

PacketTerm

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Users Guide

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INTRODUCTION

PacketTerm is a terminal emulator designed for use with a packet radio terminal node controller (TNC).

PacketTerm communicates with the TNC via a serial port.

SYSTEM REQUIREMENTS

PacketTerm requires Windows Vista or later. It is a 32-bit application, and therefore will run on a computer with either a 32-bit or a 64-bit processor.

Adobe Acrobat Reader® or similar program capable of displaying .pdf files is required to view the program documentation.

INSTALLATION

Run the installation package file, **PacketTermSetup.exe**. This will install **PacketTerm.exe** and all required supporting files on your computer. The installer will suggest a default location for the program file. You may change the location or leave it at the default, it does not matter. The files containing setup data, your personalized settings, and your memories will be placed in your **%APPDATA%** folder.

PROGRAM OPERATION

When the program starts, the main window shown in Figure 1 will be displayed.

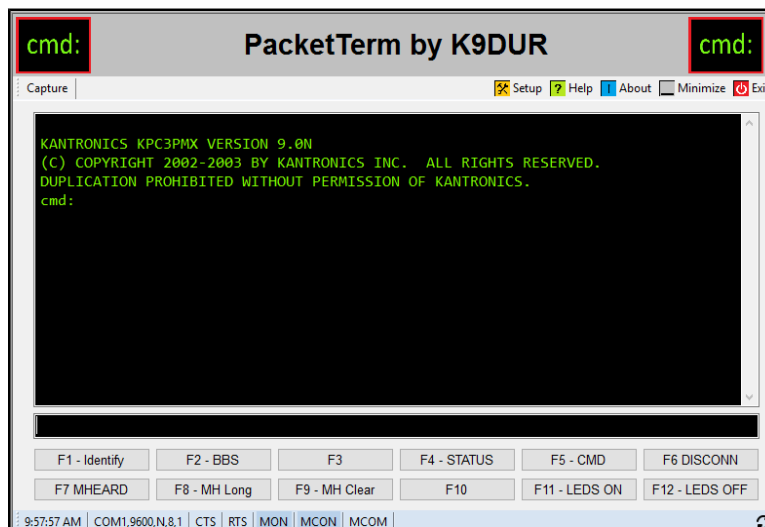


Figure 1 - Main Window

The main screen contains the following items, from top to bottom:

- Title panel.
- Tool bar.
- TNC received data display box.
- TNC transmit data entry box.
- Command buttons.
- Status bar.

TOOL BAR

The tool bar allows you to turn text capture on or off, change program settings, display the program documentation, and exit the program. Each of these will be explained in detail later.

TNC RECEIVE DATA DISPLAY BOX

This area displays the text received from the TNC.

Use the scroll bar at the right edge of the box to view previous text.

Right-click on the TNC display box to clear the displayed text.

TNC TRANSMIT DATA ENTRY BOX

This area displays the text to be sent to the TNC.

Enter the command or text to be sent to the TNC using the keyboard.

Press “Enter” to send the text to the TNC and to clear the box.

COMMAND BUTTONS

You can define up to 12 commands to be sent to the TNC by a single mouse click or by pressing a single key.

You send a command by pressing the appropriate function key (F1-F12) or by clicking on the corresponding button on the screen.

Right-click on a button to display the window shown in Figure 2 and define the command to be sent by that button or function key.




Figure 2 – Command Set-Up Window

Enter the desired button label and command text for the button. You may specify a control code by entering “[CTRL-#]”, where # is the desired letter. For example to send a Control-C to enter the command mode, put “[CTRL-C]” in the command text. There will be a delay after a control code is sent to give the TNC time to respond. This delay can be adjusted on the “Setup” screen.

Click on “Okay” to close the window and save any changes to the command.

Click on “Clear” to delete the command for the button.

Click on “Cancel” to close the window without saving any changes to the command.

Click on "Delete" to delete the memory being edited & close the form.

Click on "Cancel" to close the form without saving any changes.

STATUS BAR

The status bar displays the current time, the status of the connection to the TNC, and the state of the MONitor, MCONnected, and MCOMmand TNC settings. Each of these will be explained in detail later.

TEXT CAPTURE

PacketTerm allows you to capture text received from the TNC and save it to a text file. This feature is turned on or off by clicking on the “Capture” button on the toolbar.

When text capture is turned on, all text received from the TNC is written to a file located in a specified folder. By default, the folder where the files are written is your “My Documents” folder. This can be changed on the “Setup” screen.

The files are named “yyyy-mm-dd_hh_mm_ss.txt”, where “yyyy-mm-dd_hh_mm_ss” is the date and time that the capture is started.

The capture files are plain text files and can be opened with Notepad or any text editor or word processor.

TOOL BAR

The tool bar is shown in Figure 3,

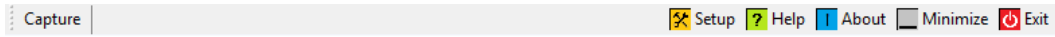








Figure 3 – Toolbar

and contains the following buttons & controls (left-to-right):

	This button turns text capture function on or off. Click to turn text capture on. Click again to turn it off. If the background color is blue, then text capture is on and any text received from the TNC is written to a text file.
	Clicking on this button will open the Setup dialog.
	Clicking on this button will display this document.
	Clicking on this button will display basic information about the program.
	Clicking on this button will minimize the main window.
	Clicking on this button will close the program.

STATUS BAR

The status bar is shown in Figure 4,

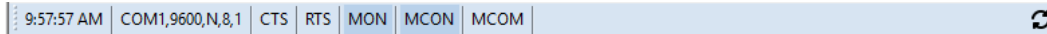


Figure 4 – Status Bar

and contains the following buttons & controls (left-to-right):

	This label displays the current time.
	<p>This label displays information about the serial port connection to the TNC. The information includes the serial port name, connection speed (baud), parity, number of data bits, and number of stop bits. If the background color is red, then the serial port is closed and is not ready for use.</p> <p>Clicking on this label will close & re-open the serial port.</p>
	This label displays the current state of the CTS handshaking line. If the background color is red, then the TNC is busy and not ready to receive data from the program.
	This label displays the current state of the RTS handshaking line. If the background color is red, then the program is busy and not ready to receive data from the TNC.
	This label displays the current state of the MON command. If the background color is darker than the status bar background, then the command is "ON".
	This label displays the current state of the MCON command. If the background color is darker than the status bar background, then the command is "ON".
	This label displays the current state of the MCOM command. If the background color is darker than the status bar background, then the command is "ON".
	Clicking on this button will synchronize the TNC date & time, MON command, MCON command, & MCOM settings to match the computer settings.

CHANGING PROGRAM SETTINGS

To Clicking on the “Setup” button on the toolbar will display the form shown in Figure 5.

Serial Port Settings

Port: COM1, Baud: 1200, Parity: None, Data Bits: 8, Stop Bits: 1

Text Capture File Path: [Text Box] Browse

Receive Text Display: Text Color, Background, TNC Text cmd:

Transmit Text Display: Text Color, Background, TNC Text cmd:

Options: Always on Top, Control Code Delay: 0.5 Seconds, Sync TNC Time: Auto Sync 00:00

Save Changes, Discard Changes

Figure 5 – Setup Form

SERIAL PORT SETTINGS

The serial port settings allow you to set up the serial port for communicating with the TNC.

- **Port** – This dropdown list displays the serial ports installed on your PC. Select the port used to communicate with the TNC.
- **Baud** – This dropdown list allows you to select the serial port speed (baud).
- **Parity** -- This dropdown list allows you to select the parity setting.
- **Data Bits** -- This dropdown list allows you to select the number of data bits (7 or 8).
- **Stop Bits** -- This dropdown list allows you to select the number of stop bits (1, 1.5, or 2).

TEXT CAPTURE FILE PATH

This setting determines where the capture files are written when the text capture function is turned on. You can either type the path into the text box or click on the “Browse” button to navigate to the folder where the files are to be written. By default, the files are written to your “My Documents” folder.

RECEIVE TEXT DISPLAY

The “Text Color” and “Background Color” buttons allow you to change the colors of the TNC receive data display area.

TRANSMIT TEXT DISPLAY

The “Text Color” and “Background Color” buttons allow you to change the colors of the TNC transmit data display area.

OPTIONS

Always on Top – If this check box is checked, then the *PacketTerm* main window will always be displayed on top of any other applications.

CONTROL CODE DELAY

Control Code Delay – This value determines the delay in seconds that the program waits to send additional text to the TNC after a control code has been sent. This delay gives the TNC time to process the control character. The delay is adjustable in tenths of a second from 0.0 seconds to 5.0 seconds. The default value is 0.5 seconds.

SYNC TNC TIME

Click on the "Auto Sync" button to turn Auto Sync on or off. If "Auto Sync" is on, then *PacketTerm* will set the date & time in the TNC so that it matches the computer time. Synchronization will occur once every 24 hours at the time specified in the box to the right of the "Auto Sync" button.

CLOSE SETTINGS WINDOW

Click on the "OK" button to save your settings and return to normal operation.

Click on the "Cancel" button to discard any changes to your settings and return to normal operation.

TNC SETTINGS

The following settings must be set in your TNC:

- AUTOLF ON
- ECHO ON
- FLOW OFF
- TRFLOW OFF
- XFLOW OFF

ABOUT THE AUTHOR

PacketTerm was written by Ray Andrews, K9DUR.

Ray holds an Amateur Extra class license and was first licensed in April 1960. He currently resides in West Terre Haute, IN, and is a retired electronic design engineer and software developer. He operates a small custom software consulting business just to keep him out of mischief between camping trips.

For more information, visit Ray's web page: <http://k9dur.info>

REVISION HISTORY

- 1.3.0 – Apr 7, 2016 – Added MON, MCON, & MCOM buttons to status bar.
- 1.2.1 – Mar 20, 2016 – Fixed bug causing UHE when user clicks on COM port info if port is already open.
- 1.2.0 – Mar 18, 2016 – Added ability to copy from received text box to clipboard.
- 1.1.0 – Mar 16, 2016 – Added time display & ability to sync TNC clock to PC clock.
- 1.0.0 – Mar 9, 2016 -- Initial Release.