Windows SLIP Clients for cpcug.org

By
Larry McGoldrick

The collection of programs on these disks will allow you to set up and use a Windows SLIP connection to an Internet SLIP server or a direct ethernet connection to the Internet. Your computer will be a node on the Internet with its own Internet address (IP address). The programs have all been tested extensively using Microsoft Windows v3.1 and Microsoft Windows for Workgroups v3.11, and they all work. They have been tested with direct ethernet connections and with SLIP connections established at 14,400 bps using Hayes, Intel, and ZyXel modems. They are either freeware or shareware (please register your shareware). Most are the products of Universities and computer science students. Taken as a whole, they allow the same (sometimes better) functionality as commercially available programs, and the price is right. There is extensive support for most of these programs on the Internet, usually by the author, and often in UseNet newsgroups. There are faqs (frequently asked questions) all over the place out there. Once you get connected, you will find it quite easy to find the faqs. On the other hand, the documentation included in these archives is not always great. The setup can be tricky at times, and we will help you with reasonable requests.

Getting started

Before you start setting these clients up, you will need a SLIP account on the Digex SLIP server. You must be a member of CPCUG to get an account on cpcug.org. Millkern takes care of this for us; contact them directly at 301–738–0097. When your account is set up, Digex will send you a sheet containing all the necessary IP addresses, including your own (unique) IP address for your own account. When you get a SLIP account, you will also get a Unix shell account.
The programs and clients are contained on the distribution disks in

SLIP_1.ZIP, which contains

```
CPCUG    BAT        1,727 05-26-94   3:42p
CPCUG    CMD          1,217 05-25-94   4:39p
HGOPH24  ZIP      200,269 02-15-94   1:41p
QVTWS397 ZIP       288,373 04-27-94   7:24p
SLIPDOCS ZIP      104,151 05-26-94   5:06p
TWSK10A  ZIP      121,005 02-21-94   3:25p
WINWHOIS ZIP       20,899 05-07-94  11:19a
WSARCHIE ZIP      158,941 03-28-94  11:11a
WSFNGR11 ZIP       91,785 05-07-94  11:21a
WSHOST   ZIP        4,758 05-05-94   1:16p
WS_FTP   ZIP       68,941 03-28-94  11:17a
WTWSK10A ZIP      167,601 05-13-94   9:03a
16 file(s)       1,236,609 bytes
```

and in SLIP_2.ZIP, which contains

```
EUDORA14 EXE       275,600 05-13-94   9:01a
LVIEW31  ZIP       224,269 05-13-94   8:59a
WINVN096 ZIP       109,319 05-13-94   9:40a
WMOS20A2 ZIP       244,185 03-08-94  11:26p
WPLNY09B ZIP        19,123 02-20-94  11:19a
WS_PING  ZIP        57,134 05-13-94   9:18a
WTALK11  ZIP       142,801 05-13-94   9:19a
10 file(s)       1,072,431 bytes
```

The disks will be made available through the CPCUG Software Library and the CPCUG bulletin board, the MIX.

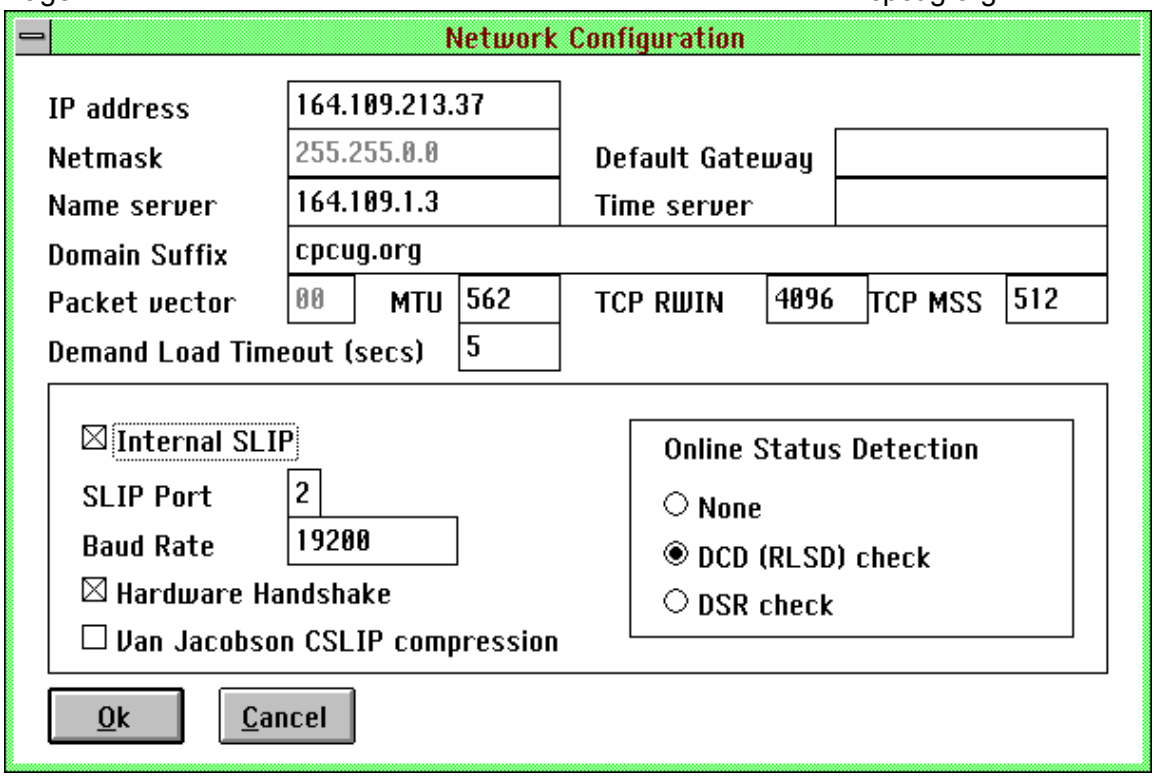
There are two information files on the distribution disks: slipdisk.wri (this document in Windows Write format) and cpcug.cmd, a script file for automatic dialing and connecting to the Digex SLIP server. More about the latter later. There are also two viewers on the disks: lview31.zip and wplny09b.zip. The former is for viewing graphics files, including jpeg-compressed images, and the latter is for listening to sounds, including .wav files and .au files. Useful in their own right, they are especially suitable for linking your client applications to these kinds of files, which you will find sprinkled all over the Internet. But I get ahead of myself. . . .

I recommend that you create a subdirectory named c:\trumpet (or d:\trumpet, if that's where you want the stuff) directly under the root directory, and copy twsk10a.zip into this subdirectory. Then create individual subdirectories under c:\trumpet for each of the remaining zipfiles on these disks. Copy each of the remaining zipfiles into its corresponding subdirectory. Then unzip each of these archives into its directory with PKZip or the unzipper of your choice. I use Winzip 5.0b for all my Windows zipping and unzipping, and recommend it without reservation (shareware, $29, by Nico Mak). Finally, you will need to create a program manager group (call it Internet Apps) to contain all the icons needed to launch your connection and the clients. Do it now.

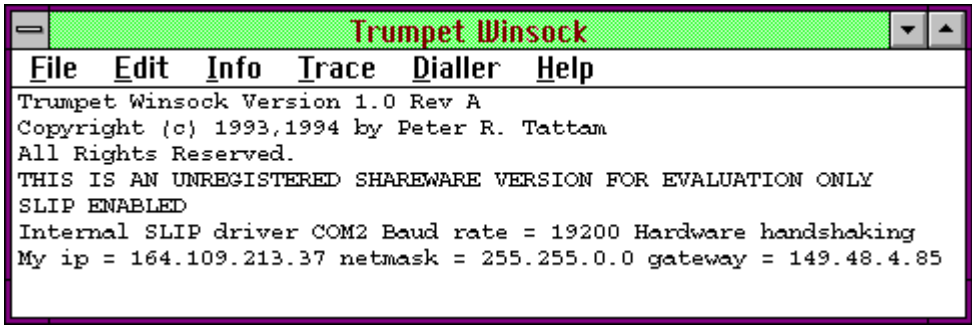
Getting Connected: Trumpet Winsock twsk10a.zip

The Trumpet Winsock (winsock, for short) is the first program you need to set up, and it must be present and active to use any of the other clients. All the files you need should have been expanded into the subdirectory c:\trumpet. If not, do it now. You will need to add c:\trumpet to the path statement in your autoexec.bat in order that the other clients can find the necessary winsock.dll. This dynamic link library contains the TCP/IP (Transmission Control Protocol/Internet Protocol) stack. This stack is the device that makes it possible for your machine, a node on the Internet, to communicate with any other node on the Internet through your computer's serial port (or through an ethernet connection, should you be so lucky). It arranges your transmission into packets of the right size and sends them to the correct host (information contained in a header that the TCP/IP stack puts at the beginning of each packet guarantees this) with error correction built in. This is similar, loosely, to what the xmodem or zmodem file transfer protocols do with DOS file transfers between DOS machines, and is just as transparent to the user. You don't have to worry about it; it just happens. The following steps will help you make it happen, and you have to do this right only once. I set winsock up many times, but I did it right only once. The last time.

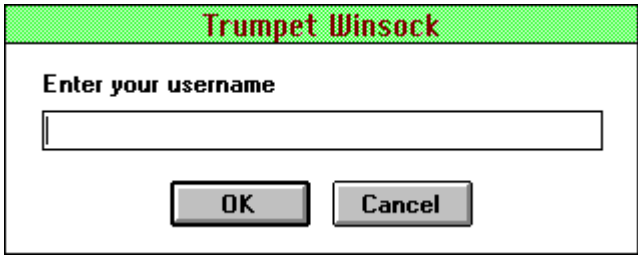
Rename c:\trumpet\login.cmd to login.old, copy cpcug.cmd to the trumpet subdirectory, and rename it as login.cmd. This is a script file that I have set up to work with the Digex SLIP server, and it may require some fine tuning for your hardware. But right now, edit the file with Notepad or the text editor of your choice and change the phone number to the one you use from your dialing area. Drag the file c:\trumpet\tcpman.exe to the Internet program manager group you have already created. Start this program and proceed with its configuration. This is now the time to read the winsock docs (install.txt) from start to finish—don't bypass this step. When you are done reading (print them out), reread the SLIP parts again. Then start the tcpman program. Go to File Setup, and you will get the Network Configuration screen.



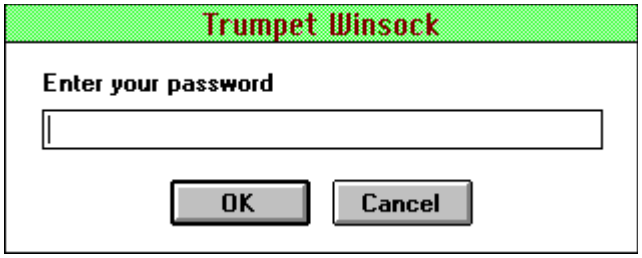
Set up all the fields as they are in the figure except for the first, the IP address (The address here is for CPCUG training. You can't use it.), and the SLIP Port—choose the number of the serial port your modem is connected to. Put your own IP address in here (Digex should have sent this to you). Pay particular attention to the MTU and TCP MSS fields. These control the size of the packets and headers that are transmitted. The choices here work. If you want to muck about with them, you're on your own. Click Ok, and you will be prompted to restart tcpman to make the changes take effect. Do this, and you will get the next screen.



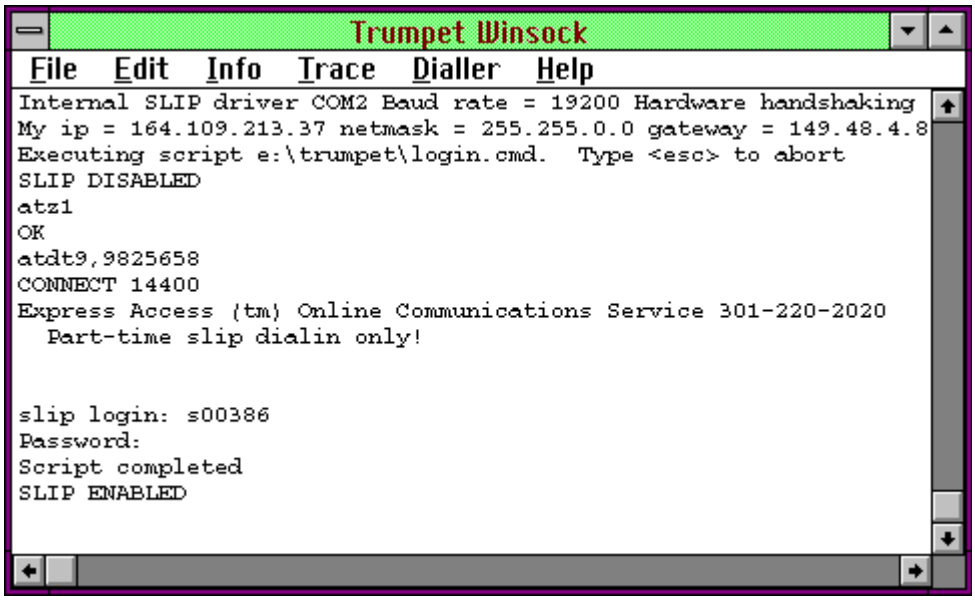
The hard part is over. Click Dialler (sic) and Login, and if all is well, your modem should dial the Digex SLIP server. After making connection, you will be shown a user name dialog box like this:



Do what it says and you will get the next dialog box:



Enter your password, and if all has gone well, you should see the next screen:



Minimize this window (don't close it!) and you are ready to start a SLIP client. I will suggest a simple test later to assure you that the connection has indeed been made. First, however, there is no guarantee that tcpman has been set up correctly and that the sample script that works for me with an Intel 144/144E modem will work for you with your modem. If you don't get the *Script completed SLIP ENABLED* lines like in the above screen, it's back to the docs. Reread them. If you have not established a connection, it is best to establish the connection manually from the Dialler Manual login screen. Type in ATDT<areacode_phonenumber> to connect and follow the prompts with your username and password when asked. The manual login screen is handy for debugging scripts. When you get connected and have entered your login information, you will need to press the escape key to get the *SLIP ENABLED* message. It's all in the docs that I told

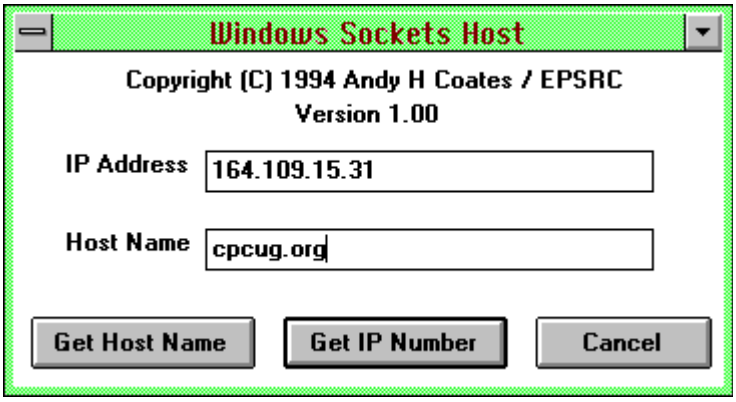
you to read twice.

Potential problems? Several, but the most difficult to overcome—and time-consuming to repair—is a faulty modem-to-modem connection. This is easily diagnosed during the manual login procedure when you are presented with the login: prompt and nothing you do will make the iserid you are trying to enter appear on the screen. Characters seem to go into the black hole of bytes. Try turning off all modem compression. Read your modem manual. (For my Intel modem, the command is AT\N0. Took me two days to figure this out and establish a connection.) Not easy. Modem communication is black magic.

Assuming you have established a SLIP connection, then your local machine is a node on the Internet with the IP address you entered in the winsock configuration screen. All communication between you and an Internet host will come directly to your local computer. That is what the winsock.dll TCP/IP stack is there for—handling the packet transfers for you. Now the only way to communicate with an Internet host is to start one of the many Windows client applications available. The first is the easiest, and I usually use it as a diagnostic.

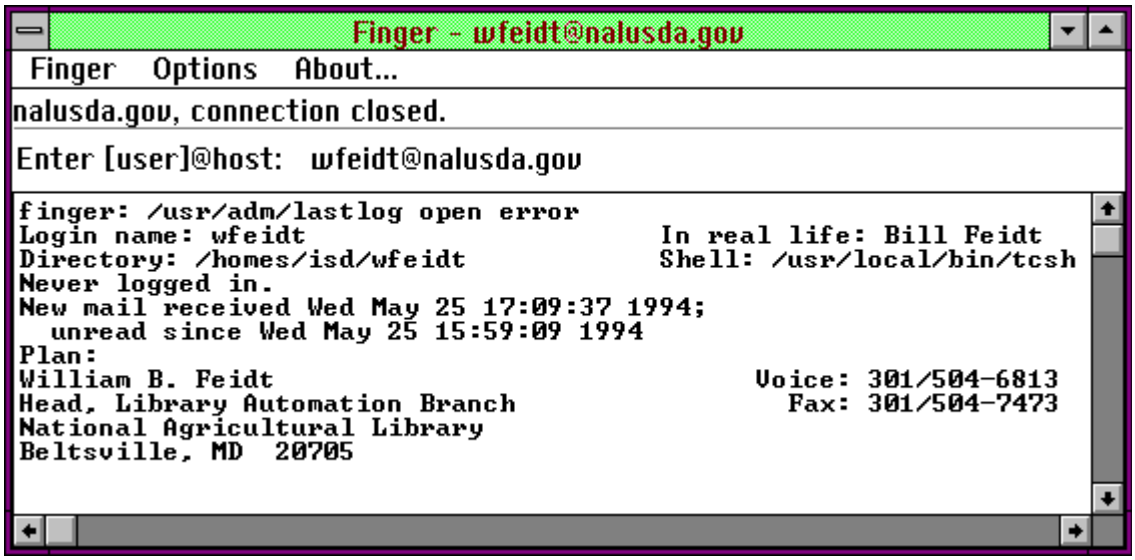
WSHOST wshost.zip

Make a program item icon for wshost by dragging the file wshost.exe from the file manager to the Internet Apps group. Start the applet, enter cpcug.org in the Host Name text box, and click the Get IP Number button (or just press enter). The IP address should appear in the IP Address text box within a few seconds. If it doesn't, either you have not really established a SLIP connection or the domain name server you entered in the winsock configuration screen is wrong. Check them both.



WSFINGER wsfngr11.zip

Finger is an Internet utility that lets you get some information about Internet users. Drag wsfinger.exe (you know where to find it by now) to the Internet Apps group and start it up. If you finger Bill Feidt (enter wfeidt@nalusda.gov), you will get the following screen:



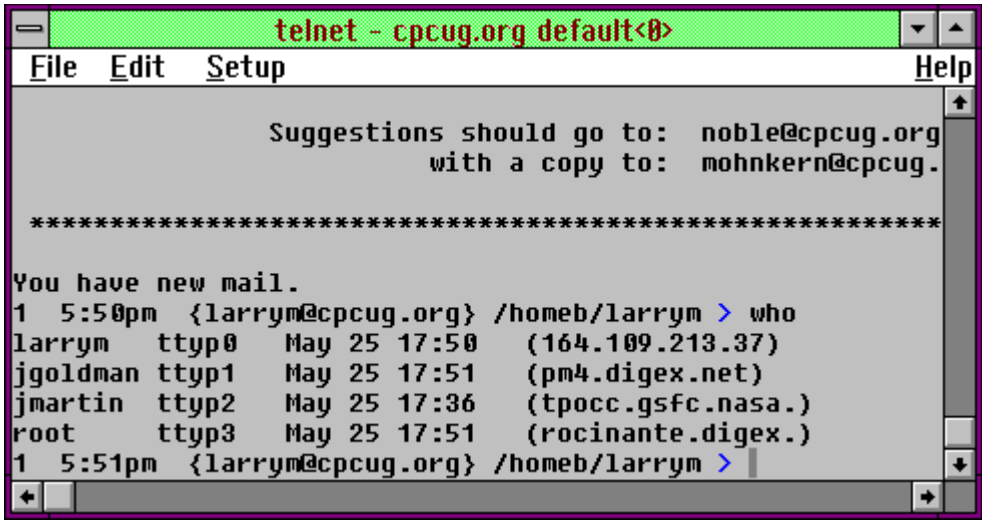
Tells you lots about him, including when he last read his mail. Try fingering me or Rich Schinnell (schinnel@cpcug.org). This application is a good test your ability to communicate with another Internet host, and ensures that you are really set up right.

WINQVT qvtws397.zip

WinQVT is one of the best and most versatile winsock applications I have found. It is a shell for running several applications that are basic to Internet communication. There is a terminal program, an ftp program, a mail reader, a netnews reader, and a remote printer applet which you can ignore. The terminal program is the best shareware Windows terminal emulator I have seen so far. The ftp app stinks, the news reader is just ok (there are better—you got one on the disk), and I've never used the mail reader. There are better mailers out there. Nonetheless, you should set WinQVT up for its terminal emulator. There is also an excellent, secure ftp server application. I will come back to this later.

Create a program manager icon from wnqvtwsk.exe in the usual way. Better read the docs for this one—it's not hard to set up, but you need to modify your autoexec.bat file. Start the program, and you will see a screen similar to this one:

You need to go to Setup to set up the console and the terminal, ftp, mail, and news modules. You should do each of these in turn, using the IP addresses supplied to you by Digex. You can configure the colors and fonts for the modules, too. When done, click the terminal button and telnet to cpcug.org. After you login with your name and password, type *who* at the Unix prompt and you will get a screen similar to this one:



else is on and that I have mail waiting. By the way, you can read your mail and newsgroups from here if you can't get the Windows clients working fast enough to suit yourself. And you can send me help messages from this telnet session, too. Best that you send help messages to support.cpcug.org—there's a bunch of us who can be contacted this way.

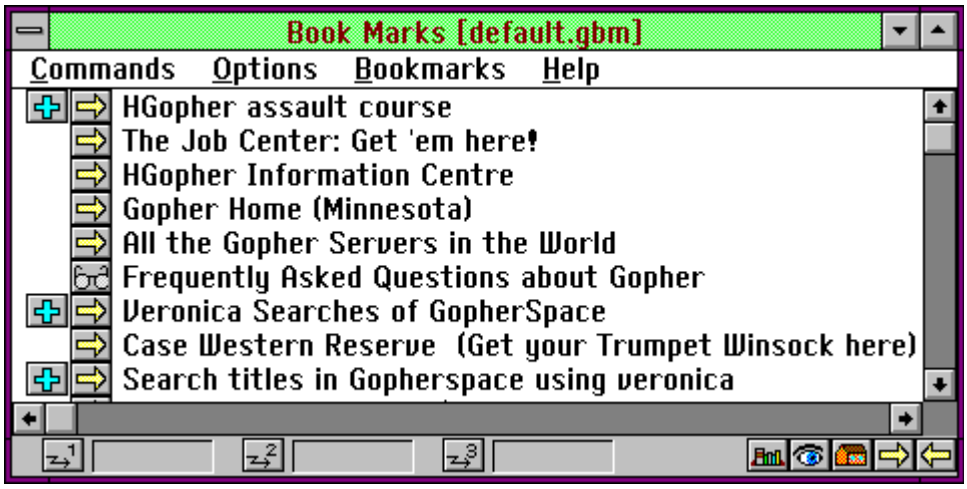
The Rest, Including the Best

What I have given you so far is enough information to get you started. Part of the fun of the Internet is getting everything to work and finding new clients for yourself. There are tons of them out there. Some are insanely great, others are so-so, and some downright suck. I'll let you use your own judgment on the population of the last category. I will finish off here with short

descriptions of some of the great-to-insanely great clients, not all of which are on these disks. Go get 'em—you've got the basic tools here.

Hgopher (Insanely Great) hgoph24.zip

Hgopher is a Windows implementation of gopher, and it is my all-time favorite Internet client. With it, you can click your way around the world grabbing files, images, sounds, and movies along the way. You can do all the things (and more) that you can do with the command-line gopher on the Unix shell connection, but it is easier and prettier. Setup is quite easy. You will need to configure the program for your network setup. Then you will need to configure the viewers so that when you receive an image file, the image pops up in an image viewer automatically. Same thing for sounds and movies. Read the docs. Open the program and start clicking away at anything in sight. Experiment. You can't break anything. A sample screen looks like this:



If you double-click the first entry, you will be taken to another gopher server and will be presented with a screenful of new choices. Among these are directories for images, sounds, movies, telnet hosts, and several others. Double-click the images entry to get to the next directory and then double-click on an image file name. If your image viewer (which you must supply) is linked to Hgopher properly, the image should pop up in your image viewer. From here, you can print it, save it, modify it, or do anything your viewer will allow. Paint Shop Pro is an excellent viewer for images, and Lview is a freeware image viewer included on the distribution disks. Try some sound files, too. From this assault course screen you should be able to configure nearly all the viewers you need.

Trumpet Newsreader (Insanely Great) wtwsk10a.zip

Use the trumpet newsreader for reading newsgroups. Forget the others. Trumpnews was written by Peter Tattam in Tasmania (no kidding!). He also wrote the trumpet winsock you are using to make your connection. The trumpnews reader also has a mail facility built in, but I have not used it (I have a better one). There are thousands of newsgroups out there, and this reader manages them more rationally than any of the others I have seen. Very easy to use and configure. There is even a newsgroup out there for discussions about Peter Tattam's shareware. Finding it is left as an exercise for he student.

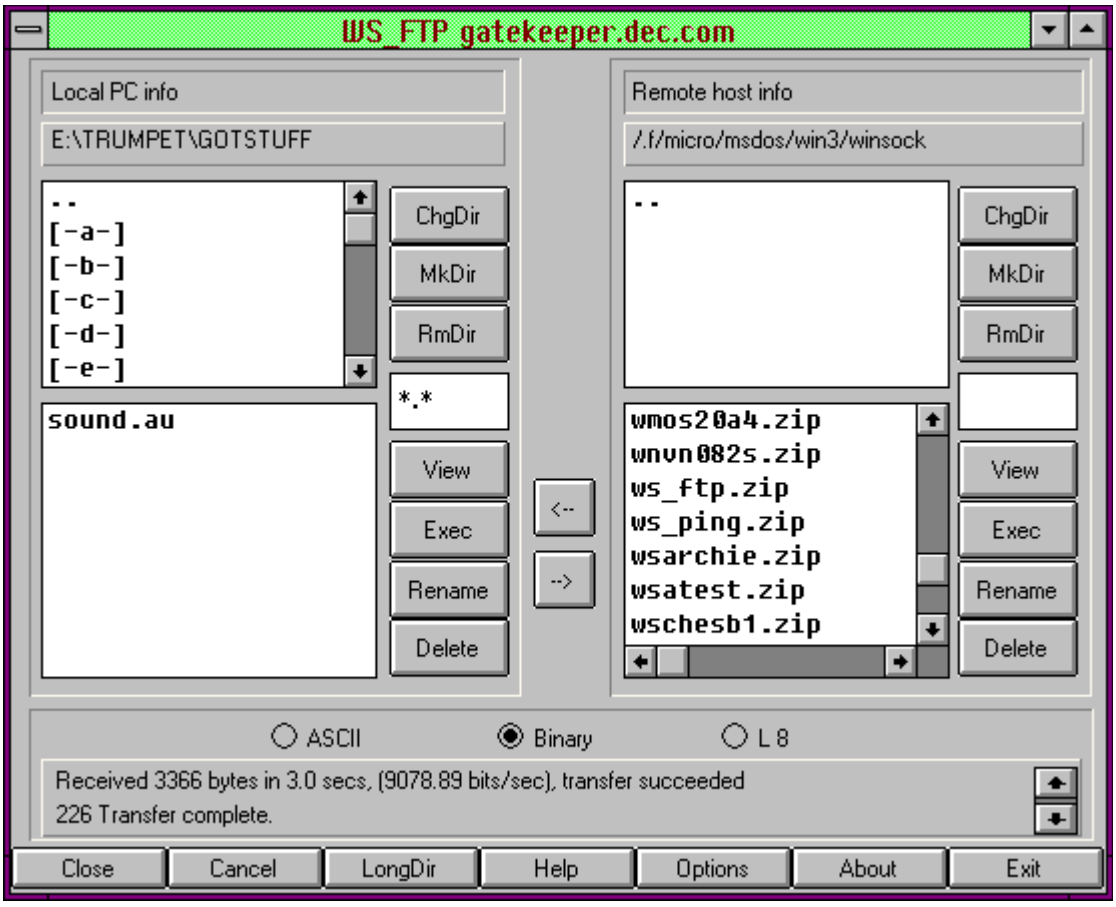
Winsock Archie (Great) wsarchie.zip

Archie is one of those magnificent Internet tools for finding specific files out there. There are many Archie servers out there, and many of them are often busy. Find a lot of them and keep trying. You can archie from gopher menus. Wsarchie is a stand-alone archie client. Try it; you'll like it.

There are several other search tools on the Internet. Veronica and Jughead come to mind, and you will keep running into them all over your gopher screens. I have not found stand-alone Veronica or Jughead Windows clients. Keep looking for me.

Winsock FTP (Great) ws_ftp.zip

If you know where the file you want is, this stand-alone ftp client is faster to use than Hgopher. You can save addresses of frequently visited ftp sites and recall them from a drop-down list. Excellent implementation, and very easy to set up and use. I even use this client to connect directly to the PC on my desk at work, and can transfer files from work to home. I often leave open on my work machine the ftp server application built into WinQVT. Dynamite, and often a life saver.

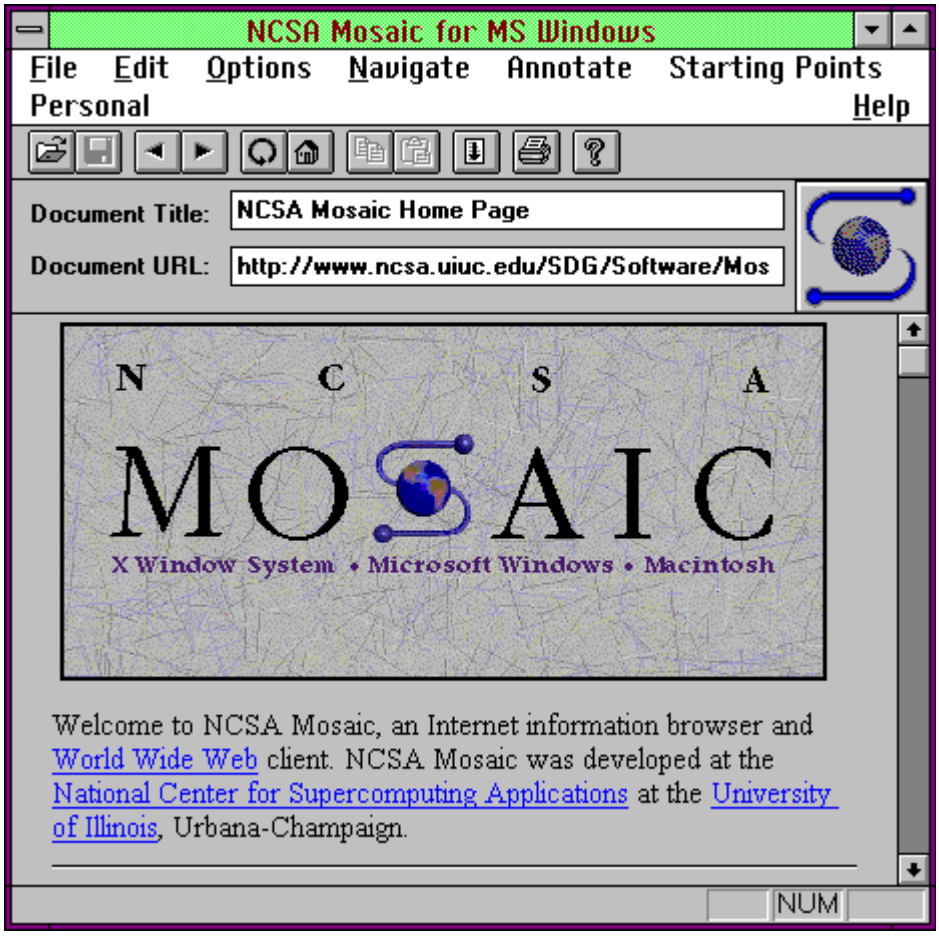


Above is a screen display of an ftp session to gatekeeper.dec.com. The file boxes on the right show the contents of the remote directory .../win3/winsock. This is one of many places (they are mirrored) where you can find winsock clients. To get a file, select it and click the left-arrow

button. The file will be transferred to the local PC directory on the left, \trumpet\gotstuff (make one for all your transfers with any client). Really easy.

Mosaic (Insanely Great) wmos20a2.zip

Mosaic is the client for everyone. This is the premiere World Wide Web browser, and probably one of the best reasons why you should have a SLIP connection. The screen capture shows the NCSA Mosaic home page. Click on any text in blue, and you will be taken to another page, often someplace else. Navigation is a pleasure. This is what Internet surfing is all about. Some pages have icons for sound; others have icons for images. Click on them and you will get the sound or the image. There are movies out there, too. While this is not the fastest application for searching for Internet resources, it is the all-time champion browser. Somewhat slow over a SLIP connection, but downright amazing. Put together by the National Center for Supercomputer Applications and funded in part by the National Science Foundation, this application is continually being improved. Version 2.0a2 is on the distribution disk. The *a* stands for alpha, but don't let that worry you. This version is more stable than the first release of Windows 3.0 (remember _that_?).



Eudora Mailer (Great) eudora14.exe

I told you before that some other applications have built-in mailers, and that they aren't great. Eudora is. I use Eudora for all my cpcug.org Internet mail. Easy to set up and use. Configuration

is relatively simple. One caution: in the setup, enter <your_name>@cpcug.org for the name of the POP3 mail server and enter mail1.digex.net for the name of the SMTP server. If you open Eudora when you first log on to the SLIP server and leave it active as an icon (minimize the application), you will be beeped when you get new mail. The time interval for checking mail is configurable. I set mine to five minutes.

EINET WAIS Client (Great) ewais200.zip

Ewais is a shareware Wide Area Information Server client. If you know what you are doing and where to start, you can find nearly anything that is available in WAIS database servers out there. The program has three starting points, and you will quickly find more. This is a large application, and is not included on the distribution disks. You can archie it, ftp it (try gatekeeper.dec.com), or —if you get desperate—download it from some local bulletin boards, mine included. Ewais sets itself up with a really intelligent setup.exe program. Try it.

Exercise: find out how many home runs Emil Verban hit and when.

Finally. . .

The author. This guide was put together by Larry McGoldrick, the First Vice President of the Capital PC User Group, Inc. He takes sole responsibility for some of the outspoken opinions here, and will not argue with you about any of them. Questions and suggestions should be directed to him at larrym@cpcug.org or at lmcgoldr@mtpe.hq.nasa.gov. Please remember that he is not an Internet expert (few are—it's too big). He is, however, maybe a half-chapter ahead of many of you out there. Please share your tidbits with him. We are all in this to learn. This is more fun than listening to gripes, which tends to make him sullen.

Please forgive him for lapses of grammar and syntax, for he really does know better. In keeping with commonly accepted Internet jargon, he has allowed some nouns to be verbed. But so does Douglas Hofstadter (dughof@indiana.edu), so there. Take that.

Acknowledgments. Many thanks to Stuart J. Winokur for finding some of these clients and helping me set them up. Stu is a member of the cpcug.org Internet support team. He spent many hours at CPCUG headquarters configuring the demonstration computer with me. Stu will be giving SLIP/PPP classes at headquarters, and will show you what can be done with these and other clients. Check the Monitor and the MIX for class dates. You really should come to some of these classes to see how it's done. Pretty whizbang stuff.

And many thanks to Henry Schofield Noble, a past president of CPCUG and current Director of Internet Services. He made cpcug.org happen so that we can all play. Mind-boggling sandbox.

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May 1994
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