

WinVN Users Guide

A Topic Based Client Network News
Reader for Microsoft Windows
and Microsoft Windows/NT

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Comments or questions may be submitted via electronic mail to winvn@titan.ksc.nasa.gov. WinVN software, source code and this Users Guide are available via anonymous FTP from the host [FTP.KSC.NASA.GOV](ftp://KSC.NASA.GOV).

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1.0 INTRODUCTION

1.1 Network News

Network News, sometimes called Usenet News, is a distributed bulletin board system that runs on millions of computers world-wide. These computers can be interconnected via Local Area Networks (LAN's), Wide Area Networks (WAN's) like the Internet, dialup modem networks or one-way satellite downlink networks. The overall collection of computers and networks, when they are used to store, forward or display Network News is called the Usenet. Users of the Usenet exchange views and information by writing articles that are then transmitted automatically between computers in the network.

Articles are organized by topics into a hierarchy of newsgroups. There are currently over 9000 newsgroups on the Usenet (including regional groups) but the average site carries around 2000-4000 groups. New newsgroups are created automatically by the network (after a vote of the network population) and old newsgroups are automatically deleted. Newsgroups are organized by subjects into a hierarchy that resembles a tree structure and the number of newsgroups and their access is determined by the news manager at each site. Local news managers also determine how many days an article is kept at their site before it is automatically expired.

Network News has many similarities to electronic mail (E-Mail) but differs in the way it organizes and distributes information. E-Mail systems are typically used to send person-to-person mail to an individual (direct mail) or group of individuals (mailing list). When the group of users become too large or too dynamic to easily administer over electronic mail, Network News is the system of choice. The information is sorted by subject and the user only needs to read the subjects he finds interesting. Network News can be thought of as a collection of very specialized magazines or journals that can be used to search for information or discuss topics.

The software that comprises the Network News system consists of News Servers and News Clients. WinVN is a News Client requiring a News Server before it can be used effectively. Servers communicate with other servers and provide disk space to store the actual messages. They also communicate with clients and provide lists of available newsgroups. A client can request a server to return a list of articles for any newsgroup or can request the actual text for an article. The client formats and displays information from the server in a form suitable to the user interface on the client machine.

The actual format of the messages exchanged between hosts follow the Internet Standard for Interchange of USEnet Messages (Internet Standard RFC-1036) and transfers these messages via the Network News Transfer Protocol - NNTP (Internet Standard RFC-977). Attachments are sent via the Multi-purpose Internet Mail Extensions (MIME) protocol (Internet Standard RFC-1341).

1.2 Overview of WinVN

WinVN is a Microsoft Windows and Microsoft/NT based news reader. Its name stands for Windows Visual Newsreader. Like other news readers, it can be used to select, view, write, sort and print Usenet News articles. Articles can be saved locally, cut into the Windows Clipboard or forwarded to other individuals via Electronic Mail.

WinVN offers a more visual approach to Usenet News than most other news readers. WinVN allows the user to easily navigate between newsgroups and articles via its point-and-click interface. It allows the viewing of multiple articles simultaneously and on multi-tasking operating systems like Microsoft Windows/NT it even allows multiple simultaneous news server connections.

In normal operation, WinVN displays three types of windows: the main window, which displays a list of all newsgroups; one or more group windows, each of which displays a list of the articles in a newsgroup; and one or more article windows, which each displays an article. Double-clicking on a newsgroup or article name causes that item to be displayed in a separate window.

When writing an article, WinVN displays a posting window for that purpose (*See Posting an Article.*) WinVN also offers a number of configuration options; (see Config Menu Commands) and extensive On-line Help.

1.3 History of WinVN

WinVN began at home as an own-time project by Mark Riordan, a systems programmer at Michigan State University. However, WinVN is not a product of MSU, NASA, or any other institution. Serious development of WinVN began in September 1989 and continued in fits and starts. A Macintosh version was developed, but it is no longer in sync with the latest Windows version. The recent release of a number of good Macintosh news readers stopped the development of a version of WinVN for the Mac. The MS Windows based WinVN program and its source code were placed in the public domain in 1991.

In 1992, Sam Rushing and Jim Dumoulin, of the NASA/Kennedy Space Center Information Systems Branch, selected WinVN as a good candidate for future development as part of the Payload Data Management System (PDMS-II) project. After contacting Mark Riordan, NASA agreed to make extensive enhancements to WinVN, coordinate a public domain Internet development effort to extend its features, and to serve as the overall integrator for future versions of WinVN. Sam Rushing reworked WinVN to support the emerging Windows TCP/IP Sockets standard (WINSOCK), revamped the user interface and added support for threading and XOVER (a faster extension to the news transport protocol). Since then many people, in a truly international effort spanning 4 continents, have contributed their own time and energy to the success of WinVN. They include, but are not limited to:

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WinVN is in the Public Domain and the latest versions for both MS Windows and Windows/NT (both the source and binaries) are available free of charge via anonymous FTP from FTP.KSC.NASA.GOV in the directory [pub.win3.winvn].

Questions can be sent to the developers via the mailing list "winvn@titan.ksc.nasa.gov" and anyone that wishes to join the developer's list (or see a constant stream of E-mail messages from people attempting to configure WinVN) can send a message to "winvn-request@titan.ksc.nasa.gov" with the subject "Subscribe".

1.4 Usenet Etiquette ("Netiquette")

The ease of posting Usenet News articles causes many inappropriate articles to be sent to the network. An article can be inappropriate if it:

- Is devoid of useful information or ideas.
- Is sent to inappropriate newsgroup(s).
- Is sent to too many newsgroup(s).
- Contains rude or insulting remarks.
- Is really intended for a particular individual, rather than the entire Usenet community.

Compose articles thoughtfully and be polite and considerate of others. Remember that most people on the network will judge the author (and the information) only by what is said and how well it is expressed in writing. Strive to insure that articles are factual and will not be embarrassing later. Always re-read articles before submitting them for distribution to the entire world. There is even a news group called **NEWS.ANNOUNCE.NEWUSERS** that provides information to new users on how to conduct themselves on the network.

Carefully select the proper newsgroup by looking at the newsgroup charter or previous messages. Read the newsgroup for a number of days before you make your first post. This will give you a flavor for the types of questions that are asked. Most newsgroups will periodically post an FAQ (Frequently Asked Questions) article. This contains a summary of questions and answers that are asked by novice users. Many long time readers of newsgroups get tired of answering the same questions over and over so read any FAQ articles before making your first post. There is even a news group called **NEWS.ANSWERS** that contains the latest FAQ's for most newsgroups.

Consider sending an electronic mail message rather than posting an article, if appropriate. Also remember that you should never post to News any E-Mail that someone may have sent to you unless they have explicitly given you permission to redistribute it. People will sometimes E-Mail you information that they would rather not be seen by the entire Usenet community. Most people will spend less time replying to an E-mail message (to be read by an individual) than they would crafting a News response that will be read by the entire Usenet community.

Remember that not all sites on the Usenet are directly connected to the Internet. Be aware of the fact that many sites pay long-distance telephone charges to receive your article. Some links are even low speed serial links that can only send a limited number of bytes each connection. If you have a very large document that you are posting, it is considered proper "netiquette" to break the post into a number of smaller posts with common titles (ie: *Synopsis of War and Peace Part 1 of 200*). This allows sites with poor or intermittent network connections to safely handle your article. Also be aware of the fact that some of the popular newsgroups have tens of thousands of readers. For example, 10,000 people each reading your article for 20 seconds spend a total of 55 hours reading your article.

At the end of most articles there is usually a small blurb called a signature or sig. This usually comes from a file in the person's login directory and is appended automatically to the message by the operating systems. Some people get carried away with their signature and place complex ASCII drawings or cute sayings at the bottom of their messages. These signatures bother most people and it is considered poor "netiquette" to have signatures larger than about 4 lines. You can create a signature file of your own using any Windows Editor and then attach it to WinVN using the option Config Signature File on the Config menu. Please remember to save your signature file as plain ASCII text, since vendor dependent binary files (such as Microsoft Word files) are not portable across the entire Internet community.

Many new users wish to test their ability to post before they actually say anything of any interest to anyone. Don't post test type messages to an active newsgroup. This will interrupt quite a number of people and is considered poor "netiquette". There are usually a number of "Test" newsgroups (they usually have the word "TEST" in their name) that can be used to verify posting from your host will be successful. Some test newsgroups (like **ALT.TEST**) have automatic E-Mail responding software. A post to those groups will cause electronic mail from all over the world to be sent back to you as your post gets forwarded from site to site.

The "NEWSGROUPS" line in a news header isn't limited to just one group. If a note makes sense to more than one area you can cross-post it to other newsgroups by just separating the newsgroups with a comma on the Newsgroups line. It is considered poor "netiquette" to cross-post to more than three or four newsgroups.

When posting new articles to News, please remember that News runs on many different hosts and operating systems. In fact, since WinVN is one of the first usable News readers for Microsoft Windows, the majority of posts from the Usenet are viewed by people running non-DOS/Windows operating systems. Inserting graphics or non ASCII text (such as different fonts, underlining, color changes, etc.) in an article will appear as unintelligible garbage to almost everyone else. You can use WinVN to send binary attachments along with your post but exercise judgment and don't flood the USEnet with massive binary attachments.

When responding to articles, use the Follow-up Article option instead of the New Post option. This will maintain a reference link between a message and the article being read at the time of a posting. People reading messages from other "thread based" news readers, like WinVN, will be able to understand how the message fits into the rest of the conversation. WinVN will automatically "quote" the text of the article being read (including a unique Message ID that can be used to locate the original posting) and insert it at the beginning of a post. Most people intersperse comments between the quoted text and delete any large quoted sections that do not pertain to their response. Someone can always find the original text by clicking on the unique Message ID. Also, use Message IDs when referring to other articles and never refer to another article by its article number. Article Numbers are never the same from system to system so only people reading news on the same local system will see the same article number.

Try to keep text in a generic format. Many (if not most) of the people reading Usenet do so from 80 column terminals or from workstations with 80 column terminal windows. Try to keep lines of text to less than 80 characters for optimal readability. If people quote part of an article in a follow-up, each line gets indented a few characters and gets preceded with a ">". Thus, standard lines of 75 characters or less are best for later readability. Also, WinVN allows a user to change his viewing font to any font the workstation supports. Be careful when using proportional style fonts since they allow the placement of more characters per line than fixed style fonts.

Most news readers on the Usenet are running on multi-user hosts with system administrators and operating systems that validate logons. Unfortunately, WinVN runs under MS-DOS which is a single user operating system that doesn't have any concept of a logon. (WinVN also runs under Windows/NT which does validate logons.) Take special care in configuring the Configure Personal Info option and insure that the name and mailing address is valid. Since most MS-DOS systems cannot directly receive Internet mail do not specify an MS-DOS host as a mail address. This will just annoy anyone who wishes to respond to a post via E-Mail.

2.0 TYPES OF WINDOWS

2.1 Main Window

If you click on the WinVN icon from within the MS Windows program manager, WinVN will begin its startup phase. If you have previously configured WinVN and have selected the *Connect on Startup* option from the *Config Miscellaneous* menu, WinVN will establish a connection to your local News Server and display a list of valid newsgroups.

Clicking on a newsgroup name "selects" that newsgroup and displays it in reverse video (light on dark). Selecting a newsgroup is useful only for subscribing to it; see *Subscribing to Newsgroups*. You can also hold the left mouse button down and drag it across the groups to either *Subscribe* or *Unsubscribe* groups. Subscribed groups appear in black; unsubscribed groups appear in blue but these colors can be customized via the *Configure Color menu*. In this display, there were 2722 total newsgroups, of which 20 were subscribed. If you only wish to view subscribed newsgroups, you can deselect the option *Show Unsubscribed Groups* from the *Config Miscellaneous menu*.

The first character of each newsgroup line in the main window gives information about that newsgroup:

Space	No new articles have appeared in this group since your last WinVN session.
>	This newsgroup has been selected as the result of the previous Find operation.
*	New articles have appeared in this newsgroup since your last WinVN session.

The number between the first character and the newsgroup name is an estimated number of articles in the newsgroup. This is calculated by subtracting the oldest article number from the latest article number. This number is only an estimate since a newsgroup manager may have deleted some articles in the group or the original poster may have revoked a message after it was recorded on the server. If you select a newsgroup, this number will be updated to reflect the actual number of articles available.

The final item in the Main window is the actual name of the newsgroup. Newsgroups that are unsubscribed are sorted and displayed in alphabetical order. Newsgroup names of registered or subscribed groups are not automatically sorted in alphabetical order. Users are free to place them in whatever order they find useful. WinVN currently doesn't have a command that easily sorts selected groups but this option will be added in a future release. To manually sort subscribed groups, an external text editor can be used if it can edit files greater than 64K bytes (this leaves out using the MS Windows Notepad) or you can use a series of *Move Selected Groups to the Top* commands.

See Network Menu Commands, Group Menu Commands, Config Menu Commands, Utilities Menu Commands and Help Menu commands for actions that can be done via the Menu bar on the Main Window.

To Exit WinVN, you can use the windows standard and double-click on the corner box to the extreme left of the Main Window Title or you can use the Exit command from the Network menu. This will close WinVN and save any open files. If you have selected the option Always Confirm Save upon Exit from the Configure Miscellaneous menu you will be asked whether you wish to save your WinVN Configuration File (WINVN.INI) or your News Resources file (NEWSRC).

2.1.1 Using the Mouse and Keyboard from the Main Window

From the Main Window, clicking the mouse on any newsgroup will allow you to perform selection operations on various newsgroups. Once you have made all of your selections, you can use the Group Menu to perform a variety of operations on the selected groups.

Mouse Left	Mark/Unmark an Newsgroup for selection
Drag Mouse Left	Mark/Unmark multiple groups
Mouse Double-Click Left	Fetch Newsgroup headers from Server for viewing
Mouse Middle	None
Drag Mouse Middle	None
Shift Mouse Left	Same as Mouse Middle
Mouse Right	Reserved for future popup newsgroup menu
Mouse Double-Click Right	None

Note:

You can alter the default behavior of the mouse in the Newsgroups window via the **Multi-Select in Group Window** option under the Configure Miscellaneous Menu. The default behavior of the mouse allows you to click on groups individually and groups will stay selected. With Multi-Select enabled, a Mouse Left click on any group highlights that group and turns off all others. After the first click, a Shift Mouse Left Click will highlight ALL intervening groups between the 1st click and your current mouse location. This is a fast way to select multiple groups but it can make it more difficult to select a small number of groups.

From the Main Window, certain keys can be used to quickly access some of WinVN's windows and menus. WinVN attempts to follow Microsoft Windows keynaming conventions whenever possible. Every menu option in WinVN has one underlined letter in its descriptive text. Pressing the ALT key and this underlined letter will perform the same action as clicking on that item with the mouse. The following table contains an additional list of keys available from WinVN's main window:

F1	Help
F3	Find Next
F6	Switch between Windows
Pg Dn	Scroll Newsgroup List Down one Page
Pg Up	Scroll Newsgroup List Up one Page
Up Arrow	Scroll Newsgroup List Up one Line
Down Arrow	Scroll Newsgroup List Down one Line

Alt F4	Exit
Ctrl L	Post a New Article
Ctrl O	Compose a Mail Message
Ctrl F	Find a Newsgroup

2.1.2 Network Menu Commands

The Network Menu contains the operations you need to communicate with your Network based services. From this menu you can manually establish connections to your News service provider, terminate these connections, Log out of a MAPI (Microsoft Mail Applications Programmer Interface) compatible mail system, or (in the event of an emergency) reset all of WinVN's knowledge about your remote network connection.

Connect to Server option

Use this command if you have the *Connect at Startup*

disabled under the *Config Menu*. This will startup a network connection between your workstation and your news server.

Disconnect from Server

Use this command to terminate the network connection to your news server without exiting WinVN.

Mail Logout

Use this command to manually log out of a networked based mail system (such as Microsoft Mail) without exiting WinVN. This can save both local and network resources if you are sure you won't be needing to send mail for a while. If you are logged out from your mail system and wish to forward an article via mail, WinVN will force another mail login if necessary.

Reset Server Protocol

Resets WinVN's interface to the network, aborting any outstanding requests.

Quit without Saving

Terminates WinVN, and leaves the NEWSRC file unchanged.

Exit

Terminates WinVN, and writes a record of your activity to the NEWSRC file.

2.1.3 Group Menu Commands

The Group Menu contains the operations you need to select and organize your newsgroups. With thousands of newsgroups available on the Usenet, a person can quickly get lost trying to locate a newsgroup on a particular subject. The Find command can be used to locate a newsgroup containing a particular substring and when someone finds a group and wants to keep up with its development, he can select Subscribe. This does not get rid of unsubscribed groups but rather places subscribed groups near the top of the groups list so they are easier to find.

Find Searches the main window for a newsgroup name that contains a specified text string. Find brings up a dialog box into which you enter the string for which you want to search. Click on OK to start the search, or Cancel if you decide not to search after all. If a newsgroup is found which contains the specified string, the main window will be scrolled so that the newsgroup name is visible. The selected newsgroup name will be marked with a ">". If no such newsgroup can be found, WinVN says so via a message box.

Find Next Continues the search started by the previous Find... or Find Next. The next newsgroup name containing the string, if any, is displayed.

Subscribe selected groups Subscribes to the currently-selected newsgroups. See *Subscribing to Newsgroups*.

Unsubscribe selected groups Unsubscribes from the currently-selected newsgroups.

Move selected groups to Top Subscribes to the currently-selected newsgroups if they are not already subscribed, and moves them to the bottom of the subscribed newsgroup list.

Deselect all Clears all newsgroups in the main window, so that no newsgroups are currently selected.

2.1.4 Utilities Menu Commands

You can use options on the Utility Menu when you need to perform operations that don't require a particular newsgroup to be selected. This includes creating an article that you would like cross posted to multiple newsgroups, individual (non-news) related Electronic Mail, or operations that interact directly with the local file system.

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New Article	Allows you to begin creating a new article.
Compose Mail	Allows you to send Electronic mail directly from within WinVN. The type of mail system you enter will be determined by the setting of the Mail Transport option on the <i>Configure Communications menu</i> .
Batch	Allows you to send a series of mail messages or posts once they have been prepared. This is most useful when posting or mailing attachments that need to be broken up into multiple messages.
Decode a File	Decode the contents of an encoded binary file. The file may contain multiple saved mail/news articles, spanning multiple logical encoded files.
Encode a File	Encode the contents of a binary file into a series of valid ASCII characters and store in a file. The file can then be decoded using the <i>Decode a File</i> menu option.

2.1.5 Config Menu Commands

The Config Menu is the most important menu in WinVN for new users. It allows WinVN to be customized with personal information, visual preferences and all the information necessary to connect a client workstation to the server computers at a local site. A careful study and understanding of all the operations available via the Config menu will make WinVN more enjoyable to use. The two *Configuration Menu* options that are absolutely required for successful news reading/posting operation are the *Configure Comm menu* and the *Configure Personal Info menu*.

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Configure Comm	Configure communications parameters
Configure Personal Info	Customize User information
Configure Miscellaneous	Customize WinVN preferences
Configure Logging	Enable an option within WinVN to log all outgoing posts or mail messages to a local text file.
Configure Signature File	Allows the User to identify a local text file that will be appended to every outgoing Post.
Configure Fonts	Customize the fonts WinVN uses when displaying text in the Group, Article, Status windows or while Printing
Configure Color	Customize the foreground and background colors WinVN uses in each of its windows.
Save Configuration	Forces a save of the WinVN.INI preferences file.
Save Window Positions	Saves the current WinVN window coordinates in the WinVN.INI file so that they will be restored the next time WinVN is started.

2.1.6 Help Menu Commands

WinVN comes with extensive on-line help using the Windows on-line help facility. A user can browse thru the help files with the mouse or search for subjects using the Search commands. Any underlined word is a cross-reference and will take them directly to the subject underlined.

Index	Starts the Help system with WinVN's main Help index.
About	Displays a dialog box containing WinVN version info.
Show Version	Displays the internal version number of each of

the modules used to build WinVN. This can be useful when reporting Bug reports. Press return or click OK on this window to get rid of this window.

2.2 Newsgroup Window

Group windows contain a list of subjects of articles in a given newsgroup. Double-clicking Left on the subject line of an article causes that article to be retrieved into an article window. Other operations you can do from this window can be found under the Articles, Sort and Search Menu's.

Group windows initially appear in the upper right area of the screen. It is possible to have up to 4 group windows open at any one time. *See Config Menu Commands.*

The first character of each subject line in a group window gives information about that article:

Space	WinVN has no information on the status of this article, or that this article was available in a previous WinVN session and you chose not to view it.
>	This article has been selected as the result of the previous Find operation.
s	This article has already been seen. It will also show up as a different color.
n	This article is new since your last WinVN session.

The other fields in the window are:

Article Number:	A number used to help a user locate a particular article. Never refer to this number when responding to an article since the number will most likely differ from server to server.
Article Date:	The date the article was posted to the server.
Authors Name:	The network E-Mail address or name of person posting the article.
Article Size:	The number of lines in the article.
Article Title:	The title of the article.

2.2.1 Using the Mouse and Keyboard from the Newsgroup Window

From the Newsgroup window, clicking the mouse anywhere on the window while a network operation is in progress will update the information on the screen with the current downloaded information. Once all the article header information has been downloaded and the Newsgroup window is fully populated, the mouse operations are:

Mouse Left	Mark/Unmark an article for further consideration
Drag Mouse Left	Mark/Unmark multiple articles
Mouse Double-Click Left	Select article for viewing
Mouse Middle	Toggle the read/unread state of an article
Drag Mouse Middle	Toggle read/unread state of multiple articles
Shift Mouse Left	Same as Mouse Middle
Mouse Right	Reserved for future popup article menu
Mouse Double-Click Right	Mark all articles above this one as "seen".

From the Newsgroup Window, certain keys can be used to quickly access some of WinVN's windows and menus. WinVN attempts to follow Microsoft Windows keynaming conventions whenever possible. Every menu option in WinVN has one underlined letter in its descriptive text. Pressing the ALT key and this underlined letter will perform the same action as clicking on that item with the mouse. The following table contains an additional list of keys available from WinVN's Newsgroup window:

F3	Find Next
F6	Switch between Windows
Pg Dn	Scroll Article List Down a Page
Pg Up	Scroll Article List Up a Page
Down Arrow	Scroll Article List Down one Line
Up Arrow	Scroll Article List Up one Line
Alt F4	Exit
Ctrl A	Select all text in Article for Copy
Ctrl D	Deselect all Selected Text

Ctrl F	Find an Article
Ctrl U	Update the list of Articles

2.2.2 Newsgroup window with Threading Enabled

One of the most powerful features of WinVN is its ability to display series of articles as coherent conversations. This feature is called threading. Whenever someone using Network News responds to an article (whether they are using a threaded news reader or not), a piece of information called a "reference" is preserved along with the response. A threaded news reader (like WinVN) can request all of this "reference" data from the News Server and sort it locally in such a way as to reconstruct the entire conversation in the exact order it happened.

This isn't as easy to do as it seems. The USEnet spans 7 continents in 17 timezones and it can take anywhere from seconds to a week for a given article to propagate thru the network. In fact, sometimes you may see many responses to an article before you ever see the original article.

When WinVN threading is enabled, via the Compute Threads option of the *Config Miscellaneous menu*, you will see the subject title of the oldest base note for each conversation displayed, followed by a series of indented marks. Each indented mark indicates that an article was entered as a response to the previous article. Since News Servers typically age out old articles and WinVN allows you to fetch only the "latest" series of articles on a server, you may not have all articles that make up a full thread. In that case, the Subject line may begin with an RE: indicating that the base article of the thread was actually a response to another article that is no longer on your local server.

In the above example, article 1180 was a response to a subject that was older than the oldest article available on the server. Articles 1181 and 1200 were direct responses to article 1180. Article 1253 was a response to article 1234 which in turn was a response to 1181. Notice the large gaps in article numbers. This indicates the number of non-related intervening conversations that were being discussed in this newsgroup that you would need to filter thru if you did not have the ability to sort via threads.

2.2.3 Articles Menu Commands

New Article	Creates a Posting window for the purpose of composing a new article for this newsgroup.
Compose Mail	Creates a Mail window for the purpose of sending Electronic Mail.
Update	Update the article display with any new articles that have arrived at the server. Currently, this does not save any previous headers that may have been fetched but that will be fixed in a future release.
Save Selected Articles	Save all articles marked via the Left Mouse Click or menu options to a disk file.
Decode Selected Articles	Binary decode all articles marked via the Left Mouse click or menu options and store their contents in file(s). Selection can span multiple encoded files.
Select all Articles	Mark all articles in the newsgroup as selected.
Deselect all Articles	Mark all articles in the newsgroup as not selected.
Select Articles Containing...	Selectively mark articles in the newsgroup based on whether its title contains a certain string of characters.
Exit	Closes this Group Window.

2.2.4 Sort Menu Commands

Sort by Date	Sorts all article headers by date
Sort by Subject	Sorts all article headers by Subject. The letters RE: in front of subjects are ignored so that responses will be sorted near the original subject.
Sort by Lines	Use this to find out who writes the longest or shortest articles in a given newsgroup.
Sort by Threads	Organize articles so they are displayed as a base article followed by each response articles. Each response is indented in such a way as to show which article a person was reading when the response was made. This option is only available if Threading has been enabled from the Config menu.
Sort by Article Number	Sort articles based on their article number. This is the order the articles were received by the local server.
Sort by Author	Sort articles based on the E-mail address or name of the article author.

2.2.5 Search Menu Commands

Find...	Searches the article subjects in this Group Window for an article whose subject line contains a specified text string. Find brings up a dialog box into which you enter the string for which you want to search. Click on OK to start the search, or Cancel if you decide not to search after all.
Find Next	Continues the search started by the previous Find... or Find Next. The next article containing the previously-set subject string is displayed if it can be found.
found,	If an article is found whose subject contains the specified string, the window will be scrolled so that the subject line is visible. The selected article subject will be marked with a ">". If no such article can be found, WinVN says so via a message box.

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2.3 Article Window

An article window displays the text of an article. The article is initially positioned in the scrollable window to the beginning of the article text, with the article header scrolled out of sight. (If you scroll the window manually during the short time that the article is being retrieved from the news server, the article is not repositioned.)

From the Article Window, certain keys can be used to quickly access some of WinVN's windows and menus. WinVN attempts to follow Microsoft Windows keynaming conventions whenever possible. Every menu option in WinVN has one underlined letter in its descriptive text. Pressing the ALT key and this underlined letter will perform the same action as clicking on that item with the mouse. The following table contains an additional list of keys available from WinVN's Article window:

SPACE	Scroll Down till end of article - At end go to Next Unread Article
F2	Find Next Unread Article
F3	Find Next Article with same Subject
F6	Switch between Windows
Pg Dn	Scroll Article Down a Page
Pg Up	Scroll Article Up a Page
Down Arrow	Scroll Article Down one Line
Drag Mouse	Highlight text for Copy to Clipboard
Up Arrow	Scroll Article Up one Line
Right Arrow	Horizontal Scroll to the right
Left Arrow	Horizontal Scroll to the left

Alt F4	Exit
Ctrl A	Select All Text for Copy
Ctrl B	Followup Article
Ctrl C	Copy Article to Clipboard
Ctrl D	Deselect All Text
Ctrl F	Find text in an Article
Ctrl L	New Article
Ctrl N	Goto Next Article
Ctrl O	Compose Mail
Ctrl P	Goto Previous Article
Ctrl R	Decode Article using ROT13
Ctrl U	Update the list of Articles

2.3.1 **File Menu Commands**

Save Saves the article in this Article Window to a file. The filename from the most recent **Save As...** is used. If no **Save As...** has been done in this session, **Save** acts just like **Save As...**

Save As... Brings up a dialog box asking the user for a file name to which the current article should be saved. The dialog box also contains a check box labeled **Append to this file**. If this box is checked, WinVN will write the article to the end of the specified file. Otherwise, WinVN will overwrite the file with the article.

Press **OK** to actually save the article; press **Cancel** if you have changed your mind about saving the article.

- Print** Prints the article in the Article Window to the default Windows printer. The fonts used in printing can be controlled via the *Config Fonts menu*.
- Print Setup** Allows the default printer and printer options to be changed.
- Decode Article** Binary decodes the displayed article and stores it in a disk file. This is useful if someone sends a binary picture or executable as an attachment to a news posting.
- Exit** Closes this window.

2.3.2 Edit Menu Commands

Copy Copies selected text of an article to the Windows Clipboard.

Deselect All Marks the entire text of an article as deselected.

Select All Marks the entire text of an article as Selected. This text will be copied to the Windows Clipboard during the next Copy operation.

2.3.3 Search Menu Commands

Find... Searches the article text for the specified text string. Find brings up a dialog box into which you enter the string for which you want to search. Click on OK to start the search, or Cancel if you decide not to search after all.

Find Next Continues the search started by the previous Find... or Find Next. The next occurrence containing the previously-set text string is displayed if it can be found. If no matching text can be found, WinVN says so via a message box.

2.3.4 View Menu Commands

Next Article Fetch and display the next article in this newsgroup. If there is no next article, WinVN says so.

Next with same Subject

Search the subsequent articles in this newsgroup for an article with the same subject as the current article. (Leading "Re:" notations are ignored.) If a matching article is found, it is retrieved and displayed in the current Article Window.

Previous Article Causes WinVN to redisplay the previous article to the one you are viewing.

ROT13 Article Decodes an article that has been encoded using the ROT13 algorithm. This algorithm is simply all the letters of the alphabet shifted in sequence by 13 letters. Some authors of objectionable material in newsgroups will encode their material in this manner so that the casual reader does not get offended by the material.

2.3.5 **Respond Menu Commands**

- | | |
|--------------------------|---|
| Follow-up Article | Creates a Posting Window with the appropriate header and text to compose an article that responds to the article in the current Article Window. See Posting an Article. |
| Compose Mail | Creates a Mail Window with the appropriate header and text to send electronic mail about an article. See Mailing an Article. |
| Forward Article | Forwards the viewed article to someone via Electronic Mail. |

2.4 Posting Window

While reading an article in WinVN, a click on the *Respond Menu* sends a reply to the originator of the article. A user has the choice of sending this reply back to the entire USEnet community (a POST) or just back to the original author (an E-Mail message). A click on *Followup Article* will produce a Posting Subject dialog box.

After you verify the subject of your post, you will be thrown into a posting window that allows you to compose and then post an article to the network. You will notice when replying to an article, WinVN will automatically prefix each line in the original article with a ">" and place a reference identifier and author in the file. When reading articles, you can click the mouse on this identifier and jump right to the original article. See *Posting an Article*.

2.4.1 **Posting Menu Commands**

- | | |
|---------------------|--|
| Post Article | Sends your completed article in this Posting Window to the news server for propagation throughout the network. |
| Attach File | Attaches a file to an article being posted. |
| Cancel | Closes this window. If you haven't already posted this article, its contents are lost. |

2.4.2 **Edit Menu Commands**

- | | |
|-------------------|--|
| Undo | Reverses the effects of the most recent change to this window. |
| Cut | Deletes the selected text and saves it in the clipboard. |
| Copy | Copies the selected text into the clipboard. |
| Paste | Retrieves the text most recently copied or cut to the clipboard into the current window. The text is inserted at the current cursor position. |
| Clear | Deselect all text in the current window. |
| Select All | Selects all text in the current window. Generally used just prior to a Copy operation to save the contents of the window to the clipboard. |
| Rot13 | Encode the article you are posting using the Rot13 encoding algorithm.
This algorithm is the Internet standard for loosely encoding text and making text unreadable to the casual viewer. It rotates all letters of the alphabet by 13 letters. Use this option when you decide your article contains objectionable material. A ROT13 encoded article is equivalent to placing your article in an envelope and writing the following statement on the outside. "This article contains viewing material that may be offensive to the average person. Decode at your own risk." |

3.0 PROCEDURES

3.1 Configuring WinVN

WinVN offers a number of configuration options. All are accessible from the *Config menu* of the main window. The *Configure Comm Menu* allows you to set communications parameters. The *Configure Personal Info...* and *Configure Miscellaneous...* options allow you to specify information about yourself and to set WinVN preferences. This information is not vital to the proper operation of WinVN.

3.1.1 Config Menu Details

3.1.1.1 Configure Comm...

Brings up a dialog box allowing you to configure various network communication options. WinVN is a WinSock based TCP/IP application. You must have networking software loaded on your PC and a WinSock compliant Dynamic Link Library (DLL) in your Windows or Windows System directory. WinVN makes all calls to WinSock thru a generic network interface DLL called GENSOCK.DLL. This interface has been developed to allow WinVN to also work with DLL's that predate the WinSock specification (such as the WSOCKETS.DLL used in Microsoft LAN manager 2.1a and DEC Pathworks 4.1) and also to allow experimentation with other non-sockets based networking transports.

From the *Configure Communications menu* you must fill in the IP address or name of your local news server. Obtain this information from your system administrator. You must also fill in the TCP port number or name of the news server program. Typically Network News is at port 119 and goes by the name NNTP. If the name NNTP doesn't work, enter the port number or edit the SERVICES file provided by your network vendor. This file should be in the directory with your networking software and should contain a mapping of service names to port numbers.

Next, you need to select one of 4 Mail Transport options. This determines if you are allowed to forward of NEWS articles via E-Mail. The options are:

Disable	Do not allow any News to Mail interface
Use MAPI	Send mail via Microsoft's Mail Applications Protocol Interface (MAPI). Use this option if you are using Microsoft Mail at your site. If you have the Demand Login option selected, WinVN will force a MAPI login "upon demand" instead of requiring a login instantly when WinVN is started.
Use SMTP	Send mail via the Internet Simple Mail Transport Protocol (SMTP) interface. WinVN provides a simple SMTP mailer.
Auto Select	WinVN will attempt to locate MAPI and use it if available, if MAPI is not available, it will default to SMTP.

You may also specify an SMTP mail server if you wish via the SMTP MAIL SERVER input box. This server will be used to forward all Simple Mail Transport Protocol (SMTP) based mail if you

have SMTP selected as your standard mail transport. If your SMTP based mailer requires a password or some other form of authorization, you can also specify User name and "encrypted" password information via the *Config Communications menu*.

3.1.1.2 Configure Personal Info...

Brings up a dialog box allowing you to specify personal information: your name, electronic mail address, and organization name. The organization name is typically the name of your employer or educational institution. This information is used to construct headers for articles and electronic mail messages that you write.

3.1.1.3 **Configure Miscellaneous...**

Brings up a dialog box allowing you to specify miscellaneous preferences regarding the operation of WinVN.

If **Connect on Startup** is checked, WinVN will attempt to establish a network session with your selected News Server. Otherwise, you will need to manually connect to your server via the Connect to Server option on the Network Menu.

If **New window for each group** is checked, WinVN will attempt to create a new Group Window for each newsgroup selected from the Main Window. If this option is not checked, WinVN will reuse an existing group window to display newly-requested newsgroups.

If **New window for each article** is checked, WinVN will attempt to create a new Article Window for each article selected from the Main Window. If this option is not checked, WinVN will reuse an existing article window to display newly-requested articles.

If **Confirm Batch Operations** is checked, WinVN will prompt for confirmation before executing batch operations, such as breaking up a large binary file into multiple posts, encoding each one and posting them as separate articles.

If **Always confirm save on exit** is checked, WinVN will prompt the user to save the **winvn.ini** and **newsrsrc** files upon exit. If this options is disabled, WinVN will automatically save these files.

If **Confirm Use of Reply-To** is checked, WinVN will prompt you for confirmation anytime you reply to a post that has a FROM: address different than a REPLY-TO: address. A number of large sites on the Internet allow their people to send mail directly from computers inside their facility but don't allow responses to come back thru the same route. Those sites typically will use the REPLY-TO field of a mail message to identify a proper return address. However, other sites have broken mail software and checking this option will allow you to verify addresses. You usually won't know what is a proper address so the typical procedure is to use the REPLY-TO field (if it exists), and if the E-mail bounces, try the FROM: field.

Setting **Article Fetch Limit** determines how many article subject lines you are willing to automatically accept before popping up a dialog box. This number defaults to 300 which is fine for a local area network connection but it may be too high for a lower speed serial SLIP connection. You can also select Unread from this dialog box and download only articles starting from the oldest unread article.

Checking **Append saved articles** affects what WinVN does when you attempt to save the contents of an article to an existing file. If this box is checked, WinVN will append the article to the file. Otherwise, it will ask you what to do. See [File Menu Commands](#).

If **Full-name 'from' in group window** is checked, WinVN will display the name of the person that posted an article instead of his/her E-mail address. Since specifying a Full Name is an option to many mailing systems, if WinVN can't find a persons "Full Name", it will use their E-mail address out of the news articles "FROM" field.

If the **Show unsubscribed groups** option is checked, WinVN will display all groups on your News Server, even ones that are not currently subscribed.

If the **Compute Threads** options is checked, WinVN will request additional "references" data for each article in the displayed group. You can then sort articles by threads. For a discussion of threads, read the section *News group Window with Threading Enabled*.

If the **Show full subject in threads** is checked, WinVN will display the actual subject string of all articles in the thread. Typically this is not meaningful since most articles in a particular thread all have the same subject. However, sometimes someone changes the subject in the middle of a thread and selecting this option allows you to see these changes.

The option **Multi-Select in Group Window** changes the behavior of the mouse when used to select multiple groups. The default behavior of the mouse allows you to click on groups individually and that group will stay selected. With Multi-Select enabled, a Mouse Left click on any group highlights that group and turns off all others. After the first click, a Shift Mouse Left Click will highlight ALL intervening groups between the 1st click and your current mouse location.

The option **Auto Latest Unread** changes the behavior WinVN so that it never displays the Article Fetch Limit Dialog box and acts as if the **Latest Unread** option from that dialog was selected. Enable this option if you want WinVN to start retrieving any unread messages following the last successfully read message from a particular group.

The **Check for new groups on startup** option determines whether WinVN queries the news server for newly-created newsgroups. Checking for new newsgroups also allows WinVN to determine which groups have received new articles since the last WinVN session. The **Yes** and **No** options are self-explanatory; **Ask** means that WinVN will ask the user whether to check for new groups every time it starts up. The **Yes** option is recommended for Ethernet-attached PCs. Checking for new groups can take a very long time on serially-attached PCs,

so people using SLIP connections usually set this feature to **No**. If you select **Yes** a menu similar to the one below will popup when new newsgroups are created by the network.

Clicking the mouse on any group will subscribe the user to that group. Click **OK** when done to accept the selections or **CANCEL** to be re prompted the next time WinVN is started. All groups selected after an **OK** will be included into the users NEWSRC file when that file is saved upon exit from WinVN. If the number of new groups on a server exceed 200, you will not be prompted with a dialog box to individually select new groups. Instead, all new groups will be entered as unsubscribed groups in alphabetical order and you can select them via the normal *Subscribing to Newsgroups* process.

3.1.1.4 **Configure Logging**

Many frequent users of Network News like to keep a local copy of all articles they post. News Servers will age out old articles and many times a new user to the group will ask an identical question shortly after an old article is deleted. If the Newsgroup doesn't have a Frequently Asked Questions (FAQ) list, many active members of a news group will refer to their log files when starting a FAQ list for the newsgroup. WinVN also allows logging of any E-mail messages via the Dispatched Mail log file option. Logging can be Enable or Disabled via the **Enable Logging** option in the Log File Options dialog box. The *Config Logging* option is located under the *Config Menu*.

3.1.1.5 **Configure Signature File**

A signature file is a file that is appended to the bottom of every article sent by a user. It usually identifies the full name, organization, and any disclaimers a user wishes to include in his posts. Remember proper network etiquette and do not get carried away creating complicated signature files. Most people find complex ASCII drawings, cute saying or signature files much larger than about 4 lines annoying to read.

Signature files can be created using any Windows Editor but remember to save a signature file as a plain ASCII text file. Vendor dependent binary files (such as the default output of Microsoft Word for Windows) are not portable across the entire USEnet community. Once created, signature files can be enabled for use by WinVN via the *Config Signature File* option under the *Config Menu*.

When using WinVN in a Local Area Network configuration, be sure to specify a network mounted drive location for the signature file. Only network mounted drives will be accessible from multiple workstations on a LAN. If WinVN cannot find a signature file upon startup, it disables the Signature File feature until it is manually re-enabled.

3.1.1.6 **Configure Fonts**

WinVN allows you to change the fonts used in each of its main areas. Fonts can be customized for the Newsgroup and Article header windows, the Article Text window, the status window and WinVN hardcopy output. The selection of a font can make a big difference on the readability of Usenet articles and WinVN display's. The Newsgroup window looks best with fixed fonts such as FIXEDSYS or Courier while most article text windows look better in proportional fonts such as Helvetica or Arial. In a fixed font, the width of each character in the alphabet is constant (IE: the letter "i" takes up as much horizontal space as the letter "m"). Keep in mind that most Usenet posting is done using character cell displays with fixed fonts. If someone attempts to get fancy with ASCII graphics or tables, only fixed fonts will line up from line to line.

3.1.1.7 Configure Color

WinVN allows the user to configure the foreground and background colors for each of its main windows. When the *Config Color* option on the Config Menu is selected, a user can select the color of Unsubscribed Groups, Subscribed Groups, Unseen Articles, Seen Articles, Article Text, Status Text, List Background, Article Background or Status Background. Once the proper window is selected, a popup color editor window will appear.

A user can select colors from a standard palette of colors or define their own set of custom colors. Once defined, the Save Configuration Information option must be selected if the colors are to be loaded during all subsequent WinVN sessions. WinVN does not currently support dithered colors.

3.1.1.8 Saving Configuration Information

When you have finished specifying configuration information in one of the configuration dialog boxes, you must click on one of the two buttons in the dialog box:

OK accepts the changes that you have made, and will record the preferences the next time the Save Configuration option is manually selected or the user exits the WinVN application. These changes will apply to future WinVN sessions as well as the current session (if applicable). This information is stored in your WINVN.INI file.

Cancel causes WinVN to ignore the changes you have made.

If everything is saved correctly, a message box is displayed announcing that all options have been successfully stored to disk.

3.1.1.9 Save Window Positions

At any time during your WinVN session, you can decide to save the overall positions of all WinVN windows. The next time you startup WinVN, it will shape the default sizes of the Main, Group and Article windows to conform to their sizes at the time you clicked on Save Window Positions.

3.1.3 The NEWSRC File

In order to keep track of your viewing history, WinVN records information about newsgroups in a file named **newsrsrc**. This file contains a list of all newsgroups. For each newsgroup, WinVN records whether it is subscribed and which articles have been seen. Normally the **newsrsrc** file is located in the directory pointed to by the WINVN environment variable. Since this file contains information unique to each user, each user should have their own NEWSRC file. WinVN also provides other mechanisms to find the **newsrsrc** file. It will use the following search mechanism is when looking for the **newsrsrc**:

- Command Line Override Option
- WinVN Environment Variable
- Application Startup Directory
- Windows Directory
- Windows System Directory
- DOS Search Path

The syntax for the Command Line Override Option is:

WINVN my-winvn-ini-file my_newssrc_file

Many UNIX-based news readers record this information in a file named **.newsrsc**. WinVN uses the same file format to provide compatibility with these programs. If your PC is networked to a file server that services both DOS based files and UNIX or VMS based files, you can read news from many different systems and share a common NEWSRC file.

3.1.3 The WINVN.INI File

WinVN stores the options you select on the *Config menu* into a file called **WINVN.INI**. This file is usually customized for each user and stored on a networked drive unique to that user. WinVN usually finds this file by looking for an environment variable called WINVN. To configure WINVN to find this file in the proper place add the following line to either your **AUTOEXEC.BAT** or the login script of your network login command:

SET WINVN=C:\WINVN (or whatever directory you have your WINVN.INI)

If you are using WinVN from Windows/NT instead of Windows/DOS, add this environment variable by going to the Control Panel and selecting the SYSTEM icon. Enter the variable and value in the section marked User Environment Variables.

You can override looking for the WINVN environment variable by passing the location of the WINVN.INI file as the 1st argument when starting WinVN.

ie: **WINVN my-winvn-ini-file my_newsfile**

A sample **WINVN.INI** looks as follows:

3.1.4 Setting Windows TimeZone Variable

People post Network News from all over the world in every possible timezone. When WinVN sends a news article or mail message, it needs to know the time of the response so that the information can be "time stamped". WinVN uses the TZ environment variable to determine the time zone of the workstation. If this variable is not already set by some other MSDOS or MS WINDOWS application, it will need to be set before WinVN is loaded. This variable can be entered into the MSDOS AUTOEXEC.BAT file or any function that is run before Windows is started. The syntax of the TZ variable is as follows:

```
set TZ=tnz[+|-]hh[:mm[:ss]] [dzn]
```

The *tnz* must be a three-letter time-zone name, such as EST, followed by an optionally signed number, *hh* specifying the offset one must add to the local time to get UTC (Universal Coordinated Time). To specify the exact local time, the hours can be followed by minutes (:mm) ; seconds (:ss) and a three-letter daylight-savings-time zone, *dzn* such as EST. Separate hours, minutes and seconds with colons (:). If daylight savings time is never in effect, as it is in certain parts of the world, set TZ without a value for *dzn*. The *tnz* can be any value, but it is important that the correct offset from UTC is specified for the timezone calculations to work properly. Some examples:

```
set TZ=EST5EDT
set TZ=MST7
set TZ=PST8PDT
set TZ=GST1GDT
set TZ=GST+1GDT
```

Countries are free to make up their own designations for *tnz* and *dzn* so zone names can never be used for anything other than display purposes. This causes some overlap in names so it is not always possible to tell an exact location from a given Time Zone Name. The following are many generally accepted 3 letter time zone names:

Hour	TZN	DZN	Zone	Example
0	GMT		Greenwich Mean Time	GMT0
0	UTC		Universal Coordinated Time	UTC0
2	FST	FDT	Fernando De Noronha Std	FST2FDT
3	BST		Brazil Standard Time	BST3
3	EST	EDT	Eastern Standard (Brazil)	EST3EDT
3	GST		Greenland Standard Time	GST3
3:30	NST	NDT	Newfoundland Standard Time	NST3:30NDT
4	AST	ADT	Atlantic Standard Time	AST4ADT
4	WST	WDT	Western Standard (Brazil)	WST4WDT

5	EST	EDT	Eastern Standard Time	EST5EDT
5	CST	CDT	Chile Standard Time	CST5CDT

Hour	TZN	DZN	Zone	Example
5	AST	ADT	Acre Standard Time	AST5ADT
5	CST	CDT	Cuba Standard Time	CST5CDT
6	CST	CDT	Central Standard Time	CST6CDT
6	EST	EDT	Easter Island Standard	EST6EDT
7	MST	MDT	Mountain Standard Time	MST7MDT
8	PST	PDT	Pacific Standard Time	PST8PDT
9	AKS	AKD	Alaska Standard Time	AKS9AKD
9	YST	YDT	Yukon Standard Time	YST9YST
10	HST	HDT	Hawaii Standard Time	HST10HDT

11	SST		Somoa Standard Time	SST11
-12	NZS	NZD	New Zealand Standard Time	NZS-12NZD
-10	GST		Guam Standard Time	GST-10
-10	EAS	EAD	Eastern Australian Standard	EAS-10EAD
-9:30	CAS	CAD	Central Australian Standard	CAS-9:30CAD
-9	JST		Japan Standard Time	JST-9
-9	KST	KDT	Korean Standard Time	KST-9KDT
-8	CCT		China Coast Time	CCT-8
-8	HKT		Hong Kong Time	HKT-8
-8	SST		Singapore Standard Time	SST-8

-8	WAS	WAD	Western Australian Standard	WAS-8WAD
-7:30	JT		Java Standard Time	JST-7:30
-7	NST		North Sumatra Time	NST-7
-5:30	IST		Indian Standard Time	IST-5:30
-3:30	IST	IDT	Iran Standard Time	IST-3:30IDT
-3	MSK	MSD	Moscow Winter Time	MSK-3MSD
-2	EET		Eastern Europe Time	EET-2
-2	IST	IDT	Israel Standard Time	IST-2IDT
-1	MEZ	MES	Middle European Time	MEZ-1MES
-1	SWT	SST	Swedish Winter Time	SWT-1SST

-1	FWT	FST	French Winter Time	FWT-1FST
-1	CET	CES	Central European Time	CET-1CES
-1	WAT		West African Time	WAT-1

3.2 Posting an Article

You can post an article either as a follow-up to a previous article, or as a "brand new" article. Note that often it is preferable to respond to an article via an electronic mail message rather than by another article; see *Usenet Etiquette and Mailing a Message*.

An article contains a header followed by the text of the article. Each article is directed to one or more newsgroups by a "Newsgroups:" line in the header. If you want to send an article to more than one newsgroup, type the names of the newsgroups on the "Newsgroups:" line, separated by commas. The text of an article is separated from the header by a blank line.

3.2.1 Follow-up Articles

A follow-up article has the same "Subject:" line as the article which inspired it. (The notation "Re:" is added.) This makes it easier for other Usenet News users browsing the newsgroup to follow the discussion. Also, a follow-up article typically selectively quotes the earlier article, again to make the discussion easier to follow.

You start composing a follow-up article by selecting the **Follow-up Article** option of an article window's **Respond** menu. (See *Respond Menu Commands*.) WinVN creates a posting window. The header of the article in this window is filled in with information taken from WinVN configuration options and from the header of the referenced article. (See *Configuring WinVN*.) The full text of the referenced article is also included in the posting window, with each line preceded by a ">" to indicate that another article is being quoted. Fill in the text of your response. You should delete irrelevant quoted lines in your follow-up article.

3.2.2 New Articles

You start composing a "brand new" article by selecting the **New posting** option from the **Articles** menu of a group window. (See *Articles Menu Commands*.) WinVN creates a posting window for your new article. The "Newsgroup:" line contains the name of the newsgroup of the group window; you can edit this if necessary. Other information is based on the way you configured WinVN. You must fill in an appropriate subject for the new article.

When you have completed composing your article, you can send it to the network or cancel it. See *Posting Menu Commands*. After you have posted the article, you can close the posting window.

3.3 Sending Electronic Mail

Reading and responding via Network News is becomes much more convenient when you can forward articles you see to individuals via Electronic Mail. WinVN provides a simple built-in Electronic Mail interface that follows the Simple Mail Transport Protocol (SMTP) and hooks to other external mail interfaces via the Microsoft Mail Applications Programmers Interface (MAPI) Dynamic Link Library (DLL).

3.3.1 MAPI vs SMTP Mail

Before you can send mail, you need to decide which mail interface you will use. If your workstation is part of a large institutional local area network, more than likely, that decision has already been made for you. Many PC based institutional LANs use mail systems (such as Microsoft Mail, Windows for Workgroups Mail, Schedule Plus, etc.) that conform to Microsoft's Mail Application Programmers Interface (MAPI) Dynamic Link Library (DLL). Local mail systems make it convenient to exchange mail between your local work environment (with custom address books, global address books, lookup services, mailing list indexes etc.) but they don't always scale up when dealing with an extremely large distributed system such as the Internet. If you spend most of your time communicating with local users, you will probably want to stick with whatever mail system is used on your institutional LAN (such as MAPI) . If you spend most of your time communicating with people on the Internet, and you do not already have a robust SMTP based E-mail package, you probably want to start out using the featureless SMTP interface built into WinVN.

3.3.2 New Messages

You start composing a "brand new" message--one that does not reference an article--by selecting the **Compose mail** option from the **Utilities** menu of the main window. (*See Utilities Menu Commands.*) WinVN creates a mail window for your new article. Your name and organization are filled in based on the way you configured WinVN. You must fill in an appropriate subject for the new article on the "Subject:" line, and a recipient on the "To:" line.

If you are using MAPI mail, you will be prompted to Login to your MAPI Mail server before you can proceed.

3.3.3 Reply Messages

A reply message has the same "Subject:" line as the article which inspired it. (The notation "Re:" is added.) Also, a reply message typically selectively quotes the article which inspired it, to give some context to the recipient.

You start composing a reply message by selecting the **via Mail** option of an article window's **Respond** menu. See Respond Menu Commands. WinVN creates a mail window. The header of the message in this window is filled in with information taken from WinVN configuration options and from the header of the referenced article. (See Configuring WinVN.) The full text of the referenced article is also included in this window, with each line preceded by a ">" to indicate that an article is being quoted. Fill in the text of your message. You should delete irrelevant quoted lines.

If you are using a MAPI interface such as Microsoft Mail, your mail window will look something like this:

While the SMTP interface will look something like:

When you have completed composing your message, you can send it or cancel it. See *Mail Menu Commands*. After you have sent the message, you can close the mail window.

3.4 Sending Attachments

You can send attachments with your post by selecting the option Attach File from the Posting window. These can be either text files or binary files. Selecting the Attach File command will bring up a dialog box that will prompt you for the location of the file to attach.

Sending binary files thru the USEnet must be used with caution. There may be thousands of people that read your message and it is considered poor network etiquette to send binary files that can't be decoded by the majority of readers of the group to which you are posting. For instance, don't post Apple Macintosh binaries that belong in **COMP.BINARIES.MAC** in the group **COMP.BINARIES.IBM.PC**. If you do, you will probably be flooded with mail from folks that tried to run your "application" and got some strange error messages. Also, many subject areas have special newsgroups just for posting binary files and other groups for discussing the binary files. The discussion groups usually end in "d" such as **COMP.BINARIES.IBM.PC.D** for discussions about the binaries in the **COMP.BINARIES.IBM.PC** group. This is because binary attachments can be rather large and many sites don't have the disk space to handle large volumes of binary files. Those sites can keep up with the discussions about the binaries and then use some other means, such as a File Transfer Protocol (FTP) transfer to get the binaries they need.

Brief technical encoding/decoding background:

When Internet mail and news is sent thru the collection of machines that make up the Usenet, uncontrolled binary data in a file could confuse a number of network gateways. For this reason, all binary files transmitted must be converted (encoded) into a subset of the ASCII language that can be safely passed thru the variety of devices on the Usenet. The most common style of encoding is 3-to-4 encoding where three 8-bit bytes are 'spread' into four 6 bit bytes (each with the two high order bits set to zero). A 6-bit byte conveniently can be mapped to a 64-character subset of ASCII. Common encodings are UU and XX, which are identical except for their choice of ASCII mappings (UU is all upper-case). Users sometimes create their own encoding tables (list of 64 characters to use). In each of these, the encoded file begins with the word 'begin' and ends with the word 'end'. Base-64 is a somewhat newer 3-to-4 encoding scheme that has some advantages over UU and XX encoding. It is used with the MIME standard.

Once you select the file, you will be presented with an "attachment options" menu that allows you to configure all aspects of the attachment process.

The **Now or Next?** option allows the user to specify whether the encoded characters of the file to be attached will be inserted at the end of the initial news message or in a follow on message. If the user selects **Begin Attachment in this Article** then the first encoded characters will be in same article as the initial message. If the user selects **Begin Attachment in New Article** then the initial article will contain no encoded characters and the encoding process will create as many new articles as necessary following the initial article.

The **Encoding Type** option allows the user to specify how the binary data will be encoded. The standard for information exchange over the Internet is MIME which uses a Base 64 encoding scheme but the standard thru many E-mail gateways is a simpler encoding scheme called UUENCODING. WinVN allows you to select between Base-64, UUENCODING, XXENCODING, No Encoding or you can invent your own and attach it to the **Custom Encoding Table** section on the Attachment Options Menu. If custom encoding tables are used, anyone

decoding the postings will need a copy of the Custom Encoding Table. This table is included at the top of the post which lists the ASCII table on two lines of 32 characters each (just before the "begin" line).

The **Subject Line Template** allows a user to customize a detailed subject line for his multi-part post. A text string can be entered and interspersed with the symbols %s, %f, %p or %t. When WinVN encounters a %s in the template text string, it will insert the original subject line, a %f will insert the filename of the attachment, %p is the part number of a multi-part message and %t is the total number of parts transmitted. Winvn defaults to a Template of "%s - %f[%p/%t]". For the 1st part of a 7 part attachment with a subject called "Testing Attachments" and an attached file called "aconfig.bmp", this would produce the subject line: "Testing Attachments - aconfig.bmp[1/7].

The **MIME** box contains information used if the user wishes to send the attachment using the Multi-Purpose Internet Mail Extensions (MIME) protocol. If the option **Generate MIME headers** is selected, attachments will be identified as MIME attachments.

The **Content** option allows the user to specify the type of document that is being encoded. This can be very useful to anyone attempting to decode your binary attachment. The possible selections are: Application/Postscript, Application/Zip, Audio/Basic, Image/GIF, Image/JPEG, Other, Text/Plain, Text/RichText, Video/AVI, or Video/MPEG. WinVN attempts to select the appropriate content-type based on the filename extension (i.e. if you enter "Sushi", the content type will be "X-Sushi") If you click on "Make Default", WinVN will use the currently selected content type as the default for future attachments. Defaults are used whenever the type cannot be determined by filename extensions.

The **MIME boundary** option determines the text string to be inserted between multiple attachments in a single article. MIME is the Multi-purpose Internet Mail Extensions protocol (Internet Standard RFC-1341).

The **Article Split Length** option determines how large an individual posting is allowed to grow before it is split into a multi-part posting. Posting extremely large files as a single Usenet post will break some news sites and is considered good "netiquette" to break the post into multiple parts. Large files are usually split into less than 64,000 byte chunks where the word 'begin' comes before the first block and the word 'end' comes after the last block.

The **Review** box of the Attachment options menu determines if multiple attachments are sent as they are created or saved in a batch for later submission. If the option "Review in Edit Window before Posting" is selected, WinVN will create Edit Windows for each multipart post. A user can then customize any ASCII text in the Edit Window and then use the *Send Posts* option of the *Batch Menu* under the *Utilities Menu*. The **Post-While-Processing** option is the opposite of **Review**. Information is sent as soon as it is calculated. This option is only available when sending News Posts. Use the Send Mails option of the Batch menu to send multiple part attachments via mail. Note that Post-logging is disabled if you post while processing.

3.5 Creating Custom Encoding Tables

To create your own encoding table, choose exactly 64 unique ASCII characters (i.e.: no character can be used more than once). Enter these in the Custom Encoding Table section of the *Attachment Options Menu*.. Custom Encoding Tables are discouraged in the MIME standard and are only needed when an attachment is failing to pass through a particular gateway when using UU or XX encoding. Be warned that not all decoders support custom-tables, so the further you deviate from UU encoding standards, the less likely that the general population will be able to decode your attachments.

3.6 Decoding Articles

The large blocks of text in an encoded file may be presented to WinVN by a news server out of order or with blocks of other files mixed in. WinVN determines threads of blocks as they are received, buffers blocks which are out of sequence and then pieces together the fragmented files. Theoretically, you can select all files in a binaries newsgroup, and select decode. WinVN will determine which files contain encoded material. In cases where not all blocks of an encoded file are found in the selection, WinVN will store as much of the decoded file as possible.

WinVN is a MIME compliant encoder. Internally, MIME uses standard 3-to-4 encodings, but it is wrapped in a very precise protocol describing content types, and multiple-part tracking information. Strictly speaking, filename and part number information are not required in the subject line for MIME attachments. But, MIME is still young and there are many news readers in use that predate the MIME standard.

With non-MIME postings, there are no real standards for listing the file name, part number, and total number of parts for each encoded block. However, most encoders attempt to place this information on the subject line of each block. WinVN attempts to determine encoded-block threads by examining the Subject line of each post.

WinVN handles the following commonly used subject line styles:

```
filename.ext 1/2 comment
filename.ext (1/2) comment
filename.ext [1/2] comment
filename.ext 1 of 2 comment
filename.ext part 1 of 2 comment
This is part 1/2 of filename.ext
```

For subject lines beginning with the comment or free text, the filename is harder to guess. In these cases, WinVN chooses an identifier which it will seek in other subject lines (it prefers a word containing a dot (hopefully filename.ext), but if none, it just uses the first word). For example:

```
Another encoded file: filename.ext (1/2)    (filename = "filename.ext")
Testing encoded files (1/2)                (filename = "testing")
```

This is not an infallible method but it works most of the time. Subject styles known to be incorrectly handled:

```
filename.ext 3.4 (1/2)    (filename w/ version number)
filename.ext 001          (sequence w/ no # parts)
filename.ext1             (part number appended to filename)
```

Also, there are cases in which people post encoded blocks where the file names have unrelated subjects. WinVN won't realize that the articles go together. This example will start two threads - one for an identifier "test.exe", and one for an identifier "second":

```
Test.exe [1/2]
second part
```

In such cases, the 'Dumb Decode' option is available which deactivates the decoding threading algorithms. Dumb decode requires that the encoded blocks be in strict sequential order - it starts

decoding when it sees a 'begin' and stops decoding when it sees an 'end'. When WinVN is not smart enough to realize that encoded articles go together, you can make sure the articles are listed in order, select them all, and then use "Dumb Decode" to decode them.

There is always one decoding status window shown at the top-center of the screen showing the status for the current block (# bytes decoded, thread identifier, sequence info). Additionally, other windows show status for the logical binary file threads. It is possible to get detailed information about the decoding process by using the *Verbose Status Window* option. This option can be helpful when trying to solve a problem with the decoding process.

If the *Verbose Status Windows* option is checked, one window will be displayed for each binary decoded. This window shows detailed status of the decoding progress for each file. When the *Verbose Status Windows* option is not selected, there is only one thread status window and only a simple message identifying the start and completion of each binary thread decoded.

3.7 Reading only Unread Articles

If you are an experienced News addict and attempting to read news via a SLIP or other low speed network connection, the most common question you are likely to ask is "Is there any way for WinVN to only fetch the articles I have not yet read?" The answer to this question is YES and NO and the explanation is rather complicated. Unlike many other news readers, WinVN supports "Threading" and that implies that the list of messages you are presented are organized within the context of older messages. If WinVN didn't fetch some of these older articles, or only fetched ones you've never seen, it would be difficult to get any sense of context. Also, WinVN is optimized for high performance on a Local Area Network and this sometimes can make it slower over a lower speed connection.

When you select a newsgroup to view, WinVN initially transfers just the article header information from the server to your workstation. The actual article text is only transferred if you click on the subject line of the article. WinVN fetches these article headers articles in blocks using a single news command. The concept is that it is more efficient to get a few article subject headers that you don't want than it is to go through each article one by one and determine if the user has seen it before. So there is no easy way for WinVN to only fetch the articles you haven't read, but it can get close if you follow the following procedure each time you read news:

1. Select a low number for your Article Fetch Limit on the Configure Miscellaneous Menu. This will force a dialog box to be displayed each time you request articles from a newsgroup. One of the options on this box is called UNREAD
2. Each time you read articles from a group, before you exit, use the Mouse Double Click right command to mark the block of all articles above the one you were reading as having been read. This is equivalent to the "Catch-up" feature in other news readers.
3. The next time you select a newsgroup, select the UNREAD option from the Article Fetch Limit dialog box. This will only start transferring news from the

server to your workstation that is newer than your last "Catch-up" operation.

3.8 Subscribing to Newsgroups

3.8.1 What is "Subscribing"?

"Subscribing" to a newsgroup means telling a news reader that you are interested in tracking, selecting, and viewing articles in that group. Most news readers support the concept of "subscribing" to newsgroups as a means of simplifying the way that you interact with the news reader. There are probably over 1000 newsgroups in which you are not interested; if you are not subscribed to these newsgroups, a news reader need not bother prompting you with information on these groups.

WinVN also supports the concept of subscribing to a newsgroup, but primarily as a means of providing compatibility with other news readers. WinVN's windowed, point-and-click interface makes it less necessary for it to resort to the somewhat artificial distinction between newsgroups in which you are interested and newsgroups in which you are not interested. You can always access any newsgroup simply by scrolling to its name and clicking on it.

3.8.2 Subscribing to New Newsgroups

When WinVN starts up, it can check the news server to see if any new groups have been created since your last session. (*See Configuring WinVN.*) If WinVN checks and finds that new newsgroups do exist, it displays their names in a scrollable list in a dialog box. You select the groups to which you want to subscribe by clicking on their names. When you have finished making your selections, click on the **OK** button. If you click the **OK** button and haven't made any selections, the new groups will be placed in your unsubscribed newsgroups list and you can subscribe to them later if you wish. Alternatively, you can click on the **Cancel** button and WinVN will ignore adding the new newsgroups for this session. The next time you start WinVN you will be re prompted to make a selection.

3.8.3 Subscribing to Existing Newsgroups

Newsgroups to which you are subscribed are displayed in black at the top of the main window. Following these groups are all of the unsubscribed group names, in blue and sorted alphabetically. These colors are user definable via the *Config Color* menu.

You subscribe and unsubscribe to newsgroups by selecting them in the main window and using Group Menu Commands. Select groups by clicking on their names. A selected group appears in reverse video (black background). The **Subscribe selected groups**, **Unsubscribe selected groups**, and **Move selected groups to Top** menu options operate on all currently selected newsgroups.

Subscribing to a newsgroup moves its name to the bottom of the list of subscribed groups in the top portion of the main window. Unsubscribing to a newsgroup causes it to be moved to its proper alphabetical place in the unsubscribed portion of the main window.

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APPENDIX

A.1 DEFINITIONS

Article or Item

A message written by a Usenet News user and posted to the network. Articles are similar to electronic mail messages, but are not private. They are intended to be seen by potentially hundreds of thousands of people. Also called "postings".

Bulletin Board System (BBS)

An electronic system in which users participate in discussions by leaving public messages for each other. Most BBS's are run on personal computers and are accessible only by dialup modem. Many have additional features, such as on-line games and a file repository.

Usenet News is not a BBS in the usual sense of the word, but it provides the messaging features of a BBS on a much grander scale than found on any existing BBS.

Cross Reference

A type of hypertext link in Microsoft Help. A cross reference is a topic that appears in the Help window when you click on a term that appears in Help as green solid underlined text.

Definition

A type of hypertext link in Microsoft Help. A definition is a (usually) brief description of a term. Definitions appear when you press and hold the mouse button on a term that appears in Help as green text marked with a dotted underline.

The description disappears as soon as you release the mouse button.

Hence, it is not possible to access hypertext links within a definition. Some definitions contain hypertext links, however, because they are also available as cross-references. It is usually possible to reference a definition as a cross-reference via the Help **Search** button.

Electronic Mail Message

A message sent privately to one or more explicitly-named individuals. Electronic mail is not provided by Usenet News per se; electronic mail messages are not the same as news articles. However, many news readers provide the capability of sending (but usually not receiving) electronic mail because it is often desirable to respond privately to an article.

Header

A series of lines at the beginning of an article or electronic mail message that contain such information as the article's or message's author, its subject, its date and time of transmission, and so on. The header is separated from the actual text of the article or message by a blank line. When you are reading an article, normally WinVN starts displaying at the first line past the header. You can use the scroll bar to view the header.

MIME

Multimedia Internet Mail Extensions - an international standard for the exchange of text and binary files in Internet messages. It is presented in Internet Standard RFC-1341 by Nathaniel Borenstein and Ned Freed, June 1992.

Newsgroup

A collection of articles on a given topic. When you write an article, you specify to which group or groups it should be sent.

Each newsgroup has a hierarchical name which suggests the topic of that group. Names consist of several words separated by periods. The first word in the newsgroup name states the general category covered by that group; the second, a sub category of that general category, and so on.

For instance, the newsgroups **sci.chem** and **sci.math** are scientifically-oriented groups which are dedicated to chemistry and mathematics, respectively. **soc.culture.indian** is sociologically-oriented group devoted to the culture of India, and so on.

News Manager

The person or person's responsible for running the news feed at each site. They define the type of newsgroups received by each site and determine whether news from particular newsgroups is transmitted to other sites. Based on local system resources, your news manager also determines how many days of news traffic can be kept for each newsgroup.

Newsreader

A computer program through which you interact with the Usenet News system. News readers allow you to select and read articles written by others, and to write and post articles of your own.

A number of news readers have been written over the years, many of them for computers running the UNIX operating system. The best-known news readers are probably rn, vn, nn, and xrn.

News Server

A computer that runs special software to exchange news articles with other computers in the Usenet network, and makes these articles available to local users. News readers require access to a news server, but they do not require you to have an account on a news server.

Posting

The act of sending an article to the Usenet network, to be seen by potentially hundreds of thousands of individuals. Also, a synonym for "article".

Reference

Each news article contains a computer generated reference identifier that makes an article unique. This identifier looks something like:

<1993Jan21.214833.25109@titan.ksc.nasa.gov>.

Identifiers may appear a number of times in an article when someone quotes or references another article. In WinVN, clicking on a valid reference identifier will cause that article to be fetched from the server.

Threads

A way of organizing and displaying the sequence of articles that make up a conversation. The News protocol and many news readers have built-in support for this mode of operation. WinVN has direct support for threading if you have the "Compute Threads" option enabled from the Config Miscellaneous menu. You can also use "poor man's threading" by moving to the next article on the same subject with the "Find Next Article Same Subject" menu command. There is also a hypertext support of accessing news reference headers. You can click the mouse on a news reference header and WinVN will fetch that article and display it for you.

Usenet

A loosely-organized network of millions of computers worldwide. These computers are linked in a number of ways, including modems and TCP/IP based local area networks. The best known service provided by Usenet is Usenet News.

A.2 Error Messages

Bad Parity

WinVN is being setup to run in serial mode and the Parity portion of the CommString variable in WINVN.INI is something other than N (none) or E (Even).

Cannot allocate memory for text

You have requested WinVN to do an operation that would take more system memory than Windows currently has available. Close some other applications and then retry the operations or increase your windows SWAPFILE.

Can't Setup Socket, Initialization Error

WinVN is unable to communicate to the Windows TCP/IP socket interface. Check to see if your WSOCKETS.DLL is properly installed in your windows directory.

Can't Open new Window

You have too many article or group windows open. You must close one of your windows before you can create another. If you get this error often you may want to consider unselecting the option *New Window for Each Article* from the CONFIGURE MISCELLANEOUS OPTIONS menu. This will reuse existing article windows instead of creating new ones each time.

Could not connect to News Server

WinVN could not establish an NNTP (Network News Transport Protocol) session with the News server specified in the WINVN.INI file. Check to see if the NNTPPort number is set to 119 or whoever is valid for your News Server. Call your system manager and insure that your News Server is up and that you have the proper privileges to run the News protocol. Some servers restrict the times, hours or number of users allowed on the server host. If WinVN has previously worked, try selecting RESET SERVER PROTOCOL from the Options menu.

Could not write to File

WinVN was requested to save an article or configuration file and received an error message from the operating system. Check the disk to see if it is full and delete unnecessary files.

Could Not resolve Hostname

WinVN could not produce an Internet address from the host name specified in the NNTPHost entry of the WINVN.INI file. Check to see if the host name is misspelled or if the DNRTSR network driver is not loaded before windows is started. Attempt to replace the name with the valid Internet address for that host.

Environment variable WINVN not set

WinVN could not find your WINVN.INI or NEWSRC file. WinVN looks for these files in the directory specified by the WINVN environment variable. WinVN uses environment variables so that it does not have to hardcode a location for these files. Since these files can contain information unique to an individual user and potentially more than one user can use a PC, this environment variable should point to a different disk location for each user. The preferred way to set this variable is to include a default value for WINVN in your DOS AUTOEXEC.BAT file. Then, if you have a multi-user network setup on your computer, place an additional SET command in each users LOGIN and LOGOUT scripts. The name of these scripts will change from vendor to vendor.

DOS Startup	AUTOEXEC.BAT	SET WINVN=C:\WINVN\
Network Login Script	USERINIT.BAT	SET WINVN=U:\DOSFILES\NEWS\
Network Logout Script	EXITUSER.BAT	SET WINVN=C:\WINVN\

You can also override using the environment variable entirely by passing filenames on the command line.

ie: **WINVN my-winvn-ini-file my_newssrc_file**

Error Finding Next Window

WinVN thinks there are more article or group windows but is unable to locate them. This is an internal system error and some of WinVN's data structures are inconsistent. Exit WinVN and restart.

Error Parsing xxx

WinVN is having trouble understanding information specified in your WINVN.INI initialization file. Look at the line identified in the error message and examine the contents of the WINVN.INI file for any errors.

Error in WhatLine, Hit end of Document

WinVN prematurely encountered the end of an article while attempting to calculate the line number of text being displayed. This should never happen but may be possible if internal windows memory gets corrupted. Close the Article window and Group window and reselect.

Group Window is Gone

This error message is possible if you are in the article window and for some reason have closed the parent group window. To use any of the Find and Find Next Article functions, the original group window must still be around. Close the article window and then reopen the Group window from the Main window. You can have up to 4 Group windows open at any time.

Line too long in PutCommLine

One or more lines of your article was rejected by the News Server because it contained too many characters. Try reposting your response and pressing the Enter key between lines.

No Such Newsgroup

The newsgroup you requested has been removed from the News Server between the time you requested a list of newsgroups and requested articles from the group. Newsgroups are not removed from a News Server very often so this may indicate a problem with your network's News Server. Contact your News Server system administrator.

Out of Memory Error

You have requested WinVN to do an operation that would take more system memory than Windows currently has available. Close some other applications and then retry the operations or increase your windows SWAPFILE.

Posting Failed

Your posted response to an article failed and was not accepted by the server. Check with your News Server administrator to insure you have posting permissions on the server. Also make sure you have not corrupted any required system headers at the start of your message.

Socket Failed, Have you loaded the network?

WinVN was unable to open a TCP/IP socket connection. This can happen if the networking software on your PC is misconfigured. Make sure there is a WSOCKETS.DLL in your Windows directory and that the SOCKTSR and TCP/IP drivers are loaded.

Sorry, I am already busy retrieving information from the Server

WinVN has not completed a previous operation and the user is requesting another one. This can happen if a very large newsgroup is being requested or if the network or server crashes during an operation. Wait a bit longer and if the operation fails to complete, go to the Main Window and select the RESET SERVER PROTOCOL option from the Options menu. This will force WinVN to abort the previous request and start a new one.

Unable to open the NEWSRC file

WinVN is unable to open your NEWSRC file. WinVN stores all of your newsgroup information in the NEWSRC file and it will not automatically create one of these files for you. If you don't have such a file, store an empty file by the name NEWSRC in the same directory where your WINVN.INI file is located or copy the sample NEWSRC from the distribution disk. If you are using a networked mounted disk to share your NEWSRC file between multiple systems or even operating systems, insure that you are not logged in on the other system with the NEWSRC file locked.

A.3 POPULAR NEWS ACRONYMS

If you use Network News for any length of time you will probably encounter a number of acronyms that are used without any explanation. This is a short list of some commonly used acronyms on the USEnet that may be helpful.

BTW	By the way
FWIW	For what it's worth
FYI	For Your Information
IAE	In any event
IANAL	I Am Not A Lawyer, also IANA... such as CPA
IMO	In my opinion
IMHO	In my humble opinion
IMCO	In my considered opinion
IOW	In other words
NRN	No Reply Necessary
OTOH	On the other hand
ROFL	Rolling on floor laughing.
RSN	Real Soon Now [which may be a long time coming]
RTFM	Read the *#@% manual
SITD	Still in the dark
TANSTAAFL	There Ain't No Such Thing As A Free Lunch
TIA	Thanks In Advance (also AtDhVaAnNkCsE)
TIC	Tongue in cheek
TLA	Three Letter Acronym (such as this)
WRT	With Respect To

A.4 NEWSGROUP CREATION GUIDELINES

(posting from Greg Woods in **NEWS.ANNOUNCE.NEWUSERS**)

These are guidelines that have been generally agreed upon across USENET as appropriate for following in the creating of new newsgroups in the "standard" USENET newsgroup hierarchy. They are NOT intended as guidelines for setting USENET policy other than group creations, and they are not intended to apply to "alternate" or local news hierarchies. The part of the namespace affected is comp, news, sci, misc, soc, talk, rec, which are the most widely-distributed areas of the USENET hierarchy. Any group creation request which follows these guidelines to a successful result should be honored, and any request which fails to follow these procedures or to obtain a successful result from doing so should be dropped, except under extraordinary circumstances. The reason these are called guidelines and not absolute rules is that it is not possible to predict in advance what "extraordinary circumstances" are or how they might arise. It should be pointed out here that, as always, the decision whether or not to create a newsgroup on a given machine rests with the administrator of that machine. These guidelines are intended merely as an aid in making those decisions.

The Discussion

- 1) A request for discussion on creation of a new newsgroup should be posted to news.announce.newgroups, and also to any other groups or mailing lists at all related to the proposed topic if desired. The group is moderated, and the Followup-to: header will be set so that the actual discussion takes place only in news.groups. Users on sites which have difficulty posting to moderated groups may mail submissions intended for news.announce.newgroups to announce-newgroups@uunet.uu.net.

The article should be cross-posted among the newsgroups, including news.announce.newgroups, rather than posted as separate articles. Note that standard behaviour for posting software is to not present the articles in any groups when cross-posted to a moderated group; the moderator will handle that for you.

- 2) The name and charter of the proposed group and whether it will be moderated or unmoderated (and if the former, who the moderator(s) will be) should be determined during the discussion period. If there is no general agreement on these points among the proponents of a new group at the end of 30 days of discussion, the discussion should be taken offline (into mail instead of news.groups) and the proponents should iron out the details among themselves. Once that is done, a new, more specific proposal may be made, going back to step 1) above.
- 3) Group advocates seeking help in choosing a name to suit the proposed charter, or looking for any other guidance in the creation procedure, can send a message to group-advice@uunet.uu.net; a few seasoned news administrators are available through this address.

The Vote

- 1) AFTER the discussion period, if it has been determined that a new group is really desired, a name and charter are agreed upon, and it has been determined whether the group will be moderated and if so who will moderate it, a call for votes may be posted to news.announce.newgroups and any other groups or mailing lists that the original request for discussion might have been posted to. There should be minimal delay between the end of the discussion period and the issuing of a call for votes. The call for votes should include clear instructions for how to cast a vote. It must be as clearly explained and as easy to do to cast a vote for creation as against it, and vice versa. It is explicitly permitted to set up two separate addresses to mail yes and no votes to provided that they are on the same machine, to set up an address different than that the article was posted from to mail votes to, or to just accept replies to the call for votes article, as long as it is clearly and explicitly stated in the call for votes article how to cast a vote. If two addresses are used for a vote, the reply address must process and accept both yes and no votes OR reject them both.
- 2) The voting period should last for at least 21 days and no more than 31 days, no matter what the preliminary results of the vote are. The exact date that the voting period will end should be stated in the call for votes. Only votes that arrive on the vote-taker's machine prior to this date will be counted.
- 3) A couple of repeats of the call for votes may be posted during the vote, provided that they contain similar clear, unbiased instructions for casting a vote as the original, and provided that it is really a repeat of the call for votes on the SAME proposal (see #5 below). Partial vote results should NOT be included; only a statement of the specific new group proposal, that a vote is in progress on it, and how to cast a vote. It is permitted to post a "mass acknowledgement" in which all the names of those from whom votes have been received are posted, as long as no indication is made of which way anybody voted until the voting period is officially over.
- 4) ONLY votes MAILED to the vote-taker will count. Votes posted to the net for any reason (including inability to get mail to the vote-taker) and proxy votes (such as having a mailing list maintainer claim a vote for each member of the list) will not be counted.
- 5) Votes may not be transferred to other, similar proposals. A vote shall count only for the EXACT proposal that it is a response to. In particular, a vote for or against a newsgroup under one name shall NOT be counted as a vote for or against a newsgroup with a different name or charter, a different moderated/unmoderated status or (if moderated) a different moderator or set of moderators.

- 6) Votes MUST be explicit; they should be of the form "I vote for the group foo.bar as proposed" or "I vote against the group foo.bar as proposed". The wording doesn't have to be exact, it just needs to be unambiguous. In particular, statements of the form "I would vote for this group if..." should be considered comments only and not counted as votes.
- 7) A vote should be run only for a single group proposal. Attempts to create multiple groups should be handled by running multiple parallel votes rather than one vote to create all of the groups.

The Result

- 1) At the completion of the voting period, the vote taker must post the vote tally and the E-mail addresses and (if available) names of the voters received to news.announce.newgroups and any other groups or mailing lists to which the original call for votes was posted. The tally should include a statement of which way each voter voted so that the results can be verified.
- 2) AFTER the vote result is posted, there will be a 5 day waiting period, beginning when the voting results actually appear in news.announce.newgroups, during which the net will have a chance to correct any errors in the voter list or the voting procedure.
- 3) AFTER the waiting period, and if there were no serious objections that might invalidate the vote, and if 100 more valid YES/create votes are received than NO/don't create AND at least 2/3 of the total number of valid votes received are in favor of creation, a newgroup control message may be sent out. If the 100 vote margin or 2/3 percentage is not met, the group should not be created.
- 4) The newgroup message will be sent by the news.announce.newgroups moderator at the end of the waiting period of a successful vote. If the new group is moderated, the vote-taker should send a message during the waiting period to Gene Spafford <spaf@cs.purdue.edu> and David C. Lawrence <tale@uunet.uu.net> with both the moderator's contact address and the group's submission address.
- 5) A proposal which has failed under point (3) above should not again be brought up for discussion until at least six months have passed from the close of the vote. This limitation does not apply to proposals which never went to vote.

A.5 CURRENT NEWSGROUP LIST

The newsgroups distributed worldwide on the Usenet are organized in a tree hierarchy with eight broad classifications at the root. Each of these classifications is organized into groups and subgroups according to topic. Not all groups actually enjoy equal distribution, however. Some sites take only a selected subset of the more "technical" groups, and controversial "noise" groups are often not carried by many sites (these groups are often under the "alt", "talk" and "soc" classifications). Many sites maintain their own local or regional newsgroups that also appear as roots of the newsgroup tree but do not get distributed world-wide.

- "alt" An unmoderated and uncontrolled portion of the news tree that allows an alternative way to create special interest newsgroups that would most likely not be created if voted on by the Usenet population. Many sites do not carry this tree.
- "comp" Topics of interest to both computer professionals and hobbyists, including topics in computer science, software source, and information on hardware and software systems.
- "sci" Discussions marked by special and usually practical knowledge, relating to research in or application of the established sciences.
- "misc" Groups addressing themes not easily classified under any of the other headings or which incorporate themes from multiple categories.
- "soc" Groups primarily addressing social issues and socializing.
- "talk" Groups largely debate-oriented and tending to feature long discussions without resolution and without appreciable amounts of generally useful information.
- "news" Groups concerned with the news network and software themselves.
- "rec" Groups oriented towards the arts, hobbies and recreational activities.

The following is a list of currently active USENET newsgroups (as of 4 August 1994) under the COMP, SCI, MISC and NEWS branches. Also included at the end is the current list for REC, SOC and TALK groups. For a complete listing, refer to the list posted by tale@uunet.uu.net (David C Lawrence) to the **NEWS.ANNOUNCE.NEWGROUPS** newsgroup.

NEWSGROUP	DESCRIPTION
comp.admin.policy	Discussions of site administration policies.
comp.ai	Artificial intelligence discussions.
comp.ai.alife	Research about artificial life.
comp.ai.fuzzy	Fuzzy set theory, aka fuzzy logic.
comp.ai.genetic	Genetic algorithms in computing.
comp.ai.jair.announce	Journal of AI Research announcements & abstracts (Moderated)
comp.ai.jair.papers	Papers published by the Journal of AI Research. (Moderated)
comp.ai.nat-lang	Natural language processing by computers.
comp.ai.neural-nets	All aspects of neural networks.
comp.ai.nlang-know-rep	Natural Language and Knowledge Representation. (Moderated)
comp.ai.philosophy	Philosophical aspects of Artificial Intelligence.
comp.ai.shells	Artificial intelligence applied to shells.
comp.answers	Repository for periodic USENET articles. (Moderated)
comp.apps.spreadsheets	Spreadsheets on various platforms.
comp.arch	Computer architecture.
comp.arch.arithmetic	Implementing arithmetic on computers/digital systems.

comp.arch.bus.vmebus	Hardware and software for VMEbus Systems.
comp.arch.fpga	Field Programmable Gate Array based computing systems.
comp.arch.storage	Storage system issues, both hardware and software.
comp.archives	Descriptions of public access archives. (Moderated)
comp.archives.admin	Issues relating to computer archive administration.
comp.archives.msdos.announce	Announcements about MSDOS archives. (Moderated)
comp.archives.msdos.d	Discussion of materials available in MSDOS archives.
comp.bbs.misc	All aspects of computer bulletin board systems.
comp.bbs.tbbs	The Bread Board System bulletin board software.
comp.bbs.waffle	The Waffle BBS and USENET system on all platforms.
comp.benchmarks	Discussion of benchmarking techniques and results.
comp.binaries.acorn	Binary-only postings for Acorn machines. (Moderated)
comp.binaries.amiga	Encoded public domain programs in binary. (Moderated)
comp.binaries.apple2	Binary-only postings for the Apple II computer.
comp.binaries.atari.st	Binary-only postings for the Atari ST. (Moderated)
comp.binaries.cbm	For the transfer of 8bit Commodore binaries. (Moderated)
comp.binaries.geos	Binaries for the GEOS operating system. (Moderated)
comp.binaries.ibm.pc	Binary-only postings for IBM PC/MS-DOS. (Moderated)

comp.binaries.ibm.pc.d	Discussions about IBM/PC binary postings.
comp.binaries.ibm.pc.wanted	Requests for IBM PC and compatible programs.
comp.binaries.mac	Encoded Macintosh programs in binary. (Moderated)
comp.binaries.ms-windows	Binary programs for Microsoft Windows. (Moderated)
comp.binaries.newton	Apple Newton binaries & sources, books etc. (Moderated).
comp.binaries.os2	Binaries for use under the OS/2 ABI. (Moderated)
comp.bugs.2bsd	Reports of UNIX* version 2BSD related bugs.
comp.bugs.4bsd	Reports of UNIX version 4BSD related bugs.
comp.bugs.4bsd.ucb-fixes	Bug reports/fixes for BSD Unix. (Moderated)
comp.bugs.misc	General UNIX bug reports and fixes (incl V7 uucp)
comp.bugs.sys5	Reports of USG (System III, V etc.) bugs.
comp.cad.cadence	Users of Cadence Design Systems products.
comp.cad.compass	Compass Design Automation EDA tools.
comp.cad.pro-engineer	Parametric Technology's Pro/Engineer design package.
comp.cad.synthesis	Research and production in the field of logic synthesis.
comp.client-server	Topics relating to client/server technology.
comp.cog-eng	Cognitive engineering.
comp.compilers	Compiler construction theory etc. (Moderated)

comp.compilers.tools.pccts	Construction of compilers and tools with PCCTS.
comp.compression	Data compression algorithms and theory.
comp.compression.research	Discussions about data compression research. (Moderated)
comp.constraints	Constraint processing and related topics.
comp.databases	Database and data management issues and theory.
comp.databases.informix	Informix database management software discussions.
comp.databases.ingres	Issues relating to INGRES products.
comp.databases.ms-access	MS Access. Windows' relational database system
comp.databases.object	Object-oriented paradigms in database systems.
comp.databases.oracle	The SQL database products of the Oracle Corporation.
comp.databases.paradox	Borland's database for DOS & MS Windows.
comp.databases.pick	Pick-like post-relational database systems.
comp.databases.rdb	The relational database engine RDB from DEC.
comp.databases.sybase	Implementations of the SQL Server.
comp.databases.theory	Discussing advances in database technology.
comp.databases.xbase.fox	Fox Software's xBase system and compatibles.
comp.databases.xbase.misc	Discussion of xBase (dBASE-like) products.
comp.dcom.cabling	Cabling selection, installation and use.

comp.dcom.cell-relay	Forum for discussion of Cell Relay-based products.
comp.dcom.fax	Fax hardware software and protocols.
comp.dcom.isdn	The Integrated Services Digital Network (ISDN).
comp.dcom.lans.ethernet	Discussions of the Ethernet/IEEE 802.3 protocols.
comp.dcom.lans.fddi	Discussions of the FDDI protocol suite.
comp.dcom.lans.misc	Local area network hardware and software.
comp.dcom.lans.token-ring	Installing and using token ring networks.
comp.dcom.modems	Data communications hardware and software.
comp.dcom.servers	Selecting and operating data communications servers.
comp.dcom.sys.cisco	Info on Cisco routers and bridges.
comp.dcom.sys.wellfleet	Wellfleet bridge & router systems hardware & software.
comp.dcom.telecom	Telecommunications digest. (Moderated)
comp.dcom.telecom.tech	Discussion of technical aspects of telephony.
comp.doc	Archived public-domain documentation. (Moderated)
comp.doc.techreports	Lists of technical reports. (Moderated)
comp.dsp	Digital Signal Processing using computers.
comp.edu	Computer science education.
comp.edu.languages.natural	Computer assisted languages instruction issues.

comp.emacs	EMACS editors of different flavors.
comp.emulators.announce	Emulator news FAQs & announcements. (Moderated)
comp.emulators.apple2	Emulators of Apple // systems.
comp.emulators.cbm	Emulators of C-64 C-128 PET and VIC-20 systems.
comp.emulators.misc	Emulators of miscellaneous computer systems.
comp.emulators.ms-windows.wine	A free MS-Windows emulator under X.
comp.fonts	Typefonts -- design conversion use etc.
comp.graphics	Computer graphics art animation image processing.
comp.graphics.algorithms	Algorithms used in producing computer graphics.
comp.graphics.animation	Technical aspects of computer animation.
comp.graphics.avs	The Application Visualization System.
comp.graphics.data-explorer	IBM's Visualization Data Explorer aka DX.
comp.graphics.explorer	The Explorer Modular Visualisation Environment (MVE).
comp.graphics.gnuplot	The GNUPLOT interactive function plotter.
comp.graphics.opengl	The OpenGL 3D application programming interface.
comp.graphics.raytracing	Ray tracing software, tools and methods.
comp.graphics.research	Highly technical computer graphics discussion. (Moderated)

comp.graphics.visualization	Info on scientific visualization.
comp.groupware	Software and hardware for shared interactive environments.
comp.groupware.lotus-notes.misc	Lotus Notes related discussions.
comp.home.automation	Home automation devices setup sources, etc.
comp.home.misc	Media, technology and information in domestic spaces. (Moderated)
comp.human-factors	Issues related to human-computer interaction (HCI).
comp.infosystems	Any discussion about information systems.
comp.infosystems.announce	Announcements of internet information services. (Moderated)
comp.infosystems.gis	All aspects of Geographic Information Systems.
comp.infosystems.gopher	Discussion of the Gopher information service.
comp.infosystems.interpedia	The Internet Encyclopedia.
comp.infosystems.kiosks	Information kiosks (moderated). (Moderated)
comp.infosystems.wais	The Z39.50-based WAIS full-text search system.
comp.infosystems.www	The World Wide Web information system.
comp.infosystems.www.misc	Miscellaneous World Wide Web discussion.
comp.infosystems.www.providers	WWW provider issues (info providers).
comp.infosystems.www.users	WWW user issues (Mosaic, Lynx, etc).
comp.internet.library	Discussing electronic libraries. (Moderated)

comp.ivideodisc	Interactive videodiscs -- uses, potential , etc.
comp.lang.ada	Discussion about Ada*.
comp.lang.apl	Discussion about APL.
comp.lang.basic.misc	Other dialects and aspects of BASIC.
comp.lang.basic.visual	Microsoft Visual Basic & App Basic; Windows & DOS.
comp.lang.c	Discussion about C.
comp.lang.c++	The object-oriented C++ language.
comp.lang.clos	Common Lisp Object System discussions.
comp.lang.dylan	For discussion of the Dylan language.
comp.lang.eiffel	The object-oriented Eiffel language.
comp.lang.forth	Discussion about Forth.
comp.lang.fortran	Discussion about FORTRAN.
comp.lang.functional	Discussion about functional languages.
comp.lang.hermes	The Hermes language for distributed applications.
comp.lang.idl-pvwave	IDL and PV-Wave language discussions.
comp.lang.lisp	Discussion about LISP.
comp.lang.lisp.mcl	Discussing Apple's Macintosh Common Lisp.
comp.lang.logo	The Logo teaching and learning language.

comp.lang.misc	Different computer languages not specifically listed.
comp.lang.ml	ML languages incl Standard ML ,CAML ,Lazy ,etc. (Moderated)
comp.lang.modula2	Discussion about Modula-2.
comp.lang.modula3	Discussion about the Modula-3 language.
comp.lang.mumps	The M (MUMPS) language & technology in general.
comp.lang.oberon	The Oberon language and system.
comp.lang.objective-c	The Objective-C language and environment.
comp.lang.pascal	Discussion about Pascal.
comp.lang.perl	Discussion of Larry Wall's Perl system.
comp.lang.pop	Pop11 and the Plug user group.
comp.lang.postscript	The PostScript Page Description Language.
comp.lang.prograph	Prograph, a visual object-oriented dataflow language.
comp.lang.prolog	Discussion about PROLOG.
comp.lang.python	The Python computer language.
comp.lang.sather	The object-oriented computer language Sather.
comp.lang.scheme	The Scheme Programming language.
comp.lang.sigplan	Info & announcements from ACM SIGPLAN. (Moderated)
comp.lang.smalltalk	Discussion about Smalltalk 80.

comp.lang.tcl	The Tcl programming language and related tools.
comp.lang.verilog	Discussing Verilog and PLI.
comp.lang.vhdl	VHSIC Hardware Description Language IEEE 1076/87.
comp.laser-printers	Laser printers, hardware & software (moderated).
comp.lsi	Large scale integrated circuits.
comp.lsi.testing	Testing of electronic circuits.
comp.mail.elm	Discussion and fixes for the ELM mail system.
comp.mail.headers	Gatewayed from the Internet header-people list.
comp.mail.maps	Various maps, including UUCP maps. (moderated).
comp.mail.mh	The UCI version of the Rand Message Handling system.
comp.mail.mime	Multipurpose Internet Mail Extensions of RFC 1341.
comp.mail.misc	General discussions about computer mail.
comp.mail.mush	The Mail User's Shell (MUSH).
comp.mail.pine	The PINE mail user agent.
comp.mail.sendmail	Configuring and using the BSD sendmail agent.
comp.mail.smail	Administering & using the smail email transport system.
comp.mail.uucp	Mail in the uucp network environment.
comp.misc	General topics about computers not covered elsewhere.

comp.multimedia	Interactive multimedia technologies of all kinds.
comp.newprod	Announcements of new products of interest. (Moderated)
comp.object	Object-oriented programming and languages.
comp.object.logic	Integrating object-oriented and logic programming.
comp.org.acm	Topics about the Association for Computing Machinery.
comp.org.cpsr.announce	Computer Professionals for Social Responsibility. (Moderated)
comp.org.cpsr.talk	Issues of computing and social responsibility.
comp.org.decus	Digital Equipment Computer Users' Society newsgroup.
comp.org.eff.news	News from the Electronic Frontier Foundation. (Moderated)
comp.org.eff.talk	Discussion of EFF goals, strategies etc.
comp.org.fidonet	FidoNews digest, official news of FidoNet Assoc (moderated).
comp.org.ieee	Issues and announcements about the IEEE & its members.
comp.org.issnnet	The International Student Society for Neural Networks.
comp.org.lisp-users	Association of Lisp Users related discussions.
comp.org.sug	Talk about/for the The Sun User's Group.
comp.org.usenix	USENIX Association events and announcements.
comp.org.usenix.roomshare	Finding lodging during Usenix conferences.
comp.os.386bsd.announce	Announcements relating to 386bsd operating system. (Moderated)

comp.os.386bsd.apps	Applications which run under 386bsd.
comp.os.386bsd.bugs	Bugs and fixes for the 386bsd OS and its clients.
comp.os.386bsd.development	Working on 386bsd internals.
comp.os.386bsd.misc	General aspects of 386bsd not covered by other groups.
comp.os.386bsd.questions	General questions about 386bsd.
comp.os.chorus	CHORUS microkernel issues research and developments.
comp.os.coherent	Discussion and support of the Coherent operating system.
comp.os.cpm	Discussion about the CP/M operating system.
comp.os.geos	The GEOS operating system by GeoWorks for PC clones.
comp.os.linux.admin	Installing and administering Linux systems.
comp.os.linux.announce	Announcements important to the Linux community. (Moderated)
comp.os.linux.development	Ongoing work on the Linux operating system.
comp.os.linux.help	Questions and advice about Linux.
comp.os.linux.misc	Linux-specific topics not covered by other groups.
comp.os.linux	Discussion of LynxOS and Lynx Real-Time Systems.
comp.os.mach	The MACH OS from CMU & other places.
comp.os.minix	Discussion of Tanenbaum's MINIX system.
comp.os.misc	General OS-oriented discussion not carried elsewhere.

comp.os.ms-windows.advocacy	Speculation and debate about Microsoft Windows.
comp.os.ms-windows.announce	Announcements relating to Windows. (Moderated)
comp.os.ms-windows.apps	Applications in the Windows environment.
comp.os.ms-windows.apps.comm	MS-Windows communication applications.
comp.os.ms-windows.apps.financial	MS-Windows financial & tax software.
comp.os.ms-windows.apps.misc	MS-Windows applications.
comp.os.ms-windows.apps.utilities	MS-Windows utilities.
comp.os.ms-windows.apps.word-proc	MS-Windows word-processing applications.
comp.os.ms-windows.misc	General discussions about Windows issues.
comp.os.ms-windows.networking.misc	Windows and other networks.
comp.os.ms-windows.networking.tcp-ip	Windows and TCP/IP networking.
comp.os.ms-windows.networking.windows	Windows' built-in networking.
comp.os.ms-windows.nt.misc	General discussion about Windows NT.
comp.os.ms-windows.nt.setup	Configuring Windows NT systems.
comp.os.ms-windows.programmer.controls	Controls dialogs and VBXs.

comp.os.ms-windows.programmer.drivers	Win16/Win32 drivers and VxDs.
comp.os.ms-windows.programmer.graphics	GDI graphics and printing.
comp.os.ms-windows.programmer.memory	Memory management issues.
comp.os.ms-windows.programmer.misc	Programming Microsoft Windows.
comp.os.ms-windows.programmer.multimedia	Multimedia programming.
comp.os.ms-windows.programmer.networks	Network programming.
comp.os.ms-windows.programmer.ole	OLE2 & COM and DDE programming.
comp.os.ms-windows.programmer.tools	Development tools in Windows.
comp.os.ms-windows.programmer.win32	32-bit Windows programming interfaces.
comp.os.ms-windows.programmer.winhelp	WinHelp/Multimedia Viewer development.
comp.os.ms-windows.setup	Installing and configuring Microsoft Windows.
comp.os.ms-windows.video	Video adapters and drivers for Windows.
comp.os.ms-dos.apps	Discussion of applications that run under MS-DOS.
comp.os.ms-dos.desqview	QuarterDeck's Desqview and related products.
comp.os.ms-dos.mail-news	Administering mail & network news systems under MS-DOS.

comp.os.msdos.misc	Miscellaneous topics about MS-DOS machines.
comp.os.msdos.pcgeos	GeoWorks PC/GEOS and PC/GEOS-based packages.
comp.os.msdos.programmer	Programming MS-DOS machines.
comp.os.msdos.programmer.turbovision	Borland's text application libraries.
comp.os.os2.advocacy	Supporting and flaming OS/2.
comp.os.os2.announce	Notable news and announcements related to OS/2. (Moderated)
comp.os.os2.apps	Discussions of applications under OS/2.
comp.os.os2.beta	All aspects of beta releases of OS/2 systems software.
comp.os.os2.bugs	OS/2 system bug reports, fixes and work-arounds.
comp.os.os2.games	Running games under OS/2.
comp.os.os2.misc	Miscellaneous topics about the OS/2 system.
comp.os.os2.multimedia	Multi-media on OS/2 systems.
comp.os.os2.networking.misc	Miscellaneous networking issues of OS/2.
comp.os.os2.networking.tcp-ip	TCP/IP under OS/2.
comp.os.os2.programmer.misc	Programming OS/2 machines.
comp.os.os2.programmer.oop	Programming system objects (SOM, WPS, etc).
comp.os.os2.programmer.porting	Porting software to OS/2 machines.

comp.os.os2.programmer.tools	Compilers, assemblers, interpreters under OS/2.
comp.os.os2.setup	Installing and configuring OS/2 systems.
comp.os.os9	Discussions about the os9 operating system.
comp.os.parix	Forum for users of the parallel operating system PARIX.
comp.os.qnx	Using and developing under the QNX operating system.
comp.os.research	Operating systems and related areas. (Moderated)
comp.os.vms	DEC's VAX* line of computers & VMS.
comp.os.vxworks	The VxWorks real-time operating system.
comp.os.xinu	The XINU operating system from Purdue (D. Comer).
comp.parallel	Massively parallel hardware/software. (Moderated)
comp.parallel.mpi	Message Passing Interface (MPI).
comp.parallel.pvm	The PVM system of multi-computer parallelization.
comp.patents	Discussing patents of computer technology. (Moderated)
comp.periphs	Peripheral devices.
comp.periphs.scsi	Discussion of SCSI-based peripheral devices.
comp.programming	Programming issues that transcend languages and OSs.
comp.programming.literate	Literate programs and programming tools.
comp.protocols.appletalk	Applebus hardware & software.

comp.protocols.dicom	Digital Imaging and Communications in Medicine.
comp.protocols.ibm	Networking with IBM mainframes.
comp.protocols.iso	The ISO protocol stack.
comp.protocols.kerberos	The Kerberos authentication server.
comp.protocols.kermit	Info about the Kermit package. (Moderated)
comp.protocols.misc	Various forms and types of protocol.
comp.protocols.nfs	Discussion about the Network File System protocol.
comp.protocols.ppp	Discussion of the Internet Point to Point Protocol.
comp.protocols.tcp-ip	TCP and IP network protocols.
comp.protocols.tcp-ip.ibmpc	TCP/IP for IBM(-like) personal computers.
comp.publish.cdrom.hardware	Hardware used in publishing with CD-ROM.
comp.publish.cdrom.multimedia	Software for multimedia authoring & publishing.
comp.publish.cdrom.software	Software used in publishing with CD-ROM.
comp.publish.prepress	Electronic prepress.
comp.realtime	Issues related to real-time computing.
comp.research.japan	The nature of research in Japan. (Moderated)
comp.risks	Risks to the public from computers & users. (Moderated)
comp.robotics	All aspects of robots and their applications.

comp.security.misc	Security issues of computers and networks.
comp.security.unix	Discussion of Unix security.
comp.simulation	Simulation methods, problems, uses. (Moderated).
comp.society	The impact of technology on society. (Moderated)
comp.society.cu-digest	The Computer Underground Digest. (Moderated)
comp.society.development	Computer technology in developing countries.
comp.society.folklore	Computer folklore & culture, past & present. (Moderated).
comp.society.futures	Events in technology affecting future computing.
comp.society.privacy	Effects of technology on privacy. (Moderated)
comp.soft-sys.khoros	The Khoros X11 visualization system.
comp.soft-sys.matlab	The MathWorks calculation and visualization package.
comp.soft-sys.powerbuilder	Application development tools from PowerSoft.
comp.soft-sys.ptolemy	The Ptolemy simulation/code generation environment.
comp.soft-sys.sas	The SAS statistics package.
comp.soft-sys.shazam	The SHAZAM econometrics computer program.
comp.soft-sys.spss	The SPSS statistics package.
comp.soft-sys.wavefront	Wavefront software products, problems etc.
comp.software-eng	Software Engineering and related topics.

comp.software.config-mgmt	Configuration management, tools and procedures.
comp.software.international	Finding, using, & writing non-English software.
comp.software.licensing	Software licensing technology.
comp.software.testing	All aspects of testing computer systems.
comp.sources.3b1	Source code-only postings for the AT&T 3b1. (Moderated)
comp.sources.acorn	Source code-only postings for the Acorn. (Moderated)
comp.sources.amiga	Source code-only postings for the Amiga. (Moderated)
comp.sources.apple2	Source code and discussion for the Apple2. (Moderated)
comp.sources.atari.st	Source code-only postings for the Atari ST. (Moderated)
comp.sources.bugs	Bug reports, fixes, discussion for posted sources.
comp.sources.d	For any discussion of source postings.
comp.sources.games	Postings of recreational software. (Moderated)
comp.sources.games.bugs	Bug reports and fixes for posted game software.
comp.sources.hp48	Programs for the HP48 and HP28 calculators. (Moderated)
comp.sources.mac	Software for the Apple Macintosh. (Moderated)
comp.sources.misc	Posting of software. (Moderated)
comp.sources.postscript	Source code for programs written in PostScript. (Moderated)
comp.sources.reviewed	Source code evaluated by peer review. (Moderated)

comp.sources.sun	Software for Sun workstations. (Moderated)
comp.sources.testers	Finding people to test software.
comp.sources.unix	Postings of complete, UNIX-oriented sources. (Moderated)
comp.sources.wanted	Requests for software and fixes.
comp.sources.x	Software for the X windows system. (Moderated)
comp.specification	Languages and methodologies for formal specification.
comp.specification.z	Discussion about the formal specification notation Z.
comp.speech	Research & applications in speech science & technology.
comp.std.c	Discussion about C language standards.
comp.std.c++	Discussion about C++ language, library, standards.
comp.std.internat	Discussion about international standards.
comp.std.lisp	User group (ALU) supported standards. (Moderated)
comp.std.misc	Discussion about various standards.
comp.std.mumps	Discussion for the X11.1 committee on Mumps. (Moderated)
comp.std.unix	Discussion for the P1003 committee on UNIX. (Moderated)
comp.std.wireless	Examining standards for wireless network technology. (Moderated)
comp.sw.components	Software components and related technology.
comp.sys.3b1	Discussion and support of AT&T 7300/3B1/UnixPC.

comp.sys.acorn	Discussion on Acorn and ARM-based computers.
comp.sys.acorn.advocacy	Why Acorn computers and programs are better.
comp.sys.acorn.announce	Announcements for Acorn and ARM users. (Moderated)
comp.sys.acorn.games	Discussion of games for Acorn machines.
comp.sys.acorn.tech	Software and hardware aspects of Acorn and ARM products.
comp.sys.alliant	Info and discussion about Alliant computers.
comp.sys.amiga.advocacy	Why an Amiga is better than XYZ.
comp.sys.amiga.announce	Announcements about the Amiga. (Moderated)
comp.sys.amiga.applications	Miscellaneous applications.
comp.sys.amiga.audio	Music, MIDI, speech synthesis, other sounds.
comp.sys.amiga.cd32	Technical and computing talk for Commodore Amiga CD32.
comp.sys.amiga.datacomm	Methods of getting bytes in and out.
comp.sys.amiga.emulations	Various hardware & software emulators.
comp.sys.amiga.games	Discussion of games for the Commodore Amiga.
comp.sys.amiga.graphics	Charts, graphs, pictures, etc
comp.sys.amiga.hardware	Amiga computer hardware Q&A, reviews, etc.
comp.sys.amiga.introduction	Group for newcomers to Amigas.
comp.sys.amiga.marketplace	Where to find it, prices, etc.

comp.sys.amiga.misc	Discussions not falling in another Amiga group.
comp.sys.amiga.multimedia	Animations video & multimedia.
comp.sys.amiga.networking	Amiga networking software/hardware.
comp.sys.amiga.programmer	Developers & hobbyists discuss code.
comp.sys.amiga.reviews	Reviews of Amiga software, hardware (Moderated).
comp.sys.amiga.uucp	Amiga UUCP packages.
comp.sys.apollo	Apollo computer systems.
comp.sys.apple2	Discussion about Apple II micros.
comp.sys.apple2.comm	Apple II data communications.
comp.sys.apple2.gno	The AppleIIgs GNO multitasking environment.
comp.sys.apple2.marketplace	Buying selling and trading Apple II equipment.
comp.sys.apple2.programmer	Programming on the Apple II.
comp.sys.apple2.usergroups	All about Apple II user groups.
comp.sys.atari.8bit	Discussion about 8 bit Atari micros.
comp.sys.atari.advocacy	Attacking and defending Atari computers.
comp.sys.atari.announce	Atari related hard/software announcements. (Moderated)
comp.sys.atari.st	Discussion about 16 bit Atari micros.
comp.sys.atari.st.tech	Technical discussions of Atari ST hard/software.

comp.sys.att	Discussions about AT&T microcomputers.
comp.sys.cbm	Discussion about Commodore micros.
comp.sys.concurrent	The Concurrent/Masscomp line of computers. (Moderated)
comp.sys.convex	Convex computer systems hardware and software.
comp.sys.dec	Discussions about DEC computer systems.
comp.sys.dec.micro	DEC Micros (Rainbow & Professional 350/380)
comp.sys.encore	Encore's MultiMax computers.
comp.sys.harris	Harris computer systems, especially real-time systems.
comp.sys.hp.apps	Discussion of software and apps on all HP platforms.
comp.sys.hp.hardware	Discussion of Hewlett Packard system hardware.
comp.sys.hp.hpux	Issues pertaining to HP-UX & 9000 series computers.
comp.sys.hp.misc	Issues not covered in any other comp.sys.hp.* group.
comp.sys.hp.mpe	Issues pertaining to MPE & 3000 series computers.
comp.sys.hp48	Hewlett-Packard's HP48 and HP28 calculators.
comp.sys.ibm.pc.demos	Demonstration programs which showcase programmer skill.
comp.sys.ibm.pc.digest	The IBM PC, PC-XT and PC-AT (moderated).
comp.sys.ibm.pc.games.action	Arcade-style games on PCs.
comp.sys.ibm.pc.games.adventure	Adventure (non-rpg) games on PCs.

comp.sys.ibm.pc.games.announce	Announcements for all PC gamers. (Moderated)
comp.sys.ibm.pc.games.flight-sim	Flight simulators on PCs.
comp.sys.ibm.pc.games.misc	Games not covered by other PC groups.
comp.sys.ibm.pc.games.rpg	Role-playing games on the PC.
comp.sys.ibm.pc.games.strategic	Strategy/planning games on PCs.
comp.sys.ibm.pc.hardware.cd-rom	CD-ROM drives and interfaces for the PC.
comp.sys.ibm.pc.hardware.chips	Processor, cache, memory chips, etc.
comp.sys.ibm.pc.hardware.com	Modems & communication cards for the PC.
comp.sys.ibm.pc.hardware.misc	Miscellaneous PC hardware topics.
comp.sys.ibm.pc.hardware.networking	Network hardware & equipment for the PC.
comp.sys.ibm.pc.hardware.storage	Hard drives & other PC storage devices.
comp.sys.ibm.pc.hardware.systems	Whole IBM PC computer & clone systems.
comp.sys.ibm.pc.hardware.video	Video cards & monitors for the PC.
comp.sys.ibm.pc.misc	Discussion about IBM personal computers.
comp.sys.ibm.pc.rt	Topics related to IBM's RT computer.
comp.sys.ibm.pc.soundcard	Hardware and software aspects of PC sound cards.

comp.sys.ibm.pc.soundcard.advocacy	Advocacy for a particular soundcard.
comp.sys.ibm.pc.soundcard.games	Questions about using soundcards with games.
comp.sys.ibm.pc.soundcard.misc	Soundcards in general.
comp.sys.ibm.pc.soundcard.music	Music and sound questions using soundcards.
comp.sys.ibm.pc.soundcard.tech	Technical questions about pc soundcards.
comp.sys.ibm.ps2.hardware	Microchannel hardware, any vendor
comp.sys.intel	Discussions about Intel systems and parts.
comp.sys.isis	The ISIS distributed system from Cornell.
comp.sys.laptops	Laptop (portable) computers.
comp.sys.m6809	Discussion about 6809's.
comp.sys.m68k	Discussion about 68k's.
comp.sys.m68k.pc	Discussion about 68k-based PCs. (Moderated)
comp.sys.m88k	Discussion about 88k-based computers.
comp.sys.mac.advocacy	The Macintosh computer family compared to others.
comp.sys.mac.announce	Important notices for Macintosh users. (Moderated)
comp.sys.mac.apps	Discussions of Macintosh applications.

comp.sys.mac.comm	Discussion of Macintosh communications.
comp.sys.mac.databases	Database systems for the Apple Macintosh.
comp.sys.mac.digest	Apple Macintosh: info&uses but no programs. (Moderated)
comp.sys.mac.games	Discussions of games on the Macintosh.
comp.sys.mac.graphics	Macintosh graphics: paint, draw, 3D, CAD animation.
comp.sys.mac.hardware	Macintosh hardware issues & discussions.
comp.sys.mac.hypercard	The Macintosh Hypercard: info & uses.
comp.sys.mac.misc	General discussions about the Apple Macintosh.
comp.sys.mac.oop.macapp3	Version 3 of the MacApp object oriented system.
comp.sys.mac.oop.misc	Object oriented programming issues on the Mac.
comp.sys.mac.oop.tcl	Symantec's THINK Class Library for object programming.
comp.sys.mac.portables	Discussion particular to laptop Macintoshes.
comp.sys.mac.programmer	Discussion by people programming the Apple Macintosh.
comp.sys.mac.scitech	Using the Macintosh in scientific & technological work.
comp.sys.mac.system	Discussions of Macintosh system software.
comp.sys.mac.wanted	Postings of "I want XYZ for my Mac."
comp.sys.mentor	Mentor Graphics products & the Silicon Compiler System.
comp.sys.mips	Systems based on MIPS chips.

comp.sys.misc	Discussion about computers of all kinds.
comp.sys.ncr	Discussion about NCR computers.
comp.sys.newton.announce	Newton information posts. (Moderated)
comp.sys.newton.misc	Miscellaneous discussion about Newton systems.
comp.sys.newton.programmer	Discussion of Newton software development.
comp.sys.next.advocacy	The NeXT religion.
comp.sys.next.announce	Announcements related to the NeXT computer system. (Moderated)
comp.sys.next.bugs	Discussion and solutions for known NeXT bugs.
comp.sys.next.hardware	Discussing the physical aspects of NeXT computers.
comp.sys.next.marketplace	NeXT hardware software and jobs.
comp.sys.next.misc	General discussion about the NeXT computer system.
comp.sys.next.programmer	NeXT related programming issues.
comp.sys.next.software	Function use and availability of NeXT programs.
comp.sys.next.sysadmin	Discussions related to NeXT system administration.
comp.sys.novell	Discussion of Novell Netware products.
comp.sys.nsc.32k	National Semiconductor 32000 series chips.
comp.sys.palmtops	Super-powered calculators in the palm of your hand.
comp.sys.pen	Interacting with computers through pen gestures.

comp.sys.powerpc	General PowerPC Discussion.
comp.sys.prime	Prime Computer products.
comp.sys.proteon	Proteon gateway products.
comp.sys.psion	Discussion about PSION Personal Computers & Organizers.
comp.sys.pyramid	Pyramid 90x computers.
comp.sys.ridge	Ridge 32 computers and ROS.
comp.sys.sequent	Sequent systems, (Balance and Symmetry).
comp.sys.sgi.admin	System administration on Silicon Graphics's Irises.
comp.sys.sgi.announce	Announcements for the SGI community. (Moderated)
comp.sys.sgi.apps	Applications which run on the Iris.
comp.sys.sgi.audio	Audio on SGI systems.
comp.sys.sgi.bugs	Bugs found in the IRIX operating system.
comp.sys.sgi.graphics	Graphics packages and issues on SGI machines.
comp.sys.sgi.hardware	Base systems and peripherals for Iris computers.
comp.sys.sgi.misc	General discussion about Silicon Graphics's machines.
comp.sys.sinclair	Sinclair computers, eg. the ZX81, Spectrum and QL.
comp.sys.stratus	Stratus products, incl. System/88, CPS-32, VOS and FTX.
comp.sys.sun.admin	Sun system administration issues and questions.

comp.sys.sun.announce	Sun announcements and Sunergy mailings. (Moderated)
comp.sys.sun.apps	Software applications for Sun computer systems.
comp.sys.sun.hardware	Sun Microsystems hardware.
comp.sys.sun.misc	Miscellaneous discussions about Sun products.
comp.sys.sun.wanted	People looking for Sun products and support.
comp.sys.tahoe	CCI 6/32, Harris HCX/7 & Sperry 7000 computers.
comp.sys.tandy	Discussion about Tandy computers: new & old.
comp.sys.ti	Discussion about Texas Instruments.
comp.sys.transputer	The Transputer computer and OCCAM language.
comp.sys.unisys	Sperry, Burroughs, Convergent and Unisys systems.
comp.sys.xerox	Xerox 1100 workstations and protocols.
comp.sys.zenith.z100	The Zenith Z-100 (Heath H-100) family of computers.
comp.terminals	All sorts of terminals.
comp.text	Text processing issues and methods.
comp.text.desktop	Technology & techniques of desktop publishing.
comp.text.frame	Desktop publishing with FrameMaker.
comp.text.interleaf	Applications and use of Interleaf software.
comp.text.sgml	ISO 8879 SGML, structured documents, markup languages.

comp.text.tex	Discussion about the TeX and LaTeX systems & macros.
comp.theory.info-retrieval	Information Retrieval topics. (Moderated)
comp.unix.admin	Administering a Unix-based system.
comp.unix.advocacy	Arguments for and against Unix and Unix versions.
comp.unix.aix	IBM's version of UNIX.
comp.unix.amiga	Minix, SYSV4 and other *nix on an Amiga.
comp.unix.aux	The version of UNIX for Apple Macintosh II computers.
comp.unix.bsd	Discussion of Berkeley Software Distribution UNIX.
comp.unix.dos-under-unix	MS-DOS running under UNIX by whatever means.
comp.unix.internals	Discussions on hacking UNIX internals.
comp.unix.large	UNIX on mainframes and in large networks.
comp.unix.misc	Various topics that don't fit other groups.
comp.unix.osf.misc	Various aspects of Open Software Foundation products.
comp.unix.osf.osf1	The Open Software Foundation's OSF/1.
comp.unix.pc-clone.16bit	UNIX on 286 architectures.
comp.unix.pc-clone.32bit	UNIX on 386 and 486 architectures.
comp.unix.programmer	Q&A for people programming under Unix.
comp.unix.questions	UNIX neophytes group.

comp.unix.shell	Using and programming the Unix shell.
comp.unix.sys3	System III UNIX discussions.
comp.unix.sys5.misc	Versions of System V which predate Release 3.
comp.unix.sys5.r3	Discussing System V Release 3.
comp.unix.sys5.r4	Discussing System V Release 4.
comp.unix.ultrix	Discussions about DEC's Ultrix.
comp.unix.unixware	Discussion about Novell's UnixWare products.
comp.unix.user-friendly	Discussion of UNIX user-friendliness.
comp.unix.wizards	For only true Unix wizards. (Moderated)
comp.unix.xenix.misc	General discussions regarding XENIX (except SCO).
comp.unix.xenix.sco	XENIX versions from the Santa Cruz Operation.
comp.virus	Computer viruses & security. (Moderated)
comp.windows.garnet	The Garnet user interface development environment.
comp.windows.interviews	The InterViews object-oriented windowing system.
comp.windows.misc	Various issues about windowing systems.
comp.windows.news	Sun Microsystems' NeWS window system.
comp.windows.open-look	Discussion about the Open Look GUI.
comp.windows.suit	The SUIT user-interface toolkit.

comp.windows.x	Discussion about the X Window System.
comp.windows.x.announce	X Consortium announcements. (Moderated)
comp.windows.x.apps	Getting and using, not programming, applications for X.
comp.windows.x.i386unix	The XFree86 window system and others.
comp.windows.x.intrinsics	Discussion of the X toolkit.
comp.windows.x.pex	The PHIGS extension of the X Window System.

news.admin.misc	General topics of network news administration.
news.admin.policy	Policy issues of USENET.
news.admin.technical	Technical aspects of maintaining network news. (Moderated)
news.announce.conferences	Calls for papers and conference announcements. (Moderated)
news.announce.important	General announcements of interest to all. (Moderated)
news.announce.newgroups	Calls for newgroups & announcements of same. (Moderated)
news.announce.newusers	Explanatory postings for new users. (Moderated)
news.answers	Repository for periodic USENET articles. (Moderated)
news.config	Postings of system down times and interruptions.
news.future	The future technology of network news systems.
news.groups	Discussions and lists of newsgroups.
news.groups.questions	Where can I find talk about topic X?

news.groups.reviews	What is going on in group or mailing list named X? (Moderated)
news.lists	News-related statistics and lists. (Moderated)
news.lists.ps-maps	Maps relating to USENET traffic flows. (Moderated)
news.misc	Discussions of USENET itself.
news.newsites	Postings of new site announcements.
news.newusers.questions	Q & A for users new to the Usenet.
news.software.anu-news	VMS B-news software from Australian National Univ.
news.software.b	Discussion about B-news-compatible software.
news.software.nn	Discussion about the "nn" news reader package.
news.software.notes	Notesfile software from the Univ. of Illinois.
news.software.readers	Discussion of software used to read network news.

The GNU tree of newsgroups that are gated bi-directionally with the Internet mailing lists of the GNU Project of the Free Software Foundation. GNU (GNU's Not Unix) will be a complete operating system, including application programs, with freely redistributable source code.

gnu.announce	Status and announcements from the Project. (Moderated)
gnu.bash.bug	Bourne Again SHell bug reports and suggested fixes. (Moderated)
gnu.chess	Announcements about the GNU Chess program.
gnu.emacs.announce	Announcements about GNU Emacs. (Moderated)
gnu.emacs.bug	GNU Emacs bug reports and suggested fixes. (Moderated)
gnu.emacs.gnews	News reading under GNU Emacs using Weemba's Gnews.
gnu.emacs.gnus	News reading under GNU Emacs using GNUS (in English).
gnu.emacs.help	User queries and answers.
gnu.emacs.sources	ONLY (please!) C and Lisp source code for GNU Emacs.
gnu.emacs.vm.bug	Bug reports on the Emacs VM mail package.
gnu.emacs.vm.info	Information about the Emacs VM mail package.
gnu.emacs.vms	VMS port of GNU Emacs.
gnu.epoch.misc	The Epoch X11 extensions to Emacs.
gnu.g++.announce	Announcements about the GNU C++ Compiler. (Moderated)
gnu.g++.bug	g++ bug reports and suggested fixes. (Moderated)
gnu.g++.help	GNU C++ compiler (G++) user queries and answers.
gnu.g++.lib.bug	g++ library bug reports/suggested fixes. (Moderated)

gnu.gcc.announce	Announcements about the GNU C Compiler. (Moderated)
gnu.gcc.bug	GNU C Compiler bug reports/suggested fixes. (Moderated)
gnu.gcc.help	GNU C Compiler (gcc) user queries and answers.
gnu.gdb.bug	gcc/g++ DeBugger bugs and suggested fixes. (Moderated)
gnu.ghostscript.bug	GNU Ghostscript interpreter bugs. (Moderated)
gnu.gnusenet.config	GNU's Not Usenet administration and configuration.
gnu.gnusenet.test	GNU's Not Usenet alternative hierarchy testing.
gnu.groff.bug	Bugs in the GNU roff programs. (Moderated)
gnu.misc.discuss	Serious discussion about GNU and freed software.
gnu.smalltalk.bug	Bugs in GNU Smalltalk. (Moderated)
gnu.utils.bug	GNU utilities bugs (e.g., make, gawk, ls). (Moderated)

The IEEE newsgroups concern the IEEE -- the Institute of Electrical and Electronics Engineers.

ieee.announce	General Announcements for IEEE community.
ieee.config	Postings about managing the ieee.* groups.
ieee.general	IEEE - General discussion.
ieee.pcdfs	Discussion & tips on PC-NFS.
ieee.rab.announce	Regional Activities Board - Announcements.
ieee.rab.general	Regional Activities Board - General discussion.

ieee.region1	Region 1 Announcements.
ieee.tab.announce	Technical Activities Board - Announcements.
ieee.tab.general	Technical Activities Board - General discussion.
ieee.tcos	The TCOS newsletter and discussion. (Moderated)
ieee.usab.announce	USAB - Announcements.
ieee.usab.general	USAB - General discussion.

sci.aeronautics	The science of aeronautics & related technology. (Moderated)
sci.aeronautics.airliners	Airliner technology. (Moderated)
sci.aeronautics.simulation	Aerospace simulation technology. (Moderated)
sci.agriculture	Farming, agriculture and related topics.
sci.agriculture.beekeeping	Beekeeping, bee-culture and hive products.
sci.answers	Repository for periodic USENET articles. (Moderated)
sci.anthropology	All aspects of studying humankind.
sci.anthropology.paleo	Evolution of man and other primates.
sci.aquaria	Only scientifically-oriented postings about aquaria.
sci.archaeology	Studying antiquities of the world.
sci.archaeology.mesoamerican	The field of mesoamerican archaeology.
sci.astro	Astronomy discussions and information.

sci.astro.fits	Issues related to the Flexible Image Transport System.
sci.astro.hubble	Processing Hubble Space Telescope data. (Moderated)
sci.astro.planetarium	Discussion of planetariums.
sci.astro.research	Forum in astronomy/astrophysics research. (Moderated)
sci.bio	Biology and related sciences.
sci.bio.ecology	Ecological research.
sci.bio.ethology	Animal behavior and behavioral ecology.
sci.bio.evolution	Discussions of evolutionary biology. (Moderated)
sci.bio.herp	Biology of amphibians and reptiles.
sci.chem	Chemistry and related sciences.
sci.chem.electrochem	The field of electrochemistry.
sci.chem.labware	Chemical laboratory equipment.
sci.chem.organomet	Organometallic chemistry.
sci.classics	Studying classical history, languages, art and more.
sci.cognitive	Perception, memory, judgement and reasoning.
sci.comp-aided	The use of computers as tools in scientific research.
sci.cryonics	Theory and practice of biostasis, suspended animation.
sci.crypt	Different methods of data en/decryption.

sci.data.formats	Modelling, storage and retrieval of scientific data.
sci.econ	The science of economics.
sci.econ.research	Research in all fields of economics. (Moderated)
sci.edu	The science of education.
sci.electronics	Circuits, theory, electrons and discussions.
sci.electronics.cad	Schematic drafting, printed circuit layout, simulation.
sci.electronics.repair	Fixing electronic equipment.
sci.energy	Discussions about energy, science & technology.
sci.energy.hydrogen	All about hydrogen as an alternative fuel.
sci.engr	Technical discussions about engineering tasks.
sci.engr.advanced-tv	HDTV/DATV standards, formats, equipment, practices.
sci.engr.biomed	Discussing the field of biomedical engineering.
sci.engr.chem	All aspects of chemical engineering.
sci.engr.civil	Topics related to civil engineering.
sci.engr.control	The engineering of control systems.
sci.engr.lighting	Light, vision & color in architecture, media, etc.
sci.engr.manufacturing	Manufacturing technology.
sci.engr.mech	The field of mechanical engineering.

sci.engr.semiconductors	Semiconductor devices, processes, materials, physics.
sci.environment	Discussions about the environment and ecology.
sci.fractals	Objects of non-integral dimension and other chaos.
sci.geo.eos	NASA's Earth Observation System (EOS).
sci.geo.fluids	Discussion of geophysical fluid dynamics.
sci.geo.geology	Discussion of solid earth sciences.
sci.geo.hydrology	Surface and groundwater hydrology.
sci.geo.meteorology	Discussion of meteorology and related topics.
sci.geo.satellite-nav	Satellite navigation systems, especially GPS.
sci.image.processing	Scientific image processing and analysis.
sci.lang	Natural languages, communication, etc.
sci.lang.japan	The Japanese language, both spoken and written.
sci.life-extension	Slowing, stopping or reversing the ageing process.
sci.logic	Logic -- math, philosophy & computational aspects.
sci.materials	All aspects of materials engineering.
sci.math	Mathematical discussions and pursuits.
sci.math.research	Discussion of current mathematical research. (Moderated)
sci.math.symbolic	Symbolic algebra discussion.

sci.mech.fluids	All aspects of fluid mechanics.
sci.med	Medicine and its related products and regulations.
sci.med.aids	AIDS: treatment, pathology/biology of HIV, prevention. (Moderated)
sci.med.dentistry	Dentally related topics; all about teeth.
sci.med.nursing	Nursing questions and discussion.
sci.med.nutrition	Physiological impacts of diet.
sci.med.occupational	Preventing, detecting & treating occupational injuries.
sci.med.pharmacy	The teaching and practice of pharmacy.
sci.med.physics	Issues of physics in medical testing/care.
sci.med.psychobiology	Dialog and news in psychiatry and psychobiology.
sci.med.radiology	All aspects of radiology.
sci.med.telemedicine	Hospital/physician networks. No diagnosis questions.
sci.military	Discussion about science & the military. (Moderated)
sci.misc	Short-lived discussions on subjects in the sciences.
sci.nanotech	Self-reproducing molecular-scale machines. (Moderated)
sci.nonlinear	Chaotic systems and other nonlinear scientific study.
sci.op-research	Research, teaching & application of operations research.
sci.optics	Discussion relating to the science of optics.

sci.philosophy.tech	Technical philosophy: math, science, logic, etc.
sci.physics	Physical laws, properties, etc.
sci.physics.accelerators	Particle accelerators and the physics of beams.
sci.physics.computational.fluid-dynamics	Computational fluid dynamics.
sci.physics.electromag	Electromagnetic theory and applications.
sci.physics.fusion	Info on fusion, esp. "cold" fusion.
sci.physics.particle	Particle physics discussions.
sci.physics.plasma	Plasma Science & Technology community exchange. (Moderated)
sci.physics.research	Current physics research. (Moderated)
sci.polymers	All aspects of polymer science.
sci.psychology	Topics related to psychology.
sci.psychology.digest	PSYCOLOQUY: Refereed Psychology Journal and Newsletter. (Moderated)
sci.psychology.research	Research issues in psychology. (Moderated)
sci.research	Research methods, funding, ethics, and whatever.
sci.research.careers	Issues relevant to careers in scientific research.
sci.research.postdoc	Anything about postdoctoral studies, including offers.
sci.skeptic	Skeptics discussing pseudo-science.
sci.space.news	Announcements of space-related news items. (Moderated)

sci.space.policy	Discussions about space policy.
sci.space.science	Space and planetary science and related technical work. (Moderated)
sci.space.shuttle	The space shuttle and the STS program.
sci.space.tech	Technical and general issues related to space flight. (Moderated)
sci.stat.consult	Statistical consulting.
sci.stat.edu	Statistics education.
sci.stat.math	Statistics from a strictly mathematical viewpoint.
sci.systems	The theory and application of systems science.
sci.techniques.mag-resonance	Magnetic resonance imaging and spectroscopy.
sci.techniques.microscopy	The field of microscopy.
sci.techniques.spectroscopy	Spectrum analysis.
sci.techniques.xtallography	The field of crystallography.
sci.virtual-worlds	Virtual Reality - technology and culture. (Moderated)
sci.virtual-worlds.apps	Current and future uses of virtual-worlds technology. (Moderated)

vmsnet.admin	Administration of the VMSnet newsgroups.
vmsnet.alpha	Discussion about Alpha AXP architecture, systems, porting, etc.
vmsnet.announce	General announcements of interest to all. (Moderated)
vmsnet.announce.newusers	Orientation info for new users. (Moderated)
vmsnet.decus.journal	The DECUServe Journal. (Moderated)
vmsnet.decus.lugs	Discussion of DECUS Local User Groups and related issues.
vmsnet.employment	Jobs sought/offered, workplace and employment related issues.
vmsnet.internals	VMS internals, MACRO-32, Bliss, etc.
vmsnet.mail.misc	Other electronic mail software.
vmsnet.mail.pmdf	PMDF email system, gatewayed to ipmdf mailing list.
vmsnet.mail.mx	MX email system from RPI, gatewayed to MX mailing list.
vmsnet.misc	General VMS topics not covered elsewhere.
vmsnet.networks.desktop.misc	Other desktop integration software.
vmsnet.networks.desktop.path works	DEC Pathworks desktop integration software.
vmsnet.networks.management. decgcc	DECgcc and related software.
vmsnet.networks.management. misc	Other network management solutions.
vmsnet.networks.misc	General networking topics not covered elsewhere.

vmsnet.networks.tcp-ip.cmu-tek	CMU-TEK TCP/IP package,
vmsnet.networks.tcp-ip.misc	Other TCP/IP solutions for VMS.
vmsnet.networks.tcp-ip.multinet	TGV's Multinet TCP/IP, gatewayed to info-multinet.
vmsnet.networks.tcp-ip.ucx	DEC's TCP/IP services for VMS product.
vmsnet.networks.tcp-ip.wintcp	The Wollongong Group's WIN-TCP TCP/IP software.
vmsnet.pdp-11	PDP-11 hardware and software, gatewayed to info-pdp11.
vmsnet.sources	Source code postings ONLY. (Moderated)
vmsnet.sources.d	Discussion about or requests for sources.
vmsnet.sources.games	Recreational software postings.
vmsnet.sysmgt	VMS system management.
vmsnet.test	Test messages.
vmsnet.tpu	TPU language and applications, gatewayed to info-tpu.
vmsnet.uucp	DECUS uucp software, gatewayed to vmsnet mailing list.
vmsnet.vms-posix	Discussion about VMS POSIX.

The MISC tree of newsgroups are groups addressing themes that are not easily classified under any other heading or which incorporate themes from multiple categories.

misc.activism.progressive	Information for Progressive activists. (Moderated)
misc.answers	Repository for periodic USENET articles. (Moderated)

misc.books.technical	Discussion of books about technical topics.
misc.consumers	Consumer interests, product reviews, etc.
misc.consumers.house	Discussion about owning and maintaining a house.
misc.creativity	Promoting the use of creativity in all human endeavors.
misc.education	Discussion of the educational system.
misc.education.adult	Adult education and adult literacy practice/research.
misc.education.home-school.christian	Christian home-schooling.
misc.education.home-school.misc	Almost anything about home-schooling.
misc.education.language.english	Teaching English to speakers of other languages.
misc.education.medical	Issues related to medical education.
misc.education.multimedia	Multimedia for education. (Moderated)
misc.education.science	Issues related to science education.
misc.emerg-services	Forum for paramedics & other first responders.
misc.entrepreneurs	Discussion on operating a business.
misc.fitness	Physical fitness, exercise, bodybuilding, etc.
misc.forsale	Short, tasteful postings about items for sale.
misc.forsale.computers.d	Discussion of misc.forsale.computers.*.
misc.forsale.computers.mac	Apple Macintosh related computer items.

misc.forsale.computers.other	Selling miscellaneous computer stuff.
misc.forsale.computers.pc-clone	IBM PC related computer items.
misc.forsale.computers.workstation	Workstation related computer items.
misc.handicap	Items of interest for/about the handicapped. (Moderated)
misc.headlines	Current interest: drug testing, terrorism, etc.
misc.health.alternative	Alternative, complementary and holistic health care.
misc.health.diabetes	Discussion of diabetes management in day to day life.
misc.int-property	Discussion of intellectual property rights.
misc.invest	Investments and the handling of money.
misc.invest.canada	Investing in Canadian financial markets.
misc.invest.funds	Sharing info about bond, stock, real estate funds.
misc.invest.real-estate	Property investments.
misc.invest.stocks	Forum for sharing info about stocks and options.
misc.invest.technical	Analyzing market trends with technical methods.
misc.jobs.contract	Discussions about contract labor.
misc.jobs.misc	Discussion about employment, workplaces, careers.
misc.jobs.offered	Announcements of positions available.

misc.jobs.offered.entry	Job listings only for entry-level positions.
misc.jobs.resumes	Postings of resumes and "situation wanted" articles.
misc.kids	Children, their behavior and activities.
misc.kids.computer	The use of computers by children.
misc.kids.vacation	Discussion on all forms of family-oriented vacationing.
misc.legal	Legalities and the ethics of law.
misc.legal.computing	Discussing the legal climate of the computing world.
misc.legal.moderated	All aspects of law. (Moderated)
misc.misc	Various discussions not fitting in any other group.
misc.news.east-europe.rferl	Radio Free Europe/Radio Liberty Daily Report. (Moderated)
misc.news.southasia	News from Bangladesh, India, Nepal, etc. (Moderated)
misc.rural	Devoted to issues concerning rural living.
misc.taxes	Tax laws and advice.
misc.test	For testing of network software. Very boring.
misc.test.moderated	Testing of posting to moderated groups. (Moderated)
misc.transport.urban-transit	Metropolitan public transportation systems.
misc.wanted	Requests for things that are needed (NOT software).
misc.writing	Discussion of writing in all of its forms.

rec.answers	Repository for periodic USENET articles. (Moderated)
rec.antiques	Discussing antiques and vintage items.
rec.aquaria	Keeping fish and aquaria as a hobby.
rec.arts.animation	Discussion of various kinds of animation.
rec.arts.anime	Japanese animation fan discussion.
rec.arts.anime.info	Announcements about Japanese animation. (Moderated)
rec.arts.anime.marketplace	Things for sale in the Japanese animation world.
rec.arts.anime.stories	All about Japanese comic fanzines. (Moderated)
rec.arts.ascii	ASCII art, info on archives, art, & artists. (Moderated)
rec.arts.bodyart	Tattoos and body decoration discussions.
rec.arts.bonsai	Dwarfish trees and shrubbery.
rec.arts.books	Books of all genres, and the publishing industry.
rec.arts.books.marketplace	Buying and selling of books.
rec.arts.books.tolkien	The works of J.R.R. Tolkien.
rec.arts.cinema	Discussion of the art of cinema. (Moderated)
rec.arts.comics.creative	Encouraging good superhero-style writing.
rec.arts.comics.info	Reviews, convention information and other comics news. (Moderated)
rec.arts.comics.marketplace	The exchange of comics and comic related items.

rec.arts.comics.misc	Comic books, graphic novels, sequential art.
rec.arts.comics.strips	Discussion of short-form comics.
rec.arts.comics.xbooks	The Mutant Universe of Marvel Comics.
rec.arts.dance	Any aspects of dance not covered in another newsgroup.
rec.arts.disney	Discussion of any Disney-related subjects.
rec.arts.drwho	Discussion about Dr. Who.
rec.arts.erotica	Erotic fiction and verse. (Moderated)
rec.arts.fine	Fine arts & artists.
rec.arts.int-fiction	Discussions about interactive fiction.
rec.arts.manga	All aspects of the Japanese storytelling art form.
rec.arts.marching.drumcorps	Drum and bugle corps.
rec.arts.marching.misc	Marching-related performance activities.
rec.arts.misc	Discussions about the arts not in other groups.
rec.arts.movies	Discussions of movies and movie making.
rec.arts.movies.production	Filmmaking, amateur and professional.
rec.arts.movies.reviews	Reviews of movies. (Moderated)
rec.arts.poems	For the posting of poems.
rec.arts.prose	Short works of prose fiction and followup discussion.

rec.arts.sf.announce	Major announcements of the SF world. (Moderated)
rec.arts.sf.fandom	Discussions of SF fan activities.
rec.arts.sf.marketplace	Personal forsale notices of SF materials.
rec.arts.sf.misc	Science fiction lovers' newsgroup.
rec.arts.sf.movies	Discussing SF motion pictures.
rec.arts.sf.reviews	Reviews of science fiction/fantasy/horror works. (Moderated)
rec.arts.sf.science	Real and speculative aspects of SF science.
rec.arts.sf.starwars	Discussion of the Star Wars universe.
rec.arts.sf.tv	Discussing general television SF.
rec.arts.sf.tv.babylon5	Babylon 5 creators meet Babylon 5 fans.
rec.arts.sf.tv.quantum-leap	Quantum Leap TV, comics, cons, etc.
rec.arts.sf.written	Discussion of written science fiction and fantasy.
rec.arts.sf.written.robert-jordan	Books by author Robert Jordan.
rec.arts.startrek.current	New Star Trek shows, movies and books.
rec.arts.startrek.fandom	Star Trek conventions and memorabilia.
rec.arts.startrek.info	Information about the universe of Star Trek. (Moderated)
rec.arts.startrek.misc	General discussions of Star Trek.
rec.arts.startrek.reviews	Reviews of Star Trek books, episodes, films, &c. (Moderated)

rec.arts.startrek.tech	Star Trek's depiction of future technologies.
rec.arts.theatre	Discussion of all aspects of stage work & theatre.
rec.arts.theatre.misc	Miscellaneous topics and issues in theatre.
rec.arts.theatre.musicals	Musical theatre around the world.
rec.arts.theatre.plays	Dramaturgy and discussion of plays.
rec.arts.theatre.stagecraft	Issues in stagecraft and production.
rec.arts.tv	The boob tube, its history, and past and current shows.
rec.arts.tv.mst3k	For fans of Mystery Science Theater 3000.
rec.arts.tv.soaps	Postings about soap operas.
rec.arts.tv.uk	Discussions of telly shows from the UK.
rec.arts.wobegon	"A Prairie Home Companion" radio show discussion.
rec.audio	High fidelity audio.
rec.audio.car	Discussions of automobile audio systems.
rec.audio.high-end	High-end audio systems. (Moderated)
rec.audio.marketplace	Buying and selling of home audio equipment.
rec.audio.misc	Post about audio here if you can't post anywhere else.
rec.audio.opinion	Everybody's two bits on audio in your home.
rec.audio.pro	Professional audio recording and studio engineering.

rec.audio.tech	Theoretical, factual, and DIY topics in home audio.
rec.autos.antique	Discussing all aspects of automobiles over 25 years old.
rec.autos.driving	Driving automobiles.
rec.autos.marketplace	Buy/Sell/Trade automobiles, parts, tools, accessories.
rec.autos.misc	Miscellaneous discussion about automobiles.
rec.autos.rod-n-custom	High performance automobiles.
rec.autos.simulators	Discussion of automotive simulators.
rec.autos.sport	Discussion of organized, legal auto competitions.
rec.autos.sport.info	Auto racing news, results, announcements. (Moderated)
rec.autos.sport.nascar	NASCAR and other professional stock car racing.
rec.autos.sport.tech	Technical aspects & technology of auto racing.
rec.autos.tech	Technical aspects of automobiles, et. al.
rec.autos.vw	Issues pertaining to Volkswagen products.
rec.aviation.announce	Events of interest to the aviation community. (Moderated)
rec.aviation.answers	Frequently asked questions about aviation. (Moderated)
rec.aviation.homebuilt	Selecting, designing, building, and restoring aircraft.
rec.aviation.ifr	Flying under Instrument Flight Rules.
rec.aviation.military	Military aircraft of the past, present and future.

rec.aviation.misc	Miscellaneous topics in aviation.
rec.aviation.owning	Information on owning airplanes.
rec.aviation.piloting	General discussion for aviators.
rec.aviation.products	Reviews and discussion of products useful to pilots.
rec.aviation.questions	Aviation questions and answers. (Moderated)
rec.aviation.simulators	Flight simulation on all levels.
rec.aviation.soaring	All aspects of sailplanes and hang-gliders.
rec.aviation.stories	Anecdotes of flight experiences. (Moderated)
rec.aviation.student	Learning to fly.
rec.backcountry	Activities in the Great Outdoors.
rec.bicycles.marketplace	Buying, selling & reviewing items for cycling.
rec.bicycles.misc	General discussion of bicycling.
rec.bicycles.racing	Bicycle racing techniques, rules and results.
rec.bicycles.rides	Discussions of tours and training or commuting routes.
rec.bicycles.soc	Societal issues of bicycling.
rec.bicycles.tech	Cycling product design, construction, maintenance, etc.
rec.birds	Hobbyists interested in bird watching.
rec.boats	Hobbyists interested in boating.

rec.boats.paddle	Talk about any boats with oars, paddles, etc.
rec.climbing	Climbing techniques, competition announcements, etc.
rec.collecting	Discussion among collectors of many things.
rec.collecting.cards	Collecting all sorts of sport and non-sport cards.
rec.collecting.stamps	Discussion of all things related to philately.
rec.crafts.brewing	The art of making beers and meads.
rec.crafts.jewelry	All aspects of jewelry making and lapidary work.
rec.crafts.metalworking	All aspects of working with metal.
rec.crafts.misc	Handiwork arts not covered elsewhere.
rec.crafts.quilting	All about quilts and other quilted items.
rec.crafts.textiles	Sewing, weaving, knitting and other fiber arts.
rec.crafts.winemaking	The tasteful art of making wine.
rec.equestrian	Discussion of things equestrian.
rec.folk-dancing	Folk dances, dancers, and dancing.
rec.food.cooking	Food, cooking, cookbooks, and recipes.
rec.food.drink	Wines and spirits.
rec.food.drink.beer	All things beer.
rec.food.drink.coffee	The making and drinking of coffee.

rec.food.historic	The history of food making arts.
rec.food.recipes	Recipes for interesting food and drink. (Moderated)
rec.food.restaurants	Discussion of dining out.
rec.food.sourdough	Making and baking with sourdough.
rec.food.veg	Vegetarians.
rec.food.veg.cooking	Vegetarian recipes, cooking, nutrition. (Moderated)
rec.gambling	Articles on games of chance & betting.
rec.games.abstract	Perfect information, pure strategy games.
rec.games.backgammon	Discussion of the game of backgammon.
rec.games.board	Discussion and hints on board games.
rec.games.board.ce	The Cosmic Encounter board game.
rec.games.board.marketplace	Trading and selling of board games.
rec.games.bolo	The networked strategy war game Bolo.
rec.games.bridge	Hobbyists interested in bridge.
rec.games.chess	Chess & computer chess.
rec.games.chinese-chess	Discussion of the game of Chinese chess, Xiangqi.
rec.games.corewar	The Core War computer challenge.
rec.games.deckmaster	The Deckmaster line of games.

rec.games.deckmaster.marketplace	Trading of deckmaster paraphernalia.
rec.games.design	Discussion of game design related issues.
rec.games.diplomacy	The conquest game Diplomacy.
rec.games.empire	Discussion and hints about Empire.
rec.games.frp.advocacy	Flames and rebuttals about various role-playing systems.
rec.games.frp.announce	Announcements of happenings in the role-playing world. (Moderated)
rec.games.frp.archives	Archivable fantasy stories and other projects. (Moderated)
rec.games.frp.cyber	Discussions of cyberpunk related roleplaying games.
rec.games.frp.dnd	Fantasy role-playing with TSR's Dungeons and Dragons.
rec.games.frp.live-action	Live-action roleplaying games.
rec.games.frp.marketplace	Role-playing game materials wanted and for sale.
rec.games.frp.misc	General discussions of role-playing games.
rec.games.go	Discussion about Go.
rec.games.hack	Discussion, hints, etc. about the Hack game.
rec.games.int-fiction	All aspects of interactive fiction games.
rec.games.mecha	Giant robot games.
rec.games.miniatures	Tabletop wargaming.
rec.games.misc	Games and computer games.

rec.games.moria	Comments, hints, and info about the Moria game.
rec.games.mud.admin	Administrative issues of multiuser dungeons.
rec.games.mud.announce	Informational articles about multiuser dungeons. (Moderated)
rec.games.mud.diku	All about DikuMuds.
rec.games.mud.lp	Discussions of the LPMUD computer role playing game.
rec.games.mud.misc	Various aspects of multiuser computer games.
rec.games.mud.tiny	Discussion about Tiny muds, like MUSH, MUSE and MOO.
rec.games.netrek	Discussion of the X window system game Netrek (XtrekII).
rec.games.pbm	Discussion about Play by Mail games.
rec.games.pinball	Discussing pinball-related issues.
rec.games.programmer	Discussion of adventure game programming.
rec.games.rogue	Discussion and hints about Rogue.
rec.games.roguelike.angband	The computer game Angband.
rec.games.roguelike.announce	Major info about rogue-styled games. (Moderated)
rec.games.roguelike.misc	Rogue-style dungeon games without other groups.
rec.games.roguelike.moria	The computer game Moria.
rec.games.roguelike.nethack	The computer game Nethack.
rec.games.roguelike.rogue	The computer game Rogue.

rec.games.trivia	Discussion about trivia.
rec.games.video.3do	Discussion of 3DO video game systems.
rec.games.video.advocacy	Debate on merits of various video game systems.
rec.games.video.arcade	Discussions about coin-operated video games.
rec.games.video.arcade.collecting	Collecting, converting, repairing etc.
rec.games.video.atari	Discussion of Atari's video game systems.
rec.games.video.cd32	Gaming talk, info and help for the Amiga CD32.
rec.games.video.classic	Older home video entertainment systems.
rec.games.video.marketplace	Home video game stuff for sale or trade.
rec.games.video.misc General discussion about home video games.	
rec.games.video.nintendo	All Nintendo video game systems and software.
rec.games.video.sega	All Sega video game systems and software.
rec.games.xtank.play	Strategy and tactics for the distributed game Xtank.
rec.games.xtank.programmer	Coding the Xtank game and its robots.
rec.gardens	Gardening, methods and results.
rec.gardens.orchids	Growing, hybridizing, and general care of orchids.
rec.gardens.roses	Gardening information related to roses.

rec.guns	Discussions about firearms. (Moderated)
rec.heraldry	Discussion of coats of arms.
rec.humor	Jokes and the like. May be somewhat offensive.
rec.humor.d	Discussions on the content of rec.humor articles.
rec.humor.funny	Jokes that are funny (in the moderator's opinion). (Moderated)
rec.humor.oracle	Sagacious advice from the USENET Oracle. (Moderated)
rec.humor.oracle.d	Comments about the USENET Oracle's comments.
rec.hunting	Discussions about hunting. (Moderated)
rec.juggling	Juggling techniques, equipment and events.
rec.kites	Talk about kites and kiting.
rec.mag	Magazine summaries, tables of contents, etc.
rec.martial-arts	Discussion of the various martial art forms.
rec.misc	General topics about recreational/participant sports.
rec.models.railroad	Model railroads of all scales.
rec.models.rc	Radio-controlled models for hobbyists.
rec.models.rockets	Model rockets for hobbyists.
rec.models.scale	Construction of models.
rec.motorcycles	Motorcycles and related products and laws.

rec.motorcycles.dirt	Riding motorcycles and ATVs off-road.
rec.motorcycles.harley	All aspects of Harley-Davidson motorcycles.
rec.motorcycles.racing	Discussion of all aspects of racing motorcycles.
rec.music.a-cappella	Vocal music without instrumental accompaniment.
rec.music.afro-latin	Music with Afro-Latin, African and Latin influences.
rec.music.beatles	Postings about the Fab Four & their music.
rec.music.bluenote	Discussion of jazz, blues, and related types of music.
rec.music.cd	CDs -- availability and other discussions.
rec.music.celtic	Traditional and modern music with a Celtic flavor.
rec.music.christian	Christian music, both contemporary and traditional.
rec.music.classical	Discussion about classical music.
rec.music.classical.guitar	Classical music performed on guitar.
rec.music.classical.performing	Performing classical (including early) music.
rec.music.compose	Creating musical and lyrical works.
rec.music.country.western	C&W music, performers, performances, etc.
rec.music.dementia	Discussion of comedy and novelty music.
rec.music.dylan	Discussion of Bob's works & music.
rec.music.early	Discussion of pre-classical European music.

rec.music.folk	Folks discussing folk music of various sorts.
rec.music.funky	Funk, rap, hip-hop, house, soul, r&b and related.
rec.music.gaffa	Discussion of Kate Bush & other alternative music. (Moderated)
rec.music.gdead	A group for (Grateful) Dead-heads.
rec.music.indian.classical	Hindustani and Carnatic Indian classical music.
rec.music.indian.misc	Discussing Indian music in general.
rec.music.industrial	Discussion of all industrial-related music styles.
rec.music.info	News and announcements on musical topics. (Moderated)
rec.music.makers	For performers and their discussions.
rec.music.makers.bass	Upright bass and bass guitar techniques and equipment.
rec.music.makers.builders	Design, building, repair of musical instruments.
rec.music.makers.guitar	Electric and acoustic guitar techniques and equipment.
rec.music.makers.guitar.acoustic	Discussion of acoustic guitar playing.
rec.music.makers.guitar.tablature	Guitar tablature/chords.
rec.music.makers.marketplace	Buying & selling used music-making equipment.
rec.music.makers.percussion	Drum & other percussion techniques & equipment.
rec.music.makers.piano	Piano music, performing, composing, learning, styles.

rec.music.makers.synth	Synthesizers and computer music.
rec.music.marketplace	Records, tapes, and CDs: wanted, for sale, etc.
rec.music.misc	Music lovers' group.
rec.music.movies	Music for movies and television.
rec.music.newage	"New Age" music discussions.
rec.music.phish	Discussing the musical group Phish.
rec.music.reggae	Roots, Rockers, Dancehall Reggae.
rec.music.rem	The musical group R.E.M.
rec.music.reviews	Reviews of music of all genres and mediums. (Moderated)
rec.music.video	Discussion of music videos and music video software.
rec.nude	Hobbyists interested in naturist/nudist activities.
rec.org.mensa	Talking with members of the high IQ society Mensa.
rec.org.sca	Society for Creative Anachronism.
rec.outdoors.fishing	All aspects of sport and commercial fishing.
rec.outdoors.fishing.fly	Fly fishing in general.
rec.outdoors.fishing.saltwater	Saltwater fishing, methods, gear, Q&A.
rec.parks.theme	Entertainment theme parks.
rec.pets	Pets, pet care, and household animals in general.

rec.pets.birds	The culture and care of indoor birds.
rec.pets.cats	Discussion about domestic cats.
rec.pets.dogs	Any and all subjects relating to dogs as pets.
rec.pets.herp	Reptiles, amphibians and other exotic vivarium pets.
rec.photo	Hobbyists interested in photography.
rec.photo.advanced	Advanced topics (equipment and technique).
rec.photo.darkroom	Developing, printing and other darkroom issues.
rec.photo.help	Beginners questions about photography (and answers).
rec.photo.marketplace	Trading of personal photographic equipment.
rec.photo.misc	General issues related to photography.
rec.puzzles	Puzzles, problems, and quizzes.
rec.puzzles.crosswords	Making and playing gridded word puzzles.
rec.pyrotechnics	Fireworks, rocketry, safety, & other topics.
rec.radio.amateur.antenna	Antennas: theory, techniques and construction.
rec.radio.amateur.digital.misc	Packet radio and other digital radio modes.
rec.radio.amateur.equipment	All about production amateur radio hardware.
rec.radio.amateur.homebrew	Amateur radio construction and experimentation.
rec.radio.amateur.misc	Amateur radio practices, contests, events, rules, etc.

rec.radio.amateur.policy	Radio use & regulation policy.
rec.radio.amateur.space	Amateur radio transmissions through space.
rec.radio.broadcasting	Discussion of global domestic broadcast radio. (Moderated)
rec.radio.cb	Citizen-band radio.
rec.radio.info	Informational postings related to radio. (Moderated)
rec.radio.noncomm	Topics relating to noncommercial radio.
rec.radio.scanner	"Utility" broadcasting traffic above 30 MHz.
rec.radio.shortwave	Shortwave radio enthusiasts.
rec.radio.swap	Offers to trade and swap radio equipment.
rec.railroad	For fans of real trains, ferroequinologists.
rec.roller-coaster	Roller coasters and other amusement park rides.
rec.running	Running for enjoyment, sport, exercise, etc.
rec.scouting	Scouting youth organizations worldwide.
rec.scuba	Hobbyists interested in SCUBA diving.
rec.skate	Ice skating and roller skating.
rec.skiing.alpine	Downhill skiing technique, equipment, etc.
rec.skiing.announce	FAQ, competition results, automated snow reports. (Moderated)
rec.skiing.nordic	Cross-country skiing technique, equipment, etc.

rec.skiing.snowboard	Snowboarding technique, equipment, etc.
rec.skydiving	Hobbyists interested in skydiving.
rec.sport.baseball	Discussion about baseball.
rec.sport.baseball.analysis	Analysis & discussion of baseball. (Moderated)
rec.sport.baseball.college	Baseball on the collegiate level.
rec.sport.baseball.data	Raw baseball data (Stats, birthdays, scheds).
rec.sport.baseball.fantasy	Rotisserie (fantasy) baseball play.
rec.sport.basketball.college	Hoops on the collegiate level.
rec.sport.basketball.misc	Discussion about basketball.
rec.sport.basketball.pro	Talk of professional basketball.
rec.sport.basketball.women	Women's basketball at all levels.
rec.sport.boxing	Boxing in all its pugilistic facets and forms.
rec.sport.cricket	Discussion about the sport of cricket.
rec.sport.cricket.info	News, scores and info related to cricket. (Moderated)
rec.sport.disc	Discussion of flying disc based sports.
rec.sport.fencing	All aspects of swordplay.
rec.sport.football.australian	Discussion of Australian (Rules) Football.
rec.sport.football.canadian	All about Canadian rules football.

rec.sport.football.college	US-style college football.
rec.sport.football.fantasy	Rotisserie (fantasy) football play.
rec.sport.football.misc	Discussion about American-style football.
rec.sport.football.pro	US-style professional football.
rec.sport.golf	Discussion about all aspects of golfing.
rec.sport.hockey	Discussion about ice hockey.
rec.sport.hockey.field	Discussion of the sport of field hockey.
rec.sport.misc	Spectator sports.
rec.sport.olympics	All aspects of the Olympic Games.
rec.sport.paintball	Discussing all aspects of the survival game paintball.
rec.sport.pro-wrestling	Discussion about professional wrestling.
rec.sport.rowing	Crew for competition or fitness.
rec.sport.rugby	Discussion about the game of rugby.
rec.sport.soccer	Discussion about soccer (Association Football).
rec.sport.swimming	Training for and competing in swimming events.
rec.sport.table-tennis	Things related to table tennis (aka Ping Pong).
rec.sport.tennis	Things related to the sport of tennis.
rec.sport.triathlon	Discussing all aspects of multi-event sports.

rec.sport.volleyball	Discussion about volleyball.
rec.sport.water-polo	Discussion of water polo.
rec.sport.waterski	Waterskiing and other boat-towed activities.
rec.toys.lego	Discussion of Lego, Duplo (and compatible) toys.
rec.toys.misc	Discussion of toys that lack a specific newsgroup.
rec.travel	Traveling all over the world.
rec.travel.air	Airline travel around the world.
rec.travel.asia	Travel in Asia.
rec.travel.cruises	Travel by cruise ship.
rec.travel.europe	Travel in Europe.
rec.travel.marketplace	Tickets and accomodations wanted and for sale.
rec.travel.misc	Everything and anything about travel.
rec.travel.usa-canada	Travel in the United States and Canada.
rec.video	Video and video components.
rec.video.cable-tv	Technical and regulatory issues of cable television.
rec.video.desktop	Amateur, computer-based video editing and production.
rec.video.production	Making professional quality video productions.
rec.video.releases	Pre-recorded video releases on laserdisc and videotape.

rec.video.satellite	Getting shows via satellite.
rec.windsurfing	Riding the waves as a hobby.
rec.woodworking	Hobbyists interested in woodworking.

soc.answers	Repository for periodic USENET articles. (Moderated)
soc.bi	Discussions of bisexuality.
soc.college	College, college activities, campus life, etc.
soc.college.grad	General issues related to graduate schools.
soc.college.gradinfo	Information about graduate schools.
soc.college.org.aiesec	The Int'l Assoc. of Business and Commerce Students.
soc.college.teaching-asst	Issues affecting collegiate teaching assistants.
soc.couples	Discussions for couples (cf. soc.singles).
soc.couples.intercultural	Inter-cultural and inter-racial relationships.
soc.culture.afghanistan	Discussion of the Afghan society.
soc.culture.african	Discussions about Africa & things African.
soc.culture.african.american	Discussions about Afro-American issues.
soc.culture.arabic	Technological & cultural issues, *not* politics.
soc.culture.argentina	All about life in Argentina.
soc.culture.asean	Countries of the Assoc. of SE Asian Nations.

soc.culture.asian.american	Issues & discussion about Asian-Americans.
soc.culture.australian	Australian culture and society.
soc.culture.austria	Austria and its people.
soc.culture.baltics	People of the Baltic states.
soc.culture.bangladesh	Issues & discussion about Bangladesh.
soc.culture.belgium	Belgian society, culture(s) and people.
soc.culture.berber	The berber language, history, and culture.
soc.culture.bosna-herzgvna	The independent state of Bosnia and Herzegovina.
soc.culture.brazil	Talking about the people and country of Brazil.
soc.culture.british	Issues about Britain & those of British descent.
soc.culture.bulgaria	Discussing Bulgarian society.
soc.culture.burma	Politics, culture, news, discussion about Burma.
soc.culture.canada	Discussions of Canada and its people.
soc.culture.caribbean	Life in the Caribbean.
soc.culture.celtic	Irish, Scottish, Breton, Cornish, Manx & Welsh.
soc.culture.chile	All about Chile and its people.
soc.culture.china	About China and Chinese culture.
soc.culture.colombia	Colombian talk, social, politics, science.

soc.culture.croatia	The lives of people of Croatia.
soc.culture.cuba	Cuban culture, society and politics.
soc.culture.czecho-slovak	Bohemian, Slovak, Moravian and Silesian life.
soc.culture.europe	Discussing all aspects of all-European society.
soc.culture.filipino	Group about the Filipino culture.
soc.culture.french	French culture, history, and related discussions.
soc.culture.german	Discussions about German culture and history.
soc.culture.greek	Group about Greeks.
soc.culture.hongkong	Discussions pertaining to Hong Kong.
soc.culture.hongkong.entertainment	Entertainment in Hong Kong.
soc.culture.indian	Group for discussion about India & things Indian.
soc.culture.indian.info	Info group for soc.culture.indian, etc. (Moderated)
soc.culture.indian.telugu	The culture of the Telugu people of India.
soc.culture.indonesia	All about the Indonesian nation.
soc.culture.iranian	Discussions about Iran and things Iranian/Persian.
soc.culture.israel	Israel and Israelis.
soc.culture.italian	The Italian people and their culture.

soc.culture.japan	Everything Japanese, except the Japanese language.
soc.culture.jewish	Jewish culture & religion. (cf. talk.politics.mideast)
soc.culture.jewish.holocaust	The Shoah. (Moderated)
soc.culture.korean	Discussions about Korea & things Korean.
soc.culture.laos	Cultural and Social Aspects of Laos.
soc.culture.latin-america	Topics about Latin-America.
soc.culture.lebanon	Discussion about things Lebanese.
soc.culture.maghreb	North African society and culture.
soc.culture.magyar	The Hungarian people & their culture.
soc.culture.malaysia	All about Malaysian society.
soc.culture.mexican	Discussion of Mexico's society.
soc.culture.mexican.american	Mexican-American/Chicano culture and issues.
soc.culture.misc	Group for discussion about other cultures.
soc.culture.mongolian	Everything related to Mongols and Mongolia.
soc.culture.native	Aboriginal people around the world.
soc.culture.nepal	Discussion of people and things in & from Nepal.
soc.culture.netherlands	People from the Netherlands and Belgium.
soc.culture.new-zealand	Discussion of topics related to New Zealand.

soc.culture.nordic	Discussion about culture up north.
soc.culture.pakistan	Topics of discussion about Pakistan.
soc.culture.palestine	Palestinian people, culture and politics.
soc.culture.peru	All about the people of Peru.
soc.culture.polish	Polish culture, Polish past, and Polish politics.
soc.culture.portuguese	Discussion of the people of Portugal.
soc.culture.puerto-rico	Puerto Rican culture, society and politics.
soc.culture.romanian	Discussion of Romanian and Moldavian people.
soc.culture.scientists	Cultural issues about scientists & scientific projects.
soc.culture.singapore	The past, present and future of Singapore.
soc.culture.slovenia	Slovenia and Slovenian people.
soc.culture.somalia	Somalian affairs, society, and culture.
soc.culture.soviet	Topics relating to Russian or Soviet culture.
soc.culture.spain	Spain and the Spanish.
soc.culture.sri-lanka	Things & people from Sri Lanka.
soc.culture.swiss	Swiss culture.
soc.culture.taiwan	Discussion about things Taiwanese.
soc.culture.tamil	Tamil language, history and culture.

soc.culture.thai	Thai people and their culture.
soc.culture.turkish	Discussion about things Turkish.
soc.culture.ukrainian	The lives and times of the Ukrainian people.
soc.culture.uruguay	Discussions of Uruguay for those at home and abroad.
soc.culture.usa	The culture of the United States of America.
soc.culture.venezuela	Discussion of topics related to Venezuela.
soc.culture.vietnamese	Issues and discussions of Vietnamese culture.
soc.culture.yugoslavia	Discussions of Yugoslavia and its people.
soc.feminism	Discussion of feminism & feminist issues. (Moderated)
soc.history	Discussions of things historical.
soc.history.moderated	All aspects of history. (Moderated)
soc.history.war.misc	History & events of wars in general.
soc.history.war.world-war-ii	History & events of World War Two. (Moderated)
soc.libraries.talk	Discussing all aspects of libraries.
soc.men	Issues related to men, their problems & relationships.
soc.misc	Socially-oriented topics not in other groups.
soc.motss	Issues pertaining to homosexuality.
soc.net-people	Announcements, requests, etc. about people on the net.

soc.org.nonprofit	Nonprofit organizations.
soc.org.service-clubs.misc	General info on all service topics.
soc.penpals	In search of net.friendships.
soc.politics	Political problems, systems, solutions. (Moderated)
soc.politics.arms-d	Arms discussion digest. (Moderated)
soc.religion.bahai	Discussion of the Baha'i Faith. (Moderated)
soc.religion.christian	Christianity and related topics. (Moderated)
soc.religion.christian.bible-study	Examining the Holy Bible. (Moderated)
soc.religion.christian.youth-work	Christians working with young people. (Moderated)
soc.religion.eastern	Discussions of Eastern religions. (Moderated)
soc.religion.gnosis	Gnosis, marifat, jnana & direct sacred experience. (Moderated)
soc.religion.islam	Discussions of the Islamic faith. (Moderated)
soc.religion.quaker	The Religious Society of Friends.
soc.religion.shamanism	Discussion of the full range of shamanic experience. (Moderated)
soc.rights.human	Human rights & activism (e.g., Amnesty International).
soc.roots	Discussing genealogy and genealogical matters.
soc.singles	Newsgroup for single people, their activities, etc.
soc.support.transgendered	Transgendered and intersexed persons.

soc.veterans	Social issues relating to military veterans.
soc.women	Issues related to women, their problems & relationships.

talk.abortion	All sorts of discussions and arguments on abortion.
talk.answers	Repository for periodic USENET articles. (Moderated)
talk.bizarre	The unusual bizarre curious and often stupid.
talk.environment	Discussion the state of the environment & what to do.
talk.origins	Evolution versus creationism (sometimes hot!).
talk.philosophy.misc	Philosophical musings on all topics.
talk.politics.animals	The use and/or abuse of animals.
talk.politics.china	Discussion of political issues related to China.
talk.politics.crypto	The relation between cryptography and government.
talk.politics.drugs	The politics of drug issues.
talk.politics.guns	The politics of firearm ownership and (mis)use.
talk.politics.medicine	The politics and ethics involved with health care.
talk.politics.mideast	Discussion & debate over Middle Eastern events.
talk.politics.misc	Political discussions and ravings of all kinds.
talk.politics.soviet	Discussion of Soviet politics, domestic and foreign.

talk.politics.theory	Theory of politics and political systems.
talk.politics.tibet	The politics of Tibet and the Tibetan people.
talk.rape	Discussions on stopping rape; not to be crossposted.
talk.religion.misc	Religious, ethical, & moral implications.
talk.religion.newage	Esoteric and minority religions & philosophies.
talk.rumors	For the posting of rumors.