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- In order to confuse and annoy you, the menu layout has been changed once again.
- A new feature has been added: the 'wait' menu item will repeatedly send the sequence <Space><Backspace> in order to simulate terminal input.
- The program now requires a bit more memory than before (program size has climbed by about 50 KBytes).
- New command line options and tool types have been added, some have been renamed.
- The program is now much smarter in determining the sizes of the phonebook and file transfer window.
- The lists used by the phonebook and the date panel no longer look quite so weird if using a proportional-spaced font.
- The main screen text snipping scheme has changed a bit and now resembles the standard console device snipping. Also supported is double-clicking on single words in order to snip them.
- The ARexx interface has been entirely rewritten from scratch.

- Calls to BeginIO() rather than SendIO() were giving some – if not most – device drivers hard times. According to the few tests I have run so far the program now performs more reliable when doing file transfers. 'term' now works again in conjunction with isdn.device.
- The program no longer encodes the creation date into the name of an auto-capture file but rather writes creation time and date to the first new line in the file.
- New tooltype/command line option 'Quiet' will cause 'term' to start up iconified.

Changes introduced with v3.1:

- Previous releases of the phonebook would not clone single phonebook entries correctly.
- The configuration copying routine will now selectively copy config information to the currently selected phonebook entries.
- The phonebook encryption/decryption routines are a tad faster now.
- The program will now prompt twice for a phonebook access password.
- Comment, phone number, user name and password can be much longer now than they used to be in previous releases.
- The phonebook now only contains the configuration information to differ from the global configuration.
- Previous releases would not save any rate information along with encrypted phonebook files, this has been fixed.
- The configuration copying routine now allows to 'drop' parts of the phone book configuration rather than replacing them with parts of the global configuration. This feature works in conjunction with the new phonebook file format.
- A new feature has been added: as an option, the program will immediately start to redial the currently configured dialing list as soon as the line is hung up or the carrier is lost.
- The program finally includes context-sensitive online help implemented through amigaguide.library (note: Kickstart 3.0 required). Any window to offer a help text will display it when the 'Help' key is pressed.
- The ARexx interface documentation was entirely rewritten. The main program documentation was updated and slightly enhanced. Be sure to reread it!
- Both the text buffer screen and review buffer window now feature new and improved scrollers. Scrolling and screen refreshes are also quite a bit faster now.
- The text searching routine has been enhanced and now works much faster than in previous releases. It also happens to find multiple occurences of a string in a single line.
- Improved text buffer handling, reduced memory fragmentation if running under control of Kickstart 3.0.

- Trying to quit the program will no longer ask for confirmation if there is no reasons to ask for.
- The bar charts in the transfer progress window will be omitted if the remaining screen space would not permit the entire window to be displayed.
- The fast! macro window contents would be rendered in the wrong colours.
- The phonebook window did not support any online-help features.

Changes introduced with v3.3:

- Added the quick dialing menu.
- Enhanced the modem and screen settings
- Fixed a few bugs in the ARexx interface commands `REQUESTFILE` and `REQUESTRESPONSE`
- Unfortunately a single line was missing in the XPR option setup, causing them program not to save the transfer protocol options.
- No longer forces the creation date of an auto-capture file to be included in the file. As an option, will use the naming convention used in previous program releases.
- The program now optionally creates icons for files.
- Added a terminal hex-mode for debugging purposes
- Fonts are now opened using properly initialized DPI and aspect ratio values which results in much better scaled outline font rendering.
- The name of an external emulation library is no longer quietly suppressed.
- It is possible to disable the double-buffered file management routines now.
- Added the text pacing option.
- Apparently, external and internal terminal emulations tried to turn on/off each other's cursors.
- Copying text to the clipboard now permits to append the text to the current clipboard contents.

Changes introduced with v3.2:

- Could not enter phonebook passwords
- The XPR interface now states much more clearly what the likely cause of a serial I/O error might have been
- New sound support functions added
- Added 'OK' and 'ERROR' modem response codes
- The order of messages displayed in the file transfer window has changed (now works top down rather than bottom up).

- Enhanced the capture functions.
- Changed the user interface layout for some windows, such as the modem settings window.
- When running on a public screen will no longer cause lockups and trouble with Workbench. Rendering errors are still possible.
- The very first characters to follow a modem connect message are no longer quietly discarded.
- Finally solved the truly mysterious case of the missing screen line.
- Fixed yet another Enforcer hit in the packet window code.
- The standard beep routine would not work.
- Libraries and devices can now be selected using simple menus rather than the file requester.
- The program now flushes capture files to disk every minute in order to insure that at least fragments of the captured session will be safe when disaster strikes.
- Finally got the cross-hatch pattern to draw ghosted list views right.
- The terminal hex mode would write too many bytes per line.
- The program would not pay attention to any icon tool type settings.
- Upon making a connection the dialing routine will no longer drop the line by accident.
- The review buffer window will filter out unprintable characters before displaying text lines.
- The program no longer knocks itself out if an initialization error occurs during the startup phase.
- You can now select the name of the public screen the ‘term’ window is to be opened upon using a menu.
- If using a public screen the program will make use of the corresponding screen font and no longer try to modify it in any weird way.
- The ARexx command `READ` did not pay attention to the translation table settings.
- A configuration file to be loaded upon startup as specified using tooltypes or command line options will no longer be ignored.
- The positions and sizes of certain program windows will be stored in the main configuration file.
- Initially, when a file was received the information window would not display the space left on the output device.
- Introduced the ‘time to connect’ interval.
- Added the serial read quantum.
- The phonebook window will now be opened large enough to hold all its gadgets inside.
- Blinking text display is no longer restricted to eight colour screens, provided the display architecture permits high-resolution screens in more than 4 bit planes.
- The program now exists cleanly if vital resources such as the output screen cannot be opened.
- The file transfer routines should run a tiny little bit faster now.
- Added the transfer performance meter.

- Fixed a couple of bugs in the user interface library which dealt with odd alignment of slider level strings under v39. Some few strings still break the rules, but the results are less devastating than they used to be. Thankfully, most of the gadtools.library bugs that caused such trouble were fixed in v40.
- Added the ‘trap’ feature which implements the functionality of the ARexx wait list in an asynchronous fashion. For each sequence found a command sequence is executed. This should make it much easier to write UUCP scripts, BBS programs and such. Please note that the trap list is not identical to the wait list.
- Rewrote the ARexx/AmigaDOS command execution routines which now execute their commands in truly asynchronous fashion, i.e. once their processes are spawned they keep to themselves and notify the main program when they are finished. This made it possible to remove the odd command handling workarounds and the special ARexx interface code that would take care of ARexx/AmigaDOS command execution.
- The upload queue window code did not get the upload buttons enabled if icons were dropped on it.
- The trap list loading code mixed up the order of commands and sequences, this has been fixed.
- Fixed a monetary quantity formatting bug in the locale support code.
- A malformed text formatting string was causing Enforcer hits in the action logging routine.
- Added a few more ‘safety catches’ to the screen opening code in order to make sure it does not open screens ‘too deep’.
- Changing the screen size in the screen panel did not cause the screen to be reopened, this has been fixed.
- Realized that it was not such a good idea to make most windows simple refresh and changed them to smart refresh. I’ve probably seen too many Macintosh programs forced to redraw their window contents over and over again.
- The auto-upload panel now sports a button labeled ‘Upload from queue’ which if enabled will cause the current upload queue to be transferred. Thanks to Bob Maple for pointing me into the right direction.
- Fixed a truly nasty bug in the user interface code: integer type gadgets did not remember their original values when created, they would forget about them when queried and only would report them correctly when the values were changed. There is something I forgot to mention: integer gadgets understand hexadecimal (both 0x.. and $.. notation), binary (%..) and octal (&..) notation. The idea came from Martin Taillefer.
- The date and time entries in log files are now printed in DOS format again.
- Recorded scripts and such no longer include `\*SP` codes instead of plain spaces. This should improve readability.
- With the ‘shared screen’ feature enabled ‘term’ would not respect the screen depth settings. This has been fixed.
- The XPR routines no longer queue more than one IORequest, this should help to avoid trouble with some few device drivers.
- The ARexx `QUIT` command really works now.

- With display aspect ratios that aren't even remotely square incrementer arrows for integer gadgets are no longer larger than their container boxes.
- The program no longer crashes if the XPR protocol feels about displaying a message before any other window is open.
- By public demand the highlighting scheme in the phonebook window was changed to yield better contrast.
- The speech volume is given in percent now, but the ARexx interface 'GETATTR' command did not reflect this.
- The sound settings now sport a volume slider which affects all sounds played. Suppose a sound is to be played at maximum volume, i.e. 64 for the current Amiga hardware and the volume slider is set to 25%, then the sound will be played at volume level 16. Setting the volume slider to 0 will cause 'term' not to produce any sound.
- The transfer panel message list dimensions are now auto-adjusted to the screen size. The layout code also tries hard not to make the window overlap the status line.
- Added some bells & whistles to the phonebook window. I hope it still works.
- Moved the user interface code into a shared library in order to make things more complicated.
- The OwnDevUnit feature is no longer linked to the 'Shared access' option.
- All sounds are now replayed in the same fashion as the bell sound, i.e. if a sound is currently being played a request to play another sound will not be satisfied.
- Important file transfer notification messages are now printed in the current highlight colour.
- The destructive backspace mode now offers three choices: off, overstrike and shift. Overstrike mode clears the character below the cursor and shift mode will shift the line contents to follow the cursor to the left.
- The screen panel now features some more options which permit to open the main window on a custom screen as though it were a public screen and an option to split the status line from the main window.
- Tried to squeeze some space out of the control panels with mixed results.
- The text buffer screen no longer uses the main screen display mode by default, it is possible to select the display mode now.
- The built-in ASCII file transfer routines no longer draw upon the current clipboard settings to determine how to send and receive text. There is an all-new preferences editor for this purpose now.
- Added an upload list editor, permitting to collect the files to be transmitted in a list before the transfer is started. You can enter the file names, drop icons on the editor window or on the AppIcon. When you are finished, just press the upload button.
- The packet window string gadget now has room for more than 1000 characters. Note: the 'Load history' command only supports 255 characters per line.
- Added a prescroll option to the emulation settings. The system is not very smart but should get the job done rather quickly; if the cursor is positioned on the last terminal line the number of line feeds in

- The ARexx command 'SENDFILE' would never remove the names of files transferred from the upload list.
- Yet another new option: by default the dialer sends a '\r' string when skipping an entry and when hanging up the line. You can change this behaviour via the 'Dialer abort hangs up' option now. If enabled the dialer will go through the routine hang up procedure (dropping the DTR signal, sending the hangup string, you name it). This should convince even the most stubborn modems to stop doing what they are currently thinking to be fun and to return to normal operation.
- Clicking on the main window in order to activate it will no longer trigger the character snapping function.
- Rewrote the ARexx 'WAIT' routine to a great deal. It could easily forget to turn serial input processing back on for the main program. After a script would exit you would get stuck with data coming in from the serial line, but none of it would be displayed or worked upon.
- Clicking on the text buffer screen window in order to activate it will no longer trigger the character snapping function. Since there is no safety catch, i.e. the clipboard contents are immediately replaced by what you selected after you let go of the mouse button, this will reduce the chance of losing your current clipboard contents.
- Subtle change in the dialer procedure: if an entry would use the default serial settings they did not replace the current serial settings, even if the previous dial list entry had altered them. However, the original purpose of the default settings was to use the unmodified global settings. The dialer behaviour now respects this, changing the current serial settings back to the global settings, not keeping the changes the previous dial list entry had made.
- In previous program releases trying to make certain phonebook entries not use the default settings was somewhat difficult: you had to change the corresponding settings entries to something different from the global defaults. Things are much easier now, just open the settings editor and click on the 'Use' button.
- The 'Startup/Login macro' has been split into a startup macro and a login macro. The dialing routine will first invoke the login macro and then the startup macro. Only the dialing routine makes use of the login macro.
- Small cosmetic changes to the user interface code: cycle gadgets are a few pixels wider now in order to keep 'CycleToMenu' happy.
- When hanging up the line the logoff macro was never executed.
- Finally discovered why the serial read quantum and all the scheduled events were never processed again once they reported that no further data was available. Now the event response loop updates the signal mask again when it reaches the bottom of the loop to see if any new data came in.
- You can now configure the screen depth, permitting to use the Picasso II chunky display mode with 'term'. Note: asl.library v38-v40 fails to handle nonstandard background pen colours correctly, i.e. the depth slider text may be illegible.
- External emulation libraries, namely xemvt340.library, should work again. I changed the memory allocation call for the XEM support interface, but I have no idea why it did the trick.

- The destructive backspace option now removes the character to the left of the cursor but does not move the rest of the line one step to the left. This makes the terminal emulation behaviour more consistent with how real video terminals handle this job.
- The translation table settings panel now features a ‘Default’ button which resets the current translation settings to defaults.
- Just like the text buffer screen the review buffer window is handled by a coprocess now.
- The packet window now supports function keys.
- For technical reasons I dropped the string gadget clipboard support. I suggest that you use StringClip or a similar program instead.
- Clipboard pasting from the review buffer window no longer requires that you activate the main window.
- In the phonebook the edit list (right hand side listview display) indicates whether an entry uses default settings or whether it actually uses custom settings. Custom settings are indicated by asterisks (‘*’).
- The packet window now uses the current terminal text font.
- Pressing Amiga+- in the packet window no longer transmits the current string but changes to the main window while leaving the current string intact.
- Fixed a potential bug in the generic list management module.
- With some file requester patches installed, such as old ReqTools or MFR, the file requester code could fail to notice if a single file was selected in multiselect mode.
- The phone rates are now reported according to the current locale settings, i.e. they take the grouping and special attributes of the local currency into account.
- The IFF-8SVX sound file player code now handles stereo and compressed sound files gracefully (all flavours including uncompressed stereo, compressed stereo, uncompressed mono and compressed mono).
- The ARexx ‘WAIT’ command could fail to report how many characters it pulled from the data stream when a matching string was found. This could result in random characters showing up in the terminal text output.
- The routine to attach the wait mouse pointer to windows and to block input to them was easily losing track of its nesting count. In theory the nesting count could have wrapped around, locking you out. The harmless side-effect was that sometimes windows would not get blocked.
- The ARexx ‘WAIT’ command argument and the wait list may include control sequences now. These are expanded as soon as they go into the list. This feature makes it possible to wait for sequences such as ‘login:\rpassword\r’ but will return result strings which include control characters, so watch out!
- The ARexx ‘READ’ command now allows you to combine the ‘CR’ and ‘NUM’ options. Also, the maximum number of characters to read with the ‘CR’ option is no longer limited to 255 characters.
- The file transfer window will at startup display the name of the currently selected transfer protocol. It displays a default value, leaving the protocol identification to the XPR library.
- The ARexx ‘GETATTR’ command would run into serious trouble if told to put information into a stem variable. The result would be Enforcer hits or crashes.

input events. If 100 messages have accumulated and a new one is about to be added the first and oldest entry will be removed.

- The status line display now properly reflects the name of the current file transfer protocol.
- The quick dial menu checkmarks would get cleared only on some rare occasions, i.e. if the first phonebook entry had the 'Quick dial menu' feature set. Now it gets the job done no matter which phonebook entry is the first one in the quick dial menu.
- The main window menus used to have the command shortcut 'W' assigned twice.
- If running on the Workbench dropping icons on the 'term' window would ask for the type of file transfer (text or binary), but it would get the selection wrong, i.e. if you chose text you got a binary upload and the other way round. This has been fixed.
- When in zoomed state the XPR transfer window will display the name of the file currently being transferred and how much of it has already been transferred (if available). This display will be updated about once a second.
- If icons are to be created for files downloaded it is no longer necessary to turn on file type identification to actually get the icons attached.
- Freezing the text buffer contents now properly updates the text processing routine variables.
- Calling the 'Print clipboard' function twice will no longer result in a general system lockup.
- The double-buffered I/O routines now let you configure the buffer size to use. The memory allocation also is a lot more 'forgiving' than it used to be: if necessary it will shrink the buffer size until it can allocate enough space.
- To keep naughty applications from switching the cursor key and numeric keymap into applications mode you can lock both key sets now, so they will not to change their current modes.
- The old AmigaGuide release (v34 to be accurate) is supported now, but with limited functionality. The help text is not context sensitive and you need to shut down the AmigaGuide server manually (by closing the AmigaGuide window) if the screen its window resides upon is to be closed.
- 'RING' and 'CONNECT' messages from the modem are now reported along with the time when they came in.
- The program now complains loudly about outdated catalog files and incorrectly installed locale.library.
- The hotkey settings panel now checks each hotkey description text after it is entered and complains if it is unuseable.
- The 'QUIET' command line option (makes 'term' start up iconified) no longer crashes if Workbench isn't running.
- The program now features an all-new user interface.
- There is a new command line option called 'BEHIND' which causes the main screen to stay in the background and the main window not to become active upon startup.
- If 'term' fails to open a screen and finds out that the requested screen display mode is unavailable it will copy the screen mode the default public screen is in and retry.

by DCS..ST. A number of control sequences are still no-ops, such as the national/multinational font support operations.

- Double-clicking on a phonebook entry with no phone number attached no longer starts dialing.
- Changed numeric keypad applications mode and PF key handling. I hope it works with all keymappings now.
- Cloning a rates settings entry did not properly duplicate all data associated with the original entry.
- Creating a new phonebook entry will set the rates accounting data connected with it to zeroes.
- Rewrote the prescrolling/jump scrolling support code which now should get the job more quickly than before.
- Resetting the terminal emulation no longer clears the state of the 'Wrap cursor moves' option.
- Rewrote and simplified serial I/O processing, I hope it still works.
- Dialing commands no longer make it into the text buffer.
- The 'Cancel' button in the phonebook panel was relabeled, now showing 'Use' instead.
- The program no longer puts the upload queue icon into the Workbench window by default, there is a new option to turn it off.
- You can finally edit all the settings to be changed in the phonebook, this includes function keys, cursor keys, translation tables and fast macros. Hold down either shift key to bring up the old file requesters. Note that you will also get the old file requesters if something goes wrong reading and setting up the settings data.
- Added an option to make a hardcopy of the screen contents, invoking the printer graphics dump function.
- All the windows sporting pull-down menus now support menu help, i.e. if you press the help key while a menu item is being selected 'term' will bring up the online help page for the corresponding menu.
- Duplicating a phonebook entry now properly duplicates the corresponding rates settings.
- Added new keyboard shortcuts to the phonebook controls. Pressing 'Del' untags the currently selected entry, 'Shift+Del' untags all entries.
- 'term' now looks up the "Fonts" and "Libs" drawers in the current directory and adds them to the "Fonts:" and "Libs:" assignment list. At least for me, this greatly simplifies the installation procedure. Just copy the contents of all distribution archives into a single drawer and let 'term' do the rest.
- The fast! macro button list now properly responds to Alt+Amiga key clicks. I also thinned out the code a bit, causing the buttons to render a little faster.
- Relabeled the button in the bottom left corner of the phonebook window again. It now reads "Close".
- The buffer search requesters are now non-modal so you can have them open and continue to use the text buffer display.
- I reworked some parts of the user interface, trying to clarify the functions of menus and buttons. I also removed some redundant button labels and changed all references to 'directories' to 'drawers'.

- Added some more safety catches to the upload queue handling. Using the auto-upload panel with the upload queue could leave you locked out, blocking 'term'. Generally, not a very nice thing to do. Under the same conditions the code will now fall back to presenting the standard file requesters.
- Fixed a bug in the capture panel which could turn up if the editor was invoked from the phonebook.
- Corrected some few typos in the english user interface text.
- Turning off script recording did not reset the program status to 'ready'. This has been fixed.
- Heaven knows why, but v4.0 did not permit changing the screen colours if running in monochrome mode.
- The 'Freeze buffer' menu now properly toggles the state of the capture buffer.
- The terminal settings now take the maximum possible values into account when setting the selection ranges for the number of columns and lines.
- When using a startup script or a startup command the program no longer displays its 'about' window on program startup.
- The ARexx command "GOONLINE" now sets up some more of status variables than it used to do in v4.0.
- Upon startup the carrier signal is checked (provided your serial configuration says that the carrier should be checked) and if it is present the online timer is started.
- Added a bunch more of serial baud rates. Don't overdo it, a standard Amiga won't go faster than 115K baud.
- Replaced the serial rate slider with an integer gadget featuring incrementer arrows. Clicking on the arrows will cycle through all standard baud rates. Note: requires gtlayout.library 1.97 or higher.
- When offline detecting a carrier signal will bring 'term' into online state, provided the 'Check carrier' flag is enabled in the serial settings.
- ^Q now works again.
- The end-of-line character translation scheme was changed into one single unified concept. Both carriage return and line feed characters can now be translated into <cr>, <lf>, <lf><cr>, <cr><lf> or can be ignored.
- The phone rates management is moving from the individual phone book entries into a separate global settings editor. The old rates management style will continue to work, but the new management scheme has priority over it.

  Here is how the new scheme works: you now assign the rates accounting data to area codes rather than to single phone book entries. Suppose you want a special set of rates settings to be used for all phone book entries and phone numbers which start with the area code "009". In this case you would add another group entry, assign a name to it and put "009#?" into the pattern field. The next time 'term' makes a connection to a phone number starting with the digits "009" the corresponding rates settings will be used. 'term' scans the list top-down, so the default settings should be put into the last list entry. The patterns follow the AmigaDOS syntax.

- Added another two ‘lock’ options. Now you can choose to lock the current text colour and the text rendering style. Take care, the ‘Reset styles’ and ‘Reset terminal’ ˜options will no longer change colour and style once they are locked.
- Made sure that interleaved screens work properly. They do now. If you still see text scrolled or erased plane by plane you’re either hallucinating or you have the PICASSO monitor driver installed which has the systemwide effect of making the operating system ignore requests to use interleaved bitmaps.

  Closer examination has revealed that the interleaved bitmap stuff did not work properly when using Kickstart v2.04. In fact, Kickstart v3.0 is the first operating system release which fully supports interleaved bitmaps for all graphics rendering calls. Previous releases did not take advantage of them, even if set up properly. Sorry folks, you won’t be able to use this feature under Kickstart v2.04 any more: I removed the necessary support routines.
- Added pen and text attribute translation. In the emulation settings you will find an option to select nonstandard pens. In this case, these pens refer to the terminal emulation rendering pens and text attributes.
- Tweaked the terminal emulation parser to swallow the Amiga specific commands to turn the cursor on or off (aSCR).
- The device/library selection now also includes ROM-resident modules. At least one multiserial board includes a driver in its ROM rather than on disk. In older releases, this particular driver did not show up in the list, causing users to believe their boards to be damaged.
- Changed the audio channel allocation priority. In previous program releases the channels could be stolen, causing ‘term’ to hang or crash. Now it’s DeliTracker to break down, not ‘term’ ;-)
- Cloning a phonebook entry did not duplicate the corresponding transfer settings. This has been fixed.
- The serial settings now sport an additional OwnDevUnit control switch. You can now choose to ignore requests to release the serial device driver or to have the device released, causing ‘term’ to check in intervals of 4 seconds if the device has become available again. The default behaviour (the device driver is released) is still supported.
- There is another sound options, called ‘Error sound’. ‘term’ will play this sound if a certain number of transfer errors have occured. The number of errors to occur can also be set in the transfer settings editor.
- You can now select when the file transfer routines should notify you. You can be notified both at the beginning and the end of the transfer, just at the beginning, just at the end or even never.
- The program no longer reports phone rates after losing a connection if there is no sensible data to report.
- The `"WAIT"` command did apparently pay attention to the case of characters passed in when scanning the wait list for matching entries. This has been fixed.
- For some strange reasons, the VT-100 supplementary graphics character set never got loaded. This has been fixed.
- Rewrote the status line display code (yet again). When running on a custom screen you probably won’t see any difference, but: open ‘term’ on a public screen and watch your system performance. No more

and b) no longer causes invalid data to show up in the output stream when pasting the contents of the clipboard. Put another way, in earlier releases the IBM style characters would go unmodified into the buffer. When pasting the clipboard contents, they would then get 'converted' into IBM style characters as 'term' always expected ISO characters to be found in the clipboard (garbage in -> even more garbage out). Nasty, isn't it? Thanks go to Stephen Bowman for telling me about the problem.

- Under some circumstances the text buffer would get the text font width all wrong, causing characters to be left behind when scrolling the page. This has been fixed.
- Cleaned up gtlayout.library for release, window resizing now works a tad better, although the visual effects are not quite that striking. But then perhaps they are striking, which is why they haven't returned to work yet.
- 'term' also takes care of the screen size now when falling back to a usable screen mode. This should cure the notorious "half height screen" problem.
- The cancel button now does what it should do in the date panel and the modem panel.
- Changed the way how colours are assigned to drawing pens if the selected colours cannot be displayed. The previous method only made sure that there is no black text on a black background, the changes now also take care of white text on white background.
- More changes to the XPR abort handling code; the first request to cancel the transmission while xpr_sread() is being executed now properly follows the rules of how to do things (it stops the read request prematurely and gives the protocol a chance to call xpr_chkabort() and to eventually find out what the user wanted). If you hit cancel again it will – as 'term' used to do in previous releases – abort the read request, send a bunch of CAN characters and return with an error. Martin Berndt suggested this.
- I know some of you won't like it, but the following settings editors are now 'paged' to save much space: serial, modem, screen, terminal, emulation, capture and transfer. The nice thing about the new look is that it allows me to save on something else: cryptic abbreviations.
- Discovered some old code left over from prehistoric program releases. The local museum wasn't interested, so I just discarded it. Unfortunately, the total program size did not drop sharply after I did so.
- Whoops, the sound settings editor did not check for 'empty' strings and could tell you that it was unable to locate the file "".
- The picker button of the "Help file" text editing field in the path panel now does what it should do.
- More changes to gtlayout.library, it now respects the window bottom border size gadget and allows the Tab key to be used for cycling through paged settings editors.
- The clipboard and paths settings editors are now paged.
- In paged settings editors, pressing the Tab key cycles through the pages.
- Shortened the english friendly startup reminder message so it fits on NTSC screens.

- Added new tooltype/shell argument to specify the language the program is to use.
- Some of the settings windows are now resizable. Please tell me if this causes any problems. The code is still a bit weird, for example some window sizes can cause the gadgets to overlap the window borders by one or two pixels.
- Small changes to the user interface code. Fixed the notorious double-click bug.
- The AmigaUW terminal resizing code would get invoked before the internal lines/columns variables were set up properly, causing the display to get messed up. This has been fixed.
- When invoking an external file transfer protocol the program now checks if the file name given refers to an ARexx script (it reads the first 256 characters and looks for the comment that identifies an ARexx script), a plain AmigaDOS script (it takes a look at the script file attribute) and eventually accepts the program name as it is. If a file is identified as being a script file it receives special treatment.
- Added another friendly reminder in case the user has enabled the "Connect auto-baud" switch. Apparently, a lot of users have this switch enabled without really knowing what it does and will get into real trouble when making a connection.
- The chat line now gets activated when invoked via menu.
- When failing to allocate enough colours for the terminal window 'term' now falls back to four colour mode.
- Rewrote the dialer (again). If you press skip/abort it will now do what it should do rather than ignoring your commands. The original serial configuration also gets properly restored if the dialer fails to make a connection. Various nice side effects are included. For example, if in waiting state pressing the abort button immediately exits.
- After finding out that the window resizing code did not work properly in programs derived from the review buffer window handling code I gave the original resizing routine another rewrite.
- The ARexx "SEND" command now sports a new "LITERAL" option. With this option the text to send will be transmitted literally, no embedded command sequences or special characters will be evaluated.
- The chat line text entry field no longer filters control characters, even if you enabled this feature in the IControl system preferences editor.
- The text buffer screen could hang when choosing to clear the buffer contents from the menu. This has been fixed.
- The colour remapping that usually took place only in two colour mode (which tries to avoid mapping the same colour to text background and foreground) now also gets applied in four and eight colour modes. Previously, it would ignore the colour mode the user had chosen and just take a look at the depth of the screen the program was using. This could cause all kinds of trouble when running on a 256 colour public screen.
- When running on its own public screen with a window border 'term' could crash if there were still visitor windows open on the public screen.

The escape sequence %% expands into %, in case you need it. The file transfer functions support the upload list window and the ARexx file transfer list: if %f/%F/%m/%M escape sequences are found in the command line text they will be replaced by the upload list if necessary. Please note that when using an external program no file names will be removed from the ARexx upload list. Here are two examples to get you started:

```
run hydracom device %p speed %b line %c nocarrier rec %> get
```

This will invoke hydracom and start downloading into your download drawer. Put this in to the "Receive" field of your binary transfer settings.

```
run hydracom device %p speed %b line %c nocarrier rec %> send %m
```

This will also invoke hydracom. First you will be asked to select the files to send, then hydracom will transmit them. Put this into the "Send" field of your binary transfer settings.

‘term’ runs these commands in synchronous fashion, this is why the "run" command is necessary above. Hydracom needs to interface to ‘term’ while it is running and not currently waiting for the command to complete its task. Aside from the fact that commands are executed in synchronous fashion, they are started just as if you would invoke them using the "Execute AmigaDOS command..." function.

- Fixed a security hole in the review buffer processing code. Previously, the review buffer window could easily lock up when receiving new data.
- Rewrote most of the carrier tracking code. If the carrier is lost during a file transfer ‘term’ will now properly notice that it is no longer online and run through the usual cleanup procedures.
- More changes to the file transfer settings; for each protocol you use you can now define a specific signature. If ‘term’ sees this signature in the input data stream it will automatically invoke the protocol in question. The exception is the default protocol which is handled a bit differently. There is no distinction between an upload and a download protocol, since this is how the default protocol works. If the default protocol is an XPR library the library will be open all the time. Whenever the default protocol is invoked, you will be prompted to select the transfer type (text or binary as usual). For auto-activating XPR protocols the signatures will probably be ignored.

  *IMPORTANT: If you are using the Z-Modem auto-upload feature you *MUST* invoke the transfer settings and pick the send signature for the default protocol. Click on the select button at the right side of the "Signature" text entry field. From the list that pops up select "Z-Modem" and save your settings back to disk. If you fail to do so, Z-Modem auto-uploads will *NOT* work.*

  The signatures are scanned in the following order:

  Default protocol (upload) Default protocol (download) ASCII upload ASCII download Text upload Text download Binary upload Binary download

  This means that if you use the same signature for the Default protocol and the Binary upload then the Default protocol will be invoked.

  For now, there are only three signatures built into the program that can be picked from a list: Z-Modem, Hydra and QuickB. QuickB really is not a true signature since it consists only of the ENQ character. Please note that different built-in signature lists will be presented for the upload and download settings.

- The review buffer process did not protect itself against sudden removal, leading to crashes after the review window was closed.
- The "READ CR" ARexx command now does again what it should do.
- The code that would cause Enforcer hits within rexxsyslib.library was rewritten to use a different technique to tell free messages and Rexx messages apart.
- The AmigaUW TTY resizing code would crash the machine if the serial device was unavailable. This would happen for example if the serial device driver did not open upon startup.
- The dialing window now displays which dial list entry will be dialed next when in redial delay mode.
- 'term' now properly allocates its work bitmaps when running under Kickstart 3.x, previously it would occasionally fall back to constructing bitmaps on its own which could cause speed penalties.
- Another one bites the dust. Found a really long standing bug in the double-buffered file routines. Can you say buffer trashing, memory losses, crashes? The code used to be very vulnerable to memory shortages. I fixed this and also threw in some extra code to make the buffers quad-longword aligned to help '040 systems with DMA hard disk controllers.
- There is now a bit of new code in the program which opens gtlayout.library. If there still is an old library release in memory it gets flushed first, then the library is reopened. This has the effect of forcing the library to get reloaded from disk.
- Even more changes to the terminal emulation code; previous releases always ignored the current background colour when clearing lines, the screens or moving text around. This has been fixed. Some code also did BitMap peeking which is strictly speaking not allowed. When using fonts with an odd height smooth scrolling could leave pixel trash behind. Some routines, notably those responsible for scrolling and erasing display text, never made sure that the area to scroll/erase was within valid bounds. As the low-level routines always counted upon this data to be correct nasty crashes could result. Some of the new code is far from being highly efficient, but should be much more robust than the old routines. Anyway, those folks looking for a high-speed terminal emulation probably have already chosen a different program.
- The screen settings editor would occasionally assign the wrong colour palette to phone book entry configurations. This has been fixed.
- The routine to reset the text colours to something readable did not take the new emulation pen settings into account. This has been fixed.
- To aid debugging, there is a new switch in the modem settings which tells the dialer to echo commands sent to the modem and to show the modem responses.
- Added another switch to the misc. settings editor. You can now disable those annoying "File ... already exists, do you want to replace it?" requesters.
- Major revamp of the file transfer settings editor. First off, it's no longer that tall. The "Page" cycle gadget cycles through all the individual entries. As there are: the default protocol, the ASCII transfer settings, the text transfer settings and the binary transfer settings. For each protocol you will find another cycle gadget, a text entry field and a big, friendly button labeled "Edit settings...". The cycle

- The dialer checked for modem errors, but the scanner responsible for catching the modem message never actually passed this information to the dialer.
- Changed the machine readable version number string; it now includes information to explain for which type of machine the program was compiled.
- Added new "Direct connection" option to the serial settings. If enabled, this switch suppresses RTS/CTS warnings and disables the carrier check. This is useful for direct nullmodem connections and for using the Amiga as a dumb terminal.
- Moved the "Alert" switch from the terminal settings to the miscellaneous settings. This made it necessary to bump the program revision number to v4.4.
- You can now configure the opening size and position of the standard asl requesters (file, font, display mode) in the misc settings. Just select the positioning mode you want (centered or placed relative to the top left corner of the main window) and click on the "Edit..." button. A file requester window will open. Drag it to the position you want and change its size if necessary, then click on "Use". 'term' will keep position and size as default values for the requesters to open.
- Rearranged some settings editors, made some room between neighbouring radio buttons and check-boxes, added 'Tab' key support to some editors which were missing this feature.
- The notorious screen cloning feature did not work in previous releases, in fact gtlayout.library was broken in many ways and badly needed updating [Klaus Dürr].
- Added LZX archive file type.
- Sorry, no speedbar in this release, I just currently don't have the time to do it :(
- Added another character send delay option, this time to the modem settings. Some weird east-asian built v.34 compliant modems will happily operate at 57600 baud, but get into real trouble when receiving plain modem dialing and initialization commands. The characters come in just too fast. A little delay between the characters being sent may help.
- The 'about' window now sports scrolling credits.
- The phonebook will no longer load empty configuration items (key macros, fast macros, etc.) to edit if the names of the files are not given.
- Due to a bunch of internal changes in order to support scaled characters in more consistent fashion, the option to select half-width characters was removed from the emulation settings. Cut & paste with non-normal sized characters still does not work properly on the screen.
- Redid the logic for the RTS/CTS (DSR check) handshaking mode. 'term' now opens the serial device driver with RTS/CTS handshaking disabled, checks the DSR signal and then if necessary closes the device driver and reopens it with RTS/CTS handshaking enabled.
- 'term' no longer locks the serial device driver for exclusive access through OwnDevUnit.library when told to open the driver in shared mode.
- Loading the configuration and then choosing "Save configuration" from the main menu will save the current settings under the name of the configuration file loaded last.
- The cursor key control panel now sports a "Default" button.

'`Show output`'
: If not enabled, this causes the input line not to be echoed in the terminal window.

'`Quit`'
: Closes the window (corresponds to clicking the close gadget of the window).

Every character entered into this window is shown immediately so that those things where it is better that they should not appear on the screen (like passwords for a mailbox) should be entered in another way.

The contents of every input line are interpreted as a command sequence and therefore can also contain control characters.

If a line taken from the input buffer is sent without change it is *not* stored in the buffer again ('true history' such as known from 'ConMan').

The contents of the input buffer are cleared automatically after the window is closed. *Under no circumstances are the contents maintained until the next call!*

Provided that the packet window is large enough, a list to contain the command line history will be displayed.

'\n' Generates a line feed.

'\p' Feeds the password of the currently active telephonebook entry into the input stream. *The password is automatically cleared for security reasons when the connection is lost.*

'\r' Generates a carriage return.

'\t' Generates a tab jump.

'\u' Similar to the \p command, the \u command will feed the current user name into the input stream.

'\w'

Depending on how the 'Dial mode' switch is set in the modem settings, this command either produces P for pulse dialing or T for touch tone dialing.

'\x' Generates a break signal (as with the 'Send break' menu entry).

'\^' Generates a caret character.

'\~' Generates a tilde character.

'*' The code to follow the asterisk determines the character to produce. This can be any three digit number or a symbolic name from the following list[1]:

'NUL', 'SOH', 'STX', 'ETX', 'EOT', 'ENQ', 'ACK', 'BEL', 'BS', 'HT', 'LF', 'VT', 'FF', 'CR', 'SO', 'SI', 'DLE', 'DC1', 'DC2', 'DC3', 'DC4', 'NAK', 'SYN', 'ETB', 'CAN', 'EM', 'SUB', 'ESC', 'FS', 'GS', 'RS', 'US', 'SP', 'DEL', 'SS2', 'SS3', 'DCS', 'CSI', 'ST', 'OSC', 'PM', 'APC', 'NBS' and 'SHY'

If none of the mentioned combinations is recognized the character which follows the \ will be fed into the input stream without any changes.

27.2 Caret

This character is used to change the following character to a 'control character'. So the sequence '^J' will become a Line feed and '^I' becomes a tab jump. The character which follows the ^ has to be located between @ and [, otherwise it is fed into the input stream without changes.

27.3 Tilde

This character causes the program to pause for exactly half a second before it continues to process the following commands.

1 'EOU' may be implemented in a future release

‘`Ignore case`’
: With this switch enabled the search does not distinguish between lower case and upper case characters, i.e. `TEXT` = `Text` = `text`, etc.

‘`Only whole words`’
: If this switch is enabled, ‘term’ will search for whole words only, not for parts of a word. For example, searching for `term` with the ‘`Only whole words`’ option enabled would stop at the word `term`, but ignore the word `terminal`.

‘`Repeat search`’
: Continues the search process started with ‘`Search`’. The previously entered search text is carried over.

‘`Go to main screen`’
: Switches to the main screen of ‘term’.

‘`Clear buffer`’
: Clears the contents of the text buffer.

‘`Close buffer`’
: Closes the text buffer screen but leaves the contents unchanged.

of computer) to listen to a sequence of sounds which represent the single digits of the phone number dialled. Pulse dialing involves getting a number of electric pulses, each of which represents a digit of the phone number, transmitted across the line. Tone dialing is usually much faster than pulse dialing, but it isn't supported all over the world. If the receiver of your phone reports a number of beeping sounds when you dial a number you can use tone dialing. If you hear rattling sounds it's probably pulse dialing for you. Let's get back to the '`Dial mode`', if you wish to use pulse dialing, set it to '`Pulse`', otherwise set it to '`Tone`'.

Leave the rest of the modem setup as it is, do not change the '`Connect auto baud`' switch.

3. Next, take a look at the screen settings (see Section 19.3 [Screen panel], page 55). This is where you choose the terminal screen/window look and colours. By default 'term' is configured to open a plain four colour screen using the Amiga default font. This should be sufficient unless you plan to spend most of your modeming time in PC-driven BBSes which keep throwing lots of colours at you.

   Choose how many colours the terminal should use, the switch labeled '`Colour`' will let you choose between '`4 Colours (Amiga)`', '`8 Colours (ANSI)`', '`16 Colours (EGA)`' and '`2 Colours (Monochrome)`'. Each of these settings has a particular default palette attached. The '`Amiga`' mode will use your current system default colours. '`ANSI`' represents the choice of colours the ANSI committee responsible for standardizing a certain terminal command protocol to be the best given the constraints they had. '`EGA`' reflects whatever the engineers who designed the first Enhanced Graphics Adaptor card for the PC considered to be an enhanced colour palette. '`Monochrome`' is my idea how an extremely simplistic, while still readable colour choice could look like. Choose what you find appropriate, but keep in mind that the more colours to use the slower screen updates, scrolling and text output will get. Also, a 16 colour high resolution screen will put your system under additional stress if you are running an older Amiga model which is not equipped with the AGA chip set. Careful please, any changes you make will affect the performance of the program!

   You might want to change the screen mode or the user interface font. When you are satisfied with the setup, return to the main menu.

4. Now it's time to edit the terminal settings (see Section 19.5 [Terminal panel], page 59). This is where you control the basic behaviour of the terminal emulation. If you wish to use an IBM PC style font for the terminal display you can do so by changing the '`Font`' switch to '`IBM PC style`'. Alternatively, you might find it worth changing the '`Text font`' instead which is the font to be used for terminal text output. Note that if the '`Font`' switch is set to anything else but '`Standard`' your '`Text font`' settings will be ignored. Well, actually they will not be entirely ignored, but the IBM PC style font will be opened in the point size you selected.

   Don't touch any other controls, return to the main menu when you are finished.

5. If you are likely to visit a lot of PC BBSes, edit the emulation settings now (see Section 19.6 [Emulation panel], page 61). You might want to turn on the switch labeled '`'CLS' resets cursor position`', otherwise the terminal screen might not get cleared properly when the BBS sends the control codes it considers appropriate for this purpose.

   Leave the rest of the setup as it is and return to the main menu.

```
run hydracom device %p speed %b line %c nocarrier rec %> get
```

The `Hydracom` command must be prefixed with the `Run` command due to the way the protocol interacts with ‘term’. For other protocols the `Run` prefix may be omitted.

Now close the window by pressing the `Use` button. Now Hydracom is configured as the binary file transfer protocol. To receive files using the protocol, select the menu item `Download binary file(s)`, to send and receive files at the same time (Hydracom is a bidirectional file transfer protocol) select `Upload binary file(s)`.

If you wish to use the Hydracom signature (see Chapter 21 [Signature panel], page 107 and Section 19.13 [Transfer panel], page 72) to auto-start transmissions, you need to keep a few things in mind. The signature is identical both for uploads and downloads, but using it for both purposes is not a good idea. ‘term’ will always pick the upload signature first. Hydracom is a bidirectional file transfer protocol which allows you to send and receive files at the same time. This works only when invoking an upload, but not when running a download. If you select a download signature you will lose the bidirectional transfer feature. It is recommended to start transmissions manually.

This setup will always let you transfer data only in one direction. In order to take advantage of the bidirectional transfer feature Hydra offers you will need to make use of two ARexx scripts that should have accompanied ‘term’. You only need to modify the commands for `Send` and `Receive` a little:

For `Send` enter:

```
AskUpload.term device %p speed %b line %c nocarrier rec %> send %m
```

And for `Receive` enter:

```
AskDownload.term device %p speed %b line %c nocarrier rec %> get
```

Before the transfer starts you will be asked whether you wish to send and receive data at the same time or whether data should be transmitted only in one direction.

22.4 Escape sequences

When invoking external programs to use for transferring data 'term' will build a command line based upon the template given in the transfer settings editor (see Section 19.13 [Transfer panel], page 72). This template can include special tokens, known as escape sequences. Unlike the so-called command sequences (see Chapter 27 [Command sequences], page 125) they are introduced by a percent character (%) and can only be used with external file transfer programs. Please note that you cannot mix command sequences with escape sequences.

The following escape sequences are supported:

`%f (Single file name)`
: Inserts a single file name when the program is run. A file requester will open if necessary. If there are still files in the upload queue (see Section 20.14 [File upload panel], page 103) and an upload is to take place the first file name will be inserted and no file requester will appear.

  Note: Case matters; %f inserts the file name along with its complete path, %F inserts the plain file name only, omitting the path.

`%m (Multiple file names)`
: Inserts a list of file names when the program is run. A file requester will open if necessary. If there are still files in the upload queue (see Section 20.14 [File upload panel], page 103) and an upload is to take place their names will be inserted and no file requester will appear.

  Note: Case matters; %m inserts the file names along with their complete paths, %M inserts the plain file names only, omitting their paths.

`%p (Port name)`
: Inserts the ARexx port name 'term' is currently using.

`%d (Device name)`
: Inserts the name of the serial device driver 'term' is currently using (see Section 19.1 [Serial panel], page 49).

`%u (Unit number)`
: Inserts the unit number of the serial device driver 'term' is currently using (see Section 19.1 [Serial panel], page 49).

`%< (Source drawer)`
: Inserts the name of the drawer files to be uploaded should be found in. This name will be different for ASCII, text and binary transfers. The default protocol will always use the binary upload path (see Section 19.12 [Path panel], page 71 and Section 19.13 [Transfer panel], page 72).

`%> (Destination drawer)`
: Inserts the name of the drawer files to be received should be placed in. This name will be different for ASCII, text and binary transfers. The default protocol will always use the binary

This will invoke the 'Hydracom' program which implements the Hydra protocol which sports bidirectional file transfer and also adds a chat option. This is what the line can expand into when 'term' runs the program:

```
run hydracom device TERM speed 38400 line 14400
   nocarrier rec Work:Downloads get
```

%p expands into the ARexx port name 'term' uses, %b into the baud rate currently used, %c into the baud rate the modem made the connection with and %> into the name of the drawer files received should be placed in.

To complete this example, the following line could be put into the binary Send text entry field:

```
run hydracom device %p speed %b line %c nocarrier rec %> send %m
```

When 'term' runs this program, it will first prompt you to select the files to send, this is what %m does. The files names will then appear in place of the %m characters.

For more information on the escape sequences introduced by the % character, see Section 22.4 [Escape sequences], page 112.

Please note that for 'term' to find the external programs they must either reside in the AmigaDOS Shell search path or need to be prefixed by the complete AmigaDOS path their are located in.

'term' runs the programs in synchronous fashion. Some protocols, such as 'hydracom', however need to be run asynchronously. For such programs it is recommended to prefix the command line with the 'run' command.

22.3 Protocol signatures

Some file transfer protocols sport automatic download and upload functions. At the beginning of a data transmission they send a special data sequence to the remote, indicating that the local side is ready for action. This data is called a signature. With 'term' you can assign a specific signature to each upload and download protocol (see Section 19.13 [Transfer panel], page 72). When 'term' sees this signature in the incoming data stream the corresponding protocol will be invoked.

'Source' This adds %< to the command line. When the program is invoked the name of the drawer files to send should be found in (see Section 19.12 [Path panel], page 71) will appear in place of the %< characters in the list of arguments passed to the program.

'Dest.' This adds %> to the command line. When the program is invoked the name of the drawer files should be placed in when received (see Section 19.12 [Path panel], page 71) will appear in place of the %> characters in the list of arguments passed to the program.

'Screen' This adds %s to the command line. When the program is invoked the name of the public screen 'term' uses (see Section 19.3 [Screen panel], page 55) will appear in place of the %s characters in the list of arguments passed to the program. *Please note that instead of the name of a screen an empty string may appear.*

'Baud rate'
This adds %b to the command line. When the program is invoked the currently selected baud rate (see Section 19.1 [Serial panel], page 49) 'term' uses will appear in place of the %b characters in the list of arguments passed to the program.

'Connect. rate'
This adds %c to the command line. When the program is invoked the baud rate the modem made the connection with will appear in place of the %c characters in the list of arguments passed to the program. *Please note that if the modem is not currently online* %c *will produce the same number* %b *does.*

'Use' Keeps the current settings.

'Cancel' Discards the current settings.

For more information on the escape sequences introduced by % see Section 22.4 [Escape sequences], page 112.

`Remove` Press this button to remove the currently selected entry from the list.

`Clear` In order to remove all entries from the list, clearing it, press this button.

`Binary upload`
: Use this button to upload the listed files in binary mode.

`Text upload`
: Press this button to upload the listed files in text mode.

`Hide` Click on this button to hide the file upload panel. The list contents will be stored.

20.15 Area code panel

In the phonebook (see Section 20.8 [Phonebook], page 94) phone rate accounting information can be assigned to individual entries. The area code panel permits to assign phone rate accounting information to the phone numbers themselves, so even the ‘`Dial phone number`’ menu function will take advantage of it. The area codes in each phone number determine the rates accounting information to associate with it. In the area code list you assign a name to each entry and a pattern to match a single or multiple area codes; next you configure the rates parameters to use for this entry.

The area code rates accounting settings are not meant to replace the individual rates settings in the phonebook, but they have priority over them.

The area code panel sports the following controls:

`Groups` This is the list of area code groups, the single entries are edited below.

`Name` A name or title for an area group entry.

`Pattern`
: The area code patterns are configured here. If you wish to have an entry correspond to area codes starting with ‘`009`’ you would enter `009#?` here. The pattern syntax follows the AmigaDOS wildcard pattern syntax, so for example multiple area codes can be easily combined, e.g. ‘`009`’ and ‘`007`’ could be combined as `(009|007)#?`. See your *Using the system software* manual for more information.

: ‘term’ scans the area code list top-down, i.e. for two consecutive entries `009#?` and `0097#?` the number `00971324` would match the first entry, but not the second.

‘|<’ Moves the currently selected entry to the beginning of the list.

‘<’ Moves the currently selected entry up in the list.

‘>’ Moves the currently selected entry down in the list.

20.12 Printing panel

This control panel is part of the phonebook. It is opened whenever the 'Print' button is selected and allows for setting the output options.

'Output file or device'
: This is where you enter the name of the file or device (such as 'PRT:') the phonebook printout is to be sent to.

'Plain text'
: If enabled only the plain and bare information text will be printed, else text attribute control sequences will be sent as well.

'Include...'
: Each switch determines whether the corresponding phonebook entry information will be included in the printout.

'Use' Will start printing the phonebook contents.

'Cancel' Returns to the phonebook.

20.13 Trap panel

By default 'term' scans the input data stream for a set of special character sequences, such as 'NO CARRIER', 'RING' and 'VOICE', depending on how your modem settings (see Section 19.2 [Modem panel], page 52) are set up. The trap panel permits adding custom character sequences which if found cause 'term' to execute the corresponding command sequences (see Chapter 27 [Command sequences], page 125). This makes it possible to write auto-login procedures by just adding traps for the user name and password prompts. For example, suppose your BBS prompts you to enter your user name with the text 'User name:' and to enter your password with the text 'Password:'. You would create two trap entries, one with 'User name:' as the sequence and '\\u\\r' as the command and one with 'Password:' as the sequence and '\\p\\r' as the command. Provided the phonebook entry is set up correctly (see Section 20.8 [Phonebook], page 94, User/Password) connecting to the system will log you in 'automatically'.

The trap settings editor consists of the following controls:

'Trap list'
: This list contains all the trap sequences 'term' knows.

'Sequence'
: This text entry field contains the currently selected sequence.

'Clear all'
: Clears the current selection.

'Use' Copies the selected items.

'Cancel' The window is closed, no items are copied.

20.11 Dial panel

The following information about the dialing process is displayed:

'Calling'
: The name of the telephonebook entry belonging to the number being dialled. If it is just a telephone number the text '<< Unknown >>' is shown, indicatinging that the name of the BBS is unknown.

'Comment'
: This is where the comment corresponding to the current dialing list entry is displayed.

'Number' The telephone number being dialed or just dialed.

'Next' The name of the phonebook entry which will be processed next if no connection is established. If no further entry exists, "-" will be displayed.

'Timeout'
: A counter which is decreased every second and which reflects the time remaining to establish a connection or to cycle through the dial queue again.

'Attempt'
: This field shows the number of unsuccessful cycles made through the dialing queue to establish a connection.

'Message'
: A message to the user. This can be:

  'Dialing...'
  : A dial is in process.

  'Line is busy.'
  : The dialed number is engaged.

  'Incoming call!'
  : The modem has been called from another modem.

  'Incoming voice call!'
  : The modem is receiving a call which was not originated by another modem.

20.9 Rate panel

'term' will count the minutes you are online and connected to a BBS as soon as a connection is made through the dialing routine. As soon as the connection is lost or you hang up, 'term' will use the information to be specified in this control panel to calculate the amount of money to be paid for the call.

'Pay/unit'
: The amount of money to be paid for each single time unit when online. This fee must be given in the smallest currency unit available (pence, cents, centimes, etc.).

'Sec./unit'
: This is where you enter how many seconds each time unit lasts.

There are two different groups of the two entries listed above available: one for the first unit and one for all following units. So, if you only pay for the call you make but not for the time you spend making it, just enter the fee in the first group and set the second group to zero.

'Days and dates'
: This list contains the default rate settings and exceptions for certain dates and days of the week. Each line displays the type of the entry and a comment (separated by the '>>' character). The following types are available:

  'Day(s)' Settings for certain days of the week

  '12. Jan (example)'
  Settings for a specific date

  If there is no special type available for an entry, it's probably the default settings you are dealing with. These settings are used whenever 'term' cannot find an entry for the current day.

For each entry in this list there is at least one associated starting time available which defines when the associated rate settings are to be used. You will find the time settings in the list titled 'Time'. To add a new time use the 'Add' button. To edit an existing entry use the 'Edit' button. To remove an entry, press the 'Remove' button.

'Add date'
: Will invoke a control panel to create a new rate entry to be used on a specific date. Use the sliders and button to select the day the settings will be valid for.

'Add day(s)'
: Will create a new rate entry referring to one or more days of the week. Use the buttons of the control panel to select the days the current settings will be valid for.

'Save' Saves the contents of a telephonebook to a file.

'Print' This button will cause another control panel window to be opened, see Section 20.12 [Printing panel], page 102 for more information.

'Sort' If any phonebook entries have been selected to be dialled, the phonebook entries will be sorted in the order of dialing. The remaining phonebook entries will be sorted in ascending alphabetical order.

'Password'

Press this button if you wish to save a special access password with the currently active telephonebook file. You will then be asked to enter the password. What you type will not appear on the screen.

To clear an existant password and to save the phonebook file without encryption, just press return when asked to enter the new password.

The next time you save the phonebook data, the password will be encrypted and saved with it, the phonebook data itself will be encrypted using the password.

Whenever an encrypted phonebook file is loaded, it will take longer to load than an ordinary phonebook file, the same applies to saving phonebook data.

'Dial' Will pass the list of currently marked phonebook entries to the dialing routine.

Note: phonebook entries which lack a phone number will not be entered into the dialing list.

Another list is located at the right hand side of the window. Each entry refers to a control panel to be invoked on the currently selected phonebook entry.

'Settings'

'Serial'

'Modem'

'Screen'

'Terminal'
'Emulation'
'Clipboard'
'Capture'
'Commands'

'Misc'

'Paths'

'Transfer'
'Translations'
'Function keys'
'Cursor keys'
'Fast! macros'

These entries refer directly to the settings main menu entries of the same name.

'Terminator character'
: Enter the ASCII code of the terminator character to be used for the 'Ignore data past terminator' feature here.

'Quiet ASCII transfer'
: If this switch is not enabled, the built-in ASCII upload/download routines will display the outgoing/incoming data in the terminal window. This option is to let you watch the progress of the file transfer, so that, for example, if the remote does not respond to the data you send, you may want to stop and restart the upload.

'Strip bit 8'
: If this switch is effect each character received or transmitted by 'term' will have its high-order bit cleared.

With ASCII uploads it is important to make sure that end-of-line characters such as carriage return and line feed are properly set up for the remote. While on the Amiga it is common to end a line of text with a line feed character, most editors and such expect a carriage return character to be transferred. This can easily be arranged by setting the 'Send LF' switch to '<<CR>>'.

20.8 Phonebook

The functions described in the following can be found in the 'Modem' menu and relate to the menu entries 'Phonebook', 'Dial' and 'Redial'.

'term' is equipped with a telephone number management system, the phonebook, which is described in the following lines.

'Name list'
: The names of all phonebook entries are displayed here.

'Name'
: Name of the last selected telephonebook entry.

'Comment'
: A comment to associate with a phonebook entry.

'Phone number(s)'
: The telephone number(s) of the last selected telephonebook entry.

If a system supports multiple lines, the phone number of each line may be entered, each one separated by a vertical bar | character (example: '123456|654321' would cause the dialing routine to dial the numbers '123456' and '654321'). The dialing routine will process all these phone numbers before proceeding to the next phonebook entry.

'Character/line delay'
: The program will respect the character/line delay values to be set using this control panel.

'Keyboard delay'
: The program will send character separated by a delay to be determined by the current system keyboard repeat delay.

Note: the 'echo' text pacing modes are to be used with greate care. Certain online services do not echo characters back to the sender as they run only in half-duplex mode. On the other hand most mailbox programs will not echo certain characters, such as escape codes, etc.

'Quiet transfer'
: This switch controls whether incoming text will be displayed in the terminal window. You may want to watch how the remote responds to the data sent/received.

'Skip current file'
: Stops sending the current file and proceeds to the next.

'Stop entire transfer'
: Stops the ASCII data transfer.

In case a file transfer terminates with an unrecoverable error the file transfer window will stay open until explicitly closed by the user so the transfer error report list can be viewed.

20.7 ASCII-transfer settings

'Text pacing'
: The mode to determine how text is sent to the remote:

'Direct' Each line will be sent without any delay.

'Wait for echo'
: The program will wait for each single character sent to be echoed by the remote.

'Wait for any echo'
: The program will wait for the remote to return any character in response to any character sent. Typically, this is the case with password prompts issued by BBSes.

'Wait for line prompt'
: The program will wait until the remote sends a certain line prompt text.

'Character/line delay'
: The program will respect the character/line delay values to be set using this control panel.

'`Packet delay`'
: The delay between two packets being sent.

'`Packet type`'
: A short description of the data block type employed for data transfer.

'`Block check type`'
: The method employed to verify the integrity of the data blocks being transferred (this usually is a form of cyclic redundancy checking).

'`Block size`'
: Size of a data block in bytes.

'`Expected time`'
: The time the transfer protocol expects the transfer will take.

'`Elapsed time`'
: The time elapsed during transfer.

'`Number of errors`'
: The number of errors occured during file transfer.

'`Number of timeouts`'
: The number of timeouts occured during file transfer.

If the currently active transfer protocol provides the necessary information, two bars will be displayed at the bottom of the transfer window indicating the amount of transferred data and of time to go before the transfer is finished.

'term' knows about the Z-Modem data-inquiry sequence the remote receiver issues when expecting files. If recognized, this sequence will cause 'term' to display a requester asking for the type of data upload: text or binary. One could call this feature 'auto upload'. You also have the opportunity to select '`Abort`' which will transfer the ZModem abort sequence or to click on the '`Ignore`' gadget which will plainly ignore the fact that the ZModem inquiry sequence has been recognized. *The Z-Modem abort sequence will also be transferred if you select the* '`Cancel`' *button in the file requester to appear after selecting text- or binary-upload.* If the '`Upload from queue`' option is in effect the contents of the transfer queue will be uploaded.

Some transfer protocols will allow you to enter a default receive path the library is supposed to create files it receives in. On request (see Section 19.11 [Miscellaneous panel], page 69) 'term' will ignore these settings and use the settings to be changed in the '`Settings/Paths`' *(see Section 19.12 [Path panel], page 71) menu instead.*

Each file that is received and which does not remain empty is examined briefly to find out about the file type. If recognized successfully and the corresponding feature is enabled, a small comment indicating the file type will be attached to the file. 'term' currently knows about 83 different file types.

‘‘File transfer finished’ sound’
: The sound to be played when a file transfer is finished successfully.

‘‘File transfer failed’ sound’
: The sound to be played when a file transfer is finished unsuccessfully.

‘Modem ‘ring’ sound’
: The sound to be played when the modem detects a call by a different modem.

‘Modem ‘voice’ sound’
: The sound to be played when the modem detects a phone call.

‘Error sound’
: The sound to be played when a number of file transfer errors have occured (see Section 19.13 [Transfer panel], page 72).

‘Volume’ This slider affects the volume of all sounds produced by ‘term’. Setting it to zero suppresses sound output.

‘Preload sound files’
: If this switch is enabled ‘term’ will load all sound files immediately rather than accessing and loading them on demand. This may save access time when a sound is to be played but may eat up precious memory.

‘Load’ Load the sound settings from a file.

‘Save’ Save the sound settings to a file.

‘Use’ Use the current settings.

‘Cancel’ Keep the old settings.

There is no fixed size limit to sound files, the amount of available system memory matters. The sound files may be compressed, mono or stereo files.

As of Workbench 2.04 ‘term’ will only load plain IFF-8SVX format sound files. With Workbench 3.x any sound file can be loaded for which there exists a datatypes class. Please note that due to an operating system bug sound files larger than 102,400 bytes will not play correctly under Workbench 3.0.

20.5 Transfer progress panel

The transfer routines open an information window in which a number of transfer parameters are displayed. Additionally, the file transfer can be aborted by clicking either of the three buttons (‘Stop entire transfer’, ‘Skip current file’ or ‘Stop transfer batch’). *For most transfer protocols all buttons have the same effect.* Consult the documentation to see if different levels of abort are supported by your favourite transfer protocol.

‘|<’ Places the currently selected macro at the top of the list.

‘<’ Moves the currently selected macro one entry up.

‘>’ Moves the currently selected macro one entry down.

‘>|’ Places the currently selected macro at the end of the list.

20.2 Hotkey panel

This is where the key sequences used to arrange screens and to execute special functions are to be configured.

‘`term screen to front`’
: The keys to press to bring the ‘term’ screen to the front.

‘`Buffer screen to front`’
: The keys to press to bring the screen of the text buffer to the front.

‘`Skip dial entry`’
: As an alternative to the ‘`Skip`’ button, pressing these keys will skip a dialing entry if the dialing function is currently active.

‘`Stop ARexx command`’
: An ARexx script started from within ‘term’ can be aborted by pressing these keys. Use this function only if pressing `Control` + `C` does not stop the program execution.

‘`Commodity priority`’
: The commodity priority to assign this task to. You may want to change this value if you have more than one program running which uses the same key sequences as ‘term’. The program with the higher commodity priority will receive the keystrokes first.

‘`Hotkeys enabled`’
: Whether the hotkeys are enabled or not can be toggled by clicking on this button, or by using the ‘`Exchange`’ program to be found in the ‘`Tools/Commodities`’ drawer.

‘`Load`’ Loads the hotkey settings from a file.

‘`Save`’ Saves the hotkey settings to a file.

‘`Use`’ Use the current settings.

‘`Cancel`’ Keep the original settings.

‘term’ will refuse to accept invalid keyword combinations. You will be notified by a brief screen flash/bell signal and the cursor will reappear in the text entry field whose contents are rejected.

'ISO-15-(I).prefs'
: Italian 7 bit (ISO code 15) character set.

'ISO-16-(P).prefs'
: Portuguese 7 bit (ISO code 16) character set.

'ISO-17-(E).prefs'
: Spanish 7 bit (ISO code 17) character set.

'ISO-21-(D).prefs'
: German 7 bit (ISO code 21) character set.

'ISO-60-(N).prefs'
: Norwegian 7 bit (ISO code 60) character set.

'ISO-61-(N).prefs'
: Norwegian 7 bit (ISO code 61) character set.

'ISO-69-(F).prefs'
: French 7 bit (ISO code 69) character set.

'PC-8.prefs'
: Character translation for standard IBM PC style font. If you wish to use these translation tables, make sure to set the 'Font' type in the terminal panel (see Section 19.5 [Terminal panel], page 59) to 'IBM PC style (raw)'.

Unfortunately, there is no translation available for the Norwegian and Danish variants of the PC-8 character set as I do not yet have a fitting Amiga font available. Similar reasons have yet prevented to implement PC-850 character set support.

19.16 Function key panel

This control panel allows setting user definable texts for all ten function keys. All texts are considered command sequences (see Chapter 27 [Command sequences], page 125), a topic which will be covered later in this document.

'Modifier'
: All in all 40 keys may be covered with user defined command sequences (Chapter 27 [Command sequences], page 125). As the Amiga keyboard only has ten function-keys this button switches between the modifier keys (Shift, Control, Alt) which, if pressed in addition which a function key, will execute one of the 40 command sequences.

'Load'
: Load the function key settings from a file.

'Save'
: Save the function key settings to a file.

This value should be set to 0 to disable ACKs (normal mode), or set it to the actual number of data bytes allowed between ACKs. For example, if you set the Buffer size to 64KB because of your floppy, you should also set the Frame size to 65536 bytes.

'`Error limit:`'
: This allows you to set the number of sequential errors which will be required to convince ZModem to abort the transfer. The normal value is 10, meaning that 10 errors must happen in a row with no valid data being transferred in order to cause an abort. This setting is provided for those using XPRZModem with a BBS, who may wish to use a relaxed setting, or those with really lousy phone lines who are desperate and patient enough to want the transfer to continue in spite of horrible performance.

'`Auto-activate mode:`'
: '`Y = Auto-activate Yes`'
  : If the comm program supports the ability, the library will automatically go into receive mode when the start of a ZModem download is detected.

  '`N = Auto-activate No`'
  : Don't try to automatically start downloading, make the user activate it.

'`Delete after sending:`'
: '`Y = Delete Yes`'
  : Delete each file after it has been Successfully sent.

  '`N = Delete No`'
  : Don't delete files after sending them.

'`Keep partial files:`'
: '`Y = Keep Yes`'
  : Keep the fragment of a file received so far if file reception is aborted. This allows you to use the Overwrite Resume option above to pick up where you left off on your next attempt.

  '`N = Keep No`'
  : Delete any partially-received file after an aborted transfer.

'`Send full directory path:`'
: '`Send path Yes`'
  : Send full filenames including directory path to receiver.

  '`Send path No`'
  : Send only simple filenames, not including directory path.

'`Default received path:`'
: Store all received files in this directory, if option `"`Use received path`"` is not checked. Ignored entry if option '`Use received path`' is checked. The path can be any valid existing directory, with or without trailing / (e.g. '`df0:`', '`Comm:hold`', etc.).

transfer protocol. For more information on protocol signatures see Section 22.3 [Protocol signatures], page 110.

'Edit settings...'
: Press this button to edit the settings of an XPR library. For an example of how these settings can look like, see Section 19.14 [XPR options sample], page 78.

'Use' Use the current settings.

'Default (phonebook only)'
: Drop the current settings, making a connection to the corresponding phone number will leave the corresponding main configuration entry unchanged.

'Cancel' Keep the old settings.

Settings for each transfer library are saved in text files in the 'ENVARC:' and 'ENV:' drawers.

Leave the default transfer library set to the one you intend to use most.

19.14 XPR options sample

You will find an excerpt of the 'xprzmodem.doc' documentation file for the ZModem file transfer protocol below which is the default transfer protocol 'term' is shipped with. Please note that other file transfer protocols will sport different options and controls, you should consult the corresponding documentation for more information.

'Text translation mode:'

'Y = Text Yes'
: If receiving, translate CR/LF pairs or solo CR chars to normal Amiga LF chars. Ignore data past ^Z. If sending, suggests to receiver that they should receive this file in text mode.

'N = Text No'
: Receive file verbatim, without changes. If sending, suggest to receiver that they receive this file verbatim, without translations.

'? = Text status unknown'
: If receiving, use sender's suggestion as to whether to do end of line translations or not. If sending, tell receiver to use default mode, since we don't know either.

'C = Text mode set by Comm program'
: The library asks the communications program whether or not to use Text mode for each file. If the communications program does not support the necessary

transfer protocol. For more information on protocol signatures see Section 22.3 [Protocol signatures], page 110.

'Edit settings...'
: Press this button to edit the settings of an XPR library. For an example of how these settings can look like, see Section 19.14 [XPR options sample], page 78.

'Text transfer protocol'
: This is where you set up the transfer protocol that is invoked when you select the `Upload text file(s)`, `Edit & upload text file` and `Download text file(s)` menu items.

'Type'
: You can either select `XPR library`, `External program` or `<< Default >>` here.

  `XPR library` will use an external transfer protocol library, such as 'xprzmodem.library'. This library will be kept open all the time and may for example handle download session automatically. For more information on how to use XPR libraries see Section 22.1 [Data transfer via XPR library], page 109.

  `External program` will invoke a program when necessary. This program has to temporarily take over serial I/O processing. Special facilities are available to pass parameters such as the name of the device driver 'term' uses to the program. For more information on how to use external programs see Section 22.2 [Data transfer via external program], page 109.

  `<< Default >>` will use the default file transfer protocol.

'Send'
: This text entry field either holds the name of the XPR library to use or the name of the external program for sending textual data. Clicking on the select button at the right hand side of the text entry field will bring up either a file requester or another control panel to select the program name and to edit the program parameters.

'Receive'
: This text entry field either holds the name of the XPR library to use or the name of the external program for receiving textual data.

'Signature'
: Many file transfer protocols transmit characteristic data to the remote at the beginning of a transmission. This data is called a signature and when found in the incoming data stream 'term' will automatically invoke the protocol in question. This is particularly useful with external programs. This text entry field holds the signature which

'`Default transfer protocol`'
: Select your most often used file transfer protocol here, make individual changes to the ASCII, text and binary transfer protocols only if you really need them. Most users may never need a different transfer protocol than the default protocol. The default protocol will also handle automatic invocation of downloads if necessary.

  '`Type`' You can either select `XPR library` or `External program` here.

  `XPR library` will use an external transfer protocol library, such as '`xprzmodem.library`'. This library will be kept open all the time and may for example handle download session automatically. For more information on how to use XPR libraries see Section 22.1 [Data transfer via XPR library], page 109.

  `External program` will invoke a program when necessary. This program has to temporarily take over serial I/O processing. Special facilities are available to pass parameters such as the name of the device driver 'term' uses to the program. For more information on how to use external programs see Section 22.2 [Data transfer via external program], page 109.

  '`Name`' This text entry field either holds the name of the XPR library to use or the name of the external program. Clicking on the select button at the right hand side of the text entry field will bring up either a file requester or another control panel to select the program name and to edit the program parameters.

  '`Send signature`'
  : Many file transfer protocols transmit characteristic data to the remote at the beginning of a transmission. This data is called a signature and when found in the incoming data stream 'term' will automatically invoke the protocol in question. This is particularly useful with external programs. This text entry field holds the signature which will when received start an upload using the current default protocol. For more information on protocol signatures see Section 22.3 [Protocol signatures], page 110.

  '`Receive signature`'
  : This text entry field holds the signature which will when received start a download using the current default protocol. For more information on protocol signatures see Section 22.3 [Protocol signatures], page 110.

'Cancel' Keep the old settings.

19.13 Transfer panel

This is where the protocols to be employed for file transfers are to be selected. You will also find a handful of additional options here which one way or the other fit into the cathegory of file transfer related data.

'Override transfer drawer'
: Each batch file transfer protocol allows you to specify the name of the drawer to place the files it receives in. By default 'term' will redirect the files to a drawer to be specified in the path panel (see Section 19.12 [Path panel], page 71). If this switch is disabled, the internal settings of the current transfer protocol will be used. This may cause files to appear (or rather disappear) in the wrong drawers.

'Set 'archived' bit'
: If enabled, this switch will cause 'term' to mark files sent as `archived`.

'Transfer file icons'
: This switch works in conjunction with the drag & upload feature (see Section 20.5 [Transfer progress panel], page 88). By default, 'term' will upload only the files whose icons are dragged on the main window or found in the upload queue. If this switch is in effect the icon files will be transferred as well.

'Mangle filenames for upload'
: Certain transfer protocols running under MS-DOS get into serious trouble if told to receive files with names which do not match the local naming scheme (8 characters for the name + "." + 3 characters for the extension). For example, in such situations ZModem will restart the file transfer over and over again in a row without getting anywhere. To steer clear of trouble you can turn on the 'Mangle filenames for upload' switch which will cause the file transfer protocol to report 'condensed' file names to the remote receiver. A special algorithm will shrink the file names to the MS-DOS file name template, clearing potentially dangerous character combinations on the fly. This switch has no effect on external programs. *Note: the algorithm may map two different Amiga file names to the same MS-DOS file name, so watch out!*

'Transfer performance meter'
: When a file transfer is running, 'term' may optionally display the file transfer performance in a small resizable window. The lines drawn represent the following information:

- Black line This line displayes the current transfer performance (usually heavily oscillating).
- Blue line This line displays the average transfer performance.

- Picture file
  icon 'ENV:sys/def_picture.info'
- Tool icon 'ENV:sys/def_tool.info'
- Archive file
  icon 'ENV:sys/def_archive.info'
- Preferences file
  icon 'ENV:sys/def_pref.info'
- Other file types
  icon 'ENV:sys/def_project.info'

Text and pictures saved by the program will also get icons attached.

'Protective mode'
With this switch enabled 'term' tries to be nice and will notify you in case file/drawer/program names you have entered probably are invalid, data was not saved when the program is to be terminated, files are about to get overwritten and also if some program settings combinations are likely to cause trouble. Some users may find this appealing, while some may find it appaling.

'Program priority'
Use this slider to determine the priority under which the 'term' main process is to operate. Adjusting this value can make 'term' perform more reliably in a system which experiences heavy task loading. It is recommended to experiment with this value until a satisfactory state is found. Setting the program priority too high or too low may affect the performance of coprocess services such as the double-buffered file I/O routines.

'I/O buffer size'
This slider controls how much memory the double-buffered file management routines will allocate for each buffer. This means a value of 4096 bytes will result in an allocation of 8192 bytes in total.

'Alert' 'term' notifies the user of certain events, such as a connection being established or a file transfer action which has just been finished. This switch allows you to select the type of notification:

'Bell' A bell signal will be given.

'Screen' The 'term' screen will be brought to the front.

'Bell & Screen'
A combination of the two actions above.

'None' Nothing will happen.

'Requester dimensions'
File, font and screen display mode requesters can be made to appear at specific positions and in specific sizes on the screen. This switch controls how they should appear:

'Remember position'
: If this switch is in effect, the program will remember the text display position between calls rather than jumping to the top or the end of the text buffer.

'Screen position'
: The buffer screen will usually not be quite as wide as the system overscan settings permit. This switch determines the horizontal placement of the screen:

  'Left' The screen will be left-edge aligned.

  'Centre' The screen will be centred.

  'Right' The screen will be right-edge aligned. This will bring the screen depth arrangement gadget in line with the other screens.

'Display mode'
: This is where you choose the screen display mode the buffer screen should use.

'Search history size'
: The text buffer search function maintains a backlog of all the search text entered. The number of texts to remember, before the oldest is discarded, can be set using the 'Search history size' control. In the search text entry field you can use the Cursor up and Cursor down keys to scroll through the previously entered search strings.

'Use' Use the current settings.

'Default (phonebook only)'
: Drop the current settings, making a connection to the corresponding phone number will leave the corresponding main configuration entry unchanged.

'Cancel' Keep the old settings.

19.10 Command panel

Here you will find entries for four command sequences which serve four functions:

'Startup command'
: At the beginning of every session with 'term' and after a connection has been established by the dialing routine a command-sequence is executed. Do not use this command for auto-login scripts and such, this is what the 'Login command' is for. Note that the dialing procedure executes the 'Startup command' after the 'Login command'.

'Login command'
: This command will be executed immediately after the dialing procedure has established a connection. You should use this command for login scripts and such. Note that the dialing procedure first executes the 'Login command' and then the 'Startup command'.

'Use' Use the current settings.

'Default (phonebook only)'
: Drop the current settings, making a connection to the corresponding phone number will leave the corresponding main configuration entry unchanged.

'Cancel' Keep the old settings.

19.9 Capture panel

'Log actions'
: If enabled will write a protocol of each program action (uploads, downloads, dial attempts, etc.) to a file. Each action is listed along with time and date. Carrier-lost events will also note the approximate cost of the call. The log file created by this function is **not intended** for postprocessing via call-log file analyzers. Use the 'Log calls' feature for this purpose.

'Log file'
: The name of the file in which the information on the actions executed by 'term' will be stored if 'Log actions' is enabled.

'Log calls'
: If this switch is enabled, 'term' will create call-log files in a format compatible with the 'CallInfo' program. Sometimes this format is referred to as 'NComm format'.

'Call log file'
: The name of the file in which the information on calls made by 'term' will be stored if 'Log calls' is enabled.

'Enabled'
: This switch works in conjunction with the 'Freeze buffer' menu entry (freezing the text buffer contents). In fact, the menu entry is adjusted according to the configuration settings whenever a new configuration is invoked (that is, whenever a new connection is made through the dialing panel or at program startup time). *'term' will only freeze the buffer if this switch is set, it will leave the buffer state (frozen or not) untouched if this switch is not enabled.*

'Maximum size'
: To save memory, a high-water mark concerning the maximum amount of memory the text buffer (see Chapter 25 [Text buffer], page 121) will allocate for text may be specified. The minimum value to be entered here is 2,000 bytes which are roughly equivalent to two text buffer pages of text. A value of 0 will cause the text buffer to always allocate as much memory as required to buffer all the incoming text.

'File path'
: The path the file requester will bring up when saving the contents of the text buffer.

'Buffer line width'
: The text buffer stores lines at a fixed size, this slider determines the maximum line width.

'Default (phonebook only)'
: Drop the current settings, making a connection to the corresponding phone number will leave the corresponding main configuration entry unchanged.

'Cancel'
: Keep the old settings.

19.7 Textpen panel

For each colour mode (monochrome, 4, 8, 16 colours) the terminal emulation uses a specific order of text pens and text attribute assignments. The text pens determine which text rendering colours to use. The text attribute assignments define how blinking, inverse, underlined and highlighted text should be displayed. This control panel is divided into two parts. One part serves to select the text pens, the other part will let you assign the text attributes. At the left hand side of each control you will find a label which indicates the emulation's default value.

There is a limitation in the number of text colour you can choose. While there is a colour mode which makes use of 16 colours, only a maximum of eight colours can be selected. The reason for this limitation is found in the terminal control commands which allow for only eight colours (0-7). The remaining eight colours (8-15) are selected via a text rendering attribute, known as 'highlight'. This means, if text is to be printed in colour 7 and the highlight text rendering attribute is enabled the text will be printed in colour 15. The 'highlight' text rendering attribute always has a special meaning. In all colour modes except 16 it causes text to be output in boldface.

'Drawing pens'
: Here you select the text drawing pen order to use.

'Attributes'
: Here you select which text rendering attribute to use instead of the default. You can also choose to disable an attribute.

19.8 Clipboard panel

'Clipboard unit'
: The clipboard supports several units (0-255) which can be accessed independently. It can make sense to change this value but generally you will probably leave it as unit '0'.

'Paste prefix'
: If enabled, the text to send before the clipboard contents are fed into the input stream, see Chapter 26 [Clipboard], page 123.

'`Numeric keypad`'
: If in 'applications mode' the numeric keypad will cause a command sequence to be transmitted instead of the characters indicated by the key labels. This mode is usually activated by special applications on the remote side.

'`Lock keypad mode`'
: Certain applications may excessively change the keypad mode from standard to applications mode. If you do not want this to happen you can forbid it by using this switch.

'`Swap 'Backspace' and 'Del' keys`'
: If this switch is in effect the backspace and delete key codes are swapped. *This also applies to sequences such as* `Control + H` *which will produce a delete character instead of a backspace character.*

'`Wrap cursor moves`'
: According to the VT-100 specifications the cursor movements have to stop at the edges of the screen. In spite of this the cursor may leave these borders, especially in ANSI-mode, and may appear at the other side of the screen. This button activates a more 'tolerant' mode.

'`Wrap characters`'
: This function activates the automatical carriage return function which is triggered as soon as the cursor crosses the right screen margin. To avoid unpleasant side-effects, this switch should be activated all the time.

'`Lock line wrapping`'
: If this switch is enabled, any requests to change the end of line text wrapping mode will be rejected.

'`Insert mode`'
: Normally, 'term' is in overwrite-mode (characters entered overwrite the contents of the screen). If this gadget is activated, typed characters are inserted by pushing all the characters right of the cursor towards the right margin.

  The insert-mode does only work for lines. If characters are pushed out of the screen they cannot be restored.

'`New-line mode`'
: This gadget activates a special mode in which some VT-100 control sequences cause 'term' to perform a linefeed instead of clearing the screen or other serious changes of the contents of the screen.

'`'CLS' resets cursor position`'
: As per the VT-100 specs, the control sequence to clear the screen is not to change the current cursor position. However, several applications expect it to be moved to the top left corner of the screen. This button will activate this behaviour.

'Columns'
: The number of columns to use for the terminal window. The minimum value is 20 columns, the maximum value is defined by the actual screen size.

'Lines'
: The number of lines to use for the terminal window. The minimum value is 20 lines, the maximum value is defined by the actual screen size.

'Keymap file'
: If your installation requires that 'term' is to use a custom keymap layout, enter the keymap file name here.

  At the time of this writing the program will not support custom keymap layouts with the packet window (see Chapter 29 [Packet window], page 129) due to operating system limitations.

'Use emulation process'
: If you are bold and daring you can have an external process handle the terminal text output, just turn on this switch. Please note that the external process will consume additional memory and text throughput speed is likely to suffer with fragmented memory. On the other hand the emulation process will relieve the main program of the tedious task of having to process the incoming data which. This helps the main program to keep up with the incoming data stream and makes it less likely that incoming text is lost.

'Text font'
: The name of the standard or default terminal text display font. Please note that this font cannot be proportional-spaced.

'IBM PC font'
: The name of the font to use if the terminal is in IBM PC mode. Please note that this font cannot be proportional-spaced.

'Font'
: Here the type of the font to be used for text display in the terminal window can be selected:

  'Standard'
  : The standard text font selected under the 'Text font' settings in this control panel.

  'IBM PC style'
  : A font similar to the IBM PC text font will be used. No matter how the translation tables (see Section 19.15 [Translation panel], page 81) are configured, outgoing Amiga characters are translated into PC character values. The terminal window will use the font selected under the 'IBM PC font' settings in this control panel.

  'IBM PC style (raw)'
  : This selection has very much the same effect as 'IBM PC style' but no character translation is performed. The terminal window will use the font selected under the 'IBM PC font' settings in this control panel.

'Send CR'

'Send LF'

19.4 Pen panel

This control panel is available under Kickstart 3.0 and above only. Its functionality is not supported under previous operating system releases!

The user interface look is determined by the choice of on-screen rendering pens, i.e. which colour to use for highlighted text, active windows, inactive windows, etc. Changing the screen colour palette also affects the look of the user interface, this control panel permits to compensate for such changes: even if you reverse the terminal colours you can still retain the correct user interface look by adapting the pens. The controls available are similar to the Workbench Preferences editor program '`Palette`':

'`Background`'
: The screen background colour to use, by default this is colour 0.

'`Text`'
: The default colour to render common text, such as in control panel labels.

'`Important text`'
: The colour to draw important text in, this should put a certain emphasis on the text rendered so the colour should be different from the '`Text`' colour.

'`Bright edges`'
: The colour to use to render the bright edges of windows.

'`Dark edges`'
: The colour to use to render the dark edges of windows.

'`Active window title bars`'
: The colour to mark the currently active window and selected buttons and list entries.

'`Active window titles`'
: The colour to use when printing text over active window title bars, selected buttons and list entries.

'`Menu background`'
: The colour to render pull-down menus in.

'`Menu text`'
: The colour to use when printing the menu text.

'`Use standard pens`'
: Reset the current pen selection to default values.

'`Use`'
: Keep the current settings.

'`Cancel`'
: Return to previous settings.

Take care when resizing the 'term' main window as a size change will reset the terminal emulation.

'`Public screen name`'
: The name of the public screen 'term' is to open windows on. 'term' will fall back to the Workbench screen if no proper name is given (i.e. no name is entered) or the desired screen is unavailable.

'`Screen title`'
: If this button is enabled, the 'term' screen will contain a draggable title bar, if not, the title bar will be disabled, leaving more space for the terminal output window.

'`Window border`'
: The main window will be opened on a custom screen, featuring a drag bar and depth gadgets.

'`Separate status window`'
: A separate window will be opened for the status display window.

'`Status line`'
: This switch allows to disable the status line display or to change between two alternative status line displays:

  '`Disabled`'
  : No status line is displayed.

  '`Standard`'
  : The standard two status lines are displayed.

  '`Compact`'
  : A very condensed version of the status line is displayed, only the data is shown but no captions. The data is displayed in the following order:

    1. Status
    2. Terminal type
    3. Transfer protocol
    4. Baud rate
    5. Serial parameters
    6. Time of day
    7. Online time

'`Online display`'
: This switch determines what type of information is to be displayed in the bottom right corner of the status display:

  '`Online time`'
  : The time online

  '`Online cost`'
  : The amount of money to be paid for the connection

'Delay between calls'
: Some modems impose a limit on how many times you may dial out in a minute or just get hopelessly lost if dial commands come in in rapid succession. Here is where you set the time to wait between two successive calls. This value also has a profound effect on the redial delay which will be extended a bit if it is smaller than the delay between calls.

'Redial after hanging up'
: If this switch is in effect, 'term' will redial all the phone numbers still in the dialing list as soon as the line is hung up or the carrier signal is lost.

'Verbose dialing'
: By default, 'term' will not display any modem response text that is received while it is dialing. If you enable this switch no modem output will be swallowed, it will even find its way into the review buffer.

'Connect auto-baud'
: Most modems echo the baud rate upon successful connection. If enabled the baud rate will be read and set for the serial driver.

Use this feature with care as it may have certain negative side-effects (such as the modem dropping the line just after connecting to a BBS)! If you happen to use a modern high-speed modem you will most certainly not need this feature. If in doubt whether you need to enable this feature you should rather disable it!

'Drop DTR on hangup'
: Some modems will track the `data terminal ready` line in order to make sure that the terminal program is listening. Once the line goes back to low potential, these modems will drop the line and hang up. Use this button to make 'term' take advantage of this feature.

''NO CARRIER' = 'BUSY''
: If this switch is in effect, the dialing function will treat the modem response code `NO CARRIER` exactly as the `BUSY` response code.

'Dialer abort hangs up'
: Unless this switch is enabled the dialing procedure will try to stop a modem dial command by sending a plain carriage return character. If the 'Dialer abort hangs up' switch is enabled the usual modem hang up procedure will be used instead.

'Time to connect'
: 'term' cannot measure the time to pass between the remote modem picking up the line and the local modem sending the `CONNECT` message. This slider allows to set the length of this interval. Upon connection, it will be added to the total online time.

'Connect limit'
: This gauge is to set a certain period of time to be counted after a connection is made. When elapsed, a command sequence (see Chapter 27 [Command sequences], page 125) will be executed as to be set using the `Limit macro` settings. If set to `0:00` this function will be disabled.

'Use' Accept the current settings.

'Default (phonebook only)'
: Drop the current settings, making a connection to the corresponding phone number will leave the corresponding main configuration entry unchanged.

'Cancel' Don't use the current settings.

19.2 Modem panel

This is where modem control text and other related parameters are configured.

'Modem initialization command'
: The text to send to the modem after successful program initialization. This text is optional and thus does not need to be present.

The dialing routine will use the initialization text entered here before dialing a phone number. You can separate multiple initialization commands with vertical bar (|) characters. Only the dialer will use them.

'Modem exit command'
: The text to be sent to the modem shortly before the program terminates. Just like the modem init text it is optional and does not need to be present.

The dialing routine will use the initialization text entered here before dialing the next telephone number.

The dialing routine will use the exit text entered here before dialing a phone number. You can separate multiple exit commands with vertical bar (|) characters. Only the dialer will use them.

'Hang up command'
: The text to be sent to the modem when asked to hang up the line. This text does have to be present if the 'Drop DTR on hangup' switch is enabled.

'Command character send delay'
: You will only rarely use this feature. Some of the more modern high-speed modems with rather unreliable firmware which support baud rates of 28,800 bps and up cannot quite make sense of modem initialization and dialing commands if sent at this speed. However, small delays between the single characters sent to the modem can help. Just set the number of microseconds to wait here.

''No carrier' message'
: The message the modem emits if the data carrier is lost. The program uses this to determine the length of the connection and to calculate how much the user is to pay for it.

Some modems will appear to 'lock up' when the RTS/CTS handshaking protocol is enabled. This may either be due to a faulty connecting cable (not all cables properly connect the pins required for 7 wire hardware handshaking) or due to configuration problems. Some modems factory settings are incompatible with the way the Amiga handles hardware handshaking. In such a case it is very likely that the modem does not set the so-called DSR signal by default. To change this, first turn off RTS/CTS handshaking, then type the command `AT&S0` and press return, now turn RTS/CTS handshaking on again.

The RTS/CTS handshaking protocol must be used for reliable modem connections using transmission speeds of 4,800 baud and above.

'`Duplex`' Determines whether characters are echoed back to the terminal screen or not (full, half = local echo).

'`Buffer size`'
: The number to be specified here allows to set the serial driver I/O buffer size. *Every number you enter here will result in 'term' and the serial driver allocating twice the buffer size (this is only a word of warning for those among us who prefer buffer sizes of 256K and up).*

'`Break length`'
: Length of the break signal given in microseconds.

'`Strip bit 8`'
: If this switch is effect each character received or transmitted by 'term' will have its high-order bit cleared.

'`Shared access`'
: This switch allows you to run the serial driver in shared access mode. Not all driver types will allow this to happen.

'`Handle xON/xOFF internally`'
: This switch enables the internal processing of the flow-control characters `xON` (= `Control + S`) and `xOFF` (= `Control + Q`). Whenever you press `Control + S` 'term' will change its state to 'holding' and stop terminal input and output processing. Press `Control + Q` in order to restart.

'`Pass xON/xOFF through`'
: If this switch is enabled, 'term' will pass the `xON/xOFF` characters through to the modem rather than quietly discarding them.

'`Check carrier`'
: 'term' will recognize the `NO CARRIER` message a modem emits when the carrier line signal drops back to low. For maximum safety, 'term' will also check the carrier signal line after receiving the `NO CARRIER` message if this switch is enabled. This is to make sure that no accidentally appearing text causes confusion.

  If this switch is enabled, 'term' will check the carrier signal during file transfers and will stop the transfer if the signal is lost. It will also check the carrier signal at program startup and if

‘Name’ If available, the name of the system the modem is currently connected to.

‘Phone number’
If available, the phone number of the system the modem is currently connected to.

‘Comment’
If available, the phonebook comment corresponding to the system the modem is currently connected to.

‘User name’
If available, the user name, as available through the phonebook, corresponding to the system the modem is currently connected to.

‘Screen size’
The size of the terminal output window in characters (columns and rows).

‘ARexx port name’
The name of the ARexx host ‘term’ is currently using.

‘Buffer size (bytes)’
The size of the text buffer (see Chapter 25 [Text buffer], page 121).

‘Free memory (bytes)’
The amount of free system memory.

‘Review’ A review window is opened which basically displays the same text as the text buffer screen. You can scroll through the text displayed both by mouse (see the right hand side scroller) and by cursor keys.

‘Packet’ Opens an input window in which a single line of characters to be transferred across the serial line can be entered. More on this feature is explained below (see Chapter 29 [Packet window], page 129).

‘Chat line’
This adds a one-line text entry field just above the status line (or the bottom of the main window, whatever is available at the moment). For more information, see Chapter 30 [Chat line], page 131.

‘Fast! macros’
Opens or closes the so-called fast macro panel (see Section 20.1 [Fast macro panel], page 85). For more information on fast! macros see Chapter 28 [Fast! macros], page 127.

‘Upload queue’
This will open a window featuring a list of files to upload. You can drag icons of files to upload on this window, their names will appear in the list. Dragging icons on the icon labeled ‘term Upload queue’ has the same effect. Double-clicking this icon will open the upload list window on the Workbench screen. In order to start an upload either press the ‘Binary upload’ or ‘Text upload’ button.

'`Reset styles`'
: Resets all character style attributes (bold, blinking, inverse video, underlined, etc.) and sets the text colour to the default pen.

'`Reset terminal`'
: Use this menu item to reset the state of the entire terminal emulation.

18.8 Settings

This is where you configure the standard preferences settings. If you select '`New`' in the phonebook window (see Section 20.8 [Phonebook], page 94) these standard settings will be used. Put in your most commonly used settings here. Change individual entries in the phonebook as needed.

'`Serial`' See Section 19.1 [Serial panel], page 49

'`Modem`' See Section 19.2 [Modem panel], page 52.

'`Screen`' See Section 19.3 [Screen panel], page 55.

'`Terminal`'
: See Section 19.5 [Terminal panel], page 59.

'`Emulation`'
: See Section 19.6 [Emulation panel], page 61.

'`Clipboard`'
: See Section 19.8 [Clipboard panel], page 64.

'`Capture`'
: See Section 19.9 [Capture panel], page 66.

'`Commands`'
: See Section 19.10 [Command panel], page 68.

'`Miscellaneous`'
: See Section 19.11 [Miscellaneous panel], page 69.

'`Paths`' See Section 19.12 [Path panel], page 71.

'`Transfer protocol`'
: See Section 19.13 [Transfer panel], page 72.

'`Transfer protocol options`'
: If the transfer protocol options menu item is selected, a transfer settings panel is displayed. The '`Default transfer library`' in the transfer panel (see Section 19.13 [Transfer panel], page 72) determines the contents of this control panel. If the selected default transfer library does not provide these facilities, a simple text requester will prompt for input. Consult the

If the serial driver has been released by the ARexx interface and has not been reopened yet, this menu item will do it.

If you are still online, the 'Redial' and 'Dial' menu entries will be disabled. In order to make another call, hang up the line first.

18.5 Transf. (= Transfer)

This menu provides access to file transfer functions. For more information on this topic, see Section 19.13 [Transfer panel], page 72, Section 19.14 [XPR options sample], page 78, Section 20.5 [Transfer progress panel], page 88, Section 20.6 [ASCII-transfer panel], page 91 and Section 20.7 [ASCII-transfer settings], page 92.

'Upload ASCII file(s)'
: This is a pure ASCII-file upload. It was added to allow poor BBS programs to receive text files.

'Download ASCII file(s)'
: This is a pure ASCII-file download. Refer to 'Upload ASCII file(s)' for features/options of this mode.

'Upload text file(s)'
: Sends a file/files to the remote receiver using the current transfer protocol. If possible this command will 'ask' the transfer protocol to transmit the file(s) in text mode (whatever that means) which may include CR/LF substitution and other gimmicks. Consult the library documentation to find out if your favourite transfer library supports text mode.

'Download text file(s)'
: Request a file/files using the current transfer protocol. Refer to 'Upload text file(s)' for features/options of this mode.

'Edit & upload text file'
: Invokes the currently selected (see Section 19.12 [Path panel], page 71) text editor on a file to be selected using a file requester. 'term' pays attention to the 'EDITOR' environment variable and will use the program indicated by it.

  'term' will block and wait until the editor has returned.

  After the editor has returned, the user will be asked whether the file edited is to be transferred as plain ASCII or via text upload.

'Upload binary file(s)'
: Send a file/files to the remote receiver using the current transfer protocol. True batch upload is supported both through wildcard expressions ('#?.txt' will send all files whose names

18.2 Edit

'Copy' In order to transfer any currently marked screen text to the clipboard buffer, select this menu item. Text can be marked by double-clicking the select button while the mouse is over a word or by clicking the select button and dragging the mouse. Holding down either shift key will append the selected text to the current clipboard contents. In any other case the new text will replace the previous contents.

'Paste' Pastes the contents of the clipboard at the current cursor position provided that the clipboard contains text data. Hold down either `Shift` key to have 'term' include the 'Paste prefix' and the 'Paste suffix' (see Section 19.8 [Clipboard panel], page 64) along with the clipboard contents.

'Clear' Any currently marked text will be released as soon as any rendering operations are to be executed in the main window. To release marked text manually, select this menu item.

18.3 Cmds. (= Commands)

'Execute AmigaDOS command'
: Enter the command you want to execute and its command line arguments here.

'Execute ARexx command'
: This function calls the ARexx server to execute a script file. If the first input character is a ' or " the input will be considered as a small program in a single line. Note that this function will not be available if the ARexx server isn't running.

  The ARexx command set supported by 'term' is described in the 'term' ARexx interface documentation.

'Record script'
: Select this menu item to start/stop script recording. More on script recording can be found under script recording (see Chapter 31 [Script recording], page 133).

'Record line'
: When in script recording mode this menu item will cause 'term' to temporarily switch into full line recording mode, rather than recording only single keystrokes. Pressing the `shift+return` keys has the same effect as calling the 'Record line' menu item. More on the topic of script recording can be found under script recording (see Chapter 31 [Script recording], page 133).

'Edit traps...'
: This brings up the trap list editor (see Section 20.13 [Trap panel], page 102. The list includes control sequences 'term' is to look for in the incoming data stream. When a sequence is found

`duart.device` from Shell or add the tooltype entry `DEVICE=duart.device` from Workbench.

'`QUIET`' If this parameter is present, the program will not start opening a display but rather put an icon on the Workbench backdrop, waiting to be invoked. A double-click will bring it to life. This parameter will be ignored in case the `STARTUP`-Parameter is used along with it.

'`SYNC (Shell only)`'
If called from Shell 'term' will detach itself immediately allowing the Shell window to be closed afterwards. This effect can be avoided if `SYNC` is entered in the command line.

'`NEW (Shell only)`'
Usually, running 'term' twice will cause the screen of the other program to be popped to the front instead of creating a second 'term' process. To avoid this effect, enter `NEW` as a calling parameter. If called from Workbench, each program will run as a separate process.

'`BEHIND`' This option will cause 'term' to open its screen behind all other screens and not to activate its window.

help text file' settings (see Section 19.12 [Path panel], page 71) to point to PROGDIR:term.guide. Once this has been done, pressing the Help key in any window to support online help will bring up a help window.

Hung-Tung Hsu, Jason C. Leach, Jason Soukeras, Jay Grizzard, Joel E. Swan, Jonathan Tew, Juergen Zeschky, Julian Matthew, Kai Iske, Karsten Rother, Kay Gehrke, Keith A Stewart, Keith Christopher, Kenneth Fribert, Klaus Duerr, Leon D. Shaner, Mark Constable, Martin Berndt, Matthias Merkel, Matthias Scheler, Matti Rintala, Michael Zielesny, Olaf Peters, Ottmar Roehrig, Peer Hasselmeyer, Peter L. Banville Jr., Piotr Kaminski, Robert L. Shady, Robert Reiswig, Rodney Hester, Russell John LeBar, Sebastian Delmont, Stefan Becker, Stefan Gybas, Stefan Hudson, Stellan Klebom, Steve Corder, Sven Reger, Tony Kirkland, William Michael Mushkin and Yves Perrenoud, took care of testing the program – thank you very, very much!

Error reports concerning the ARexx interface should include a sample script to illustrate what is going wrong.

Some hard disk drive controllers temporarily disable interrupt processing while accesses take place. In such cases I recommend to download and upload from the ram disk or to upgrade the hard disk driver.

16. Even though the speech support feature is enabled, 'term' does not speak a single word.

    With the introduction of Workbench 2.1 Commodore ceased to support the speech synthesizer. If you don't have '`narrator.device`' and '`translator.library`' installed the speech support will not work.

17. When downloading files they don't end up in the right directory.

    The file transfer protocol usually has it's own opinion on where to place files it receives. This behaviour can be changed by editing the 'term' settings, open the transfer panel (see Section 19.13 [Transfer panel], page 72) and turn on the '`Override transfer path`' switch. Now you can select the names of the directories to store files received in using the path panel (see Section 19.12 [Path panel], page 71).

18. Sometimes 'term' stops processing input and output and just beeps when a key is hit.

    Look at the status line, if it displays '`Holding`' 'term' has received an `xOFF` character. Press `Control + S` to restart.

19. When I moved my configuration files into a different directory and updated my main configuration the phonebook entries started to 'forget' about their settings files.

    'term' uses the environment variable '`TERMCONFIGPATH`' to locate its configuration files. However, the local phonebook entries may have different search paths set. Check the paths settings to see where they are pointing to.

20. Even though several files are selected for transfer only the very first file is sent.

    Not every file transfer protocol supports batch transfers. There is no way for 'term' to tell whether a protocol supports batch transfers, please consult your protocol documentation for more information.

21. Even though everything is set up correctly no ARexx scripts are executed.

    In order for ARexx to work the '`RexxMast`' program needs to be running. Usually, this program is located in the '`System`' drawer of your system partition. Drag it into the '`WBStartup`' folder in order to use it at system startup time. Also make sure ARexx knows where to find your ARexx scripts. Either give a complete path name or copy your file into the '`REXX:`' drawer. Do not rely upon an `Assign REXX: <drawer name> add` call in your '`S:User-Startup`' file to work, as of this writing ARexx does not support multi-volume assignments.

22. Even though the auto-download feature of the current file transfer protocol is enabled no auto transfer takes place while an ARexx script is running.

    Serial I/O processing only takes place if the main program takes care of terminal output.

23. Running 'term' twice from shell does not cause two 'term' processes to be started, instead only the first program is reactivated.

    By default starting 'term' more than once only brings an already running 'term' process to the front. Use the `NEW` keyword to suppress this feature.

(To be continued)

5. I have saved the phonebook and the configuration files to disk and an older ‘term’ release reports that it cannot read them.

   ‘term’ stores version information with the configuration files it saves. Older ‘term’ releases will refuse to read files created by newer releases. Newer releases will almost always read configuration files by older ‘term’ releases.

6. I upgraded from an older ‘term’ release, but the program refuses to read my configuration and phonebook files.

   The phonebook and configuration file format was changed and greatly enhanced with the introduction of ‘term’ 3.1. Older files need to be converted to the new format, this is what the ‘`UpdateConfig`’ program is for that should be included in the ‘term’ distribution. The conversion is easy, just enter `UpdateConfig <old file name> <new file name>`, the program automatically determines whether it is reading a configuration or a phonebook file.

   Caution: the conversion program cannot read encrypted phonebook files, so they should be saved in unencrypted form first.

7. In some BBSes ANSI graphics and text output starts at the wrong screen position, especially after the screen contents are erased.

   The so-called BBS-ANSI terminal command set treats the ‘clear screen command’ different from the VT-100 specs, i.e. it expects the cursor to be reset to the home position. You can enable this feature using the `CLS' resets cursor position` switch which can be found in the emulation panel (see Section 19.6 [Emulation panel], page 61).

8. The text buffer window does not show any special characters, such as accented characters, but only dots (‘.’).

   The text buffer window cannot display characters which fall into the range between code #127 and code #159. In order to show any text at all these codes get replaced by the dot character.

9. When I upgraded from an older program release (1.6 - 2.3) to the new ‘term’ release the program would no longer find all its configuration files.

   In order to annoy you and make things generally irritating some of the configuration files were renamed in v2.4, and some were moved to different directories. While the files used to be present in ‘`ENVARC:term`’ ‘term’ now looks for them in ‘`TERM:config`’. If ‘term’ finds no ‘`TERM:`’ assignments, it will create one. If no ‘`TERM:config`’ directory can be found, it will also be created. The configuration files have been changed as follows:

   ‘`Preferences.term`’
   ‘`term_preferences.iff`’

   New name is now ‘`term.prefs`’

   ‘`Phonebook.term`’
   ‘`term_phonebook.iff`’

   New name is now ‘`phonebook.prefs`’

Unless requested, no update notifications will be sent via standard mail. I recommend that you include an international reply coupon for each update notification you wish to receive.

The author reserves the right to discontinue development of the ‘term’ program.

- An old Telarium/Trillium game for the C64 on 5.25" floppy disk (such as *The Amazon*, *Rendezvous with Rama*, *Fahrenheit 451*).
- An old Lucasfilm game for the C64 on 5.25" floppy disk (such as *Rescue on Fractalus*, *Ballblazer*). Please send only the PAL versions as the original American program versions were tuned for NTSC machines.
- Scenery disks for the SubLogic Flight-Simulator II – except for *Western European Tour*, *Hawaiian Scenery Adventure*, *Japan*, *USA #7*, *USA #9*, *USA #11* and *USA #14*.
- The films *City Slickers*, *Jabberwocky*, *Brazil*, *The Fisher King*, *Time Bandits*, *Annie Hall*, *Zelig* or *Alien* on a PAL-VHS video cassette
- A CD by the Beatles (except for *Help*, *Rubber Soul*, *Revolver*, *Sgt. Pepper's Lonely Hearts Club Band*, *The white album*, *Magical Mystery Tour*, *Abbey Road*, *Let it be* and *Past Masters, Volume II*), Little Feat (-1989), Weather Report, Paul Simon (1971-1985), Eric Clapton (-1985), Peter Gabriel (1977-1989), Van Morrison or Daniel Lanois
- A book by Michael Crichton, Bruce Chatwin, Raymond Chandler, Terry Pratchett or Steven Meretzky
- Cash and checks (no credit cards – sorry) are always welcome.

Send your contribution to the following address:

Olaf Barthel
Brabeckstrasse 35
D-30559 Hannover
Federal Republic of Germany

If you wish to be notified when program updates become available or wish to order the next update as it becomes available you must include enough money to cover my expenses, see the chapter entitled orders (see Chapter 4 [Orders], page 7) for more information.

The program 'term' and the data received/sent by it must not be used for the following purposes:

1. The construction, development, production or testing of weapons or weapon systems of any kind.
2. The construction, development, production or use of plants/installations which include the processing of radioactive/fissionable material.
3. The training of persons to deal with the abovesaid actions.

Listen to your conscience.