Wintel

Version 1.5
User's Guide

DISCLAIMER - AGREEMENT

Users of Wintel must accept this disclaimer of warranty:

Wintel is supplied "AS IS". The author disclaims all warranties, expressed or implied, including, without limitation the warranties of merchantability and of fitness for any particular purpose. The author assumes no liability for damages, direct or consequential, which may result from the use of Wintel.

Wintel is a "shareware program" and is provided at no charge to the user for evaluation. Feel free to share it with your friends, but please do not give it away altered or as part of another system. If you find this program useful then you must register. The registered users would be provided with a disk and a printed manual. The disk also contains an installation program. Please read wintelrg.wri for more info on registration. The registration will license one copy for use on any one computer at any one time. You must treat this software just like a book. An example is that this software may be used by any number of people and may be freely moved from one computer location to another, so long as there is no possibility of it being used at one location while it's being used at another. Just as a book cannot be read by two different persons at the same time.

If you have any suggestion or have any bug to report, please send me an email to:

mehrotras@delphi.com
smehr@aol.com
CompuServe ID : 74243,3047

Introduction

Wintel is a full featured communication software that connects you to other computers. Following features are included:

* Phonebook which stores your remote service names, phone numbers and communication settings.

* File transfer using ASCII, xmodem, xmodem 1k, ymodem batch and zmodem protocols.

* A realtime and an offline GIF/JPEG viewer.

* DEC VT100, VT52, VT100 (ANSI Color), TTY and a raw mode terminal emulation.

* Redialing and sequential dialing capability.

* Programmable script language which automates your logins to remote system.

* Chat mode, which lets you talk to the user at the remote end.

* Resizeable fonts, scroll back buffer, printing and session capture.

* uuencode and uudecode internet files.

* Run multiple instances of this application.

System Requirements

*   You must have Microsoft Windows, version 3.1
        or higher. A 286, 386 or 486 based PC with a mouse
        and a hard drive.

*   Your computer must have at least 2MB of memory.

*   A modem is required to dialin to a remote system. If you need to connect to
        computer in the same room then a null modem cable is required.

This user's guide is organized as follows:

Section 1 explains you how to install this program.

Section 2 explains you how to connect to a remote system.

Section 3 deals with modifying keyboard, color, modem, communication, terminal and font settings.

Section 4 explains you how to send and receive file from a remote system.

Section 5 explains you how to view a GIF/JPEG file in realtime and offline mode. Also how you can uuencode and uudecode an internet file is explained.

Section 6 explains you how to write a script language to automate your logins.

Section 7 deals with copying and transmitting text from the clipboard. Printing and session capturing is also explained.

Section One

Installation

To install Wintel, select the Run command from the File menu of the program manager.
In the command line box, type in disk:\directory\install.exe e.g. if you have downloaded
Wintel to C:\DOWNLOAD directory then in the command line box, you would enter C:\
DOWNLOAD\INSTALL.EXE Press Enter key. An installation dialog box would
In the command line box, type in Press Enter key. An installation dialog box would
appear. You would be asked for the directory name where you want Wintel files to be
copied or just select the default directory. Click on OK. The installation program would
inform you once it is complete.

Section Two

Connecting

You can start Wintel in one of the following ways:

a) Double clicking on its icon .
b) Selecting Run command from the File menu of program manager.
c) Selecting Run command from the File menu of the file manager.

Once the program starts it opens a phonebook. Your login session is started by either double clicking an existing entry or by selecting an existing entry from the name listbox and clicking on the dial button. A dial window would open up showing you the number dialed. You can cancel the dial operation by clicking on the Cancel button. The system will inform you once the connection has been established.

To add a new entry to the phonebook, click on the New button. A Communication setting window would open up. You must already know your required settings for the remote computer with which you want to communicate. Most services publish their communication settings as: 2400,8,N,1. This indicates a 2400 baud modem speed, 8 data bits, no parity and 1 stop bit. If you do not know the port where modem is connected then click on the default setting button. This program will figure out the port and make following settings for you:

Baudrate:	2400
Databits	8
Parity	None
Stopbit	1
Flow Control	Xon/Xoff
Phonetype	Tone
Port	Port where your modem is connected.
Terminal	VT100 (ANSI Color)
File transfer Protocol	ZMODEM
Modem	Hayes compatible
Retry dial count	5

Dial timeout   60

You make entries only to the online service name and its phone number.

Hardwire/Answerback mode

If you want to connect your computer to another computer in the same room or
you want the other computer to dial in to your computer, then you must first establish a
communication channel. You do this by making an entry in the phonebook. Follow same
steps as you do when you add a new entry to the phonebook but leave the phone number
field in the communication settings dialog box as empty. Click on the dial button. Your
communication channel would open up.

For a detailed description of settings, see section 3.

Phonebook Buttons Summary

Here is a brief summary of all the buttons in the phonebook:

Cancel: Removes the phonebook from the display.

Dial: Dials the selected entry.

New: Adds a new entry to the phonebook.

Delete: Deletes a selected entry from the phonebook.

Copy: Copies an existing entry to a new entry with a new name and
                   a phone number.

Autologin: Executes the script file for the selected entry.

Options: You select a timeout period for a connection. You can also
                   specify a retry dial count here.

Section Three

Settings

Note: All the settings excepting that scroll buffer length and dial sequential flag apply locally to a given online service.

Communication Settings

Communication settings dialog box can be invoked from the phonebook's edit button. This command allows you to define your communication parameters. Here is a list of options available to you:

Cancel: Removes the box from display

Name: Enter your service name (max. 8 characters).

Phone number: The phone number of remote computer (max. 26 characters).

Phone prefix: This field is required for an internal phone system to connect to an outside line or to wait for a dialtone. This usually is 9 (max. 7 characters).

Baud Rate: Select the speed of your modem. The most common setting is 2400 baud.

Data Bits: Specify the number of data bits in each data packet exchanged between yours and the remote computer. This field usually is either 8 or 7.

Parity: Select the type of parity. Select no parity for 8 data bits and an even/odd parity for 7 data bits.

Port: Here you specify your communication port where you have your modem connected. This usually is either 1 or

2.

Flow Control:	This selection specifies which action is to be taken when the incoming data buffer gets full. Select hardware flow control for half duplex connections and Xon/Xoff
flow	for full duplex communication. As most
communications	are full duplex, select Xon/Xoff flow
control.	

The Modem Setting

This option can either be selected from communication settings dialog box or from the settings menu. You select your modem by clicking on your modem type in the list box and then selecting OK. If you do not find your modem in the listbox then select a custom modem option. You can modify the preexisting initialization, dial, hangup, escape and reset strings by retyping them. You can also edit the result codes if your modem returns them in a different form. This must only be done in case you are having problems with the communication. Consult your modem manufacturer's documentation for details.

Terminal Emulation

Wintel can emulate most of the popular terminal types. Perhaps the most popular terminal emulation used in the industry is VT100(ANSI). You select terminal preference either from the communication settings dialog box or from the settings menu. In VT100, VT100 (ANSI Color) and VT52 mode, your function keys F1 to F4 behave like those of DEC's PF1 to PF4. Keep the Num. Lock key down to emulate the DEC VT100 keypad. Codes sent by numeric keypad 9 to . are same as those sent by DEC's VT100 terminal. DEC's keypad enter key is emulated by your PC's insert key.

To emulate BBSs graphic characters, choose the terminal font from the fonts menu option.

Wintel also has a raw terminal emulation mode. This allows you to view all the characters sent by the remote computer. These include control keys. This feature is extremely useful in examining the raw codes sent by the remote computer.

Following options may also be selected:

Local Echo: This option is useful when the remote computer does not
                        echo your typed in characters. This is the case when the
                        remote computer operates in an half duplex mode.
Do not   make this selection as most computers
operate in   full duplex mode.

CR->CR/LF: Specifying this option enables carriage return and a line
                        feed to be sent to the remote computer when you press
                an enter key . As most computers send you a linefeed, do
                        not select this option.

Buffer Lines: Here you specify the number of lines this program should
                        save. The default is 200 lines. You may save upto 200
                        lines in the buffer for later viewing.

Terminal Width: Here you specify width of the terminal. The default is 80 columns.

Auto Wrap: Here you specify whether or not text wraps to next line when it
                        reaches right margin. Thedefault setting is auto wrap as
most of   the BBSes assume.

OK: Clicking on OK will save your settings.

Cancel: Cancel will cancel all the changes you made to the
                        terminal settings dialog box.

Keyboard

When you select this option from the Settings menu, a keyboard dialog box appears. You can examine keycode sent to the remote computer by clicking on the desired key. Here you can also define function keys F5 to F12 for your purposes. Function keys F1 to F4 have already been assigned to the DEC's VT100 and VT52 control codes. You make an assignment to the function key by clicking on say F5. Another window will appear. You can type in your string here. Remember to type "Enter" key as ^M. Similarly all control keys are prefixed by a caret ^. For example if you want to define F5 as a control-Z then enter ^Z in the edit box. If you want the definition to contain an escape character (ASCII 27) then enter ^[.

Colors

You can select color settings for the text and the window background by selecting color command from the settings menu for terminals other than VT100 (ANSI Color). For ANSI Color terminal, the system uses default colors i.e. white text on a black background. Select the element and then choose the desired color from 16 predefined VGA colors. If these colors do not suit your needs then create your own colors with the help of three scroll bars. By changing the red, green and the blue component of a color, any desired color can be achieved. Once you have made your choice, save them by clicking the OK button. You may revert back to your original window colors by clicking on the default button.

Fonts

You can select font command from the settings menu. A list of all the fixed size fonts are shown in listbox. A font is selected by clicking on the desired entry in the listbox. Font size need not be selected as this program adjusts the size of the font based on your window size.

Default Directory

Here you specify the default directory for the file transfer and your session logs. If the session log option is enabled then the log file would be stored in the directory you specify in the session log edit box. Your downloaded files from the remote system will go to the directory specified in the default download directory edit box.

Protocol

You select the file transfer protocol by choosing protocol command from the settings menu. A protocol list box would appear. Make a selection by highlighting one of the protocol entry.

If you are transferring ASCII files and you have an error correcting modem then you may opt for the ASCII protocol. However, as there is no error checking done in this protocol, this protocol is very unreliable. ASCII file transfer has other options. Click on the option button. Most systems require you to send a character to initiate the file transfer. This usually is a "return". Type in ^M if the remote system requests you to send a carriage return for downloading ASCII file. Some systems send a control character as an end of file transfer. This usually is control T. Type in ^T in the EOF character edit box.

For binary transfers, the most reliable protocol is that of ZMODEM. ZMODEM protocol has other options too. If you want crash recovery option enabled then check on this button. Crash recovery is done in the following manner. If the requested file size is greater than that of the existing files. Then the recovery is possible. There are two other options in the ZMODEM protocol. One is the file skip option. If you already have a file with the same name and of the same date then this system will request the remote system to skip sending this file. The other is segmented streaming option. If you are experiencing problems while receiving files with the default option of full streaming then select this option. This would slow down your file transfer considerably

A brief explanation of various protocols is given in section 4 of this user's guide.

Section Four

Transferring Files

Once you have established a connection to the remote system. You can exchange text and binary files. In order to transfer files, you must first select a protocol which both your system and the remote system recognize. A text file is a file created by a text editor known as an ASCII file. A binary file is a file of any kind. This could be a bitmap image or an executable file. It is recommended that you use binary file transfer protocol for all your file transfers. This is due to the fact that ASCII file transfer protocol does not do any error checking. For binary transfers, you may opt for one of the protocols described below:

XMODEM/Checksum:　　　This protocol transfers data in 128 byte packets.
　　　　　　　　　　　　It does error checking of the data with checksum.
　　　　　　　　　　　　　　It is reliable but is slow because of the small packet
　　　　　　　　　　　　　　　size. Also it does not have a batch transfer
capability.

XMODEM/CRC:　　　　　This protocol transfers data in 128 byte packets.
　　　　　　　　　　　　It does error checking of the data with 16 bit CRC.
　　　　　　　　　　　　　　It is reliable but slow because of the small packet
　　　　　　　　　　　　　　　size. Also it does not have a batch transfer
　　　　　　　　　　　　　　　　capability.

XMODEM (1K)　　　　　This protocol transfers data in 128 and 1024 byte
　　　　　　　　　　　　　packets. It is an extension of XMODEM/CRC.
　　　　　　　　　　　　　　　This protocol is also known incorrectly as
　　　　　　　　　　　　　　　　YMODEM. This is not a batch
protocol therefore　　　　　　　　　　　　　　　only one file can be
transferred per transfer.

YMODEM(BATCH)　　　Like XMODEM(1K), this protocol transfers data
　　　　　　　　　　　　　in 128 and 1024 bytes data blocks but in its first
　　　　　　　　　　　　　　block   it sends the filename, filesize and the
file　　　　　　　　　　　　　　creation date. This protocol is fast, reliable

and has   a batch transfer capability.

YMODEM(BATCH -g)   Like XMODEM(1K), this protocol transfers data
                                        in 128 and 1024 bytes data blocks but in its first
                                        block   it sends the filename, filesize and the
file   creation date. This protocol does not have
                                        intermediate acks and naks.
Therefore it is more   suited for the hardwired
connection. This protocol   is extremely fast but
not recommended because a   single error would
cause the retransmission of the   entire file.
This protocol has a batch transfer   capability.

ZMODEM   This is perhaps the most popular protocol today. It
                                        is fast because it can do full streming, very reliable
and   allows batch file transfers. Also it allows the
transfer of   partial files (known as crash recovery) in
case transfer was   aborted.

Receiving Files

If you want to receive files using ASCII, XMODEM or YMODEM Batch protocol. You choose receive command from the File transfer menu. This must be done after the remote system has informed you that it is ready to send you the files. Once you have selected the receive command, you will be asked for a filename of the downloaded file in case of ASCII and XMODEM (All flavors) protocol.

If you have opted for YMODEM batch protocol, no such dialog box appears as the filename is contained in first block of the data packet.

For ZMODEM, do not choose receive file command from the menu.This program will automatically detect the transfer once the downloading starts.

Once the file transfer starts, you will see a window with the statistics such as file name, total number of bytes to receive, number of bytes received etc. You may abort the transfer anytime by clicking on the Cancel button. Click on the OK button to remove the file transfer from the screen. For ASCII file transfer, click on the Cancel button to stop the file transfer.

Sending Files

First you inform the remote system that you wish to upload files. As for the receiving files, you select the protocol which matches with the remote system. If you need to send multiple files choose YMODEM Batch or ZMODEM protocol. A dialog box would appear asking you for the name of files which you wish to transfer. For batch operation, you may review the file list to be uploaded and make more additions or deletions. Once you are done, click on the done button. Another window would appear which shows you the file transfer statistics. If you wish to abort the transfer then simply click on the Cancel button. Once your transfer is complete, you will see a message to this effect in the transfer window. Click on the OK button to remove the transfer window from the screen.

Section Five

Viewing GIF/JPEG File

If you want to view a GIF/JPEG file while downloading it, enable the GIF/JPEG option from the option menu. Any file of type GIF/JPEG would be displayed on a separate window while being downloaded.

You can also view stored GIF/JPEG files by selecting "GIF/JPEG Offline" command from the options menu. This would activate WinGif task. By choosing "Open" command from the file menu and selecting a file of type GIF/JPEG, the file can be viewed. You can resize the picture by selecting stretch/shrink command in the File menu. You exit the GIF/JPEG viewer by choosing "Exit" from the file menu.

UUENCODE

uuencode utility allows you to encode a binary file to an ASCII file so that it can be transmitted on Usenet or send as an email on an internet. When you select this option, You will be asked for the file name to encode. Select the file and your file be encoded with the extension "uue". If your input file is of large size then the output file is split over into multiple files with sequence numbers appended to the file name. The first line of encoded file contains "begin 600 filename" and the last line has an "end".

UUDECODE

uudecode utility allows you to decode uuencoded file. Generally on an internet, a uuencoded file is transmitted in a batch because of its large size i.e. file a.uue may be transmitted as a1.uue and a2.uue. When you select this option, you will be asked for the file names which need to be uudecoded. Once you have selected your files, press on the done button and your file will be decoded. Make sure that each of the files contain a "begin" at the start of the decoded text and an "end" at the end of the decoded text.

Section Six

Scripts

Editing

Use Edit command in the script menu to call the notepad editor to edit a script file. Here is an example of a script file to connect to delphi service via a local sprintnet number:

All comments in the script file begin with !.

```
!
! connect to delphi
!
! define timeout for waitstring command. The default is 3 seconds. You may place this
! timeout anywhere before waitstring command.
timeout 5
! Transmit string in quotation to remote
send  "@D"
! Wait for string "terminal" from the remote computer
waitstring  "terminal:"
! once it finds string "terminal" it sends a carriage return
send  "^M"
! transmit "c delphi"
send  "c delphi"
! wait for string "username:" from remote"
waitstring "username:"
! Send the username "jjohn"
send "jjohn"
! waits for string "password:" from remote
waitstring "password:"
! sends password "abcdef"
send "abcdef"
```

! exit from script
exit

Executing Script

Once you have created a script file and you have made an entry of the service in the phonebook, you can execute it either from the command execute in the Script menu or by clicking on the Autolog button in the phonebook.

Section Seven

Edit Command

Copy and Paste

If you want to send the text from the clipboard, first copy the text to the clipboard. This can be done either from some other application or from your own screen. You select the text to be copied to the clipboard by pressing on the left mouse button and dragging over the text you want copied. Once the text is selected, choose copy command from the edit menu. Your text will be copied to the clipboard. Next choose the transmit command from the edit menu. Your text will be transmitted.

Clearing Scroll Buffer

When you receive text from the remote computer, this text is placed in a buffer which can be viewed by using vertical scroll bar. If you want to clear this buffer, use the clear buffer command from the Edit menu.

Printing

You can print your session log file by selecting print logfile command from the Files menu. You will be asked for the file name to printed. Select the desired file and your file would be printed. You can also print the saved scroll back buffer by selecting print buffer command from the File menu.

Session Capture

By enabling this option from the session menu, You can redirect all your incoming data from the remote system onto to a file for later viewing and printing. Your session log file name would be the name of the online service you are connected to with log extension. You can stop capturing the session by reselecting the capture session command from the Options menu.

Chat Mode

With this option you can chat with the user logged onto a remote computer. When you make this selection, your window will split into two halves. The upper window will display the text you type in and the bottom window would show you the response from the remote user. Before you can commence chatting, you must first establish a connection. This can be done either your dialing in to his/her system or wait for a call from the other end. If the other end wants to dial in to your system, you must first open your communication port. Use the phonebook, make an entry with no phone number and click on the dial button. This would open up the communication channel. From the option menu enable the "Answer " command and then wait for the call. However, If this option is disabled, then any incoming call would result in a "RING" text on your screen. You type in "ATA" and the connection would be established. Enable the chat mode if you have not already done so. Now you are ready to chat. Disconnect the connection by choosing "Hangup" command from the "Dial" menu.

Disconnecting

If you want to disconnect from a session, you must first hangup. This is done by selecting "Hangup" command from the "Dial" menu. You may then either exit from the program or dialin to another service. You exit the program by selecting Exit command from the File menu.

Miscellaneous Commands

Check Modem Port
This command checks for the port where your modem is connected.

Comm Status
This command in the Misc. menu displays the communication status. If the system is hung because it received a bad XOFF character, then you would see the box next to *transmission is waiting as a result of xoff character being received* as checked. You can clear this box by clicking on it. This makes the system think that it has received a required xon character.

Break
By enabling this option from the Misc. menu, you would suspend character transmission and place the communication device in the break state. When you enable this option, a checkmark would appear next to the break command. You disable this option by reselecting the break command. The character transmission would resume.

Dial Sequentially
By enabling this option from the Misc. menu, you tell the system to dial online services in a sequential manner till the connection is established.