TIN

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Chapter 1

TIN

1.1 TIN - A Netnews reader

tin, rtin, tind - A Netnews reader SYNOPSIS tin/rtin/tind [options] [newsgroups] Amiga installation Description Index Files News Administration Screen Format Commands Global Options Menu Tinrc Configurable Variables Environment Variables Special Files Signatures Customizing the Quote String Group Attributes Automatic Mailing and Saving New News Tips and Tricks

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Bugs

History

Credits

1.2 Amiga Installation and Special Features

This manual page has been converted to Amigaguide from the ↔ original Unix manual page written by Iain Lea. It still has some references to things which are only true under Unix, but I hope most of it will still be helpful. This manual is also a little out-of-date in sections, so don't assume that just because it is in the manual it should work that way.

This is also my first attempt at writing amigaguide documents. If anyone has any objections to the style I have used, feel free to change it and send me an updated version.

Unless enough people have objections to the new amigaguide manual, I will stop including all the different readme files in the TIN archive, and only distribute this file.

- Mark Tomlinson (mark@garden.equinox.gen.nz)

> UUCP installation Remote NNTP installation BBS specific options Actived program

1.3 UUCP Installation

```
Tin has been designed to work with DUUCP 1.16 and later. \leftrightarrow Specifically, TIN requires the following:
```

 The files uulib:active, uulib:newsdescrip (optional), uulib:active.times (optional). The active and active.times files are standard if you're using cnews, and are created for DUUCP with the

actived program.

2) The assignment UUNEWS: to your news tree. The news must be stored in

hierarchical format, so you must use DUUCP 1.16 or higher for this.

3) The following environment variables (either global or local). NODENAME, USERNAME, REALNAME, HOME, EDITOR.

TIN has been made to work with Dillon's Sendmail & Postnews programs. These take different arguments from standard UNIX mail and news programs. With release 1.1 PL 9 of TIN two further environment variables can been defined:

TIN_POST (default "uucp:c/postnews %s") and TIN_MAIL (default "uucp:c/sendmail").

If you set these variables, you can configure TIN for any other news/mail system. The %s in TIN_POST gets replaced with a filename containing the news article. TIN_MAIL's command line is configurable in your tinrc file.

The editor you use with TIN should not return until you quit editing that file, so if you are using CED or TTX (or probably some others too) you will need to also add in the appropriate options in the environment variable EDITOR (see script file below) which will force your editor to wait until you've quit the editor. Unless you have an editor which understands the argument +7 to mean "start editing at line 7", you should set "Editor Offset" in the configuration menu (type shift-M) to OFF. An example startup script is given here.

```
_____
```

delete uulib:active
rename uulib:newsactive uulib:active
tin.exe {opt1} {opt2} {opt3} {opt4} {opt5} ; start tin itself

See the

actived description for information on actived.

This should be enough to get started. From there, use the help screens within TIN, and if you can be bothered, the rest of this manual.

Another two environment variables LINES and COLUMNS can be set to specify the size of your screen. Inside an Amiga window this isn't required, as TIN can query the window size (and now notices window size changes!), but if you're running on anything other than the Amiga's console, this query escape sequence won't work. If TIN finds the LINES and COLUMNS environment variables set, it will not try to query the window size. Use these variables for axsh, aux:, use on any BBS , etc.

1.4 NNTP Installation

Requirements of TIN for use via NNTP:

- AmiTCP. (Which in turn requires WB2.04 + a network connection).

- A sendmail of some sort. (Only required to actually send mail! See

UUCP installation for info on setting the TIN_MAIL environment

variable.)

The same executable is used for reading news locally as well as via NNTP. You do not need to set the assigns UULIB: and UUNEWS:. You may still wish to assign UULIB: if you want to use UULIB:sitename (see below).

The environment variables NODENAME, USERNAME, REALNAME, HOME and EDITOR still must be set in the same way as for UUCP

To start TIN for reading from the remote server, you must specify '-r' on the command line. ie "tin.exe -r", or alternatively, you can rename or link tin to "rtin.exe" (or anything else beginning with an 'r').

You must also set the environment variables NNTPSERVER and DOMAIN.

[Note once again, that all environment variables may be set with the WB2.0 "set" command, to allow multiple users to run TIN at the same time with different usenames.]

NNTPSERVER is simply the name of the NNTP server, e.g. host.blarg.foo. The port number is now settable (via NNTPPORT

), it defaults to 119 (NNTP). DOMAIN gets used to work out what to put in the Path: & From: lines of any posted message.

The Path line is always:

Path: hostname!user

where hostname is either held in uulib:sitename (if it exists) or \$NODENAME, and user = \$USERNAME.

The From line is:

From: user@domain if \$DOMAIN doesn't begin with a '.' or

From: user@host.domain if \$DOMAIN begins with a '.', where host = hostname, upto the first '.' (hostname is as above).

If you can't receive mail with the particular username in the From: line, you should set the REPLYTO environment variable. (Many other things can also be configured through environment variables

For nntpservers which require authorization, you must create a file
\$HOME/.newsauth, which contains lines of the form:
<nntpserver> <password>

The default signature file for posted messages is \$HOME/.Sig. Other possible files in \$HOME are described in the rest of this guide.

1.5 BBS specific options

This section is here just to bring to attention some options which have been put in place specifically for BBS use.

The command line option "-B" does the following:

- disables piping

- does not allow saving to any directory other than \$HOME
- disables various options in TIN's internal configuration menu.

Note that printing itself is not disabled! You can effectively do this by creating the file UULIB:tinrc with the line: default_printer=copy pipe: nil:

Provided you don't let users edit their own \$HOME/.tin/tinrc file, they will not be able to override this. The Sysop of course can change his/her own tinrc file to allow printing (copy pipe: prt:).

The LINES and COLUMNS variables will have to be set for virtually every BBS package, as I have never seen a remote console which supports the querying of the window size. LINES and COLUMNS should of course be set to the number of lines and columns on the users screen. (Running with a smaller size does no harm, it just doesn't make full use of the users screen.)

1.6 Actived program documentation

Actived creates an "active" file. This is a standard file in Unix environments, but missing from DUUCP. I actually creates uulib:newsactive, allowing current users to be reading from the old active file while the new one is being created. Actived also sets the environment variable "TIN_GROUPS" to equal the number of newsgroups. This variable isn't necessary to run TIN, but allows TIN to save some memory. If you don't wish to run actived each time you start TIN, you may copy TIN_GROUPS to

```
ENVARC: (WB 2.0+).
```

Actived now also appends any new groups it notices to the uulib:active.times file. TIN uses this file to determine whether a group has been created since you last read news.

1.7 Description

TIN is a full-screen easy to use Netnews reader. It can read news locally (i.e. uunews: or remotely (rtin or tin -r option) via a NNTP (Network News Transport Protocol) server. It will automatically utilize nov (news overview) style index files if available locally or via the nntp xover command. Tin has four separate levels of operation: Group selection level, Group level, Thread level and Article level (see Screen Format). Use the 'h' (help) command to view a list of the commands available at a particular level. On startup tin will show a list of the newsgroups found in \$HOME / .newsrc . An arrow $' \rightarrow '$ or highlighted bar will point to the first newsgroup. Move to a group by using the terminal arrow keys (terminal dependent) or 'j' and 'k'. Use space/'b' or Ctrl-U and Ctrl-D to page up/down. Enter a newsgroup by pressing RETURN.

The TAB key advances to the next newsgroup with unread articles and enters it.

1.8 Command Line Options

```
-c create/update index files for every group in
    $HOME
    /
    .newsrc
    or
file specified by the -f option and mark all articles as read.
```

-C count articles for each subscribed group at startup. With a large number of groups this will be slow. However the number of unread articles in each group will be accurate.

index daemon only). -f "file" use the specified file of subscribed to newsgroups in place of \$HOME / .newsrc -h help listing all command line options. -H brief introduction to TIN that is also shown the first time it is started. -I "dir" directory in which to store newsgroup index files Default is \$HOME /.tin/ .news -m "dir" mailbox directory to use. Default is \$HOME / Mail -M "user" mail unread articles to specified user for later reading. For more information see Automatic Mailing and Saving New News -n Only load groups from the active file that are also subscribed to in the users .newsrc . This allows a noticeable speedup when connecting via a slow line. -q quick start without checking for new newsgroups. -P purge group index files of articles that no longer exist. Care should be taken when using this command as it checks each and every article in each group that is accessed. On a low speed connection this can have an undesirable effect and it also knocks the hell out of your filesystem. -r read news remotely from the default NNTP server specified in the environment variable \$NNTPSERVER or contained in the file

-d delete

index files

for each group before indexing article (tind

```
uulib:nntpserver
-R read news saved by the -S option (not yet implemented).
-s "dir" save articles to directory. Default is
                $HOME
                /
                News
-S save unread articles for later reading by the -R option. For
    more information see
               Automatic Mailing and Saving New News
-u create/update
                index files
                 for every group in
                $HOME
                /.newsrc or
    file specified by the -f option. This option is disabled if
    TIN retrieves its index files via a NNTP server.
-U start TIN in the background to update index files while reading
    news in the foreground. This option is disabled if TIN
    retrieves its index files via a NNTP server.
-v verbose mode for -c -M -S -u and -Z options.
-w quick mode to
                post
                 ('write') an article and then exit.
-z only start TIN if there is any new/unread news. If there is
    news TIN will position cursor at first group with unread news.
    Useful for putting in login file.
-Z check if there is any new/unread news and exit with appropriate
    status. If -v option is specified the number of unread articles
    in each group is printed. An exit code 0 indicates no news, 1
    that an error occurred, 2 that a nntp error ocurred and 3 that
    new/unread news exists. Useful for writing scripts.
TIN can also dynamically change its options by the 'M'
               menu command
Any changes are written to
                $HOME
                /.tin/
                tinrc
The index daemon version, tind, supports the -f, -h, -I and
```

-v options.

In order to keep track of threads, TIN maintains an index for each newsgroup. TIN now always creates index in .overview files in the news tree. If you are using TIN via NNTP, the files will be stored in \$HOME /.tin/ .news . There are a few methods of getting TIN to keep these up to date. Simply by ruuning TIN, the index files will be updated on entering the group. You can also update index files via a cron utility with the -11 option. You may wish to enter something similar to the following into your crontab file if you have cron running on your machine: 30 6 * * * tin -u If you are running your machine with multiple users, it is better install the tind index file updating daemon and have it create and update index files for all groups in your active file at regular intervals in the news spool directory (i.e. uunews: .news for NNTP or directly in uunews: for local reading). The index daemon will have to be run at regular intervals to keep the index up to date. The best method is to install the tind index file updating daemon on your NNTP server and have it create and update index files for all groups in your active file at regular intervals in the news spool directory (i.e. /usr/spool/news/.news). This has the advantage that there will only be one copy of the index files on the NNTP server for the whole of your network, but the disadvantage is that you will have to install my NNTP server patches to allow TIN to retrieve index file from your NNTP server and and you must install an entry in the cron batcher system to have tind regularly update index files (note that this is the method we use on our network of 40-50 machines and have not had any problems). Entering a group the first time tends to be slow because the index file must be built from scratch unless the tind update daemon is being used. To alleviate the slowness start tin to create all index files for the groups you subscribe to with TIN -u -v and go for a

coffee. Subsequent readings of a group will cause incremental updating of the index file.

If reading news remotely and updating index files locally, operation will be somewhat slower because the articles must be retrieved from the NNTP server.

1.10 News Administration

Maintaining Netnews on large networks of machines can be a pretty time consuming job as I discovered when I was given the job of maintaining our news system and news users.

TIN is a News User Agent and so most of the users were always asking questions or doing things that could be frowned upon by their departments. To relieve news admins (and especially me) some features have been added.

When a user starts TIN it is possible to inform them of any important changes/information concerning the news system by displaying a message of the day (motd) file. The motd file should be created in your news lib directory (i.e.

uulib:motd
). The motd

file will only be displayed if its content is newer than the last time the user started TIN. If reading news via NNTP my XMOTD patch will have to have been applied to your NNTP server.

A user starting TIN for the first time can be automatically subscribed to a list of newsgroups that are deemed appropriate by the news administrator. At our site the subscriptions file has 125 groups (our active file contains over 400 groups with many only being marginally interesting to most people). The subscriptions file should be created in your news lib directory (i.e.

uulib:subscriptions

). If reading news via NNTP my LIST SUBSCRIPTIONS patch will have to have been applied to your NNTP server.

If my NNTP XUSER patch has been applied to your NNTP server you will be able to log the username and machine to your NNTP logfile for usage statistics.

1.11 Screen Format

TIN has four separate levels of operation: Group selection level, Group level, Thread level and Article level.

At the Group Selection level the title displays the number of subscribed groups. The newsgroups are displayed with the number of unread articles displayed to the left of each group name.

i.e., 1 10 alt.sources 2 3 comp.sources.misc 3 12 news.software.readers At the Group level the title contains the name of the group, the number of conversation threads and total number of articles i.e., alt.sources (7 23). If the group has been setup not to thread articles (i.e., alt.sources is in \$(HOME)/.tin/ unthread) the title will be alt.sources (U 23). There are two possible display formats as shown below: <Selection Num> <Unread> <Responses> <Subject> <Author> i.e., 1 + 3 Bnews sources? iain@anl433.uucp 2 1 This question has ether@net or <Selection Num> <Unread> <Responses> <Subject (longer)> i.e., 1 + 3 Bnews sources? 2 This question has a longer subject line 1 At the Article level the page header has the following format: <Date posted> <Newsgroup> <Thread 1 of n> <Article Num> <Subject> <Num of responses in thread> <Author> <Organization> <Article body> i.e., 24 Jul 15:20:03 GMT alt.sources Thread 1 of 2 Bnews sources? Article 452 3 responses

<Selection Num> <Num of unread articles> <Newsgroup>

```
iain@anl433.uucp
<Article body>
```

1.12 Commands and Operation

```
TIN has four levels of operation (see
Screen Format
).
At each level of operation a different set of commands is available:
Group Selection Commands
Group Index Commands
Thread level Commands
```

Organization name

Article level Commands Movement and editing keys are common to all levels: Common Moving Keys Common Editing Commands In depth documentation on major features: Filtering Articles Posting Articles Mailing, Piping, Printing, Reposting and Saving Articles

1.13 Common Moving Keys

This table shows the common keys/commands for moving at all five levels within TIN.

```
Beginning of list/article1 (^R or g at article level)End of list/article$ (also G at article level)Page Up^U or ^B or bPage Down^D or ^F or <SPACE>Line UpUp arrowLine DownDown arrowj (not at article level)
```

1.14 Common Editing Commands

An emacs style editing package allows the easy editing of input strings. An history list allows the easy reuse of previously entered strings. The following commands are available when editing a string:

- ^A, ^E move to beginning or end of line, respectively.
- ^F, ^B nondestructive move forward or back one location, respectively.
- ^D delete the character currently under the cursor, or send EOF if no characters in the buffer.
- ^H, delete character left of the cursor.
- ^K delete from cursor to end of line.
- ^P, N move through history, previous and next, respectively.
- ^L, ^R redraw the current line.

<cr></cr>	places	line	on	history	list	if	nonblank,	appends
	newline	and r	etur	ns to the	calle	r.		
<esc></esc>	aborts	the pr	esent	t editing	opera	tion		

1.15 Group Selection Commands

- 4 Select group 4.
- ^L Redraw page.
- ^R Reset \$HOME / .newsrc file.
- <CR> Read current group.
- <TAB> View next group with unread news. Will wrap around to the beginning of the group selection list looking for unread groups.
- c Mark current group as all read with confirmation and goto next group in group selection list.
- C Mark current group as all read and goto next unread group in group selection list.
- d Toggle display to show just the groupname or the groupname and the groups description.
- g Choose a new group by name. The position of the group within the group list will also be asked for. By entering '1' the new group will be the first group in the displayed list, by entering '8' the group will be the eighth group in the list etc. By entering '\$' the group will be the last group displayed.
- h Help screen of newsgroup selection commands.
- H Toggle the display of help mini menu at the bottom of the screen.
- I Toggle inverse video.
- List and allow selection of the available spool directories. This feature requires a special library to be linked with tin to create cdtin which can then read news from an active news feed and also from multiple CD-ROMs.
- Move the current group within the group selection list. By entering '1' the group will become the first displayed group in the list, by entering '8' the eighth

	group in the list etc. By entering '\$' the group will be the last group displayed.
М	User configurable options menu (for more information see section Options Menu).
q	Quit tin.
Q	Quit tin.
r	Toggle display of all subscribed to groups and just the subscribed to groups containing unread articles. Command has no effect if groups were read from the command line when tin was started.
R	Mail a bug report or comment to the author. This is the best way of getting bugs fixed and features added/changed.
S	Subscribe to current group.
S	Subscribe to groups matching user specified pattern.
u	Unsubscribe to current group.
U	Unsubscribe to groups matching user specified pattern.
V	Print tin version information.
W	Post an article to current group.
W	List articles posted by user. The date posted, the newsgroup and the subject are listed.
У	The first time this command is called it will yank in all groups from uulib:active that are not in
	<pre>\$HOME / .newsrc . After any groups have been subscribed/unsubscribed to, this command if pressed again will reread \$HOME/.newsrc and display only the subscribed groups.</pre>
Y	Reread the active file to see if any new news has arrived since starting tin.
Z	Mark all articles in the current group as unread.
/	Group forward search.

? Group backward search.

1.16 Group Index Commands

4 Select article 4. ^A Auto select article(s) via a menu. Read the section Filtering Articles for more information. [Auto select article(s) with a single key. The defaults used for selection are set via the following three tinrc config variables: default_filter_select_header 1=From:, (0=Subject:, 2=MessageiId:), default_filter_select_global (ON=apply to all groups, OFF=apply to current group) and default_filter_select_expire (ON=expire after specifed time, OFF=always apply the filter). Read the section Filtering Articles for more information. ^K Kill article(s) via a menu. Read the section Filtering Articles for more information.] Kill article(s) with a single key. The defaults used for killing are set via the following three tinrc variables: default_filter_kill_header config (0=Subject:, 1=From:, 2=MessageiId:), default_filter_kill_global (ON=apply to all groups, to current group) OFF=apply and default_filter_kill_expire (ON=expire after specifed time, OFF=always apply the filter). Read the section Filtering Articles for more information. ^L Redraw page. <CR> Read current article. <TAB> View next unread article or group. Author forward search. а Author backward search. Α Mark all articles as read with confirmation. C

C Mark all articles as read and goto next group with

unread news.

- d Toggle display to show just the subject or the subject and author.
- g Choose a new group by name.
- h Help screen of group index commands.
- H Toggle the display of help mini menu at the bottom of the screen.
- I Toggle inverse video.
- K Mark article/thread as read and advance to next unread article/thread.
- List the author of each response in current thread and enter thread selection level.
- m Mail current article / thread / auto selected (hot)
 articles / articles matching pattern / tagged articles
 to someone (see
 Mailing Articles
).
- M User configurable options menu (for more information see section Options Menu).
- n Go to next group.
- N Go to next unread article.
- o Output current article / thread / auto selected (hot)
 articles / articles matching pattern / tagged articles
 to printer.
- p Go to previous group.
- P Go to previous unread article.
- q Return to previous level.
- Q Quit tin.
- s Save current article / thread / auto selected (hot)
 articles / articles matching pattern / tagged articles
 to file / files / mailbox. To save to a mailbox enter
 '=' or '=mailbox' when asked for filename to save to.
 To save in <newsgroup name>/<filename> format enter
 '+filename'. Environment variables are allowed within
 a filename (i.e. \$SOURCES/dir/filename).
 See section
 Saving Articles

	t Tag current article / thread for mailing ('m') / \leftrightarrow
	piping (' ') / printing ('o') / saving ('s') / reposting ('x')
u	Toggle display to show all articles as unthreaded or threaded.
U	Untag all articles that were tagged.
V	Print tin version information.
W	Post an article to current group.
W	List articles posted by user. The date posted, the newsgroup and the subject are listed.
х	Repost an already posted article / thread / auto selected (hot) articles / articles matching pattern / tagged articles to another newsgroup(s). Useful for reposting from global to local newsgroups. Do not use this to crosspost your own articles.
х	Mark all unread articles that have not been selected as read, redo screen to reflect changes and put index at the first thread to begin reading. Pressing 'X' again will toggle back to the way it was before. See '~' command for clearing the toggle effect.
Z	Mark current article as unread.
Ζ	Mark current thread as unread.
/	Search forward for specified subject.
?	Search backward for specified subject.
_	Show last message.
Ι	<pre>Pipe current article / thread / auto selected (hot) articles / articles matching pattern / tagged articles into command. See Piping Articles .</pre>
*	Select current thread for later processing.
	Toggle selection of current thread. If at least one unread art, but not all unread arts, in thread is selected, then all unread arts become selected.
Q	Reverse all selections on all articles.
~	Undo all selections on all articles. It clears the

toggle effect of 'X' command. Thus after first doing a 'X', one can then do ' \sim ' to reset articles. Thus, one can iteratively whittle down uninteresting threads.

- + Perform auto-selection on current group.
- Prompts for a pattern with which to match on. All threads whose subjects match the pattern will be selected. A pattern of "*" will match all subjects. Entering just <CR> will cause the previous entered pattern to be used.
- ; For each thread in current group, if it at least one unread art is selected, all unread arts become selected. This is useful for auto-selection on author where reader wants to see entire thread.

1.17 Thread Listing Commands

4	Select article 4 within thread.
^L	Redraw page.
<cr></cr>	Read current article within thread.
<tab></tab>	View next unread article within thread.
С	Mark thread as read after confirmation and return to previous level.
d	Toggle display to show just the subject or the subject and author.
h	Help screen of thread listing commands.
Н	Toggle the display of help mini menu at the bottom of the screen.
I	Toggle inverse video.
K	Mark thread as read and return to previous level.
q	Return to previous level.
Q	Quit tin.
r	Toggle display to show all articles or only unread articles.
R	Mail a bug report or comment to the author. This is the best way of getting bugs fixed and features added/changed.
t	Tag current article for mailing ('m') / piping (' \mid ') /

printing ('o') / saving ('s') / reposting ('x').

- T Return to group index level.
- v Print tin version information.
- z Mark current article in thread as unread.
- Z Mark all articles in thread as unread.

1.18 Article Viewer Commands

- 0 Read the base article in this thread.
- 4 Read response 4 in this thread.
- ^A Auto select article(s) via a menu. Read the section

Filtering Articles for more information.

[Auto select article(s) with a single key. The defaults used for selection are set via the following three tinrc config variables: default_filter_select_header (0=Subject:, 1=From:, 2=MessageiId:), default_filter_select_global (ON=apply to all groups, OFF=apply to current group) and default_filter_select_expire (ON=expire after specifed time, OFF=always apply the filter). Read the section

Filtering Articles for more information.

- ^H Show all of the articles mail header.
- ^K Kill article(s) via a menu. Read the section

Filtering Articles for more information.

] Kill article(s) with a single key. The defaults used for killing are set via the following three tinrc config variables: default_filter_kill_header (0=Subject:, 1=From:, 2=MessageiId:), default_filter_kill_global (ON=apply to all groups, OFF=apply to current group) and default_filter_kill_expire (ON=expire after specifed time, OFF=always apply the filter). Read the section

Filtering Articles for more information.

^L Redraw page.

<CR> Goto next base article.

- <TAB> Goto next unread article.
- a Author forward search.
- A Author backward search.
- c Mark all articles as read with confirmation and return to group selection level.
- C Mark current group as all read and goto next unread group in group selection list.
- d Toggle rot-13 decoding for this article.
- D Delete current article. It must have been posted by the same user. The cancel message can be seen in the newsgroup 'control'.
- f Post a followup to the current article with a copy of the article included.
- e Edit the current article. Only available when in a mailgroup.
- F Post a followup to the current article.
- h Help screen of article page commands.
- H Toggle the display of help mini menu at the bottom of the screen.
- I Toggle inverse video.
- k Mark article as read and advance to next unread article.
- K Mark thread as read and advance to next unread thread.
- Mail current article / thread / auto selected (hot) articles / articles matching pattern / tagged articles to someone. See Mailing Articles
- M User configurable options menu (for more information see section Options Menu).
- n Go to the next article.
- N Go to the next unread article.
- o Output current article / thread / auto selected (hot)
 articles / articles matching pattern / tagged articles
 to printer. See

Printing Articles

- p Go to the previous article.
- P Go to the previous unread article.
- q Return to previous level.
- Q Quit tin.
- r Reply through mail to the author of the current article with a copy of the article included.
- R Reply through mail to the author of the current article.
- s Save current article / thread / auto selected (hot)
 articles / articles matching pattern / tagged articles
 to file / files / mailbox. To save to a mailbox enter
 '=' or '=mailbox' when asked for filename to save to.
 To save in <newsgroup name>/<filename> format enter
 '+filename'. Environment variables are allowed within
 a filename (i.e. \$SOURCES/dir/filename).
 See
 Saving Articles
- t Tag current article for mailing ('m') / piping ('|') /
 printing ('o') / saving ('s') / reposting ('x').
- T Return to group selection level.
- v Print tin version information.

Post an article to current group.

- W List articles posted by user. The date posted, the newsgroup and the subject are listed.
- x Repost an already posted article / thread / auto selected (hot) articles / articles matching pattern / tagged articles to another newsgroup(s). Useful for reposting from global to local newsgroups. Do not use this to crosspost your own articles.
- z Mark article as unread.
- / Article forward search.
- ? Article backward search
- | Pipe current article / thread / auto selected (hot) articles / articles matching pattern / tagged articles into command. See

w

Piping Articles

<	Goto	the	first	article	in	the	current	thread.

> Goto the last article in the current thread.

- * Select current thread for later processing.
- . Toggle selection of current article.
- @ Reverse article selections.
- Undo all selections on current thread.

1.19 Global Options Menu

This menu is accessed by pressing 'M' at all levels. It ↔ allows the user to customize the behaviour of tin. The options are saved to the file \$HOME /.tin/ tinrc . Use <SPACE> to toggle the required option and <CR> to set. Auto save Automatically save articles/threads by ``Archive-name:'' line in article header and post process them if process type is not set to None. Editor offset Set ON if the editor used for posting, follow-ups and bug reports has the capability of starting and positioning the cursor at a specified line within a file. Mark saved read Allows saved articles/threads to be automatically marked as read. Confirm Command Allows certain commands (i.e. 'c' catchup) that require user confirmation to be executed immediately if set OFF. Draw arrow Allows groups/articles to be selected by an arrow ' ->' if set ON or by an highlighted bar if set OFF. Print header This allows the complete mail header or only the ``Subject:'' and ``From:'' fields to be output when printing articles. Goto 1st unread

This allows the cursor to be placed at the first / last unread article upon entering a newsgroup with unread news. Scroll full page If set ON scrolling of groups/articles will be a full page at a time, otherwise half a page at a time. Catchup on quit If set ON the user is asked when quitting if all groups read during the current session should be marked read. Thread articles If set ON articles will be threaded in all groups (default), articles will otherwise be shown unthreaded. Threading/unthreading is possible on a per group basis by setting the group attribute variable 'thread_arts' to ON/OFF in the file \$HOME /.tin/ attributes Show only unread If set ON show only new/unread articles, otherwise show all articles. Show description If set ON show a short descriptive text for each displayed The text used is taken from the newsgroup. \$LIBDIR/newsgroups file. Show Author If set 'None' only the ``Subject:'' line will be displayed. If set 'Addr' ``Subject:'' line & the address part of the ''From:'' line are displayed. If set 'Name' ''Subject:'' line & the authors full name part of the ``From:'' line are displayed. If set 'Both' 'Subject:'' line & all of the ''From:'' line are displayed. Process type This specifies the default type of post processing to perform on saved articles. The following types of processing are allowed: --none. --unpacking of multi-part shell archives. --unpacking of multi-part uuencoded files. --unpacking of multi-part uuencoded files, which produce a *.zoo archive whose contents is listed. --unpacking of multi-part uuencoded files, which produce a *.zoo archive whose contents is extracted. --unpacking of multi-part uuencoded files, which produce a *.zip archive whose contents is listed. --unpacking of multi-part uuencoded files, which produce a *.zip archive whose contents is extracted. --unpacking of multi-part uuencoded files, which produce a

```
*.lha archive whose contents is listed (AmigaDOS version
        only).
       --unpacking of multi-part uuencoded files, which produce a
        *.lha archive whose contents is extracted (AmigaDOS
        version only).
Sort articles by
   This specifies how articles should be sorted. The following
    sort types are allowed:
      --don't sort articles (default).
              articles by ``Subject:'' field (ascending &
      --sort
        descending).
                         by '`From:'' field
      --sort articles
                                                 (ascending
                                                              8
        descending).
      --sort articles by '`Date:'' field (ascending &
        descending).
Save directory
   The directory where articles/threads are to be saved.
   Default is
           $HOME
            /
           News
Mail directory
   The directory where articles/threads are to be saved in
   mailbox format. This feature is mainly for use with the Elm
                             allows
                                      the
                                                     to
   mail
          program.
                       It
                                              user
                                                          save
   articles/threads/groups simply by giving ^{\prime}=^{\prime} as the filename
   to save to.
Printer
   The printer program with options that is to be used to print
   articles. Printing article is achieved by opening a pipe. The
```

1.20 Tinrc Configurable Variables

default command is "copy pipe: prt:"

```
The following variables are user configurable by ↔ editing
```

```
art_marked_inrange
```

Default is #. art_marked_return Default is -. art_marked_selected Default is *. art_marked_unread Default is +. auto_cc Default is OFF auto_list_thread Default is ON. auto_save Default is OFF batch_save If set ON articles/threads will be saved in batch mode when save -S or mail -M is specified on the command line. Default is OFF. beginner_level If set ON a mini menu of the most useful commands will be displayed at the bottom of the screen for each level. Default is ON. catchup_read_groups Default is OFF. confirm_action Default is ON. confirm_quit Default is ON. default editor format The format string used to create the editor start command with parameters. Default is '%E %F' (i.e., "c:ed .article"). default_filter_days Default is 28. default_filter_kill_case Default is OFF. default_filter_kill_expire Default is OFF. default_filter_kill_global Default is ON. default_filter_kill_header Default is 0.

default_filter_select_case Default is OFF. default_filter_select_expire Default is OFF. default_filter_select_global Default is ON. default_filter_select_header Default is 0. default_maildir Default is \$HOME/Mail. default_mailer_format The format string used to create the mailer command with parameters that is used for mailing articles to other people. Default is '%M <%F -f %U' (i.e., uucp:c/sendmail <.article -f "iain"). The flexible format allows other mailers with different command line parameters to be used such as 'elm -s "%S" "%T" < "%F"' (i.e., elm -s "subject" "iain" < .article). default_printer The printer program with options that is to be used to print articles. Printing article is achieved by opening a pipe. The default command is "copy pipe: prt:" default_savedir Default is \$HOME/News. default_sigfile The path that specifies the signature file to use when posting, following upto or replying to an article. If the path is a directory then the signature will be randomly generated from files that are in the specified directory. Default is \$HOME / .Sig display_reading_prompt The prompt ''Reading...'' will be displayed when reading an article from a NNTP server to provide feedback to the user. Default is ON. force_screen_redraw Specifies whether a screen redraw should always be done after certain external commands. Default is OFF. groupname_max_length Maximum length of the names of newsgroups to be displayed so that more of the newgroup description can be displayed. Default is 132.

draw arrow Default is OFF. full_page_scroll Default is ON. group_catchup_on_exit Default is ON hot_art_mark The character used to show that an article/thread is autoselected (hot). Default is '*'. inverse_okay Default is ON. mail_quote_format Default is In article %M you wrote: mark saved read Default is ON. news_quote_format Default is %F wrote: pos_first_unread Default is ON. post_process_type Default is 1. print_header Default is OFF. process_only_unread Default is ON. quote_chars The character used in quoting included text to article followups and mail replys. The '_' character represents a blank character and is replaced with ' ' when read. Default is ':_'. reread_active_file_secs The news active file is reread at regular intervals to show if any new news has arrived. Default is 300 seconds. return_art_mark The character used to show that an article will return. Default is '-'. save_to_mmdf_mailbox Allows articles to be saved to a MMDF style mailbox instead of mbox format. Default is OFF unless reading news on SCO Unix which uses MMDF by default.

show_author

```
Default is 2.
show_description
   Default is ON.
show_last_line_prev_page
   The last line of the previous page will be displayed as the
    first line of next page. Default is OFF.
show_only_unread
   Default is ON.
show_only_unread_groups
   Default is OFF.
sort_article_type
   Default is 2.
start_editor_offset
   Default is OFF.
strip_blanks
    Strips the blanks from the end of each line therefore
    speeding up the display when reading on a slow terminal or
    via modem. Default is ON.
tab_after_X_selection
    If enabled will automatically goto the first unread article
    after having selected all hot articles and threads with the
    'X' command at group index level. Default is OFF.
tab_goto_next_unread
    If enabled pressing TAB at the article viewer level will goto
    the next unread article immediately instead of first paging
    through the current one. Default is ON.
thread_articles
   Default is ON.
thread catchup on exit
   Default is ON.
unlink article
   Default is ON.
unread_art_mark
    The character used to show that an article has not been read.
   Default is '+'.
use_builtin_inews
   Allows the builtin NNTP inews to be enabled/disabled. Default
    is ON (enabled).
use_keypad
   Allows the scroll keys on the keypad to be enabled/disabled
    on supported terminals. Default is OFF.
```

```
use_mouse
Allows the mouse key support in a xterm to be
enabled/disabled. Default is ON.
```

1.21 Group Attributes

Tin allows certain attributes to be set on a per group ↔ basis. These group attributes are read from the file

\$HOME
 /.tin/attributes. A later version will provide a menu
interface to set all the attributes. At present you will have to
edit the file with your editor :-(. The following group
attributes are available:

```
newsgroup=alt.sources
maildir=/usr/iain/Mail/sources
savedir=/usr/iain/News/alt.sources
savefile==sources
sigfile=/usr/iain/.funny_sig
organization=Wacky Bits Inc.
followup_to=alt.sources.d
printer=/usr/local/bin/a2ps -nn | /bin/lpr
auto_save=ON
batch_save=OFF
delete_tmp_files=ON
show_only_unread=OFF
thread_arts=ON
show_author=1
sort_art_type=5
post_proc_type=1
```

Note that the ''newsgroup=<groupname>'' line has to be specified before the attributes are specified for that group.

All attributes are set to a reasonable default so you only have to specify the attribute that you want to change (i.e., savedir).

All toggle attributes are set by specifying ON/OFF.

The show_author attribute is specified by a number from the following range: 0=none, 1=username, 2=network address, 3=both.

The sort_art_type attribute is specified by a number from the following range: 0=none, 1=subject descending, 2=subject ascending, 3=from descending, 4=from ascending, 5=date descending, 6=date ascending.

The post_proc_type attribute is specified by a number from the following range: 0=none, 1=unshar, 2=uudecode, 3=uudecode & list zoo archive, 4=uudecode & extract zoo archive, 5=uudecode & list zip archive, 6=uudecode & extract zip archive. (note: if running on AmigaDOS the zoo options are replaced by there corresponding

lha archiver options).

1.22 Filtering Articles

When there is a subject or an author which you are either ↔ verv

interested in, or find completely uninteresting, you can easily instruct tin to auto-select or auto-kill articles with specific subjects or from specific authors. These instructions are stored in a kill file.

This menu is accessed by pressing '^K' at the group and page levels. It allows the user to kill or select an article that matches the current 'Subject:' line, 'From:' line or a string entered by the user. The user entered string can be applied to the 'Subject:' or 'From:' lines of an article. The kill description can be limited to the current newsgroup or it can apply to all newsgroups. Once entered the user can abort the command and not save the kill description, edit the kill file or save the kill description.

On starting tin the users killfile
 \$HOME
 /.tin/
 kill
 is read and on
entering a newsgroup any kill or select descriptions are applied.

Articles that match a kill description are marked killed and are not displayed. Articles that match an auto-select description are marked with a '' *'' when displayed.

1.23 Posting Articles

Tin allows posting of articles, follow-up to already ↔ posted articles and replying direct through mail to the author of an article.

Use the 'w' command to post an article to a newsgroup. After entering the post subject the default editor (i.e. c:ed) or the editor specified by the

\$EDITOR

environment variable will be

started and the article can be entered. To crosspost articles simply add a comma and the name of the newsgroup(s) to the end of the ``Newsgroups:'' line at the beginning of the article. After saving and exiting the editor you are asked if you wish to a)bort posting the article, e)dit the article again or p)ost the article to the specified newsgroup(s). Use the 'W' command to display a history of the articles you have posted. The date the article was posted, which newsgroups the article was posted to and the articles subject line are displayed.

Use the 'f' / 'F' command to post a follow-up article to an already posted article. The 'f' command will copy the text of the original article into the editor. The editing procedure is the same as when posting an article with the 'w' command.

Use the 'r' / 'R' command to reply direct through mail to the author of an already posted article. The 'r' command will copy the text of the original article into the editor. The editing procedure is the same as when posting an article with the 'w' command. After saving and exiting the editor you are asked if you wish to a)bort sending the article, e)dit the article again or s)end the article to the author.

1.24 Customizing the Article Quote String

When posting a followup to an article or replying direct to \leftarrow the author of an article via email the text of the article can be quoted. The beginning of the quoted text can contain information about the quoted article (i.e., Name and the Message Id of the article). To allow for different situations certain information from the article can be used in the quoted string. The following variables are expanded if found in the tinrc variables 'mail_quote_format=' or 'news_quote_format=': %A Address (Email) 응D Date %F Full address (%N (%A)) %G Groupname %M Message Id %N Name of user i.e., mail_quote_format=On %D in %G you wrote: news_quote_format=In %M, %F wrote: would expand when used to: On 21 Jul 1992 09:45:51 -0400 in alt.sources you wrote: In <abclNN123@anl433.uucp>, Iain Lea (iain@erlm.siemens.de) wrote: The quoted text section of an article is marked by a preceding quote string at the beginning of each quoted line. The default quote string is set to ': ' (a semi-colon followed by a space). The default can be changed by setting the tinrc variable 'quote_chars=' to ones own preference. A number of other newsreaders use the '> ' quoting string. To set this one would have to write 'quote_chars=>_' (note that '_' underline is used to represent a space).

1.25 Mailing, Piping, Printing, Reposting and Saving Articles

The command interface to mail ('m'), pipe ('|'), print ('o \leftrightarrow '), repost ('x') and save ('s') articles is the same for ease of use.

The initial command will ask you to select which a)rticle, t)hread, h)ot (auto selected) r)egex pattern, t)agged articles you wish to mail, pipe etc.

Tagged articles must have already been tagged with the 't' command. All tagged articles can be untagged by the 'U' untag command.

If regex pattern matching is selected you are asked to enter a regular expression (i.e. to match all articles subject lines containing 'net News' you must enter '*net News*'). Any articles that match the entered expression will be mailed, piped etc.

To save articles to a mailbox with the name of the current newsgroup (i.e. Alt.sources) enter '=' or '=<mailbox name>' when asked for the save filename.

To save articles in <newsgroup name>/<filename> format enter '+<filename>'.

When saving articles you can specify whether the saved files should be post processed (i.e. unshar shell archive, uudecode multiple parts etc). A default process type can be set by the 'Process type:' in the 'M' options menu

1.26 Automatic Mailing and Saving New News

Tin allows new/unread news articles to be mailed \hookleftarrow (-M

option)/saved (-S option) in batch mode for later reading. Useful when going on holiday and you don't want to return and find that expire has removed a whole load of unread articles. Best to run from crontab everyday while away, after which you will be mailed a report of which articles were mailed/saved from which newsgroups and the total number of articles mailed/saved. Articles are saved in a private news structure under your <savedir> directory (default is

\$HOME

/News). Be careful of using this option if you read a lot of groups because you could overflow your filesystem. If you only want to save a few groups it would be best to backup your full \$HOME/

.newsrc

and create a

```
tin -M iain -c -f newsrc.mail
    (mail any unread articles in newgroups
    specified in file newsrc.mail)
tin -S -c -f newsrc.save
    (save any unread articles in newgroups
    specified in file newsrc.save)
tin -R (read any articles saved by tin -S)
```

1.27 Signatures

Tin will recognize a signature in either \$HOME / .signature or If \$HOME/ signature exists, then the signature w

\$HOME/.Sig. If \$HOME/.signature exists, then the signature will be pulled into the editor for mail commands. A signature in \$HOME/.signature will not be pulled into the editor for posting commands since inews will append the signature itself.

A signature in \$HOME/.Sig will be pulled into the editor for both posting and mailing commands.

The following is an example of a \$HOME/.Sig file: NAMES Iain Lea iain.lea@erlm.siemens.de SNAIL Bruecken Str 12, 90419 Nuernberg 90, Germany PHONE +49-9131-43402 (work)

Tin also has the capability to generate random signatures on a per newsgroup basis if so desired. The way to accomplish this is to specify the default signature or the group attribute sigfile as a directory. If for example the sigfile path is /usr/iain/.sigs and .sigs is a directory then tin will select a random signature from any file that is in the directory .sigs (note: one signature per numbered file). A random signature can also consist of a fixed part signature that can contain your name, address etc. followed by the random sig. The fixed part of the random sig is read from the file \$HOME/.sigfixed.

1.28 Environment Variables

TINRC Define this variable if you want to specify command line options that tin should be started with to save typing them each time it is started. The contents of the environment variable are added to the front of the command line options before it is parsed therefore allowing an option specified on the command line to override the same option specified in the environment.

TIN_HOMEDIR

Define this variable if you do not want the .tin directory in \$HOME/.tin. (i.e. if you want all tin's private files in /tmp/.tin you would set TIN_HOMEDIR to /tmp.

TIN_INDEX_NEWSDIR

Define this variable if you do not want the .news directory in \$HOME/.tin/.news. (i.e. if you want all tin's news index files in /tmp/.news you would set TIN_INDEX_NEWSDIR to /tmp.

TIN_INDEX_MAILDIR

Define this variable if you do not want the .mail directory in \$HOME/.tin/.mail. (i.e. if you want all tin's mail index files in /tmp/.mail you would set TIN_INDEX_MAILDIR to /tmp.

TIN_INDEX_SAVEDIR

Define this variable if you do not want the .save directory in \$HOME/.tin/.save. (i.e. if you want all tin's save index files in /tmp/.save you would set TIN_INDEX_SAVEDIR to /tmp.

TIN_LIBDIR

Define this variable if you want to override the LIBDIR path that was compiled into the tin binary via the Makefile.

TIN_SPOOLDIR

Define this variable if you want to override the SPOOLDIR path that was compiled into the tin binary via the Makefile.

TIN_NOVROOTDIR

Define this variable if you want to override the NOVROOTDIR path that was compiled into the tin binary via the Makefile.

TIN_ACTIVEFILE

Define this variable if you want to override the LIBDIR/active path that was compiled into the tin binary via the Makefile.

NNTPSERVER

The default NNTP server to remotely read news from. This variable only needs to be set if the -r command line option is specified and the file /etc/nntpserver does not exist.

NNTPPORT

The NNTP tcp port to read news from. This variable only needs to be set if the the tcp port is not the default 119.

DISTRIBUTION

Set the article header field ``Distribution:'' to the contents of the variable instead of the system default.

TEX2ISO

Set the article viewer to decode german style umlaut codes to ISO latin1. Value 0 has the same effect as not defining the variable. Use in combination with ISO2ASC.

ISO2ASC

Set the ISO to Ascii charset decoding table character to use in decoding an articles text. Values can range from 0 to 6.

ORGANIZATION

Set the article header field 'Organization:'' to the contents of the variable instead of the system default. This variable has precedence over the file \$HOME/.tin/organization that may also contain an organization string. If reading news on an Apollo DomainOS machine the environment variable NEWSORG has to be used instead of ORGANIZATION.

REPLYTO

Set the article header field ''Reply-To:'' to the return address specified by the variable. This is useful if the machine is not registered in the UUCP mail maps or if you wish to receive replies at a different machine. This variable has precedence over the file \$HOME/.tin/replyto that may also contain a return address.

ADD_ADDRESS

This can contain an address to append to the return address when replying directly through mail to somebody whose mail address is not directly recognized by the local host. For example say the return address is user@bigvax, but bigvax is not recognized by your host, so therefore the mail will not reach user. But the host littevax is known to recognize your host and bigvax, so if ADD_ADDRESS is set (i.e. 'setenv ADD_ADDRESS @littevax' for csh or 'set ADD_ADDRESS @littevax' and 'export ADD_ADDRESS' for sh) the address user@bigvax@littlevax will be used and the mail will reach user@bigvax. This variable has precedence over the file \$HOME/.tin/add_address that may also contain an address.

BUG_ADDRESS

If the 'B' command bug report mail address is not correct this variable should be set to the correct mail address. This variable has precedence over the file \$HOME/.tin/bug_address that may also contain a mail address.

MAILER This variable has precedence over the default mailer that is used in all mailing operations within tin (i.e. replying 'rR', and bug reports 'B'). VISUAL This variable has precedence over the default editor (i.e. vi) that is used in all editing operations within tin (i.e. posting 'w', replying 'rR', follow-ups 'fF' and bug reports 'B').

AUTOSUBSCRIBE

tin interprets this variable similarly to rn. It contains a list of patterns, separated by commas and possibly prefixed with exclamation points. A new group is checked against the list of patterns; if it matches, tin subscribes the user to the group without further query. An exclamation point negates the meaning of a match on this pattern, and can be used to cancel certain matches. For example, setting AUTOSUBSCRIBE=comp.os.unix.*,talk.*,!talk.politics.* will automatically subscribe the user to all new groups in the comp.os.unix hierarchy, and all talk groups other than talk.politics groups (which will be queried for as usual.)

AUTOUNSUBSCRIBE

tin interprets this variable similarly to rn. It is handled like the AUTOSUBSCRIBE variable, but groups matching the list are unsubscribed from without further query. For example, setting AUTOUNSUBSCRIBE=alt.flame.*,u*,!uk.* will automatically unsubscribe the user from all new alt.flame groups and all groups starting with u (university groups) other than UK groups (which will be queried for as usual.)

1.29 Tips and Tricks

Tin can be pretty much be navigated by using the four cursor keys. The left arrow key goes up a level, the right arrow key goes down a level, the up arrow key goes up a line (page at article viewer level) and the down arrow key goes down a line (page at article viewer level).

The following newsgroups provide useful information concerning news software:

- --news.software.readers (info. about news user agents tin,rn,nn,vn etc.)
- --news.software.nntp (info. about NNTP)
- --news.software.b (info. about news transport agents Bnews, Cnews and INN)
- --news.answers (Frequently Asked Questions (FAQ) about many different themes)

Many prompts (i.e. 'Mark everything as read? (y/n): y') within tin offer a default choice that the cursor is positioned on. By pressing <CR> the default value is taken.

Many prompts (i.e. 'Post subject []>') within tin can be aborted by pressing ESC.

When tin is run in an xterm window it will resize itself each time the xterm is resized.

Tin will reread the active file at set intervals to show any newly arrived news.

1.30 Files

```
$HOME/.newsrc
                   subscribed to newgroups.
                   '`nntpserver password'' pairs for
$HOME/.newsauth
                                                            NNTP
                   servers that require authorization.
$HOME/.tin/tinrc
                   options.
$HOME/.tin/attributes
                   contains user specified group attributes.
$HOME/.tin/.news
                  newsgroups index files directory.
$HOME/.tin/.mail
                  mailgroups index files directory.
$HOME/.tin/.save
                  saved newsgroups index files directory.
$HOME/.tin/active.mail
                   active file of users mailgroups.
$HOME/.tin/active.save
                   active file of users saved newsgroups.
$HOME/.tin/add_address
                   address to add to when replying through mail.
$HOME/.tin/bug_address
                   address to send bug reports to.
$HOME/.tin/filter filtering file for article killing and auto-
                   selection.
$HOME/.tin/group.times
                   list of last time all groups were updated
                    (used only by tind index daemon).
$HOME/.tin/organization
                   string to replace default organization.
$HOME/.tin/posted history of articles posted by user.
$HOME/.tin/replyto host address to use in 'Reply-To:'' mail
                   header.
$HOME/.signature
                   signature.
$HOME/.Sig
                   signature.
```

\$HOME/.sigfixed	fixed part of a randomly generated signature.
uulib:active.times	
	Contains list of new newsgroups as they are added to the news history file. Created by actived as it notices new groups added to the uulib:newsgroups file.
uulib:motd	News message of the day file.
uulib:newsdescrip	Short description of all newsgroups.
uulib:subscriptions	List of newsgroups to subscribe first time user to.

1.31 Bugs

There are bugs somewhere among the creeping featurism. Any bugs found should be reported by the $^{\prime}\rm B^{\prime}$ (bug report) command.

Coredumps when setting certain toggle options from the options menu at article viewer level.

Coredumps when killing an article in a thread at article viewer level.

1.32 History

Based on the tass newsreader that was developed by Rich Skrenta and posted to alt.sources in March 1991. Tass was itself heavily influenced by NOTES which was developed at the University of Illinois by Ray Essick and Rob Kolstad in 1982.

v1.0 PLO (full) was posted in 8 parts to alt.sources on 23 Aug 1991. v1.0 PL1 (full) was posted in 8 parts to alt.sources on 03 Sep 1991. v1.0 PL2 (full) was posted in 9 parts to alt.sources on 24 Sep 1991. v1.0 PL3 (patch) was posted in 4 parts to alt.sources on 30 Sep 1991. v1.0 PL4 (patch) was posted in 2 parts to alt.sources on 02 Oct 1991. v1.0 PL5 (patch) was posted in 4 parts to alt.sources on 17 Oct 1991. v1.0 PL6 (patch) was posted in 5 parts to alt.sources on 27 Nov 1991. v1.0 PL7 (patch) was posted in 2 parts to alt.sources on 27 Nov 1991. v1.1 PL0 (full) was posted in 11 parts to alt.sources on 13 Feb 1992. v1.1 PL1 (full) was posted in 12 parts to alt.sources on 24 Mar 1992. v1.1 PL2 (patch) was posted in 4 parts to alt.sources on 30 Mar 1992. v1.1 PL3 (full) was posted in 15 parts to alt.sources on 13 May 1992. v1.1 PL4 (full) was posted in 15 parts to alt.sources on 22 Jun 1992. v1.1 PL5 (patch) was posted in 7 parts to alt.sources on 11 Aug 1992. v1.1 PL6 (full) was posted in 15 parts to alt.sources on 14 Sep 1992. v1.1 PL7 (patch) was posted in 10 parts to alt.sources on 15 Nov 1992. v1.1 PL8 (patch) was posted in 6 parts to alt.sources on 06 Dec 1992. v1.1 PL9 (patch) was posted in 3 parts to alt.sources on 20 Mar 1993. v1.2 PL0 (full) was posted in 14 parts to alt.sources on 25 May 1993. v1.2 PL1 (patch) was posted in 8 parts to alt.sources on 14 Jul 1993. v1.2 PL2 (patch) was posted in 5 parts to alt.sources on 25 Sep 1993. v1.3 PL0 (full) was posted in ? parts to comp.sources.misc on ?? May 1994.

1.33 Author & Credits

Iain Lea	author of TIN (iain.lea@erlm.siemens.de) and author of the man page on which this guide is based.
Rich Skrenta	author of tass v3.2 which this newsreader used as its base.
Bill Davidsen	author of envarg.c environment variable reading routine.
Mike Gleason	author of sigfile.c random signature generation routines.
Paul Kramer	author of intro.txt and cmdref.txt beginners documentation.
Markus Kuhn	author of charset.c and iso2asc.txt ISO-8859-1 documentation.
Arnold Robbins	author of strftime.c date formatting routine.
Jim Robinson	co-author of original kill.c article kill and auto-selection routines.

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author of

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