATURES......	MPEG and MOV movie player, JPEG and PIC image viewer. Supports OLE 1.0. Intel's Indeo decompression bundled in this package.
COMMENTS....	For those who paid $US 9.95 recently to download this from CompuServe, well, too bad. Use the "-d" option to unzip this. e.g. "pkunzip -d qtw200.zip" Version 2.1 will be released in the fall and Apple will apparently continue to charge for it. Some additional information and links to sample movie clips can be found on the Apple site: http://quicktime.apple.com

52.3   **Video For Windows Run-Time Edition**

FUNCTION......	AVI video player
FILE SIZE........	1,422,653
VERSION.........	1.1e March 1995
RETRIEVAL....	ftp://ftp.microsoft.com/Softlib/MSLFILES/**wv1160.exe**
STATUS...........	May be freely distributed.
DOCUMENTS..	On-line help.
FEATURES......	Automated installation.
COMMENTS....	This Video For Windows Runtime file is required to enable the media player included with Windows 3.1 to play AVI files. This new version replaces the Intel code in the previous 1.1d which is the target of a lawsuit from Apple. No functionality improvements.

52.4   **VIDVUE**

FUNCTION......	A comprehensive multimedia player.
FILE SIZE........	525,015
VERSION.........	3.1 September 1994
RETRIEVAL....	Try: ftp://ftp.fcu.edu.tw/pub2/pc/uploads/graphic/**vidvue31.zip**
STATUS...........	Shareware $US 35 for US locations, $US 45 for non-US locations.
DOCUMENTS..	Start up documentation and on-line help.
FEATURES......	VIDVUE supports GIF87a/GIF89a, JPG/JIF, BMP/DIB, PCX, TIFF, TGA, DCX, WPG, EPS, PICT and WMF still picture formats. It also plays AVI video, WAV audio, MIDI music, FLI/FLC animation files and Apple QuickTime MOVies.
COMMENTS....	Most of the moving picture formats for this program require additional drivers and software which you must obtain from various sources if you don't already have them on your system. A certain amount of configuration trial and error may also be required. Needless to say, all this is a bit of a nuisance. Non-USA residents may not be too excited at their stiffer registration cost.

52.5   **WinFly**

FUNCTION......	FLI video player.
FILE SIZE........	21,892 bytes
VERSION.........	1.0? October 1993
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/desktop/**winfli.zip**
STATUS...........	Shareware, but no charge for this version. Version 3.0, which comes with an improved user interface and hi-res FLC support is $5.00
DOCUMENTS..	Basic information.
FEATURES......	

53. VIEWERS - STILL PICTURE

The standard still image format commonly found on the Internet and supported by all Web browsers is the GIF format (.gif), first created by CompuServe for efficient storage and transfer of images on it's on-line service. The GIF format by definition only supports 256 colors. In-line GIF images on documents are viewable by virtually all Web browsers. The GIF format is popular because of its effective compression of data and partly because it supports transparent background images in HTML documents, although few browsers currently are actually capable of properly displaying these transparencies. (Many images which appear to have transparent backgrounds are actually pseudos - their backgrounds have been altered to match and completely blend into the browsers background gray colors providing the appearance of transparency).

GIF also supports interlaced images, where the image is both saved and retrieved in four passes. Interlaced images can primarily be seen on CompuServe with their WinCIM software, or on the Internet through the Web browser Netscape which begins to display an image as it is being received (the images on their home page are of the interlaced type). Interlaced images provide a preview of the finished picture and potentially allow time saving termination if the decision is made that the picture is not really wanted. Other browsers such as NCSA Mosaic display an image in its completed form and only after all of the information has been downloaded. By then, even if it was an interlaced image, the effect is not visible.

The JPEG (.jpg) format was created by the Joint Photographic Expert Group. There are several variations of JPEG, the most common of which is more properly called JFIF (JPEG File Interchange Format). JPEG images support full 24 bit color (gazillions of colors) as opposed to the more limited 8 bit (256 color) GIF images. The JPEG image format is popular for posting pictures in Internet binary newsgroups (smaller file size than corresponding GIF image) but is less popular on the Web where GIF is the preferred image format. Web browsers usually require auxiliary JPEG viewers such as these to display these images whereas GIF support is often built it. JPEG images cannot be used as in-line images in HTML documents (only X-bitmaps (.xbm), and Ifs are supported for in-line images). The JPEG format can be extremely compact, easily exceeding a compression factor of ten, but this is accomplished partially by discarding insignificant color detail and for this reason is known as a "lossy" compression method. It exploits the human eye's poor ability to distinguish small changes in color to limit the information being stored and produce a smaller file than could otherwise be obtained. A file stored with this format will no longer exactly match the original, although the difference might be unnoticeable. This format does allows the compression ratio to be adjusted, balancing size versus acceptable image quality.

Both JPEG and GIF are capable of being stored and viewed (with appropriate viewers) in the so called progressive or interlaced methods better known as venetian blind effect. Currently it is very rare for JPEG, but GIF images are commonly seen like this on CompuServe using its WinCIM software and on the Netscape home page when using the Netscape browser.

Enough? If not, see also the section in Other Information titled The Unisys / CompuServe / GIF Mess.

53.1	**ACDSee**
FUNCTION......	graphics image viewer.
FILE SIZE........	220,673 bytes
VERSION.........	1.25 June 1995
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/graphics/**acdc125.zip**
STATUS...........	Shareware $US 15
DOCUMENTS..	Installation instructions and online help. Not much required - this is a very simple program.
FEATURES......	JPEG/GIF/PNG/TIFF/PCD/PCX/TGA formats. Begins to display image while decompressing, with your choice of either one line or a block of sixteen lines at a time (JPEG). Resizable windows, drag and drop, and ability to open a multiple copy of the program for each image. Supports 4DOS file descriptions.
COMMENTS....	OK guys, no more whining about not having a fast Windows JPEG viewer. No fancy features here - this is just a straight forward fast JFIF (JPEG) viewer. One negative: this program drops small hidden "descript.ion" files in every directory where it is used to view images. These file description caches are messy and very annoying. This newer version

provides an option to turn this "feature" off. Use it. It is well worth noting that this latest version supports the new PNG (pronounced "ping") format which is being implemented to replace GIF because of the copyright problem. Author David S. Hooper.

Recommended

53.2　　　　　　　**LView Pro**
FUNCTION......　Graphics image viewers
FILE SIZE........　312,747 bytes
VERSION.........　1b May 1995
RETRIEVAL....　ftp://oak.oakland.edu/SimTel/win3/graphics/**lviewp1b.zip**
STATUS...........　Shareware, single registration $US 30 plus shipping.
DOCUMENTS..　On-line help included. On-line help includes some good information on the JPEG format, suitability, compression capabilities, etc. It also contains speed test results comparing the 16 and 32 bit versions of this program.
FEATURES......　A graphics viewer capable of handling a wide range of popular formats (pro version): BMP/DIB/GIF/JPG/TGA/TIFF/PCX/PBM/PGM/PPM. It supports interlaced GIF87a and GIF89a variations and transparencies.
COMMENTS....　LView is a very popular graphics viewer used primarily to view and modify GIF and JPEG picture formats commonly used on the Internet. This Pro version has many features which make it a good value for the price although it is not noted for speed. If you choose to register it you can receive a 32 bit version for either Windows 3.1 (if you have **Win32s** installed) or **Windows NT** systems which should be faster than this 16 bit versions. The author, Leonardo Haddad Loureiro, is very active in continuing to develop this program.

Recommended

53.3　　　　　　　**NTj**　　**[Windows NT]**
FUNCTION......　Graphics image viewer
FILE SIZE........　359,424 bytes
VERSION.........　2.2 - 0　　March 1995
RETRIEVAL....　ftp://ftp.digital.com/pub/DEC/NTj/**ntj-x86.exe**
STATUS...........　n/a
DOCUMENTS..　None, nothing really needed.
FEATURES......　GIF, JPEG, DIB, BMP viewer for **Windows NT.**
COMMENTS....　Fairly straightforward 32 bit viewer, fast but with minimal features.

53.4　　　　　　　**Paint Shop Pro**
FUNCTION......　Graphics image viewer
FILE SIZE........　1,407,952   bytes
VERSION.........　3.0 March 1995
RETRIEVAL....　ftp://oak.oakland.edu/SimTel/win3/graphics/**psp30.zip**
STATUS...........　Shareware $US 69.   30 day tryout.
DOCUMENTS..　Start up instructions and online help.
FEATURES......　Handles 26 raster and 9 vector image formats, including JPEG and GIF87a/GIF89a (interlaced and non-interlaced).
COMMENTS....　This latest version just released is an impressive image handling package, well executed and probably the best Shareware of its kind available, a match for many commercial packages. It handles a huge range of formats and has a wide variety of effects. This has some nice features including floating toolbars and a good interface, but unless you really need some of its extra features, LView Pro has many of the same capabilities and is a better value.

53.5　　　　　　　**PolyView**　　**[Windows NT]**
FUNCTION......　Graphics image viewer
FILE SIZE........　257,440 bytes
VERSION.........　2.0 July 1995
RETRIEVAL....　ftp://ftp.cica.indiana.edu/pub/pc/win3/uploads/**polyv200.zip** .
　　　　　　　(Note: This latest version was still in the uploads directory waiting to be properly placed when I last looked. It should end up in /nt directory.)
STATUS...........　Shareware $US 20

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DOCUMENTS..	Basic instructions.
FEATURES......	A multi-threaded 32-bit viewer for JPEG, GIF, TIFF, photo-cd, and BMP files.
COMMENTS....	This program was specifically written for and tested under **Windows NT** 3.5 and it shows. This appears to be one of the best such programs I have seen to date. Not a lot of frills here, but key features which count in a program which is easy to use and very fast. You can adjust the program preferences for a trade off in speed vs image quality. Released by PolyBytes.

53.6   **VuePrint**

FUNCTION......	Multipurpose image viewer and sound player.
FILE SIZE........	298,458 bytes
VERSION.........	4.0 June 1995
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/graphics/**vuepri40.zip**
STATUS...........	Shareware. Registration $US 40 includes free upgrades, email support.
DOCUMENTS..	On-line help file.
FEATURES......	Supports GIF, BMP, DIB, PCX, TGA, and JPG fixed images, WAV, MID, and MCI sound files and SLI slide show files. It has a built in screen saver and has UUencode and UUdecode capabilities. Contact sheet capability (multiple images in a window).
COMMENTS....	Requires a minimum of a 386 processor. There are a lot of nice features in this program. Automatic installation/de-installation. Released by Edward Hamrick.

53.7   **WinGIF**

FUNCTION......	Graphics image viewer.
FILE SIZE........	72,049
VERSION........	1.4 August 1991
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/graphics/**wingif14.zip**
STATUS...........	Shareware $US 15
DOCUMENTS..	On-line help.
FEATURES......	Displays GIF, PCX, BMP, and RLE images.
COMMENTS....	A bit dated now, but notable for the ability to both create and view GIF interlaced images.

54. VIEWERS - SOUND

The popularity of the World Wide Web and the need to install auxiliary sound players to enable Web browsers to play the various sound formats occasionally discovered has significantly increased the interest in these programs. In addition, if you're like me and don't have a sound card then you'll also need to install an additional driver capable of operating your computer's built in speaker, that little extra which was not included with Windows, reportedly because of some potential hardware incompatibilities. Anyway, it's also listed in this section. Basic sound formats that you're most likely to run across are (some with a number of variations):

AU - Sun, NExT, or DEC
IFF - Amiga
MAT - Matlab
SND - Raw or NExT
WAV - Microsoft Windows standard sound format
VOC - Sound Blaster
MCI - Multimedia Command Interface Files
MID/MIDI - I do not believe that this format can be played with the PC speaker driver.

Compressed audio formats. It's well worth comparing the two competing compressed audio formats which are now available for "broadcast" over the Internet, RealAudio and TrueSpeech 8.5. Both now have auxiliary audio players available (and listed in this section) for use with a WWW browser. Both have WWW sites with audio samples in their which can be downloaded and played with these players. In both cases sound quality was comparable although I thought TrueSpeech slightly better (unscientific opinion in uncontrolled conditions at different times). Claimed compression capabilities for both were almost identical at just under 4 meg of hard disk space for one hour of audio which is pretty darn good.

The real difference though is in the player features. The RealAudio player has the typical controls you would want - start, stop, fast forward, rewind, etc. You can jump forward or backwards in the online "broadcast" to

any point at any time. I enjoyed using their application. On the other hand TrueSpeech had none of this capability. Their player is triggered to play automatically by the download process and has no user controls - you can only shut it down.

RealAudio files create their own file types (.ra) whereas TrueSpeech continues to use the .wav file ending for their compressed files which can create a problem in being able to recognize them as such.

Players for both formats have just become available within the last few months. If you have the time it's worth trying both out. Since there is no single dominant standard for compressed audio it's probable that there will be more companies entering this area with their own formats and corresponding players.

54.1   **GoldWave**

FUNCTION......   Sound player, recorder, editor.
FILE SIZE........   281,697
VERSION.........   2.11   August 1994
RETRIEVAL....   ftp://oak.oakland.edu/SimTel/win3/sound/**gldwav21.zip**
STATUS...........   Shareware $US 25
DOCUMENTS..   Fairly extensive, and includes on-line help.
FEATURES......   Supports the following sound formats: WAV, VOC, AU, IFF, SND, MAT. Impressive real time oscilloscope to visually display and edit sounds. GoldWave can enhance or distort sounds using its filter, reverse, invert and echo, etc., capabilities.
COMMENTS....   This program requires a 32 bit processor - it will not run on a 286 PC. A sound card with driver or a PC speaker driver is also required to play sounds.

54.2   **PlayWave**

FUNCTION......   Sound player
FILE SIZE........   18,737
VERSION.........   1.1
RETRIEVAL....   ftp://ftp.cica.indiana.edu/pub/pc/win3/sounds/**playwv11.zip** .
STATUS...........   Shareware, voluntary $US 5 if you really like the program.
DOCUMENTS..   Start up instructions.
FEATURES......   Can play a WAV file in a repetitive loop.
COMMENTS....   PlayWave is a very simple little program meant to do only one thing: be a better WAV player than the Microsoft Sound Recorder. This program has not been widely tested yet.

54.3   **PC SPEAKER DRIVER**

FUNCTION......   Driver to operate built in PC speaker.
FILE SIZE........   22,312
VERSION.........   June 1992
RETRIEVAL....   ftp://ftp.microsoft.com/Softlib/MSLFILES/**SPEAK.EXE**
STATUS...........   Free for personal use.
DOCUMENTS..   Installation instructions.
FEATURES......
COMMENTS....   The poor man's "Sound Blaster". It does work adequately, but don't expect any kind of quality sound from that little PC speaker. The .exe file is a self extracting zip file which includes basic installation instructions. Note that the speaker does interrupt other system activities when being used which could cause a problem in some situations - it could potentially cause commport overruns if a file is being downloaded during speaker activation. There is an option in the settings to minimize this problem at the expense of sound quality. Because of this disruption problem this speaker driver does not work under **Windows NT** and in fact there is no speaker driver available for **Windows NT**.

54.4   **RealAudio Player**

FUNCTION......   Audio player for Internet "radio" broadcasts ("audio on demand")
FILE SIZE........   263,606 bytes
VERSION.........   April 1995
RETRIEVAL....   http://www.realaudio.com   File name: raplayer.exe
STATUS...........   Demo. Registration as a tester is required, with a form to fill out.
DOCUMENTS..   Basic start up instructions.

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FEATURES......
COMMENTS.... Requires a 486 PC with 8 meg RAM and a sound card. There are several programs at the Web site which can be listened to with this. Just like listening to an AM radio broadcast (on my 14.4 modem, might be better on a 28.8 modem), perhaps not the greatest sound quality which is more suited for voice rather than music, but an impressive accomplishment nonetheless. There are pause controls, fast forward, rewind, etc. The client program has to be attached as a viewer to one of the mainstream WWW browsers like Netscape or Mosaic which can be done automatically during installation or manually afterwards (if your browser programs were buried in non-standard directories). It does not currently work with TIA. Distribution strategy is apparently to give the client away and sell the server and studio (audio creation) versions. The client will probably be included in browser distributions before too long. Released by Progressive Networks this has created a lot of interest.

   NOTE: I believe that this does not work in the latest Netscape version 1.2b1. It will be fixed in the next Netscape release.

54.5   **RealAudio Studio-Encoder**   [DOS 5.0+, or Windows 3.1 or **Windows NT**]
FUNCTION...... Audio encoder for RA format.
FILE SIZE........ 157,254 bytes
VERSION......... Beta test version.
RETRIEVAL.... http://www.realaudio.com   File name: **studiob1.exe**
STATUS........... Demo. Registration as a tester is required, with a form to fill out.
DOCUMENTS.. Startup instructions.
FEATURES......
COMMENTS.... "The RealAudio Studio Encoder compresses digital audio files in .WAV or .AU formats and converts them to RealAudio format. The resulting .RA files can be played with the RealAudio Player and delivered through the Internet using the RealAudio Server." The encoder is just one portion of the full RealAudio Studio which has not been released. The RealAudio Server will be a commercial product and has not yet been released. A 486-66 with 8 meg RAM is recommended. A sound card is not required for encoding but is required for playback. Approximately 3.6 megabytes of hard disk storage is required for each hour of audio in this format. Encoding time requires about 1 hour 20 minutes for each hour of formatted audio. Audio clips produced may be submitted to Progressive Networks for possible public posting on their site.

54.6   **TSPlayer**
FUNCTION...... TrueSpeech 8.5 sound player.
FILE SIZE........ 170,224 bytes
VERSION......... 1.20 June 1995
RETRIEVAL.... ftp://oak.oakland.edu/SimTel/win3/sound/**tsply120.zip**
STATUS........... Freeware, but may be time limited.
DOCUMENTS.. Basic instructions.
FEATURES...... Converter utility also included for converting Windows sound files to the TrueSpeech 8.5 format.
COMMENTS.... TSPlayer is an application that lets you play any TrueSpeech 8.5 sound file (.WAV files) while you are downloading it using one of the World Wide Web (WWW) internet client software. Comments re version 1.11: The sound playing starts instantly right at the moment you start the download although when I tried it with my version of Netscape 1.1N it didn't start playing until the full file had been retrieved. Sound quality is comparable to medium quality AM radio - even the music sample (from their server) wasn't bad. The program comes pre-configured for the Netscape browser. The player is totally lacking in any user controls such as pause or rewind - it starts to play and it stops when it reaches the end.

TrueSpeech 8.5 is a speech compression algorithm developed by the DSP Group Inc. One minute of speech can be compressed into 64 kbytes. One hour would require 3.8 meg of disk space. The DSP Group which developed this is promoting the technology as a cross platform industry standard for speech compression. This technology has been licensed by Microsoft for inclusion in their operating systems although I'm not sure whether this will be in Windows95. TrueSpeech sound files can be found on the DSP server at:
   http://dspg.com

54.7   **WHAM**   (Waveform Hold And Modify)
FUNCTION......   Sound player.
FILE SIZE........   139,051 bytes
VERSION.........   1.33   February 1995
RETRIEVAL....   ftp://ftp.cica.indiana.edu/pub/pc/win3/sounds/**wham133.zip**   .
STATUS...........   Donations of $20 welcome.
DOCUMENTS..   Start up information and on-line help.
FEATURES......   Plays AU, AIFF, IFF, VOC, WAV. WHAM can also record sound if you have a sound card.
Waveform display.
COMMENTS....   An older program which is still widely used.

54.8   **WPLANY**   (Windows Play Any File)
FUNCTION......   Sound player.
FILE SIZE........   28,788
VERSION.........   1.1   September 1994
RETRIEVAL....   ftp://ftp.cica.indiana.edu/pub/pc/win3/sounds/**wplny11.zip**   .
STATUS...........   Not mentioned.
DOCUMENTS..   Minimal. Nothing much required since this is a very simple to setup and use program
which operates in the background.
FEATURES......   Plays AU, IFF, SND, VOC, and WAV sounds.
COMMENTS....   The proper drivers for your sound card or PC speaker must be loaded prior to using
WPLANY. A fairly popular add-on program often used as the sound player for Web
browsers such as NCSA Mosaic. A copy of this is included in the WinWeb browser
package.

55. VIEWERS - VRML (3D)

VRML stands for Virtual Reality Markup Language, an new emerging standard which defines 3D graphics and virtual reality. The standard is currently at version 1.0 and is being widely supported by a number of leading edge technology companies such as Silicon Graphics Inc. This first releases of VRML programS on the Internet are well worth a look. Keep in mind though that virtual reality is like a trip into outer space - the stars are beautiful, but a powerful rocket is required to get there. A couple of good locations to check for more information on VRML are:

http://www.oki.com/vrml/VRML_FAQ.html

http://www.well.com/user/caferace/vrnl.html

55.1   **WebSpace**   (tm)   **[Win32s, Windows NT]**
FUNCTION......   VRML viewer (.wrl format)
FILE NAME.....   ws32n10b.exe **[Windows NT]**
        win32dll.exe   (additional dll files for **NT** - 1,139,253 bytes)
        ws32s10b.exe [**Win32s** version - not released yet]
        There will be no plain vanilla 16 bit version for Windows 3.1. A **Windows95** version
will not be available until after that product is released later this year. If you do not have
Visual C++ version 2.1 then you should also download and install the additional dll files
contained in win32dll.exe available at the same location.
FILE SIZE........   1,467,080 bytes **[Windows NT]** and 1,139,253 for win32dll.exe
VERSION.........   1.0 beta 1 May 1995
RETRIEVAL....   ftp://ftp.sd.tgs.com/pub/template/WebSpace/ WinNT/
STATUS...........   Free for personal use. Registration, $US 49, provides 30 day email support, access to
special password protected VRML Web pages, and a copy of the final version to be
released in July which will at that time cost an expected $US 99.
DOCUMENTS..   Installation and use instructions.
FEATURES......   WebSpace also supports the full Open Inventor file format (.iv). Inventor nodes include 2D
text, 3D text and "engines" that define various types of predefined motion in the scene.
COMMENTS....   This is both a stand alone program and an add-on to WWW browsers for viewing VRML
3-dimensional images (WebSpace by itself does not handle URL's and therefore requires a
separate browser program such as Netscape to access the Web for it.). Through on screen
controls you can move about examining an object or a scene from different viewpoints. In

one example you can entering a house, moving about through the different rooms. Objects within a scene (hotspots) can be linked to other Internet resources (audio, graphics, video or perhaps even other VRML scenes). Minimum hardware: a 486-66 with 8 meg and 256 color graphics. The documentation "suggests": a pentium with 24 meg, and full color high speed graphics card ("M-O-R-E P-O-W-E-R"). On my 486-66 with a mediocre graphics card VRML was very slow and clunky and considerably less than impressive and that while viewing files of only a few hundred kbytes. Some VRML files available for this viewer on the net are 5 to 10 meg. Considerable potential here, but it's only likely to appeal to a smaller number of users who have a PC with M-O-R-E P-O-W-E-R.

The recommended browser is Enhanced Mosaic ($) from Spyglass. It will work with Netscape, but there are problems covered in the documentation. It should also be possible to configure it for other browsers, but no information is given, perhaps because Netscape and Spyglass are the only ones who have signed initial agreements to license the technology. When decompressing this self extracting file use the -d option to create the subdirectories, i.e. "ws32n10b.exe -d <return>". Released by Template Graphics Software Inc. in partnership with Silicon Graphics.

55.2   <u>**WorldView**</u>(tm)   **[Win32s, Windows95, Windows NT]**
<u>FUNCTION</u>......   VRML viewer (.wrl format)
<u>FILE SIZE</u>........   617,764 bytes
<u>VERSION</u>.........   .8d1 June 1995
<u>RETRIEVAL</u>....   http://www.webmaster.com/vrml   File name: **wrld08d1.exe**
<u>STATUS</u>...........   No charge for non commercial use. A supported version for $US 49.95 will be released later this year.
<u>DOCUMENTS</u>..   Installation instructions but no online help yet.
<u>FEATURES</u>......   Capable of directly using a URL without having to rely on a browser.
<u>COMMENTS</u>....   A first unsupported release from InterVista Software Inc. Recommended hardware of a 486-50 with minimum 8 meg and a 256 color video card. Specifically recommended as an add-on viewer for Netscape version 1.1, but should be configurable with most browsers. New versions will be released in the months ahead.

56. WIN32S

Standard Windows 3.1 is only a 16 bit operating system in spite of the fact that all PC's starting with the 386 processor have had 32 bit capability. Unable as yet to deliver a new operating system, Microsoft has provided an interim solution, the **Win32s** 32 bit extension. When installed on a Windows 3.1 system it enables that system to run certain 32 bit programs which have been specifically created for **Win32s**. Such programs *should* run faster although the additional system resource and memory requirements for **Win32s** will probably largely offset any gain. **Win32s** programs lack other features such as multi-threading/crash protection found in true 32 bit systems like **Windows NT** and IBM's OS/2 WARP.

Recent versions of NCSA Mosaic are the best example of a program written to **Win32s**. It cannot be run on plain Windows 3.1. Eventually when **Windows95** becomes available the **Win32s** extension will probably become irrelevant and programs written for it should run on **Windows95**. Until then, if you want to run the 32 bit version of NCSA Mosaic and other such programs you must install this extension [or use **Windows NT**]. The OLE version in particular must be installed for the most recent Mosaic versions.

56.1   <u>**Win32s**</u>   (non-OLE version)
<u>FUNCTION</u>......   32 bit enhancement to Windows 3.1
<u>FILE SIZE</u>........   1,244,633
<u>VERSION</u>.........   1.20 October 1994
<u>RETRIEVAL</u>....   ftp://ftp.microsoft.com/Softlib/MSLFILES/**PW1118.EXE**
<u>STATUS</u>...........   Distributed free to licensed users of Windows 3.1 or Windows For Workgroups 3.11
<u>DOCUMENTS</u>..   Minimal
<u>FEATURES</u>......
<u>COMMENTS</u>....   This Microsoft **Win32s** program adds an extension to Windows 3.1 enabling it to run some of the 32 bit programs which are beginning to appear (such as all recent releases of Mosaic, *except* the latest alpha 8 version.). As a bonus, there is a free 32 bit game "Freecell". Being able to play the game confirms that this upgrade has been successfully

installed. Newer version 1.20 has a simpler automated installation and automatically removes any unnecessary files from previous versions which it finds during installation. A minimum of a 386 processor (32 bit capability) is required.

Note: If it ever becomes necessary to remove **Win32s** from your system, the procedure is described in Microsoft document Q120486 dated Sept. 29,1994 which should be available from ftp://ftp.microsoft.com: /developr/win32dk/kb/Q120/4/86.txt.

Note: Regarding IBM's new operating system OS/2 Warp and the various versions of **Win32s** and associated applications:

Windows/ Win32s115 - versions 1.0 up to this version 1.15 are supported under Warp

Windows/ Win32s115a - not supported under Warp but some applications may still run OK.

Windows/ Win32s120 - not supported under Warp.

56.2   **Win32s**   (OLE version required for most recent Mosaic browsers)
FUNCTION......   32 bit enhancement to Windows 3.1
FILE SIZE........   2,287,315   bytes
VERSION.........   1.25 with OLE 2.02   March 1995
RETRIEVAL....   ftp://ftp.ncsa.uiuc.edu/Web/Mosaic/Windows/**w32sOLE.exe** or **w32s125.exe**
                 This is in the same location as the corresponding new version of Mosaic, and so both can be conveniently downloaded at the same time. For modem users it might be a good idea to begin these downloads at the beginning of your lunch break.
STATUS...........   Distributed free to licensed users of Windows 3.1 or Windows For Workgroups 3.11
DOCUMENTS..   Negligible.
FEATURES......
COMMENTS....   Because the newer versions of Mosaic are now an OLE compatible application, Mosaic users must have this version, **Win32s** 1.25 with OLE 2.02, installed on their system first before trying to install or use the new Mosaic if they have Windows 3.1 or Windows For Workgroups 3.11. The regular **Win32s** version 1.20 is no longer adequate. **Windows95** and **Windows NT** do not require this because the OLE function is already built in to those packages. This file is a self extracting file which should be placed in a temporary directory and exploded. There are instructions in the Mosaic package which describe how to install this. Note this must be installed before installing Mosaic. This new version 1.25 fixes some of the bugs on previous versions such as the problem with foreign languages and the compobj.dll problem.
                 OLE = Object Linking and Embedding, a means of sharing information between applications.

57. HTML

57.1 (NEW!)   **Checker**
FUNCTION......   URL link checker
FILE SIZE........   220,428 bytes
VERSION.........   .3 June 1995
RETRIEVAL....   http://www.ugrad.cs.ubc.ca/spider/q7f192/branch/tools.html   File name: **checkr03.zip**
STATUS...........   Freeware
DOCUMENTS..   Very brief instructions. Fortunately this is a very simple to use program.
FEATURES......   Program will also report last modification date for a linked document if the information is available.
COMMENTS....   A very useful Winsock program which can check all the URL links in a HTML document to ensure that they are valid (by connecting to them one by one). Unfortunately this version is only capable of checking HTTP links. Hopefully FTP, Gopher and others can be added in a future release. From George Xie.

57.2 (NEW!)   **Mapedit**
FUNCTION......   Image map creation tool.
FILE SIZE........   56,749 bytes
VERSION.........   1.4 April 1995

RETRIEVAL....	http://sunsite.unc.edu/boutell/mapedit/mapedit.html File name: **mapedit.zip**
STATUS...........	Shareware $US 25. Postcardware for educational and non-profit organizations only.
DOCUMENTS..	Start up instructions and online help.
FEATURES......	
COMMENTS....	Mapedit is a graphical WYSIWYG tool for creating image maps for use on HTML pages. Image maps are those images which will do different tasks if you click on different parts of them. A well written fairly easy to use program from Thomas Boutell.

57.3 (NEW!)   Map *THIS!*   [Win32s, Windows95, Windows NT]

FUNCTION......	Image map creation tool.
FILE SIZE........	533,465 bytes
VERSION.........	1.00.5 July 1995
RETRIEVAL....	http://galadriel.ecaetc.ohio-state.edu/tc/mt File name: **mpths100.zip**
STATUS...........	Freeware
DOCUMENTS..	Start up instructions and online help. Sample GIF images to play with are also included - a nice touch. There is also some basic information on the process of setting up an HTML page with image map on a server.
FEATURES......	Supports both NSCA and CERN map file formats, zoom, open multiple files, reshape polygons.
COMMENTS....	A nicely done 32 bit program for creating image maps. Released by Todd C. Wilson.

57.4 (NEW!)   RGB2HEX

FUNCTION......	Color to HEX number converter.
FILE NAME.....	rgb2hex.zip
FILE SIZE........	15,682 bytes
VERSION.........	1.1 July 1995
RETRIEVAL....	????
STATUS...........	Shareware but no price stated.
DOCUMENTS..	Basic instructions. A very simple and intuitively easy program.
FEATURES......	
COMMENTS....	A nifty little utility which allows you to visually adjust a set of color bars to obtain a desired color. The corresponding digital HEX readout can then be dropped into an HTML page to provide the desired background (or text or link) color viewable on Netscape and Mosaic browsers. From Rob Wienburg & Karena Swanson.

SERVER / DAEMON LISTING

Because of the occasional question which has come up on these I have started listing them. After all, how many could there be? The list does seem to keep growing.

Any comments are generally just based on a perusal of the documentation. I make no effort to evaluate any of these - I am not in a position to do so. As a great Roman statesman once said (translated from the Latin): "When the Emperor visits he brings his own food taster."

59.   DNS

59.1 (NEW!)   DNS 1.1 For Windows NT   [Windows NT]

FUNCTION......	DNS server
FILE SIZE........	776,494 bytes
VERSION.........	1.2 beta July 1995
RETRIEVAL....	http://www.metainfo.com File name: **DNS12b1i.zip**
STATUS...........	This is an evaluation copy of version 1.2 which will soon be released. Previous released version 1.1 is $US 400. The price includes a discount on an upgrade to future version 2.0.
DOCUMENTS..	Online help.
FEATURES......	DNS 1.1 is a full, RFC compliant DNS server for Windows NT 3.1, 3.5 and 3.51 - server and workstation. It runs on Intel and Alpha processors.

COMMENTS....   Released by MetaInfo who claim that it has been extensively tested and is both fast and reliable.

60 FINGER SERVERS

See also **CFinger** in the **Finger** client section.

60.1   **FingerD**   **[Windows NT]**
FUNCTION......   Finger daemon.
FILE SIZE........   19,554 and 21,380 bytes
VERSION.........   .4 February 1995
RETRIEVAL....   ftp://pmip.dist.maricopa.edu/pub/nt/**fingerd-0.4.zip** and **fingerd-i386.zip**
STATUS...........   Freeware.
DOCUMENTS..   Basic installation instructions.
COMMENTS....   From Dean Troyer. Still at an early stage of development. Retrieve both files. The first has source code and a read text file on installation and use (in addition to source files) and the second has the actual execution program.

60.2   **FINGERS**   **[Windows NT]**
FUNCTION......   Finger server.
FILE SIZE........   18,922 bytes
VERSION.........   beta   February 1995
RETRIEVAL....   ftp://emwac.ed.ac.uk/pub/fingers/**fsi386.zip**
STATUS...........   Freeware, cannot be sold.
DOCUMENTS..   Start up and use instructions.
COMMENTS....   This program originates from the European Microsoft Windows NT Academic Centre (EMWAC), located at Edinburgh University Computing Service.

60.3   **Windows Finger Daemon for Windows Sockets**
FUNCTION......   Finger daemon
FILE SIZE........   116,031
VERSION.........   1.0   August 1994
RETRIEVAL....   ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**fingd100.zip**   .
STATUS...........   Public Domain (limited), source code included with program.
DOCUMENTS..   On-line help with installation and use instructions.
COMMENTS....   Not supported. Released by Frederick Bent.

61 FTP SERVERS

See also **WinQVT/NET** in the **News** client section.

61.1   **Integrated Internet File Transfer Protocol Client / Personal Server**
FUNCTION......   FTP client and personal server (limited capabilities).
FILE SIZE........   172,064 bytes
VERSION.........   1.09 July 1995
RETRIEVAL....   ftp://oak.oakland.edu/SimTel/win3/winsock/**iiftp109.zip**
              http://www.aquila.com/kent.behrens
STATUS...........   Shareware $US 15. Unregistered version sessions are limited to 20 minutes.
DOCUMENTS..   Basic start up instructions.
COMMENTS....   Here's something many of us need from time to time, a personal server with basic features to allow someone access to our PC to transfer some files. Nice user interface. Contains both an FTP server and a separate FTP client. The server supports both anonymous and password login, but only one password account and only one login at a time is allowed. Released by Kent D. Behrens.

61.2   **POTP(tm) Secure FTP**   (Power One Time Pad)
FUNCTION......   POTP Secure FTP Client, POTP Secure FTP Server, and POTP FileCrypt, a stand alone file encryption program.

FILE SIZE........	764,362 bytes
VERSION.........	1.0 May 1995
RETRIEVAL....	http://www.elementrix.co.il
	ftp://ftp.elementrix.co.il/pub/secftp/**secftp1.zip**
STATUS...........	Demo version will stop working in about a month. Price $US 198.
DOCUMENTS..	Basic start up information and online help.
FEATURES......	User-transparent encryption on-the-fly of all data sent/received when connected to a POTP(tm) Secure FTP Server/Client. It will also connect to any standard FTP client or server
COMMENTS....	Hmmm. According to the documentation encryption is done through a "one time pad" method. Keys are randomly generated - there is no permanent key - no key is used twice - no passing of keys between communicating parties, etc. Although I certainly can't evaluate the security provided by this program, it is an interesting product well worth a closer look from anyone who is interested in high security data transfer. Works with any TCP/IP protocol stack. Released by Elementrix Technologies, an Israeli company.

61.3   **Serv-U**

FUNCTION......	FTP server
FILE SIZE........	199,625 bytes
VERSION.........	1.1 March 1995
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/winsock/**ftpsrv11.zip**
STATUS...........	Full function demo. Program stops working 30 days after it is first used. Shareware $US 20.
DOCUMENTS..	Fairly complete start up and use instructions.
COMMENTS....	Supports multiple simultaneous access and anonymous users. Lots of security options. See the comments on this program elsewhere in this listing in section 92.0.

61.4   **WFTPD** (Winsock FTP Daemon for Windows 3.1 and **Windows NT**)

FUNCTION......	FTP daemon (runs in background).
FILE SIZE........	175,383 bytes
VERSION.........	2.01 July 1995
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/winsock/**wftpd201.zip**
STATUS...........	Shareware $US 15.
DOCUMENTS..	Start up instructions and online help.
COMMENTS....	Supports multiple simultaneous access and anonymous users. Some features crippled in unregistered version and a message that this is unregistered is displayed to users logging on. Secured access by means of password authentication, address-based host authentication, and the ability to restrict users to named subdirectories of your directory structure. Logs to file that can be read by other applications, including session number, time and date stamp. A fairly stable program which continues to be developed by its author Alun Jones. And a nice icon!

62 GOPHER SERVERS

62.1   **GOPHERS**   [Windows NT]

FUNCTION......	Gopher server
FILE SIZE........	138,105 bytes
VERSION.........	.91 September 1994
RETRIEVAL....	ftp://emwac.ed.ac.uk/pub/gophers/**gsi386.zip**
STATUS...........	Freeware, cannot be sold.
DOCUMENTS..	Start up and use instructions.
COMMENTS....	This program originates from the European Microsoft Windows NT Academic Centre (EMWAC), located at Edinburgh University Computing Service. MIPS and DEC Alpha versions are also available from the same location.

63 IRC SERVERS
None currently available.

64 MAIL SERVERS
See also **WinQVT/NET** in the **News** client section.

64.1   **EMWAC Mail Services   [Windows NT 3.51]**
FUNCTION...... POP3 Server, SMTP Delivery Service and SMTP Receiver Service
FILE SIZE........ 39,607,   25,891 and 26,579 bytes
VERSION......... Early beta 0.10 May 1995
RETRIEVAL.... ftp://emwac.ed.ac.uk/pub/MAILSVCS/POP3S/**P3i386.zip**
                        ftp://emwac.ed.ac.uk/pub/MAILSVCS/SMTPDS/**SDi386.zip**
                        ftp://emwac.ed.ac.uk/pub/MAILSVCS/SMTPRS/**SRi386.zip**
STATUS........... Freeware - cannot be sold.
DOCUMENTS.. Virtually nothing yet.
FEATURES...... Runs only on NT 3.51 as the NT security DLL comes from NT 3.51.
COMMENTS.... EMWAC = European Microsoft Windows NT Academic Centre project.

64.2   **DocServe**
FUNCTION...... Document (binary file) mail server daemon.
FILE SIZE........ 6,172 bytes
VERSION......... November 1994
RETRIEVAL.... ftp://ftp.internet-eireann.ie/pub/ie_access/dos/winsock/**docserve.zip**
STATUS........... Shareware. Registration 10 Irish pounds, about $US 15.
DOCUMENTS.. Basic start up.
COMMENTS.... Add-on application which only works with Tetrix Reader Plug (TRP) mail and news reader
                        listed elsewhere in the News Clients section. It's designed to allow other users to
                        automatically retrieve a designated document by means of an email request to you.

64.3   **NTMAIL   [Windows NT]**
FUNCTION...... POP3 server, SMTP server, Post Daemon
FILE SIZE........ 166,253 bytes
VERSION......... 2.10.19 June 1995
RETRIEVAL.... http://www.net-shopper.co.uk/software/ntmail/index.htm
                        ftp://ftp.demon.co.uk/pub/nt/**ntmail10.zip**
STATUS........... Trial version, time limited key.
DOCUMENTS.. Almost nothing with the programs. Latest instructions are available
                        on the Web site.
COMMENTS....

64.4 (NEW!)   **post.office   [Windows NT]**
FUNCTION...... SMTP, POP3 and Finger servers.
FILE SIZE........ 1,343,090 bytes
VERSION......... July 1995
RETRIEVAL.... http://software.com File name: **post_office-NT-v1_7.zip**
STATUS........... Trial copy, 45 day license. Boxed edition with hard copy manuals $US 499, soft copy
                        download $US 449. Unlimited client access is included in the price.
DOCUMENTS.. A comprehensive manual can also be downloaded from this same location in either MS
                        Word, Postscript or Adobe Acrobat format.
FEATURES...... Configuration and account changes are done by the postmaster with a simple fill-in-the-
                        forms interface through either a Web or mail client. This can be done remotely. Automated
                        reply mail accounts are supported. There are significant security features built in.
COMMENTS.... This is the version for Intel platforms. Alpha and MIPS to follow. A Web browser and
                        POP3 mail client (not included) are recommended for setup purposes. Developed by
                        Software.com, Inc.

64.5   **TPOP3**
FUNCTION...... POP3 mail server
FILE SIZE........ 78,406 bytes

VERSION.........	.4 alpha December 1994
RETRIEVAL....	ftp://ftp.demon.co.uk/pub/ibmpc/winsock/apps/tpop/**tpop3v04.zip**
STATUS...........	Free for personal use.
DOCUMENTS..	Start up instructions.
COMMENTS....	TPOP3 is a simple POP3 server that runs on your PC using winsock and provides a gateway to mail files in mailbox format, as transferred by SMTP. This allows the use of mail programs that require a POP3 server to read mail. It has been tested with Eudora and Pegasus. Released by Bob Cousins.

64.6　　　　　　　**WinSmtp**

FUNCTION......	Mail Daemon
FILE SIZE........	354,636, 370,067 and 372,937 bytes
VERSION.........	1.07 July 1995
RETRIEVAL....	ftp://ftp.metrics.com/smtp/
	stst07b4.zip　　　　[Windows 3.1]
	stst07b4.win95.zip　**[Windows95]**
	stst07b4.nt.zip　　**[Windows NT]**
STATUS...........	Shareware $CDN 50 within Canada, $US 50 USA and elsewhere. Commercial version $100. The unregistered versions are limited to 5 users and 1 mailing list, the registered version to 75 and 5, and the commercial version is unlimited.
DOCUMENTS..	New on-line help in this version.
COMMENTS....	SMTP and POP3 support for sending and receiving mail. Support for MAPI in a future release. UUencode support only at present, MIME and BinHex in the future. Automated installation. Auto-responder (text/UU/MIME capabilities) and mailing list support. From Jack De Winter.

65 MISCELLANEOUS

65.1　　　　　　　**CLS-Syslogdaemon** [For Windows 3.1, WFW 3.11, **Windows NT**]

FUNCTION......	Syslog daemon
FILE SIZE........	262,784 bytes
VERSION.........	1.0
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**syslogd.zip**　.
STATUS...........	Freeware
DOCUMENTS..	Basic start up instructions.
COMMENTS....	Automated installation.

65.2　　　　**LISTSERV (tm)**　　[Windows NT]

FUNCTION......	Automated mailing list system.
FILE SIZE........	845,497 bytes
VERSION.........	1.8b May 1995
RETRIEVAL....	http://www.lsoft.com/evalkits.html　　　File name: **intel.zip**　A license file containing the key to operate the demo must also be downloaded.
STATUS...........	Demo. Fully functional except for an expiry date and capacity limit.
DOCUMENTS..	In addition to documentation included with the package a comprehensive, 95-page list owner's manual is now available online.
FEATURES......	Numerous features including a "spam" detector shields LISTSERV lists from unsolicited advertisements.
COMMENTS....	This **Windows NT** version is still at a fairly early stage of development. This first version does not include a MAPI gateway. It requires a partition supporting long file names (not FAT) and 24 meg RAM is recommended. Released by L-Soft International.

66 NEWS

66.1　　　　　　　**NNS**　　[Windows NT]

FUNCTION......	Usenet network news server
FILE SIZE........	789,204 bytes

VERSION.........	X2.06 beta June 1995
RETRIEVAL....	ftp://ftp.wa.com/pub/local/ntnews/**nns-latest.zip**
STATUS...........	Freeware.
DOCUMENTS..	This is a multi-threaded NNTP compliant news server. Extensive documentation. Can send and receive articles through either NNTP or UUCP protocols.
COMMENTS....	Formerly known as NetNews. **Windows95** is not currently supported but will be at some future date when the final version ships. Note this requires a 32 bit unzip program which supports long file names, such as unzip.exe available from this site.

66.2	**Slurp** **[Windows NT]**
FUNCTION......	NNS news server add on.
FILE SIZE........	63,514 bytes
VERSION.........	1.10 February 1995
RETRIEVAL....	ftp://ftp.demon.co.uk/pub/nt/**slurp110_nt102.zip**
STATUS...........	Freeware
DOCUMENTS..	Installation and start up instructions.
COMMENTS....	A well named program. This program provides a conduit to feed a local NNS server with Usenet news from a remote server location. From TQM Communications.

67 NFS

67.1	**Tropic NFS Server**
FUNCTION......	NFS server.
FILE SIZE........	273,265 bytes
VERSION.........	1.1a February 1995
RETRIEVAL....	ftp://oak.oakland.edu/SimTel/win3/winsock/**trnfs11a.zip**
STATUS...........	Shareware. Prices starting at $US 20, or $5 for educational institutions.
DOCUMENTS..	Basic instructions.
COMMENTS....	"Tropic NFS server is a NFS server program that runs on Windows 3.1 environment and exports the local PC file system allowing NFS clients running in other machines to have access to the local PC file system." It requires DOS 5.1 and Windows 3.1. Released by Tropic Software.

68 TELNET

68.1	**Ataman TCP Remote Logon Services** **[Windows NT]**
FUNCTION......	Telnet server, rlogin and rexec.
FILE SIZE........	175,986 bytes
VERSION.........	1.8 June 1995
RETRIEVAL....	ftp://rmii.com/pub2/ataman/products/**atrls18.zip**
STATUS...........	Shareware $US 40 with volume discounts.
DOCUMENTS..	
COMMENTS....	I'm not sure if this supports Winsock.

68.2	**InterAccess Telnetd** **[Windows NT]**
FUNCTION......	Inet daemon and Telnet daemon.
FILE SIZE........	580,966 bytes
VERSION.........	May 1995
RETRIEVAL....	ftp://ftp.ccsi.com/pub/pragma/**interact.exe**
STATUS...........	Demo. I believe there is an expiry date on this.
DOCUMENTS..	Installation instructions.
COMMENTS....	ANSI and VT100 emulation. **Windows95** will be supported in a future release. Released by Pragma Systems Inc.

69 WAIS

69.1   <u>**WAISS**</u>   **[Windows NT]**
<u>FUNCTION</u>......   WAIS server
<u>FILE SIZE</u>........   80,764 bytes
<u>VERSION</u>.........   beta .3   September 1994
<u>RETRIEVAL</u>....   ftp://emwac.ed.ac.uk/pub/waiss/**wsi386.zip**
<u>STATUS</u>...........   Freeware, cannot be sold.
<u>DOCUMENTS</u>..   Start up and use instructions.
<u>COMMENTS</u>....   This program originates from the European Microsoft Windows NT Academic Centre (EMWAC), located at Edinburgh University Computing Service. MIPS and DEC Alpha versions are also available from the same location. In order to use this you also need to retrieve the WAIS Toolkit in directory pub/waistool.

70 WWW

One person's diary of his experiences in setting up his first web server are chronicled at:
http://www.webfeats.com/diary/

70.1   <u>**ALIBABA**</u>   **[Windows95** and **Windows NT]**
<u>FUNCTION</u>......   WWW server
<u>FILE SIZE</u>........   823,869 and 824,356 bytes
<u>VERSION</u>.........   July 1995
<u>RETRIEVAL</u>....   ftp://ftp.eunet.co.at/pub/vendor/csm/alibaba/**ali95.exe [Windows95]** and **alint.exe [Windows NT]**
<u>STATUS</u>...........   Commercial program under development. $US 695 until July 1, 1995 and then $US 1,190.
<u>DOCUMENTS</u>..
<u>COMMENTS</u>....   Free support during the beta cycle. This version is specific to **Windows NT**. A **Windows95** version will be released at a later date. From Computer Software Manufaktur GmbH (Austria).

70.2   <u>**HTTP Server**</u>   **[Windows NT]**
<u>FUNCTION</u>......   WWW server
<u>FILE SIZE</u>........   192,905 bytes
<u>VERSION</u>.........   .96 beta November 1994
<u>RETRIEVAL</u>....   ftp://emwac.ed.ac.uk/pub/https/**hsi386.zip**
<u>STATUS</u>...........   Freeware, cannot be sold.
<u>DOCUMENTS</u>..   Start up and use instructions.
<u>COMMENTS</u>....   This program originates from the European Microsoft Windows NT Academic Centre (EMWAC), located at Edinburgh University Computing Service. MIPS and DEC Alpha versions are also available from the same location. A professional high end commercial version is planned.

70.3   <u>**NaviServer**</u>   **[Windows NT]**
<u>FUNCTION</u>......   WWW server
<u>FILE NAME</u>.....   illustra.winnt.zip and naviserver.winnt.b12.zip
<u>FILE SIZE</u>........   Expect 5 - 10 megabytes.
<u>VERSION</u>.........   1.0 pre-release   July 1995.
<u>RETRIEVAL</u>....   http://www.navisoft.com   Form based registration required.
<u>STATUS</u>...........   Test version.
<u>DOCUMENTS</u>..   Documentation is mostly available through the Web site.
<u>FEATURES</u>......
<u>COMMENTS</u>....   This requires the NTFS file system and 50 meg of disk space. NaviSoft is an America Online company.

70.4   <u>**NetMagic Webserver**</u> (tm)   **[Windows 95, Windows NT]**
<u>FUNCTION</u>......   WWW server
<u>FILE SIZE</u>........   n/a bytes
<u>VERSION</u>.........   n/a

RETRIEVAL....	http://www.aristosoft.com/NetMagic/beta.html
STATUS...........	Evaluation versions of Communications Builder and Commerce Builder (higher security) servers at $US 495 and $US 795.
DOCUMENTS..	Basic instructions. Latest documentation available online.
FEATURES......	Chat room (design and configure your own live web chat rooms), remote configuration (change from afar), security access controls (user password protection, and web doc lockout).
COMMENTS....	Unfortunately I couldn't find the promised download link on their pages for their latest versions and there's no email address there either to enquire further. I hope they build their servers better than they do their Web pages. Released by The Internet Factory Inc.

70.5 (NEW!)   **Purveyor**   **[Windows NT]**

FUNCTION......	WWW server
FILE SIZE........	884,664 bytes
VERSION.........	Beta.
RETRIEVAL....	http://www.process.com/ File name: **prvri386.exe**
	This is the Intel version. A version is also available for the **Alpha** platform
STATUS...........	Demo version. Online registration is required to obtain this.
DOCUMENTS..	Separate and fairly extensive documentation is also available from the same location. At least it wasn't password protected.
FEATURES......	
COMMENTS....	The downloaded file is a password encoded zip file, so write down the password you're given - you'll need it. I wish that I could say that I followed my own advice since it would have been nice to have taken a closer look at this. Registration as a beta tester for Purveyor for **Windows95** is also available through the same location.

70.6   **SerWeb**

FUNCTION......	WWW server.
FILE SIZE........	277,504 bytes
VERSION.........	.3 November 1993
RETRIEVAL....	ftp://ftp.cica.indiana.edu/pub/pc/win3/winsock/**serweb03.zip** .
STATUS...........	Free for non commercial use.
DOCUMENTS..	Basic start up instructions.
COMMENTS....	Can run in the background while other tasks are being performed. Functional, but no longer being developed by its author.

70.7   **W4-Server**   **[**Windows 3.1/3.11 and **Windows95]**

FUNCTION......	WWW server-daemon
FILE SIZE........	219,832 bytes
VERSION.........	2.1 July 1995
RETRIEVAL....	http://wit381402.student.utwente.nl/index/software.html File name: **w4serv21.zip**
STATUS...........	Shareware $US 40. Unregistered version can only be started 40 times.
DOCUMENTS..	Limited information. Documentation is in the process of being improved.
FEATURES......	Up to 10 users at one time, small memory footprint, clickable images, forms support, logs, etc.
COMMENTS....	This appears to be undergoing considerable development effort. Released by Antelope software. It does not run under **Windows NT**.

70.8   **Windows Httpd**

FUNCTION......	WWW server
FILE SIZE........	665,467 bytes
VERSION.........	1.4c May 1995
RETRIEVAL....	http://www.city.net/win-httpd/ File name: **whttpd.zip**
STATUS...........	Free for personal and educational use.
DOCUMENTS..	Start up and operating instructions spread out in a number of text and HTML documents.
COMMENTS....	This runs **only** on Windows 3.1/3.11. Support for forms and image mapping. Handles up to 16 simultaneous users. Basic security features. An easy to get up and running package. There are some problems with Trumpet 2.0b when running this in full multithreading mode.

Note: If unzipping with pkunzip use the "-d" option to preserve all directories, i.e. "pkunzip -d whttpd.zip".

70.9	**ZBServer**	[Windows 3.1, WFW 3.11, and **Windows95**]

FUNCTION...... WWW and Gopher server
FILE SIZE........ 302,292 bytes
VERSION......... May 1995
RETRIEVAL.... ftp://unix1.utm.edu/pub/zbs/**zbs20c.exe**
                http://www.utm.edu/~bbradley/zbs/
STATUS........... Pre-release version is free with a Shareware version to follow. The Shareware version will have more features. Pricing not yet determined.
DOCUMENTS..
COMMENTS.... Can service up to 10 concurrent requests.

NOTES
80.0 INFORMATION - BEGINNER

Unfortunately, there is not a lot of information that's available on the Internet about Winsock and SLIP, and even less that's in an easy to understand format for someone just starting out. Most documents are either strongly oriented towards the networking side of the business and/or are aimed at the systems professionals. The best exception I've seen are the following two documents one by Frank Hecker and the other by Harry M. Kriz.

80.1 Personal Internet Access Using SLIP or PPP: How You Use It, How It Works

For a very thorough, very basic and at the same time non-technical explanation of SLIP and SLIP applications, this document by Frank Hecker is highly recommended. It does not contain installation or configuration instructions, but does contain many references to other useful sources. Last updated September 1994 89,796 bytes. It is currently available from: ftp://cap.gwu.edu/pub/internet/**slip-ppp.txt**

80.2 WINDOWS AND TCP/IP FOR INTERNET ACCESS

A good explanation of the services available on the Internet by Harry M. Kriz, technical details of connecting a PC to the Internet including an explanation of Winsock, and a review of a number of basic client applications with installation instructions. This includes information on both modem and network based connections. A text version of this complete document, updated December 1994 (57,546 bytes) is available by anonymous ftp from:

ftp://nebula.lib.vt.edu/pub/windows/winsock/**wtcpip06.asc**

A hypertext version is available at:

http://learning.lib.vt.edu/wintcpip/wintcpip.html

80.3 ALT.WINSOCK FAQ

A draft copy of the FAQ (Frequently Asked Questions) for newsgroup alt.winsock is available from:

http://www.well.com/user/nac/alt-winsock-faq.html

This is also posted periodically to that newsgroup which is the prime location for discussion about Winsock and Winsock based software.

81.0 INFORMATION - MORE ADVANCED, TECHNICAL

81.1 Bernard Aboba's "comp.protocols.tcp-ip.ibmpc Frequently Asked Questions (FAQ)"

Very well done, although somewhat technical and oriented towards professionals. This is mostly a TCP/IP FAQ with extensive coverage of currently available TCP/IP networking software, but Winsock is covered in a number of sections. Regularly updated. Available through:

ftp://ftp.netcom.com/pub/ma/mailcom/IBMTCP/**ibmtcp.zip**
http://www.cis.ohio-state.edu/hypertext/faq/usenet/ibmpc-tcp-ip-faq/

81.2   Frequently Asked Questions About Windows Sockets Version 1.1
Fairly technical and oriented towards professionals this FAQ has been put together by Mark Towfiq and is available from:

ftp://sunsite.unc.edu/pub/micro/pc-stuff/ms-windows/winsock

The filename is just FAQ.
Last update April 1995. (16,332 bytes)

82.0   POPULAR LOCATIONS FOR WINSOCK PROGRAMS

82.1 CICA
There are a number of Internet sites which carry a fair amount of Windows/Winsock software including most of the packages listed above (but not always the latest version). These sites can be accessed and the software downloaded through FTP. The most significant site is CICA, the Center for Innovative Computer Applications:

HOST NAME: ftp.cica.indiana.edu (US)
IP NUMBER: 129.79.26.27
DIRECTORY: /pub/pc/win3/winsock
GOPHER ACCESS: gopher.cica.indiana.edu
WWW URL: http://www.cica.indiana.edu
COMMENT:.   A major source for Windows software in general, and often difficult to log onto because of its popularity. Downloading the various README files is the best place to start to identify what's available and in which directories if interested in other areas.

As well, there are a number of other locations which "mirror" or carry a copy of the CICA directories and files. These are often easier to access than CICA which is frequently busy.

NORTH AMERICA--
wuarchive.wustl.edu [128.252.135.4] (Missouri)
gatekeeper.dec.com [16.1.0.2]
ftp.cdrom.com [192.153.46.2] (California)
ftp.marcam.com [198.102.216.30]
ftp.dataplex.net [199.183.109.245] (Texas)
mrcnext.cso.uiuc.edu [128.174.201.12] (Illinois)
mirrors.aol.com [198.81.1.25] (America OnLine, Northern Virginia)
ftp.pht.com [198.60.59.5] Pacific Hitech, Salt Lake City, Utah

OVERSEAS--
vmsa.technion.ac.il [132.68.7.2] (Israel Institute of Technology)
nic.switch.ch [130.59.1.40] (Switzerland)
ftp.uni-stuttgart.de [129.69.8.13] (Stuttgart, Germany)
ftp.monash.edu.au [130.194.11.1] (Monash Univ, Melbourne Australia)
nctuccca.edu.tw [140.111.3.21] (Chiao Tung Univ, Hsinchu,Taiwan)
src.doc.ic.ac.uk [146.169.2.1] (JANET mirror at Imperial College, London)
ftp.nectec.or.th [192.150.251.32] (Thialand)
ftp.hk.super.net [202.14.67.233x2] (Hong Kong SuperNet)
ftp.iij.ad.jp:/pub/win3 [192.244.176.50] (Internet Initiative, Tokyo Japan)
ftp.cyf-kr.edu.pl [149.156.1.8] (Cracow, Poland)

ftp.puc-rio.br [139.82.34.13] (Pontificia Universidade Catolica do Rio de Janeiro, Brazil)
ftp.unipd.it [147.162.100.180] (Universita' degli Studi di Padova, Italy)
ftp.cau.ac.kr (Chung Ang University, Seoul, South Korea)
ntuix.ntu.ac.sg (Nanyang Technological University, Singapore)
demokritos.cc.duth.gr (Democritus University, Northern Greece)
ftp.pressimage.fr [194.2.222.15] (Montreuil Cedex, France)

82.2   CRAIG LARSEN'S WINSOCK APPLICATION FAQ/LIST

This is an irregularly updated listing of available Winsock applications. One of the pioneers in providing such a list, Craig Larsen covers client, daemon and miscellaneous Winsock software with file, source information and comments.

http://www.LCS.com/faqhtml.html

82.3 STROUD's COMSUMMATE WINSOCK APPS

This WWW listing is maintained by Forrest Stroud at:

http://cwsapps.texas.net

Major applications are available for download through URL link and the listing is very actively maintained with the very latest information - easily the best such list of about a dozen on the WWW. Stroud also rates the programs with a star system similar to the method employed in movie review books, although he generally does not provide many details to support his ratings.

82.4 JAPANESE WINSOCK APPS

For those looking for information on Japanese Winsock clients, a very good faq (in Japanese) is avalable from:

ftp://utsun.s.u-tokyo.ac.jp/PC/network/doc/pc-tcpip-faq-j.jis (in JIS code)
ftp://utsun.s.u-tokyo.ac.jp/PC/network/doc/pc-tcpip-faq-j.sjis (in SJIS code)

It's called PC-TCPIP-FAQ-J.

83.0   SLIP EMULATORS: TIA

83.1   TIA - The Internet Adapter (tm)

As stated in my introduction, in order to use Windows packages on the Internet a special "SLIP" connection from an Internet provider is required. Many providers charge extra for this type of connection, and a few do not offer it at all. Recently an alternative has been offered, a commercial software package developed by Cyberspace Development Inc., which operates on a user's Unix shell account and emulates a SLIP account. This innovative product is called TIA, The Internet Adapter, and it has been very controversial.

Major Advantage of TIA:
1. Operates through the basic Unix shell account providing the user with SLIP access without the need to pay surcharges for true SLIP account. It provides access where SLIP accounts are not available or very expensive. TIA is a very low cost package to purchase.
2. Although there may be some problems setting it up and getting it to work initially, it does appear to work well and has generated strong support from many of its users.

Major Disadvantages of TIA
1. Increases the burden on the provider's server more than a SLIP or straight Unix shell account would, although to what degree is arguable (and is being argued). Although this statement is used by system administrators against TIA, supporters of TIA feel that the real truth lies is in the next item.
2. From the provider's point of view, the use of TIA deprives them of the incremental revenue gained from selling SLIP account upgrades.
3. TIA is currently not compatible with some minor Winsock packages such as Ping and CU-SeeMe, nor does it currently support PPP connections (although this is being worked on).
4. To keep costs low, technical support is only available for site licenses, and not individual users, although

they do receive bug fixes when issued.
5. Because TIA is not a true SLIP connection, when logging on the user does not receive an IP number and thus it will be impossible to operate a remote server. (A permanent non-functional dummy number is used to satisfy client applications.)

Considerable documentation on TIA, including a FAQ, is available from:
http://marketplace.com/0/tia/tiahome.html

This location is also accessible by gopher. TIA operating software is available from the same location although a license code is required to actually use it. Free evaluation licenses good for 14 days are available. If you then decide to buy, single user licenses are only $US 25. Host and site licenses are also available. It is suggested that as a first step you should talk to your Internet service provider to get their approval to use TIA. A TIA and Trumpet Winsock Setup Reference is available at:

http://www.webcom.com/~llarrow/tiarefg.html

84.0   GROWSTUB ERROR
People using the Microsoft mouse with driver version 9.01 are experiencing a "growstub error" message when booting up Mosaic. The error is apparently caused by a conflict between Microsoft's Win32s 32 bit software extension program and the Microsoft mouse driver. It's just one of those cases where the left hand didn't know what the right hand was doing. Anyway, the best solution is to upgrade to the version 9.01b mouse driver available by FTP from:

ftp://ftp.microsoft.com/Softlib/MSLFILES/HD1061.EXE

This file includes a new pointer.dll which fixes the problem.
An alternate solution is to remove "pointer.exe" from the load= line in the win.ini file and then restart Windows.   Disabling the pointer.dll also deactivates the advanced features of the mouse driver: magnify, snap-to, screen wrap and locate. Unfortunately this does not always appear work , especially with the more recent versions of Mosaic.

85.0   PENTIUM SERIAL PORT PROBLEMS
There have been the occasional posting from people having strange problems with pentium machines when trying to operate communications software. If you are using a pentium based machine with a 16550 UART chip and Windows For Workgroups installed and you are experiencing problems with the system hanging when using the serial communications port then consult Microsoft Product Support Applications Note "WG1001: Updated serial.386 driver for Windows For Workgroups." which provides a replacement serial driver for WFW. The product note and new driver are available from:

ftp://ftp.microsoft.com/Softlib/MSLFILES/WG1001.EXE

The product note was dated March of 1994 and so the problem is only likely for those running older versions of WFW. Further details in the following Microsoft documents:

DOCUMENT: Q110568 22-NOV-1994   Pentium-Based Machine Hangs with Communication Applications
DOCUMENT: Q112300 23-NOV -1994   WG1001: Updated SERIAL.386 Driver for WFW

86.0   SLIP vs PPP
The most recent version 2.0 of Trumpet Winsock which was just released has added support for the PPP protocol. As well, Microsoft in announcing its future plans has indicated stronger support for PPP rather than SLIP. These events are generated widespread interest in the PPP protocol. What is it? Why is it better than SLIP? Or is it? There are some unrealistic expectations that it must surely be faster than SLIP to have picked up this support. It is important to begin with the understanding that both SLIP and PPP are protocols for handling the transmission of packetized data through a serial connection between two devices. To answer some

of the questions about the differences between the two I have put together a little chart summarizing these.

Compression
SLIP-None originally. Compressed Slip (CSLIP) added later as an option which must be supported by both the client and host. Use of CSLIP requires manual intervention and configuration, although for the same client/host it need only be done once.
PPP-Yes. Automatically negotiated as part of the connection process.

Connection Configuration
SLIP-Manual effort required for IP settings, or separate programs running to configure these (such as in a dialer log-in script). This is mostly a problem with servers using dynamic IP allocation.
PPP-IP configuration part of the connection process and is transparent to the user. PPP software will be more complex than SLIP.

Error Detection
SLIP-None. Slip is vulnerable to noisy lines, although error correcting modems will usually cover for this deficiency and the user will not be affected.
PPP-Built in error detection.

Industry Support
SLIP-
PPP-Although Microsoft out of necessity plans to support both clients, only a PPP server is being implemented in Windows NT 3.5 (Daytona).

Protocol handling
SLIP-IP only.
PPP-Multi-protocol handling, including IP and IPX

Speed
In the few actual tests reported comparing Slip and PPP, there was no significant difference either way. A PPP frame does contain additional protocol overhead (some for error correction) which might theoretically result in very slightly slower transmission.

Standards
SLIP-A "de facto" standard only. It is not an Internet standard - i.e. not controlled or reviewed by any standards group. In the early 1980's someone used it, and then other people used it and now today many people use it.
PPP-PPP is an official Internet standard protocol.

One point to keep in mind is that the connection choice of either SLIP or PPP will have no effect on your Winsock applications. Your current Winsock programs will all function normally no matter which method you use.

87.0   WINDOWS95
Information on configuring and using the SLIP/PPP access built in to Windows95 can find the necessary information on Barry Barr's home page:

http://www.mcs.net/~barry/html/wn95slip.html

You want to turn off the graphics display option on your browser first. The page suffers from graphics overkill.

88.0   WINDOWS WWW BROWSER COMPARISON - IMAGES

BROWSER & VERSION	Inline Image Internal Support			Supports Interlaced	Normal Background
	GIF87a Normal	GIF89a Transparency	JPEG	Images (GIF)	Colors (RGB)

Air Mosaic demo					
1.1 Oct/94	yes	yes	no	no	Gray 192,192,192
InternetWorks Lite					
Beta 4 Dec/94	yes	yes	yes	no	White 255,255,255**
Beta 7 Feb/95	yes	yes	yes	no	Gray 192,192,192
NCSA Mosaic32					
2.0a7 Sept/94	yes	no	no	no	Gray 192,192,192
2.0a8 Dec/94	yes	yes	no	no	Gray 192,192,192
2.0b1 Mar/95	yes	yes	yes	no	Gray 192,192,192
Netscape					
1.0 Dec/94	yes	yes	yes	yes	Gray 198,198,198
1.1b1 Mar/95(32bit)	yes	yes	yes	yes	Gray ?
1.2b1 June/95	yes	yes	yes	yes	White**
SlipKnot 1.0					
1.0 Nov/94	yes	no	no	no	Gray 192,192,192
WinWeb					
1.0a2.1.1 Oct/94	yes	no	no	no	Gray 192,192,192

** Background color is default color of Windows desktop - typically white.

ISSUES

95.0   The Unisys / CompuServe / GIF Mess
A story.

In 1987 CompuServe first introduced the GIF format as an efficient means of storing and downloading graphics files from their on-line service. They continued to develop GIF and although they retained control over the standards they allowed universal free use of the format. In subsequent years independent developers were attracted to GIF and wrote many programs to create and display it. It became widely accepted and was used elsewhere such as on the Internet where it is the prime image format for Web pages and browsers.

Unfortunately, a key component of the GIF format was the Lempel-Ziv-Welch (LZW) compression algorithm which CompuServe had used mistakenly thinking that it was in the public domain. In reality Unisys had applied for, and received a patent on it in 1985, which according to Unisys covers both compression and decompression applications. CompuServe had based GIF development on technical information from a magazine article which had failed to mention the patent. During a 6 year interval Unisys claims they were not aware that LZW was a component of the GIF format and CompuServe claims that they did not know that LZW was patented.

It was not until GIF had essentially become a world wide standard that Unisys contacted CompuServe, with negotiations over the patent issue beginning in January 1993. Some time later, in June of 1994 CompuServe settled with Unisys to avoid being sued, and signed a licensing agreement allowing it to continue using the algorithm in the GIF format on their network, paying an undisclosed sum for that right. Since Unisys had a valid patent and was protecting its property which it had a right to do, CompuServe's options in this matter were limited. The Unisys patent had already apparently been challenged once, and upheld by the US Patent and Trademark Office.

In late December 1994 CompuServe announced that effective almost immediately, under terms of its agreement with Unisys, it would in turn begin issuing sub-licenses and collecting royalties from software

developers on the CompuServe network who were using the GIF format in their programs. By promptly obtaining a license from CompuServe developers did not need a further license from Unisys. A subsequent statement issued by Unisys indicated that there would be no attempt to collect back royalties for the years of past use prior to 1995 from any developers since usage had been unintentional (an "all is forgiven" grandfather statement).   This licensing and royalty agreement is only enforceable by CompuServe against developers of GIF programs which are primarily used in connection with the CompuServe network.

Developers of GIF software elsewhere (not tied to CompuServe) are not affected. They can however expect to be approached by other on-line networks they are involved with, or Unisys directly. Unisys has clearly indicated that in enforcing its patent rights against CompuServe and associates that it intends to vigorously enforce its patent rights against other users of the LZW algorithm. The patent is both technically important and financially valuable, and has in fact been licensed out to over 100 other companies to date for other non GIF applications.

Unisys has publicly stated that licensing and royalty fees are not required for non-commercial non-profit GIF applications (e.g. Freeware), whether used for on-line services or not. As well, they have clarified the licensing requirement to include only new products or product enhancements introduced beginning 1995. The licensing/royalty does not apply to end users since such users are paying indirectly when they buy a commercial software package or pay registration fees for Shareware. The developers and sellers of such software will be licensed and will pay the appropriate royalties on each copy sold.

Although the royalties payable to CompuServe/Unisys are not significant (typically 1 - 1.5 %) they are an aggravation for developers, as is the bookkeeping and paperwork required to track sales on which royalties are based. For those not being licensed through CompuServe the alternative is a license directly from Unisys where fees are negotiable - and may be better or worse.

It is likely that the GIF format has no future now and will be replaced with a non-proprietary equivalent on the Internet, although there is no obvious candidate at the moment. CompuServe has already announced its intention to work with graphics developers to develop a "free and open" replacement standard to succeed GIF. The new format would be a 24 bit (16 million colors) lossless standard replacing the 8 bit (256 color) GIF. CompuServe has rejected the use of JPEG as an option because it is a lossy standard and this is unacceptable in a number of applications.

Update: A preliminary spec for a new format called PNG (pronounced "ping", Portable Network Graphics) to replace GIF has been released and is up to at least the 9th draft. A copy is available on the WWW at http://sunsite.unc.edu/boutell/png.html. This new format retains many of the features of GIF, including: simple and portable, transparencies, 100% lossless compression, and progression display. It adds some new capabilities and enhancements such as: up to 48 bit true color, early detection of file corruption and improved (faster) progression display.

96.0   DICS: DOES THE END JUSTIFY THE MEANS?

Today's case study.

One of the more popular mail and news programs in the UK has been DICS (Dialup Internet Connection Services). It is a batch mail and news transporter intended for use with a separate offline reader program. It has many features including MAPI capabilities and a Time client, works well, and has developed an enthusiastic following in that country. DICS officially became Shareware as of October 1994 and has a fairly standard 30 day evaluation period with single user registration starting at UKP 19.95.

In late 1994 allegations were made that the developer of this program had built in a back door to the program unknown to its users and not mentioned in any of the documentation. Specifically it was alleged that the program was sending unauthorized email to the developer of the program, unknown to the users of the program who had installed it on their machines. Furthermore, it was alleged that the developer was also subsequently sending email commands to prompt the program for additional information and that it was responding with more email information back to him. After an initial silence when these allegations were made public in local Demon newsgroups, the program's developer Mark Gibbons publicly responded with the following

information (summarized):

> When DICS is installed for the first time or upgraded to a new version, the first thing it does is to register itself by email with the developer, supplying basic site information only. This information is fed into a database and tracked for two purposes:
>
> 1. The information is useful in providing technical support for users who sometimes neglect to identify or to properly identify the version of the program they have installed and are having problems with. Some problems are very version specific.
>
> 2. Most importantly, the database is used as a means of tracking abuses of the Shareware license under which the program is made available. The database is used to identify particular sites which are repeatedly installing newer versions of DICS but never registering them over a cumulative period of time greater than the 30 day evaluation period. In such cases a message is sent to the DICS program at that site, which, if it is still active, will be prompted to return a status report. This communication takes place between the program on the user's machine and the developer without the user's awareness. This response is confirmation that the site is in fact still using the program and is violating the Shareware agreement. In other words, a software piracy has been confirmed. A letter is now sent to the user at that site clearly identifying that the developer is aware that the program is active at the site and requesting that the program be immediately registered and the Shareware fee forwarded.   The method by which the information has been obtained is not identified in the letter.

A storm has erupted over the issues raised. There are two areas of concern:

> 1. All communication between the program and its developer, including the initial installation notification, is done without the user's knowledge. Nothing of this is mentioned in any program documentation. The information has been withheld. Awareness of these capabilities might have allowed a user to decide not to install the program. The stealth which was used to secretly monitor the program's users has left a bad taste.
>
> 2. The potential for abuse is enormous since there is nothing to prevent such a program from stealing confidential information including passwords from a user's PC and sending this to outsiders. Can such a program be considered a virus? In this particular case there has been no indication that any such thing has happened. There is nothing to indicate that the developer used the program other than has been stated - to protect his rights from software piracy. The issue is more along the lines that allowing such an undocumented "feature" in a program offers an enormous potential opportunity for abuse from someone unscrupulous and in general ought not to be allowed for this reason. A user has been given no knowledge of this back door and no defense against it if improperly used.

The controversy continues in the UK in local newsgroups. The developer steadfastly maintains that his actions were essential to prevent the piracy of the program. His delay in publicly responding to the initial allegations in the first few weeks has somewhat damaged his credibility. On the other hand some of the critical outrage is being offset by admissions from people that they were in fact illegally using the program.

While insisting that his actions are justifiable and that he has done nothing wrong Mark Gibbons has agreed to add the necessary information to the program's documentation so that users will at least be informed of what is happening and will have the up front option now of not installing the program if this is unacceptable to them. This should satisfy some of his critics. He has however no intention of making any other changes.

The back door as it currently exists is very limited in capabilities and cannot apparently be used by hackers seeking entry into a system. There is the issue of whether or not what has been done violates any British laws or regulations, and this has not been clearly resolved yet. The service provider, Demon, which makes this program available on their FTP server intends to continue offering it and will remove it only if it is found to be illegal.

Questions

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1. Could the developers intent not have been equally well accomplished through the normal nonintrusive methods employed in other Shareware programs without opening this can of worms? These methods have typically consisted of time limit or feature crippling to encourage registration. How far can a developer go to protect his property rights?

2. Would you consider what has been done with DICS to be an acceptable and necessary practice to fight piracy? Would you be in favor of it being implemented by other software companies, including commercial software companies?

3. Knowing what you now know about this program, would you be prepared to install DICS on your PC?

End case study.

97.0   FTP SERV-U: ONCE UPON A TIME IN AMERICA

In January 1995 a new program called FTP Serv-U was released by Rob Beckers. An FTP server/daemon it was well written with good security features and an easy to use interface. It was very well received and was generated some very positive reviews on newsgroups within days. Unfortunately, within days it was revealed that FTP Serv-U also suffered from the dreaded DICS disease - the author had built in undocumented communications capabilities into the program for the purpose of copy protection. Specifically (summarized from the author's explanations):

> Whenever started, Serv-U will contact the author's home server and request permission to work. Basic information such as the version number of the program and the requestor's IP number is included with the request. The IP number of the requesting location is automatically logged and subsequent requests checked to see if that location has exceeded the 30 day try out time period. A go or no-go flag is sent back to the requesting location which will either enable or disable the software. Once the software is registered the checks will of course no longer be made. (For backup purposes there is also a hard wired expire date which will terminate the program in October 1995 in the current version. This date will be extended out with new releases.)

The information that the program is sending a message to the author at start up was not documented. When the function was identified and the author questioned about it he was very open and forthcoming. He has apologized to anyone who may have been offended by it and acknowledged that he did not expect such a hostile reaction to this secretive protection method. An interim release, version 1.03 has been quickly distributed to replace the original release. The new version clearly identifies the method by which the 30 day try out period is enforced. As in the case of DICS, other than changing the documentation the author strongly feels that this is a good method of protecting his property from piracy and has no intention of abandoning it.

As in the case of DICS, the same questions and concerns apply. Since the author has demonstrated the ability to code in an expire date to prevent permanent use of the unregistered version it is again hard to understand why it was (and is) so necessary to also resort to such an intrusive method of property protection.

Addendum: In the current version 1.1 the author offers users the choice of two distinct try out options. You can use this fully functional version for 30 days through contact with and activation from his home server essentially as described above. Alternatively, you can use the existing Shareware version as is without any such contact taking place. In this case the program will be limited to a maximum of one hour online at a time, and an overall maximum of 10 file transfers (5 uploads and 5 downloads). These options are clearly explained in the documentation included with the program.

98.0   COPYRIGHT AND THE INTERNET
"......there are no copyright laws pertaining to the Internet......." was part of a statement made recently in a newsgroup discussion. I have seen this same comment posted at various times in various newsgroups by various people whenever the subject comes up. A more correct statement would be "There are no laws EXEMPTING the Internet from copyright laws"**. In the absence of such an exemption copyright law applies to the Internet as elsewhere. Belief that copyright has no validity seems particularly strong on the WWW where

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friction is occurring over pirating of Web page material, both text and graphics. There is a strange belief that anything posted to the WWW automatically becomes public domain material which can be freely reused because the WWW is considered an open public forum of some kind. However.......

A book placed in a public library does not lose its copyright protection.
A song played on the radio does not lose its copyright protection.
A movie shown at a theater does not lose its copyright protection.
A document made available through a World Wide Web page does not lose its copyright protection.

Possession of a library card, a radio, a movie ticket, or an Internet account entitles the holder to **view** the material available. It does not give him any rights of ownership and without ownership the material being viewed cannot normally be copied and further used without the specific permission of the current copyright holder, usually the originator of the material. In order for these rights to be transferred or given up their owner must very specifically do so, typically in writing. Confusion does sometimes arises between copyright, trademark and patent law all of which are quite different in a number of areas.

It is worth noting that individual URL addresses like phone numbers and street addresses can **not** be covered by copyright (they fall into a category of common factual information), *however*, collections or listings of such addresses **are** protected when associated with original effort and creativity.

Copyright law is covered in numerous domestic and international treaties which were passed with the intent of protecting new and original work to encourage its creation for everyone's benefit. These laws, the intent behind them, and the benefits they bring will tend to be more impressive in a court of law than the "wishful thinking" or "ignorance" defenses. Ignorance incidentally is not accepted in the courts as a defense against copyright violation. It may only be used in some circumstances to minimize certain punitive damages.

Some good coverage on copyright law in general as well as specific information on how it applies (or doesn't apply) to Internet areas like the World Wide Web and Usenet news groups can be found at The Copyright Website:

http://www.benedict.com/index.html

And the Internet Copyright FAQ can be found at:

http://www.cis.ohio-state.edu/hypertext/faq/usenet/law/Copyright-FAQ/top.html

** and quite certainly never will be.

File Name: winter15.doc
Release date: August 1, 1995
Errors and Omissions: Every effort is made to ensure completeness and accuracy of the above information. Corrections are appreciated, and will be incorporated into a subsequent update. This file has been uploaded to the prime sites:

ftp://ftp.coast.net   /SimTel/win3/winsock
ftp://ftp.cica.indiana.edu   /pub/pc/win3/winsock

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