

This document is one of several aids that are provided to help with the installation and use *WinIATE*. It is assumed that the reader is familiar with fundamentals of DOS and Windows. The reader should also have some understanding of airline communication principles, particularly interchange/terminal addressing and display/printer options.

As a first step, an overview of the entire *WinIATE* system is presented, followed by the instructions for installing and using the *WinIATE* Terminal software.

Overview

The *WinIATE* system consists of communications software and hardware that provide connectivity to the Host, and terminal emulation software that provides airline terminal functionality.

WinIATE works in conjunction with the InnoSys Gateway software and hardware installed on a workstation in a Local Area Network (LAN) or Wide Area Network (WAN) environment. The Gateway is normally connected to the Host modem via a standard RS-232 cable.

A typical WinIATE system is shown below:



Diagram of typical LAN-based WinIATE system

Requirements

The Terminal runs on any PC running Windows version 3.1, 3.11, or higher; Windows for Workgroups; Windows NT, and Windows 95. The terminal software will run in less than 1MB of RAM. If other applications will be running concurrently on the PC, additional RAM is required.

The *WinIATE* software can be configured in a number of different way. The preferred method for changing configuration parameters is to use the configuration dialog boxes presented by the *WinIATE* terminal software. However, a text editor (for example, the **EDIT** program) or word processor that can read and write ASCII files can be used if the user wishes to directly modify *WinIATE* configuration files. Certain configuration parameters can only be modified in this manner.

Before installing the Terminal, the workstation PC must be set up and an InnoSys IATE Gateway must be installed. The user must also obtain the Object Name that is defined for this terminal in the Gateway configuration.

The LAN/WAN

The Terminal communicates with the Gateway over a Local Area Network (LAN), a Wide Area Network (WAN), or the Internet, using TCP/IP. Ensure that TCP/IP is installed on the workstation where *WinIATE* will be installed and that the network is up and running before trying to install or start *WinIATE*.

The workstation where *WinIATE* will be installed should have a utility (such as "**ping**") which lets a user check the workstation's connection to other PC's on the network. To check the connection to the Gateway machine, use **ping** with that machine's IP address. For example, suppose that the IP address of the Gateway machine is 192.0.1.18. Enter:

ping 192.0.1.18

and press the **Enter** key. The utility should report answerbacks from the Gateway machine. If no responses appear, stop the **ping** utility and try it again once more. If there is still no response, check the IP addresses and any other configuration parameters on both sides of the connection.

Setting Up the PC

The procedure for setting up the workstation is explained in the PC owner's manual.

IATE Object Names

Configuration of *WinIATE* requires an IATE CRT (or CRT API) Object Name and optionally a Printer Object Name. Before beginning the installation process, be sure to determine the CRT Object Name(s) that were created for this terminal as part of the Gateway configuration process. To use any available terminal that has been set up as a "CRT API" (for dynamic linking), use the "*" (star) character as the Object Name. To have the terminal use any available TA from a "group" of TAs which has been defined at the Gateway, use the name of the group as the Object Name.

Installing the Terminal

Installation of *WinIATE* involves the following four steps, described in detail below.

- Verify that the gateway PC can be "pinged"
- Install the Terminal software
- Install the fonts
- Configure the Terminal

Installing the Terminal Software

To install the *WinIATE* terminal emulator software, use the following procedure:

- 1) Power on the PC.
- 2) Try to "Ping" the gateway PC. If this is not successful, do not proceed until the gateway can be successfully pinged.

The easiest way to install the software is from the standard distribution media. To install from the distribution media:

- **3a1)** If the software was delivered on disks, insert the first distribution disk in the "a:" drive. Select Run from the "Start" menu and enter **a:setup.exe.** Follow the prompts through the installation process, or,
- **3a1)** If the software was delivered via email, create a temporary directory and "unzip" the email attachment(s) into the temporary directory. Select Run from the "Start" menu and enter **setup.exe** from the temporary directory. Follow the prompts through the installation process.

Alternatively, the *WinIATE* software can be installed manually by using the following procedure:

3b)Insert the distribution disk into a floppy drive.

4b)Create a directory named "WINIATE". Copy the WINIATE.EXE, IATEHELP.HLP, TERMKEYS, and WINIATE.BMP into the *WinIATE* directory.

5b)Copy the IATEDLL.DLL file to the \WINDOWS Directory if running Windows 3.1, WFW, or 95; or to the \WINNT40 Directory if running NT.

6b)The workstation's TCP/IP software should include a directory that contains files named "**HOSTS**" and "**SERVICES**". Under Windows for Workgroups Windows 95 these files are in the \WINDOWS directory. Under Windows NT these files are in the \WINNT40\SYSTEM32\DRIVERS\ETC directory. If running PC/NFS, these files should be in the \NFS directory. If running Trumpet, these files should be in the \TRUMPET directory. Add a line to the "**HOSTS**" file specifying the name and IP address of the Gateway PC. (Create the file if it does not already exist.) For example, if the gateway machine's address is 192.0.1.18 and its name is "innogw", the correct line would be:

192.0.1.18 innogw

Note: adding a line to the hosts file is not necessary if a Domain Name Server ("DNS") is being used on the network to resolve host names.

7b)In the same directory where the **HOSTS** file resides, add a line to the **SERVICES** file that specifies the service name and port number for the connection to the Gateway. (Create this file if it does not already exist.) The most commonly used name and number for an InnoSys IATE gateway are "ialcserver" and 1413. The correct format for this line is:

ialcserver 1413/tcp

Installing Fonts

It should not be necessary to install the fonts as a separate step if the terminal software was installed using "Setup".

For workstations running Windows 3.1 or WFW, install the *WinIATE* fonts according to the procedure described in **Appendix B** of this manual.

For workstations running Windows 95 or NT, drag the fonts to the fonts folder. If the IATE and ALC fonts do not appear when "Fonts" is selected from the "Text" pull-down menu in the terminal application, open the fonts folder and double-click on either the IATE or ALC font. Then close the font and the folder. The fonts should now be available to the terminal application.

The IATE font is used for SABRE. The ALC font is used for all other hosts.

Configuring the Terminal

The configuration information for *WinIATE* is normally kept in either the **IATE.INI** file (the default configuration file name) or in the file whose name was specified by using the "-i" option on the command line of the program item or shortcut for the terminal emulator. In either case, the terminal configuration file must reside in the **WINDOWS** directory (or the **WINNT40** directory under NT). This configuration data is normally maintained by the use of various configuration menus and dialog boxes in the *WinIATE* software. This file may also be edited with a text editor. Before editing this file, first make a backup copy. When finished editing the file, be sure to save it as a plain ASCII text file. (If using a text-only editor such as **EDIT** or **NOTEPAD**, use its standard Save command. Alternatively, if using word processing software to edit the file, it may be necessary to use a special form of the word processor's Save command to save the file as "text only" or "DOS text".)

Use the "**Configure Link**" option in the File Menu to set or change the connection to the gateway.

Use the "Configure Terminal" option in the File Menu to customize the terminal's parameters.

Creating and Using *WinIATE* Shortcuts/Program Items

To set up a program group for *WinIATE* when using workstations running Windows 3.1 or WFW, use the **New** command in the Windows Program Manager's **File** menu and create a new

Program Group named *WinIATE* (or any valid Windows name). Then use the **New** command again to create a Program Item (icon) to invoke *WinIATE*. In the **Description** field of the Program Item Properties dialog enter: **WinIATE**. In the **Command Line** field, enter: **winiate.exe**. In the **Working Directory** field, enter the name of the *WinIATE* installation directory, e.g. c:\winiate. (Do not turn on the **Run Minimized** check-box button.) (Refer to the Windows documentation for more information on how to create new program groups and items.)

For workstations running Windows 95 or NT, use the Windows 95/Windows NT Explorer to create a shortcut. (Refer to the Windows documentation for more information on how to create a new shortcut.)

The name of the default configuration file used by *WinIATE* is "IATE.INI". When running multiple copies of *WinIATE*, each copy of the terminal must specify its own configuration file name by using the "-i" command line option. This is done to set up multiple host configurations, for example, or to run multiple terminals on the same host. To set up multiple copies, start by deleting the **IATE.INI** file. Make a copy of the *WinIATE* program item/shortcut, or make a new program item/shortcut as before. In the new program item/shortcut's Properties dialog, change the Description entry to a name such as **SABRE WinIATE**. Also, change the **Command Line** entry to include the option "-i" followed by the name of the new configuration file, for example: winiate.exe -iklmcfg. Use the new program item/shortcut to run *WinIATE*.

Using the Terminal

While the airline host system itself hasn't changed, the power of the PC and Windows has been leveraged to make working with the host easier and more efficient. This section describes the *WinIATE* windows and menus, and explains how to use the terminal.

The first time *WinIATE* is started, it will ask for information about connecting to the gateway and then display a window where entries can be made and host responses are received. The terminal displays status information (such as **Sys Avail**) and any broadcast messages from the airline host in either a smaller, free-floating window (the "Status Window") or in a fixed Status Bar that is displayed, as configured by the user, at either the top or the bottom of the Terminal window.

Terminal windows are normally 64 columns wide, but some hosts can accommodate up to 80 columns per line of text. The maximum number of rows in the window is 32. Host entries and responses appear inside terminal windows. An entry is sent to the host each time the **Enter** key is pressed. Until a response is received from the host, the keyboard is locked and will not respond to operator input, with the exceptions noted below. When the terminal receives a message from the host, the message appears in the current terminal window, and the keyboard becomes active again.

If the keyboard remains in the "Locked" state, it is possible for the operator to unlock the keyboard by pressing the "reset" key (usually on the "Escape" key). This is typically necessary when:

- A message to the host has been lost in transit. This can be caused by a number of factors, most commonly noise on the communication line. Regardless of the cause, the host will not respond to a lost message; this means that without the operator taking special action, the keyboard will remain locked indefinitely. To break out of this locked state, press the Reset key (usually **Esc**).
- A message from the host has been received in a garbled state. In this case the Request Repeat (**Push Rpt**) message appears in the status window.

The Status Area

The status area may either be configured as a free-floating window or as a fixed line in the terminal window. When the Status area is configured as a free-floating window, the first line inside the Status Window displays information about the status of the session with the airline host. The status messages that may be displayed here include:

The host system is available for use. "Sys Avail" is displayed on a green Sys Avail background. Sys Unavail The system is not available for use. If the host is down, "Sys Unavail" is displayed on a yellow background. If the terminal cannot make a connection to the gateway or the terminal has lost its connection to the gateway, "Sys Unavail" is displayed on a Red background. Kybd Locked A message or command has been sent to the host, but a response has not yet been received. If no response arrives from the host, the terminal's Reset key (usually mapped to **Esc** on the keyboard) may be pressed to unlock the keyboard. Displays how many seconds the keyboard has been in the locked state. Timer **Push Rpt** This message appears when: (1) the terminal has received a message from the host with an error, or (2) a message from the host is longer than the window size the operator has selected, or (3) the message from the host has invalid screen positioning commands. If this message appears, press the Reset key and then re-enter the last command. The terminal has received an unsolicited message indicator from the host. Umsg Press Ctrl-U to display the text of the unsolicited message. Data cannot be sent to the host. If this message appears, press Reset and re-ReEnter enter the last command. This is usually caused if there is no SOM on the screen when the **Enter** key is pressed. Indicates that the terminal is in insert mode. Any characters typed will be Insert inserted between the existing characters as long as this message appears in the Status Window. Each line can accommodate a maximum of 64 (80 for selected hosts) characters. Any characters pushed to the 65th (81st) column when in the insert mode are lost. The user has selected "Start PF Recording" from the "Options" Menu and the Recording terminal is now recording all keystrokes made by the user.

The **Broadcast Message Area** occupies the lower portion of the Status window. It is used for two purposes: (1) to support special message functions; and (2) to display prompts used during execution of programmable function keys.

The Status Area is normally a floating window. However, it will appear as a fixed line in the parent window if "STATUSBAR=TRUE" appears in the "[terminal]" section of the configuration file. When using the "Status Bar" option, the parameter "STATUSONTOP=TRUE" (or FALSE) controls whether the Status Bar appears at the top or at the bottom of the *WinIATE* window. The Status Bar has the following format, with the same indicators as described above.

-									
	SysAvail	KbdLocked	Timer	PushRpt	ReEnter	Umsg	Insert	Record	(Broadcast Msg Area)

The Terminal Window

Host entries and responses appear in the Terminal Window. All the same Host commands that users normally enter are used. Only now there are a variety of additional Terminal commands that will save time and effort in many routine tasks. Most of them are readily available on one of the Terminal's pull-down menus, by a single keystroke, or by a double keystroke combination.

<u>Viewing recent Host entries</u> - When the mouse pointer is in a Terminal window, clicking the right mouse button while pressing the Alt key causes a pop-up menu to appear. (Pressing Control-H or selecting "Command History" under the "Options" Menu also causes this pop-up menu to appear.) This menu contains the most recent entries that have been sent to the Host . The default number of entries in this menu is 15. This number may be changed to be as many entries as desired (by selecting the "Configure Terminal" item on the "options" menu). Selecting an entry from the pop-up menu will cause a SOM and the entry to be placed either at the current cursor location in the active Terminal window or on the next line in the active Terminal window. (On longer entries, only the first 20 characters of the entry are displayed in the menu, but the entire entry is placed in the terminal window if the entry is selected.)

<u>Host Output Routing</u> may be used to send host output to a different window than the window the entry was typed into. This function will not work unless the "[terminal]" section of the configuration file includes the line "ENTERWINDOWROUTE=TRUE". Press Control-1, -2, -3, or -4 to send the host response to window 1, 2, 3 or 4 respectively (shown as "Rt1", "Rt2", Rt3", and "Rt4" on the keyboard map).

<u>Multiple Windows</u> are available. As many windows can be opened as there is memory available. In most configurations, ten windows can be opened before it is necessary to allocate more memory to the terminal. To move between windows, select the window from the pull-down menu; use a keyboard shortcut, or click on the window. The windows retain their host entry and response text even when the window is not visible. The terminal can be configured (using the "Enter Change Window Action" command on the Options pull down menu) to send one or more entries to the Host when switching between windows (this is most commonly used to change work areas when switching between windows).

The host considers the user's terminal to be a single display. Host responses appear in whichever terminal window is in the foreground when the response arrives. So, for example, if a user makes an entry in Window 1 and then switches to Window 2 before the response appears, the host response is displayed in Window 2.

The **New Window** command (in the **File** menu) opens a new, empty terminal window and places the cursor at the home position. The number of the window is usually shown in the Title bar. The user can control the name assigned to the window by using the "Set Window Name..." function in the terminal's "windows" pull-down menu.

The **Close Window** command (in the **File** menu) removes the current window, discarding any information that was displayed in that window.

Keyboard Functions

The following keys correspond directly with the symbols on the key caps of the keyboard of the PC, and will be displayed when the key is pressed:

```
ABCDEFGHIJKLMNOPQRSTUVWXYZ
0123456789 - / .
```

A number of special purpose keys and messages are used for airline terminal emulation. These include:

Change/Pillow/Lozenge:	This is normally the [key or the @key. It appears as a or @ on keyboard maps and on the screen.
Cross of Lorraine:	The 'key generates the Cross of Lorraine (for SABRE only). It appears as \neq or $¥$ on keyboard maps and on the screen.
Display:	This is the = key. It may also be on the $*$ key. It appears as $*$ on keyboard maps and on the screen.
End Item:	This is the \ or , key. It appears as or # on keyboard maps and on the screen.
Enter:	This is the Enter key. Use this to send an entry to the host.
Field Mark:	This is \mathbf{FMk} on keyboard maps. It appears as \dagger on the screen.
Function Keys:	These are F1 - F30 on keyboard maps. Use these to execute the indicated PF Key.
Optional Field:	This is Opt on keyboard maps. It appears as [§] on the screen.
New Line:	This is NL on keyboard maps. It appears as a right triangle on the screen.
Payment (Pricing):	This is the \$ key. It appears as \$ on the screen.
Print Enter:	This is PrEnter on keyboard maps. On some hosts, this key is used to send an entry to the host and have the response sent to the currently assigned hardcopy printer instead of to the terminal window.
Route to Window #1:	This is Rt1 on keyboard maps. It performs the ENTER function and sends the response to window #1.
Route to Window #2:	This is Rt2 on keyboard maps. It performs the ENTER function and sends the response to window #2.
Route to Window #3:	This is Rt3 on keyboard maps. It performs the ENTER function and sends the response to window #3.

Route to Window #4:	This is Rt4 on keyboard maps. It performs the ENTER function and sends the response to window #4.
Start of Message:	This is SOM on keyboard maps. It appears as b on the screen.
Reset:	This is Res on keyboard maps. It is usually on the Esc key. Use it to unlock the keyboard (to get out of the Keyboard Locked state) or to break out of a PF key or script.
Reenter:	This is ReE on keyboard maps. When the last entry sent to the host is still visible in the terminal window, press this key to send that entry to the host again. This key only works on certain host types.
Unsolicited Message:	This is Ums on keyboard maps. If the "Umsg" indicator is displayed in the status window, press this key (or key combination) to have the host send the Unsolicited Message to the terminal window.
Several keys are used	for cursor and screen control. These include:
Arrow Keys:	These keys move the cursor one row/column in the direction of the arrow.
Back Tab:	This is <tab< b=""> on keyboard maps. It moves the cursor to the first tab position to the left of the current cursor position.</tab<>
Bottom Edge:	This is Bot on keyboard maps. It moves the cursor straight down from its current position to the bottom of the current window.
Beginning of Line:	This is BOL on keyboard maps. Use this key to move the cursor to column 1 of the current line.
Clear:	This is Clr on keyboard maps. It erases the data in the active window; puts a SOM in row 1, column 1 of the active window; and positions the cursor to the right of the SOM.
Clear Broadcast:	This is CBr on keyboard maps. Use this to clear the broadcast message currently displayed in the status box.
Display Carriage Return	s : This is FOS on keyboard maps. On some hosts, this key can be used to toggle in and out of the modes which display or do not display the "SOM" and "carriage return" characters.
Echo:	This is Ech on keyboard maps. It turns keyboard echoing on and off. It is most commonly used to hide the entry of a password.
Eighty Columns:	This is 80 on keyboard maps. On some hosts, it toggles the width of the window between 64 and 80 columns.
End of Line:	This is EOL on keyboard maps. Use this to move the cursor to the end of the data on the current line.

End of Screen:	This is End on keyboard maps. It moves the cursor to column 64 (80) of the last row in the current window.
Full Screen:	This is Ful on keyboard maps. On some hosts, this key is used to go out of split screen mode and into full screen mode.
Go to Window #1:	This is Wn1 on keyboard maps. It brings window #1 to the foreground.
Go to Window #2:	This is Wn2 on keyboard maps. It brings window #2 to the foreground.
Go to Window #3:	This is Wn3 on keyboard maps. It brings window #3 to the foreground.
Go to Window #4:	This is Wn4 on keyboard maps. It brings window #4 to the foreground.
History:	This is His on keyboard maps. It displays the recent entries that have been made. The user can then double-click on an entry to display it in the terminal window.
Home:	This is Hom on keyboard maps. It moves the cursor to row 1 column 1 of the active window.
Last Message:	This is LMg on keyboard maps. Use it to redisplay the last message sent to the host.
Left Edge:	This is LEd on keyboard maps. It moves the cursor left from its current position to left edge of the current window.
Next Window:	This is NxW on keyboard maps. Use this to move to the next higher numbered window on the screen.
Previous Window:	This is PvW on keyboard maps. Use this to move to the next lower numbered window on the screen.
Protected Mode:	This is Pro on keyboard maps. Use this to toggle in and out of protected screen mode. Protected mode is only active if it is turned on 1) by a PF Key script or 2) by certain masks sent from the host.
Right Edge:	This is REd on keyboard maps. It moves the cursor right from its current position to right edge of the current window.
Split Screen:	This is Spl on keyboard maps. On some hosts, this key is used to go out of full screen mode and into split screen mode.
Tab:	This is Tab on keyboard maps. The Tab key moves the cursor to the next tab position in the current window.
Top Edge:	This is Top on keyboard maps. It moves the cursor straight up from its current position to top of the current window.

Keys used to edit text in the terminal screen include:

Copy:	This is Cpy on keyboard maps. Use it to copy any highlighted text displayed on the screen and place the text in the Windows clipboard.
Cut:	This is Cut on keyboard maps. Use it to remove any highlighted text from the screen and place the text in the Windows clipboard.
Delete:	This is Del on keyboard maps. It deletes the character at the cursor position, and moves all characters to the right of the cursor (on the same line) one column to the left.
Delete Line:	This is DLn on keyboard maps. It deletes the line that includes the cursor.
Erase:	This is Ers on keyboard maps. Use this to erase the character to the left of the cursor. In addition, the cursor moves one position to the left.
Erase to end of Line:	This is EEL on keyboard maps. It erases all characters between the cursor and the end of the line.
Erase to end of Page:	This is EEP on keyboard maps. It erases all characters between the cursor and the end of the window.
Insert character:	This is Ins on keyboard maps. It toggles the terminal between Insert Mode and Overstrike Mode. When the terminal is in Insert mode, characters shifted right past the 64th (or 80th) column are lost. In Overstrike mode, each character typed overwrites any character that had previously occupied the same position in the window.
Insert Line:	This is ILn on keyboard maps. It inserts a new line at the cursor position.
Paste:	This is Pst on keyboard maps. Use it to copy the text that is currently in the Windows clipboard to the current cursor location on the screen.
Select:	This is Sel on keyboard maps. It is the standard Windows function using the shifted arrow keys to highlight text on the screen.

The File Menu

The File pull-down menu contains the commands shown in the picture below.

⊐		InnoS	ys Airline	Fermina	al	
File	<u>E</u> dit	PF Keys	<u>O</u> ptions	Text	Window	Help
New Win	dow					
Close <u>W</u> i	indow					
Next Win	dow					
Previous	s windo	N				
Find Stat	us Wind	wol				
Find PF	<u>K</u> ey List	Window				
Print Wir	ndow to	Local Print	er			
Print Wir	ndow to	Remote Pri	nter			
Cancel R	e <u>m</u> ote F	Printing in P	rogress			
Configur	e Link					
Configur	e <u>T</u> ermi	nal				
Load PF	Kevs					
Save PF	Keys					
Print PF	Kevs to	Local Print	er			
Print PF	Keys to	Remote Pri	nter			
Launch /	Applicat	ion				

New Window Opens a new terminal window (on the same TA and work area) for the currently active Host session. The new window becomes the *current* terminal window: in front of any others, ready to receive keystrokes and display host responses.

Close Window Closes the current terminal window. This is equivalent to double-clicking on the horizontal bar at the upper right corner of the current terminal window, or selecting Close from its Terminal Window Control Menu (described later in this document).

- **Next Window** The window with the next-higher window number becomes the *current* terminal window: in front of any others, ready to receive keystrokes and display host responses.
- **Previous Window** The window with the next-lower window number becomes the *current* terminal window: in front of any others, ready to receive keystrokes and display host responses.
- **Find Status Window** Brings the Status Window to the foreground. This option is useful if the Status Window has been obscured by other windows. This will happen only if the STATUSONTOP and STATUSBAR options are both set to FALSE in the configuration file. If the STATUSONTOP option is set to TRUE, then the Status Window is always visible in the foreground; if the STATUSBAR option is set to TRUE, then there is a permanent status bar instead of a status window; in either case this menu command is not used.
- **Find PF Key List Window** Brings the PF Key List Window to the foreground. This option is useful if the PF Key List Window has been obscured by other windows. See the "**View PF Key Labels**" description under the "**Options**" menu for more information on configuring the PF Key List Window, in particular the PFKEYLISTMDI option.
- Print Window to Local Printer Prints the contents of the current terminal window on the default Windows printer configured on this PC. The default printer is selected using the Windows Control Panel's Printer configuration. Refer to Windows documentation or on-line help for details.

Note: To capture an image of the current terminal window as a graphic, begin by positioning the terminal window in the upper left corner of the main *WinIATE* window area. (If necessary, move the terminal window to place it at the upper left corner of the main *WinIATE* window.) Press Alt-Print Screen. This copies an image of the *WinIATE* window into the Windows Clipboard. Start the Windows Paintbrush program (or another similar program). Select "Paste" from the Edit menu. An image of the *WinIATE* window should appear within Paintbrush. If nothing appears, try this procedure again, but this time using Shift-Alt-Print Screen instead of Alt-Print Screen.

- **Print Window to Remote Printer** Prints the contents of the current terminal window to the printer TA defined by the Printer Object Name in the link configuration (see Configure Link below). Note that the printer TA object must be accessible through the same Gateway that the current terminal is linked to.
- **Cancel Remote Printing in Progress** Terminates the printing of the contents of the current terminal window to the remote printer TA defined by the Printer Object Name in the link configuration.
- **Configure Link** Presents a dialog box that allows the user to enter the CRT link configuration information: **CRT Object Name**, **Service Name**, and **Gateway Host Name**. Optionally, the user can also enter the **Printer Object Name** (this is the name of the printer object for the **Print Window to Remote Printer** command in the **File** menu). If the **CRT Object Name** is entered as "*", the terminal will attempt to link to any free dynamic TA at the gateway. Press the **OK** button to confirm the new settings, or **Cancel** to cancel changes. This dialog box also displays the

host type of the gateway the terminal is connected to and the terminal's IA and TA.

Configure Terminal This window allows the user to make selections for a number of configurable items, including number of rows and columns; font (use the "IATE" font for SABRE; use the "ALC" font for all other hosts); the number of previous commands the terminal will recall; the UMSG character; and whether to show the return character for certain host types. If the status area is a floating window, "Status Window Always On Top" forces it to remain on top of the other windows. If the status area is a fixed bar, "Status Window Always On Top" controls its placement at the top or bottom of the window.

Configure Terminal	X
Rows 20 Columns 64	Command History ListSize 25 UMSG Character U
Change Font Font: IATE Change Font Size: 8 Show Returns Status Window Always On Top Startup Action Shutdown Action	p Inactivity Shutdown Timer Min (0 = disabled)
	<u>O</u> K <u>C</u> ancel

There are three fields at the bottom of this configuration screen that are of particular interest to users who use "dynamic" or "pooled" TAs. "Startup Action" lets the user select a script to execute when the terminal first starts up. Such a script would typically do an ignore, then a sign-off, then a sign-on. "Shutdown Action" lets the user select a script to execute when the terminal application is exited. For example, such a script might do an ignore, then a sign-off. (For more information on scripts, see the "PF Keys and Scripting" manual.) The "Inactivity Shutdown Timer" lets the user specify how long his terminal should run before it automatically quits because the user has not sent any entries to the host. A warning message is displayed just before the terminal quits.

When using a Startup script, it is VERY important that the first part of the script include code to verify that the host system has come up before an entry is sent to the host system. A simple way to do this is to use the PF key "Pause" command, specifying a pause of one or two seconds. A more robust way to do this is to use the "HOSTAVAILABLE" system variable, as follows:

^\WHIL (HOSTAVAILABLE=0)^ ^P1^ ^\ENDW^

Load PF Keys This selection allows the user to select a bank (file) of PF keys to be loaded from the local PC or from a fileserver using the dialog box shown below. The default path for loading the PF keys is set by the "PFKEYFILENAME=" line in the "[terminal]" section of the configuration file.

Open		? 🗙
File Name *.pf	<u>F</u> olders c:\winiate	OK Cancel
Calc.pf	C:\ winiate addons fonts	
List files of <u>t</u> ype PF Key File	Dri <u>v</u> ers C:bigdisk ☑	<u>Ne</u> twork

Save PF Keys This selection allows the user to save a bank (file) of PF keys on the local PC or on a fileserver. The user selects where to save the keys by using the dialog box shown below. The "PFKEYFILENAME=" line in the "[terminal]" section of the configuration file sets the default path for saving the PF keys.

□ Save As		? 🗙
File Name *.pf	<u>F</u> olders c:\winiate	OK Cancel
Calc.pf	C:\ winiate addons fonts	Help Read Only
List files of <u>t</u> ype PF Key File ☑	Dri <u>v</u> ers C:bigdisk ☑	<u>N</u> etwork

Print PF Keys to Local Printer Prints the current bank of 30 PF Keys on the default Windows printer configured on this PC. The default printer is selected using the Windows Control Panel's Printer configuration.

Print PF Keys to Remote Printer Prints the current bank of 30 PF Keys to the printer TA defined by the Printer Object Name in the link configuration. The printer TA object must be accessible through the same Gateway that the current terminal is linked to.

Launch Application This selection displays a sub-menu which allows the user to select an application to be launched directly from the terminal. A new copy of the application is launched each time this item is selected. "Launchable" applications are created by defining them in the "launch" section of the configuration file. Below is an example of the launch section of a configuration file which defines two launchable applications, "Calculator" and "Calendar".

[launch] Calculator=SciCalc c:\windows\calc.exe Calendar=CalWndMain c:\windows\calendar.exe

The parameter on the left side of the "=" has two functions:

i) it is used as the name that will appear in the launch sub-menu of the File menu; and

ii) it is used whenever the PF key "Launch" function (" $^{+}X....^{+}$ ") is executed, as follows: the "Launch" function compares its operand with the names in this section of the configuration file and if "Launch" finds a match, it runs the program with the given class name.

The first parameter on the right side of the "=" is the Windows "class name" of the program described by the parameter on the left side of the "=". The second parameter is the application's fully-qualified path.

Exit This command quits the *WinIATE* application. This is one of four ways to quit the program. This command is equivalent to the **Close** command in the **Main Window Control** menu. A third way to quit is to double-click on the horizontal bar at the upper left corner of the main *WinIATE* window. The fourth method is to press **Alt+F4**. All of these methods are equivalent; any one of them can be used to quit the program.

The Edit Menu

	<u>ן ר</u>		Inno	Sys Airline	Termin	al	
	File	<u>E</u> dit	PF Keys	Options	Text	Window	Help
		Cu <u>t</u> Copy Past Clea	/ e r				
		<u>S</u> ele	ct All				
		C <u>o</u> lu <u>A</u> dd	mn Copy Returns to	Copies			
Cut		Ren the	noves the sel Windows <i>cli</i>	ected text fro pboard.	om the cu	ırrent termin	al window and places it on
Сору		Cop clip	bies the select board. The "	ted text from foriginal" tex	the activ at stays w	ve terminal w vhere it was v	vindow and places it on the when it was selected.
Paste		Cop the	bies the text free free free free free free free fre	rom the clipl r location.	board to	the current te	erminal window, beginning a
		Not forg Cut	e: Each time gotten. So, if or Copy and	e Cut or Copy it is necessa then Paste e	y used, th ry to pas each bloc	e previous te te multiple b k in turn.	ext in the clipboard is locks of text, the user must
Clear		Ren plac forg	noves the hig ting the text of the cotten. The c	hlighted text on the clipbo ursor is posi	t from the ard. The tioned w	e current terr removed te: here the dele	ninal window <i>without</i> xt is completely deleted and tion started.
Select A	AII	Sele	ects all the tex	xt in the activ	ve termir	nal window.	
Column	Сору	Swi cop mod fund and	tches the Ter y mode, indiv de, a check m ction, enable Paste comm	minal betwe vidual colum ark ("") apj Column Cop ands will no	en line-c ins may t pears to t by first, t t work w	opy and colu- be selected. he left of thi hen select the hile in colum	Imn-copy modes. In column- When in Column Copy s command. To use this e text to be copied. The Cut nn-copy mode.
Add Ref	turns t	o Copies out mar	Ensures tha of the windo k ("") appea	t there is a ca w. While the ars to the left	arriage re e Add Re c of this c	eturn at the e eturns to Cop ommand.	nd of each line being copied bies function is on, a check

at

The **Edit** pull-down menu contains the following commands:

The PF Keys Menu and Dialog

The **PF Keys** pull-down menu displays a list of all the PF keys that have been defined, including the label if it was included in the PF Key definition. Selecting a key from this list executes the PF key. (PF Keys can also be executed directly from the keyboard.) Keys 1-12 are normally mapped to function keys **F1** through **F12**. Keys 11-20 are normally mapped to **Shift-F1** through **Shift-F1**. Keys 21-30 are normally mapped to **Control-F1** through **Control-F10**.

		Innc	Sys Airline	Termi	nal	
File	Edit	PF Keys	<u>Options</u>	Text	Window	<u>H</u> elp
		01 Fare	s Help			
		02 PNR				
		03 JFK	Avail			
		04 Tick	eting			
		05 Mov	e Profile			
		06 Hote	el Avail			

The Options Menu

The **Options** pull-down menu contains the following commands:

File	Edit	BE 1/				
	Eun	PF Keys	<u>Options</u>	Text	Window	Help
			Define P	F Keys		
			<u>S</u> tart PF	Record	ding	
			Enter Ch	nange V	Vindow Ac	tion
			Commai	nd Hist	ory	
			View PF	Key La	abels	

Define PF Keys

Presents a dialog box in which the user can view and edit the definitions of Programmable Function Keys (PF Keys).

	Define Function Keys	
	Key Number: 1	Label: Rec'd From
c	commands: Enter Host	Wait SOM&Insert
4	All Commands:	A - All Data
N	lenu Commands (^M):	NWWN - New Window 🛛
L	anguage Commands:	* - Insert Comment 🛛 🗹
	Text:	
	^SRR: LDW^E	
	Ascii Keyboard Mode	Quit Save/Quit

To edit a function key definition from #1 through #30, enter the key number into the **Number** field, and then press the **Tab** key. Enter a short descriptive name into the **Label** field. Press **Tab** again and enter programmable function key commands into the **Text** area. To save the new

definition, click the mouse on the **Save** button, *or* press **Tab** once more and then **Enter**. To define another key, return to the **Number** field, enter a new key number, and repeat the procedure. When finished, use the mouse to click on the **Save/Quit** button; or use the Tab key to move on to that button and then press Enter. Use the **Quit** button to avoid saving the last definition edited. To Cut, Copy, and Paste in the Define Function Keys dialog box, use:

Function	Ascii Keyboard Mode checked	Ascii Keyboard Mode not checked
Cut	Ctrl-X	Shift-Del
Copy	Ctrl-C	Ctrl-Ins
Paste	Ctrl-V	Shift-Ins

The **Ascii Keyboard Mode** box, when unchecked, restricts the character set for defining PF keys to the characters that can be sent to the host. When the **Ascii Keyboard Mode** box is checked, any character may be entered into a PF key definition. Refer to the "PF Keys and Scripting" manual for further information on how to program and use Function Keys.

PF key scripts that are created inside the "Define Function Keys" window can be up to 256 characters in length. A PF key script file (launched with the X function) can be any length; the limiting factor is the amount of available memory in the PC at the time the file is loaded. The entire file is read into memory before it is executed, and even more memory is used once the script is executed. In general, users should verify there is more than enough free memory to fit the file and the subsequent execution. The Program Manager "About Box" displays the amount of free memory available at any given time (this value includes any virtual memory configured in the PC as well as real memory).

Note: When the IATE Gateway is not available, the function key definitions may not be editable for several seconds. Also, the definitions cannot be edited while a programmed function key is executing the " W " (Wait) function. If it is not possible to edit PF key definitions in the dialog box, press the **Quit** or **Save/Quit** button, press the **Esc** key, wait a few seconds, and then try again.

Start PF Recording When "Record Function Key" is selected, all entries made by the user in a Terminal window are saved as function key text to the function key or the file specified. Click on either the "Key Number" or the "File Name" button to specify where the function key text should be saved; then in the box enter either a key number or a file name. If a key number is entered, a label for the PF key can be entered in the "Label Text" box. Click on "Start Recording" when the setup is complete.

PF Key Recording Setup
Key Number
O File Name
Label Text:
Cancel Start Recording

After clicking on "Start Recording", the dialog box goes away, and the "Start Recording" in the Options Menu changes to "Stop Recording". The recording function continues until the entries to be record are complete and "Stop Recording" has been selected from the Options Menu.

Enter Change Window Action Lets the user specify one or more actions to be performed when the user changes to this window, such as changing to a different work area. Any one or more action(s) that can be described in PF Key text can be performed. Refer to "**Define PF Keys**" above for how to use this dialog box. Use of this function adds a file called WINIATE.WCA to the *WINIATE* directory.

Enter Change Window Action	
Window Number 3	Label:
Commands: Enter Host	Wait SOM&Insert
All Commands:	A - All Data
Menu Commands (^M):	NWWN - New Window 🛛
Language Commands:	* - Insert Comment 🛛 🗹
Text:	
^SR^C*SC^E	
Ascii Keyboard Mode Save	Quit Save/Quit

Command History

Presents a dialog box which contains the most recent entries made in the terminal window (the maximum number is configured in the "Configure Terminal" dialog box.) The user can select any of the commands shown to redisplay in the terminal window.

Command Histor	y
JT9F231A G*ORD/2FEB WEA*DSM JS*DSM FQORDDSM VIPS142	
ОК	Cancel

View PF Key Labels Presents a dialog box from which the user can select any of the PF Keys shown to execute that key. To have the PF keys dialog box behave as a "Child" Window inside *WinIATE's* "parent" window, the line "PFKEYLISTMDI=TRUE" must appear in the "[terminal]" section of the configuration file.



The Text Menu and the Font Dialog

The **Text** pull-down menu contains commands to select the character font, font size, and style for all terminal windows, and additional commands to select the color of the displayed font.

				ys Airline	Terminal	
<u>F</u> ile	<u>E</u> dit	<u>P</u> F Keys	Options	Text	<u>W</u> indow	<u>H</u> elp
				<u>F</u> on	t	
				<u>R</u> ed <u>G</u> red <u>B</u> lud <u>C</u> ya Yell <u>W</u> hi <u>B</u> lad <u>D</u> efa	en e n ow te ck ault Color	

The Font command brings up a dialog box, as shown on the next page. Using this dialog box, the user can select three font characteristics: the Font Name, Font Style, and Font Size. This dialog box uses a standard Windows font dialog format that is similar to those used in Windows word processors. A list of font names appears on the left, styles appear near the center, and sizes are listed toward the right side of the dialog box. On the far right side of the dialog box are the **OK** button to confirm, and **Cancel** to cancel changes. On the lower right, an area labeled **Sample** will display an example of any selected font and style.

In addition to the fonts supplied with the *WinIATE* terminal ("ALC", used for all hosts except SABRE and "IATE", used for SABRE), other Windows fixed-pitch (or variable-pitch) system fonts can also be used. This is not generally recommended since the system fonts do not support special airline terminal character sets. Also, if a variable-pitch font is used, then data on many screen displays will not "line up" properly. When using the InnoSys fonts, which are not fully scalable, two or three actual usable sizes are available, depending on the monitor. The normal/boldface option gives the user additional control over the font's appearance.

When the font selection is changed, *WinIATE* immediately changes the font characteristics in all open windows. If desired, the user can then resize the windows by hand, or change the font selections again, if necessary, to obtain the best available display.



Font:

Click on any one of the selected font names. Use the scroll bar beside the list of names to move up and down through the list. Use the IATE font for SABRE host connections; use the ALC font for non-SABRE host connections. Any other font listed in the dialog box can be used, but these fonts will not properly display the airline host system character set.

Font Style:

Click on either **Regular** or **Bold** style. Do not select the italic styles; *WinIATE* will not display italics correctly.

Size:

Disregard the displayed list showing one or more available sizes. Instead, click the mouse on the boxed area immediately beneath the word "**Size**", and enter a size of approximately 8 (for a small font appearance) or approximately 18 (for a larger appearance). Press **Tab** after entering the value, and an example of the font's appearance is displayed in the Sample area. To change the value again, click the mouse in the Size box again, enter a new value, and press **Tab** again.

Since the InnoSys fonts are not fully scalable, small changes in the Font Size entry will generally not change the actual size. After experimenting with different size values, the user will probably find that there are two usable sizes, or three if a high-resolution display configuration (1024×768 or greater) is being used. *Note:* Selecting the **Bold** style may make a small font appear clearer on some displays.

Sample:

This area displays sample text in the font the user has chosen (above).

Script:

This area displays the type of font the user has chosen (above). The two most common types are "western" and "OEM/DOS".

The remaining items in the **Text** menu are color names. These allow the user to select the font color for the currently active terminal window, in a manner similar to the color items in the **Window** menu.

Notes on Color Selections and Text Display Problems:

The font color is not selectable from within the Font dialog, as in some other application programs. This is because the *WinIATE* color selections are placed into the **Text** menu for consistency with the **Window** menu, and to limit the available selections to a set of colors which will appear clear and distinct in *WinIATE* windows.

If the same color is selected for the font and the window background, text will not be visible. *WinIATE* does not guard against this. If it is likely that text is present in the window but is not visible, check to make sure the window and text colors are different (or both set to "Default Color", which generally should work). If the color selections are not the cause of the problem, it is possible that the only text on the screen is in a SABRE protected field where text is not visible, or the "Echo characters/Don't Echo characters" toggle is set for "Don't Echo". Also verify that the host connection is still available and that the keyboard is unlocked, so that new text (from the host or keyboard) can appear.

The Window Menu

The **Window** pull-down menu contains commands to control the visibility of Carriage Returns, to place terminal windows into "cascaded" or "tiled" arrangements, to set the current terminal window's background color, and to select any one of the currently open terminal windows.

				Inno	Sys Airline	Terminal
<u>F</u> ile	<u>E</u> dit	<u>P</u> F Keys	<u>O</u> ptions	Text	<u>W</u> indow	<u>H</u> elp
					<u>S</u> how R	eturns
					<u>C</u> ascad	е
					Tile <u>H</u> o	rizontally
					l ile <u>v</u> er	tically
				-	Window	v <u>T</u> itle
					<u>R</u> ed	
					<u>G</u> reen	
					<u>B</u> lue	
					<u>C</u> yan	
					<u>Y</u> ellow	
					<u>W</u> hite	
					B <u>l</u> ack	
					<u>D</u> efault	Color
					1 IATE	Window 1
					2 IATE	Window 2

As discussed earlier, some hosts require that carriage returns (at the end of each line) be visible to the user. The first item in the **Window** pull-down menu lets the user toggle between the visible and invisible mode for carriage returns. A check-mark ("") appears next to this item if the option is set so that carriage returns are visible.

The **Cascade** and **Tile** commands arrange the terminal windows within the main IATE window. **Cascade** overlaps the windows to give a "stacked" appearance. **Tile** places the windows horizontally and vertically with no overlap. The best way to see what these commands do is to try them. (These commands have no effect if there are no terminal windows open. If just one terminal window is open, **Tile** will cause that window to fill the main window.)

The **Window Title** selection displays a dialog box allowing the user to set the name of the Terminal window this function is invoked from. Any name can be used, such as "Hotel Window", "WorkArea A", etc. There are two special characters provided that are useful in defining window names. If the ":" character is entered, then the Terminal emulator configuration file name is

inserted in that location in the window name. If the "^" character is entered, then the window number is inserted in that location in the window name.

The use of colors in the Window menu allow the user to select the background color in the currently active terminal window. To change the color for a different window, select that window first (click on the window or select it from this menu). If "Default Color" is selected, the window will take on the current system default color for window backgrounds as set in the Windows *Control Panel*.

The remaining items in the **Window** menu, if any, represent a list of the currently open terminal windows. These items let the user select which one of the currently open terminal windows to use. When a window is selected from this list, it becomes the current window, with a highlighted border, in front of any other terminal windows. In the menu, a check-mark ("") appears next to the currently selected window number.

Another way to bring a window to the front is to click on it, if it is at least partially visible behind the other window(s). If a window has been converted to an icon, double-click on the icon to convert it back into a window and bring it to the front. There are also keyboard shortcuts available to move between windows.

Note: The Window menu does not contain the commands to open and close terminal windows. Refer to the earlier discussion of the **File** menu for information about the **New Window** and **Close Window** commands.

The Help Menu

The **Help** pull-down menu contains commands to display information about the *WinIATE* software.

			InnoSys Airline Terminal										
File	<u>E</u> dit	PF Keys	<u>O</u> ptions	Text	Window	Help							
						Win	IATE Help						
						<u>A</u> bc	out WinIATE						

The *WinIATE* Help command gives the user additional information about the use of the *WinIATE* software and how the various keys are used. If desired, the user can make the Help function available through the keyboard by modifying the Termkeys file.

The About WinIATE command displays the version number of WinIATE.

	About WinIATE										
I	InnoSys Airline Terminal Emulator for Windows Copyright © InnoSys, Inc. 1991-1998 All Rights Reserved Version 2.5										
	ΟΚ										

Appendix A — Common WinIATE Startup Errors

There are several errors that are quite common when the *WinIATE* software is started. They result primarily from i) incorrect host/services configuration and ii) files the terminal emulator software cannot find as it starts up. The most common errors and the primary reasons that these errors occur are listed below:

"Host unreachable: the specified Host system name was not found"

- *WinIATE* cannot find on the TCP/IP network a machine with the Gateway Host Name specified in the "Configure Link" dialog box in the file menu.

"No Gateway of this name could be found. Please check the gateway name or status."

- WinIATE cannot find the "services" file.

- *WinIATE* cannot find in the "services" file the Service name specified in the "Configure Link" dialog box in the file menu.

"Can't connect to server: socket-level connect failed"

- WinIATE cannot find the domain name server or the "hosts" file.

- The gateway machine is running, but the gateway is not running on the port (service name) specified in the "Configure Link" dialog box in the file menu.

"You have attempted to open a Programmable Function key file that cannot be found" - *WinIATE* cannot find the "startup" script file specified in the "terminal configuration" dialog box in the file menu.

"Couldn't open termkeys file"

- WinIATE cannot find the termkeys file.

Appendix B — Installing Fonts (Windows 3.1 and Windows for Workgroups)

The *WinIATE* font file, **IATE.FON**, contains fonts for use with the SABRE (the "IATE" font) host and with non-SABRE (the "ALC" font) hosts.

The fonts are not required but are highly recommend for using *WinIATE*. To install the fonts under Windows 3.1 or WFW, follow these steps:

- 1. If the PC happens to have only a 5.25" floppy drive, it may first be necessary to transfer all files from the 3.5" diskette to a 5.25" diskette.
- 2. Using MS-DOS, or an "MS-DOS Prompt" window in Windows, change to the Windows System directory: C:\WINDOWS\SYSTEM. Look for files named IATE.FON and/or ALC.FON. For example:

c: cd \windows\system dir iate.fon dir alc.fon

If the **IATE.FON** and/or **ALC.FON** fonts are found, make a backup copy of the file(s) before proceeding.

- **3.** Start Windows, if it is not already running. Double-click up the Windows **Control Panel** icon, and then double-click on the control panel's **Fonts** icon. This should display a window titled **Fonts**, with a list of **Installed Fonts**. Scroll down through the list to find any fonts whose names begin with "**IATE**" or "**ALC**". For each of these font(s), do the following:
 - Click on the font name in the list. Double-check to make sure that the IATE or ALC font are selected.
 - Click the **Remove** button.
 - Click the **Delete Font File from Disk** box, and then click the **Yes** button.

Double-check the displayed list of fonts, to verify that it no longer shows any IATE or ALC fonts.

- 4. Now return to MS-DOS, or bring up an MS-DOS Prompt window. Insert the floppy disk into drive A: (or B:). Copy the IATE.FON file from the floppy disk to the Windows System directory, C:\WINDOWS\SYSTEM. For example: copy a:iate.fon c:\windows\system
- 5. Next, go back into Windows, and bring up the Control Panel's Fonts window as before. This time, click the Add button. This should display a window titled Add Fonts. Using the Directories browser in the lower left corner of this window, change to the Windows

System directory. The current directory name, which is shown directly beneath the word "Directories", should then read "c:\windows\system".

6. Still in the Add Fonts window, scroll down through the List of Fonts until a line is found which reads:

IATE, ALC (InnoSys IATE fonts)

Click on that line, and then the **OK** button. The **Add Fonts** window should disappear. Then click the **Close** button in the **Fonts** window.

- 7. Before proceeding, exit and then restart Windows.
- 8. After restarting Windows, start *WinIATE*. If no terminal window appears, select the New command in the File menu. While a terminal window is active, use the Font command in the Text menu to bring up a font selection dialog. Then select the IATE font (for SABRE) or ALC (for non-SABRE host types), and set the font size and style. For important details, please refer to the description of the Text menu and the font selection dialog box, earlier in this manual.

When typing text into a terminal window, or when the terminal receives text from a host, *WinIATE* should display the text in the chosen font. (The font shown in the Status Window will not be changed.)

Appendix C — Conventional (non-SABRE) Keyboard

			0	Cor	iver	ntic	na	I (non	-SF	IBRE) k	(eyl	boa	rd	La	yo	ut:	U	nsh	ift	ed,	Сс	ontr	١o	Off	,
F	les			F 1	F2	F3) F	4	F	5 F	6 F	7	F8	F	:9	F 10)F	1 F 12									
5	SOM	1		2	3	4		5	6	7	8	9	0		_	*	E	rase	1	Ins	Hme	≥C1ı	r				
-	ГаЬ)	>	Q	1	4	E	R	Т	Ţ	ļ			0	P	6	·	\$	NL	-	Del	End	Rel	E				-
	Shi	ft	A	z	x		F ;	U U	3 I В	+ <u> </u> м	<u>ј</u> М	K #	L ŧ	<u>Er</u>	<u>'⊴</u> ∕		En Shi	ter ft	-		Up	1			┢	+	
	Cnt	1			AIt				Spa	ce				F	ll t			Cntl		<-	Dwr	n ->	_	F	ReE		

Conventional (non-SABRE) Keyboard Layout: Shifted, Control Off

		F11	F 12	F 13	F 14	l F	15 F	- 16 F	17F	18	F	9F2								
pt		ຍ	#	\$		FMF		*	$\langle \cdot \rangle$	\rightarrow										
ab<					Т															
	╈	╧	-	-+	-	-'1		Γ'Τ	-'1			T						+	+	1
		┯┸	┯┸	┯┸	┯┸	-	-	└┬┴	┯┛		└──	<u> </u>				1	╟┝	_	+	⊢
	_	L													Sel					
														ا م	Sel	Sel				

Conventional (non-SABRE) Keyboard Layout: Unshifted, Control On

F21F22F23F24 F25F26F27F28 F29F30	
Rt1Rt2Rt3Rt4Wn1Wn2Wn3Wn4	
HmeReEFOSProUmsInsOpt	
SOM FMK His 80 EchLMg	

Appendix D — SABRE Keyboard



Appendix E — Apiwatch utility program

The apiwatch utility program runs under Windows 3.1 and Windows for Workgroups only. It displays an ongoing report of activity over the API. In addition, **apiwatch** can log activity information to a file. Apiwatch only runs reliably under Windows 3.1/3.1.1.

The most common way to run apiwatch is with its output sent to a viewable window and with the diagnostic level set to "1010", for example:

apiwatch.exe -v1010

The command line options are:

<u>Option</u>	Descriptio	<u>n</u>	Default value	
-1 <i>name</i>	Log to file	Log to file with prefix name.		
-vXXXX	debug outp hexadecim Set specifi ing types of 0×0001 0×0008 0×0010 0×0020 0×0040 0×0080 0×0100 0×0200 0×1000 0×2000 0×8000	put level xxxx (in hal, from 0 to ffff). c bits to show the follow- of debugging information: Network data transfer act Client-specific activity. Activity specific to API. Text of data messages. Errors (severe). Warnings (less severe). Timer-related activity. Network activity specific the TLI transport interfa Buffer management activ Buffer management debu Very verbose output.	0x000D (the 0x0001, 0x0004, and 0x0008 bits) tivities.	
-h	Display th	e list of options.		

Appendix F — Sample Configuration File

Below is an example of a typical *WinIATE* configuration file. The default name for this file is "IATE.INI". While any of these parameters can be changed using a text editor, mistakes in the configuration file can cause inexplicable errors and problems in the *WinIATE* software. Therefore it is recommended that users only edit the items in the file that are not configurable through the terminal software. After editing the configuration file, be sure to save the file as "text".

[terminal] ROWS=20 COLS=64 SHOWRETURNS=FALSE STATUSONTOP=TRUE MAXOLDCOMMANDS=50 UMSGCHAR=U MAINPLACEMENT=1 171 408 -4 -4 20 15 613 414 STATUSPLACEMENT=1 111 343 -1 -1 114 355 628 452 PFLISTSHOWING=TRUE STATUSBAR=TRUE PFKEYFILENAME=C:\WINIATE\LDW FONT=IATE FONTSIZE=8 PFEDITASCIIMODE=FALSE ENTERWINDOWROUTE=TRUE STARTUPACTIONFILE=C:\WINIATE\STARTU.PFS SHUTDOWNACTIONFILE= INACTIVITYTIMEOUT=0 PFLISTPLACEMENT=1 176 346 -1 -1 538 24 655 448 PFKEYLISTONTOP=TRUE WINDOWNAME=InnoSys Airline Terminal PFKEYLISTMDI=TRUE ENABLE_INACTIVITY_TIMEOUT_CHANGES=FALSE DISABLE_LINK_CHANGES=FALSE SOM_AFTER_RESET=TRUE SPLASH_FILE=winiate.bmp SPLASH_TIME=5 ADD_RETURNS_TO_COPIES=TRUE TERMKEYS_FILE=termkeys

[launch] Calculator=SciCalc c:\windows\calc.exe Calendar=CalWndMain c:\windows\calendar.exe

[gateway] ZONENAME=baku GATEWAYNAME=ialcserver LINKNAME=termek14 [printer] PRINTERNAME=printerkl22

[window01] BACKCOLOR=0x0000ffff TEXTCOLOR=0x0000000 ACTIVE=1 #FONT=ALC #FONTSIZE=8 WINDOWNAME=Thistle PLACEMENT=1 -1 -1 -1 -1 88 88 690 388 1

[window02] ACTIVE=1 #FONT=ALC #FONTSIZE=8 PLACEMENT=2 171 261 -1 -1 36 75 638 375 0 WINDOWNAME=GP9 ^ : BACKCOLOR=0x00ffffff TEXTCOLOR=0x80000000

[window03] ACTIVE=1 #FONT=ALC #FONTSIZE=8 PLACEMENT=1 96 261 -1 -1 65 151 667 451 0 WINDOWNAME=Carrizozo Sub : ^ BACKCOLOR=0x0000ff00

[window04] ACTIVE=0 #FONT=ALC #FONTSIZE=8 WINDOWNAME=Leadville : ^ renamed PLACEMENT=1 -1 -1 -1 -1 110 110 712 410 0 BACKCOLOR=0x00000000 TEXTCOLOR=0x00fff00

[window05] ACTIVE=0 WINDOWNAME=: -- Window ^ #FONT=ALC #FONTSIZE=8 PLACEMENT=1 -1 -1 -1 -2 22 624 322 0

As mentioned above, some of these configuration options cannot be changed directly by the user through dialog boxes or pop-ups. The options that the user might want to change are as follows:

STATUSBAR=TRUE/FALSE This option controls whether terminal status information is displayed in a fixed Status Bar area or in a floating Status Window.

STATUSONTOP=TRUE/FALSE When using a Status Bar, this option controls whether the

Status Bar is displayed at the top or the bottom of the main terminal window. When using a Status Window, this option controls whether or not the Status Area can be covered up by other windows.

- ENTERWINDOWROUTE=TRUE/FALSE This option controls whether the "Route host output to Window n" function is enabled.
- PFKEYLISTMDI=TRUE/FALSE When set to TRUE, this option causes the PF keys dialog box behave as a "Child" window inside *WinIATE's* "Parent" window.
- SOM_AFTER_RESET=TRUE/FALSE This option controls whether a SOM is placed on the screen after the Reset key is pushed. It is not used with SABRE hosts.
- SPLASH_FILE=name This option allows the user to specify the name of the Splash File to be displayed when the terminal starts up. The file may be on a local disk drive or on any disk drive accessible over the network. The file must be a BMP-type file. If a different file is used than the standard InnoSys Splash File, it should incorporate the InnoSys copyright notice. If the file cannot be found, the terminal continues on as if no Splash File was specified.
- SPLASH_TIME=number This option specifies the number of seconds the Splash File will be displayed.
- TERMKEYS_FILE=name This option allows the user to specify the name of the Termkeys File to be used by the terminal. The file may be on a local disk drive or on any disk drive accessible over the network. (If this parameter is not specified, the terminal looks for a file called "termkeys" in the local directory.) If no termkeys file can be found, the terminal displays an error message and quits.

Appendix G — Gateway <--> Workstation Connectivity Problems

If a Windows workstation won't connect to the gateway, the following procedure can help isolate the problem. For other types of workstations, follow this same procedure but adapt it for the specifics of the workstation operating system.

1) Reboot the workstation PC and try to link again.

2) If the workstation says that it cannot find the gateway or the host is unreachable, this is probably because the "hosts" file is not set up properly or the dll has not been properly installed. Use the following procedure:

i) Try to "ping" the gateway using the tcp/ip address of the gateway PC. (The ping program should be on the workstation already). If this is not successful, do not proceed until the gateway can be successfully pinged this way. This kind of a problem is most likely caused by:

a) the installation of the tcp/ip protocol stack on the workstation machine is not correct/ complete, or

- b) there is not a network connection between the workstation and the gateway, or
- c) the address being used for the gateway is not correct, or
- d) there is a duplicate tcp/ip address on the network.

To "ping" the gateway using its tcp/ip address, enter a command such as:

ping 206.21.97.14

ii) If the gateway can be "pinged" using the tcp/ip address of the gateway PC, try to "ping" the gateway using the "host name" of the gateway PC. If this is not successful, the error is probably that:

a) the host name in the "hosts" file (or DNS) does not have the correct tcp/ip address for the gateway, or

b) the "hosts" file is in the wrong directory, or

c) the "hosts" file has an incorrect name (the most common error of this type is that the "hosts" file has an extension such as "sam". Use DOS, <u>not</u> Windows, to check the name of the "hosts" file because the Windows tools often hide the extension name.) The "hosts" file should <u>not</u> have an extension.

To "ping" the gateway using its host name, enter a command such as:

ping iate_gw1

The location of the "hosts" file varies according to which tcp/ip protocol stack is being used on the workstation. If the standard Microsoft tcp/ip protocol stack is being used under Windows 3.1, Windows for Workgroups, or Windows 95, the "hosts" file should be in the \WINDOWS directory. If the standard Microsoft tcp/ip protocol stack is being used under Windows NT, the "hosts" file should be in the \WINNT40\SYSTEM32\DRIVERS\ETC directory.

If a non-standard tcp/ip protocol stack is being used, the proper directory varies. For example, the "hosts" file is usually in the \NFS directory when using the PC/NFS tcp/ip protocol stack. The

"hosts" file is usually in the \TRUMPET directory when using the Trumpet Winsock tcp/ip protocol stack.

The "hosts" file is simply a list of names that can be used instead of actual tcp/ip addresses. For example, if the gateway machine's tcp/ip address is 207.21.97.14 and the name assigned to this address is "iate_gw1", the "hosts" file should contain a line that looks like this:

207.21.97.14 iate_gw1

iii) If the gateway can be "pinged" using the "host name" of the gateway PC, check that the service name configured in the terminal is properly entered in the "services" file (also check the spelling of the service name in the terminal configuration window and in the services file). If this is OK, verify that the "iatedll.dll" file is properly installed. If running Windows 3.1, Windows for Workgroups, or Windows 95, "iatedll.dll" should be in the \WINDOWS directory. If running Windows NT, "iatedll.dll" should be in the \WINNT40 directory. If "iatedll.dll" is not in the correct directory, move it to the correct directory and then reboot before trying to link to the gateway again.

iv) If the "iatedll.dll" file is properly installed, then the most likely reason that the gateway cannot be found is that the "host name" is not properly entered in the "Configure Link" selection in the File menu. Check and recheck this entry with the indicated entry in the "hosts" file. Another thing to try is entering the actual tcp/ip address of the gateway PC into the "host name" field instead of entering the name from the "hosts" file. One last thing to try is to search for all files named "hosts". If there is more than one file named "hosts", it is likely that the wrong hosts file is being used.

3) If the terminal gives the message "socket-level connect failed", this usually means that the port number entry that the gateway is using is not properly set up in the "services" file on the workstation PC. The standard Service Name used for IATE gateways is "ialcserver". The standard Port Number used for IATE gateways is 1413. The "services" file is usually located in the same directory as the "hosts" file. Check that this file has a proper entry for the IATE gateway being used. If the standard names are being used, there should be a line in the "services" file that looks like this:

ialcserver 1413/tcp

Verify that the service name is spelled properly and that "tcp" is not mistyped.

If there are routers, bridges, and/or firewalls on the network between the gateway and the workstation, verify that network traffic on the tcp/ip port number which the gateway is using can be passed through the routers/bridges/firewalls.

Appendix H — Frequently Asked Questions

- about Encoding
- Q: What is the "Encoding Feature"?
- A: This feature scrambles messages sent over TCP/IP between the InnoSys IATE gateway and the IATE client API. This scrambling is intended only to discourage casual snooping of those messages on the network.
- Q: Which versions have this feature?
- À: Windows NT gateway:

Gateway (iate_server) 2.2b.4 and above Windows workstations:

api (iatedll.dll) 2.4b.1 and above

api (iate32.dll) 2.4b.1 and above

Unix:

gateway (iate_server) 2.3b.1 and above api (iatelib.a) 2.4b.1 and above

Mac:

IATEtcp: 3.4.4b7 and above initAPI: 3.4.4b31 and above

- Q: How is this different from "encryption"?
- A: "Encoding" isn't "encryption". "Encryption" is intended for applications that require a higher level of security than that provided by this "encoding" feature. InnoSys makes absolutely no representations or warranties about how easy or hard it might be to 'crack' this encoding scheme. We believe it provides reasonable protection against casual snooping, but anyone who is determined to break it will be able to do so.
- Q: How does it work?
- A: The encoding algorithm is secret. Whatever shielding it provides relies on its being secret. The scrambling is context sensitive. There is a dependency on the data in the message. The nth character isn't always scrambled in the same way.
- Q: How does one turn this feature on and off?
- A: It is necessary to explicitly turn it on in the Unix and NT gateways. It is automatically turned on by the Mac IATEtcp gateway. When it is turned on, it is automatically used with any client that connects to that gateway and that supports encoding.
- Q: What about compatibility? Do I have to make sure both ends of the client/server connection have the ability to do this?
- A: Backward and forward compatibility is preserved the client and server negotiate to make sure both support encoding and it is only attempted if both sides can support it.
- Q: What if I already have some other type of security scheme in use in my network?
- A: No problem. It will all just work.
- Q: Will this encoding effect the performance of my system?
- A: No, encoding has no performance impact.

- Q: What does InnoSys advise for customers who want stronger security than this 'encoding' feature provides?
- A: InnoSys recommends that customers who require TCP/IP security beyond the minimal level provided by this "encoding" scheme use some other network security methodology, such as secure routers, etc. InnoSys does not represent itself as an expert in such network security issues and encourages those customers who have such concerns to contact the appropriate network security consultants or other professionals.

WinIATE [™]

InnoSys Airline Terminal Emulator for Windows[™]

Terminal Version 2.5 User's Guide

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InnoSys Incorporated 3095 Richmond Parkway, Suite 207 Richmond, CA 94806 (510) 222-7717 Voice (510) 222-0323 FAX info@innosys.com

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