

Introduction

Winkeyer2 for the PC



 www.k1el.com

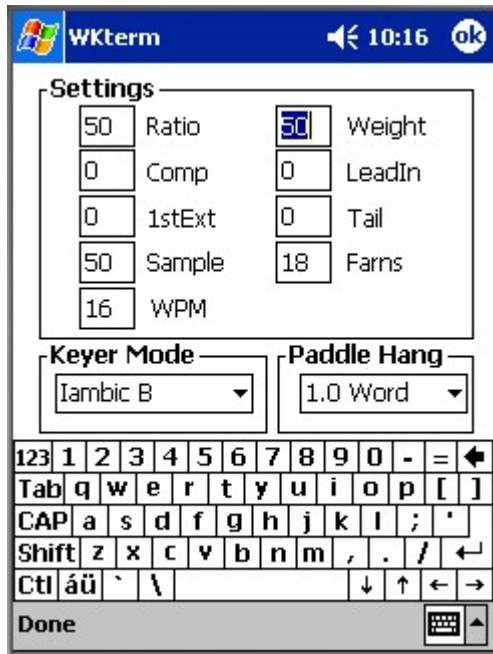
This document will describe the Winkeyer2 application for the PC. This application was written to provide a CW Keyboard interface for the WinKey and WinkeyerUSB keyers. (Details about WinKey can be found at the www.k1el.com website) Briefly, Winkey is a device that allows perfect CW generation from a Windows based logging application. The original application has grown into a more extensive application that can run with or without a Winkey interface attached. If Winkey is not attached the RTS and DTR serial port modem outputs provide key and PTT outputs. A simple interface can be built to convert these signals into open collector outputs that can key a transceiver.

This help file was originally written for the Pocket PC version of Winkeyer2 so there are some references to the PPC environment that aren't applicable to the PC version. Likewise most of the images show the PPC popup keypad which of course will no been seen on the PC version.

Set Up Menus

Setup Menu

Now we will cover the dialog boxes in the Setup Menu list. The first item in the setup group is Keyer. This invokes the following dialog box.



It contains fine keying control items:

Ratio: Controls the ratio of dah time to dit time for transmitted letters. A value of 50 selects a 3:1 ratio. A 40 selects a ratio of 2.4:1 ($((40/50)*3):1$) while 60 would select a 3.6:1 ratio

Comp: Controls keying compensation, this adds a fixed amount to the width of dits and dahs while subtracting the same amount from the space between them. It's used to compensate for the weight reduction caused by some transceivers. The units are in mSecs.

1stExt: This adds a fixed amount the first element of a letter to compensate for receive to transmit changeover. Again the units are in milliseconds.

Sample: Sets the keyer sensitivity, currently this only applies to the Winkey interface.

WPM: Sets the current word per minute rate.

Weight: This is similar to keying compensation but the adjustment can be additive or subtractive and is based on a ratio rather than a fixed amount. Weighting tracks the current WPM rate. 50 is normal weighting, larger numbers increase weighting smaller numbers decrease it.

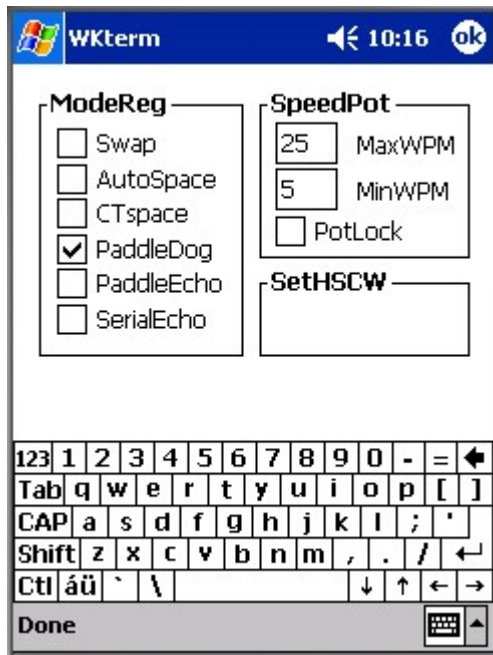
LeadIn: Determines the amount of delay after PTT is asserted before sending begins, the units are in 10s of milliseconds

Tail: Determines the amount of delay after sending stops before PTT is deasserted. Again the units are in 10s of milliseconds.

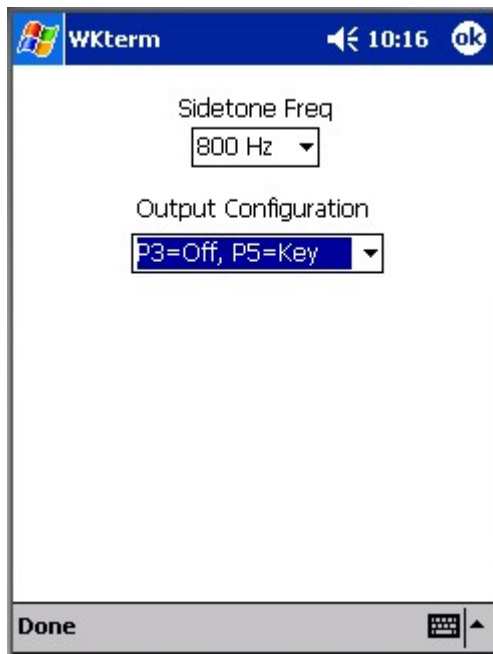
Farns: Specifies the rate at which letters are sent. The space between letters is always calculated based on the current WPM.

Keyer Mode: This combo box provides several keyer options, this setting only applies to the Winkey device.

Paddle Hang: This sets the delay PTT is asserted in word space units. It is only active if Tail is set to zero. Again this setting only applies to the Winkey device.



The Mode menu item invokes the dialog box shown above. This box controls items related to Winkey paddle control. There really isn't anything in this dialog utilized in emulation mode.



The Outputs dialog is shown above. Here is where the sidetone frequency is set. Since this is an emulation of the Winkey interface there are only a handful of frequencies supported. This will be enhanced to allow a wider range in the future. The output configuration controls the operation of the the PTT output pin on the Winkey Interface. Again

this does not apply to emulation mode.

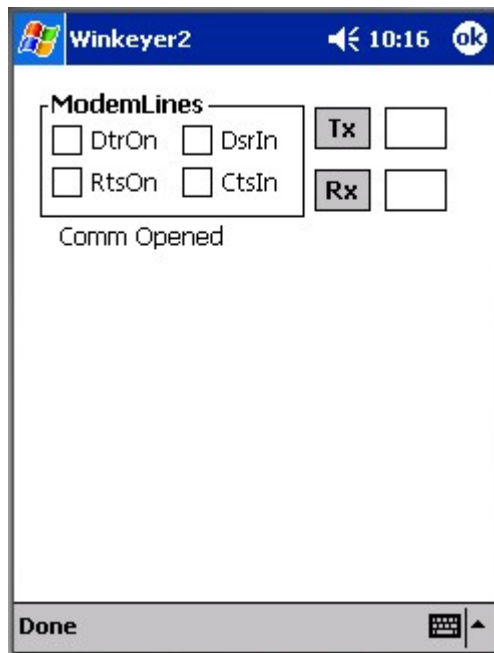
More Setup Menus

User Info

The UserInfo menu bar selection is not implemented at this time.

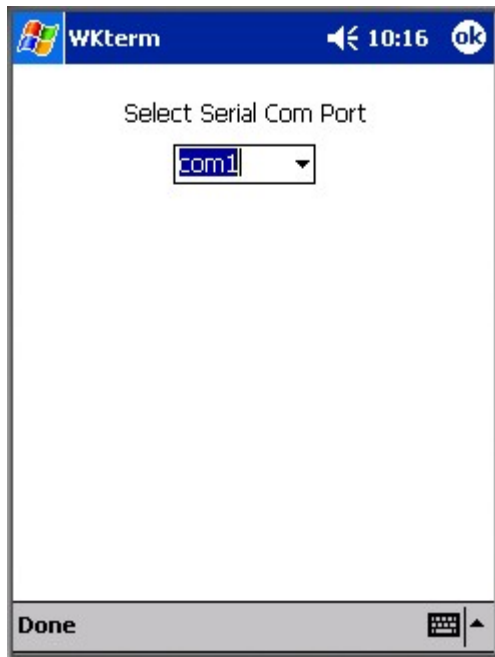
Diagnostics

The Diags dialog box can only be accessed if the WK terminal is closed. That is because it directly accesses the same low level interfaces as the terminal. This dialog allows a user to verify that their com port is working properly and is accessible. It can also be used to debug a keying interface.

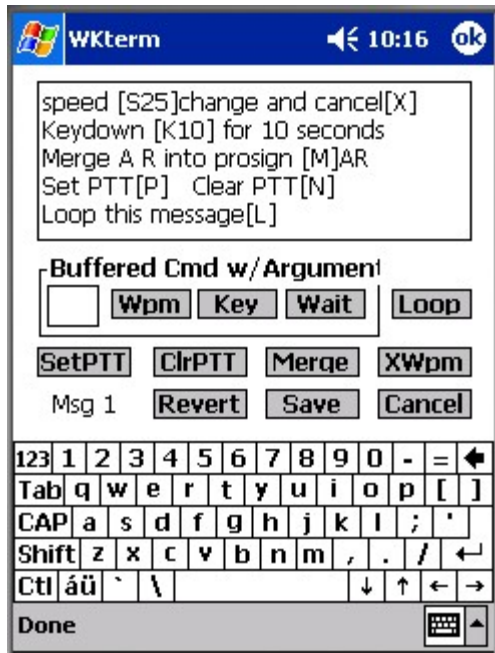


Comport Dialog

The Comport dialog box can only be accessed when the WKterm dialog is closed. The selected comport cannot be modified while WKterm is active, even in emulation mode, since it accesses the com port modem control lines.



Message Editing



The above dialog box is invoked from the Edit menu bar item. The user can pick one of six message slots to edit. The dialog box contains a large edit window that the message is entered into. Below the window is an array of pushbuttons that allow adornment of the message. Messages can contain embedded commands which in turn can have parameters, An example is a Speed change command. To enter a speed change command that will select 25 wpm, first enter 25 into the Buffered Command edit box and then click on Wpm. This will insert the command into the message. Once in the message it can be edited like normal text. As a matter of fact any command can be entered directly, bypassing the command argument mechanism. The other two commands of this type are Key for n seconds and Pause for n seconds. The Loop button will insert a loop command, when this command is encountered the message pointer will be reset back to the beginning of the message and it will loop until the clear button is pressed.

Tap and hold cut and paste is supported in the edit window.

Other direct command entries are Set and Clear PTT, Merge two characters into a prosign and Cancel a buffered WPM speed command.

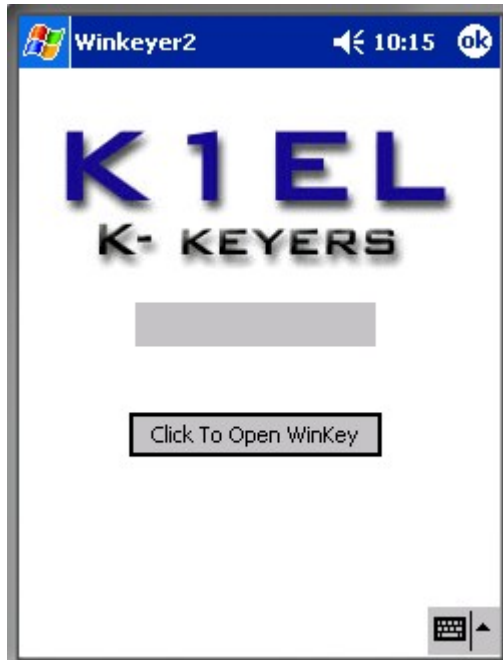
At the bottom there are three pushbuttons, Revert restores the original message canceling any edits. Save stores the new message and returns to WKterm, and Cancel aborts the edit and saves nothing.

The dialog box is show with several message examples.

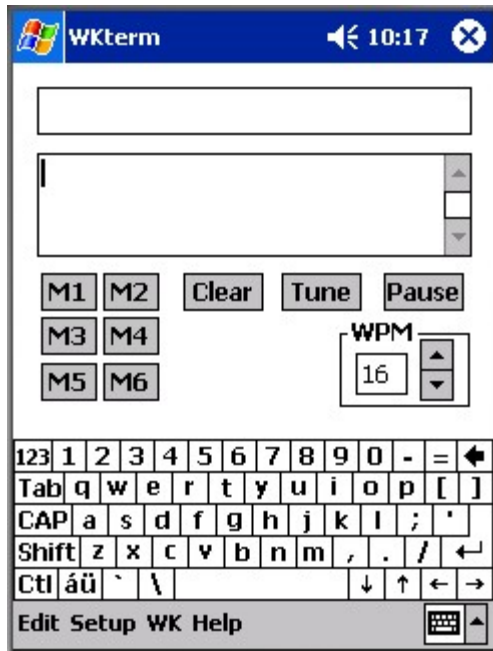
Starting Up Winkeyer2

Opening Winkeyer

When Winkeyer2 first starts up, the dialog below is shown. The user has two options, to open WK or to click on OK to cancel the open. You would cancel if you wanted to run an interface test or to change the comport setting. Let's go ahead and click on the "Open WinKey" pushbutton.



The progress bar will move to the right as the app initializes. It will attempt to connect to a WinKey interface and if one is found on the specified comport it will initialize it. If WinKey is not found, the app will start Winkey emulation mode. You can check later to see what mode the app is running in by clicking on Help->About.



Once initialization is complete the WKterm dialog above is displayed. This is the root window of the application. The user can enter text into the lower edit window and it will be sent in Morse. In emulation mode if sound is enabled, sidetone will be played on the PC speaker. The PC sidetone is a nice sounding sinewave whose frequency can be adjusted to suit the user (more on this later). The upper edit window is used to display characters as they are sent. The user can type ahead into the lower edit box and watch progress on the upper window. Sending can be paused by clicking on the Pause pushbutton. An entire text in progress can be cleared by clicking on Clear. The tune pushbutton will assert the key output for tuning purposes. It's a toggle, the first click starts tune and the second click stops it. The sending speed can be set by the control on the right. Messages are played by clicking on one of the six message buttons on the left. Message slot loading will be covered later in this document.

The menu bar on the bottom of the display provides many options, here's a summary:

Edit: Messages are entered under this item

Setup: Allows configuration of keying and other parameters

WK: Several sub-applications are called by this item including practice and a simple log book.

Help: Displays Help or About.

WK Log

Two sub-applications are initiated from the WK menu bar item. These apps are considered to be accessories to WKterm and they will return to WKterm when done.

WKlog

The first application is a simple QSO logging program. While not a full blown contest logger, this app provides adequate features to cover a wide range of operating uses. It was designed to be efficient in entering information with minimal stylus action.

The screenshot shows the WKlog application window. At the top, the title bar reads 'WKlog' and the system tray shows a speaker icon, the time '10:19', and an 'ok' button. The main interface is divided into several sections. At the top left, a date and time field shows '06-04-05 10:19:11' next to a navigation control with '<' and '>' arrows and the number '1'. Below this are input fields for 'Call' (containing 'W1ZZZ'), 'Snt' (a dropdown menu showing '579'), 'Mode' (a dropdown menu showing 'CW'), 'Rcv' (a dropdown menu showing '589'), 'MHz' (containing '3.508'), and 'Band' (a dropdown menu showing '80'). An 'Info' field contains the text 'Bill, Burlington VT 100W dipole temp 42'. Below the input fields are buttons for 'Dup?', 'Find', 'Next', 'Del', and 'Clear'. A 'LogFile' button is located below these. At the bottom of the window is a virtual keyboard layout with keys for numbers, letters, and symbols. A 'Done' button with a keyboard icon is at the bottom right.

When the WKlog dialog first starts up, you will notice the time window displayed at the top left. It will accurately display the current time in 24 hour format. To the right of the time window is a navigation/entry load control. It is dual purpose in that it allows you to scroll through stored log entries and also to confirm loading of new entries. Entries are stored in an indexed fashion and you can enter any index into the edit box and WKlog will take you directly to that entry. You can also search for a particular entry (more on that later).

The operation of the other controls will be described by example. When you are ready to start an entry, first enter the callsign into the Call edit window. Entering the first letter of the call will freeze the time and it will remain frozen until either the entry is completed or cleared. Signal reports can be entered quickly by taking advantage of common reports in the pulldown Snt and Rcv menus or you can enter a specific string in the edit window. Likewise, the Mode and Band are entered in the same manner. As soon as the band is entered, WKlog will set the starting band frequency into the MHz edit window. You then can enter the exact frequency. The Info window is used to enter other information about the QSO such as Name, QTH, power, antenna, etc.

When you are satisfied with the entry, click on the plus sign in the upper right hand corner. This will store the entry and advance to the next entry slot. It will prepare the new entry by clearing the call and report windows. The mode, band and frequency settings are carried over from the previous entry. The time will again be actively updated.

The Clear button is a dual purpose control. In new entry mode it will clear out the form in the event you want to cancel an entry that you have started. In entry review mode (scrolling back to previous entries using the upper left arrow keys) the pushbutton is re-labeled Save. You can modify any of the fields in the entry form and save the modified entry.



If you want to find an entry by callsign, click on Find and the dialog box above will be displayed. Go ahead and enter a call. When you click on Find, WKlog will take you to that entry or display a message box telling you that it wasn't found.

If there are more than one instance of the call, click on Next and WKlog will take to to the next entry. A more powerful search mechanism will be added in the released version.

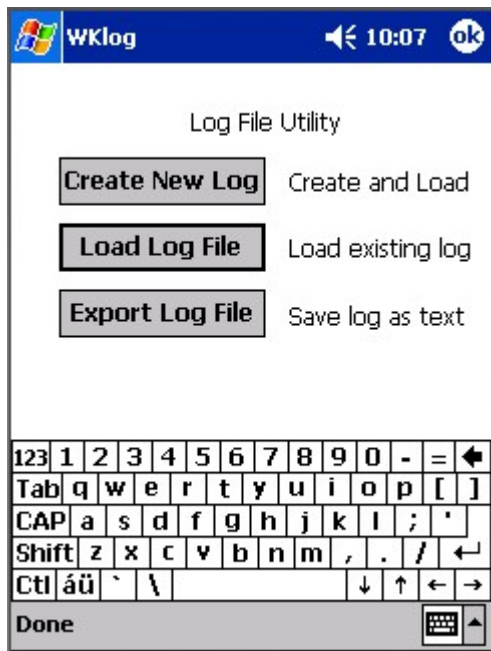
You can also go to an entry by index. Simply enter an index into the navigation edit box in the upper left hand corner and WKlog will take you right there. If you want to quickly get back to the next available empty slot to enter a new QSO, enter a zero.

The Dup? pushbutton is used to quickly check to see if the call entered in the Call window is already in the log. The Dup? button will be temporarily relabeled to either Yes or No for 1 second to let you know.

The Del pushbutton allows you to delete an entry while in review mode. It will completely remove the entry and update the indexes of all entries after the one deleted. A message box asks you if you are sure you want to delete the entry.

Log Files

WKlog saves log entries in log files stored on the PPC. A default file is used automatically, this filename is called Winkeyer2.log. You can start a new log at any time by clicking on the LogFile pushbutton. The dialog below gives you three options:



- 1) Create a new log file and load it for new entries.
- 2) Load a log file that already exists and add new entries
- 3) Export the loaded log file as a text file (not enabled)

An exported text file can then be printed or loaded into an editor or spreadsheet for post processing.

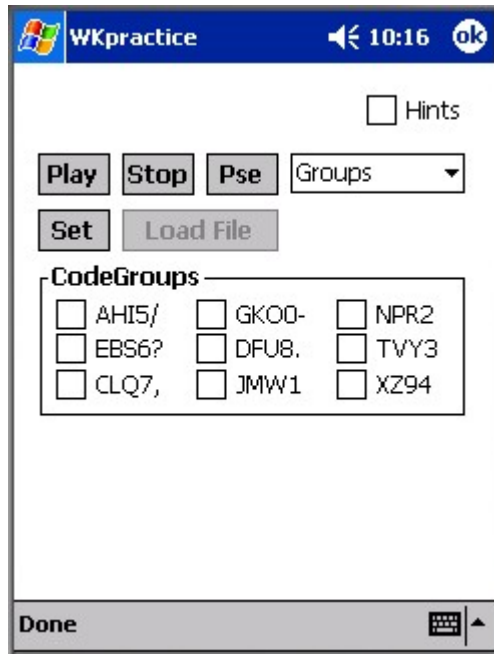
Logfile Format

The format of an exported file is very simple, and entry consists of a single line that contains the basic QSO information delimited by a TAB character. There is a second line that contains whatever was entered in the info edit window. Note the size of this text is limited to 80 characters. The next entry will be separated from the preceding entry by two carriage returns.

WK Practice

WKpractice

The second application that can be chosen from the WK menu bar list is a Morse Code Practice dialog box as shown below



WKpractice allows two options, either play text from a plain text file or play random character groups. You select the practice type from the Groups pull-down box. There are four options:

- 1) Groups: Plays 5 character random letter groups separated by word spaces.
- 2) Groups Echo: Currently not implemented
- 3) PlayFile: Plays the file currently loaded
- 4) LoopFile: Plays the file over and over

Groups

Random letters are played as chosen from the CodeGroups list. You can choose a single group or any combination. If you don't choose anything, question marks will be played.

PlayFile

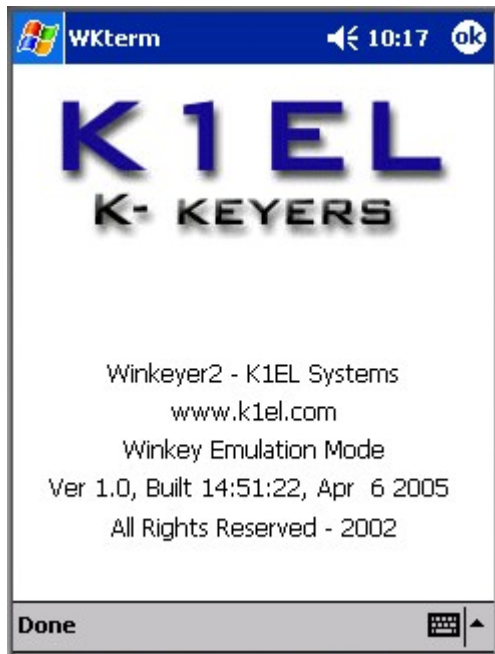
When you pick PlayFile, the CodeGroups option list is grayed and the LoadFile pushbutton is enabled. You click on this to bring up a file dialog box to navigate to a file you want to play. This file must be plain text which can have embedded commands as described previously in the message editing section.

Once you have chosen the practice options, simply press the Play pushbutton and sending will commence. Be sure you have sound enabled to be able to hear the sidetone. If you want to modify the speed, weight, or other settings, press Set and the Keyer Setup dialog box will be displayed.

You can Pause or Stop practice at any time using the appropriate pushbuttons.

Click on Hints to enable the echo windows that will display the practice text as it is being played.

Help



About displays important information about the software version and operating mode.