This guide reviews the basic principles of Internet exploration for the novice user, describing various functions and utilizing "onscreen" displays. The introduction explains what the Internet is, and provides historical information. The introduction is followed by a listing of Internet hardware and software (freeware and shareware), both lists including information for PC-compatibles and MacIntosh computers. Users are introduced to and instructed in the use of the following Internet systems and services: EWAN telnet; OPACS (Online Public Access Catalogs); CARL (Colorado Alliance of Research Libraries; FirstSearch; UMI (University Microfilm Inc.); Deseret News; Pegasus E-Mail; Listservs; WinVN Newsreader; Viewers; Netscape; Mosaic; Gopher; Archie; and FTP (File Transfer Protocol). Over 100 computer screen reproductions help to illustrate the instruction. Contains 16 references and a form for ordering additional copies of this guide are provided. (MAS)
Windows to the World:

Utah Library Network
Internet Training Manual

Prepared by:
Edward C. Klatt
Carolyn A. Klatt
Jay L. Burton

UTAH STATE LIBRARY DIVISION

This publication is available electronically. If you need extra copies, point your Web Browser to: http://www.state.lib.ut.us/internet.htm
This printed manual is basically screen dumps of the electronic version. Keep this in mind when you see text that says, "Click here...."
Obviously, you won't be able to click and go anywhere. Just turn to that section of the printed manual instead. There are more tutorials in the electronic version than in this printed one. Feel free to print the tutorials. However, we ask that they be printed and distributed in their entirety.
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Introduction
This is a guide that reviews the basic principles of Internet exploration for the novice user. Various functions are described, utilizing "on screen" examples.

At the end of this guide is a listing of Internet hardware. There is also a listing of software which you may find useful to have on your own computer system. These software packages are available as freeware or shareware. Please respect the software developers and register shareware products that you use, including any registration fees.

What is the Internet?

The Internet is an international information superhighway. The term "Internet" has been used to refer generically to both the physical wire connecting the computers and other devices together as well as the many types of information resources that can be accessed via these connections.

This interconnectivity provides for access to many communication and information services. Listed below are the most popular Internet access protocols and services for which a short tutorial is available. It should be pointed out, however, that the services tend to change over time. New ones pop up, old ones tend to go away, and others seem to adapt and improve. This means that Internet users have access to a wide variety of information sources by several means. Thus, Internet connections are at first more difficult to set up, learn, and use, but provide more variety at a lower overall cost than typical menu driven dial up services providing a limited range of resources at a higher cost.

Nobody "owns" the Internet. It is kind of like a circle of friends sharing information. For example, Dixie College makes information available on the Internet. They, in essence, share their information with the global community. They, in turn, can access information from the Goddard Space Flight Center, which also accesses information from the global community. These institutions do not charge for their information.
Here is a list of Internet functions for PC desktop computers. Click on any one of the following functions to view a tutorial guide to that function.

- Netscape for Windows (a web browser)
- Mosaic for Windows (a web browser)
- Pegasus E-mail (electronic mail) Basics
- Pegasus E-mail Attachments and Mailing Lists
- Eudora E-mail (electronic mail)
- Listservs
- EWAN Telnet (access to remote computers)
- FTP (File Transfer Protocol to obtain files from remote computers)
- HGopher (method of searching for information on remote computers)
- WSGopher (method of searching for information on remote computers)
- Archie (method of searching for files to download from remote computers)
- WAIS (searching for information via Wide Area Information Servers)
- Newsgroups (USENet discussion groups on a variety of topics) using the WinVN Newsreader
- Viewing WinVN Binary Files
- Newsgroups (USENet discussion groups on a variety of topics) using the Trumpet Newsreader
- Viewers (programs for viewing images, movies, and animations and listening to sound files)

What does the Internet cost? The Internet is not a commercial service. Even though you are paying for Internet access through a provider, what you are paying for is the use of the provider's telephone lines to connect to the provider's computer hardware and software that links you to other Internet users. This is the same as paying bus fare that allows you access to public transportation or for a car that allows you to drive on public highways.

Who pays for it? There is no central organization for the Internet. Each provider pays for its own part. The NSF (National Science Foundation) pays for NSFNET. NASA (National Aeronautics and Space Administration) pays for the NASA Science Internet. Each university pays for its campus network. The network providers can then get together and decide how to connect themselves and fund the connections. A provider, whether educational, government, or commercial, then pays for their connection to some regional network, which in turn pays a national provider for its access. Telephone companies provide most of the long-distance interconnections. Telephone companies in each country run parts of the system.

Who runs the Internet? The Internet is nothing more than an interconnected group of organizations and persons throughout the world. There is no parent organization and no organizational rules other than the TCP/IP protocol and guidelines for software specifications. There is no censorship. This freedom, which is one of the hallmarks of a democracy, is why the Internet has become so important and why there are so many diverse resources.

While the Internet itself is free, there are many useful commercial fee based services that can be accessed through the Internet. Here are just a few. Click on any one of the following to view a tutorial guide.

- FirstSearch WorldCat
- FirstSearch Databases
- Deseret News
- UMI (University Microfilm Inc.)

There are also a number of free catalogs and indexes. Listed below are a few of these. Click on any one of the following to view a tutorial guide.

- CARL (Colorado Alliance of Research Libraries)
- CARL UnCover
- Libs (Internet Access Software)
Internet Hardware

PC Compatible Computers

Minimum: use of FTP, E-mail, Archie, Newsreader, Wais, Web Browser
- Computer: 66 MHz 486 DX2 or 60 MHz Pentium
- Memory: 8 MB RAM
- Hard Drive: 500 MB
- Monitor: 15" SVGA (600 X 800)
- Graphics Card: 2 MB VRAM
- CD-ROM: quad speed
- Diskette drive: 1.44 MB
- Communications: connection to the internet via either Ethernet Card 10baseT RJ45, AUI, BNC or 14,400 bps Modem
- MS-DOS 6.2 or later
- Windows 3.1 or later
- Price: $2000

Optimal: additional use of Web Browser functions (graphic images and movies) and increased speed of operation, with ability to run several programs at once)
- Computer: 90 MHz Pentium
- Memory: 16 MB RAM
- Hard Drive: 1 GB
- Monitor: 17" SVGA (1024 X 1280)
- Graphics Card: 2 MB VRAM
- CD-ROM: quad speed
- Diskette drive: 1.44 MB
- Communications: connection to the internet via either Ethernet Card 10baseT RJ45, AUI, BNC or 28,800 bps Modem
- MS-DOS 6.2 or later
- Windows 3.1 or later
- Price: $3500

Macintosh Computers

For a standard Macintosh configuration:
- Computer: Macintosh Power Mac 6100/66 or Performa 6115
- Memory: 8 MB of RAM
- Hard Drive: 500 MB
- CD-ROM drive
- Monitor: 15" Apple color monitor
- System 7.5
- Price: $3000

For a Power Macintosh configuration:
- Computer: Macintosh 7100AV
- Memory: 16 MB of RAM
- Hard Drive: 16B
- CD-ROM drive
- Monitor: 17" Apple color monitor
- System 7.5
- Price range: $4000 to $4500
Internet Software

PC Compatible Computers

The following list describes Windows software programs for PC's that can be downloaded via FTP from many sites on the Internet. These programs are useful for performing many of the functions on the Internet. In the following list are given the type of program - name of the program / archive file / availability:

- TCP/IP protocol software - Trumpet Winsock / twsk20b.zip / Shareware*
- File unzipping - PKunzip / pkz204g.exe / Shareware
- WAIS client - EINetWAIS / ewais204.zip / Shareware
- Gopher client - Hgopher / hgopher2.zip / Freeware
- Gopher client - WSgopher / wsg-101.exe / Freeware*
- E-mail client - PC Eudora / eudora144.exe / Freeware*
- Graphics viewer - LVView / lvview31.exe / Freeware
- Telnet client - Wintel / wintelb3.zip / Freeware
- Telnet client - WinQVT / qvtws396.zip / Shareware
- Telnet client - EWAN / ewan105.zip / Freeware*
- Newsreader - WinVN / winvn926.zip / Freeware*
- Newsreader - Trumpet / twsk20b.zip / Shareware
- Binary decoder - Wincode / wncod23.zip / Freeware
- FTP client - WS_FTP / ws_ftp.zip / Freeware*
- Archie client - WSarchie / wsarchie.zip / Freeware*
- WWW browser - Netscape / ns16-100.zip / Freeware*
- WWW browser - Mosaic / mos209.exe / Freeware (also requires w32sole.exe to run)
- Web server - NCSA HTTPD ver 1.4 / whttpd14.zip / Freeware*
- HTML document editor - HoTMetaL / hotmetal.exe / Freeware*
- Sound player - Waveform hold and modify / wham131.exe / Freeware (plays .au, .ai, or .wav files)*
- Movie player - MPEGplay / mpeg.exe / Shareware (for .mpg movie files)*
- Movie Player (for quicktime movies) - Player / qtw11.exe / Freeware (for .mov movie files, also requires Quicktime for Windows)

Macintosh Computers

The following list describes software programs for Apple Macintosh computers that can be downloaded via FTP from many sites on the Internet. These programs are useful for performing many of the functions on the Internet. In the following list are given the type of program - name of the program / archive file / availability:

- TCP/IP protocol software - MAC TCP / MacTCP 2.0.4.hqx / Commercial (note: Apple's System 7.5 contains TCP)
- TCP/IP protocol software - MAC PPP / MacPPP.sea.hqx / Freeware
- File unzipping - Stuffit Expander / stuffit-expander-307.sea.hqx / Freeware
- WAIS client - MacWAIS / mac-wais-1.28.hqx / Shareware
- Gopher client - Turbogopher / TurboGopher 1.0.8.b4.hqx / Freeware
- E-mail client - Eudora / Eudora 1.4.1.sea.hqx / Freeware
- Graphics viewer - JPEGView / JPEGView-3.3.sea.hqx / Freeware
- Telnet client - NCSA Telnet / ncsa-mac-telnet-26.hqx / Freeware
- Newsreader - Nuntius / nuntius-113.hqx / Freeware
- Newsreader - Internews / internews.19.hqx / Freeware
- Binary decoder - !Lite / uulite-14.hqx / Shareware
- FTP client - Fetch / Fetch_2.1.2.sit.hqx / Freeware
- Archie client - Archie / archie-client-09.hqx / Freeware
- WWW browser - Mosaic / ncsa-mac-mosaic 103.hqx / Freeware
• WWW browser - MacWeb / MacWeb.latest.hqx.sea / Freeware
• WWW browser - Netscape / netscape.sea / Freeware
• Web server - MacHTTP / MacHTTP_2.0.sea.hqx / Shareware
• HTML document editor - HTMLedit / HTMLEdit1.1.sit.hqx / Freeware
• HTML document editor - HTML Editor / HTML_Editor_1.0b2.sit.hqx / Shareware
• HTML document editor - S H E / simple-html-editor.hqx / Freeware
• Sound player - SoundMachine / SoundMachine 2.0.2.hqx / Freeware (plays .au, .aiff, or .wav sound files)
• Movie player - Simple Player / Simple_Player.hqx / Freeware (for .moov or .mov movie files; also requires Apple Quicktime 1.6 extension)
• Movie player - Sparkle / sparkle 212.hqx / Freeware (for .mpeg or .mpg movie files)

Those items tagged with a star (*) are the ones distributed in the Utah Library Network client kit and maintained in coordination with the Utah Education Network. They are maintained at ftp://uuserv.cc.utah.edu/software

Last updated: 3/6/95

Click here to return to the Utah State Library Division Home Page

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Telnet

Telnet (terminal emulation over the network) was one of the first services to take advantage of the Internet connectivity. Many years ago, before the widespread distribution of microcomputers, terminals were used by people to communicate with their large mainframes and minicomputers. Telnet is simply a way to offer this same kind of interaction over the network. In today's world of fancy and flashy graphical interfaces this may seem kind of archaic. However, there are still some useful services that can be accessed in this fashion. You can login to remote computers literally around the world.

Here are a few examples of telnet addresses:

- Goddard Space Flight Center (gopher.gsfc.nasa.gov login: gopher)
- University of Utah (telnet.cc.utah.edu login: gopher)
- Maryland State Library -- Sailor (sailor.lib.md.us)

To use the telnet function, you must have a telnet client. Remember, though, that many telnet functions are built into other types of internet client software programs such as Gopher, FTP, and Web browsers. Thus, a pure telnet client is useful when there is a specific remote host that you wish to use and have a specific address and login information that cannot be entered by other means. An example of this is login to a specific database that requires a password, or only accepts logins from certain locations.

A pure telnet client is EWAN (Emulator Without A Name), a freeware program. Trumptel is also available to work in a Winsock environment. There are telnet clients built into some internet software suites of programs such as WinQVT, Wingopher, and Chameleon. These are shareware or commercial products.

To go to a telnet site using the EWAN telnet client, you will need to type in the address of the telnet site to which you want to connect. To do this, click on the New button to the right as shown in Figure 1 below. Also, be sure to click on the small button to the left of Private site list in the bottom left of the window as shown in Figure 1.

Figure 1

A small window will appear as shown in Figure 2. Let's say you want to go to the Maryland State Library...
Sailor. The address is "sailor.lib.md.us". In the "Name" box you can put any name you like. In the example below, we have typed in Sailor. We could have just as easily typed in "Maryland State Library" or "Maryland". In the "Network address or host name" box type in the address, in this case sailor.lib.md.us. Now click on OK.

Figure 2

"Sailor" is now added to your list of telnet sites as shown in Figure 3 below. To connect, just highlight "sailor" and click on OK. Once you are connected you will be asked for a login. Just type in gopher. When asked for a password, just press "enter". Very often when you telnet to a site, you will need to know a login and password.

Figure 3

To delete a site on your list, just highlight the site and click on the Delete button. To edit a site, just
highlight the site and click on the Edit button.

Click here to return to the main menu of the Guide to the Internet

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Internet Library Access

Over a thousand libraries around the world have catalogs that you can access via the Internet. You will see the same screens that their customers see when they come to the library. You can use online catalogs to examine the holdings of other libraries and browse for books by topic for research projects, look for cataloging information, or search for titles. Sometimes use of these databases will be restricted to the library's customers.

The formats of the catalogs and the way you enter and exit the catalogs will vary from library to library. So... if there are special directions for exiting a catalog, write those directions down BEFORE you connect.

Generally, the universal exit for an OPAC is Control 1.

By using Telnet to get to the University of Utah, you can have access to university libraries worldwide.

Here is an example of how to use Telnet to access the University of Minnesota Library catalog.

The telnet address to access the libraries is cc.utah.edu. This is entered into the Telnet client (see the "EWAN" telnet tutorial for directions on how to use this client software). Once you are connected, you will first be asked to type in your "username." You type in libs, then press Enter.

When you are connected, you will see a screen as shown in Figure 1 below.

Figure 1

From this screen, you can see that you would pick option 1, because the University of Minnesota Library is located in the United States. Type 1 and then press Enter and you will see a screen as shown in Figure 2.
From this screen, you can see that Minnesota is number 20 on the list. Thus, you will type in 20 and then press Enter to obtain the screen shown in Figure 3 below in which you will get a list of the libraries available in Minnesota.

Next, to connect to the University of Minnesota Library, simply type 3 and then press Enter. This will give you a screen as shown in Figure 4.
Running NOTIS on an IBM 4381, Lumina has nearly all the current collection online, and plans are in place to put periodicals and circulation information in the system next.

Note the following instructions carefully:

Once you are connected:

Type 0 <return> (terminal type UT100) when prompted for a terminal type.
Press Control-C Q <return> to exit at any time.

Do you want to connect now? (Y or N):

Then type Y and press Enter to connect to the online catalog.

When you want to go back one screen to a previous menu, press CTRL-C.

When you want to disconnect, simply type Q and press Enter.

Click here to return to the main menu of the Guide to the Internet.

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CARL (Colorado Alliance of Research Libraries)

By using Telnet to go to the CARL system, you can also access most of the libraries in the United States that are using the CARL system.

Here is an example of how to use Telnet to access the Denver Public Library through the CARL system.

The telnet address to access the libraries is pac.carl.org. This is entered into the Telnet client (see the "EWAN" telnet tutorial for directions on how to use this client software). Once you are connected, you will type in pac and then press Enter. At the next prompt, you will type in 5 for a VT100 terminal (which should work for almost everyone) and then press Enter.

When you are connected, you will see a screen as shown in Figure 1 below.

Figure 1

![Terminal: CARL](image)

CARL Corporation offers access to the following groups of databases:

1. Library Catalogs  
   (including Government Publications)
2. Current Article Indexes and Access  
   (including UnCover and ERIC)
3. Information Databases  
   (including Encyclopedia)
4. Other Library Systems
5. Library and System News

Enter the NUMBER of your choice, and press the <RETURN> key.

From this screen, type 1 and press Enter for Library Catalogs and you will get a selection of libraries, mostly in Colorado, from which to choose, as shown in Figure 2.
Next, type in 11 and press Enter for the Denver Public Library. This will produce the screen shown in Figure 3 below.

Then, type 1 and press Enter to begin a search in the Denver Public Library Catalog. You will see a screen as shown in Figure 4.
All of the CARL libraries will have screens that look like those shown above.

To return to the list of library catalogs, type s and press Enter.

When you want to look at some of the other catalogs available through CARL, select "Other Library Systems" by typing 4 and pressing Enter. You will then get a screen with two options. Selecting "CARL Corporation Network Libraries - Eastern U.S." will provide you with a selection of libraries in the Eastern United States from which to choose. Selecting "CARL Corporation Network Libraries - Western U.S." will yield a selection of libraries in the Western United States.

Any time you want to get out of the current catalog you are in and return to the main menu for the CARL system, type //exit and press Enter. To exit CARL completely from the main menu, type //exit and press Enter. If you make a mistake typing, you can use the backspace key and retype your selection. Note: on some computer systems, you may need to type a CTRL-H to perform a backspace.

Also be aware that since you are logged onto a remote computer system, the response times may vary considerably and what you type may not always appear immediately on the screen--be patient. Depending upon the Telnet client and the computer system that you are using, the appearance of CARL screens on your computer may vary. Sometimes the words in a menu may appear clipped or truncated, but it is almost always possible to read the screen.

Click here to return to the main menu of the Guide to the Internet

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CARL UnCover

This is part of the CARL network described earlier in the discussion on CARL. UnCover provides access to over 12,000 journals listing over 1 million articles.

The telnet address to access the CARL system is ac.carl.org. This is entered into the Telnet client (see the "EWAN" telnet tutorial for directions on how to use this client software). Once you are connected, you will type in pac and then press Enter. At the next prompt, you will type in 5 for a VT100 terminal (which should work for almost everyone) and then press Enter.

Remember! To get out of the system at any time, type //exit.

To reach UnCover, type 2 (the number for "Current Article Indexes and Access").

Now type 50 (the number for "UnCover--Article Access").

When a screen comes up that says "enter your ACCESS PASSWORD:" just press Enter (no password is necessary at this time).

A screen will appear stating that Access to UnCover is allowed at Open Access Delivery Rates. Just press Enter.

A screen will come up asking if you have an UnCover User Profile number. You don't, so, just press Enter.

A screen will come up asking if you wish to register. Press Enter again.

Now you are finally in UnCover and you'll see a screen that looks like the one shown in Figure 1.
The Article Access and Delivery Solution

UnCover contains records describing journals and their contents. Over 4000 current citations are added daily. UnCover offers you the opportunity to order fax copies of articles from this database.

Type \? for details.

For information about a new service, UnCover Complete, type \?C

Enter \N for NAME search
\W for WORD search
\B to BROWSE by journal title
\Q for QUICKSEARCH information
\S to STOP or SWITCH to another database

Type the letter for the kind of search you want, and end each line you type by pressing <RETURN>.

SELECTED DATABASE: UnCover

To exit UnCover just type \exit and press Enter.

To exit CARL, type the same thing.

You can order articles to be faxed to you by marking them (m) and then following the directions on the screen. You will have to pay the price listed for each article. It will be billed to whatever charge card number you put in. You can also set up an account ($100 minimum). If you have a patron who wants to set up an account, or your institution wants to do so, or if you just have questions about how UnCover Document Delivery works, call 1-800-787-7979, or send an email message to uncover@carl.org.

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This document has been prepared by: Carolyn Klatt (cak@state.lib.ut.us)
FirstSearch WorldCat

This is OCLC's user friendly on-line catalog with over 30 million entries. FirstSearch also has over 40 periodical databases and indexes. It provides easy access to information ranging from general to specific. Searching can be by subject, author, title, keyword and other options.

This is a fee based service and libraries must be assigned an authorization and a password.

FirstSearch has over 40 different databases. This tutorial just explores one, WorldCat.

The telnet address to access FirstSearch is fscat.oclc.org. Once you are connected, you will first be asked to type in your authorization code. Press Enter. After typing this in, you will next be asked to type in your password. Press Enter.

When you are connected, you will see a screen that looks something like Figure 1 below.

Figure 1

```
* * * * * * * * * * * * * * * * * * * * *
| WELCOME TO FIRSTSEARCH |
* * * * * * * * * * * * * * * * * * * * *

Use The FirstSearch service to find books, articles, theses, films, computer software, and other types of material on the subject you need.

The actions you can take are listed on each screen. Just type the ACTION name or first letter.

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NEWS: *New databases have been added to FirstSearch! On the next screen, type H NEWS.

PRESS ENTER TO CONTINUE
```

Press Enter to move to the next screen. The next screen, shown in Figure 2, lists all the topic areas represented by the individual databases, or like groups of databases, in FirstSearch. These are broad areas of interest.
FirstSearch includes 40+ databases. To view them all, type in the number for "List of All Databases" and press Enter.

The screen will display a list of 10 databases at a time. WorldCat is the first item on the list. It is described as "Books and other materials in libraries worldwide." To access WorldCat, type the number for it and press Enter. Now press Enter again. Your FirstSearch screen should look something like Figure 3.
Let's say that you are looking for information about turtles in Florida. At the bottom of the screen where it says "SEARCH WORD(s) (or Action):" you type `su:turtle+ florida`, then press Enter.

When you type `su`, the system will search for the word, or words, in both the titles and the subjects. When you are not sure if a word (or words) you are searching for is plural, you can type a `+` at the end of the word. The system will then search for the word as both singular and plural.

Hint: if you type the word "and" (i.e. turtle+ and florida) you will have to pay for two searches. Without the "and" you just pay for one.

To go forward a screen, type `f` and press Enter.

To go back a screen, type `b` and press Enter.

If you choose the item titled "The effect of beach renourishment on sea..." and press Enter the screen you will see is shown in Figure 4.
To see which libraries own this item, type **lib** and press **Enter**.

Each time that you press **Enter** you will go back one screen. When you are back at the screen shown in Figure 3, you can try doing a "Wordlist" search. You will want to do a "Wordlist" search when you are not sure of the spelling of a word or a term.

At the bottom of the screen where it says "SEARCH WORD(S) (or Action):" type **w** and press **Enter**.

The screen will now say "WORD TO LOOK UP (or Action):" At this point you can type in a word. If you type in the word **endocardial** all of the terms or words close to "endocardial" will appear. The "Count" lets you know how many items there are which use that term. To look at a listing of the items, type the number for the item that you are interested in and press **Enter**.

You can also limit the materials that you are looking for either prior to or during a search. To do this, simply type **l** (for Limit) on any screen that says "SEARCH WORD(S) (or Action):" Press **Enter**. You will now see a screen that looks something like Figure 5.
Figure 5

<table>
<thead>
<tr>
<th>No.</th>
<th>Category</th>
<th>Limit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Years</td>
<td>All</td>
<td>Years in which items were published.</td>
</tr>
<tr>
<td>2</td>
<td>Type</td>
<td>All</td>
<td>Publication type (books, recordings, etc.)</td>
</tr>
<tr>
<td>3</td>
<td>Language</td>
<td>All</td>
<td>Language in which items were published.</td>
</tr>
</tbody>
</table>

HINTS: Change limits . . . . . . . . type category number or name.
To search . . . . . . . . . . . . . . . . . . . . type S or SEARCH
Return to Search screen . . . . . just press Enter.

ACTIONS: Help  Search  Reset

CATEGORY NUMBER (or Action):

When you are finished searching, type bye and press Enter.

Click here to return to the main menu of the Guide to the Internet.

Click here to return to the Utah State Library Division Home Page

This document has been prepared by: Carolyn Klatt (cak@state.lib.ut.us) Jay Burton (jlb@state.lib.ut.us)
FirstSearch Databases

FirstSearch has over 40 periodical databases and indexes. It provides easy access to information ranging from general to specific. Searching can be by subject, author, title, keyword and other options.

This is a fee based service and libraries must be assigned an authorization and a password.

The telnet address to access FirstSearch is fscat.oclc.org. Once you are connected, you will first be asked to type in your authorization code. Press Enter. After typing this in, you will next be asked to type in your password. Press Enter.

When you are connected, you will see a screen that looks something like Figure 1 below.

Figure 1

Use The FirstSearch service to find books, articles, theses, films, computer software, and other types of material on the subject you need.

The actions you can take are listed on each screen. Just type the ACTION name or first letter.

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NEWS: New databases have been added to FirstSearch! On the next screen, type NEWS.

Press Enter to move to the next screen. The next screen, shown in Figure 2, lists all the topic areas represented by the individual databases, or like groups of databases, in FirstSearch. These are broad areas of interest.
FirstSearch includes 40+ databases. To view them all, type in the number for "List of All Databases" and press Enter.

The screen will display a list of 10 databases at a time.

To go forward a screen, type f and press Enter.

To go back a screen, type b and press Enter.

Each time that you press Enter you will go back one screen.

Let's say you want to do a search for a company called Unocal, formerly Union Oil of California. When you are back at the screen shown in Figure 2 above, you can type in the number for "Business and Economics" and press Enter. When the next screen appears, just type in the number for "Disclosure" and press Enter. The screen shown in Figure 3 below will appear.

Figure 3

DISCLOSURE CORPORATE SNAPSHOTS

COVERAGE: Corporate and financial information on more than 11,000 corporations whose shares are traded in the U.S. Updated weekly.

(c) Disclosure Inc., 1995. All rights reserved.

Press Enter again and the screen shown in Figure 4 will appear. This screen lets you search by subject, by company name, or by officers.
At the bottom of the screen where it says "SEARCH WORD(S) (or Action):" type co:unocal and press Enter.

You will now see a list of companies with the word "unocal" in the name. In this case there was only one record found. That record is shown in Figure 5 below.

Figure 5

Just type 1 (for Record No. 1) (If you had found several records, you would have typed the number for the record you wanted) and press Enter.
You now have a display of the full record for this company. This is shown in Figure 6 below. Notice that you are on page 1 of 16. HINTS tells you how to move through the pages.

Figure 6

Disclosure Company No: U907500000
Company: UNOCAL CORP
1201 WEST FIFTH STREET
LOS ANGELES CA 900171461
Cross Reference: WAS UNION OIL CO OF CALIFORNIA
Status: Active
Telephone: 213-977-7600
Location of Incorporation: DE
Exchange: NYS Ticker symbol: UCL

HINTS: Forward one page . type F. Another record . type record number.
Return to Record List . just press Enter.

ACTIONS: Help Search And Limit Print Forward BYE Reset

At this point you can conduct another company search, select another database, or exit FirstSearch. Look at the list of ACTIONS on your screen

When you are finished searching, type bye and press Enter.

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This document has been prepared by: Carolyn Klatt (cak@state.lib.ut.us) Jay Burton (jlb@state.lib.ut.us)
UMI (University Microfilm Inc.)

The UMI Proquest power pages is a commercial on-line database providing searchable access to over 1600 magazines, 400 of which are available for full-text document delivery. The full-text feature allows the user to print the article exactly as it appears in the publication—pictures, graphs and text. The Utah State Library Network uses the Vista Gateway to access the UMI power pages.

This is a fee based service. To use this service you will need an address and a login.

Once you are connected you will see a screen that says, "Welcome to Vista—your access to online databases." Just press Enter.

You will see a screen that looks something like Figure 1 below.

Figure 1

![Terminal-vista]

Terminal-vista

File Edit Session Options Help

131 JAN 95 Utah State Library Network

VISTA

MAIN MENU

Available search options:

1. Periodical Abstracts Library UMI
2. American Heritage Dictionary
3. Logoff

"Enter your selection(s) and press <Return>:"

Commands: S = Shortcut on, BB = Bulletin Board, ? = Help

Type 1 for "Periodical Abstracts Library UMI" and press Enter. You will now see a screen that looks something like Figure 2.
As you can see, you have a variety of ways in which to search. If you type 1 for "1. General Words" and press Enter you will get a screen that looks something like Figure 3 below.

You can now type in the words you are searching for. Let's say you want to find articles about Total Quality Management. At the bottom of the screen where it says "Enter General Words:" just type in Total Quality Management and press Enter. Another screen will appear that shows you how your search is progressing. As this happens, numbers will come and go. Be patient. Eventually you will get a screen that looks something like the one shown in Figure 4.
In the example shown above, 284 titles were found. If you want to see all 284 titles, just press Enter. If you want to narrow the search, simply type in more words where it says "Enter additional General Words:"

If you type in the word government and press Enter you will eventually get a screen that looks something like the one shown in Figure 5 below.

The full text of titles that have an "OA" can be delivered to your FAX machine. You cannot view the full text of an article prior to having the article delivered. However, you can see an abstract of the article. To see an abstract of the first article listed in Figure 5 above, just type 1 where it says "Enter an item number for more detail:" and press Enter. A screen will appear that looks something like Figure 6.
The total quality management (TQM) movement is stronger than ever in government. The probability of TQM's success in your area will be delivered within 20 minutes. See the reference desk to receive your document.

Figure 6

To see the complete abstract, just press Enter. To have the full text of the article delivered to your FAX machine, just type OA where it says "Choose a command:" and press Enter. You will get a screen as shown in Figure 7 below. Just type in your name or your customer's name and press Enter.

Figure 7

When the screen says "Enter range of pages to print (# #) <CR=ALL>:" do not type anything, just press Enter.

A screen with a list of locations to which you can have your FAX delivered will appear. Type in the...
number of your location and press Enter. You will get a message indicating that your article is being sent.

To continue, just press Enter.

To logoff, where it says "Choose a command:" just type SO and press Enter. When the main screen
appears, choose the number for "Logoff" and press Enter.

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This document has been prepared by: Carolyn Klatt (cak@state.lib.ut.us) Jay Burton (jlb@state.lib.ut.us)
Deseret News
Deseret News

The Deseret News newspaper is available for searching online. Access to the Deseret News via Internet is provided by contract to Utah schools, public libraries, colleges, universities and state agencies. Access for others is available through commercial services from the Deseret News.

The telnet address to access the Deseret News is leO1.desnews.com. This is entered into the Telnet Client (see the "EWAN" telnet tutorial for directions on how to use this client software). At the login prompt, you type in dnlbl and press Enter.

Using connectors: You can search using a single word or combinations of words and connectors. These connectors are AND, OR and BUTNOT.

- The AND connector: Find reagan AND iran
- The OR connector: Find iran OR persia
- The BUTNOT connector: Find iran BUTNOT iraq

Search Strategies: There are LOTS of different ways to search in the Deseret News. Here are just a few of the options you might want to try. Type them exactly as shown, observing upper and lower case letters. You can search by dates. You will do this in conjunction with something else, such as a subject. If you don't, the screen will say, "Your search is too general. Please modify." Here are a few options.

- FIND salt lake and date(04/03/94 to 04/30/94)
- FIND salt lake and date(05/07/94)
- FIND salt lake and date(last week)
- FIND salt palace and date(last 3 weeks)
- FIND salt palace and date(last month)
- FIND salt palace and date(last 4 months)
- FIND salt palace and date(last year)
- FIND salt palace and date(last 2 years)

You can search for a column.

- FIND column(dear abby)
- FIND column(helping you)
- FIND column(meanderings)
- FIND column(do-it man)
- FIND column(books n things)
- FIND column(miss manners)
- FIND column(urban legends)
- FIND column(at wit's end)
- FIND column(tv today)

You can search for a section. You will need to do this in conjunction with something else, like a subject. If you don't, the screen will say, "Your search is too general. Please modify."

- FIND gangs and section(today)
- FIND buzz and section(sports)
- FIND salt palace and section(news)
- FIND west valley city and section(metro)
- FIND ezra taft benson and section(church news)

You can search for a byline. This is anybody's name that an article is "by"
General: If you start a search and you want to interrupt it, just hold down the "Alt" key while typing "B".

Remember: This is a constantly updated index of a daily newspaper. The entries are in reverse date order, with the most current listed first.

This is a valuable resource for reference work, especially for local Utah information. Here are some simple directions that will give you some pointers on how to effectively search for articles.

Here's what the abbreviations at the bottom of the screen mean:

- FIND — Type in the words you want to find
- MOD — Modify a database
- S-DB — Switch database
- DB — Database

Single Subject Search with Connector

Once you are connected to Deseret News, you will see this screen:

Let's set everything to search the entire newspaper database.

1. Type: db (for "database") and press Enter.
2. Type: all and press Enter.

O.K. Time to do a search. Let's say you have a patron who wants information about the demolition of the Salt Palace. Type f and press Enter. The word "FIND" will magically appear. Type demolition and palace and press Enter. Logic might dictate that you type "salt," but think a moment... how many times the word "salt" will appear in a newspaper from Salt Lake City? Lots and lots! So, to speed up your search just type "palace" and "demolition." Be patient. Eventually a screen of headlines will appear that will look something like this (articles may be different.)
To see an article, type d and the number of the headline. For example, say there is a headline that has the number 9 in front of it. You would type d9 and press Enter.

Here it is!

Figure 3

Copyright (c) 1994, Deseret News
Sunday, March 20, 1994

TAG: 9403200271
EDITION: Metro
SECTION: News PAGE: Al
LENGTH: Medium: 66 lines

HMO: New job at hand is to fill the void in city's skyline, Bradley says.
HEADLINE: DRUM GOES OUT WITH A BANG AS SNIPPED PILLARS COLLAPSE
BYLINE: By Scott Iwasaki, Staff Writer
TEXT:

The drum went BOOM! and the city skyline changed forever.
When the Salt Palace Acord Arena became a pile of concrete and dust at 6:30 a.m. Saturday, an era came to an end so a new one could begin.
So said Salt Lake County Commission Chairman Jim Bradley. He was there.
"The fall was spectacular," Bradley said. "Now we face the challenge of...

9 of 16, 13 Terms

Type first letter of feature OR type help for list of commands
FIND MOD TRANSFER S-DB DB OPT SS URP QUIT

To see the headline list again, just type h and press Enter.

Let's say that you find an article that you want to print. There are several ways to do so.

To print from windows:

- 1. Select the article you want to print...
Adjacency And Proximity Search

Now a patron wants to know when the first game was played in the Delta Center. They aren't sure of the date. We can search for terms and designate how close to each other they are, increasing our chances for success. To do this:

- Type: f and press Enter.
- Type: delta center /10 first game and press Enter. (The /10 indicates that the term "first game" be searched within 10 words of the first term "delta center." You could have put /5, /3, or any number.

When the search is complete, a screen like this will appear:

Figure 4

<table>
<thead>
<tr>
<th>DOC</th>
<th>DATE</th>
<th>PAGE</th>
<th>LINK</th>
<th>HEADLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10/23/91</td>
<td></td>
<td></td>
<td>JAZZ STUFF THE NUGGETS</td>
</tr>
<tr>
<td>2</td>
<td>03/26/94</td>
<td></td>
<td></td>
<td>LAMBCUCK GOLDEN EAGLES UNSURE WHAT TO EXP.</td>
</tr>
<tr>
<td>3</td>
<td>08/10/93</td>
<td></td>
<td></td>
<td>EAGLES OPEN AT PHOENIX ON OCT. 6</td>
</tr>
<tr>
<td>4</td>
<td>03/13/93</td>
<td></td>
<td></td>
<td>JAZZ FACE 'BUZZSAW' ROCKETS</td>
</tr>
<tr>
<td>5</td>
<td>03/11/93</td>
<td></td>
<td></td>
<td>SHOULD BE WEEK TO REMEMBER FOR WAC AT D.C.</td>
</tr>
<tr>
<td>6</td>
<td>02/13/93</td>
<td></td>
<td></td>
<td>REBORN WILKINS NEXT UP FOR JAZZ</td>
</tr>
<tr>
<td>7</td>
<td>01/19/93</td>
<td></td>
<td></td>
<td>EAGLES HOST PHOENIX ON TUESDAY</td>
</tr>
<tr>
<td>8</td>
<td>01/18/93</td>
<td></td>
<td></td>
<td>UNLIKE WITH JAZZ, JAPAN TRIP DIDN'T BOTH</td>
</tr>
<tr>
<td>9</td>
<td>01/18/93</td>
<td></td>
<td></td>
<td>OPENING NIGHT DUD FOR UTAH</td>
</tr>
<tr>
<td>10</td>
<td>06/05/92</td>
<td></td>
<td></td>
<td>GOLDEN EAGLES OPEN OCT. 9 IN NEW COAST-TO</td>
</tr>
<tr>
<td>11</td>
<td>07/05/92</td>
<td></td>
<td></td>
<td>ADAMS CONCERT MOVED</td>
</tr>
<tr>
<td>12</td>
<td>03/05/92</td>
<td></td>
<td></td>
<td>DELTA CENTER ONE OF HOTTEST HOME COURTS I</td>
</tr>
<tr>
<td>13</td>
<td>11/02/91</td>
<td></td>
<td></td>
<td>EAGLES' MODERATE WINNING STREAK COMES TO EN</td>
</tr>
<tr>
<td>14</td>
<td>10/24/91</td>
<td></td>
<td></td>
<td>EWING. KNICKS TARNISH THE JAZZ'S DELTA DE</td>
</tr>
<tr>
<td>15</td>
<td>10/24/91</td>
<td></td>
<td></td>
<td>JAZZ NEW ERA IS MINUS OLD STALWART GRIFF</td>
</tr>
<tr>
<td>16</td>
<td>10/23/91</td>
<td></td>
<td></td>
<td>NO MASS CELEBRATION PLANNED FOR 1ST JAZZ</td>
</tr>
</tbody>
</table>

The first mention of the Jazz first game is on 10/23/91. You can look at the article on-screen by:

- Typing: d and "the number of the document", (i.e.: d16) and press Enter.

The text of the article will appear on your terminal screen.
The Jazz play their first game ever in the Delta Center tonight at
9:30 when they meet the New York Knicks in an exhibition game. But don't come
expecting a mass celebration. There will be no fireworks, no ribbon-cuttings,
no prize giveaways. The Big Event won't be until the Jazz play their first
16 of 18, 4 Terms

Press Enter to page down as there is more than one screen.

Let's go back to the headlines list. Type: h and press Enter. (H is for "headlines" and will return you to the list of headlines.)

Section and Date Search

You can also search through a specific section of the paper and also for dates. To find what sections can be searched, see the different search strategies listed at the beginning. Taking it one step further. A patron comes in and says, "I know the Governor's house burned around Christmas time in 1993, and there is an article about it. I'd like a copy."

Here's how to find it.

Type f and press Enter.

The word FIND appears.

Type: section(news) and governors mansion and date(after 12/01/93) Press Enter.

The first screen won't have anything, so just press Enter to see the next screen. Which looks similar to this:
There are several articles. Let's look at the article for 12/15/93, "Fire Damages Historic Governor's Mansion."

Type: f and the number of the article, (i.e.: d40 in our example screen) and press Enter.

You'll see something like this. The little stars let you know when the words you are searching for appear.

Now someone wants an article they know appeared in the Today section in 1991 about the folk singer Greg Brown.

To switch to a specific year, you choose "DB" from the list of commands:

- Type: db and press Enter.
- Type: modify and press Enter.
- Type: dn9 and press Enter (The dn will automatically appear, you need only add the 91)

Now find the article by:

- Type: f for FIND and press Enter
- Type: section(today) and greg brown and press Enter.
You'll see something like this.

Figure 8

<table>
<thead>
<tr>
<th>DOC</th>
<th>DATE</th>
<th>FRQ LINES</th>
<th>DB</th>
<th>PAGE HEADLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>01/10/94</td>
<td>3</td>
<td>dn</td>
<td>COS</td>
</tr>
<tr>
<td>2</td>
<td>12/09/91</td>
<td>9</td>
<td>dn</td>
<td>GREG BROWN DELIVERS FOLK WITH SOUL</td>
</tr>
<tr>
<td>3</td>
<td>05/28/90</td>
<td>3</td>
<td>dn</td>
<td>SATCHMO TRIBUTE TO OPEN JAZZ FESTIVAL</td>
</tr>
</tbody>
</table>

- Type: d and the number of the document, i.e.: d1 and press Enter.

And you'll see...

Figure 9

GREG BROWN DELIVERS FOLK WITH SOUL 12/09/91

Deseret News
Copyright (c) 1991, Deseret News
Monday, December 9, 1991

TAG: 9112090044
EDITION: Metro
SECTION: Today PAGE: C7
LENGTH: Medium: 55 lines
TYPE: CONCERT REVIEW

NOTE: GREG BROWN, with James Scott; in concert in the Fine Arts Auditorium University of Utah; Saturday, Dec. 7; one show only.

HEADLINE: GREG BROWN DELIVERS FOLK WITH SOUL
SYLLABLE: By Jerry Spangler, Staff Writer
TEXT:

Picture yourself chest-deep on the Provo River, fly rod in hand and a No. 9 elk hair caddis whatchamajigger cresting the ripples next to the deadfall on the opposite bank. Then picture some pompous trout talking to each other.

Now your patron says, "Was there anything about him in 1990?" Here's what you do...

- Type: s-db (for "switch database") and press Enter.
- Type: dn90, (for "Deseret News") and press Enter.

Look! There is an article, here it is...

Figure 10

Switch search to which databases?
YOU'VE SELECTED: S-DB dn90

<table>
<thead>
<tr>
<th>DOC</th>
<th>DATE</th>
<th>FRQ LINES</th>
<th>DB</th>
<th>PAGE HEADLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>05/28/90</td>
<td>3</td>
<td>dn90</td>
<td>SATCHMO TRIBUTE TO OPEN JAZZ FESTIVAL</td>
</tr>
</tbody>
</table>

Note that S-DB switches the database but keeps the search.
O.K. Now we want to reset everything so that we can search all the years again.

- Type: db (for "database") and press Enter.
- Type: all and press Enter.

Searching By Columns

Another request comes your way for the column "In Your Garden." You can search for specific columns by...

- Type: f and press Enter.
- Type: column(in your garden) and press Enter.

You'll see the usual screen listing headlines.

Figure 11

<table>
<thead>
<tr>
<th>DB</th>
<th>DOC</th>
<th>DATE</th>
<th>FREQ</th>
<th>LINES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>01/25/95</td>
<td>2</td>
<td>88</td>
<td>dn</td>
</tr>
<tr>
<td>2</td>
<td>01/18/95</td>
<td>2</td>
<td>75</td>
<td>dn</td>
</tr>
<tr>
<td>3</td>
<td>01/12/95</td>
<td>2</td>
<td>92</td>
<td>dn</td>
</tr>
<tr>
<td>4</td>
<td>01/04/95</td>
<td>2</td>
<td>83</td>
<td>dn</td>
</tr>
<tr>
<td>5</td>
<td>12/28/94</td>
<td>2</td>
<td>83</td>
<td>dn</td>
</tr>
<tr>
<td>6</td>
<td>12/21/94</td>
<td>2</td>
<td>96</td>
<td>dn</td>
</tr>
<tr>
<td>7</td>
<td>12/21/94</td>
<td>2</td>
<td>86</td>
<td>dn</td>
</tr>
<tr>
<td>8</td>
<td>11/30/95</td>
<td>2</td>
<td>84</td>
<td>dn</td>
</tr>
<tr>
<td>9</td>
<td>11/23/94</td>
<td>2</td>
<td>83</td>
<td>dn</td>
</tr>
<tr>
<td>10</td>
<td>11/16/94</td>
<td>2</td>
<td>84</td>
<td>dn</td>
</tr>
</tbody>
</table>

Searching By Columns And Dates

You can choose whichever date you'd like. If your patron wants a specific date, say "In Your Garden" on May 4, 1994, just...

- Type: f and press Enter.
- Type: column(in your garden) and date(05/04/94) and press Enter.

This will appear on your screen.

Figure 12

<table>
<thead>
<tr>
<th>DOC</th>
<th>DATE</th>
<th>FREQ</th>
<th>LINES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>05/04/94</td>
<td>2</td>
<td>106</td>
</tr>
</tbody>
</table>

If a specific topic is desired you can combine search terms.

- Type: f and press Enter.
- Type: column (miss manners) and soup and press Enter.
You'll find:

Figure 13

FIND column(miss manners) and soup

<table>
<thead>
<tr>
<th>DOC</th>
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<th>FREQ</th>
<th>LINES</th>
<th>DB</th>
<th>PAGE</th>
<th>HEADLINE</th>
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<tbody>
<tr>
<td>1</td>
<td>08/05/94</td>
<td>3</td>
<td>92</td>
<td>dn</td>
<td>C06</td>
<td>EXTRA THANKS TO WAITER SHOULDN'T BE DISCOURAGED</td>
</tr>
<tr>
<td>2</td>
<td>05/20/94</td>
<td>10</td>
<td>87</td>
<td>dn</td>
<td>C06</td>
<td>SIP SOUP FROM SIDE OF THE SPOON - AND STOP SCREAMING</td>
</tr>
<tr>
<td>3</td>
<td>12/17/93</td>
<td>3</td>
<td>89</td>
<td>dn</td>
<td>C06</td>
<td>FRIENDLY, INQUISTIVE SALESPEOPLE JUST DON'T TALK TOO MUCH</td>
</tr>
<tr>
<td>4</td>
<td>06/25/93</td>
<td>3</td>
<td>111</td>
<td>dn</td>
<td>C02</td>
<td>STROLL CAN BE UPLIFTING</td>
</tr>
<tr>
<td>5</td>
<td>08/17/92</td>
<td>4</td>
<td>92</td>
<td>dn</td>
<td>C05</td>
<td>TO BE SHOCKING AT THE TABLE CAN BE A DELIGHT</td>
</tr>
<tr>
<td>6</td>
<td>11/29/90</td>
<td>6</td>
<td>65</td>
<td>dn</td>
<td>C08</td>
<td>PEOPLE WHO WORK WITH THE PUBLIC HAVE OBLIGATIONS</td>
</tr>
<tr>
<td>7</td>
<td>09/19/89</td>
<td>4</td>
<td>104</td>
<td>dn</td>
<td>C08</td>
<td>EATING RIGHT WITH THE RIGHT UtENSILS</td>
</tr>
<tr>
<td>8</td>
<td>09/07/89</td>
<td>3</td>
<td>92</td>
<td>dn</td>
<td>C08</td>
<td>FAINT PRAISE CONVEYED AT RESTAURANT WAS INNOVATIVE</td>
</tr>
</tbody>
</table>

- Type: d and the number of the document, i.e.: d1 and press Enter.

Here is your article.

Figure 14

Dear Miss Manners: Where do you place your mouth and lips in relation to a soupspoon? Do you sip from the side or the tip of the spoon? A friend and I have a difference of opinion. I say you sip soup from the side, but if it's a thick type of soup with lots of items in it (such as

Search By Byline

If a person inquires about an article by a specific byline, here is what you do.

- Type: f and press Enter.
- Type: byline(brad rock) and press Enter.

Here's what you get. The articles written by Brad Rock.
Pick an article...any article..

Search by Date And Byline.

You can combine bylines and dates, as in....

- Type: f and press Enter.
- Type: byline(brent israelsen) and date(before 06/06/93) and press Enter.

You'll see:

Search by Byline And Subject

Try byline and subject...

- Type: f and press Enter.
- Type: byline(larry sagers) and tomato* and press Enter.

The * truncates the word tomato. This will search for tomato, tomatoe, tomatos, tomatoes, etc. You get the idea.

Again, you'll pull up a listing of headlines.
Date Search

Finally, you can search for everything that happened on a certain date.

Let's say a grandfather comes into the library and is putting together a little album for his granddaughter's 1st birthday. He wants to know everything that happened on the day she was born - July 28, 1993. So...

- Type: f and press Enter.
- Type: date(07/28/93) and press Enter.

Here's what you get.

Click here to return to the main menu of the Guide to the Internet.

Click here to return to the Utah State Library Division Home Page.

>This document has been prepared by : Jay L. Burton (jlb@state.lib.ut.us)
Pegasus E-Mail
Pegasus E-mail

E-mail, or electronic mail, is a useful means for communication that can replace routine telephone calls, fax messages, and letters and packages through ordinary postal services. E-mail provides a convenient direct access to many individuals and institutions and send letters over the Internet. It can be used to communicate with other people or to request information from computers automated to respond to such requests. It allows practically instantaneous communication with any other Internet user...anywhere in the world.

E-mail through the Internet works because each user has a specific address. Each person on the Internet has his or her own unique address. The addresses give an indication of the type of connection or institution by means of the last three characters following the last period in the address. For example:

- .com commercial or business connections; also individual users who have a connection via a commercial Internet provider.
- .edu educational institutions such as universities and schools.
- .gov branches of government.
- .mil military service branches and bases.

Also, for international communications, there is a final two character code for each country:

- .us United States (not used that often)
- .ca Canada
- .de Germany (Deutschland)
- .uk United Kingdom (Great Britain)
- .au Australia
- .se Sweden
- .nl Netherlands
- .ch Switzerland (Cantons of Helvetia)
- .jp Japan

A typical Internet address appears as follows: name@computer.institution.edu.au

In this example, the name of the individual user (whether a person, a business, or an institution) comes first, followed by @. After the @ comes a variable number of characters and dots which indicate a particular computer server at a particular institution and the type of institution and the country. However, computer server names are not necessarily recognizable as company or organization names, they just have to be unique. The computer server acts as a post office repository. Thus several examples of addresses could include:

- cak@state.lib.ut.us
- eklatt@msscc.med.utah.edu
- gopher@gsfc.nasa.gov

Pegasus mail is one e-mail client available for use with PC compatible computers with Windows. It is designed mainly for use with networks, but it will also work on a standalone computer.

Getting Started

Pegasus has help screens built in to guide you in its use. If you press the "F1" key, you will get a help screen telling you about the functions of the window that you currently have displayed. An example of the initial Pegasus help screen (with no other windows open) is shown in Figure 1.
When the button panel is active as a toolbar, the buttons have the following functions:

- Compose a new message
- Read new mail
- Open/manage mail folders
- Open/manage address books
- Open/manage distribution lists
- Open the local user list
- New mail filtering rules
- Cut selection to the clipboard
- Copy selection to clipboard
- Paste the contents of the clipboard
- Save or write to disk
- Retrieve or import from disk
- Print
- Select font

When the button panel is active as a floating window, the buttons have the following functions:

- allows you to start a new mail message
- allows you to browse your new mail folder
- allows you to browse other mail folders
- allows you to manage your address books
- allows you to manage your distribution lists

You must be assigned an initial password to use with the program. This password will be set up on the computer server to which you will connect by the company or the institution with which you have your Internet connection. Then, after installing Pegasus under Windows, it must be configured with the information about your own Internet connection and address. In order to do this, click File from the top menubar and then click Network Configuration as shown in Figure 2. If you click on File and Network Configuration does not appear, try this. Click on File, then on Preferences, and then on Advanced Settings. A window will appear. Make sure that where it says "If WINSOCK.DLL is available, load it--" that Always has been selected. Once it is selected, click on OK. Close out of Pegasus e-mail. Reopen Pegasus e-mail. Now click on File. Now Network Configuration should appear.
You can then type in your host, username, and password as shown.

Next, you need to set additional configuration parameters. For this, click on File at the top menubar and then on Preferences and then on General settings in order to get the window shown in Figure 3. If you want to see your new mail each time you start Pegasus, then you can click on the Open new mail folder at startup in your preferences. Other preferences can be set as shown by clicking on the boxes.
Once you have configured Pegasus, each time it is opened, you will get the opening window as shown in Figure 4.
Sending Messages

In order to send a message, you click on File at the top menubar and then New message or you can click on the small box with the pen and paper icon just below File at the far left as shown in Figure 5.
To send the message, fill out the information in the lines shown in Figure 5 above. The essential item that must be filled out is the To:. You can type in a subject to the right of Subj: if you like. The actual e-mail message is typed in the box below. You can copy what you have already written from other documents into the Windows clipboard and then paste it into this area if you like. When you are finished typing in your message or after you have attached your file, then click on Send.

If the person to whom you are sending the message also uses Pegasus, then you can click the Confirmation of reading box, and a message will be sent back to you when your message is read. This and other options may or may not work depending upon what your own system administrator or your recipient has configured.

Click here to view a tutorial on attaching additional documents, including text files and images, to e-mail messages with Pegasus.

**Receiving and Viewing Messages**

In order to check on messages sent to you, you can either configure Pegasus to read your new mail at startup, or you can click on File at the top menubar and then on Check host for new mail in the submenu, or you can click on the small envelope icon just below the top menubar.

Any new mail files received will be displayed in the New mail folder (see Figure 6). Just click on a message to highlight it and then click on Open or just double click on a message item. You will then see your message displayed in a window.
To view mail that you have already read but not deleted, click on the yellow folder icon just below the top menubar. This will bring up a new window as shown in Figure 7 below. To see your messages, you can double click on Main folder or click to highlight the item and then click on the Open button.

You may also Reply to a message that you have received. This is useful because you do not have to remember to type in the Internet address because it will automatically be present in your reply message. While viewing the message that you have received, as shown in Figure 8, simply click on the Reply button at the top of the window.
This is an e-mail message using the Pegasus client for a PC compatible computer running Windows.

After clicking on Reply you will get another small window named Reply options with yet more options as shown in Figure 9 below. If you wish to reply with the contents of the original message included, click the last two boxes as shown.

Once you click on OK in this Reply options window, then another window appears called Reply 1 and you can then add your reply as shown in Figure 10 and then click on the Send button.
You may also Forward a message that you have received. Just click on the Forward button while in your message window and a new window will appear as shown in Figure 11 below. Simply type in the address of the person to whom you wish this message to be forwarded and then click on OK.

Figure 11
Pegasus E-mail
Attaching Text Files

The regular message window for sending e-mail is shown below in Figure 1.

Figure 1

To attach a document to an e-mail message, click on the Attach button on the left hand side of the Message window at shown in Figure 1 above. Another window will appear as shown in Figure 2. If you are sending a text file, select a directory in the box at the lower left by double clicking it, and then on the file you want to send in the lower middle box. You can select the file by double clicking it or just clicking to highlight it and then clicking on the Add button at the upper right. Selected files appear in the large box called Current attachments: You can remove any selections by clicking to highlight the selection and then on the Remove button.

For File Type, choose text and just leave the Encoding as Mailer decides. A small box called Filename: will have the currently highlighted file you are sending.
Now you can click on the Send button. Another window shown in Figure 3 will appear that displays the status of the message being sent.

Attaching Binary Files (Images)

E-mail messages can also be sent in which you attach files that are not simply text. Such files are known as Binary files. Examples of these include images (pictures) of a variety of file types (.jpg, .gif, .tga, .pcx, .bmp). You can also send spreadsheet and database files too.

You follow the same procedure as given above in Figures 1 and 2. To attach an image to a message, follow the example as shown in Figure 4. Leave the File type as Unknown and Encoding as Mailer decides. Now click on the Special button at the left.
When you click on the Special button, another window will appear as shown in Figure 5. All you need to do here is click to check the Use MIME encoding for Internet and local mail. Then click on the Send button. Note: once you have clicked on the box for MIME encoding, Pegasus will remember to do this each time until you change it, so you don't need to click on the Special button each time.
WARNING! Pegasus mail is primarily designed to work over a network. Its use on a desktop computer may be unpredictable. When messages with file attachments are sent, you may receive one or more error messages. Just click on OK in each one and your message will be unaffected.

Receiving Attachments

When you receive mail that has an attachment, as shown in Figure 6, double click on the message.
You will then get another window as shown in Figure 7. Double click on the line that has the image file. In the example shown, Binary data file "CLAU.GIF" type Unknown has been received, and is then double clicked.

Another window will appear. Now click on the Save button. You will get another window asking where you want to save the file.
Mailing Lists

If you frequently send the same messages to many people, you can create a mailing list. This way, you just have to type your message once and it is sent to all the persons on your mailing list.

To create a mailing list, click on Addresses at the top menubar in the initial window, and then click on Mailing lists in the submenu. You will get a window as shown in Figure 8 at the lower right. Click on New at the right. A second window at shown below at the upper left will appear. You can type in a descriptive name for your mailing list in the box Long name for item. You do not need to fill in the smaller box. Then click on OK.

Figure 8

The original mailing list window will now appear with your new mailing list. Simply click on this item to highlight it and then click on the Edit button at the right. A window will appear as shown in Figure 9. You must put your own e-mail address in the Reply to: box. Then in the large box at the bottom of the window you can type in the e-mail addresses of the persons on your mailing list. When you are finished, click on the Save button at the right.
An example of a message sent to a mailing list is shown in Figure 10. To do this, click on the pen and paper icon at the far left of the main Pegasus window. A message window as shown below will appear. Make sure your cursor is in the To: box at the top of the message window. Now click on Addresses at the top menu bar of the Pegasus window and then click on Mailing lists in the submenu. You will get the window with your mailing lists. Highlight the list you want and then click on the Select button. This window will disappear and your message window will reappear with the To: box filled in with a cryptic file name (assigned by Pegasus). Then just fill in the subject box if you want and type in your message in the large box at the bottom. You can attach other files as well. When you are finished, click on the Send button and your message will go to everyone on your mailing list.
This is a message to CLAU members.
Listservs
Listservs

Listservs are programs that act as message switches for e-mail on specific subjects. When you subscribe, you are added to a mailing list on a topic of interest to you. You'll receive all of the messages sent to the list. You can reply to a message if you want, ask a question of your own, or start a discussion. All of the subscribers to the list (sometimes hundreds of people!) will see your message. They then have the opportunity to respond to your message. Once you have subscribed, you will receive a message from the Listserv. It will tell you how to send messages, unsubscribe, etc. Save this information for future reference.

If you want to look for listservs that might be of interest to you, there is a Listserv Home Page. Point your web browser to http://www.clark.net/pub/listserv/listserv.html

Here are just a few of the many listservs of interest to public librarians.

**PUBLIB** is a discussion list concerned with all aspects of public libraries. Issues examined include Internet connectivity, administration, resources of interest to public librarians (online, print, video, other), intellectual freedom concerns, new technologies for public librarians, and more.

- To subscribe to PUBLIB send a message to LISTSERV@nysernet.org
- Leave the subject line blank.
- In the body of the message say: subscribe PUBLIB "your full name here"

- For example:
- To: LISTSERV@nysernet.org
- Subject:
- Message: subscribe PUBLIB John Doe

**STUMPERS-L** is a discussion group for requesting assistance with tough reference questions; questions which have you "stumped." To subscribe to STUMPERS-L send a message to the listserver that looks like this:

- To: listserv@crf.cuis.edu
- Subject:
- Message: SUBSCRIBE STUMPERS-L Jimmy Jones

**LIBREF-L** is a discussion of the changing environment of library reference services and activities. Topics include traditional reference services, patron expectations, and staff training as well as the impact of CD-ROM and online searching on reference service. To subscribe send a message in this format:

- To: LISTSERV@kentvm.kent.edu
- Subject:
- Message: SUB LIBREF-L yourfirstname yourlastname

**COLLDV-L** stands for Library Collection Development LISTSERV. Topics vary widely but include access/ownership issues and information on collection assessment, planning, policy, and management. To subscribe to COLLDV-L your message to the listserver should look like this:

- To: LISTSERV@VM.USC.EDU
- Subject:
- Message: SUBSCRIBE COLLDV-L yourfirstname yourlastname

**PUBYAC** is a discussion group that focuses on Library Services to Children and Young Adults in Public Libraries. To subscribe to PUBYAC, send a message that looks like this:
To: LISTSERV@nysernet.org
Subject:
Message: subscribe PUBYAC yourfirstname yourlastname

Here are some hints for using listservs.

- Check your mail frequently (daily, every other day). Messages can easily add up to an unbelievable number. If you are going away for a few days, you can unsubscribe or set to "No Mail." Check the directions you will receive when you subscribe.
- Do keep your subscription directions when you subscribe. They are very useful regarding how to post messages, who to contact, etc.
- Remember... if you subscribe to something you don't like, you can easily unsubscribe.

Click here to return to the main menu of the Guide to the Internet
This document has been prepared by: Carolyn Klatt (cak@state.lib.ut.us) Jay Burton (jib@state.lib.ut.us)
WinVN Newsreader
WinVN Newsreader

A newsreader client is necessary for you to access the USENET discussion groups. The USENET or News is a system of public discussion groups, each devoted to a different subject. You can carry on discussions and exchange information on these subjects. There are thousands of groups. Unlike e-mail, where messages are sent to your computer and stored on your own hard disk drive, newsgroup articles are stored on a news server (NNTP host) at the site that services your Internet account.

The first part of a newsgroup's address lets you know what kind of group it is. For example, groups that begin with the prefix "alt" discuss alternative lifestyles and opinions on a variety of subjects and are, because of their content that may be offensive to some persons, not always carried by all news servers. The newsgroup's prefix gives an indication of the type of subjects that will be found in that group:

- alt groups that are very diverse and cover a lot of topics about alternative lifestyles and opinions.
- bionet groups about the biologic sciences.
- biz the only USENET location that permits commercial marketing.
- comp groups about computers and their usage.
- misc groups that do not fit into any of the other USENET categories.
- news groups with information about the USENET.
- rec groups about recreational subjects and hobbies.
- sci groups about science.
- soc groups that deal with social and societal issues.
- talk groups devoted to discussions about religion, politics, and the environment.

Your news server host may not have all groups. If there is a group to which you want to subscribe, then contact the Postmaster for your server and ask that person to add it to the list.

The first step is to obtain a newsreader. For desktop computers, there are several newsreaders available as shareware or freeware. The following discussion is based upon the use of the WinVN Newsreader, a freeware client, which runs on PC compatible computers under Windows 3.1 or higher.

After installing the WinVN Newsreader under Windows, Double click the WinVN icon to start the program. You will first need to click Config at the top menubar and then Configure Comm on the submenu to configure the program. You must fill in the appropriate address of your NNTP server (your USENET news server). Without this, you will not be able to access the USENET groups. Usually, the address is provided by your university, business or dial-up Internet provider. Figure 1 displays the Configure Comm window.
You can select more options by clicking on Config at the top menubar and then on Configure Miscellaneous at the submenu. In Figure 2, we have chosen various options. By clicking on Ask in the section marked Retrieve Group List on Connect you will tell the newsreader that every time you start the newsreader you will be asked if you want a list of the latest newsgroups.

Now, every time you start the program, you will first get a small window with a message asking if you want to request the latest newsgroups from the server. If you click on Yes you will get a small window as shown in Figure 3. You can now select new newsgroups. Click Yes only if you wish to occasionally check for new newsgroups.
Select the groups to which you want to subscribe. Double click on an unsubscribed group to subscribe to it, and vice versa.

Unsubscribed

utah.arpa-bboards

Subscribed Groups:

Figure 4 displays the main menu of WinVN upon startup if you choose not to view new newsgroups or after adding new newsgroups. Note that the newsgroups are listed alphabetically.
In order to find the groups available, you have two options. You can scroll down the list until you find the ones you want, then click on them to highlight them (and click on a highlighted item to deselect it), then click on Group at the top menubar and then Subscribe selected groups. Alternatively, you can click on "Group" at the top menubar and then Find on the submenu. Figure 5 displays the window that results. To find a group, you type in a word or partial word on which to search and then click OK. The window will scroll to a match, if present.

Any subscribed groups will appear at the top of the list of newsgroups and will appear in alphabetical order in a different color.
In order to unsubscribe to a group, just click to highlight one or more of your selected newsgroups. Then click on Group at the top menubar and then click on Unsubscribe selected groups in the submenu.

Viewing the Postings

Once you have selected one or more groups and the names of the groups appear on your main menu screen on program startup, then you may click on a group to highlight it. Double-clicking on that group will start the scanning process. A small window may appear in mid-screen if there are a large number of postings to that group. In this window, you will be asked how many of the postings you wish to view. Simply type in a number of click on one of the choices. This is shown in Figure 6. Then you wait as the postings are loaded. If there are a lot, then this will take some time.

Once the postings have been loaded, they will appear in another window. In order to read any of the articles posted, simply scroll up and down the list and then double click on the article. The article will
appear in another window as shown in Figure 7.

Figure 7

![Figure 7](image)

In order to respond to one of the articles, you may choose either to send a response to the entire group, or just the author of the article. To respond just to the author, note the author's e-mail address in the header of the article and then compose an e-mail message and send it to the author, but this cannot be done in WinVN. To respond to the entire group, click on Respond at the top menubar of the article's window and then click on "Followup article" in the submenu that appears. This will bring up a new window in which the contents of the original article are given. You may then add your own comments at the bottom. If the original article is quite long, you may edit out all or part of the original message. When you are ready to send your followup, then simply click on Posting at the top menubar and then on Post article as shown in Figure 8.

Figure 8

![Figure 8](image)
To save an article to a file on your own computer's hard disk drive, click on File at the top menubar on the article's window and then Save as. A new small window appears. Click on Browse in order to bring up another small window in which you can then determine the location on your hard drive you wish the file to be saved, as shown in Figure 9.

Figure 9

Posting an Article

If you are looking at the postings of a particular newsgroup and you want to post your own article, not just respond to a previous posting, click on Articles at the top menubar and then on New Article in the submenu. A small window will appear in which you can enter a subject line as shown in Figure 10.
When you have entered your subject line, then click on OK. A new window will appear in which you can then type in the contents of your article. Note that the text does not automatically wrap at the right margin of the window, but keeps going indefinitely until you press Enter. Thus, you should press Enter to wrap the text before you reach the margin of the window. This will ensure that persons reading your article will have the text appear in their own small window.

When you are finished composing your article, then click on Posting in the window's menubar and then on Post Article in the submenu as shown in Figure 8. Your article will then be posted. Error messages will alert you to any problems.

For your first posting, you should probably select one of the newsgroups with "test" in their title. These groups exist just to practice posting, so that your possible mistakes don't interfere with a real group.

If you are not actually in a newsgroup and you want to post an article, then click on Utilities at the top menubar of the initial WinVN screen at startup and then on New Article. A window will appear asking you which newsgroup you want to post to. When you click on OK you can proceed as is shown in the example above.

Click here to go to a description of WinVN Binaries.
Click here to return to the main menu of the Guide to the Internet

This document has been prepared by Edward C. Klatt (klatt@stellar.comnet.com) and Carolyn A. Klatt (cak@state.lib.ut.us)
WinVN Binaries
Viewing Binary Files

Perhaps one of the least understood functions of the newsgroups is the posting and reading of binary files. These are not ordinary text files. Rather, they are files of images that have been encoded and split into several parts. This allows the posting of images into the newsgroups along with text files. Some newsgroups (i.e., particularly those with "binary" or "picture" in their titles) have as a primary purpose the posting of images for downloading by others. The most common form of posting of images utilizes an encoding program that uses the "uuencode" format.

In order to decode the binary files, you will need a program that can decode these files. The WinVN program has decoding and encoding capabilities built in.

The first step is scanning a group to identify a picture to download. Figure 1 displays a set of files that, when assembled, will form an image. The most common form of posting is to list the segments that will have to be downloaded in succession, e.g., the files will be followed by designations such as [1/5], [2/5], etc. Make sure that you have all of the parts available. Sometimes only portions of previously posted images are reposted. Sometimes there is a small initial file followed by [0/5] which indicates that this is a text file describing the image; you do not need to download such parts. Note in the example below that there is an incomplete binary in the second line called "archtest" in which only the fourth of four segments appears. If you were to download this, you would have an incomplete image. However, just below this is an image called "arch.jpg" which is complete.

Figure 1

<table>
<thead>
<tr>
<th>Articles</th>
<th>Sort</th>
<th>Search</th>
</tr>
</thead>
<tbody>
<tr>
<td>s 228 01/14 Edward C. Klatt M</td>
<td>1 Test Article</td>
<td>229 01/14 Edward C. Klatt M 593 test image - archtest [4/4]</td>
</tr>
<tr>
<td>s 230 01/14 Edward C. Klatt M</td>
<td>231 01/14 Edward C. Klatt M 791 test image - arch.jpg [1/3]</td>
<td></td>
</tr>
<tr>
<td>s 232 01/14 Edward C. Klatt M 494 test image - arch.jpg [2/3]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>s 233 01/14 Edward C. Klatt M 1 Test posting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n 249 01/15 Edward C. Klatt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n 250 01/15 Edward C. Klatt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n 234 01/14 Edward C. Klatt 791 Fractal image - rosettel.jpg [1/13]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>s 235 01/14 Edward C. Klatt 790 Fractal image - rosettel.jpg [2/13]</td>
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</tr>
<tr>
<td>s 236 01/14 Edward C. Klatt 790 Fractal image - rosettel.jpg [3/13]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>s 237 01/14 Edward C. Klatt 790 Fractal image - rosettel.jpg [4/13]</td>
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<td>s 238 01/14 Edward C. Klatt 790 Fractal image - rosettel.jpg [5/13]</td>
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<td>s 239 01/14 Edward C. Klatt 790 Fractal image - rosettel.jpg [6/13]</td>
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<td>s 240 01/14 Edward C. Klatt 790 Fractal image - rosettel.jpg [7/13]</td>
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<tr>
<td>s 241 01/14 Edward C. Klatt 790 Fractal image - rosettel.jpg [8/13]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Simply click on each line of all parts of the binary image you wish to download to highlight them, then click on Articles at the top menubar and then on Decode selected articles as shown in Figure 2.
A small window will appear in which you can enter the path to the directory to where you want your decoded binary to be saved as an image file. In the example shown in Figure 3, we are saving the image to the C:\view directory, which is our default. You will probably have a different directory on your computer where you will want to put your images.

Then click on OK. A small window will appear which will display the progress of your decoding, as shown in Figure 4.
As soon as the first segment of your image has been downloaded, another message window will appear below this advising of the decoding status. When the decoding is complete, this message will appear. Simply close this window that is shown in Figure 5.

Figure 5

![Decoding Status](image)

<table>
<thead>
<tr>
<th>File Name</th>
<th>Directory</th>
<th>Size</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>arch.jpg</td>
<td>c:\wincode\arch.jpg</td>
<td>Decode in progress</td>
<td></td>
</tr>
<tr>
<td>arch.jpg</td>
<td>c:\wincode\arch.jpg</td>
<td>Decode complete, total size 93222, wrote to file</td>
<td></td>
</tr>
</tbody>
</table>

The next step is to use a file viewer. Click here to view instructions on file viewers.

Posting Binary Files

If you want to share your own images with the rest of the world, you can post your own binaries. This is accomplished in a manner similar to posting an article containing text.

Follow the same procedure as shown for posting an article (click here to return to the description of WinVn). When you get to the window that opens for composing an article, simply click on Posting in the window's menu bar and then on Attach file in the submenu. A window opens in which you can maneuver to the directory in which you have the image file that you wish to post. In the example shown in Figure 6, the file "arch.jpg" has been selected.

Figure 6

![Open file to attach](image)

When you have selected your image file, then click on OK. You then get another window which describes the encoding options. This window is quite complex, but all you need to do is make sure that Post while processing is selected in the upper right corner. This is the easiest way of posting an article because both encoding and posting are done automatically. The box Generate MIME headers should not be checked. This is shown in Figure 7. When you are ready to post, click on OK.
Figure 7

Then you will get a small window describing the Block Encoding Status. This will let you know how fast your posting is going. The parts and the lines and the number of bytes are listed. This process can be quite slow. It is recommended that you leave your computer and go get a bowl of ice cream. This window is shown in Figure 8. If you choose this encode and post option, you will not be able to stop the process until complete.

Figure 8

If you had checked the Review in edit window(s) option in the window shown in Figure 7 above, you will get a series of windows that show your encoded image. You can then post each individually, or you can click on Utilities at the top menubar and then on Batch send and then on Posts and then on Yes in the next confirmatory window to send all the files in the windows. Note that with this option, you can stop the posting process by clicking on Posting in each of your images windows and then on Cancel.
Figure 9 shows how the contents of your encoded file actually appear.

Figure 9
Viewers
Viewers

Viewers are programs that allow you to view many of the images, movies, animations, and sound clips which you have downloaded from ftp sites, newsreaders, or via gopher or web browsers.

Image Viewers

The most common types of viewers are picture image viewers. These programs allow you to view image files such as those with extensions:

- .jpg for jpeg compressed files
- .gif for the Compuserve graphics interchange format files
- .tif for tiff files
- .bmp for Windows bitmap files
- .tga for targa files

One of the easiest file viewers that runs under Windows to use for viewing picture images such as those with .jpg, .gif, .tga, and .bmp extensions is the freeware program LView31.exe which can be obtained via anonymous ftp from many sites.

Once the LView31 program is installed, you simply click on its icon to start the program. Then you click on "Open" and obtain another window which has options for changing your directory to the one containing the images you wish to view. In the example in Figure 1 below, the C:\wincode directory has been chosen where a couple of downloaded and decoded files from the newsreader program have been saved. If your image does not have the default *.jpg extension shown under the box called File Name at the upper left, then you will first have to click on the down arrow at the right of the small box named List Files of Type in the lower left to change to one of the other file types.

Figure 1

You then merely click on the file to select it, then click OK. The file will then load and the image will be displayed. Under the File selection at the top menubar, you can bring up a menu in which there is a Save
As selection to save your file to the directory of your choice.

If your file is not displayed despite changing the file type in the box List Files of Type then it is possible that your file is not named correctly. For example, your wincode program may have decoded a file from the newsreader in which the original file was a Macintosh or UNIX file in which the extensions may be longer than the three characters allowed by DOS. In this case, the file will be saved with the first eleven characters of the original file name, the last three of which will be the extension. Thus, a Macintosh file saved as picture.jpeg will be saved on a PC as picture.jpe instead. To correct this situation, just rename the file to its valid extension picture.jpg and the file may be viewed with LView31.

Movie and Animation Viewers

Movie and Animation viewers: these programs allow you to view a variety of short motion picture and animation sequences and include files with extensions:

- .mov for quicktime movies
- .mpg for mpeg movies
- .awa or .awm or .avi for animation
- .fli for animation

These viewers provide you with the means for viewing small and short movie or animation sequences. At the present time, most of these clips are viewed in a very small area of your monitor's screen, and the length of the clips are usually under 30 seconds. This is because such sequences require file sizes of many megabytes, and smaller windows require less memory. The motion tends to be a bit jerky as well. (This is not your local wide-screen cinema). Figure 2 below gives an example of a movie image (without the motion and true excitement this type of animation provides, of course). The lower bright spot is a comet fragment striking the planet Jupiter.

Figure 2

Some software programs that can run these movie and animation sequences under Windows include:

- Microsoft Media Player for .awa, .awm, .avi, and .fli
- MPEGplay for .mpg movies.
- Player for .mov quicktime movies

Sound Files

These files can be recognized because they have the extension .wav or .au or .aif and are used to play
sound clips. They require that your computer have appropriate sound output devices. A standard internal
computer speaker is not adequate, because the sound files are produced to take advantage of high quality
sound output of external speakers.

Software programs that can play .wav files include the Microsoft Media Player and WHAM (waveform
hold and modify). WHAM can also play .au and .aif files.

Click here to return to the main menu of the Guide to the Internet

This document has been prepared by: Edward C. Klatt (klatt@stellar.comnet.com) Carolyn A. Klatt
(cak@state.lib.ut.us)
Netscape
Guide to Netscape for Windows

World Wide Web (WWW)

The WWW combines all of the features of the Internet previously mentioned allowing access to information through any point along the Internet Highway. World Wide Web, like Gopher, is also an interactive information system used to browse Internet resources. Mosaic is probably the most popular of the WWW client programs that users use to communicate with WWW servers.

Netscape puts a hypertext (non-linear writing) interface on many of the Internet's resources. This means you can move around on the Net just by clicking on items that interest you. Web servers use the Hypertext Transport Protocol (HTTP) to allow access to Hypertext Markup Language (HTML) documents.

What is a URL?

Every resource on the Internet has a URL (Uniform Resource Locator). This is the resource's "address". In Figure 1 you will see what a typical URL looks like. The URL is located in the box labeled "Location". In this example the URL is http://www.state.lib.ut.us/. The part of the URL to the left of the colon tells you what method of access you need to use to view or retrieve the resource. The "http" means that you are connecting to a Web Server. If the address looked like this: gopher://gopher.gsfc.nasa.gov, you would be connecting to a Gopher Server. If the address looked like this: telnet://pac.carl.org, you would be connecting to a Telnet site. The part of the URL to the right of the colon tells you the path to the specific resource. The information between the double slash (/) and the first slash (/) is usually the address of a specific host.
Opening a URL

In order to go to a specific resource, you need to "open a URL". Here's how you do this. Click on File in the upper left hand corner on the menubar of your screen. A little box will appear (see Figure 2). Now click on Open Location. Or, just click on the button on the top menu bar that says Open.
Figure 3 shows the small window that will appear. You simply type in the URL of the location to which you want to go, then press enter or click on Open. In this example, we have typed in the address for the Utah State Library home page, which is at the URL: http://www.state.lib.ut.us/

Figure 3

Here are some addresses (URLs) that will take you to some interesting places to just browse for information. Remember that when you are typing in an address it is very important to use capital letters where they are shown. If you don't, it won't work.

- **Interesting URL's**
  - The WWW Virtual Library by Subject (http://info.cern.ch/hypertext/DataSources/bySubject/Overview.html)
  - Dixie College (http://sci.dixie.edu/)
  - University of Utah (http://www.utah.edu/HTML_Docs/UofU_Home.html)
Bookmarks

When you find something that is of interest to you that you want to go back to again and again, you can add that resource to a Bookmark list. A Bookmark will let you automatically login to virtually any internet resource. To put a resource on your Bookmark list, go to the top of the screen and click on Bookmarks. As shown in Figure 4, a little box will appear. Now click on Add Bookmark. It's done!

Figure 4

Want to see your Bookmarks? Click on Bookmarks and a window will open with your list. Clicking on any one of them will take you to that URL.

Editing Bookmarks

If you want to edit your Bookmarks, here's what you do. Click on Bookmarks. Now click on View Bookmarks. A small window will appear with your list of Bookmarks. Click on one of them to highlight it. The URL for this bookmark will appear in the small box below as shown in Figure 5.
Then click on Edit at the lower right. This will bring up options, as shown in Figure 6.
Use the "Up" and "Down" buttons at the lower left to navigate your way through very long lists of Bookmarks. If you click on Copy Item you will just get a duplicate Bookmark. If you click on Remove Item your highlighted Bookmark will be deleted from your list. When you are done, click on Close.

Saving a Document to a File

When you find a document and you want to save it to a file, here's what you do. Click on File at the top menubar and then on Save As in the submenu. A window will appear as shown in Figure 7 asking you where you want your file to go.
Figure 7

You can at this point change the directory to which you want the file to go and/or change the name of the file. When these decisions have been made, click on OK. Images displayed on your screen can also be saved. If you click on an unknown file type (such as a program file with the extension .exe) that cannot be displayed on screen, then you will get a window as shown in Figure 8 asking if you want to save the file to disk. If you click on Save to Disk then you will be prompted as to the directory to which you want to save that file.

Figure 8
To print an on-screen document or image, rather than saving it to a file, simply click on File at the top menubar, then click on Print in the submenu that appears.

Setting Options and Preferences

If you click on Options at the top menubar, a window with a submenu will appear from which you can click on Preferences to get the window as shown in Figure 9.

Figure 9

Here is where you can change your home page or set Netscape to start with a blank page. To change your home page, just delete whatever is in the white box in the middle of the window and then type in the URL of your new address (such as http://www.state.lib.ut.us/). The advantage of starting with a blank page is that you do not waste time waiting for a home page to load, but can then simply type in your URL or go to one of your Bookmarks. When you are through, click on OK.

You can configure Netscape to use a variety of other Internet clients. At the top menubar, click on Options and then on Preferences in the submenu. A window will appear as shown in Figure 10. You can customize a variety of functions. In the example below we have selected Directories, Applications and News from the top box. Other options are available by clicking and scrolling in this box.
We have now told Netscape where to find our bookmark file, our Telnet client, and our News server. We can now initiate a Telnet session out of Netscape. We can also reach our Newsgroups through Netscape by clicking on Directory at the top menubar and then on Go to Newsgroups in the submenu.

Searching the Web

If you are looking for a specific topic that you can't find any information about, you can key word search the Web. Here are some addresses:

- World Wide Web Worm (http://thphys.irb.hr/worm.html)
- WWW Nomad (http://www.rns.com/cgi-bin/nomad)

If you go to the Webcrawler, Figure 11 shows you a part of the screen that you will see. Just type in the topic that you are searching for in the space provided. In this example, we have typed in Utah weather. It is not necessary to put "and" between the words when the "AND words together" box is checked. Now click on Search. A list of resources that have the word(s) you want in them will appear. Click on one to go there.
Finding Out Where You Have Been

If you want to see the locations that you have visited in your Netscape travels without having to remember or write down all the URL’s, you can simply click on Go in the top menubar and a box will appear that lists the places that you have been. You can simply click on an item to return to that location. If you click on View History in the submenu, a second box will appear as shown in Figure 12. This box has the complete list of all locations visited since you started your Netscape session. In order to return to any of them, you can double click on the item, or you can click on an item to highlight it and then click on Go to. You can also highlight an item and then add it to your list of Bookmarks by clicking on Create Bookmark.
Click here to return to the main menu of the Guide to the Internet

This document has been prepared by Carolyn A. Klatt (cak@state.lib.ut.us) and Edward C. Klatt (klatt@stellar.comnet.com)
Guide to Mosaic for Windows

World Wide Web (WWW)

The WWW combines all of the features of the Internet previously mentioned allowing access to information through any point along the Internet Highway. World Wide Web, like Gopher, is also an interactive information system used to browse Internet resources. Mosaic is probably the most popular of the WWW client programs that users use to communicate with WWW servers.

Developed by a team of programmers at the University of Illinois National Center for Supercomputing Applications, Mosaic puts a hypertext (non-linear writing) interface on many of the Internet's resources. This means you can move around on the Net just by clicking on items that interest you. Web servers use the Hypertext Transport Protocol (HTTP) to allow access to Hypertext Markup Language (HTML) documents.

What Do the Buttons Do?

In order to find out the functions of the small buttons located at the top menubar in Mosaic, hold your cursor arrow on each for a few seconds and a short explanation of each will appear in a button.

What is a URL?

Every resource on the Internet has a URL (Uniform Resource Locator). This is the resource's "address". In Figure 1 you will see what a typical URL looks like. In this example the URL is http://webcrawler.cs.washington.edu:80/WebCrawler/WebQuery.html. The part of the URL to the left of the colon tells you what method of access you need to use to view or retrieve the resource. The "http" means that you are connecting to a Web Server. If the address looked like this: gopher://gopher.gsfc.nasa.gov, you would be connecting to a Gopher Server. If the address looked like this: telnet://pac.carl.org, you would be connecting to a Telnet Site. The part of the URL to the right of the colon tells you the path to the specific resource. The information between the double slash (/) and the first slash (/) is usually the address of a specific host.

Opening a URL

In order to go to a specific resource, you need to "open a URL". Here's how you do this. Click on File in the upper left hand corner of your screen. A little box will appear (see Figure 2). Now click on Open URL.
Figure 3 shows what you will see. Delete whatever is in the box labeled URL. In this case you'll delete the "file:///c/"

Now you are ready to type in the address (URL) of the resource you want to go to. In Figure 4 we've typed in the address to the Utah State Library Division. It is http://www.state.lib.ut.us. To go to this resource, just click on OK.

Here are some addresses (URLs) that will take you to some interesting places to just browse for information. Remember that when you are typing in an address it is very important to use capital letters where they are shown. If you don't, it won't work.

- Interesting URL's
  - The WWW Virtual Library by Subject (http://info.cern.ch/hypertext/DataSources/bySubject/Overview.html)
  - Dixie College (http://sci.dixie.edu/)
  - University of Utah (http://www.utah.edu)
  - The Whole Internet Catalog at GNN(http://nearnet.gnn.com/wic/newrescat.toc.html)
Hotlists

When you find something that is of interest to you that you want to go back to again and again, you can add that resource to a Hotlist. A Hotlist will let you automatically login to virtually any internet resource. To put a resource on a Hotlist, go to the top of the screen and click on Navigate. As shown in Figure 5, a little box will appear. Now click on Add to Current Hotlist. It's done!

Figure 5

Want to see your Hotlists? Click on File. Now click on Open URL. You can have several Hotlists at the same time with different resources in them. Current Hotlist is the one you have chosen to currently view, add to, delete from, etc. Examples of Hotlists that we have on our computer are "Personal", "QUICKLIST", and "Starting Points". Yours will be different! In order to view your various Hotlists, just click on the little arrow to the right of the box labeled Current Hotlist. As shown in the example (Figure 6), a list of all of the Hotlists will appear.
When you click on QUICKLIST, as shown in Figure 7, it will appear in the box labeled Current Hotlist. To see a list of all the resources in the Hotlist called QUICKLIST, click on the little arrow in the top right hand corner of the screen. If you click on a particular resource (such as the U of U HomePage) it will appear in the box in the far right hand corner of the screen. To go to that resource, just click on OK.

If you look at the top of the screen in Figure 5 shown previously, you will see that Starting Points,
Personal, and Hotlist are listed. If you wanted to see the resources listed in one of these Hotlists, rather than following the procedure described above, you could also just click on one. For example, if you clicked on Personal, all of the resources in this Hotlist would appear. You could then click on a resource and go there.

Editing Hotlists

If you want to edit your Hotlists, here’s what you do. Click on Navigate. Now click on Menu Editor. See Figure 8. This is the screen that will appear. Remember, your Hotlists will be different than the ones I have! You can change the Current Hotlist here too. You can delete resources, or insert items, or copy an item. You can create a new Hotlist by clicking in the blank space in the Menus box. In this case, you would click just under the word “Hotlist”. In the box labeled Items the word Click insert to add a toplevel menu will appear. Click on Insert button at the bottom of the page. Now delete whatever is in the box labeled Title, type in the name you want your new Hotlist to have, and then click on OK. That title will now appear as a choice at the top of your screen! You can delete an item by clicking on that item, then clicking on Delete. When you are through editing, just click on Close.

Saving a Document to a File

An html document or a text file or an image currently displayed on the screen can be saved to a file. To do this, click on File at the top menubar and then on Save as in the submenu as shown in Figure 9.
If you wish to download a non-text file, or any other file for that matter, just remember to click on Options at the top of that screen prior to going into the file you want to download. Under Options click on Load to Disk as shown in Figure 10. A little check mark will appear to the left of Load to Disk. Now go to the document that you want to save. A screen will appear asking you where you want it. When you are through getting the document that you want be sure to click on Options again, then click on Load to Disk to unselect this option. The little check mark will disappear.
Setting Preferences

Are the images taking so long to load that you're out of patience waiting? Click on Options at the top of the screen. Now click on Preferences. A window will appear as shown in Figure 11. The "General" preferences will be initially displayed. You can click to check the boxes of the features that you want to be displayed in Mosaic. You can also change your homepage as well. At the top of this window are buttons for additional features that you can customize, including "Services", "Tables", and "Annotations".
Searching the Web

If you are looking for a specific topic that you can't find any information about, you can key word search the Web. Here are some addresses:

- World Wide Web Worm (http://thphys.irb.hr/worm.html)
- WWW Nomad (http://www.ms.com/cgi-bin/nomad)

If you go to the Webcrawler, Figure 12 shows you a part of the screen that you will see. Just type in the topic that you are searching for in the space provided. You can type in weather or stock market or quilting. Whatever you are interested in! Now click on Search. A list of resources that have the word(s) you want in them will appear. Click on one to go there.
Seeing Where You Have Been

If you want to know the sites that you have visited in your Mosaic session, then you can click on Navigate at the top menu bar and then on History in the submenu. A small window will appear as shown in Figure 13 which lists the URL's of the sites that you have visited. To return to one of them, you can click to highlight that item, and then click on the Load button.
WSGopher
WSGopher

Gopher is a type of software client which provides access to resources and information from computer servers worldwide on dozens of different topics. Gopher operates in a client-server fashion. Gopher clients (the programs you use on your own computer) communicate with gopher servers that already have their information well organized.

Gopher is called "Gopher" because it was developed at the University of Minnesota home of the Golden Gophers. Also, with a Gopher you "go for" information. You don't need to know specific addresses. You can search for information by key word or just browse through subjects.

Here are just a few of the options available with a Gopher:

- **Other Gophers** allows you to access various gopher servers through a series of menus without knowing their addresses.
- **Information Organized By Subject** allows you to browse for information using subject headings.
- **Veronica Searching** allows you to search for information using only key words.
- **News and Calendars** find local information on your own server or in your own university or business.
- **Bookmarks** find information at a site you have previously visited and saved as a "bookmark" entry.

Shown in Figure 1 is the main menu of wsgopher.exe, one freeware gopher client. Note that a variety of information sources, including other gopher servers, are listed. Simply double click on any one of them. Note also that from the top menu bar the **Configure** item has been selected. From this the submenu item **Home Gopher Server** has been selected. This brings up another window in which you can type in the name of your local gopher (or any other gopher server that you want as the default gopher server when you start this client).

**Figure 1**

```
By double clicking on **Other Gophers** in the main menu and then double clicking on successive menu
```
items that appear, you can navigate to the information that you want. In the example in Figure 2, you see a succession of windows. The last window shows the text of a menu item that was retrieved.

Figure 2

Once you have maneuvered through the menus to a site with information that is useful and to which you would like to return later, then click on Bookmark at the top menubar and then click Add Bookmark and a window will appear as shown in Figure 3 if you have not chosen a "default" bookmark category. You can also select a category in which to save it by clicking on the small box with the arrow at the upper right, or you can click on Create to make a new category. Many of the categories in the menu already contain bookmarks. You can click on Delete to get rid of the ones you do not want to keep.
You can set a default bookmark, as shown in Figure 4. As an example, we have created a category simply called "Bookmarks". To find this the next time, click on Bookmark on the top menubar, then on Edit Bookmarks to bring up your default category. To see other categories, you can either click on Categories under the Bookmark heading at the top menubar, or you can click on the little arrow to the right of the field called categories as seen in Figure 4. To actually go to your bookmark, you highlight the item in the default category menu. In the example below, we have highlighted Salt Lake City. Then simply click on "Fetch" to the right.

Remember that once you have designated a default category, then every time that you click on Add Bookmark under the Bookmark menubar item, then it will automatically go into the chosen default category. If you choose Edit Bookmark from under the Bookmark item on the top menubar, then your default category will appear and you can change it.

Received 76 lines... done
To return to the main menu, click on the icon of the little house on the top menu bar. Or, click on File on the top menu bar and then on Home Gopher in the submenu. Now, a veronica search can be performed. A veronica search allows you to search for information by using only key words. Double click on Search title in Gopherspace using veronica in the main Gopher menu. You will then get a menu with a list of sites that offer veronica searches. Do not click on any item called Search Gopher Directory Titles... or you will not get much information. By double clicking on one of the Gopherspace sites (start with the one closest to you) you will get another small window called Search in which you will type your search string word or words, as shown in Figure 5:
In this example, we searched for a string containing "winsock" to see if we could find sites that gave information about winsock clients or to see if we could find a site that offered such a client to download. The results of that search are shown in Figure 6. Note that the small icons on the left of each line give an indication of the type of resource. The files to view are denoted by small file folders.

In this example, we searched for a string containing "winsock" to see if we could find sites that gave information about winsock clients or to see if we could find a site that offered such a client to download. The results of that search are shown in Figure 6. Note that the small icons on the left of each line give an indication of the type of resource. The files to view are denoted by small file folders.
Once you have found a file, you can double click on it to obtain it. Text files will be viewed in a window on screen. You may then print this file by clicking on File on the top menubar at the left and then on Print in the submenu obtained. You may also choose to save it to disk. Double clicking on any file other than a text file will bring up a small window which will ask you where you want to save this file on disk.

Before you double click on a site, you may want to know where it is located, because you may have multiple listings of the same file or program, and it would be useful to go to one that is closer to you. To do this, File in the left upper corner of the menubar and then on Info on item and a window will appear that indicates where the file is located.

If you already have the address of the gopher to which you want to go, then just click on File at the top menubar and then on New Gopher in the submenu. A small window will appear as shown in Figure 8. Just type in the address of your gopher site where it says Server name: and then click on OK.

Click here to return to the main menu of the Guide to the Internet

This document has been prepared by Edward C. Klatt (klatt@stellar.comnet.com) and Carolyn A. Klatt (cak@state.lib.ut.us)
WSArchie
Archie

Archie is a method of finding where files are located on anonymous ftp servers. This is useful if there is a particular file which you would like to download and you know the name of the file, or at least part of the name. Archie can be more efficient than veronica searches in Gopher in some cases. There are over 14 archie servers, and each one of them searches a slightly different group of anonymous ftp sites, so you will not necessarily get the same search results at each site, nor will you get all possible ftp sites.

Though you can perform archie searches by telnet to an archie server and using cryptic UNIX archie commands, or even by e-mail to the archie server, the easiest way is to use an archie client program. The one described below is a freeware program called WSarchie.

After starting WSarchie, you get a window shown below in Figure 1 in which you have the option of picking which archie server you are going to use. You can also choose the type of search (e.g., exact if you know the actual name of the file, or substring if you know part of the file), and then typing in the characters to search.

Figure 1

In the above example, we searched the Archie Server archie.internet.net for the program wsgopher. We knew the exact name of the file, wsg-10.exe and typed that in. The results of this search are shown in Figure 2. Only one site was found in this particular search from this archie server. At the bottom are listed the file specifications. If you wish to download this file, double click on the line that is highlighted (you can scroll up or down the list if there are several items). Before you double click, you may want to make
sure that you are sending your document to the directory that you had in mind. Directions for setting a directory are at the end of this tutorial, below Figure 2. The WSarchie program works in conjunction with the WS_FTP program and will automatically download your file when you double click on it. A small window for the WS_FTP program will appear and give the download status (to see documentation on the WS_FTP program, click here).

Figure 2

If you have downloaded a file, you may then get it by going to the directory in which WSarchie has been set to download files. This is set by clicking on Options at the menu bar at the top of the Archie window and then on FTP Setup. You will get a small window in which you can configure WSarchie with the default directory to which you want to download files. You can also enter your login as anonymous along with your e-mail address as a password as shown in Figure 3.
Figure 3

Click here to return to the main menu of the Guide to the Internet

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FTP (File Transfer Protocol)

FTP, or "File Transfer Protocol", is a means for downloading files from another host computer at a remote site to your own computer. There are two basic types of files: ASCII and binary. ASCII files are text files and usually have the file extension .txt or .doc to designate them as text files. Binary files may be a variety of other file types. Sometimes these files are compressed using a variety of compression formats. The clue to this can be found in the file extension. Here is a partial list of extensions and the type of compression:

- .zip compression with the program PKZip. Requires PKUnzip to decompress the file.
- .uuu compression with uuencode. Requires a program such as Wincode to decode.
- .z or .gz compression with gzip and requires gunzip to decompress.

Files that have a .hqx, .sit, or .sea extension are Macintosh files that have been archived and/or compressed.

Note: it is highly unlikely that ASCII text files will contain a computer virus. However, binary files are a perfect way for transmission of computer viruses. Thus, you should have anti-virus software installed on your computer. If you suspect a possible virus or want to be as safe as possible, then you can download files to a floppy disk first.

FTP can be done either from a Telnet client or with a software program such as WS_FTP.exe that automates many of the functions for you. FTP is also available as menu items from World Wide Web browsers such as Mosaic.

If you perform FTP from a Telnet client, you will have to enter the Internet address of the host computer to which you wish to connect. Examples of such addresses are:

- oak.oakland.edu
- ftp.cica.indiana.edu
- ftp.comnet.com

Usually, but not always, the address begins with "ftp". If the host allows you to connect, then you will be presented with a window in which you will have the prompt "username" and "password". At the username prompt, most often you can type in "user anonymous" and the host will accept it. For the password, most hosts will accept your internet address. Typing in your internet address is also a matter of courtesy to the system administrator of the host, who can keep track of the logins and usage of his server.

Telnet clients available for the PC that run under Windows include:

- Wintel from NCSA, a freeware program
- WinQVT which contains a telnet client among other clients
- EWAN a freeware program from Sweden

Once you are logged in, then most often you will have to maneuver through the host computer with UNIX commands. Rarely, you will get a menu to work from. The basic UNIX commands are:

- cd / this command is similar to the DOS command "cd/" for "change directory", but you must put a space following the "cd" for UNIX and then a space following the "/". The most useful directory is the "pub" directory, so enter "cd / pub" to get to the "pub" directory, which will list other files and directories available.
- dir this command lists the directory contents so that you may view the files and directories available.
- get this command allows you to actually "get" the files to download. If you are downloading text files, then this is all you need to do. However, before you download any binary files, you must first enter:
- binary this command will tell the UNIX host that you are going to download a binary file. Once in binary mode, you can download either binary or text files. If you want to change back to text only, then enter the command:
- **ASCII** this command will tell the UNIX host that you want to download only text files.

An easier way to perform FTP functions is with an FTP client. One such useful shareware program is WS_FTP which runs in Windows and will provide menus to work from and you do not have to know the UNIX commands. The initial window of the WS_FTP program is shown in Figure 1. You must fill in the address of the host in the box Host Name with which you want to connect. In this case, the box is filled in with the address ftp.comnet.com. You must fill in the user ID as anonymous and the password as your internet address (putting a dash in front of your e-mail address is recommended). Select auto detect for the Host Type and then make sure that the box anonymous login is checked. Click on the button OK to begin the connection.

Figure 1

Once logged in, you will have a directory listed in the upper left of your screen in the box Local System with any files available below the line in your computer's directory. This is where you will put the files that you want to download. At the upper right you will have a directory listing in the box Remote System for the remote ftp site to which you are logged on. You can maneuver to other directories by double clicking on them. To move up a directory, simply click on the ".." at the top. This is shown in Figure 2.
Click on the Binary circle to highlight the center at the bottom of the screen. This will allow you to download any file type. The far left portion of the screen contains a listing of your own computer's current directory. You can change this if you wish to another directory or drive in which to download files. When you are ready to download a file, you may do one of the following: (1) first click on the file you want to highlight it, then click the left arrow button at the upper center left of the screen; or (2) double click on the file you wish to download. A small window appears in the center of the screen and gives the status of the download, as shown in Figure 3.
Figure 3

To exit the program, simply click on the Exit button at the lower right of the screen.

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